

REPORT ON GEOTECHNICAL INVESTIGATION 0 & 12245 TORBRAM ROAD CALEDON, ONTARIO

REPORT NO.: 5552-21-GB REPORT DATE: NOVEMBER 13, 2023 REVISION NO.: 01

PREPARED FOR TULLAMORE INDUSTRIAL GP LIMITED 75 TIVERTON COURT MARKHAM, ONTARIO L3R 4M8

110 KONRAD CRESCENT, UNIT 16, MARKHAM, ONTARIO L3R 9X2 TEL.: 905-940-8509 FAX: 905-940-8192



TABLE OF CONTENTS

1.0	INTI	RODUCTION		1
2.0	SITE	E CONDITION		2
3.0	INV	ESTIGATION PROCEDURE		2
4.0	SUM	IMARIZED SITE AND SUBSURFACE CONDIT	IONS	3
	4.1	Surface Course		4
	4.2	Fill		4
	4.3	Silty Sand / Sand / Silt		4
	4.4	Clayey Silt, Clayey / Sandy Silt Till		5
	4.5	Sand and Gravel		6
	4.6	Shale Bedrock		6
	4.7	Ground Water		7
5.0	REC	OMMENDATIONS		8
	5.1	Site Preparation		9
	5.2	Pipe Bedding		10
	5.3	Foundation Design		11
	5.4	Perimeter Wall Construction		12
	5.5	Slab Construction		12
	5.6	Earthquake Consideration		13
	5.7	Excavation and Backfilling		13
	5.8	Pavement Construction		14
6.0	GEN	ERAL STATEMENT OF LIMITATION		15
DRA	WINC	<u>58</u>		
Bore	hole Lo	ocation Plan	Drawing No. 1	
Logs	of Bor	eholes 21BH-1 to 21BH-38, 23BH-1 to 23BH-12	Drawing No. 2 to 51	
FIG	URE			
		Distribution	Figure No. 1	
APP	ENDIX	<u>A</u>		
Guid	elines o	of Engineered Fill		





1.0 INTRODUCTION

Toronto Inspection Ltd. (TIL) carried out a geotechnical Investigation in May and June, 2021, for the proposed development at a property, located at 0 & 12245 Torbram Road, Caledon, Ontario (hereinafter referred to as "the Site"). The field work for the geotechnical investigation, at the middle and south portions of the Site, was carried out in conjunction with a Phase II Environmental Site Assessment (ESA) and a Hydrogeological Study. A report of our findings and recommendations for the design and construction of the proposed development was presented in the Geotechnical Investigation Report No.: 5552-21-GB, dated June 24, 2021.

Toronto Inspection Ltd. was retained by Tullamore Industrial GP Limited to conduct an additional geotechnical investigation for the proposed development at the north portion of the Site. The field work for the additional geotechnical investigation was carried out in conjunction with a Phase II Environmental Site Assessment (ESA) and a Hydrogeological Study. The reports of findings, relating to Phase II ESA and the hydrogeological study, will be issued under separate covers.

The purpose of the investigations was to determine the subsoil and groundwater conditions at the Site, affecting the design and construction of an industrial subdivision, consisting of a number of building blocks. In particular, geotechnical data was to be provided for:

- General founding conditions
- Foundation design for foundations
- Pavement Design and Construction
- Other Recommendations of Construction

This report is provided on the basis of the above terms of reference and on the assumption that the design of the project 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 the recommendations and comments provided in the report.

This report supersedes the previous geotechnical investigation report and any verbal or written recommendations provided for the Site.



2.0 SITE CONDITION

The Site, approximately 480 acres in area, is located on the east side of Torbram Road, on the west side of Airport Road and on the north side of Mayfield Road, in Caledon, A property at the northwest corner of Airport Road and Mayfield Road was not included in the investigation.

At the time of investigations, the Site was a farmland with farmhouses, including barns and silos at the south and west portions of the Site.

The existing site gradient was undulating, generally dropping to the south, southeast and east, with grade differences of more than 27m from north to south and 10m from west to east across the Site.

3.0 INVESTIGATION PROCEDURE

Previous Investigation

The field work for the previous investigation was carried out during the period of May 21 to June 3, 2021, at the middle and south portions of the Site, which included drilling thirty eight sampled boreholes (21BH-1 to 21BH-38), extending to depths of 2.4m to 6.6m from grade, at the locations shown on he appended Borehole Location Plan (Drawing No. 1). Groundwater observations were made in the open boreholes during and upon the completion of drilling. Sixteen of the boreholes, 21BH-1, 21BH-3, 21BH-7, 21BH-10, 21BH-13, 21BH-16, 21BH-18, 21BH-20, 21BH-22, 21BH-23, 21BH-25, 21BH-29, 21BH-30, 21BH-33, 21BH-36 and 21BH-37, were completed as monitoring wells for the determination of the static groundwater conditions.

Current Investigation

The field work for the current investigation was carried out during the period of May 29 to June 6, 2023, which included drilling twelve sampled boreholes (23BH-1 to 23BH-12), extending to depths of 4.8m to 11.5m from grade, at the locations shown on he appended Borehole Location Plan (Drawing No. 1).

Refusal to augering was encountered in the shale bedrock, at Boreholes 23BH-3 and 23BH-4 locations at depths of 11.5m and 9.6m from grade, respectively. Below the auger refusal depths of 11.5m and 9.6m from grade at Boreholes 23BH-3 and 23BH-4 locations, 8.3m (27.17ft) and 1.0m (3.17ft) long rock cores were obtained, respectively, to confirm that the refusal was in the shale bedrock and to determine the rock quality. The rock cores at Boreholes 23BH-3 and 23BH-4 locations were terminated at depths of 19.8m and 10.6m from grade, respectively.



The boreholes were advanced using a track mounted drill rig, equipped with continuous flight solid stem augers and sampling rods, supplied by a specialist drilling contractor. Soil samples were retrieved from the boreholes at 0.76m intervals to depths of 3m or 4.5m below the existing ground level. Below the depths, the sampling frequency was increased to 1.5m. The samples were obtained using a split spoon sampler in conjunction with Standard Penetration Tests (SPT) using a driving energy of 475 joules (350 ft-lbs). The soil samples were identified and logged in the field and were carefully bagged for later visual identification and laboratory testing, including moisture content determination.

Groundwater observations were made in the open boreholes during and upon the completion of drilling. Six of the current boreholes, 23BH-1 to 23BH-5 and 23BH-10, were completed as monitoring wells for the determination of the static groundwater conditions.

The symbol (MW), besides the borehole identification on the Borehole Location Plan, indicates a monitoring well. The groundwater records are presented in the borehole logs.

The borehole locations were established with stakes in the field by the survey company, at the locations shown on the appended Borehole Location Plan (Drawing No.1). The ground elevations at the previous borehole locations were surveyed and plotted on a plan of Topographic Survey, Caldon Tullamore Lands Boreholes, prepared by CSS Inc., dated June 1, 2021, provided by the client. The ground elevations at the current borehole locations were surveyed and provided by the client on October 12, 2023.

4.0 SUMMARIZED SITE AND SUBSURFACE CONDITIONS

Reference is made to the Borehole Location Plan (Drawing No. 1) and the appended Logs of Borehole sheets (Drawing Nos. 2 to 51) for details of field work, including soil classification, inferred stratigraphy and groundwater observations carried out during and on completion of drilling of the boreholes.

The subsoil below the surficial topsoil and fill, at the borehole locations, consisted of native deposits of clayey silt and glacial silt till with occasional embedded silty sand / sand/ silt layers, overlying a shale bedrock.



Brief descriptions of the subsoils encountered at the borehole locations are as follows:

4.1 Surface Course

Topsoil, 50mm to 950mm in thickness, was contacted at the ground surface at all borehole locations, including a 175mm compost layer at Borehole 21BH-1 location.

4.2 Fill

A layer of fill was contacted below the topsoil at all borehole locations. It is our opinion that the fill probably represent the material from the previous regrading of the Site or the native soils reworked during the farming process. For identification purpose, this material has been identified as fill in the borehole logs.

The fill consisted of a mixture of clayey silt, sandy silt, occasional trace gravel, with trace to some rootlets and topsoil, or pockets of organics. Borehole 21BH-8 was located at the top of a soil berm and a probable ³/₄ inch irrigation pipe was hit at a depth of 2.3m from grade.

Borehole 21BH-8 was terminated in the fill at a depth of 6.6m from top of the soil berm. Borehole 21BH-22 was terminated in the fill at a depth of 2.4m from grade, due to auger refusal on a probable boulder. With the exception of two of the boreholes, 21BH-28 and 21BH-37, the fill at the remaining boreholes extended to depths of 0.3m to 1.1m from grade. The fill in Boreholes 21BH-28 and 21BH-37 extended to depths of 2.1m and 3.2m from grade, respectively.

4.3 Silty Sand / Sand / Silt

A silty sand deposit was contacted below the fill at Borehole 21BH-6 location, at a depth of 0.5m from grade. The silty sand deposit contained some gravel, some sandy silt, gravelly at 2.3m in depth, and with possible cobbles and boulders. Borehole 21BH-6 was terminated in the silty sand deposit at a depth of 3.3m from grade, due to auger refusal on probable cobbles or boulders.

Based on the Standard Penetration N-values of 29 to more than 100 blows per 0.3m penetration, the relative density of the silty sand deposit was compact to very dense. The in-situ moisture content of the soil samples retrieved from this deposit ranged from 7% to 10%, indicating moist to very moist conditions.



A sand deposit was contacted below a clayey silt till deposit at Boreholes 23BH-3, 23BH-5 and 23BH-6 locations, at depths of 7.8m, 6.4m and 5.8m from grade, respectively. The sand deposit was fine to medium grained and contained trace to some gravel or silt, and gravelly at 23BH-3. Boreholes 23BH-5 and 23BH-6 were terminated in the sand deposit at depths of 9.5m and 6.6m from grade, respectively. The sand deposit extended to a depth of 10.4m from grade.

Based on the Standard Penetration N-values of 27 to 94 blows per 0.3m penetration, the relative density of the sand deposit was compact to very dense. The in-situ moisture content of the soil samples retrieved from this deposit ranged from 8% to 28%, indicating very moist to wet conditions.

A silt deposit was contacted below a clayey silt till deposit at Borehole 23BH-4 location, at a depth of 5.8m from grade. The silt deposit contained fine sand, some gravel and trace clay. The silt deposit extended to a depth of 8.8m from grade.

Based on the Standard Penetration N-values of 32 to 33 blows per 0.3m penetration, the relative density of the silt deposit was dense. The in-situ moisture content of the soil samples retrieved from this deposit ranged from 14% to 18%, indicating a wet condition.

4.4 Clayey Silt, Clayey / Sandy Silt Till

Native deposits of clayey silt and glacial silt till were contacted below the fill, at the borehole locations, except Boreholes 21BH-6, 21BH-8 and 21BH-22, at depths of 0.3m to 3.2m from grade. The deposits generally consisted of a heterogeneous mixture of silt and clay and sand, trace to some gravel, with occasional cobbles or boulders. The deposits also contained thin layers or seams of fine sand or occasional gravel layers.

Depending on the combination of silt, clay, sand and gravel, the deposits were classified as either clayey silt, clayey silt till or sandy silt till in the borehole logs.

Boreholes 21BH-15, 23BH-2 and 23BH-10 were terminated in the clayey / sandy silt till deposit, at depths of 4.3m, 4.8m and 9.9m from grade, respectively, due to auger refusal on probable cobble or boulder. Boreholes 21BH-1 to 21BH-5, 21BH-7, 21BH-9 to 21BH-14, 21BH-16 to 21BH-21, 21BH-23 to 21BH-25, 21BH-27 to 21BH-38, 23BH-1 and 23BH-7 to 23BH-12, were terminated in the deposits of clayey silt, clayey silt till or sandy silt till, at depths of 6.1m to 6.6m from grade.



The clayey silt till deposit at Boreholes 21BH-26 and 23BH-3 to 23BH-6 locations extended to depths of 4.7m and 5.8m to 7.8m from grade, respectively.

A lower glacial silt till deposit was contacted below the sand deposit and the silt deposit at Boreholes 23BH-3 and 23BH-4 locations, at depths of 10.4m and 8.8m from grade, respectively, and extended to depths of 11.5m and 9.6m from grade, where refusal of augering was encountered.

Based on the Standard Penetration N-values of 8 to more than 100 blows per 0.3m penetration, the consistency of the clayey silt and clayey silt till deposits was stiff to hard, and the relative density of the sandy silt till deposit was compact to very dense.

The in-situ moisture content of the soil samples retrieved from these deposits ranged from 6% to 30%, indicating moist to very moist conditions, with wet pockets or layers.

Grain size analyses were carried out on four soil samples from these deposits, obtained from Boreholes 21BH-1 (SS3 – at a depth of 1.5m), 21BH-15 (SS3 – at a depth of 1.5m), 23BH-1 (SS3 – at a depth of 1.5m) and 23BH-2 (SS3 – at a depth of 1.5m), using both of mechanical sieves and hydrometer methods. The results of the grain side distribution are shown on the appended Figure No. 1.

4.5 Sand and Gravel

A sand and gravel deposit was contacted below the clayey silt till deposit at Borehole 21BH-26 location, at a depth of 4.7m from grade. The sand and gravel deposit contained trace silt to clayey silt. Borehole 21BH-26 was terminated in the sand and gravel deposit at a depth of 6.4m from grade.

Based on the Standard Penetration N-values of 46 to more than 100 blows per 0.3m penetration, the relative density of the sand and gravel deposit was dense to very dense. The in-situ moisture content of the soil samples retrieved from this deposit ranged from 7% to 8%, indicating wet conditions.

4.6 Shale Bedrock

Shale bedrock was contacted below the clayey / sandy silt till deposit at depths of 11.5m and 9.6m from grade at Boreholes 23BH-3 and 23BH-4 locations, respectively, where refusal of augering was encountered.



Below the auger refusal depths of 11.5m and 9.6m from grade at Boreholes 23BH-3 and 23BH-4 locations, 8.3m (27.17ft) and 1.0m (3.17ft) long rock cores were obtained, respectively, to determine the quality of the bedrock. An inspection of the rock cores, indicated that the shale bedrock quality, within the cored depths, was very poor to good, generally poor to fair, based on RQD values, varying from 15% to 89%, and Recovery of 98% to 100%. Occasional layers of limestone were also observed within the shale bedrock. Boreholes 23BH-3 and 23BH-4 were terminated in the rock coring at depths of 19.8m and 10.6m from grade, respectively.

4.7 Ground Water

Upon the completion of borehole drilling, free water was recorded in the open boreholes at 21BH-6, 21BH-14 to 21BH-17, 21BH-19 to 21BH-24, 21BH-26, 23BH-4 to 23BH-6 and 23BH-10, at depths of 0.8m to 9.4m from grade; with wet cave-in in the open boreholes at 21BH-19 to 21BH-21, 21BH-26, 23BH-4, 23BH-6 to 23BH-9 and 23BH-12, at depths of 4.6m to 6.1m from grade. Water flowing out in the open borehole 21BH-8 was due to hitting a probable underground irrigation pipe. No free water was contacted in the remaining boreholes throughout the investigation.

Based on the field records and the moisture content profiles of soil samples, as shown on the appended borehole logs, it is our opinion that the depths of free water or cave-in represent local water in sand / silty sand / silt layers or seams within the clayey silt and clayey / sandy silt till deposits, and water in the sand and gravel deposit at Borehole 21BH-26 location. It is our opinion that there is no continuous groundwater table within the depth of investigation.

Additional groundwater monitoring will be conducted as part of the Hydrogeological Study, to determine the seasonal fluctuations. Reference should, therefore, be made to the Hydrogeological Report for further details regarding the groundwater table / groundwater quality at the Site.



5.0 **RECOMMENDATIONS**

We understand that the proposed development at the Site will consist of an industrial subdivision, with a number of building blocks, streets and the associated facilities, designated as Tullamore Lands.

A review of Preliminary Grading Plan – North & South, Drawing Nos.: C102 & C102A, prepared by Crozier Consulting Engineers, dated October 27, 2023 (Revision 2A), provided to our office by the client, indicated that the development at the Site will consist of seven building blocks (1 to 5, 7 & 8) without basements and three streets (A, B & C). The finished floor elevations (FFE) of the building blocks, the finished grade (FG) of the street and their relevant boreholes data were listed below:

Block ID	FFE (m)	BH ID	BH Ele. (m)	Cut - / Fill (m)	Block ID	FFE (m)	BH ID	BH Ele. (m)	Cut - / Fill (m)
1	246.05	21BH-12	246.22	-0.17	5	243.60	21BH-17	240.60	3.00
		21BH-14	246.16	-0.11			21BH-33	238.48	5.12
		21BH-15	242.04	4.02			21BH-34	240.59	3.01
		21BH-16	239.92	6.13			21BH-35	238.65	4.95
		21BH-22	242.39	3.66	7	253.00	23BH-1	252.00	1.00
		21BH-21	246.75	-0.70			23BH-3	252.34	0.66
		21BH-23	247.76	-1.71			23BH-8	250.81	2.19
2	242.50	21BH-11	240.78	1.72			23BH-9	254.65	-1.65
		21BH-10	243.38	-0.88			23BH-10	253.10	-0.10
3	250.00	21BH-20	245.32	4.68	8	251.50	23BH-2	246.13	5.37
		21BH-24	245.18	4.82			23BH-4	252.79	-1.29
		21BH-26	246.49	3.51			23BH-6	247.39	4.11
		21BH-7	249.10	0.90]		23BH-11	249.63	1.87
4	245.10	21BH-19	242.70	2.40			23BH-12	249.13	2.37
		21BH-27	243.66	1.44					
		21BH-28	243.82	1.28					
		21BH-29	243.27	1.83					

Building Block



Street	Street												
Street ID	FG (m)	BH ID	BH Ele (m)			FFE (m)	BH ID	BH Ele (m)	Cut - / Fill (m)				
Α	242.50	21BH-18	240.63	1.87	В	234.98	21BH-5	237.16	-2.18				
	242.40	21BH-32	242.16	0.24		235.99	21BH-4	238.67	-2.68				
	242.25	21BH-31	241.93	0.32		238.53	21BH-7	240.17	-1.64				
	240.65	21BH-30	240.55	0.10		242.40	21BH-17	240.60	1.80				
						242.50	21BH-18	240.63	1.87				
						244.60	21BH-19	242.70	1.90				
						245.74	21BH-20	245.32	0.42				

Based on the above data, a cut and fill operation is anticipated at the Site in the range of cut 2.7m to fill 6.1m from the existing grade at the borehole locations. The cut and fill range could be more between and beyond the borehole locations, and depends on the details of the development and the final gradient of the Site.

Additional boreholes will be required when the details of the development are finalized, particularly in the building blocks.

Based on the subsoil data obtained at the borehole locations, our recommendations are as follows:

5.1 Site Preparation

The soil description and depth of fill shown on the Borehole Logs are specific depths at the borehole locations only. The thickness of topsoil and the depth of fill at locations beyond the boreholes may be thicker or deeper, especially in the location of previous excavations. We recommend that the contractor bidding for the job should determine the depths of deleterious material by test pits and allow for removal of any deleterious fill and material, with high moisture and/or organic content, during the site preparation for site grading.

Depending on the final grades, the Site may have to be regraded with a cut and fill operation. The on-site excavated fill and/or native soils, to be used for site grading, should be organic free and maintained at or close to its optimum moisture content during placement and compaction. The new fill should be compacted in lifts of 200mm to at least 98% of its Standard Proctor maximum dry density (SPMDD).



At locations deep depths of fill were encountered during the investigation and might be revealed during the site grading, the building pad preparation should include removal of the existing fill and any compressible topsoil and deleterious material, where encountered, and backfilling within the building pad areas with selected on-site material, free of organics, or pre-approved material, to the subgrade level. The backfill within the building pad areas should be placed and compacted in 200mm lifts to at least 100% of its Standard Proctor maximum dry density, according to the Guidelines of Engineered Fill, as attached in Appendix A.

Compressible topsoil and fill material containing relatively high organic content will not be suitable for reuse in areas where future settlement cannot be tolerated. This material will have to be disposed off-site or reused in landscaped areas, subject to approval by the landscape architect.

Any new fill at the site should consist of organic free material, placed in lifts of 200 to 300mm and compacted to at least 98% of its Standard Proctor maximum dry density (SPMDD).

5.2 Pipe Bedding

Based on the borehole information, the subsoil at service trench inverts may consist of fill, clayey silt, silt till, or silty sand / sand / silt deposits. Any unstable fill material at the trench invert should be sub-excavated and replaced with a granular material, compacted in lifts to the invert level to 98% of its SPMDD.

The pipe bedding for underground services, including catch basins and manholes, should consist of OPSS Granular A, 20mm crusher run limestone, or equivalent, compacted to 98% of its Standard Proctor maximum dry density (SPMDD). If free water is encountered in the trenches, from saturated silty sand / sand / silt layers, the bedding in the service trenches may consist of HL6 stone or equivalent, provided that a geotextile filter fabric (Terrafix 270R or equivalent) is used to separate the stone bedding from the base and the sides of the excavation. The geotextile filter fabric must surround the clear stone bedding completely.



5.3 Foundation Design

The existing fill is not competent to support building foundations. The proposed building foundations will have to extend through the fill and founded in the underlying native soil deposits. Conventional spread/strip footings founded in the native clayey silt and clayey /sandy silt till deposits below the fill, at a minimum depth of 1.2m from finished outside grade, can be designed for the bearing pressures:

-	Factored Ultimate Limit State:	240 kPa
-	Serviceability Limit State:	150 kPa

The total and differential settlement of footings, founded in the native undisturbed soil with the designed bearing pressures at the Serviceability Limit State, as recommended above, will not exceed 25 mm and 20mm respectively.

The existing fill in the proposed building areas should be removed and replaced with selected on-site organic free material, compacted in lifts not exceeding 200mm, in accordance with the engineered fill requirement. Conventional spread/strip footings founded in the engineered fill can be designed for the bearing pressures:

-	Factored Ultimate Limit State:	240 kPa
-	Serviceability Limit State:	150 kPa

Based on a review of the site regrading plan, it appears that major portions of Block 1 (Boreholes 21BH-15, 21BH-16 and 21BH-22), Block 3 (Boreholes 21BH-20, 21BH-24 and 21BH-26), Block 5 (Boreholes 21BH-33, 21BH-34 and 21BH-35) and Block 8 (Boreholes 23BH-2 and 23BH-6), will be uplifted by more than 3m of engineered fill. We recommend that building construction on these blocks be deferred for a period of at least one year, after completion of engineered fill operation, to let the fill and the underlying stiff soil deposits to consolidate under the imposed load of the engineered fill.

Footings founded in engineered fill should be reinforced with at least $2 \ge 15M$ bars continuously. Consequently, the foundation walls on engineered fill should be reinforced with $2 \ge 15M$ bars at the top of the walls.

It should be noted that the recommendations for footings have been analysed by *Toronto Inspection Ltd.* from the information obtained at the borehole location. Further borehole investigation is necessary after the locations of the proposed



buildings are finalised. In addition, the bearing material, the interpretation between the boreholes and the recommendations of this report must be checked through field inspection provided by *Toronto Inspection Ltd*. to validate the information for use during the construction stage.

5.4 Lateral Earth Pressure

Where subsurface walls, or retaining walls, will retain unbalanced earth loads, the lateral soil pressure may be computed using the following expression:

p =	К (γ	Η	+	q)	
-----	-----	---	---	---	----	--

where	p = lateral earth pressure	(kPa)
	K = lateral earth pressure coefficient	0.4
	γ = bulk unit weight of backfill	21.0 kN/m ³
	H= depth of wall below the finished grade	(m)
	q = surcharge loads adjacent to the walls	(kPa)

This expression assumes that a permanent free drainage system is provided to prevent a build up of hydrostatic pressure next to the wall.

The drainage system should include a free-draining granular backfill or a drainage membrane placed against the concrete wall, together with an effective perimeter weeping tile drainage system at the wall base. The weeping tile should consist of a minimum 100mm diameter perforated pipe, surrounded by a geotextile filter fabric (OPSS 405) and installed on a positive grade leading to a frost free sump or outlet.

5.5 Slab Construction

If the existing fill will be left in place for supporting a slab-on-grade, long term settlement will occur. We, therefore, recommend that all fill, within the building areas, should be completely removed. Selected on-site material, free of organics, may be reused and re-compacted in place for supporting the slab-on-grade. The selected fill should be compacted in 200mm lifts to at least 100% of its Standard Proctor maximum dry density, to the standard of the engineered fill.

A minimum of 150 mm thick layer of 19mm OPSS Granular A, or equivalent, is recommended as a moisture barrier below the floor slab.

A modulus of subgrade reaction of 20 MN/m3 is recommended for the design of the slab-on-grade on the native deposits and engineered fill.



5.6 Earthquake Consideration

The 2006 Ontario Building Code requires that all buildings be designed to resist earthquake forces. In accordance with Table 4.1.8.4.A of the Ontario Building Code, the site classification for the Seismic Site Response is Class D (stiff soils).

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

5.7 Excavation and Backfilling

All excavations should comply with the Ontario Occupational Health and Safety Act. Any excavation deeper than 1.2m should be sloped back to a safe angle of around 45° . A flatter slope will be required for excavation in silty and / sand / silt and saturated soils.

No groundwater problems are anticipated for excavation of foundations and sewers. Groundwater seepage from wet sand layers or seams will be minor which can be handled by pumping from filtered sumps, as necessary. However, if the excavation is into the sand and gravel deposit, at a depth of 4.7m from grade, at Borehole 21BH-26 location, temporary de-watering may be required for the sewer installation, which can be decided during construction.

The on site excavated material, separated from topsoil and organics, can be reused for site grading and trench backfill. In order to achieve the specified degree of compaction, drying of the on-site material may be required prior to placement and compaction. Therefore, it is recommended that the excavation and backfilling process should be conducted in the dry and frost free seasons.

Any unsuitable fill, such as topsoil and other compressible fill, may be reused in landscape areas, subject to the approval of the landscape architect.

Backfill around catch basins, manholes and narrow trenches should consist of imported granular material, and should be compacted using a medium or light vibratory equipment.



5.8 Pavement Construction

The existing on-site material contains a mixture of clay and silt with sand, and is frost susceptible. The following pavement design is recommended based on the assumption that perforated sub-drains will be installed to prevent buildup of water in the granular bases of the pavement:

			Light Duty	Heavy Duty
			<u>Parking Lot</u>	<u>Fire Route</u>
Asphaltic Cor	crete OPS	SS HL3 or equivalent	65mm	40mm
	OPS	SS HL8 or equivalent	-	60mm
Base:	OPSS Gran	ular A or 20mm crusher-run	150mm	150mm
Sub-base:	OPSS Gran	ular B or 50mm crusher-run	300mm	450mm

Roads and driveways to be assumed by the local municipality should be constructed to the municipal standards.

The granular base and sub-base should be compacted to a minimum of 100% SPMDD. Asphaltic concrete should be compacted to at least 96% Marshall density.

The above pavement thicknesses are based on favourable site conditions and the construction being carried out during the drier time of the year, that the subgrade is stable, not heaving under construction traffic. If the subgrade is wet and unstable, additional thickness of sub-base material will be required.

Following site grading, the subgrade of the entire pavement should be proofrolled using a heavy vibratory roller. Any soft spots revealed by the proof-rolling should be sub-excavated and replaced with approved dry material and compacted to at least 98% of the Standard Proctor maximum dry density (SPMDD) to the subgrade level.

Continuous perforated, OPSS 405, longitudinal drains, minimum diameter of 100mm, should be used as sub-drains, on both sides of the roadways. The subdrains should be installed on a positive gradient towards the outlets (collecting into catch basins), at a minimum depth of 800mm below the pavement level, to allow for a free flow of water. The backfill above the drains should comprise of free draining Granular B or its equivalent and should be continuous with the granular sub-base of the pavement. This will help in draining the pavement structure and minimize the differential heave of the pavement.



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. Although 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 and may become apparent during construction. Any contractor bidding on, or undertaking the works, should decide on their own investigation and interpretations of the groundwater and the soil 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 responsibility of the third parties. The responsibility of **Toronto Inspection Ltd.** is limited to the accurate interpretation of the soil and ground water conditions prevailing in the locations investigated and accepts 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.

Any legal actions arising directly or indirectly from this work and/or *Toronto Inspection Ltd.'s* performance of the services shall be filed no longer than two years from the date of *Toronto Inspection Ltd.'s* substantial completion of the services. *Toronto Inspection Ltd.* shall not be responsible to the client for lost revenues, loss of profits, cost of content, claims of customers, or other special indirect, consequential or punitive damages.

To the fullest extent permitted by law, the client's maximum aggregate recovery against *Toronto Inspection Ltd.*, its directors, employees, sub-contractors and representatives, for any and all claims by clients for all causes including, but not limited to, claims of breach of contract, breach of warranty and /or negligence, shall be the amount of the fee paid to *Toronto Inspection Ltd.* for its professional services rendered under the agreement with respect to the particular site which is the subject of the claim by the client.

Yours very truly, TORONTO INSPECTION LTD.

David & Wang

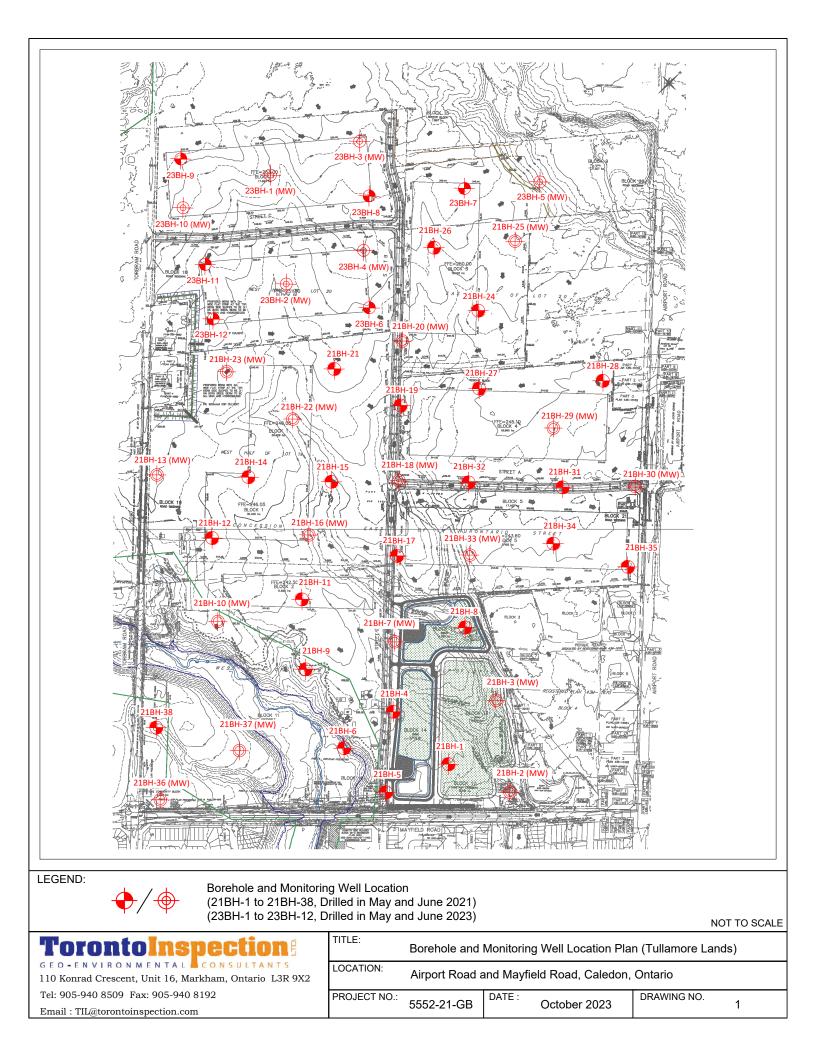
David S. Wang, P.Eng. Senior Engineer

Upkar S. Sappal, P. Eng. Principal Engineer





Drawings Borehole Location Plan Borehole Logs



Project No.	<u>5552-21-GB</u>	Log	J	D	OI	e	IIC	ле	<u> </u>	ID			0		
Project:	Geotechnical Investiga	ation										Dwg No Sheet N			
			<u></u>		~ 0		orio				- `	Sheeth	NO	_ (JI
ocation:	Airport Road and May	neia Road,	Ca	liedol	n, O	int	ario								
Date Drilled:	5/21/21			Auger S SPT (N)	•			I O I	8	Natur	space Rea al Moistur c and Liqu	e	n)	• ×	
rill Type:	Track Mounted Drill F	Rig	_	Dynamio	c Cone		st		_	Unco	nfined Cor	npressior	' ¢	2	
atum:	Geodetic			Shelby 1 Field Va		st		1	S		ain at Fail trometer	ure			
S Y M B O		ELEV.	DE				N Value	!		· ·	eadspace F 100 2	00 30	00		Natur Uni
	Soil Description und Surface	236.25	D E P T H	Shear	20 Strengt	40 th 10			80 kPa 200		atural Moist berg Limits		nt % /eight) 0		Weig kN/m
	MPOST	236.07	0	۵,	15 211				200	×				Ø	
H-bro	. (REWORKED) wwn clayey silt	^{235.64}	1		\$ •					*					
- tra	me rootlets & topsoil ce gravel	Н	2	ď))						×			Ø	
///////- mc	vist VEY SILT]	2								×				
/ vei	y stiff to stiff own, grey below 4.5m	-	3	1	<pre>{</pre>						×				
//////////////////////////////////////	ce to some gravel		4	15							ĺ.				
- mc	nst	_]			H	
HI-		-	5	$ \varphi$							ĸ			P	
			6	12											
	OF BOREHOLE	229.70		ð						×	(8	
	E:														
	n completion of drilling: free water														
						-									

JRE USE BY UTHERS											
Time	Water Level (m)	Depth to Cave (m)									
L											

Project No.	<u>5552-21-GB</u>	Log	of B	ore	ehc	ble	<u>2</u> ′	1BI	<u> </u>)2 ((MV	<u>V)</u>	
		Dwg No. 3											
Project:	Geotechnical Investiga	ation								Sheet N	No. <u>1</u>	of <u>1</u>	
Location:	Airport Road and Mayfield Road, Caledon, Ontario												
Date Drilled: Drill Type: Datum:	5/21/21 Track Mounted Drill F Geodetic	Rig	 Auger S SPT (N) Dynami Shelby Field Va 	Value Cone To Tube	est			Natura Plastic Uncon % Stra	and Liqu	iid Limit npressioi	` → ⊢	• < +	
G Y •N• B •L• O	Soil Description	ELEV.			N Value		30	1	00 2	Reading (p 00 3 ure Conte s (% Dry V	00	Natural Unit Weight	
	ound Surface	232.99	h Shear	Strength 1	00	2	kPa 00	1			30	kN/m3	
		/ 232.84 232.38		\$ 0 33				× * * *					
stil	AYEY SILT / TILL ff to hard bwn, grey below 6.0m ce to some gravel me sandy silt bist			3 4 5 0	8				*				
		227.45 226.44	6	5				×					
NOT Upo - no	D OF BOREHOLE TE: n completion of drilling: free water												
(GBE3 5552-21-GB.GPJ 11/8/23													

Time	Water Level (m)	Depth to Cave (m)								
June 3, 2021	5.54m									

Project No.	5552-21-GB	Log	D.	fΒ	ore	ehc	ble	21	1Bł	H -C)3 ((MV	/)
		U									Dwg No	-	
Project:	Geotechnical Investigation	on									Sheet I	No. <u>1</u>	of <u>1</u>
Location:	Airport Road and Mayfie	eld Road,	Ca	aledo	n, On	tario							
Date Drilled: Drill Type: Datum:	5/21/21 Track Mounted Drill Rig Geodetic		_	Auger S SPT (N) Dynamie Shelby ⁻ Field Va	Value Cone T Tube	est		3	Natura Plastic Uncon % Stra	I Moistur	uid Limit mpressio	` →	, (1
SY SY BB SH SH SH SH SH SH SH SH SH SH SH SH SH	Soil Description	ELEV. m	DUPTH	Shear	Strenath		50 8	i0 kPa	1 Nat Attert	00 2 tural Moist berg Limit	ture Conte s (% Dry V	00 nt % Veight)	Natural Unit Weight kN/m3
	und Surface SOIL . (REWORKED)	235.52 235.39 234.76	0	Ô 1	1	00	2(00	1	io : X	20 3	30	KIV/III3
+ - bro sor mo	wn clayey silt ne rootlets & topsoil ist	Ħ	1	C	8				1				
CLA	YEY SILT / TILL f to hard	 	2		35				×				
H - trac	wn, grey below 6.0m ce to some gravel		3		ð				*				
occ	ams of fine sand casional layers of clayey silt till ce sandy silt		4	13/	/								
mo			5	Ø					>	K			
			6	15 0					×				
NOT Upor	OF BOREHOLE F: n completion of drilling: free water												

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

Toronto Inspection Ltd.

JRE USE BY UTHERS										
Time	Water Level (m)	Depth to Cave (m)								
June 3, 2021	Dry									

Project No.	<u>5552-21-GB</u> LOG	of Borehole	ΔΙ <u>ΔΠ-U4</u> Dwg No. 5
Project:	Geotechnical Investigation		Sheet No. 1 of 1
Location:	Airport Road and Mayfield Road,	Caledon, Ontario	
Date Drilled: Drill Type: Datum:	5/21/21 Track Mounted Drill Rig Geodetic	SPT (N) Value O Dynamic Cone Test	Headspace Reading (ppm) ● Natural Moisture × Plastic and Liquid Limit ● Unconfined Compression ⊗ % Strain at Failure ⊗ S Penetrometer
FILL FILL - bro - tra - mc CLA - stif - bro - tra	Soil Description Und Surface SOIL CREWORKED Some rootlets & topsoil USE to very moist VYEY SILT / TILL f to very stiff Sown, grey below 6.0m Cce gravel, trace sand arms of fine sand USE Solution Contemport Contempor	N Value P H Shear Strength 0 1 2 3 4 4 5 6 6 N Value N Value	Headspace Reading (ppm) 100 200 300 Natural Moisture Content % Atterberg Limits (% Dry Weight) 200 Natural Weight Natural 10 20 30
NO1	OF BOREHOLE		

Тс	oror	nto Inspection Ltd.					Tin	16
	NOTE: T	THE BOREHOLE DATA NEEDS INTERPRETATION AS	SISTANCE BY TOR	SPECTI	ON LTD.	BEFO	RE USE	З
LGBE3 5552-21-GB.GPJ								
J 11/8/23								

ORE USE BY OTHERS												
Time	Wat Lev (m	er De el (epth to Cave (m)									
L												

Project No.	<u>5552-21-GB</u> LOG	of Borehole 21BH-05	
		Dwg No. <u>6</u>	
Project:	Geotechnical Investigation	Sheet No. <u>1</u> of	1
Location:	Airport Road and Mayfield Road,	l, Caledon, Ontario	
Date Drilled: Drill Type: Datum:	5/25/21 Track Mounted Drill Rig Geodetic	Auger Sample Image: September of the septembe	
- stir - bro - bro - bro - r trac	YEY SILT - f to hard - wn, grey below 6.0m _ ce to some gravel - ce sand, trace silty clay - ist -	P 20 40 60 80 Natural Moisture Content % Shear Strength 100 200 10 20 1 10 20 10 20 2 27 10 10 20 3 1 27 10 10 4 10 10 10 10 5 1 10 10 10	it ght
NOT Upor	OF BOREHOLE E: n completion of drilling: free water		

LGBE3 5552-21-GB.GPJ 11/8/23

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.	<u>5552-21-GB</u>	Log	Dţ	В	ore	ehc	ble	<u>2</u>	IBI			-		
Project:	Geotechnical Investigatio	n									Owg No Sheet N			
Location:	Airport Road and Mayfie		Cale	doı	n, Or	itario								
Date Drilled: Drill Type: Datum:	5/25/21 Track Mounted Drill Rig Geodetic		- SP Dyr She	T (N) namic elby 1	ample Value c Cone T Fube ne Test	est		2	Natura Plastic Uncor % Stra	al Moistur	iid Limit npressior	-	• × ,	
G Y M W B L O	Soil Description	ELEV. m	DEPTH S		20 Strength	N Value		30 kPa	1	00 2	Reading (p 00 30 ure Conter 6 (% Dry W	00		Natura Unit Weigh
	und Surface SOIL	277.78	н з 0 0		Strength	00	2	00				0		kN/m3
FILL	. (REWORKED) wn sandy silt	277.32	1	\geq	29 Q				>	(
¥ - sor	ne rootlets & topsoil ce clayey silt	276.38				8				×				
<u>- mo</u>	ist TY SAND	<u>_</u>	2						X					
- der	use to very dense wn, grey below 1.5m	274.45	3			50/75mn О			×					
- gra - pos - mo END NOT Upor - refu cobb	ne gravel, some sandy silt ivelly at 2.3m ssible cobbles or boulders at 3.2n ist to very moist OF BOREHOLE TE: In completion of drilling: usal to augering on probable bles or boulders ter level at 1.4m	n												

Project No.	5552-21-GB	Log) [.]	f B	ore	ehc	ble	2′	1BI	H-0)7	(M	W	/)
		•									Dwg N	-		
Project:	Geotechnical Investiga	tion								-	Sheet I	No	1	of _1
Location:	Airport Road and May	field Road,	Са	aledo	n, Or	ntario								
Date Drilled: Drill Type: Datum:	5/25/21 Track Mounted Drill R Geodetic	lig	_	Auger S SPT (N) Dynamie Shelby ⁻ Field Va	Value c Cone 1 Tube			2	Natura Plastic Uncor % Stra	space Rea al Moistur c and Liqu offined Col ain at Fail rometer	e uid Limit mpressio	F	× ×	I
• ⊡ • S •⊡• Y •₩• B	Soil Description	ELEV.	DEP		20	N Value		30	1	eadspace I 00 2 tural Mois berg Limit	00 3	300		Natural Unit Weight
	und Surface	m 240.17	T H 0	Shear	Strenath			kPa 00		10 :		Veight) 30		kN/m3
FILL - bro - sor - mo	SOIL (REWORKED) wn clayey silt me rootlets & topsoil ist YEY SILT / TILL	239.94	1		27 0 70 70 70 70 70									
bro trac sea	y stiff wn, grey below 4.5m ce to some gravel ams of fine sand vist to very moist	 235.63	3		P B					}	k k			
		_ _ _ 233.62	5							*				
NOT	OF BOREHOLE TE: n completion of drilling: free water													

ORE USE BT UTHE	-R3	-
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	4.54m	

Project No.	<u>5552-21-GB</u>	og o	וכ	D	Ore		ле	<u> </u>	IDI			•		
_ · ·	Castashnias Investigation										Dwg No	-		
Project:	Geotechnical Investigation	Pood (<u></u>	odo	- On	taria					Sheet I	NO	<u> </u>	ot <u>I</u>
_ocation:	Airport Road and Mayfield	Ruau, v	Ja	euoi	I, OII	lano								
Date Drilled: Drill Type:	5/25/21 Track Mounted Drill Rig Geodetic		- 8 - 6	Shelby 1	Value Cone Te Tube	est			Natura Plastic Uncor % Stra	al Moistur al Moistur c and Liqu ifined Cor ain at Fail	e uid Limit mpressior	·	• × ⊸	
Datum:	Geodelic		_ F	ield Va	ne Test		S	5	Penet	rometer			•	
	Soil Description	ELEV. m 238.39	DEPTH		Strength	N Value	60 8	30 kPa 00	1 Na Atter	tural Moist berg Limits	00 3 ture Conte s (% Dry V	00		Natur Unit Weigl kN/m
	PSOIL / L (REWORKED)	23839439		φ́						X				
- bro	ce rootlets & topsoil me sandy silt ce gravel	-	1	¢	20						* *			
₩₩ - ро	ckets of organics at 4.5m & 6.0m - bist to very moist, wet layers -	-	3	ið	29 0					*				
	-	-	4 -	¢							×			
	-	231.84	6	8							×			
NO Upo - hit	on completion of drilling: a 3/4" pipe at 2.3m from top of the													
berr - wa	n ater level at 0.0m (flowing out)													
				· · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·										

OKE 03E BT OTTL	-	
Time	Water Level (m)	Depth to Cave (m)

Project No.	5552-21-GB	og	01	B	ore	ehc	ole	<u>2</u> ′	<u>1B</u>	<u>H-(</u>)9			
											Dwg N	b. <u>10</u>		
Project:	Geotechnical Investigation	1									Sheet I	No1	<u> </u>	of <u>1</u>
Location:	Airport Road and Mayfield	Road,	Са	ledor	n, On	tario								
Date Drilled: Drill Type: Datum:	5/25/21 Track Mounted Drill Rig Geodetic		_	Auger S SPT (N) Dynamic Shelby T Field Va	Value Cone T ube	est		2	Natura Plastic Uncor % Stra	al Moistur c and Liq	uid Limit mpressio	F	• 	
G M W B L O	Soil Description	ELEV.	DEPTH	2	0 4	N Value		80	1	00 2	Reading (p 200 3 ture Conte s (% Dry V	00		Natural Unit Weight
	und Surface	m 239.51	Т Н 0	0 8			kPa			10		Veight) 30		kN/m3
FILL	SOIL . (REWORKED) wn sandy silt to clayey silt ne rootlets & topsoil	239.28 238.74	1	Q 15 Q	24					×				
- sof	ist YEY / SANDY SILT TILL to very stiff / compact wn, grey below 6.0m] 	2											
- sea	some gravel - seams of fine sand - moist to very moist - -	_	4		$\left \begin{array}{c} \phi \\ \phi \end{array} \right $					×				
		_	5	<u> </u>	5					*				
NOT Upo	OF BOREHOLE Fe: n completion of drilling: free water													

ORE USE BI UTHE	ER0	-
Time	Water Level (m)	Depth to Cave (m)

Project No.	5552-21-GB	_og () [.]	f B	80	ore	ehc	ole	<u>2</u> ′	<u>1B</u>	- -1	<u>10 (</u>	M	<u>M</u>	<u>/)</u>
												Dwg No	. <u>11</u>		
Project:	Geotechnical Investigation										:	Sheet N	o	<u> </u>	of <u>1</u>
Location:	Airport Road and Mayfield	Road,	Ca	aledo	on	, On	tario								
Date Drilled: Drill Type:	5/26/21 Track Mounted Drill Rig		-	Auger SPT (N Dynam Shelby	N) V	/alue Cone Te	est		_	Natura Plastic Uncon	I Moistur and Liqu	uid Limit mpression	F	• × 	I
Datum:	Geodetic		-	Field V	'an	e Test			3	Penetr	ometer		4	•	
	Soil Description	ELEV. m 243.38	DEPTH	Shea	<u>20</u> r St	trenath	N Value	60	80 kPa 200	1 Nat Attert	00 2 ural Mois berg Limit	Reading (pp 00 30 ture Conten s (% Dry We 20 30	0 t % eight)	-	Natural Unit Weight kN/m3
TOPSOIL FILL (REWORKED)		243.15	0	Q				200			Ď	k			
	wn clayey silt to sandy silt ne rootlets & topsoil ist DY / CLAYEY SILT TILL npact to dense / very stiff to hard wn, grey below 4.5m	242.77	1 2 3			25 30 30 30					××				
🚽 🚺 - sea	ne gravel ams of fine sand ist to very moist	239.31 	4	10000	3	9					* *				
			6		6						×				
NOT	OF BOREHOLE E: n completion of drilling: free water	230.83													

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEF

ORE USE BY UTHE	ER0	-
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	4.07m	

Project No.	<u>5552-21-GB</u>	Log									Dwg No	o. 12		
Project:	Geotechnical Investigatio	n									Sheet N			of 1
Location:	Airport Road and Mayfie	ld Road,	Са	aledo	n, Or	ntaric)							
			_	Auger S	Sample		Σ	ব			ading (pp	m)	•	
Date Drilled:	5/26/21		_	SPT (N) Value	- ,	OB			al Moistur c and Liqi		⊢	×	
Drill Type:	Track Mounted Drill Rig		_	Shelby	c Cone T Tube	est		•		nfined Co ain at Fai	mpressior lure	י (9	
Datum:	Geodetic		_	Field Va	ane Test			5	Penet	trometer			•	
s Y			D			N Valu	le				Reading (p 200 3	pm) 00	Π	Natur
	Soil Description	ELEV.	D E P T H	Shear	Strength	40		80 kPa	Na Atter	atural Mois berg Limit	ture Conte s (% Dry V			Unii Weig kN/m
		240.78 240.55	0			100	2	200		10 X	20 3	80		
H- da	L (REWORKED) rk brown to brown clayey silt	^{240.17}	1		20 0						4			
- mo	me rootlets & topsoil	Н			ð					>	6			
CLA	AYEY SILT / TILL ry stiff, brown		2		28						¥			
ra- tra	ce gravel, trace sandy silt bist to very moist	-	3	1	8						×			
		236.52	4							/	1			
	NDY SILT TILL				8					X				
 compact brown, grey below 6.0m some gravel, some clayey silt moist 		5		1					<u> </u>			ľ.		
	-	6		R					V					
END OF BOREHOLE	234.23											1		
Upo	on 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)										

Project No.	<u>5552-21-GB</u>	Log	of E	Sore	ehc	ble	<u>2</u> ′	<u>1B</u>	<u> - -′</u>	12			
										Dwg N	o. <u>13</u>		
Project:	Geotechnical Investigation	on								Sheet I	No1	<u> </u>	of <u>1</u>
Location:	Airport Road and Mayfie	eld Road,	Caled	on, On	tario								
Date Drilled: Drill Type: Datum:	5/26/21 Track Mounted Drill Rig Geodetic		- SPT (Dynar - Shelb	Sample N) Value nic Cone T / Tube /ane Test	est	0		Natura Plastic Uncon % Stra	I Moistur	uid Limit mpressio		× − ⊗	
S G W B L O	Soil Description	ELEV.	D E P T H Shea		N Value		80	1	00 2	Reading (p 200 3 ture Conte s (% Dry V	00		Natura Unit Weigh
L ^ĭ Gro	und Surface	m 246.22	H Shea	ar Strength 1	00	2	kPa 200				veignt) 30		kN/m3
FILL	. (REWORKED)	246.04 245.76		25							×		
∐- sor	k brown to brown clayey silt ne rootlets & topsoil	А		ð						Ţ			
	ist to very moist YEY SILT / TILL		2	12						Ĵ			
- bro	f to hard wn, grey below 4.5m	_	3	ų I						1			
- sor	ce to some gravel ne silty clay at 4.5m		4	P						1			
- mo	ist to very moist	_											
		_	5									R	
		239.67	6	6					/	1			
NOT Upoi - no	E: n completion of drilling: free water												

ORE USE BT OTHE		
Time	Water Level (m)	Depth to Cave (m)

Project No.	5552-21-GB	Log	D .	fΒ	C	ore	ehc	ble	<u>2</u> ′	1BI	H-1	3	(M)	Λ	/)
											[Dwg No	o. <u>14</u>		
Project:	Geotechnical Investigat	ion									. 9	Sheet I	No1	(of <u>1</u>
Location:	Airport Road and Mayfi	eld Road, (Ca	aledo	n,	On	tario								
Date Drilled: Drill Type: Datum:	5/26/21 Track Mounted Drill Ri Geodetic	9	-	Auger S SPT (N Dynami Shelby Field Va) Va ic C Tub	alue cone Te coe	est		2	Natura Plastic Uncon % Stra	space Rea al Moisture c and Liqu fined Cor ain at Faile rometer	e iid Limit npressio	· –	×	l
G S Y G M Soil Description G O Ground Surface		ELEV.	DE				N Value			1	adspace F	00 3	00		Natural Unit
		m 248.37	DEPTH	Shear	20 Stre	enath	10 6 D0		30 kPa 00		tural Moist berg Limits 10 2		ent % Veight) 30		Weight kN/m3
	PSOIL (REWORKED)	248.37 248.14 247.76	0	Å							X				
L H- bro	own clayey silt ce rootlets & topsoil	247.76	1		þ						×				
- mo			2		ð							×			
- ver	ry stiff, brown	-			þ						*				
	ce gravel bist to very moist		3	1	Ş							ĸ			
		244.10	4		λ						- /				
SAN	NDY SILT TILL mpact to dense		5			ð					×				
gre		-			/	/									
- mo			6	6	Ź						×				
END NOT															
Upo	n completion of drilling:														
- 10	free water														
3/23															
5552-21-GB.GPJ 11/8/23															
B.GP						· · · ·									
-21-G															
5552															
GBE3															
	REHOLE DATA NEEDS INTERPRETAT		L L		1:							L : : : : :	1::::		

Toronto Inspection Ltd.

FORE USE BY OTHE	ERS	
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	1.51m	

Project No.	<u>5552-21-GB</u>	_og	0	f B	or	el	hc	ole	<u>2</u> ′	1BI	H-1	4			
											I	Dwg N	o. <u>15</u>		
Project:	Geotechnical Investigation	า									. :	Sheet I	No. <u>1</u>	_ 0	of <u>1</u>
Location:	Airport Road and Mayfield	d Road,	Са	aledor	n, O	nta	irio								
Date Drilled: Drill Type: Datum:	5/26/21 Track Mounted Drill Rig Geodetic		_	Auger Sa SPT (N) Dynamic Shelby T Field Va	Value Cone ube	Test		0		Natura Plastic Uncor % Stra	space Rea al Moistur c and Liqu nfined Cor ain at Fail rometer	e iid Limit npressio	- -	×	
G Y W B L O	Soil Description	ELEV. m	DEP T H		0 Strengt	40	Value 6	60	80 kPa 200	1 Na Atter	tural Moist berg Limits	00 3 ure Conte s (% Dry V	00		Natural Unit Weight kN/m3
FIL	PSOIL L (REWORKED) own clayey silt ome rootlets & topsoil	246.16 245.83 245.55	0		22						X				
<u>- m</u> CL	oist AYEY SILT / TILL ery stiff rown, grey below 6.0m		2		₽ ₽							*			
- tra	ace to some gravel ome sandy silt till below 6.0m loist to very moist	-	4		D }							*			
Ţ		- - - 240.0 239.61	5 6 6		45 0						×				
NO Up	D OF BOREHOLE TE: on completion of drilling: ater level at 6.1m														

JRE USE BT UTHE		
Time	Water Level (m)	Depth to Cave (m)

Project No.	<u>5552-21-GB</u>	.og (ם ו	U	CIIC	ЛС	<u> </u>	וטו			- 16				
Project:	Geotechnical Investigation									Dwg No. <u>16</u> Sheet No. 1 of 1						
Location:	Airport Road and Mayfield		Са	aledoi	n, O	ntario					oncern	<u>101</u>	_ 01			
Date Drilled: Drill Type: Datum:	5/26/21 Track Mounted Drill Rig Geodetic			Auger S SPT (N) Dynamic Shelby 1 Field Va	Value Cone ube			2	Natura Plastic Uncon % Stra	al Moistur c and Liqu	uid Limit mpressior	·	• × T			
S Y M B O	Soil Description	ELEV.	DEPT	N Value P P H Shear Strength					1 Nat Atter	00 2 tural Mois berg Limit	ture Conte s (% Dry V	300 ontent % Ory Weight)				
	und Surface SOIL (REWORKED) wn clayey silt me rootlets & topsoil	242.04 241.99 241.58	0	Ö K	02	100	2	00		10 X X	20 3	30	kN/m			
_ <u>- mo</u> CLA −- ver – dens	vist YEY / SANDY SILT TILL ry stiff to hard / compact to very se	-	2		Ø	\$0/250m				*						
- sor - sea - mo	own, grey below 4.5m me gravel ams of fine sand <u>bist to very moist</u> 0 OF BOREHOLE	238.24 <u>237.72</u> /	4			50/25mr	n 		×	/						
- ref	rE: n completion of drilling: usal to augering on probable ole or boulder ter level at 3.8m															

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.	<u>5552-21-GB</u>	.og d	D	fΒ	OI	٢e	hc	le	<u>2</u> '	1Bł	<u>1</u>	6	<u>(M)</u>	Λ	/)
											I	Dwg No	o. <u>17</u>		
Project:	Geotechnical Investigation										5	Sheet I	No. <u>1</u>	_ (of <u>1</u>
Location:	Airport Road and Mayfield	Road, (Ca	ledo	n, C	Dnt	ario								
Date Drilled: Drill Type: Datum:	5/27/21 Track Mounted Drill Rig Geodetic		-	Auger S SPT (N) Dynamio Shelby ⁻ Field Va	Valu c Con Tube	e e Te	st	0		Natura Plastic Uncon	and Liqu fined Cor in at Fail	iid Limit npressioi	· –	×	
G ₩ ■ ■ U B O	Soil Description ELEV. m			m P 20 40 60 80					80 kPa	Headspace Reading (ppm) 100 200 300 Natural Moisture Content % Atterberg Limits (% Dry Weight)					
	und Surface	239.92	0	100			0 {		200						kN/m3
Fill	. (REWORKED) wwn clayey silt	∕_239,72 ↓ 239.31 239.31	1	10							×				
G G G G G G G G G G G G G G G G G G G	me rootlets & topsoil	H		1							×				
SAN	IDY SILT TILL npact to very dense		2		23						×				
L file- bro	wn, grey below 3.0m ne gravel, some clayey silt	-	3		8						×				
- stra	atified clayey silt at 6.1m ssible shale pieces at 6.4m]	4		/										
- mo	ist to very moist	-		- iá							×				
		-	5			/	\setminus				/				
		233.41	6					/	89/265mr	×	/				
NOT	OF BOREHOLE F: n completion of drilling: ter level at 2.0m														
LGBE3	REHOLE DATA NEEDS INTERPRETATION						SPECTI			REUSE					

Toronto Inspection Ltd.

ORE USE BY OTHERS										
Time	Water Level (m)	Depth to Cave (m)								
June 3, 2021	0.6m									

Project No.	<u>5552-21-GB</u>	Log	0	f B	ore	ehc	ble	<u>2</u> ′	1Bł	- - 1	<u>17</u>			
			Dwg No. <u>18</u>											
Project:	Geotechnical Investigat									Sheet I	No1	<u>1</u> (of <u>1</u>	
Location:	Airport Road and Mayf	ield Road,	Са	aledor	ı, On	tario								
Date Drilled: Drill Type: Datum:	5/27/21 Track Mounted Drill Ri Geodetic	g	_	Auger Sa SPT (N) Dynamic Shelby T Field Var	Value Cone T ube	est	0 2		Natura Plastic Uncon % Stra	I Moistur and Liq	uid Limit mpressio	-	× 	I
G Y W B L O L Gr	Soil Description	m			Strenath		60	80kPa	Nat Attert	00 2 ural Mois berg Limit	ture Conte s (% Dry V	300 ent % Weight)		Natural Unit Weight kN/m3
	bund Surface PSOIL L (REWORKED)	240.60 240.40 239.99	DEPTH 0		1	00	2	200	1	0	20	30		
so	own clayey silt me rootlets & topsoil oist		1		ő					X				
—- sti —- br	AYEY SILT / TILL	_	3	Ş	8						\mathbf{Y}			
- 000		-	4	V						1				
			5	ð						×				
¥ _		- 234.50 234.05	06		5					×				
NO Upo	D OF BOREHOLE TE: on completion of drilling: ater level at 6.1m													

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

	5552-21-GB	_Uy (J		Ore	enc	ЭЮ	2	<u>1B</u>	<u>'</u>	18	<u>(M</u>	<u>M</u>	<u>/)</u>
											Dwg N	o. <u>19</u>)	
Project:	Geotechnical Investigation	า									Sheet	No	1	of <u>1</u>
Location:	Airport Road and Mayfiel	d Road,	Са	ledo	n, On	tario								
Date Drilled: Drill Type: Datum:	5/27/21 Track Mounted Drill Rig Geodetic		_	Shelby '	Value c Cone T	est		3	Natura Plastic Unconf	l Moistu and Liq fined Co in at Fai	uid Limit mpressio	F	× ×	I
	Soil Description	ELEV.	DEPTH			N Value		30	10	00 2	Reading (200 : ture Conte s (% Dry)	300		Natural Unit Weight
	ound Surface PSOIL	240.63	Н 0	Shear 7	Strength 1	00	2	kPa 00	1			30 :		kN/m3
FILL	L (REWORKED) own clayey silt		1		28 0					×	$\left(\begin{array}{c} \end{array} \right)$			
	ace to some rootlets & topsoil	Н			8					*				
CLA	AYEY SILT TILL ery stiff		2		29					*				
- bro	own, grey below 4.5m ome gravel, some sandy silt	-	3		ð					*				
son moi 		_	4		/									
			5	Č	\$					*				
		235.34	۴ 											
		234.08	6	(5						×			
NOT Upor	D OF BOREHOLE TE: on completion of drilling: of free water													

 B
 Image: Ima

ORE USE BY UTHE	-RO	-
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	5.29m	

Project No.	<u>5552-21-GB</u>	_og o	сf	B	or	e	hc	ole	<u>2</u> ′	1B	H-′	19					
											Dwg No. 20						
Project:	Geotechnical Investigation	1									-	Sheet I	No	1	of <u>1</u>		
Location:	Airport Road and Mayfield	Road, (Са	ledo	n, O	nta	ario										
Date Drilled: Drill Type: Datum:	Type: Track Mounted Drill Rig		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							
G S W B L O	Soil Description	ELEV. m	DEPTH		20 Strengt	<u>40</u> h	Value 6	50 8	30 kPa	1 Na Atter	00 2 tural Mois berg Limit	ture Conte s (% Dry V	ent % Veight)		Natural Unit Weight kN/m3		
	Pund Surface	242.70 / 242.50	0	å		100		2	00		10	20	30				
	L (REWORKED) own clayey silt ma rastista & tanasil	24 24 09.90	1	<u> </u>	4 0							×					
- mc	me rootlets & topsoil bist AYEY SILT TILL	Ц	2		Ö,						X						
—- vei —- bro	ry stifft to hard own, grey below 3.0m	_	3			35 9					*						
- gra	me gravel, some sandy silt avelly at 6.2m bist to very moist, wet at 6.2m	_	4		/												
		_	5		§						×						
			6			50	V75mm										
NO1 Upo - wa	D OF BOREHOLE TE: In completion of drilling: Iter level at 0.8m ve-in at 5.2m																

ORE USE BY UTHE	-RO	-
Time	Water Level (m)	Depth to Cave (m)

Project No.	<u>5552-21-GB</u>	.og d)	fΒ	or	ehc	ble	<u>2</u> ′	B	<u> </u>	20 ((M)	M	/)
		-									Dwg No			
Project:	Geotechnical Investigation										Sheet N	No1	1	of <u>1</u>
Location:	Airport Road and Mayfield	Road, (Ca	aledo	n, Oi	ntario								
Date Drilled: Drill Type: Datum:	5/27/21 Track Mounted Drill Rig Geodetic		-	Auger S SPT (N) Dynamic Shelby 1 Field Va	Value c Cone Tube			3	Natura Plastic Uncon % Stra	pace Rea I Moisture and Liqu fined Cor in at Faile cometer	e iid Limit npressior	F	×	l
G. N •₩• B •₩•	Soil Description	ELEV.	D E P T		20			80	1	adspace F 00 2 tural Moist berg Limits	00 3	00	_	Natural Unit Weight
	und Surface	245.32	н о	Shear	Strength	100	20	kPa 00				30 :::::::::		kN/m3
¥ FILL Fill - bro - son	. (REWORKED) wn clayey silt ne rootlets & topsoil ne sandy silt	245.04 244.71 244.28	1		\$ 3 0						* * *			
- ver - bro - trac	ist / YEY / SANDY SILT TILL - y stiff to hard / compact to dense - wn, grey below 4.5m - ce to some gravel ilt layer at 4.5m -	-	3	ð	3 5				2		*			
 − -arr	ist to very moist, wet at 6.0m	-	5	8							¢			
	OF BOREHOLE	238.77	6			8			X					
NOT Upor - wat														
LGBE3 5552-21-GB.GPJ 11/8/23														

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

ORE USE BI OTHE	110	-
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	1.04m	

Project No.	<u>5552-21-GB</u>	.og () [.]	f B	ore	ehc	ble	<u>2</u> 2	<u>1BH-21</u>								
		•									Dwg No	b. <u>22</u>					
Project:	Geotechnical Investigation						Sheet No. <u>1</u> of <u>1</u>										
Location:	Airport Road and Mayfield	Road,	Ca	aledor	n, On	tario											
Date Drilled: Drill Type: Datum:	1/21 Auger Sample SPT (N) Value SPT (N) Value Dynamic Cone Test Shelby Tube Sodetic Field Vane Test								I Moistur and Liqu	uid Limit mpressior	· 	• 					
G Y W B U O	Soil Description	ELEV.	DEPTH	2		N Value		30	1	00 2	Reading (p 200 3 ture Conte s (% Dry V	00		Natural Unit Weight			
<u> </u>	ound Surface	246.75	Ĥ 0	Shear S	Strength 1	00	2	kPa 00				80 		kN/m3			
FILL - bro - soi - mo	L (REWORKED) own clayey silt me rootlets & topsoil	246.03	1		1 0 200					X	×						
- vei bro soi _ a s	ry stiff to hard own, grey below 4.5m me gravel, some sandy silt silt laver at 4.5m	_	3		8 8 0					×							
so	ams of fine sand me sand with gravel at 6.0m bist to very moist, wet at 6.0m	242.38	5		ð	50/140m					<						
NO1 Upo - wa	D OF BOREHOLE TE: in completion of drilling: iter level at 4.4m ve-in at 5.5m																

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

ORE USE BY OTHE	RS	
Time	Water Level (m)	Depth to Cave (m)

Project No.	<u>5552-21-GB</u>	Log of Boreh	ole <u>2</u>	1BH-22 (MW)
		-		Dwg No. 23
Project:	Geotechnical Investiga	ition		Sheet No. <u>1</u> of <u>1</u>
Location:	Airport Road and May	field Road, Caledon, Ontaric)	
Date Drilled:	5/31/21	Auger Sample SPT (N) Value	O ⊠ ⊠	Headspace Reading (ppm) Natural Moisture Plastic and Liquid Limit
Drill Type:	Track Mounted Drill F	Dynamic Cone Test Shelby Tube		Unconfined Compression % Strain at Failure
Datum:	Geodetic	Field Vane Test	ŧ	Penetrometer
S		N Valu	Je	Headspace Reading (ppm)

G W B B C W B C B C B C B C B C B C B C B	Soil Description	ELEV.	DUPTH	2	0 4	N Value	50 8		10	0 2	Reading (p 00 30 ure Conter	00		Natur Uni
H: P	Cround Surface	m	Ť	Shear S	Strenath			kPa			ure Conter s (% Dry W			Weig kN/m
<u>, 1</u>		242.39	0	2	10	00 133.2413.141	20	0	1	0 2		0		
				Υ <u></u>							×	$\overline{)}$		
$\overline{\mathbf{x}}$		241.42 241.21	1	۵.									×	
	FILL (REWORKED)			$\square $	27									
	× - brown salidy sill to clayey sill		2		Ö.	50/75mm					×			
	- brown clavey silt with gravel below	239.95	-			Ő			X					
	- some rootlets & topsoil to 1.2m - brown clayey silt with gravel below 1.2m - gravelly at 2.3m - possible cobble or boulder at 2.3m - moist to very moist, wet pockets END OF BOREHOLE NOTE: Upon completion of drilling: - refusal to augering at 2.4m on probable boulders - water level at 2.3m	239.95	2											

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

ORE USE BI OTHE	110	
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	1.18m	

Project No.	<u>5552-21-GB</u>	.og d).	f B	0	re	ehc	ble	<u>2</u> ′	<u>1B</u>					<u>/)</u>
Project:	Geotechnical Investigation											-	o. <u>24</u> No. 1		of <u>1</u>
Location:	Airport Road and Mayfield		Ca	aledo	n,	On	tario				-				
Date Drilled: Drill Type: Datum:	5/31/21 Track Mounted Drill Rig Geodetic		-	Auger S SPT (N Dynam Shelby Field V) Va ic Co Tub	lue one T e	est		2	Natura Plastic Uncon % Stra	space Rea al Moistur c and Liqu afined Con ain at Fail rometer	e uid Limit mpressio	- -	×	Ì
G M B	Soil Description	ELEV.	DEPTH		20		N Value		30	1	eadspace F 00 2 tural Moist berg Limits	00 3	00	-	Natural Unit Weight
	ound Surface	247.76	н о	1	Stre	ength 1	00	2	kPa 00		10 2		30 ::::::::::::::::::::::::::::::::::::		kN/m3
FILL	L (REWORKED) bwn sandy silt to clayey silt me rootlets & topsoil	/ 247.66 247.15 246.30	1								X	•			
	Dist AYEY SILT TILL		2		Q	30					J	k			
L – bro	ry stiff to hard own, grey below 4.5m me gravel, some sandy silt		3		Ê	<u>۴</u>					¥				
	pist to very moist, wet pockets	_	4		1										
			5	(0						*			Ø	
		241.20	6		Č	3					×				
NOT Upo	D OF BOREHOLE TE: in completion of drilling: iter level at 1.7m														

-ORE USE BY OTHE	ERS	
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	1.46m	

Project: <u>Geotechnical Investigation</u> <u>Sheet No. 1 of 1</u> Location: <u>Airport Road and Mayfield Road, Caledon, Ontario</u> Date Drilled: <u>5/31/21</u> Drill Type: <u>Track Mounted Drill Rig</u> Datur: <u>Geodetic</u> Datur: <u>Geodetic</u> Datur: <u>Geodetic</u> <u>Seli Description</u> <u>Cround Surface</u> <u>FILL (REWORKED)</u> - some roadits & topoil <u>Cround Surface</u> <u>244.67</u> <u>128.68</u> <u>Cround Surface</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>230.18</u> <u>240.18</u> <u>130.18</u> <u>130.18</u> <u>130.18</u> <u>130.18</u> <u>130.18</u>	Pr	oject N	No.	<u>5552-21-GB</u>	.og	0	f B	ore	eho	ole	<u>2</u> ′	1BI	H-2	24			
Location: Airport Road and Mayfield Road, Caledon, Ontario					•										b. <u>25</u>		
Date Drilled: 5/31/21 Auger Sample Soft (N) Value Drill Type: Track Mounted Drill Rig Datum: Auger Sample Soft (N) Value Driver Track Mounted Drill Rig Datum: Auger Sample Soft (N) Value Driver Track Mounted Drill Rig Datum: Auger Sample Soft (N) Value Driver Track Mounted Drill Rig Datum: Auger Sample Driver Track Mounted Drill Rig Datum: Auger Sample Driver Track Mounted Drill Rig Driver Track Mounted Drill Rig Datum: Auger Sample Driver Track Mounted Drill Rig Driver Track Mounted Drill Rig Datum: Auger Sample Driver Track Mounted Drill Rig Driver Track Mounted Driver Track Mounted Drive	Pr	oject:		Geotechnical Investigation									. 8	Sheet N	No1		of <u>1</u>
Date Drilled: 5/31/21 Auger Sample Auger Sample Particle All Load Mosture Drill Type: Track Mounted Drill Rig Serie Work Orgen Construction Particle All Load Mosture Datum: Geodetic Serie Work Orgen Construction Particle All Load Mosture Particle All Load Mosture View Geodetic Fill Vane Test Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture View Serie Mosture Serie Mosture Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture View Serie Mosture Serie Mosture Particle All Load Mosture Particle All Load Mosture View Torsen Construction Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture View Torsen Construction Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture View Torsen Construction Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture View Torsen Construction Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture Particle All Load Mosture P	Lo	cation	:	Airport Road and Mayfield	Road	C	aledoi	n, On	tario)							
Soil Description 0000 000 000 000	Di	ill Type		Track Mounted Drill Rig			SPT (N) Dynamic Shelby 1	Value Cone T ube	est			Natura Plastic Uncon % Stra	al Moisture c and Liqu ofined Cor ain at Faile	e iid Limit npressior	Ē		
JODBOIL 24.57 FILL (REWORKED) 24.57 - Some roollefs & topsoil 24.57 - some croollefs & topsoil 24.57 - moist - - brown, grey below 2.3m - - some gravel, some sandy silt - - moist to very moist - - moist to	GW	S Y M B		Soil Description		. E		20			80	1	00 2	00 3	00	Π	
FILL (REWORKED) - some rootlets & topsoil - some rootlets & topsoil - trown, grey below 2.3m - some gravel, some sandy silt - mist to very moist - mist to very moist - mist to very moist - mist to very moist - moist to v	L			und Surface	245.18		1	Strenath			kPa		10 2				kN/m3
END OF BOREHOLE NOTE: Upon completion of drilling: - water level at 6.0m			FILL	(REWORKED) wn clavev silt		1		27					× *				
END OF BOREHOLE NOTE: Upon completion of drilling: - water level at 6.0m			<u>- moi</u> CLA - stiff	ist YEY SILT TILL f to very stiff	_		ţ	Ø					*	*			
END OF BOREHOLE NOTE: Upon completion of drilling: - water level at 6.0m			- son	ne gravel, some sandy silt	_		φ							*			
END OF BOREHOLE NOTE: Upon completion of drilling: - water level at 6.0m			-		230		Ĩ						×				
NOTE: Upon completion of drilling: - water level at 6.0m	-						⁶	<u> </u>					×				
	LGBE3 5552-21-GB.GPJ 11/8/23		NOT Upor	E: n completion of drilling:													

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

ORE USE BY UTHE	-RS	
Time	Water Level (m)	Depth to Cave (m)

5552-21-GB	Log	0	fΒ	ore	ehc	ble	<u>2</u> 2	<u>1B</u>	H-2	25 (M'	Μ	/)
									C)wg No	. <u>26</u>		
Geotechnical Investigation	n								S	Sheet N	lo1		of <u>1</u>
Airport Road and Mayfiel	d Road,	Са	aledo	n, On	tario								
5/31/21 Track Mounted Drill Rig Geodetic		- - -	SPT (N) Dynamie Shelby	Value c Cone T Tube				Natura Plastic Uncon % Stra Penetr	I Moisture and Liqui fined Com in at Failu rometer	e id Limit npression nre	اب م		
Soil Description	ELEV.	DEP		20 4			30	1	00 20	0 30	0	$\left \right $	Natural Unit Weight
ound Surface	247.05	H U	Shear	Strenath			kPa						kN/m3
PSOIL L (REWORKED)	_/ 246.87		Q	23					×				
own clayey silt ice to some rootlets & topsoil	Ħ	1		P.					3	<		ľ	
oist .	<u> </u>	2		0 29						*		P	
ff to very stiff		2		Ď						*		8	
ce to some gravel	_	3		Ø						*			
ty clay at 6.0m	-	4										-	
dist to very moist		5	Ç	5						*			
	-		-/-										
		6	ð							×			
D OF BOREHOLE TE: in completion of drilling: free water													
	Geotechnical Investigation Airport Road and Mayfiel 5/31/21 5/31/21 Track Mounted Drill Rig Geodetic Soil Description Mund Surface SOIL (REWORKED) Own clayey silt ce to some rootlets & topsoil Dist VEY SILT / TILL ff to very stiff Sown, grey below 3.0m ce to some gravel ce sandy silt ty clay at 6.0m Dist to very moist OF BOREHOLE IE: n completion of drilling:	Geotechnical Investigation Airport Road and Mayfield Road, 5/31/21 Track Mounted Drill Rig Geodetic Soil Description Soil Description PSOIL (REWORKED) Dywn clayey silt ce to some rootlets & topsoil Dist VEY SILT / TILL ft to very stiff Dywn, grey below 3.0m ce to some gravel ce sandy silt ty clay at 6.0m Dist to very moist 240.49	Geotechnical Investigation Airport Road and Mayfield Road, Ca 5/31/21 Track Mounted Drill Rig Geodetic Soil Description PSOIL 247.05 246.44 1 OPE SOIL VEY SILT / TILL ft to very stiff Swn, grey below 3.0m ce to some gravel ce sandy silt ty clay at 6.0m DOF BOREHOLE E: n completion of drilling:	Geotechnical Investigation Airport Road and Mayfield Road, Caledo 5/31/21 Auger S 5/31/21 SPT (N) Track Mounted Drill Rig Dynamic Geodetic Field Va Soil Description Soil Description ELEV. Very Silt / TILL 247.05 Yet Silt / TILL Part of the second s	Geotechnical Investigation Airport Road and Mayfield Road, Caledon, On 5/31/21 Auger Sample Track Mounted Drill Rig SPT (N) Value Geodetic Dynamic Cone T Soil Description Field Vane Test Variable Street Soil Description Very SiLT / TILL Provide Street ft to very stiff Provide Street Soil Description Street Very SiLT / TILL Provide Street ft to very stiff Provide Street Soil Compared Provide Street Very Silt / Very Silt Provide Street Very Silt Provide Street Very Silt Provide Street Very Silt Provide Street Soil Description Provide Street Very Silt Provide Street Solid Description Provide Street Soil Descripting Provide Street <	Geotechnical Investigation Airport Road and Mayfield Road, Caledon, Ontario 5/31/21 Auger Sample Track Mounted Drill Rig SPT (N) Value Geodetic Dynamic Cone Test Shelby Tube Field Vane Test Soil Description 246.87 Very Silt 7246.44 Metry Silt 7246.44 Metry Silt 7246.44 Soil Description 10 Very Silt 7246.44 Soil Cosome rootlets & topsoil 10 Soit 10 Soit to very stiff 10 Soit to very moist 10 Soit to very moist 10 Soit to very moist 10	Geotechnical Investigation Airport Road and Mayfield Road, Caledon, Ontario 5/31/21 Auger Sample Track Mounted Drill Rig SPT (N) Value Geodetic Dynamic Cone Test Shelby Tube Field Vane Test Soil Description ELEV. Value 246.44 Very stiff The Very stiff Down clayey stiff The Very moist Dist 240.49 Port BOREHOLE 240.49	Geotechnical Investigation Airport Road and Mayfield Road, Caledon, Ontario 5/31/21 Auger Sample Track Mounted Drill Rig SPT (N) Value Geodetic Dynamic Cone Test Shelby Tube Shelby Tube Soil Description ELEV. Value 0 240.49 0 Soil Description 246.44 Very Silt 7/TILL The Value ft to very stiff 0 point clavely silt 0 ce to some gravel 0 ce sandy silt 0 y clay at 6.0m 240.49 Dof BOREHOLE 240.49 Participation 240.49	Geotechnical Investigation Airport Road and Mayfield Road, Caledon, Ontario 5/31/21 Auger Sample Image: SPT (N) Value Image: SPT (N) Value	Geotechnical Investigation second Airport Road and Mayfield Road, Caledon, Ontario 5/31/21 Auger Sample Track Mounted Drill Rig SPT (N) Value Geodetic Presson Soil Description Field Vane Test Soil Description ELEV. Very Stlf Presson Soil Description ELEV. Soil Description ELEV. Very Stlf Presson Soil Description ELEV. Soil Description ELEV. Very Stlf Presson Soil Description ELEV. Soil Description Presson Soil Description Presson Statt / TILL Presson To some gravel Presson Soil Description Presson Statt / Very stlf Presson Statt / Very stlf Presson Statt / Very stlf Presson Statt / Very moist Presson Presson Presson Statt / Very moist Presson Presson Presson Statt / Very moist Presso	Dury No <u>Geotechnical Investigation</u> <u>Airport Road and Mayfield Road, Caledon, Ontario</u> <u>5/31/21</u> <u>Track Mounted Drill Rig</u> <u>Geodetic</u> <u>SPT (N) Value</u> <u>Dynamic Cone Test</u> <u>Shelby Tube</u> <u>Field Vane Test</u> <u>Shelby Tube</u> <u>Field Vane Test</u> <u>Soil Description</u> <u>ELEV.</u> <u>N</u> <u>Soil Description</u> <u>ELEV.</u> <u>N</u> <u>Value</u> <u>Core BoreHoLE</u> <u>Euchange</u> <u>240.49</u> <u>Core BoreHoLE</u> <u>Euchange</u> <u>240.49</u> <u>Core BoreHoLE</u> <u>Euchange</u> <u>240.49</u> <u>Core BoreHoLE</u> <u>Euchange</u> <u>Core BoreHoLE</u> <u>Euchange</u> <u>Core BoreHoLE</u> <u>Euchange</u> <u>Core BoreHoLEE</u> <u>Core BoreHoLE</u> <u>Core BoreHo</u>	Geotechnical Investigation Sheet No. 1 Airport Road and Mayfield Road, Caledon, Ontario Iteadspace Reading (pm) 5/31/21 Auger Sample Iteadspace Reading (pm) Track Mounted Drill Rig Dynamic Cone Test Itele Value Itele Value Geodetic Shelv Tube Itele Value Itele Value Itele Value Soil Description ELEV. Itele Value Itele Value Itele Value Itele Value Soil Description ELEV. Itele Value Itele V	Bit Description ELEV. Prior test Prior test

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

ORE USE BY UTHE	:K5	-
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	Dry	

Proj	ect No.	<u>5552-21-GB</u>	Log	сf	B	ore	ehc	ble	21	<u>IB</u>	<u> </u>	<u>26</u>			
			-									Dwg No	b. <u>27</u>		
Proj	ect:	Geotechnical Investigati	on									Sheet N	lo. <u>1</u>	_ (of <u>1</u>
Loca	ation:	Airport Road and Mayfie	eld Road, (Ca	ledo	n, Or	ntario								
	e Drilled: Type: um:	5/31/21 Track Mounted Drill Rig Geodetic]	- : - :	Shelby ⁻	Value c Cone T				Natura Plastic Uncon % Stra	and Liqu	iid Limit	·	× 	
G W L	S Y M B O	Soil Description	ELEV.	D E P T H		20 Strength	N Value	e 60 80) kPa	1	00 2	Reading (p 00 3 ure Conte 3 (% Dry W	00		Natural Unit Weight
	TOP	und Surface	246.49 / 246.34	н 0		Strength	100	200	кра 0				0		kN/m3
	H- bro	. (REWORKED) wn clayey silt	245.88	1							*				
T	l - mo	ne rootlets & topsoil ist				₿ D					X				
	🗕 – ver	YEY SILT TILL y stiff, brown	-			ð						X			
	– - sor mo	ne gravel, some sandy silt ist	_	3	i	\$					>	(
	_			4							/				
		D AND GRAVEL	241.76	5			Ö			×					
	- gre	nse to very dense y se silt to slovey silt		6			50/100m	m							
	- we	ce silt to clayey silt t OF BOREHOLE					0			X					
11/8/23	NOT Upor - wat														
LGBE3 5552-21-GB.GPJ 1															

ORE USE BY OTHE	ERS	
Time	Water Level (m)	Depth to Cave (m)

Project No.	<u>5552-21-GB</u>	Log	JI	D	OIE	eno	Sie	<u> </u>	IВ					
											Dwg N			
Project:	Geotechnical Investiga									- :	Sheet I	No	<u> </u>	of <u>1</u>
Location:	Airport Road and May	field Road,	Cale	ao	n, On	tario)							
Date Drilled:	6/1/21			-	ample) Value		O E	X 2	Natur	space Rea al Moistur c and Liqu	e	m) —	×	
Drill Type:	Track Mounted Drill F	Rig	_ `	nami elby ⁻	c Cone T Tube	est		-	Uncor	nfined Cor ain at Fail	mpressio	n (9	
Datum:	Geodetic				ane Test			S		rometer	uro		•	
S Y			D			N Valu	e			eadspace F			П	Natur
	Soil Description	ELEV. m			20 4 Strength	10	60	80 kPa		100 2 itural Moist berg Limits		00 int % Veight)		Unit Weig
	und Surface	243.65 / 243.48		3	1	00		200		10 2 X	20	30		kN/m
H-bro	- (REWORKED) own clayey silt	243.04	1	\mathbb{Z}	20 9						*			
⊢- soi - mo	me rootlets & topsoil	Н			0 J					>	k			
CLA	YEY SILT TILL If to very stiff		2		8						×			
—- bro	own, grey below 6.0m	_	3	- 1	<u>,</u>						X			
- tra	ce to some gravel ce sandy silt		4								1		Í	
	ams of fine sand bist to very moist	_			2									
—		-	5		P						*		R	
			6	1										
 ΕΝΓ	OF BOREHOLE	237.10	8	ð							<u>×</u>		14	
- no	free water													
				:::										

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

ORE USE BY UTHE	-Ro	-
Time	Water Level (m)	Depth to Cave (m)

Project No.	<u>5552-21-GB</u>	Log	-			-	-	-	_						lo. <u>2</u> 9	9	
Project:	Geotechnical Investigatio	n										_	:	Sheet	No	1	of
ocation:	Airport Road and Mayfiel	d Road,	Ca	aledo	n, Or	itari	0										
Date Drilled: Drill Type: Datum:	6/1/21 Track Mounted Drill Rig Geodetic		_	Shelby) Value c Cone T	est					Natu Plast	ral Mo ic and onfine rain a	bistur d Liqu d Cor t Fail	uid Limit mpressi	H	• × ⊗	I
	Soil Description	ELEV.	DED			N Va						100	2		300		Natur Unit
	und Surface	m 243.82	DUPTH 0	Shear	Strenath	40	60		80 k 200	Pa	Atte	rberg 10		s (% Dry 20	tent % Weight) 30		Weig kN/m
	SOIL . (REWORKED)	243.51	0	<u> </u>									⊁~				
🗱 - dar	k brown to brown clayey silt ne rootlets & topsoil	-	1	¢											\sim	X	
🔆 - sor	ne organics ist to very moist	241.69	2	Č,	20									X	-		
CLA	YEY SILT f to very stiff	-4			\$									+*		-7	
bro	wn, grey below 3.0m		3	ļ	5									*			
- sor	ce gravel, trace sandy silt ne silty clay at 6.0m	-	4	-/												<u>}</u>	
—- mo	ist to very moist		5											×			
		-															
		237.27	6	3)									>	k		
NOT	OF BOREHOLE E: n completion of drilling: free water																

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

LGBE3 5552-21-GB.GPJ 11/8/23

JRE USE BT UTHE		
Time	Water Level (m)	Depth to Cave (m)

Project No.	5552-21-GB	_og	0	f B	ore	ehc	ole	<u>2</u> 2	1BI	<u> </u>	29	<u>(M</u>	<u>M</u>	/)
											Dwg N			
Project:	Geotechnical Investigation		_								Sheet	No	1	of <u>1</u>
Location:	Airport Road and Mayfiel	d Road,	Ca	aledo	n, On	tario								
Date Drilled:	6/2/21		_	Auger S	ample		\boxtimes	1		pace Re al Moistu		om)	• ×	
Drill Type:	Track Mounted Drill Rig		-	SPT (N) Dynamie	Value c Cone T	est	0 🛛]	Plastic	and Liq	uid Limit	-	\neg	I
Datum:	Geodetic		_	Shelby -	Tube			l	% Stra	fined Co ain at Fai		on	⊗	
Batam			_	Field Va	ine Test		S			rometer			_	
G M B	Soil Description	ELEV.	DEPT			N Value			1	adspace 00 2 tural Mois	200	300		Natural Unit
Gro	und Surface	m 243.27	F H 0	Silear	Strenath	40 6 00	<u>30 8</u> 20	0 kPa 00	Attert	perg Limit	s (% Dry 20	Weight) 30		Weight kN/m3
FILL	PSOIL _ (REWORKED)	_/ 243.07 242.66		Q ₁	8					>				
- bro	own sandy silt to clayey silt ce rootlets & topsoil	Ħ	1	Č	33						X		-2	
	YEY SILT / TILL	<u></u>	2		22/						X			
bro	ff to hard own, grey below 4.5m		3	16	Ø						X			
- sor	ce gravel me silty clay below 4.5m	-	4	ĻΨ							X		4	
⊟.	bist to very moist	-	4											
			5										-4	
		236.72	6	Å								¥		
END	O OF BOREHOLE		T											
Upo	n completion of drilling: free water													
_														
11/8/23														
21-GB														
5552-21-GB.GPJ														
GBE3														
	REHOLE DATA NEEDS INTERPRETATIO	N ASSISTAN				ISPECT	ION LTD	. BEFOF	REUSE	BY OTH	ERS	1:::	<u></u>	

FORE USE BY	OTHERS	5	
Time		Water Level (m)	Depth to Cave (m)
June 3, 2	021	Dry	

Project No.	5552-21-GB	Log	of I	Bor	eho	ble	2′	1Bł	H-3	30 ((M)	N	')
		Ŭ								Dwg No	-		-
Project:	Geotechnical Investiga	tion							S	Sheet N	No. 1	_ 0	of _1
Location:	Airport Road and May	field Road,	Cale	don, C	ntario								
Date Drilled: Drill Type: Datum:	6/2/21 Track Mounted Drill R Geodetic	lig	- SPT Dyn She	er Sample (N) Value amic Cone Iby Tube d Vane Te	Test			Natura Plastic Uncon % Stra	pace Rea I Moisture and Liqu fined Cor in at Failu ometer	e iid Limit npressioi	·	•×T	
G X G M ₩ B O	Soil Description	ELEV.		20 lear Streng		e 60 8	0 kPa	1(adspace F 00 20 ural Moist berg Limits	00 3	00	,	Natural Unit Weight
TOF	ound Surface PSOIL L (REWORKED) own clayey silt	240.55 240.23 239.49			n 100	20	кРа 10				30		kN/m3
soi	me to trace rootlets & topsoil	f	2							\mathbf{x}			
—- bro	ff to very stiff own, grey below 6.0m ice to some gravel ice sandy silt	-	3	i e						*			
H Selection - so	me silty clay at 6.0m bist to very moist	-	4 5	ф						*			
		 234.00	6	8						×			
NO1	D OF BOREHOLE TE: n completion of drilling: free water												
(GBE3 5552-21-GB.GPJ 11/8/23													

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

ORE USE BY UTHE	-Ro	
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	Dry	

Project No.	<u>5552-21-GB</u>	.og (0	f B	ore	ehc	ble	<u>2</u> ′	1BI	<u> </u>	<u>31</u>			
		-									Dwg N	o. <u>32</u>		
Project:	Geotechnical Investigation										Sheet I	No1		of <u>1</u>
Location:	Airport Road and Mayfield	Road,	Са	aledor	n, On	tario								
Date Drilled: Drill Type: Datum:	6/2/21 Track Mounted Drill Rig Geodetic		_	Auger Sa SPT (N) Dynamic Shelby T Field Var	Value Cone To ube	est		2	Natura Plastic Uncon % Stra	I Moistur and Liqu	uid Limit mpressio		×	I
G Y W B L O	Soil Description	ELEV.	DEPTH	2	0 4	N Value		80	1	00 2	Reading (p 200 3 ture Conte s (% Dry V	00	-	Natural Unit Weight
<u>Ľ</u> Gro	und Surface	m 241.93	H 0		Strength 1	0	2	kPa 200				veignt) 30		kN/m3
FILL	PSOIL (REWORKED) wwn clayey silt me rootlets & topsoil	241.75 241.32	1	Q d))						×			
L <u>- mo</u> CLA ─- stif	hist	-	2		Þ						*			
6.0n	ce gravel		3	b							*			
- mc	ist to very moist	-	5	- 1¢							*			
	-	235.37	6	6							*			
NO1	D OF BOREHOLE TE: n completion of drilling: free water													

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

ORE USE BY UTHE		
Time	Water Level (m)	Depth to Cave (m)

Project No.	<u>5552-21-GB</u>	Log	-		-	-						Dwg N	~ 33		
Drojoot:	Geotechnical Investigatio	n										Sheet I			
Project: Location:	Airport Road and Mayfiel		Ca	ledo	n C	nt	ario				-	Sheet	NO	_ '	<u> </u>
Location.	All port Road and Mayne	iu Noau,	Ca	ieuo	n, C	1110	ano								
Date Drilled:	6/2/21		_	Auger S	ample				\boxtimes		Ispace Ro ral Moistu	eading (pp ure	m)	• ×	
Drill Type:	Track Mounted Drill Rig			SPT (N) Dynami			st	0		Plast	ic and Lie	quid Limit ompressio	_ -	Ĥ	
Datum:	Geodetic		_	Shelby Field Va	Tube					% St	rain at Fa		" 🤇	9	
			_						S						
S G W B L	Soil Description	ELEV.	DED				N Value				100		00		Natural Unit
	und Surface	m 242.16	DEPTH 0		20 Strengt	40 h 100		50	80 kPa 200	Atte	rberg Lim	sture Conte its (% Dry V 20 3	Veight) 30		Weight kN/m3
FILL	SOIL . (REWORKED)	242.01	0	Ô	26							×			
H- bro	wn clayey silt ce rootlets & topsoil	H	1		200-3)	{		8	
- mo			2		0 29							*		8	
- stif	f to very stiff wn, grey below 2.3m		3	14	p							*		Ø	
- trac - mo	ce gravel	-		- Ø								×		P	
			4	12											
		-	5	<u> </u>							X			P	
		-	6		8										
	OF BOREHOLE	235.61					<u> </u>					<u>x</u>			
	n completion of drilling:														
- no	free water														
						1	::::								

 Image: Image:

ORE USE BY OTHE	RS	
Time	Water Level (m)	Depth to Cave (m)

Project No.	<u>5552-21-GB</u>	Log	D .	f B	ore	ehc	ole	<u>2</u> ′	1BI	<u> </u>	33 ((M	M	<u>/)</u>
											Dwg N	o. <u>34</u>	ŀ	
Project:	Geotechnical Investigation	on									Sheet I	No	1	of <u>1</u>
Location:	Airport Road and Mayfie	ld Road, (Са	aledor	n, On	tario								
Date Drilled: Drill Type: Datum:	6/2/21 Track Mounted Drill Rig Geodetic		- - -	Auger Si SPT (N) Dynamic Shelby T Field Va	Value Cone T ube	est N Value		3	Natura Plastic Uncon % Stra Penetr	al Moistur and Liqu fined Col ain at Fail rometer adspace I	uid Limit mpression ure Reading (p	n .	× ⊗	Natural Unit
	Soil Description	ELEV. m	DHPTH		Strenath			i0 kPa	Nat Attert	tural Mois berg Limit	ture Conte s (% Dry V	ent % Veight)		Weight kN/m3
	und Surface SOIL	238.48 238.27	0	ō	1	00	20	00		10 2 X	20 :	30		
H- bro	(REWORKED) wn clayey silt	<u></u>]238.02	1							X	¥			
sor	ce rootlets & topsoil ne sandy silt	Н	2	ζ	B						*			
	YEY SILT		1	- tớ							×		-0	
File bro	f to very stiff wn, grey below 4.5m		3	ð							×			
	ce gravel ist to very moist	234.49	4							7	/			
			5	đ)					×				
		232.68			λ					/				
	I DY SILT TILL npact, grey		6		ð				>	k				
- mo END NOT Upor	OF BOREHOLE													

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO Inspection Ltd.

-ORE USE BY OTHE	ERS	
Time	Water Level (m)	Depth to Cave (m)
June 3, 2021	3.99m	

Project No.	5552-21-GB	Log	of	B	or	eho	ble	<u>2</u> ′	1Bł	<u> </u>	<u>34</u>			
											Dwg N	o. <u>35</u>		
Project:	Geotechnical Investigati	ion									Sheet I	No	<u>1</u>	of <u>1</u>
Location:	Airport Road and Mayfi	eld Road,	Са	ledo	n, Oı	ntario								
Date Drilled: Drill Type: Datum:	6/2/21 Track Mounted Drill Rig Geodetic	g	-	Shelby [·]	Value c Cone				Natura Plastic Uncon % Stra	I Moistur and Liq	uid Limit mpressio	_ ⊢	• → ⊗	
s			_			N Value	9				Reading (Natural
	Soil Description	ELEV. m			20 Strength			80 kPa	Nat Attert	ural Mois berg Limit	ture Conte s (% Dry V			Unit Weight kN/m3
	und Surface SOIL	240.59 240.34	0	å		100	2	200	1	0 X	20	30		
H- bro	- (REWORKED) own clayey silt to sandy silt	∏ 239.98	1		82 0						×			
tra	ce rootlets & topsoil	Н		d	\$						×			
	YEY SILT / TILL f to very stiff	_	2								*			
— - bro	own ce to some gravel	-	3	18 0							*			
mo		-	4										-	
—		-			b						×			
_			5							/	(
	IDY SILT TILL	_	6	ť										
- sor	mpact, brown me gravel, some silty sand	_ <u>234.04</u>		<u> </u>										
 -mo														
NO1														
	n completion of drilling: free water													

 Image: Image:

ORE USE BI OTHE		
Time	Water Level (m)	Depth to Cave (m)

Project No.	5552-21-GB	Log	0	f B	ore	ehc	ble	<u>2</u> 2	1Bł	<u> </u>	<u>35</u>		
											Dwg N	o. <u>36</u>	
Project:	Geotechnical Investigation	n								:	Sheet I	No1	of
Location:	Airport Road and Mayfiel	d Road,	Са	aledo	n, On	tario							
Date Drilled: Drill Type: Datum:	6/2/21 Track Mounted Drill Rig Geodetic		_	Auger S SPT (N) Dynamic Shelby T Field Va	Value c Cone T Tube	est]	Natura Plastic Uncom	I Moistur and Liqu fined Cou in at Fail	uid Limit mpressio	F	×
G Y W B L O L Grou	Soil Description	ELEV.	DEPTH		20 4	N Value	60 8	0	10	00 2	Reading (p 00 3 ture Conte s (% Dry V	00	Natura Unit Weigh
	und Surface	m 238.65	T H 0	1	Strenath	00	20	kPa		0	20 :	Veight) 30	kN/m3
FILL	SOIL (REWORKED) wn clayey silt ce rootlets & topsoil ist	238.45 238.19	1		8 D) 	\$ *		
- stifl	YEY SILT f to very stiff wn, grey below 4.5m ce gravel		2	⊢‡‡	5						×		
- mo	ce šilty clay ist to very moist yey silt till at 6.0m ist to very moist	-	4 5	ð							×		
		 232.09	6	6						/			
NOT	P OF BOREHOLE TE: n completion of drilling: ter level at 6.0m												

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

ORE USE BY OTHE	RS	
Time	Water Level (m)	Depth to Cave (m)

Project No.	5552-21-GB	Log	0	f B	ore	ehc	ble	<u>2</u> ′	1Bł	<u> </u>	36	<u>(M</u>	M	/)
											Dwg N	lo. <u>37</u>	7	
Project:	Geotechnical Investigation	n									Sheet	No	1	of <u>1</u>
Location:	Airport Road and Mayfiel	d Road,	Са	aledor	ı, Or	itario								
Date Drilled: Drill Type: Datum:	6/3/21 Track Mounted Drill Rig Geodetic			Auger Sa SPT (N) Dynamic Shelby T Field Var	Value Cone T ube	est		3	Natura Plastic Uncon % Stra	al Moistu and Liq	uid Limit mpressio	F	• × ⊗	(I
S Y M B Q ↓ B C	Soil Description	ELEV.	Ιf	2		N Value		30	1	00 2	Reading (200 : sture Cont ts (% Dry)	300	_	Natural Unit Weight
	und Surface	242.22 / 242.12	Ĥ 0	Shear S	trength 1	00	2	kPa 00				30		kN/m3
o / FILL	. (REWORKED) wn sandy silt ce rootlets & topsoil		1		5					Ż	k			
SAN	DY SILT TILL npact to dense		2		24 0					\mathbf{X}				
- sor	ne gravel, some clayey silt	-	3		Ž	3				*				
		-	4		/									
			5	Į Į						×				
		-												
		235.67	6	Č						×				
NOT	P OF BOREHOLE TE: n completion of drilling: free water													

-ORE USE BY OTHE	ERS	
Time	Water Level (m)	Depth to Cave (m)
June 7, 2021	Dry	

Project No.	<u>5552-21-GB</u>	Log	of B	ore	ehc	ble	<u>2</u> ′	<u>1BI</u>	H-3	37 ((MV	<u>V)</u>
										Dwg No	b. <u>38</u>	-
Project:	Geotechnical Investigation	tion								Sheet I	No. <u>1</u>	of <u>1</u>
Location:	Airport Road and Mayf	ield Road,	Caledo	n, On	tario							
Date Drilled: Drill Type:	6/3/21 Track Mounted Drill R	ia	– Auger S – SPT (N) Dvnamic		est	OE		Natura Plastic	al Moistur and Liq		: ⊢:	• × ⊣
Datum:	Geodetic	.9	Shelby 1 Field Va	Tube		-		% Stra	ain at Fai rometer		'⊗ ▲	
G X W B U O	Ground Surface			Strenath	N Value	60 E	30 kPa 00	1 Nat Atter	00 2 tural Mois berg Limit	ture Conte s (% Dry V	00	Natural Unit Weight kN/m3
TOI	PSOIL L (REWORKED) own sandy silt to clayey silt ace rootlets & topsoil to 1.0m	240.13 239.98 							X	20		
- m	ace to some gravel oist to very moist NDY SILT TILL	 236.93	2 3 3 10 0						*			
- co	mpact own, grey below 6.0m me gravel, some clayey silt oist to very moist	-							*			Z
NO Upo	D OF BOREHOLE TE: on completion of drilling: of free water	233.58							×			
-GBE3 5552-2												

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

ORE USE BI OTHE	110	
Time	Water Level (m)	Depth to Cave (m)
June 7, 2021	Dry	

Project N	o. <u>5552-21-GB</u>	Log	0 [.]	f B	60	ore	eh	ol	e	2	1B	H	1- 3	<u>88</u>			
		•													No. <u>39</u>)	
Project:	Geotechnical Investigation	on										_	;	Sheet	No	1	of <u>1</u>
Location:	Airport Road and Mayfie	eld Road,	Са	aledo	n	i, On	tario	0									
Date Drill Drill Type Datum:	Type: Track Mounted Drill Rig		_	Auger S SPT (N Dynam Shelby Field V	l) V ic (Tu	/alue Cone Te ube	est	-			Natu Plas Unco % St	ural M tic a onfin train	Moistur nd Liqu	uid Limit mpressi	: ⊢	× ⊗	, (1
G M B O	Soil Description	ELEV.	DEPTH		20		N Val	lue 60		80		100	2	Reading 00 ture Con	(ppm) 300 tent % Weight)		Natural Unit Weight
Ľ	Ground Surface TOPSOIL	240.72 / 240.57	н о		r St	trength 1	00		2	kPa		10		20	30		kN/m3
	FILL (REWORKED) - brown clayey silt to sandy silt - trace rootlets & topsoil		1	Å	¥	1							Ŷ				
	- moist SANDY SILT TILL	/_	2			2								V			
	- compact - brown, grey below 4.5m - some gravel, some clayey silt	_	3		4	t 8							\mathbf{x}	<u>^</u>			
	- possible cobbles at 6.0m - moist	-	4		/	Ē											1
9			5	2	\$								×				
		_ 234.58	6			\searrow	50/50	mm				/	/			1	
	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

ORE USE BY OTHE	ERS	
Time	Water Level (m)	Depth to Cave (m)

Project No.	5552-21-GB	Log	of B	ore	ehc	ole	23	3BI	H-(01	(MV	V)
		-								Dwg N		-
Project:	Geotechnical Investiga	ation								Sheet I	No. <u>1</u>	of <u>1</u>
Location:	Airport Road and May	rfield Road,	Caledo	n, On	tario							
Date Drilled: Drill Type: Datum:	5/29/23 Track Mounted Geodetic		_ Shelby) Value c Cone Te	est		3	Natura Plastic Uncon % Stra	al Moistu c and Liq	uid Limit mpressio	`	• < H
	Soil Description	ELEV.			N Value	60 6	30	1 Nat	00 2 tural Mois	Reading (p 200 3 sture Conte ts (% Dry V	800 ent %	Natural Unit Weight
	und Surface	252.00 / 251.82	H Shear	Strength 10	00	2	kPa 00				30	kN/m3
FILL	- (Reworked) own clavey silt to sandy silt	251.52	1	24 0					×	\bigwedge		
L- mir	nor topsoil to rootlets ce gravel	Н	2	ð					*			
	YEY SILT TILL		2	- X	b 9				*		E	
- bro	f to hard wn, grey below 3.0m	_	3	ð					×		Z	
.⊟. ⊟ - sor	me gravel me sandy silt till	-	4	²1∕ ∳∕					*		Z	
∃ - mo ∃ -	ภรเ	-	5	5					×		Z	
			6									
NOT Upo	OF BOREHOLE rES: n completion of drilling: free water	245.44										

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

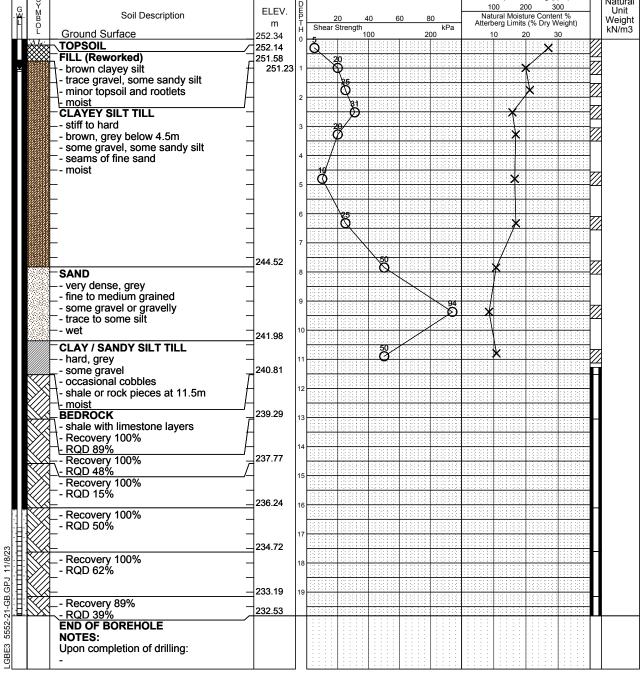
ORE USE BY UTHE	-RO	-
Time	Water Level (m)	Depth to Cave (m)
June 8, 2023	Dry	

Project No.	<u>5552-21-GB</u>	Log	of	В	ore	eho	ble	<u>23</u>	<u>BBI</u>			•	<u>/)</u>
Project:	Geotechnical Investigat	tion										o. <u>41</u> No. <u>1</u>	of 1
Location:	Airport Road and Mayf		Cale	edo	n. Or	itario				-	JICCLI	10	
Location.				500	n, Or	itano							
Date Drilled:	5/31/23			-	ample Value			3 7	Natura	space Rea al Moistur	e	m) •	<
Drill Type:	Track Mounted		_ Dy	. ,	c Cone T	est		_	Uncor	c and Liqu nfined Cor ain at Fail	npressio	n →	1
Datum:	Geodetic				ine Test			S		rometer	ure		
G Y M B U O	Soil Description	ELEV.	DEPTH			N Value		80	1	eadspace F 100 2 Itural Moist berg Limits	00 3	00	Natural Unit Weight
	und Surface	246.13 / 24 8457 .86	0 9	Snear	Strength 1	00		kPa 200				30	kN/m3
FILL	- (Reworked) own clayey silt to sandy silt	245.52	1	$\overline{\ }$	²²					×			
	me topsoil & rootlets ce gravel vist	Å	2		ð,		60			×			
	VEY SILT TILL		3				ö —			¥		Z	
8	own, grey below 3.0m me gravel, trace sandy silt	_				58							
	ams of fine sand ayer of sand with gravel at 2.4n	n $-\frac{1}{241.31}$	4							×			
- oco	casional cobbles ayer of clayey silt at 3.0m												
ENC	D OF BOREHOLE	/											
Upo	FES: n completion of drilling:												
- no	free water												
~													
11/8/2:													
CdD.													
21-GB													
5552													
LGBE3 5552-21-GB.GPJ 11/8/23													

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

Time	Water Level (m)	Depth to Cave (m)
June 8, 2023	0.27m	

Project No.	5552-21-GB	Log	of Boreho	ole <u>2</u>	<u>3BH-03</u>	<u>(MN</u>	/)
					Dwg No	o. <u>42</u>	
Project:	Geotechnical Investigation	n			Sheet I	No. <u>1</u>	of <u>1</u>
Location:	Airport Road and Mayfie	ld Road, (Caledon, Ontario				
Date Drilled:	6/1/23		- Auger Sample SPT (N) Value		Headspace Reading (pp Natural Moisture	om) • ×	
Drill Type:	Track Mounted		Dynamic Cone Test		Plastic and Liquid Limit Unconfined Compression	" ⊗	1
Datum:	Geodetic		Shelby Tube Field Vane Test	Š	% Strain at Failure Penetrometer		
G Y W M	Soil Description	ELEV.	D N Value		Headspace Reading (p 100 200 3	300	Natura Unit



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

ONE OUE DI OTTIE		
Time	Water Level (m)	Depth to Cave (m)
June 8, 2023	1.11m	

Project No.	<u>5552-21-GB</u> LOQ	g of Borenole 23	<u>3H-04 (IVIVV)</u>
			Dwg No. 43
Project:	Geotechnical Investigation		Sheet No of
Location:	Airport Road and Mayfield Roa	ad, Caledon, Ontario	
Date Drilled:	5/30/23 Track Mounted	Auger Sample N	eadspace Reading (ppm) • atural Moisture X lastic and Liquid Limit —
Drill Type: Datum:	Geodetic	Shelby Tube	nconfined Compression Strain at Failure
G M M M	Soli Description	LEV. D E 20 40 60 80	Headspace Reading (ppm) 100 200 300 Natural Moisture Content % Atterberg Imple (% Douw Weight) Weight

ı.

.

	G. H	Y B O L	Soil Description	ELEV. m	DEPTH	Shear	20 Strength	40 (50 E	30 kPa	Na	tural Mois	200 3 sture Conte ts (% Dry V	ent % Veight)		Unit Weight
	Ш	L	Ground Surface	252.79	н 0		Cachgui	100	2	00		10	20	30	Ļ	kN/m3
		*****	TOPSOIL	252.61	ľ	Ó						1221123	X		M	
			FILL (Reworked)	252.18		1000	20	1222122	1120110	1111111	111111	: : : : : : : : : : : : : : : : : : :		5 5 5 5 5 5 5 5 5	M	
			+- brown clayey siĺt +		1		Ø		1000100				*		\mathbb{N}	
			- minor topsoil or rootlets			1999	N 21	133443	13313			: : : : : : : : : : : : : : : : : : :			1	
			- trace gravel, some sandy silt	1		12.512.51	Ň	122212	12212				×			
			- moist	250.46	2		- X		· · · · · · · · · · ·	· · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	/	· · · · · · · · · · · ·	14	
	×.		- CLAYEY SILT TILL -	250.40	1	122223		×								
						83333		∦	1123112			∩	H REELE	: 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	12	
			stiff to hard	1	3		3	Ŕ								
			brown, grey below 4.5m			0.000	×	9	120110			X			12	
			- some gravel, some sandy silt				/									
			- trace silty clay at 4.5m	1	4		/		10010						1	
			moist to very moist -	-		13/	λ									
			,		5	Ø	112212	122212	1122112	11 H H H H H H		×	E 16 22 23 2	: : : : : : : : : : : : : : : : : : :	M	
				1	5	N	N								М	
				247.00			N					1 2 2 2				
		224432	-SILT -		6		\backslash									
					1	18838	ň	18818		0888		100	/ ====			
			dense, grey	1	1	1.7.1.7.1	$+ \Upsilon$					1			14	
			some fine sand, trace clay	-	7					1 : i : i : i : i : i : i : i : i : i :		1				
			- some gravel									1				
			- wet -			12.212.21	Å					1			Ы	
		║║║┣		-	8	10.000	9					\wedge			4	
								\backslash				/				
				243.95					\setminus			X				
	H		- CLAY / SANDY SILT TILL		9						<u>to /</u>					
- [·]	81		hard, grey	243.19		10000				\sim	DХ					
	ΗĽ	≤ 1	- some gravel	242.81			1122112	12212				122122	1162016		П	
	Ë	XA	shale rock pieces at 9.3m	1	10	12.512.52	10.000	122212	1123112	11111111	:::::::		11111111	: : : : : : : : : : : : :	П	
·	H٠	\sim	- shale fock pieces at 9.5m	242.22		10.000									Н	
			BEDROCK													
			 shale with limestone layers 													
			- Recovery 98%			1 : : : :		1 : : : :	::::	1111		. : : : :	1 : : : :	1 : : : :		
			- RQD 15%													
			- Recovery 100%					1								
			- RQD 37%						1 : : : :							
			END OF BOREHOLE					1								
			NOTES:					1 : : : :								
			Upon completion of drilling:				1 : : : :	1 : : : :		1 1 1 1						
			- water level at 4.2m prior to rock			1 : : : :	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1111		1 1 1 1 1	1 1 1 1 1	1 1 1 1 1		
								1 2 2 2 2								
			coring													
			- cave-in at 6.1m					1 : : : :				1 : : : :				
						1 : : : :	1 : : : :		::::	1 1 1 1	::::					
33						1 : : : :		1 : : : :	::::					1 : : : :		
/8/																
÷					1	1::::		1 : : : :	1 : : : :			1 : : : :				
2					1	1::::										
5					1	1::::										
<u>R</u>					1											
4					1	1::::		1								
2-2					1											
552					1	1::::		1::::								
ũ					1											
E E					1	1::::										
-GBE3 5552-21-GB.GPJ 11/8/23						Leei										
				1	L	L	1::::	1 : : : :	1	1		1::::	1	1	<u> </u>	
	NIC		HE BOREHOLE DATA NEEDS INTERPRETATION A	OOLOTANIC			A	IODEOT				DV OT				

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)
June 8, 2023	2.33m	

A \ A / \

A / N

Project No.	5552-21-GB	Log o	of Borehole 23	<u>3BH-05 (MW)</u>
				Dwg No. 44
Project:	Geotechnical Investigation	on		Sheet No. <u>1</u> of <u>1</u>
Location:	Airport Road and Mayfie	ld Road, (Caledon, Ontario	
Date Drilled: Drill Type: Datum:	6/5/23 Track Mounted Geodetic		Auger Sample SPT (N) Value Dynamic Cone Test Shelby Tube Field Vane Test S	Headspace Reading (ppm) Natural Moisture X Plastic and Liquid Limit Unconfined Compression % Strain at Failure Penetrometer
- bro - mir - mo - CLA - firm - bro - sor - sor - sor - occ	Soil Description und Surface SOIL (Reworked) wn clayey silt to sandy silt for topsoil or rootlets ist YEY SILT / TILL n to hard wn, grey below 6.0m ne gravel, some sandy silt assional thin layers of sand ist to very moist	ELEV. m 245.29 245.06 244.53	1 20pp 2 0 40i 3 2 56	Headspace Reading (ppm) 100 Natural Unit Weight KN/m3 Natural Moisture Content % Atterberg Limits (% Dry Weight) Watural Weight KN/m3 pmr <sppm< td=""> 0 pmr<sppm< td=""> 0</sppm<></sppm<></sppm<></sppm<></sppm<></sppm<></sppm<></sppm<></sppm<></sppm<></sppm<></sppm<></sppm<>
- I ⊟ IA22694 - TE TE	D / SILTY SAND	238.89	6 7	Dppm/-55pm

:H:	- fine to medium grained			12222	12.21.2.22		\sim				122222	11111111	
	- fine to medium grained some gravel, some sandy silt - very moist, wet pockets			12212	2212	Rei B		Ď	140	ppm/<5p	pm		-
E.	- very moist wet pockets		8				/	\boldsymbol{v}	\uparrow				-
. B .		_					/		<u></u>				
١Ħ.			9			50 /					1222122		
炗		235.84	9			8			140	ppm/<5p	pm		-
~ ^	 END OF BOREHOLE												
	NOTES:												
	Linon completion of drilling:												
	Upon completion of drilling: - water level at 8.2m												
	- water level at 0.211				::::	::::		::::					
											1 : : : :		
				1 1 1 1 1	::::	::::	::::	::::		1 1 1 1 1	1 : : : :		
					::::	::::	::::	::::			1 : : : :		
					::::			::::		1 1 1 1 1	1 : : : :		
					::::	::::	::::	::::			1 : : : :		
										1111	1 : : : :		
				1111		::::	::::	::::		1111	1 : : : :		
					::::	: : : :		::::					
				L::::			1 2 2 2 2	1 + 2 + 2		1 1 1 1 1	1::::	1	

ORE USE BI UTHE	110	
Time	Water Level (m)	Depth to Cave (m)
June 8, 2023	4.34m	

Project No.	5552-21-GB	_og (of E	Bor	el	no	le	23	BB	<u> </u>	<u>)6</u>				
											Dwg N	o. <u>45</u>	;		
Project:	Geotechnical Investigation	า								\$	Sheet	No	<u>1</u> (of _	1
Location:	Airport Road and Mayfield	d Road,	Caleo	lon, C)nta	rio									
Date Drilled: Drill Type: Datum:	5/31/23 Track Mounted Geodetic		- SPT Dyna Shel	er Sample (N) Value amic Cone by Tube Vane Te	e Test				Natural Plastic Unconf	l Moistur and Liqu îned Cor in at Fail	uid Limit mpressio		• × → ⊗		
G SY MB OL Cro	Soil Description	ELEV. m	D EP T H Sh	20 ear Streng	<u>40</u> th	Value 60		kPa	10 Nati Atterb	00 2 ural Moist erg Limits	ure Conte s (% Dry \	800 ent % Weight)		Natu Un Weig kN/r	nit ght
▼ TOR TFILI - bro - min - bro - or - or	AYEY SILT TILL ry stiff to hard own, grey below 4.5m me gravel, some sandy silt sandy silt till layer at 4.5m oist ND mpact, grey e to medium grained ice to some silt	247.39 247.20 246.94 246.94 241.60 240.84		10 10 10 10 10 10 10 10 10 10 10 10 10 1	100 34	85						30			

LGBE3 5552-21-GB.GPJ 11/8/23

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE BY TORONTO INSPECTION LTD. BEFORE USE BY OTHERS
Toronto Inspection Ltd. Depth to Cave (m) Water Level (m)

Project No.	<u>5552-21-GB</u>	Log	Л		UIC	5110		<u> </u>				No. 46	
Project:	Geotechnical Investiga	ation									-		of
-	Airport Road and May		Cal	odo		tario				-	Sheel	NO	_ 0 _
Location:	Allport Road and May	nielu Roau,	Cal	euoi	I, UI	lano							
Date Drilled:	6/5/23		– A	uger S	ample					space Re al Moistu		pm)	• ×
Drill Type:	Track Mounted			PT (N) vnamio	Value Cone T	est	0			c and Liq			
Datum:	Geodetic		- s	, helby 1	ube				% Str	nfined Co ain at Fai		on é	>
Datum.	Geodelic		_ Fi	eld Va	ne Test			S	Pene	rometer			•
s Y			D			N Valu	e			eadspace	Reading 200	(ppm) 300	Natur
	Soil Description	ELEV. m			Strenath	40	60	80 kPa		tural Mois berg Limit	ture Con s (% Dry		- Unit Weigl kN/m
010	ound Surface	249.10 / 248.97		5	<u>1</u>	00		200		10	20	30 X	
FILL	L (Reworked) own clayey silt	248.19	1	K							×	/	
	me topsoil or rootlets	H		\sim	33 Ö						\downarrow		
- mc	ce sandy silt bist	H	2	1	1-						1		
	AYEY SILT TILL If to hard		3	¥									
bro	own, grey below 6.0m me gravel, trace sandy silt	-		<u> </u>						X			8
- tra	ce silty clay	-	4	1									
—- mc	bist to very moist		5	Ø							¥		Z
_		_									1		
—			6	ð							k		
	O OF BOREHOLE												
Upo	FES: In completion of drilling:												
- ca	ve-in at 5.4m												

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

LGBE3 5552-21-GB.GPJ 11/8/23

JRE USE BT UTHE		
Time	Water Level (m)	Depth to Cave (m)

Project No.	5552-21-GB	Log	0	f B	ore	eho	ole	<u>23</u>	<u>38</u>	<u> </u>	<u>8(</u>						
		-								[Dwg No	o. <u>47</u>					
Project:	Geotechnical Investigati	ion	1								Sheet No. <u>1</u> of <u>1</u>						
Location:	Airport Road and Mayfe	eld Road,	Са	aledo	n, Or	tario)										
Date Drilled: Drill Type: Datum:	6/5/23 Track Mounted Geodetic		_	Shelby) Value c Cone T	est	0		Natura Plastic Uncon % Stra	pace Rea I Moisture and Liqu fined Cor in at Faile ometer	e iid Limit npressioi	· –	• —	I			
G S W B L O L Gro	Soil Description	ELEV.	DEPTH			N Valu			10	adspace F 00 2	00 3	00	Π	Natural Unit			
	und Surface	m 250.81	T H 0	1	Strenath	40		80 kPa 200		ural Moist erg Limits 0 2		Veight) 30		Weight kN/m3			
FILL	SOIL (Reworked) why clayey silt to sand silt hor to some topsoil	250.62 250.05	1	Ŏ,	19 9 32					×							
_ <u>- mo</u> CLA - stif			2	Ċ						*	<pre></pre>						
- trac	ce sandy silt, trace silty clay ist to very moist	-	4		ð					*							
		-	5	Ö						×							
			6	1 th							×						
NOT	O OF BOREHOLE rES: n completion of drilling: ve-in at 5.6m																
-GBE3 5552-2																	

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

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

Project No.	<u>5552-21-GB</u>	g c	f Borehole <u>23BH-09</u>	
		-	Dwg No. <u>48</u>	
Project:	Geotechnical Investigation		Sheet No	_ of _1_
Location:	Airport Road and Mayfield Ro	oad, C	iledon, Ontario	
Date Drilled: Drill Type: Datum:	6/6/23 Track Mounted Geodetic		Auger Sample Image: Sample </th <th>• × ⊣</th>	• × ⊣
G S M B O CTO	Soli Description	ELEV. m	N Value Headspace Reading (ppm) 20 40 60 80 Shear Strength 00 kPa Atterberg Limits (% Dry Weight)	Natural Unit Weight kN/m3
- trac - bro - mir - trac - mo - CLA - stif - stif - stif - trac - trac - a sor - trac - mo - mo	SOIL 225 . (Reworked) wn clayey silt for topsoil or rootlets ce gravel, trace sandy silt ist YEY SILT TILL - f to hard - wn, grey below 4.5m ce to some gravel - ce to some sandy silt - ne silty clay at 6.0m - ist to very moist, wet pockets - 22	54.65 54.52 54.04 48.10		
NOT	• OF BOREHOLE 'ES: n completion of drilling: /e-in at 5.8m			

NOTE: THE BOREHOLE DATA NEEDS INTERPRETATION ASSISTANCE B	BY TORONTO INSPECTION LTD. BEFORE USE BY OTHER	RS

LGBE3 5552-21-GB.GPJ 11/8/23

URE USE BT UTHERS				
Time	Water Level (m)	Depth to Cave (m)		

Project No.	<u>5552-21-GB</u> LOC	of Borehole 2	<u>3BH-10 (MW)</u>
			Dwg No. 49
Project:	Geotechnical Investigation		Sheet No. <u>1</u> of <u>1</u>
Location:	Airport Road and Mayfield Roa	d, Caledon, Ontario	
Date Drilled: Drill Type: Datum:	6/6/23 Track Mounted 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
G Y W B L O	Soil Description ELI n und Surface 253.	P 20 40 60 80 H Shear Strength kPa	Headspace Reading (ppm) 100 200 300 Natural Moisture Content % Atterberg Limits (% Dry Weight) 10 20 30 Natural Moisture Content % Neght kN/m3
TOF FILL brc min min min brc stor stor trai	SOIL 252.0 - (Reworked) 252.0 pwn clayey silt 252.0 nor topsoil or rootlets 25	5 9 1.777 1 2 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	
- ver - soi - a ti - tra - occ - mc ENE NOT	IDY SILT TILL y dense, grey ne gravel, some silty sand in layer of sand at 9.3m ce clayey silt casional cobbles ist to very moist, wet pockets OF BOREHOLE TES: n completion of drilling: ger refusal on probable boulder or	9 9 9	×

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

Toronto Inspection Ltd.

LGBE3 5552-21-GB.GPJ 11/8/23

- water level at 9.4m

ORE USE BT OTHERS				
Time	Water Level (m)	Depth to Cave (m)		
June 8, 2023	1.33m			

Project No.	<u>5552-21-GB</u>	.og (of Borehole 23	<u>3BH-11</u>
				Dwg No. 50
Project:	Geotechnical Investigation			Sheet No. <u>1</u> of <u>1</u>
Location:	Airport Road and Mayfield	Road,	Caledon, Ontario	
Date Drilled: Drill Type: Datum:	6/6/23 Track Mounted Geodetic		Auger Sample ⊠ SPT (N) Value O Dynamic Cone Test	Headspace Reading (ppm) Natural Moisture Plastic and Liquid Limit Unconfined Compression % Strain at Failure Penetrometer
TOP FILL - dau - clayu - sor - mo	Soil Description Und Surface SOIL CReworked) Revorked Source Surface Source Surface CReworked Source Surface S	ELEV. m 249.63 249.45 248.87	N Value	Headspace Reading (ppm) 100 200 300 Natural Moisture Content % Atterberg Limits (% Dry Weight) 10 20 30 X X X X X X X X X X X X X

ð

243.08

- brown, grey below 3.0m - some gravel, some sandy silt - moist to very moist

END OF BOREHOLE NOTES: Upon completion of drilling: - cave-in at 5.9m

LGBE3 5552-21-GB.GPJ 11/8/23

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

Toronto Inspection Ltd.

ORE USE BI UTHERS				
Time	Water Level (m)	Depth to Cave (m)		

X

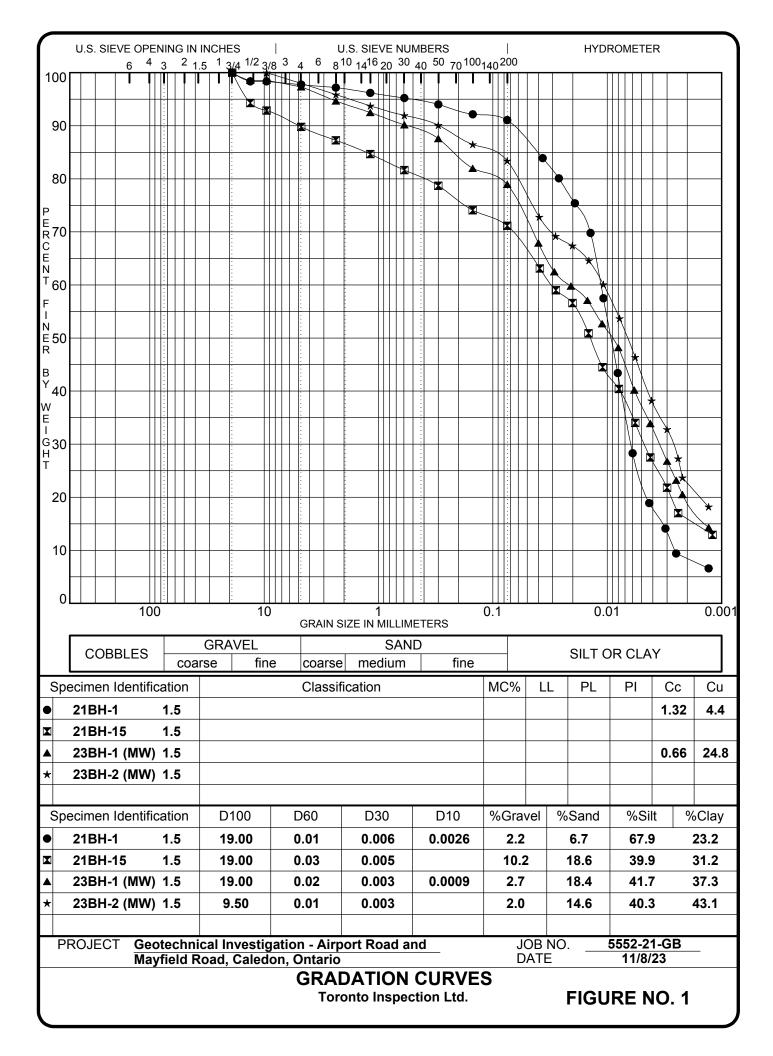
Project: <u>Airport Road and Mayfield Road, Caledon, Onta</u> Location: <u>Airport Road and Mayfield Road, Caledon, Onta</u> Date Drilled: <u>6/6/23</u> Drill Type: <u>Track Mounted</u> Daturn: <u>Geodetic</u> Soil Description <u>ELEV</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PSOIL</u> <u>70PS</u>	ole <u>23B</u> F	Dwg No. 51	
Location: Airport Road and Mayfield Road, Caledon, Onta Date Drilled: 6/6/23 Datum: Track Mounted Datum: Geodetic Soil Description Ground Surface Soil Description FiLL (Reworked) - brown clayey silt - minor topsoil or rootlets - moist CLAYEY SILT TILL - stiff to hard - brown, grey below 4.5m - some gravel, some sandy silt - moist - moist - moist - some gravel, some silty sand - trace clayey silt - moist END OF BOREHOLE NOTES: Auger Sample SPT (N) Value Dynamic Cone Test SPH OF Silter Strength - Sanda Strength - Sanda Strength - Some St		Sheet No. <u>1</u> of	
Date Drilled: 6/6/23 Drill Type: Track Mounted Datum: Geodetic Soil Description Ground Surface FiLL (Reworked) - brown clayey silt - minor topsoil or rootlets moist CLAYEY SILT TILL - stiff to hard - brown, grey below 4.5m - moist SANDY SILT TILL - some gravel, some sandy silt - moist SANDY SILT TILL - very dense, grey - some gravel, some silty sand - trace clayey silt - moist END OF BOREHOLE NOTES:		Sheet No1	_ 01 _ 1
Date Drifled. 0/0/2/3 SPT (N) Value Drill Type: Track Mounted Dynamic Cone Test Datum: Geodetic Field Vane Test Soil Description ELEV. m Ground Surface 249.03 249.02 FILL (Reworked) 248.67 1 - brown clayey silt - - - moist CLAYEY SILT TILL - - some gravel, some sandy silt - - - moist - - - wery dense, grey - - - some gravel, some silty sand - - - trace clayey silt - - - moist - - - some gravel, some silty sand - - - trace clayey silt - - - moist - - - - moist - - - - starter clayey silt - - - - moist - - - - - Some gravel, some silty sand - - - - - moist	,		
Drill Type: Track Mounted SPT (N) Value Datum: Geodetic Dynamic Cone Test Shelby Tube Field Vane Test Soil Description ELEV. m Ground Surface 249.13 FILL (Reworked) 249.02 - brown clayey silt 249.02 CLAYEY SILT TILL 248.67 - moist - moist - stiff to hard - - moist - - stiff to hard - - wry dense, grey - some gravel, some sandy silt - moist - - some gravel, some silty sand - - trace clayey silt - - moist - - some gravel, some silty sand - - trace clayey silt - - moist -	Natural	oace Reading (ppm) Moisture	• ×
Datum: Geodetic Shelby Tube Outum: Geodetic Field Vane Test Soil Description ELEV. P Ground Surface 249.03 249.02 FILL (Reworked) 248.67 P - brown clayey silt - - - moist - - - some gravel, some sandy silt - - - moist - - - some gravel, some silty sand - - - moist - - - some gravel, some silty sand - - - moist - - - some gravel, some silty sand - - - moist - - - some gravel, some silty sand - - - moist - - - some gravel, some silty sand - - - moist - - - some gravel, some silty sand - - - moist - - - - some gravel, some silty sand - - - moist - -	O 🛛 Plastic a	and Liquid Limit	Â
Soil Description Image: Construction of the second sec	% Strain	ined Compression n at Failure	
Soil Description ELEV. B 20 40 Ground Surface 249.13 249.02 248.67 100 FilL (Reworked) 249.02 248.67 100 - brown clayey silt - - 248.67 1 - brown, clayey silt - - - - - - brown, grey below 4.5m - - - - - - brown, grey below 4.5m - - - - - - brown, grey below 4.5m - - - - - - some gravel, some sandy silt - - - - - - wery dense, grey - some gravel, some silty sand - - - - - some gravel, some silty sand - trace clayey silt - - - - - some gravel, some silty sand - - - - - - some gravel, some silty sand - - - - - - some gravel, some silty sand - - - - - - some gr	Penetro S	a meter a	
Cound Surface 249.13 YTOPSOIL 249.02 FILL (Reworked) 248.67 - brown clayey silt 248.67 - minor topsoil or rootlets 248.67 - minor topsoil or rootlets 248.67 - stiff to hard 248.67 - some gravel, some sandy silt 248.67 - moist 4 - some gravel, some sandy silt 4 - moist 243.33 - some gravel, some silty sand 243.33 - some gravel, some silty sand 243.33 - some gravel, some silty sand 4 - trace clayey silt 243.33 - some gravel, some silty sand 4	10	dspace Reading (ppm) 0 200 300 ural Moisture Content %	Natu Uni
TOPSOIL 249.02 FILL (Reworked) 248.67 - brown clayey silt 248.67 - moist - - stiff to hard - - brown, grey below 4.5m - - brown, grey below 4.5m - - some gravel, some sandy silt - - moist - - wery dense, grey - - some gravel, some silty sand - - trace clayey silt - - moist - - NOTES: -	60 80 Natu kPa 200 10	erg Limits (% Dry Weight)	Weig kN/n
- brown clayey silt - minor topsoil or rootlets - moist - CLAYEY SILT TILL - stiff to hard - brown, grey below 4.5m - some gravel, some sandy silt - moist - moist - very dense, grey - some gravel, some silty sand - trace clayey silt - moist END OF BOREHOLE NOTES:		X	2
CLAYEY SILT TILL - stiff to hard - brown, grey below 4.5m - some gravel, some sandy silt - moist - TILL - very dense, grey - some gravel, some silty sand - trace clayey silt - moist END OF BOREHOLE NOTES:		×	Z
- stiff to hard - brown, grey below 4.5m - some gravel, some sandy silt - moist - very dense, grey - some gravel, some silty sand - trace clayey silt - moist END OF BOREHOLE NOTES:		*	2
- some gravel, some sandy silt - moist - moist - SANDY SILT TILL - very dense, grey - some gravel, some silty sand - trace clayey silt - moist END OF BOREHOLE NOTES:		*	Z
- - - - - - -		*	2
SANDY SILT TILL 243.33 242.72 Constraints Constraite Constraite C			
SANDY SILT TILL - very dense, grey - some gravel, some silty sand - trace clayey silt - moist END OF BOREHOLE NOTES:		X	2
- very dense, grey - some gravel, some silty sand - trace clayey silt - moist END OF BOREHOLE NOTES:	mm	/	
- trace clayey silt - moist END OF BOREHOLE NOTES:	<u> </u>		z
END OF BOREHOLE NOTES:			

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

URE USE BT UTHERS				
Time	Water Level (m)	Depth to Cave (m)		



Figure Grain Size Distribution





Appendix A Engineering Fill Guidelines



GUIDELINES FOR ENGINEERED FILL

The information presented in this guideline is intended for general guidance only. Site specific and prevailing weather conditions may require modification of the material(s) to be used and the compaction standards or procedures changed. The site preparation and the material(s) to be used must be discussed and procedures agreed with *Toronto Inspection Ltd.* prior to the start of the earthworks and must be subjected to on going review during construction.

For fill to be classified as engineered fill, suitable for supporting structural loads, a number of conditions must be satisfied, including but not necessarily limited to the following:

1. Areal Extent

The engineered fill must extend beyond the envelope of the structure to be supported. The minimum extent should be 2.0m beyond the envelope in all directions at the foundation level, including the loading dock pad and the front sidewalk, and sloping downwards to the sub-grade at 45°. Once the envelope is set, the structure cannot be moved out of the envelope without consultation with *Toronto Inspection Ltd.* Similarly, no excavation should encroach on the engineered fill envelope without consultation with *Toronto Inspection Ltd.*

2. Survey Control

Accurate survey control is essential to the success of an engineered fill project. The boundaries of the engineered fill must be laid out by a surveyor. During construction. it is necessary to have qualified surveyors providing control stations on the three-dimensional extent of the engineered fill.

3. Subsurface Preparation

Prior to placement of the engineered fill, the sub-grade must be prepared to the satisfaction of *Toronto Inspection Ltd.* All deleterious material must be removed and in some cases excavation of native mineral soils may also be required. Particular attention must be paid to wet sub-grade and possible additional measures required to achieve sufficient compaction. Where fill is placed against a slope, benching will be necessary and natural drainage paths must not be blocked.

4. Suitable Fill Material

All material to be used as fill must be approved by *Toronto Inspection Ltd.* Such approval will be influenced by weather factors. External sources of fill material must be sampled, tested and approved prior to material being hauled to the job site.

5. Trial Test Section

In advance of the construction of the engineered fill pad, the contractor should conduct a trial test section. The compaction criterion will be assessed for the backfill material to be used, using specified lift thicknesses and number of passes for the compaction equipment proposed by the contractor. To achieve a uniform degree of compaction of each layer, the lift thickness of loose



material, prior to start of compaction, must not exceed 200mm (8 inches). Additional trial test section(s) may be required throughout the course of the project to reflect changes in material sources, the moisture content of the material and the weather conditions.

6. Degree of Compaction

The minimum degree of compaction for the engineered fill should not be less than 100% of the Standard Proctor maximum dry density, or 95% of the Modified Proctor maximum dry density, to the level at or above 0.3m from proposed footing founding level. Each layer must be tested and approved by this office before the next layer is placed.

7. Inspection and Testing

Uniform and thorough compaction is crucial to the performance of the fill and the supported structure. Hence, all subgrade preparation, filling and compacting must be done with full time inspection and to the satisfaction of *Toronto Inspection Ltd.* All founding surfaces must be inspected and approved by *Toronto Inspection Ltd.* prior to placement of concrete.

8. **Protection of Fill**

Fills are generally more susceptible to the effects of weather than are natural soils. Fill placed and approved to the level at which structural support is required must be protected from excessive wetting, drying, erosion or freezing. Where inadequate protection had been provided, it may be necessary to provide deeper founding level for footings or to strip and re-compact some of the filled layers.

9. Limitations

The engineered fill is subjected to the following limitations:

- i. Proper drainage must be maintained at all times within the engineered fill pad.
- ii. If the engineered fill is left in place during the winter months, adequate protection must be provided against frost penetration to the proposed footing depths.
- iii. If the engineered fill depth exceeds 5m below the foundation depth, the construction of the foundations might have to be delayed for a period of 1 year after placement, depending on the type of fill material used.
- iv. Strip footings and foundation walls founded on engineered fill must be reinforced continuously with a minimum of two 15mm steel bars with at least 1m of overlap.