REPORT ON
GEOTECHNICAL INVESTIGATION
1100 EGLINTON AVENUE EAST
TORONTO, ONTARIO

REPORT NO.: 3760-13-G-TRI-C
REPORT DATE: NOVEMBER 18, 2014

PREPARED FOR
DELTERA INC.
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M3H 5S9

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1.0 INTRODUCTION

Toronto Inspection Ltd. was retained by Deltera Inc. to conduct a geotechnical investigation for the property at 1100 Eglinton Avenue East in Toronto, Ontario (hereafter described as “the Site”).

The re-development, at the Site, will be constructed in two phases and consist of four highrise towers and three storey townhouse units, with three levels of underground parking with slab-on-grade elevations of varying from 113.5m to 116.5m, approximately 7.0m to 15.8m below the existing grade.

The purpose of the investigation was to evaluate the subsoil and groundwater conditions at the Site and to provide our recommendations for the design and construction of the proposed structures. In particular, geotechnical data was to be provided for:

- General founding conditions
- Foundation recommendations
- Construction recommendations
- Excavation recommendations

This report is provided on the basis of the above terms of reference and on an assumption that the design of the buildings will be in accordance with the applicable building codes and standards. If there are any changes in the design features relevant to the geotechnical analyses, our office should be consulted to review the design and to confirm that the geotechnical parameters and recommendations / comments, provided in the report, have been followed.

2.0 SITE CONDITIONS

The Site was located at the northeast portion of Eglinton Avenue East and Leslie Street, in the City of Toronto. At the time of the investigation, the Site was occupied by boarded up highrise structure, identified as Inn-on-the-Park hotel on the northwest and 2 storey structures on the north and east parts of the Site. An open grassed area was located on the south part of the Site. We understand that the building and structures will be demolished and replaced with the new buildings.

3.0 INVESTIGATION PROCEDURE

The initial preliminary investigation, consisting of two boreholes, BH-1 and BH-2, were drilled within the grassed area of the Site in December, 2013, extending to depths of 30.9m and 40.1m from grade.

The field work for the additional investigation was carried out between March 31 and April 11, 2014, and consisted of drilling four sampled boreholes (BH-3 to BH-6), at locations, accessible to the drilling machine. The additional boreholes were terminated at depths of 39.8m to 40.1m from the existing ground level.

The boreholes were advanced using a truck mounted drill rig, using a combination of hollow stem augers and wash boring, operated by a specialist drilling contractor. Soil samples were taken from the boreholes at regular intervals using a split spoon sampler in conjunction with Standard Penetration Tests, using a driving energy of 475 joules. The samples were identified and logged in the field and were carefully bagged for later visual identification and laboratory water content determination.

Within the sampled depths, a thin walled shelby tube sample of the soft clayey silt/silty clay, at borehole BH-6, at depths of 26.5m to 27.1m from grade, was collected for laboratory testing.

Groundwater observations were made in the open boreholes during and upon the completion of the drilling. Boreholes BH-1 and BH-2 were completed as observation wells. The location of the borehole is shown in Drawing No. 1.

The borehole locations, established by our field personnel, are shown on the appended Borehole Location Plan (Drawing No. 1). The ground elevations, at the borehole locations, were established by interpolation from the elevations shown on Plan f Survey with Topography of Part of Lot 1, Concession 3, East of Yonge Street, City of Toronto, prepared by Speight, Van Nostrand & Gibson Limited, dated May 5, 2005, provided by the client.

4.0 SUMMARIZED SUBSURFACE CONDITIONS

Reference is made to the appended Logs of Borehole sheets and Drawing No. 1 for details of field work, including soil classification, inferred stratigraphy, ground water observations carried out during and on completion of the boreholes and the results of laboratory moisture content determinations.

Underlying the surface course of topsoil, sand and gravel or asphalt pavement, a layer of fill, extending to depths of 0.6m to 4.0m from grade was contacted at the borehole locations. Underlying the fill, the subsoils consisted of interlayered sandy / clayey silt till, clayey silt and sand deposits.

Brief descriptions of the subsoils, at the borehole locations, are given below:

4.1 Surface Course

A layer of topsoil, approximately 150mm to 300mm in thickness, was contacted at the ground surface at boreholes BH-1, BH-2 and BH-5. A layer of sand and gravel, approximately 150mm in thickness, was contacted at the ground surface at borehole BH-3. Asphalt pavement, approximately 75mm to 150mm in thickness over granular bases, was contacted at the ground surface at boreholes BH-4 and BH-5.

4.2 Fill

Underlying the surface course of topsoil, sand and gravel or asphalt pavement at the boreholes, a layer of fill, extending to depths of 0.6m to 4.0m from the existing ground level, was contacted. The fill consisted of sandy silt, clayey silt, sand and gravel, with occasional wood pieces, tile pieces, rootlets, concrete rubble or brick pieces.

4.3 Sandy Silt Till

Underlying the fill at all the boreholes, a sandy silt till deposit was contacted at depths of 0.6m to 4.0m below the existing ground level. The sandy silt till deposit consisted of heterogeneous mixture of sand and silt, with trace of gravel and clay and contained occasional layers of clayey silt. The sandy silt till deposit extended to depths of 2.1m to 7.0m from grade.

Based on the Standard Penetration N-values ranging from 9 to 41 blows for a penetration of 300mm, the relative density of the sandy silt till deposit was loose to dense, generally in compact state.

The in-situ moisture content of the soil samples retrieved from the sandy silt till deposit ranged from 4% to 12%, indicating moist conditions.

A lower sandy silt till deposit was encountered, underlying a clayey silt till deposit, at boreholes BH-2 to BH-5, at depths of 5.5m to 8.5m from grade. The lower sandy silt till deposit consisted of heterogeneous mixture of sand and silt, with trace of gravel and clay and contained occasional layers of clayey silt and seams of fine sand. The lower sandy silt till deposit extended to depths of 7.8m to 11.6m from grade.

Based on the Standard Penetration N-values ranging from 44 to more than 100 blows for a penetration of 300mm, the relative density of the lower sandy silt till deposit was dense to very dense.

The in-situ moisture content of the soil samples retrieved from the lower sandy silt till deposit ranged from 8% to 11%, indicating moist conditions.

4.4 Clayey Silt Till / Clayey Silt

Underlying the sandy silt till deposit at all the boreholes, deposits of clayey silt till / clayey silt were contacted, at depths of 2.1m to 7.0m from grade. The clayey silt till / clayey silt deposits extended to depths of 5.5m to 11.6m from grade.

Based on the Standard Penetration N-values ranging from 10 to 48 blows for a penetration of 300mm, the consistency of the deposit was stiff to hard. The in-situ moisture content of the soil samples retrieved from these deposits ranged from 11% to 19%, indicating moist conditions.

A lower clayey silt deposit was contacted underlying a sand deposit, at all borehole locations, at depths of 8.5m to 17.7m from grade. The lower clayey silt deposit, of low to medium plasticity, contained layers of silty clay and extended to depths of 9.4m to 34.4m from grade.

Based on the Standard Penetration N-values, the consistency of the deposit was very stiff. It is our opinion that the occasional higher N-values in this deposit could be due to presence of cobbles and does not represent the actual consistency of the deposit. The in-situ moisture content of the soil samples retrieved from this deposit generally ranged from 20% to 27%, indicating moist to damp conditions.

Laboratory Testing

A thin walled shelby tube sample of this deposit was obtained at borehole BH-6, at depths of 26.5m to 27.1m from grade. The bulk unit weight of this deposit was estimated to be 19 kN/m3. Atterberg Limits, conducted on the soil sample, were as follows:

Plastic Limit: wp = 18%
Liquid Limit: wL = 29%
Plasticity Index: wL - wp = 11%

The results, plotted on the Plasticity Chart (Figure No. 1), indicated that the sample can be classified as inorganic clay of low to medium plasticity. A grain size analysis was also conducted on the soil sample. Based on the grain size distribution chart, as shown Figure No. 2, the sample consisted of silty clay with trace of gravel and sand.

A further lower clayey silt deposit was contacted underlying a lower sand deposit, at boreholes BH-1, BH-2 and BH-6, at depths of 13.4m to 36.0m from grade. The lower clayey silt deposit extended to depths of 27.1m to 37.5m from grade.

Based on the Standard Penetration N-values ranging from 18 to 47 blows for a penetration of 300mm, the consistency of the deposit was very stiff to hard. The in-situ moisture content of the soil samples retrieved from this deposit ranged from 20% to 23%, indicating moist conditions, with some damp pockets.

4.5 Sand

Underlying silt till /clayey silt, at all boreholes, a sand deposit was contacted at depths of 5.5m to 11.6m from grade. The sand deposit was fine to medium grained and contained sandy silt and gravel. The sand deposit extended to depths of 8.5m to 17.7m from grade.

Based on the Standard Penetration N-values ranging from 0 to more than 100 blows for a penetration of 300mm, the relative density of the sand deposit was generally dense to very dense range. The lower N-value within the sand deposit, encountered at borehole BH-3, at a depth of 11.0m from grade, was probably due to loosing of the non-plastic soils by the disturbance during the drilling process.

The in-situ moisture content of the soil samples retrieved from the sand deposit ranged from 2% to 22%, indicating moist to damp conditions, with some wet pockets.

A lower sand deposit was contacted underlying a clayey silt deposit, at all the boreholes, at depths of 9.4m to 34.4m from grade. The lower sand deposit was fine to medium grained and contained sandy silt and gravel.

Boreholes BH-3 to BH-5 were terminated in the lower sand deposit, at depths of 39.9m to 40.1m from grade. The lower sand deposit, at the remaining boreholes, extended to depths of 13.4m to 36.0m from grade.

Based on the Standard Penetration N-values ranging from 51 to more than 100 blows for a penetration of 300mm, the relative density of the lower sand deposit was very dense. The in-situ moisture content of the soil samples retrieved from the lower sand deposit ranged from 3% to 20%, indicating moist to damp conditions, with some wet layers.

A further lower sand deposit was contacted underlying a lower clayey silt deposit, at boreholes BH-1, BH-2 and BH-6, at depths of 27.1m to 37.5m from grade. The further lower sand deposit was fine to medium grained and silty, with occasional layers of gravel.

Boreholes BH-1, BH-2 and BH-6 were terminated in the further lower sand deposit, at depths of 30.9m to 40.1m from grade.

Based on the Standard Penetration N-values ranging from 65 to more than 100 blows for a penetration of 300mm, the relative density of the further lower sand deposit was very dense. The in-situ moisture content of the soil samples retrieved from the lower sand deposit ranged from 15% to 34%, indicating damp to wet conditions.

4.6 Ground Water

Free water or wet cave-in was recorded in the open borehole BH-1, at depths of 26.9m to 29.8m from grade, upon completion of the drilling.

On December 20, 2013, the water levels were documented in the observation well at BH-1 and BH-2, at depths of 23.4m and 26.5m from grade, respectively.

It is our opinion that the water levels represent a continuous groundwater table at the Site and that the water in the lower sand deposit could be under minor sub-artesian conditions.

5.0 RECOMMENDATIONS

Due to the presence of existing structures at the Site, only limited boreholes could be drilled in the open area for the current investigation. Thus, the recommendations provided in this report are for preliminary use only. Additional boreholes will be required and the report will have to be updated, after the existing structures at the Site have been demolished.

5.1 Project Data

We understand that the proposed re-development at the Site will comprise of two phases.

Phases one will consist of two highrise towers, Tower A and Tower B, 29 and 39 storeys in height, respectively, and connected with a four storey amenity building. Phase one will have three levels of underground parking, with a slab-on-grade elevation of 115.50m.

Phases two will consist of two highrise towers, Tower C and Tower D, 34 and 28 storeys in height, respectively, and 3 storey townhouse units. Phase two will have three levels of underground parking, with slab-on-grade elevations, ranging from 115.25m in the north and southwest to 113.50m in the east and southeast.

5.2 Foundations

We have assumed that the founding elevations of the footings will be at or lower than 1m below the proposed slab-on-grade elevations. The following subsoil conditions are anticipated at or below the founding elevations at boreholes carried out within or in the close proximity of the two phases.

Phase One

Borehole No.	Subsoil at or immediate below assumed founding elevation of 114.25m	Elevation of less competent soil
6	Very dense sand	111.62m
1	Very dense sand	110.89m
3	Very dense sand	107.34m

Phase Two

Borehole No.	Subsoil at or immediate below assumed founding elevation	Elevation of less competent soil
1	Very dense sand at 112.2m	110.89m
2	Very dense sand at 114.0m	109.70m
3	Very dense sand at 112.2m	107.34m
4	Very dense sand at 114.2m	109.00m
5	Very dense sand at 114.2m	109.10m

Although the relative density of the subsoils, at or immediately below the assumed founding elevation, is very dense, the design bearing pressure of the footings in this deposit will be subject to the net allowable bearing pressure in the less competent deposit. Using a group action of all foundation, with a load spread of 30 degree to the vertical, the net bearing pressure on the less competent soil must not exceed 300 kPa at Serviceability Limit State (SLS) and 450 kPa at Factored Ultimate Limit State (ULS).

Due to relative low competence of the soils below the founding elevation of he proposed re-development, the proposed buildings might not be possible to be placed on spread / strip footings. Consideration should be given to using a raft foundation with the bearing pressure of 300 kPa at SLS or deep foundations. One of the options for deep foundations is to use post grouted Micro-piles, founded at or below depths of 31m to 34m below the existing ground level, into the dense to very dense sand deposits. Preliminary design axial loads of 900 kN can be assumed for the Micro-piles. A full scale load test will have to be carried out on a Micro-pile to confirm this load capacity.

Around the air shafts or any other locations, exposed to the cold winter temperatures, the depths of the grade beams should be a minimum of 1200mm below the top of slab-on-grade.

It should be noted that the recommendations for foundation have been analyzed by ***Toronto Inspection Ltd.*** from the information obtained at the borehole locations. Due to varying competence of the subsoils, the foundation design bearing pressures must be reviewed by ***Toronto Inspection Ltd.,*** before finalization.

Please note once the existing building and structures are demolished, additional boreholes investigation should be carried out in these areas to reveal the subsoil and groundwater conditions.

5.3 Floor Slab Construction

The subsoil at the assumed slab-on-grade depths are anticipated to be clayey silt, sandy silt till and/or sand deposits. A minimum of 150 mm of OPSS Granular A or its equivalent should be used as a moisture barrier between the soil and the slab on grade.

If wet pockets of wet sand are encountered below the slab-on-grade level, it might be necessary to install subfloor drains. The final decision on the subfloor drain requirements should be made at the time of construction. We recommend that provisions should be made in the construction budget to install the subfloor drains.

5.4 Earthquake Consideration

The Ontario Building Code requires that all buildings be designed to resist earthquake forces. The Soil Classification for Seismic Site Response, in accordance with Table 4.1.8.1.A of the Ontario Building Code of Canada, is Class D (stiff soil).

The acceleration and velocity based site factors, Fa and Fv, should conform to Tables 4.1.8.4.B and 4.1.8.4.C. These values should be reviewed by the Structural Engineer.

5.5 Excavation and Ground Water Control

All excavations should comply with the Ontario Occupational Health and Safety Act. At locations where adequate space will not be available for an open cut excavation, temporary shoring will have to be used to support the vertical faces of the excavation. The shoring design parameters and our recommendations on the installation and testing of the shoring system are provided in Appendix A of this report.

The water level documented at the boreholes and in the observation wells represents a continuous ground water table at the Site. However, there is a considerable depth of almost impervious clayey silt deposits between the water bearing sand deposits and the proposed slab-on-grade elevation. We believe that dewatering of the Site will not be necessary for excavation of the Site.

However, there is a possibility of upward seepage of water through sand lenses. Provision should, therefore, be made to install subsurface drainage system under the slab-on-grade to collect and discharge any upward seepage of water.

5.6 Lateral Earth Pressures

Where subsurface walls will retain unbalanced loads, the lateral earth pressure may be computed using the following equation:

$$P = K(\gamma H + q)$$

where	P = Lateral earth pressure	kPa
	K = Lateral earth pressure coefficient	0.4
	γ = Bulk unit weight of the soil	21.0 kN/m^3
	H = Depth of the wall below the finish grade	m
	q = Surcharge loads adjacent to the basement wall	kPa

The equation assumes that a permanent free draining system will be provided to prevent the buildup of hydrostatic pressure next to the wall.

5.7 Permanent Perimeter Drainage

At the shoring location, the permanent perimeter drain should consist of a prefabricated continuous blanket of Miradrain 6000 or its equivalent. The installation of this type of vertical drainage system and its connections should be carried out as per the manufacturers specifications.

6.0 GENERAL STATEMENT OF LIMITATION

The comments and recommendations presented in this report are based on the subsoil and ground water conditions encountered at the borehole locations, indicated in the Borehole Location Plan, and are intended for the guidance of the design engineer.

We consider this report to be representative of the subsurface conditions at the subject property. The soil and the ground water conditions between and beyond the borehole locations may differ from those encountered at the time of our investigation. Any contractor bidding on, or undertaking the works, should decide on their own investigations and interpretations of the ground water and the subsoil conditions between the borehole locations. Any use and / or the interpretation of the data presented in this report, and any decisions made on it by the third party are the responsibility of the third party. ***Toronto Inspection Ltd.'s*** responsibility is limited to the accurate interpretation of the soil and ground water conditions prevailing in the location investigated by us and accept no responsibility for the loss of time and damages, if any, suffered by the third party as a result of decisions or actions based on this report.

We trust that you will find this report complete within our terms of reference. Should you have any questions regarding the information provided, or when we may be of service to you during the construction phase, please contact this office.

Yours very truly
TORONTO INSPECTION LTD.

LICENSED PROFESSIONAL ENGINEER
S. WANG
100131918
Nov 18, 2014
PROVINCE OF ONTARIO

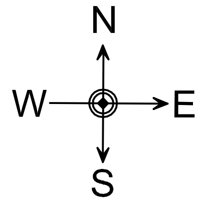
David S. Wang

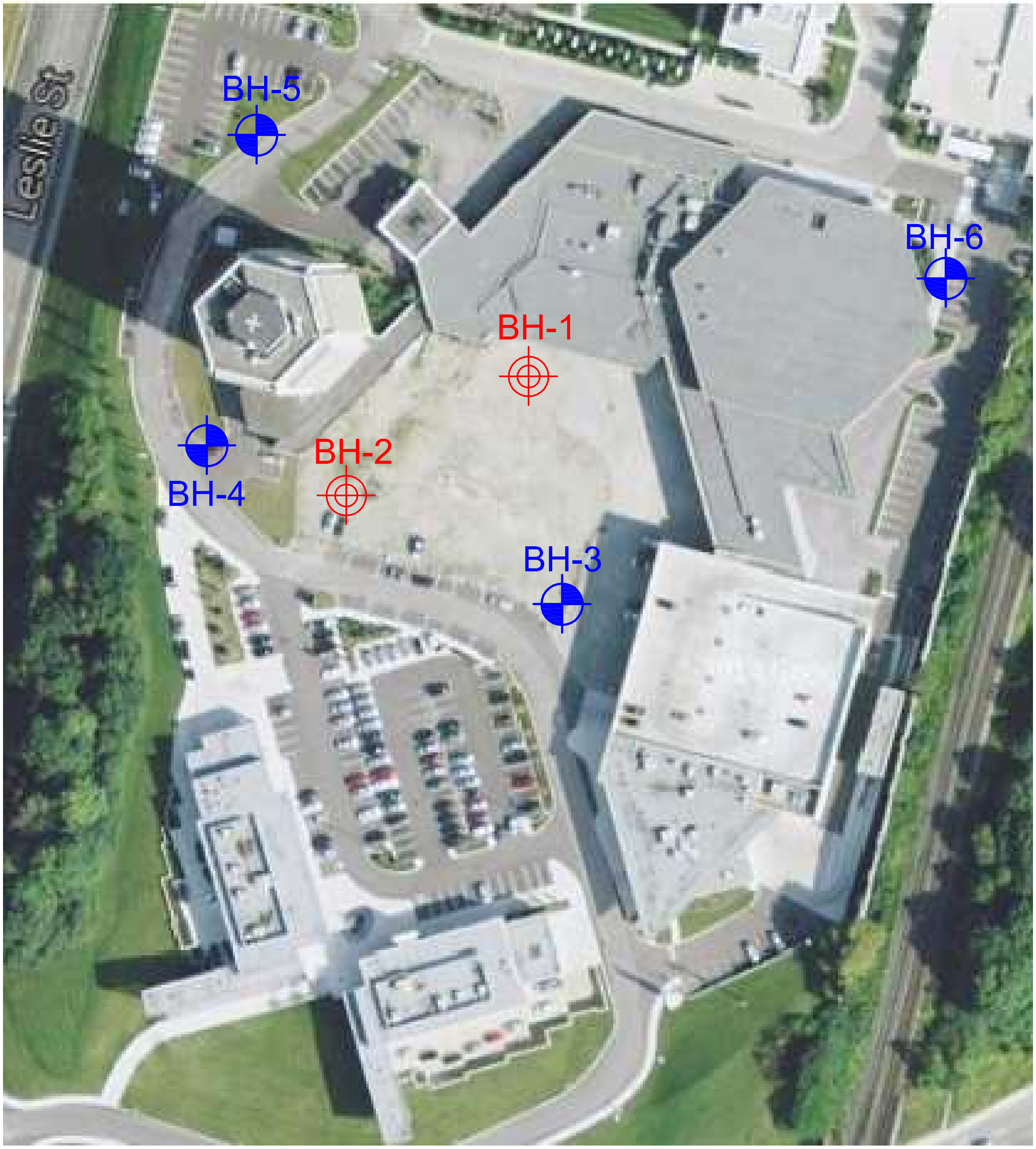
David S. Wang, P. Eng.
Project Engineer

REGISTERED PROFESSIONAL ENGINEER
U. S. SAPPAL
18/11/2014
PROVINCE OF ONTARIO

Upkar S. Sappal, P. Eng.
Principal Engineer

Drawings
Borehole Location Plan,
Logs of Boreholes
&
Subsurface Stratigraphy





LEGEND:

/ Borehole/Monitoring Well Location

Drawing not to scale

TorontoInspection LTD. GEO-ENVIRONMENTAL CONSULTANTS	110 Konrad Crescent Unit 16 Markham, Ontario L3R 9X2 Tel: 905-940 8509 Fax: 905-940 8192	**Geotechnical Investigation** **NE Corner of Leslie/Eglinton, Toronto, Ontario**
Project Number: 3760-13-G-TRI-C **Date: April 2014**	Drawing No. **1**	**Borehole/Monitoring Well Location Plan**

Project No. 3760-13-G-TRI-C

Log of Borehole 1

Dwg No. 2

Project: Geotechnical Investigation

Sheet No. 1 of 1

Location: 1100 Eglinton Avenue East, Toronto, Ontario

Date Drilled: 12/13/13

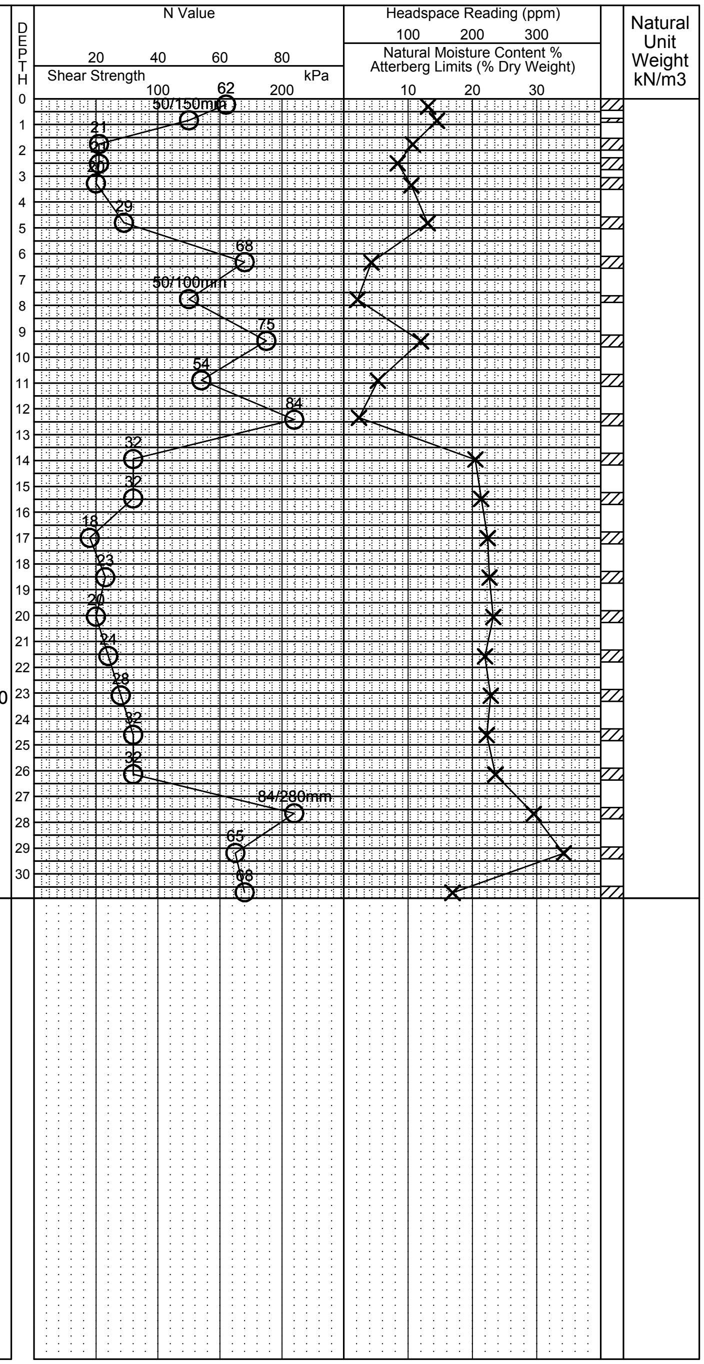
Drill Type: Truck Mounted

Datum: Geodetic

Auger Sample	⊠
SPT (N) Value	○ ▨
Dynamic Cone Test	——
Shelby Tube	■
Field Vane Test	✚ S
Headspace Reading (ppm)	•
Natural Moisture	×
Plastic and Liquid Limit	├──┤
Unconfined Compression % Strain at Failure	⊗
Penetrometer	▲

Soil Description	ELEV. m
Ground Surface	124.30
TOPSOIL	124.05
FILL - brown sand and gravel - some wood pieces at 0.9m - moist to damp	123.08 120.95
SANDY SILT TILL - compact, grey - some gravel - trace of clayey silt - moist	118.81 115.77
CLAYEY SILT TILL - very stiff, grey - some gravel - trace of sandy silt - moist	114.93
SAND - very dense, brown - fine to medium grained - some gravel - pockets of sandy silt - moist	110.89
CLAYEY SILT - hard, greyish brown - moist to very moist	
SAND - very dense, brown - fine to medium grained - trace of gravel - pockets of sandy silt - moist	100.90
CLAYEY SILT - very stiff to hard - brown, grey below 13.7m - layers of sandy silt at 13.5m - thin layers of silt - seams of fine sand - moist	97.17 93.36
SAND - very dense, grey - fine to medium grained - trace of gravel at 30.0m - silty - damp to wet	
END OF BOREHOLE	

NOTE:
upon completion of drilling:
- water level at 26.9m
- cave-in at 29.8m



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NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)
Dec 20, 2013	23.4	

Project No. 3760-13-G-TRI-C

Log of Borehole 2

Dwg No. 3

Project: Geotechnical Investigation

Sheet No. 1 of 1

Location: 1100 Eglinton Avenue East, Toronto, Ontario

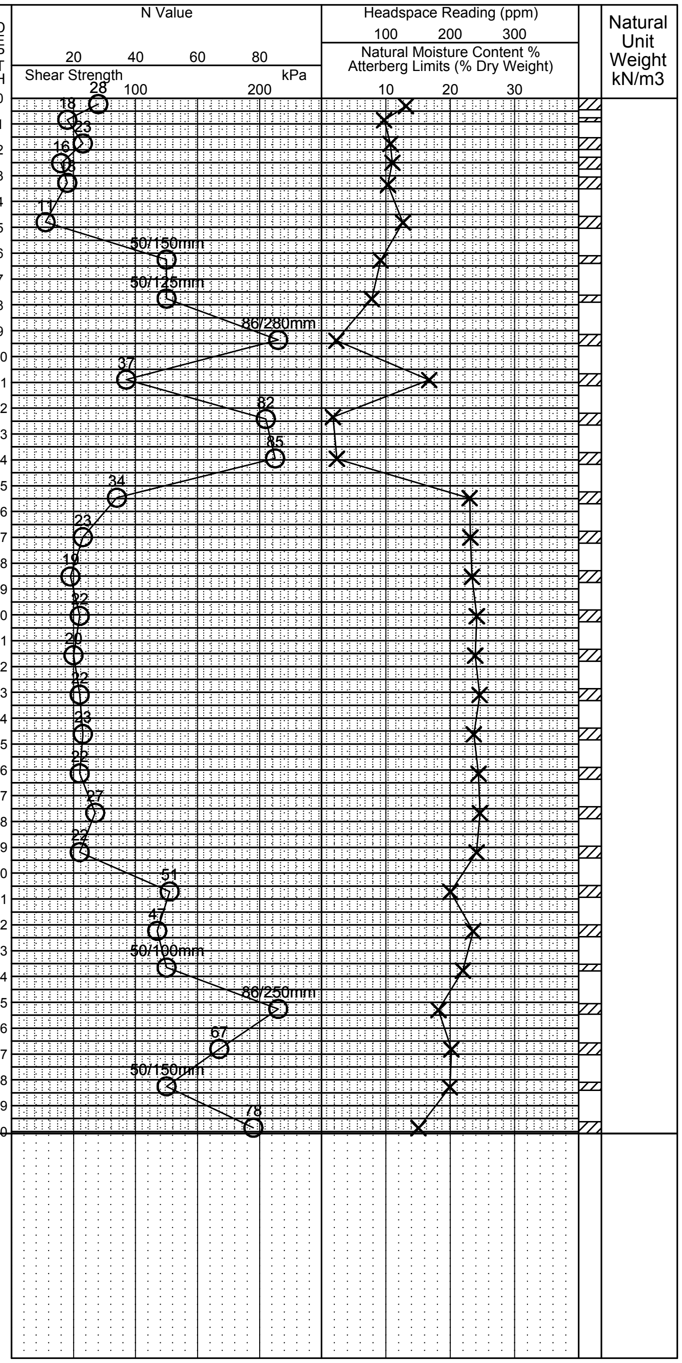
Date Drilled: 12/18/13

Drill Type: Truck Mounted

Datum: Geodetic

Auger Sample	⊠	Headspace Reading (ppm)	•
SPT (N) Value	○ ▨	Natural Moisture	×
Dynamic Cone Test	—	Plastic and Liquid Limit	├─┤
Shelby Tube	■	Unconfined Compression % Strain at Failure	⊗
Field Vane Test	✚ S	Penetrometer	▲

Soil Description	ELEV. m
Ground Surface	124.30
TOPSOIL	124.15
FILL - greyish brown - clayey silt to sandy silt - some rootlets - occasional tile pieces - moist	123.69 120.34 118.81
SANDY SILT TILL - compact, grey - trace of clayey silt - some gravel - moist	116.53
CLAYEY SILT TILL - stiff, grey - some gravel - some sandy silt -very moist	109.67
SANDY SILT TILL - very dense, grey - trace of gravel - trace of clayey silt - moist	
SAND - very dense, dense at 10.5m - brown - fine to medium grained - layers of sandy silt at 10.5m - trace of gravel - moist, damp at 10.5m	
CLAYEY SILT - very stiff to hard, grey - thin layers of silt - seams of fine sand - thin layers of wood deposit at 19.5m - moist to damp	97.80 94.43
SAND - very dense, grey - fine to medium grained - silty - wet	92.91 91.38
CLAYEY SILT - hard, grey - seams of fine sand - moist	
SAND - very dense, grey - fine to medium grained - silty - gravelly at 34.5m to 39.1m - wet	84.22
END OF BOREHOLE **NOTE:** upon completion of drilling: - no free water	



LGBE3 3760-13-G-TRI-C.GPJ 11/18/14

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)
Dec 20, 2013	26.5	

Project No. 3760-13-G-TRI-C

Log of Borehole 3

Dwg No. 4

Project: Geotechnical Investigation

Sheet No. 1 of 1

Location: 1100 Eglinton Avenue East, Toronto, Ontario

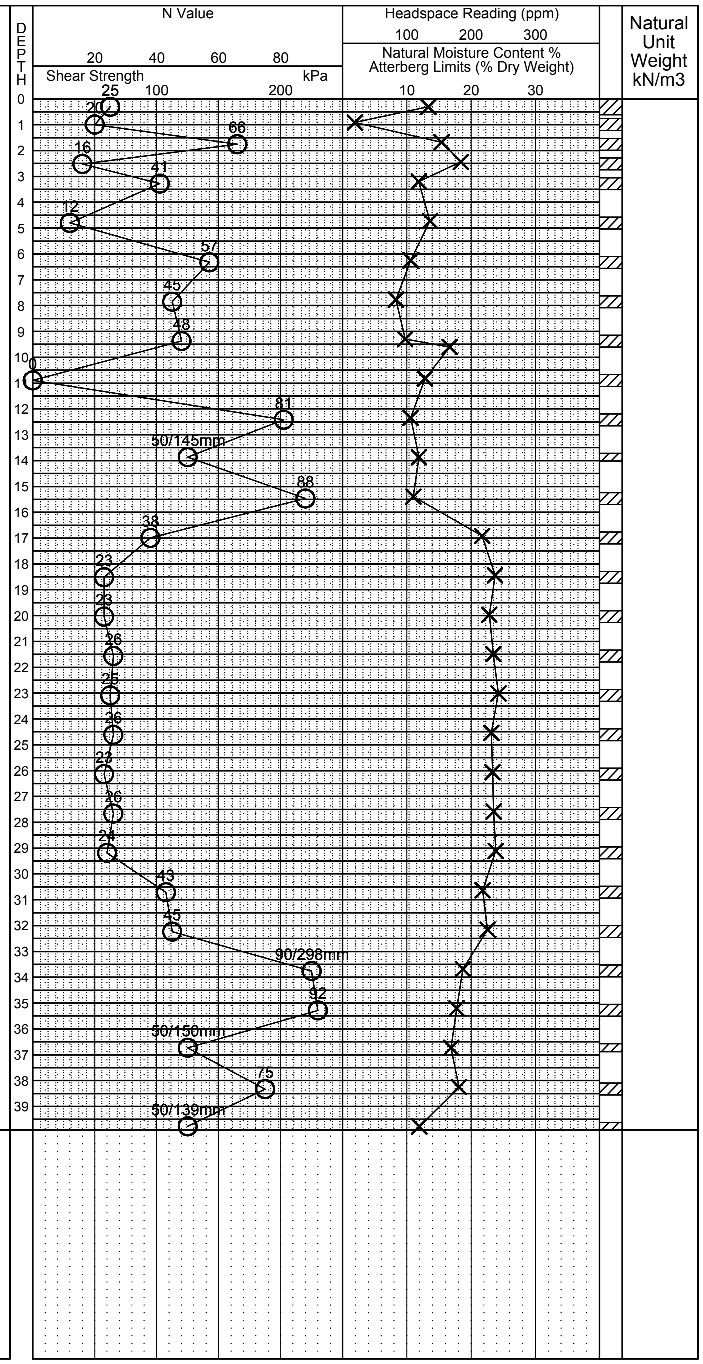
Date Drilled: 4/9/14

Drill Type: Truck Mounted

Datum: Geodetic

Legend	
Auger Sample	⊠
SPT (N) Value	○ ▨
Dynamic Cone Test	──
Shelby Tube	■
Field Vane Test	✚ S
Headspace Reading (ppm)	●
Natural Moisture	✕
Plastic and Liquid Limit	├──┤
Unconfined Compression % Strain at Failure	⊗
Penetrometer	▲

Soil Description	ELEV. m
Ground Surface	123.50
GRAVEL AND SAND	123.35
FILL	
- dark brown to brown sandy silt	120.76
- some gravel	
- concrete rubbles at 0.5 m & 1.5 m	119.23
- sand and gravel at 2.2m	
- moist, wet at 2.2m	117.71
SANDY SILT TILL	
- dense, grey	
- trace of gravel	114.66
- trace of clayey silt	
- moist	
CLAYEY SILT TILL	
- stiff, grey	
- trace of gravel	
- trace of sandy silt	
- moist to very moist	
SANDY SILT TILL	107.34
- very dense to dense, grey	
- some gravel	
- trace of clayey silt	
- moist	
SAND	
- dense to very dense, very loose at 10.7m	
- brown	
- fine to medium grained	
- trace of gravel	
- a layer of sandy silt at 9.3m to 9.5m	
- moist	
CLAYEY SILT	
- hard to very stiff	
- grey	
- seems of fine sand	
- trace of sandy silt	
- a layer of medium sand at 30.3m	
- pockets of fine sand at 31.5m	
- moist to very moist	90.89
SAND	
- very dense, grey	
- fine to medium grained	
- some sandy silt at 33.0m to 34.5m	
- trace of gravel	
- moist to damp	
	83.58



END OF BOREHOLE

NOTE:

upon completion of drilling:

- no free water

LGBE3 3760-13-G-TRI-C.GPJ 11/18/14

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)

Project No. 3760-13-G-TRI-C

Log of Borehole 4

Dwg No. 5

Project: Geotechnical Investigation

Sheet No. 1 of 1

Location: 1100 Eglinton Avenue East, Toronto, Ontario

Date Drilled: 4/1/14

Drill Type: Truck Mounted

Datum: Geodetic

Auger Sample	☒	Headspace Reading (ppm)	•
SPT (N) Value	○ ▨	Natural Moisture	×
Dynamic Cone Test	——	Plastic and Liquid Limit	├──┤
Shelby Tube	■	Unconfined Compression % Strain at Failure	⊗
Field Vane Test	✚ S	Penetrometer	▲

GWL | SYMBOL | Soil Description | ELEV. m | DEPTH

Ground Surface — 125.24

ASPHALT PAVEMNET
- 150mm asphalt (two layers) over granular bases

FILL
- brown to grey sandy silt
- trace of gravel and clayey silt
- moist to very moist

SANDY SILT TILL
- compact, grey
- trace of gravel
- trace of clayey silt
- moist

CLAYEY SILT TILL
- very stiff, grey
- trace of gravel
- trace of sandy silt
- moist

SANDY SILT TILL
- very dense, brown
- some gravel
- trace of clayey silt
- seems of fine sand
- moist

SAND
- very dense, brown
- medium grained
- trace of fine gravel
- some gravel
- moist

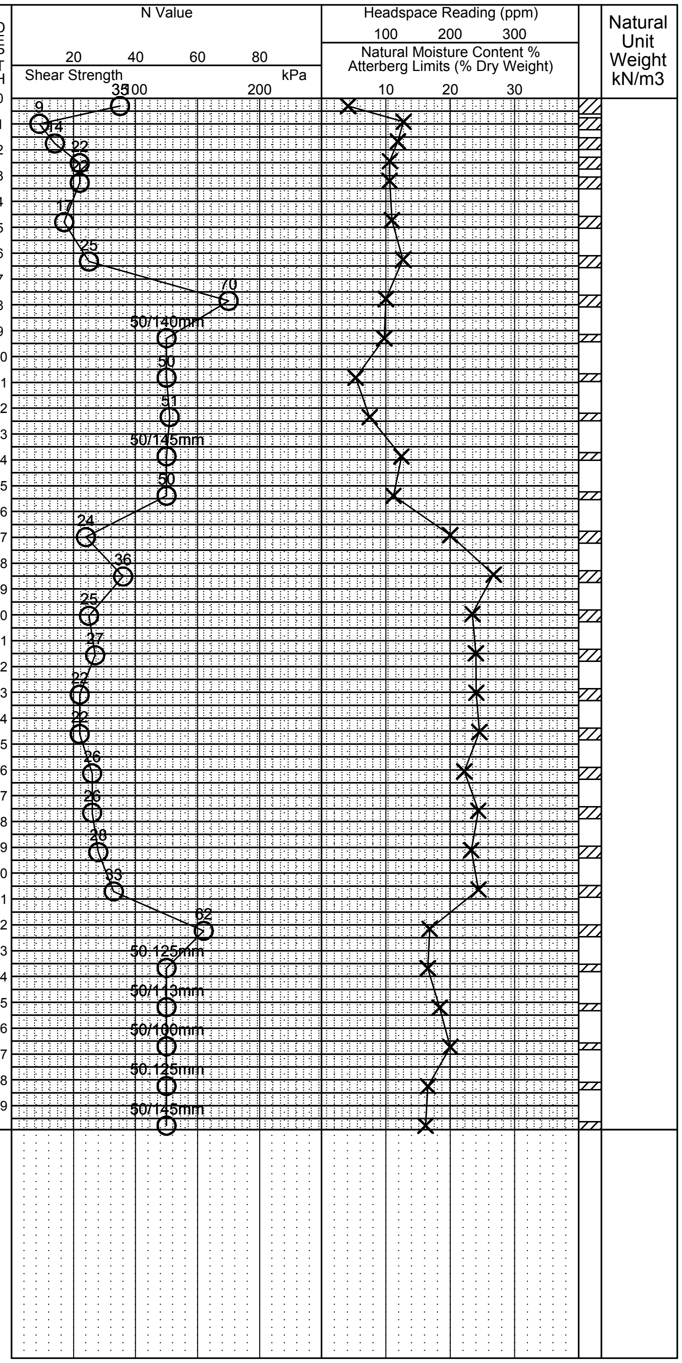
CLAYEY SILT
- very stiff to hard
- grey, bluey grey at 18.0m
- thin layers of silt
- seems of fine sand
- thin layers of wood deposit at 18.0m to 21.0m
- moist to damp

SAND
- very dense, grey
- fine to medium grained
- pockets of sandy silt
- silty
- trace of gravel
- moist to damp

ELEV. (m): 125.24, 125.09, 124.48, 123.56, 121.28, 117.92, 116.40, 109.08, 93.84, 85.32

END OF BOREHOLE

NOTE:
upon completion of drilling:
- no free water



NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS

Toronto Inspection Ltd.

Time	Water Level (m)	Depth to Cave (m)

LGBE3 3760-13-G-TRI-C.GPJ 11/18/14