SLOPE STABILITY AND EROSION RISK REPORT

175 Wynford Drive
Toronto, Ontario

PREPARED FOR:
DVP Hotel Development LP
552 Wellington Street West, Suite 1500
Toronto, ON M5V 2V5

ATTENTION:
Jimmy Sun

Grounded Engineering Inc.
File No. 20-153
Issued August 20, 2020

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1 Introduction

DVP Hotel Development LP has retained Grounded Engineering Inc. ("Grounded") to provide a an analysis of the slope stability and erosion risks for their proposed development at 175 Wynford Drive, Toronto, Ontario.

The proposed redevelopment at the site is south of an existing slope. The TRCA requires a slope stability and erosion risk assessment report for the purpose of determining the Long-Term Stable Slope Crest (LTSSC).

The subject slope is approximately 7 to 11± m in height, with inclinations generally ranging from 2.8H:1V to around 1.0H:1V. The tableland is occupied by a hotel, with a pool structure approximately at the slope crest. The slope face is forested with some bare areas. A creek is present at the toe of slope that flows from the north to the south from a culvert.

A previous slope stability study and borehole program was conducted at the property. Grounded has been provided with the previous reports:

- Golder Associates, "Slope Assessment 1250 Eglinton Avenue East, Toronto, Ontario", Project No. 1526137, dated July 28, 2015.
- R.J. Burnside & Associates Limited, "175, 181, 185 Wynford Drive, Toronto Ontario, Hydrogeological Assessment in Support of Zoning By-Law Amendment", Reference No. 300037774.0000, dated November 2015.
- R.J. Burnside & Associates Limited, "Don Valley Hotel Hydrogeologic Assessment, Water Level Monitoring Summary", Project No. 300037774.0000, date November 7, 2016.
- McClymont & Rak Engineers Inc., "Geohydrology Study Proposed Mixed Use Development 175 Wynford Drive, Toronto, Ontario", Reference No. MG 5276, dated February 2018.
- McClymont & Rak Engineers Inc., "Slope Stability Assessment Proposed Mixed Use Development 175 Wynford Drive, Toronto, Ontario", Reference No. MG5276, dated April 2020.

Additionally, a topographic plan was provided for the purposes of the slope stability assessment:

- I.M. Pastushak, Part of Block B, Plan M-1158 City of Toronto, Job No. 15-15-005-00, dated March 23, 2015.

Grounded has been provided with factual borehole information from other consultants as listed above. Those borehole logs are provided in a professional engineer's signed and sealed report (the authors of which are also the authors of this report). As such, this borehole information (appended) is taken as factual for present purposes.

To facilitate TRCA permitting of development adjacent to a slope, the Long-term Stable Slope Crest (LTSSC) position is required for the north-facing slope. This hydrogeological and slope stability reports provide a study of the prevailing subsurface soil and groundwater conditions (as determined by factual data procured at the site), a visual slope inspection to review the existing

slope conditions, and a detailed slope stability analysis of the site. The LTSSC position is provided, and the stability setbacks and erosion risks for the subject slope are discussed.

2 Ground Conditions

The borehole results are detailed on the attached borehole logs. A summary of the boreholes advanced on site and included in our assessment is outlined in the table below. Our assessment is intended to highlight the strata as they relate to geotechnical engineering. The ground conditions reported here will vary between and beyond the borehole locations.

The stratigraphic boundary lines shown on the borehole logs are assessed from non-continuous samples supplemented by drilling observations. These stratigraphic boundary lines represent transitions between soil types and should be regarded as approximate and gradual. They are not exact points of stratigraphic change.

Table 2.1 – Summary of boreholes

Borehole ID	Engineer	Surface Elevation (m)	Depth of Borehole (m)	Bottom Elevation (m)
1	McClymont and Rak	131.9	45.0	86.9
2	McClymont and Rak	129.6	41.5	88.1
101	McClymont and Rak	132.3	12.7	119.7
102	McClymont and Rak	132.6	12.7	120.0
201	McClymont and Rak	132.3	12.7	119.7
202	McClymont and Rak	130.1	12.7	117.5
MW1d-15	R.J. Burnside & Associates	127.5±*	16.2	111.3±
MW1s-15	R.J. Burnside & Associates	127.5±*	12.0	111.3±
MW2-15	R.J. Burnside & Associates	131.9±*	14.3	117.6±
MW3-15	R.J. Burnside & Associates	130.0±*	12.8	117.2

*Approximated from the survey

2.1 Soil Stratigraphy

The following soil stratigraphy summary is based on the borehole results and the geotechnical laboratory testing. Cross sections are appended and depict the main stratigraphic units in relation to the slope configuration.

In general, the boreholes encountered surficial earth fill overlying a variable glacial till with sand and silt seams.

2.1.1 Surficial and Earth Fill

Boreholes 1 and 2 encountered a pavement structure consisting of 75 to 100 mm of asphalt overlying 300 to 350 mm of granular. Borehole MW1s-15 encountered 130 mm of topsoil at ground surface.

Borehole 1, 101, 102, 201, 202 encountered earth fill extending to 0.8 to 3.0 m below existing grade (Elev. 129.3 to 131.3 m). The earth fill comprises sandy silt to clayey silt with trace gravel and organics. Borehole 201 encountered a petroleum odour. The earth fill is brown to grey and moist to wet. Earth fill is typically variable and is described as having a compact relative density.

All boreholes except Borehole 101 and 202 encountered an upper cohesionless layer of gravelly sand to sandy silt below the earth fill or pavement structure or at ground surface. This cohesionless layer extends to 0.6 to 4.5 m below existing grade (Elev. 130.4 to 125.7 ±m). This cohesionless layer is brown, black, grey, and typically moist. Standard Penetration Test (SPT) results (N-Values) in upper cohesionless layer range from 5 to 38 blows per 300 mm of penetration ('bpf'). The upper cohesionless layer is on average compact.

2.1.2 Glacial Till

Underlying the upper cohesionless layers the boreholes encountered a variable glacial till consisting of sandy silt with trace clay and gravel to clayey silt with trace sand and gravel. The glacial till was encountered at 0.6 to 3.6 m below existing grade (Elev. 130.4 to 125.7 ±m) and either extends past the vertical extent of the borehole or to 40.5 to 45.0 depth below existing grade (Elev. 86.9 to 89.1 m). The glacial till has interbedded layers of sand and silt that are moist to wet. SPT N-Values in the glacial till range from 11 to greater than 100 bpf. In general the glacial till is compact (cohesionless) or very stiff (cohesive) above Elev. 108± m and becomes dense to very dense (cohesionless) to hard (cohesive) below Elev. 108± m.

2.1.3 Bedrock

Bedrock was inferred through SPT sampling in Boreholes 1 and 2. The bedrock was encountered at a depth of 40.5 to 45.0 m below grade (Elev. 86.9 to 89.1 m) and extending past the vertical extent of the investigation (Elev. 86.9 m). The bedrock is a grey shale that is described as moist.

2.2 Groundwater

The depth to groundwater and caved soils was measured in each of the boreholes immediately following the drilling. All boreholes were instrumented with groundwater monitoring wells.

The groundwater observations are shown on the Borehole Logs and are summarized as follows.

Table 2.2 – Summary of Groundwater Observations

Borehole No.	Depth of well (m)	Strata Screened	Water Level in Well, Depth/Elev. (m)			
			Highest Level	Date	Most Recent Level	Date
1	86.9	Glacial Till	2.8 / 129.1	Oct. 10, 2018*	Couldn't be opened	
2	88.1	Glacial Till	2.1 / 127.5	Jul. 23, 2018*	Couldn't be found	
101	119.7	Glacial Till	7.9 / 124.4	Oct. 10, 2018*	Couldn't be opened	
102	120.0	Glacial Till	10.1 / 122.5	Oct. 10, 2018*	Couldn't be opened	
201	119.7	Glacial Till	10.7 / 121.6	Oct. 10, 2018*	Couldn't be opened	
202	117.5	Glacial Till	9.3 / 120.8	Oct. 10, 2018*	Couldn't be found	
MW1d-15	111.3±	Glacial Till	n.r. / 117.7	Jan. 2016**	14.4 / 113.1	Jul. 28, 2020
MW1s-15	111.3±	Glacial Till	n.r. / 113.7	Oct. 22, 2015***	10.5 / 117.0	Jul. 28, 2020
MW2-15	117.6±	Glacial Till and sand seams	n.r. / 123.3	Nov. 2015**	3.5 / 128.4	Jul. 28, 2020
MW3-15	117.2	Glacial Till and sand seams	n.r. / 121.4	Apr. 2016**	2.8 / 127.2	Jul. 28, 2020

*McClymont & Rak Engineers Inc., "Slope Stability Assessment Proposed Mixed Use Development 175 Wynford Drive, Toronto, Ontario", Reference No. MG5276, dated April 2020
**R.J. Burnside & Associates Limited, "Don Valley Hotel Hydrogeologic Assessment, Water Level Monitoring Summary", Project No. 300037774.0000, date November 7, 2016.
***McClymont & Rak Engineers Inc., "Geohydrology Study Proposed Mixed Use Development 175 Wynford Drive, Toronto, Ontario", Reference No. MG 5276, dated February 2018.
n.r. = Not recorded

For slope stability analysis purposes, there is a perched groundwater table in the tableland at Elev. 130± m and lower groundwater table at Elev. 126.0± m.

3 Visual Slope Inspection

A visual slope inspection was conducted at the property on July 31, 2020 by Jory Hunter and Jeremy Bobro of Grounded Engineering. Photographs of the slope with locations shown on the attached Figure 3. An MNR slope rating chart was completed for the subject slope. Based on the slope rating chart, the slope has a rating of 41 to 60, which indicates a moderate potential for instability.

For the purposes of discussion, Wynford Drive runs north to south, and the subject slope crest runs approximately east to west. The subject slope is north of buildings on site. The subject slope is approximately 7 to 11± m in height, with inclinations generally ranging from 2.8H:1V to around 1.0H:1V. A unnamed creek that is a part of the Don River watershed flows at the toe of slope in a meandering fashion.

The property boundary is approximately at the slope toe within the unnamed creek. There is a pool with associated structures in the tableland approximately at the slope crest. The closest hotel building on site is 6± m or greater from the slope crest. The driveway access into the site is

present east of the subject slope. The tableland is landscaped with grass. There is a PVC pipe with an outlet at the slope crest at the west end of the site. No erosion was observed downslope of the outlet. No erosion or slide features were observed in the tableland.

The slope face is forested with mature trees and understory. There are some fallen and leaning trees. There are areas on the slope face that are bare due to the dense forest cover. Talus was not observed at the toe of slope. The vegetation at the toe along the creek bank is undercut with roots exposed. Mature trees at the toe of slope have root bulbs exposed.

The creek at the toe of slope flows approximately from the north and turns to flow towards east in the direction of the Don River. There is a culvert situated at the east end of the site that appears to direct water under the main driveway. There are gabion baskets acting as toe erosion protection along creek bank starting approximately 10± m before the culvert. The culvert appears to be in a good state of maintenance.

3.1 Historic Aerial Photographs

Publicly available historic aerial photographs from the City of Toronto were reviewed for the purposes of observing historic changes on site. The reviewed air photos are appended and summarized in the table below.

Table 3.1 – Review of historic air photos

Date	Description
1947	In the location of the property there are farm fields. The creek at the toe of slope is present and appears to flow within a natural ravine system towards the Don River.
1959	There is a structure in the location of the property. Eglinton Ave E has been constructed. The unnamed creek still appears to flow into the Don River.
1969	The site is occupied by the current existing buildings. The Don Valley Parkway has been constructed. The unnamed creek still appears, but now flows into a culvert under Wynford Drive.

4 Slope Stability Analysis

The slope stability analysis was completed with software (Slide 9.008, by Rocscience, dated June 15, 2020) to conduct a limit equilibrium analysis, using the standard methods Morgenstern/Price and Spencer. The software evaluates the factor of safety of a mass of soil by determining theoretical circular or non-circular slip surfaces through the slope. The sliding mass of soil is divided into slices, with the normal and shear forces calculated on each slice. It's an iterative process that converges on a solution. An example analysis is appended.

The factor of safety is a ratio defined for each slip surface by calculating the available soil strength resisting movement and dividing it by the gravitational forces tending to cause movement. When the factor of safety is 1.0, the forces resisting movement are approximately equal to the forces causing movement and the slope is in a condition where failure may occur. This is called the "limiting equilibrium". A slope is unstable when the factor of safety is less that

1.0 and marginally stable when the factor of safety is 1.0. The MNR Policy Guidelines dictate that a minimum factor of safety of 1.3 to 1.5 is required for active land use.

The slope stability model was created using the slope geometry and subsurface conditions, and analysing the slope using circular or non-circular slip surfaces. It was determined that circular surfaces govern the minimum factor of safety for the overall slope.

4.1 Existing Conditions

The slope stability analysis was conducted at three section locations (Section A, B, C) using the elevation data from the survey completed by I.M. Pastushak dated March 2015.

The slope stability was analyzed using the geotechnical properties assumed from the factual borehole information. The soil properties used in the analysis are outlined in the table below. The soil parameters used in the effective stress analysis for long-term slope stability are considered to be conservative.

Table 4.1 – Soil properties in stability analysis

Material	Unit Weight (kN/m^3)	Cohesion (kPa)	Phi (deg)
Earth Fill	19	0	28
Cohesionless Till	20	2	32
Cohesive Till	21	6	30

For the purposes of the slope stability analysis, there is a perched groundwater table in the tableland at Elev. 130± m and lower groundwater table at Elev. 126.0± m.

The results of the stability analysis of the existing conditions are summarized in the table below.

Table 4.2 – Slope stability analysis results for the existing conditions

Section	Slope Inclinations	Overall Slope Height (±m)	Minimum Factor of Safety	Description of critical slope surfaces
A	2.8H:1V (upper slope) 1.7H:1V (lower slope)	6.7	1.5 (overall)	Minimum slip surfaces passing through the slope toe
B	2.1H:1V (upper slope) 1.4H:1V (lower slope)	10.2	1.3 (upper slope) 1.3 (overall)	Minimum slip surfaces passing through the slope toe
C	2.1H:1V (upper slope) 1.8H:1V (lower slope)	11.6	1.2 (upper slope) 1.4 (overall slope)	Minimum slip surfaces passing through the earth fill

Sections A and B have minimum factors of safety of 1.3 to 1.5. The slope at these sections are forested, no signs of erosion were observed on the slope face, with some undercut vegetation at the toe. The slope at Sections A and B are considered to be stable.

Section C has a minimum factor of safety of 1.2 in the earth fill with an overall factor of safety of 1.4. There is a berm along the slope crest and it is the tallest at the east end of site at Section C. The berm is assumed to be earth fill deposited during the construction of the existing buildings. The slope at this section is forested and there are gabion baskets acting as toe erosion protection at the toe of slope. The slope at this section is considered stable, with only moderate instability in the earth fill in the long term.

4.2 Long Term Table Slope Crest Position

The LTSSC follows the MNR Policy Guidelines, which require a minimum factor of safety of 1.5 for new development or redevelopment and planning. Based on the results of the slope stability analysis, the existing slope at Sections B and C do not meet the minimum factor of safety requirements. The slope at Section A meets the minimum factor of safety requirements.

Critical slip surfaces pass through the slope toe at Sections A and B and through the earth fill and the upper slope face at Section C with minimum factor of safety of 1.2 or greater.

There are two components of the LTSSC position, including the toe erosion allowance and the stable slope inclination. The toe erosion allowance is outlined by MNR Guidelines for rivers within 15 m of the toe of slope. The stable slope inclination is determined through a stability analysis conducted to determine the inclination(s) at which the slope profile is stable to a minimum factor of safety of 1.5. A guide depicting the components of the LTSSC position is appended.

4.2.1 Toe Erosion Allowance

An outline of the MNR Guideline for determining the toe erosion allowance is summarized in the table below.

Table 4.3 – MNR Guide for "*minimum toe erosion allowance for rivers within 15 m of the slope toe*[1]"

Soil Type	Evidence of Active Erosion[2] OR Bankfull Flow Velocity > Competent Flow Velocity[3]	No evidence of Active Erosion[2] OR Bankfull Flow Velocity << Competent Flow Velocity[3]		
		Bankfull Width < 5 m	Bankfull Width 5 – 30 m	Bankfull Width > 30 m
Hard Rock (e.g. granite)	0 – 2 m	0 m	0 m	1 m
Soft Rock (e.g. shale, limestone) Cobbles, Boulders	2 – 5 m	0 m	1 m	2 m
Stiff/Hard Cohesive Soils (e.g. clays, clayey silt) Coarse Granular (e.g. gravels) Glacial Tills	5 – 8 m	1 m	2 m	4 m
Soft/Firm Cohesive Soil Fine Granular (e.g. sand, silt) Fill	8 – 15 m	1 – 2 m	5 m	7 m

1. If a valley floor is > 15 m in width, still may require study or inclusion of a toe erosion allowance
2. Action Erosion is defined as: bank material is bare and exposed directly to stream flow under normal or flood flow conditions and, where undercutting, over-steepening, slumping of a bank or high downstream sediment loading is occurring. An area may be

exposed to river flow but may not display "active erosion" (i.e. is not bare or undercut) either as a result of shifting of the channel or because flows are relatively low velocity. The toe erosion allowances presented in the right half of the table are suggested for sites with this condition.

3. Competent Flow Velocity is defined as: the flow velocity that the bed material in the stream can support without resulting in erosion or scour.

Source: Ontario Ministry of Natural Resources, "Technical Guide River & Stream Systems: Erosion Hazard Limit", dated 2002, page 38.

An unnamed creek flows at the toe of slope in a meandering fashion. There is active erosion along the banks of the creek. The soil type at the lower slope face and toe of slope consists of very stiff to hard cohesive glacial till. Based on this information, a minimum toe erosion allowance between 5 m and 8 m is applicable.

Based on the toe erosion observed within the ravine, the applicable toe erosion allowance is 7 m.

4.2.2 Stable Slope Inclination

A stability analysis was conducted to determine the stabilized slope profile to a minimum factor of safety for global stability of 1.5 under normal ground water conditions and 1.3 for temporary elevated ground water conditions.

Multiple inclinations were tested under both normal ground water conditions and temporary high ground water conditions. The stabilized slope profiles are appended, and the stable slope inclinations are present in the table below.

Table 4.4 – Long Term Stable Slope Inclinations (FS = 1.5 for normal GWT, FS = 1.3 for temporary high GWT)

Section	Earth Fill	Native Soils
All Sections	2.4H:1V	1.9H:1V

4.2.3 Long Term Slope Crest Position

The LTSSC position is outlined in plan on Figure 5, where the toe erosion allowance (7 m) and stable slope inclinations in section intersects the tableland. The LTSSC was determined using a minimum factor of safety of 1.5 under normal ground water conditions and 1.3 for temporary elevated ground water conditions.

Based on the applicable toe erosion allowance (7 m) and analysis of the stable slope inclinations, the LTSSC position ranges from 3.7 to 7.4 m set back from the existing slope crest position at the provided cross sections. The position of the LTSSC is summarized in the table below.

Table 4.5 – LTSSC position along section

Section	Distance from crest along section
Section A	7.4 m
Section B	3.7 m
Section C	3.9 m

The MNR and TRCA guidelines generally require an additional setback ("Erosion Access Allowance") for new developments, in addition to the LTSSC.

5 Limitations and Restrictions

To protect the slope, site development and construction activities should be designed in a manner that does not erode the surface slope. Of particular importance, site drainage and grading must not produce concentrated overland flow directed towards the slope crest or face. Although concentrated overland flow must not be allowed to flow over the slope, but a minor sheet flow may be acceptable. A healthy vegetative cover should be created and maintained on the slope.

A survey by I.M. Pastushak Limited (dated March 23, 2015) was provided to Grounded by the client. The survey depicts the building lines, property boundary, river, important site features (gullys, informal trail), and three traverse lines down the slope face. This survey was relied on as factual data for the slope stability analysis.

5.1 Investigation Procedures

The geotechnical engineering analysis and advice provided here are based on factual data obtained from investigations at this site conducted by other consultants as described above. This previous consultant subsurface information is provided in a professional engineer's signed and sealed geotechnical report, and as such this borehole information is taken as factual for present purposes.

A carefully conducted, fully comprehensive investigation and sampling scope of work carried out under the most stringent level of oversight may still fail to detect certain ground conditions. As such, users of this report must be aware of the risks inherent in using engineered field investigations to observe and record subsurface conditions. As a necessary requirement of working with discrete test locations, Grounded has assumed that the conditions between test locations are the same as the test locations themselves, for the purposes of providing geotechnical engineering advice.

It is not possible to design a field investigation with enough test locations that would provide complete subsurface information, nor is it possible to provide geotechnical engineering advice

that completely identifies or quantifies every element that could affect construction, scheduling, or tendering. Contractors undertaking work based on this report (in whole or in part) must make their own determination of how they may be affected by the subsurface conditions, based on their own analysis of the factual information provided and based on their own means and methods. Contractors using this report must be aware of the risks implicit in using factual information at discrete test locations to infer subsurface conditions across the site and are directed to conduct their own investigations as needed.

5.2 Site and Scope Changes

Natural occurrences, the passage of time, local construction, and other human activity all have the potential to directly or indirectly alter the subsurface conditions at or near the project site. Contractual obligations related to groundwater or stormwater control, disturbed soils, frost protection, etc. must be considered with attention and care as they relate this potential site alteration.

The geotechnical engineering advice provided in this report is based on the factual observations made from the site investigations as reported. It is intended for use by the owner and their retained design team. If there are changes to the features of the development or to the scope, the interpreted subsurface information, geotechnical engineering design parameters, advice, and discussion on construction considerations may not be relevant or complete for the project. Grounded should be retained to review the implications of such changes with respect to the contents of this report.

5.3 Report Use

The authorized users of this report are DVP Hotel Development LP and their design team, for whom this report has been prepared. Grounded Engineering Inc. maintains the copyright and ownership of this document. Reproduction of this report in any format or medium requires explicit prior authorization from Grounded Engineering Inc.

The City of Toronto and the TRCA may also make use of and rely upon this report, subject to the limitations as stated.

6 Closure

If the design team has any questions regarding the discussion and advice provided, please do not hesitate to have them contact our office. We trust that this report meets your requirements at present.

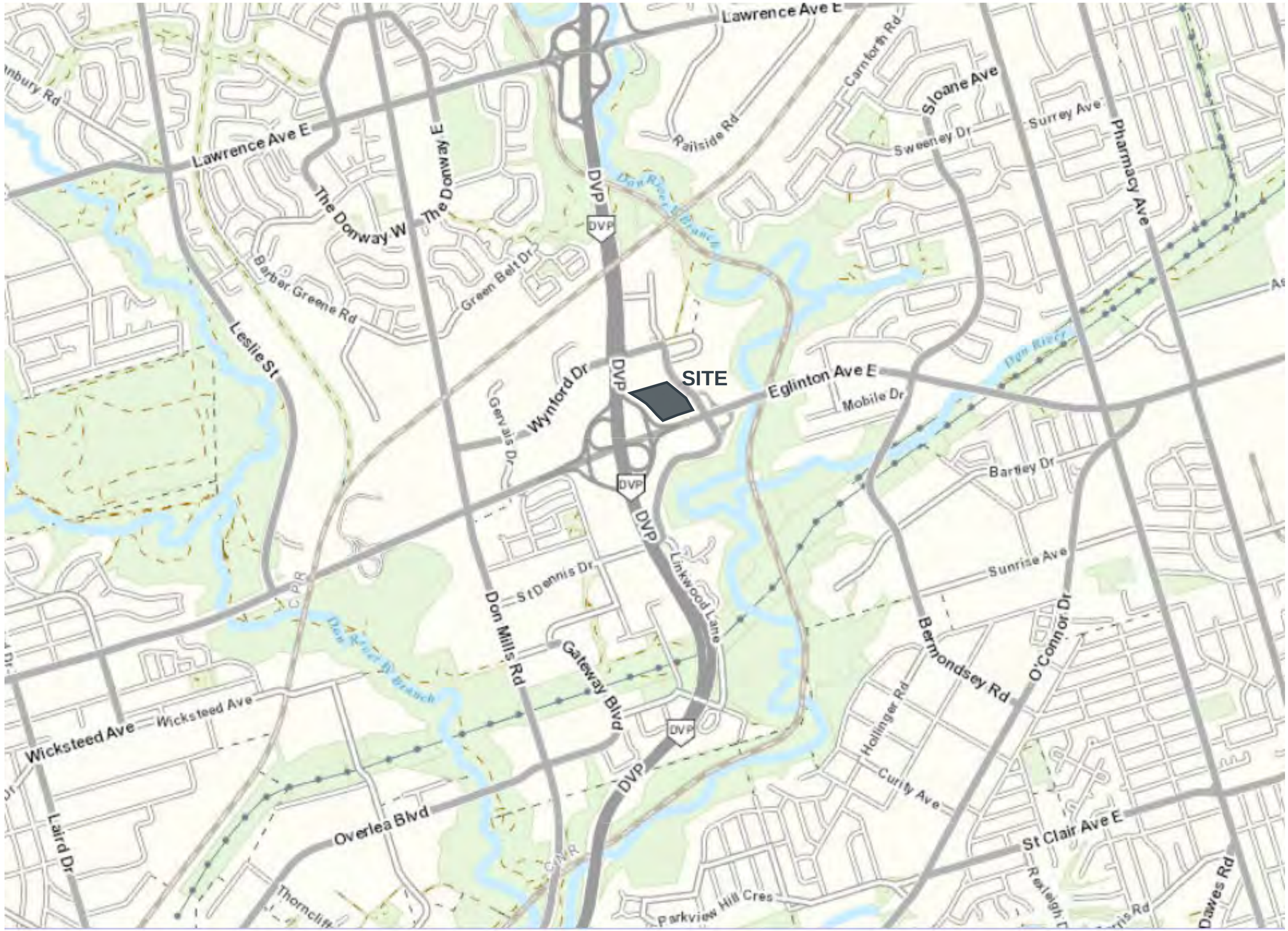
For and on behalf of our team,

GROUNDED ENGINEERING

Jory Hunter, B.Sc.(Eng.), EIT
Geotechnical and Environmental Group

Jason Crowder, Ph.D., P.Eng.
Principal

FIGURES



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SITE

Note

Reference
Toronto Maps v2, 2020.

Project

175 WYNFORD DRIVE

175 WYNFORD DRIVE
TORONTO, ONTARIO, M3C 1J3

Figure Title

SITE LOCATION PLAN

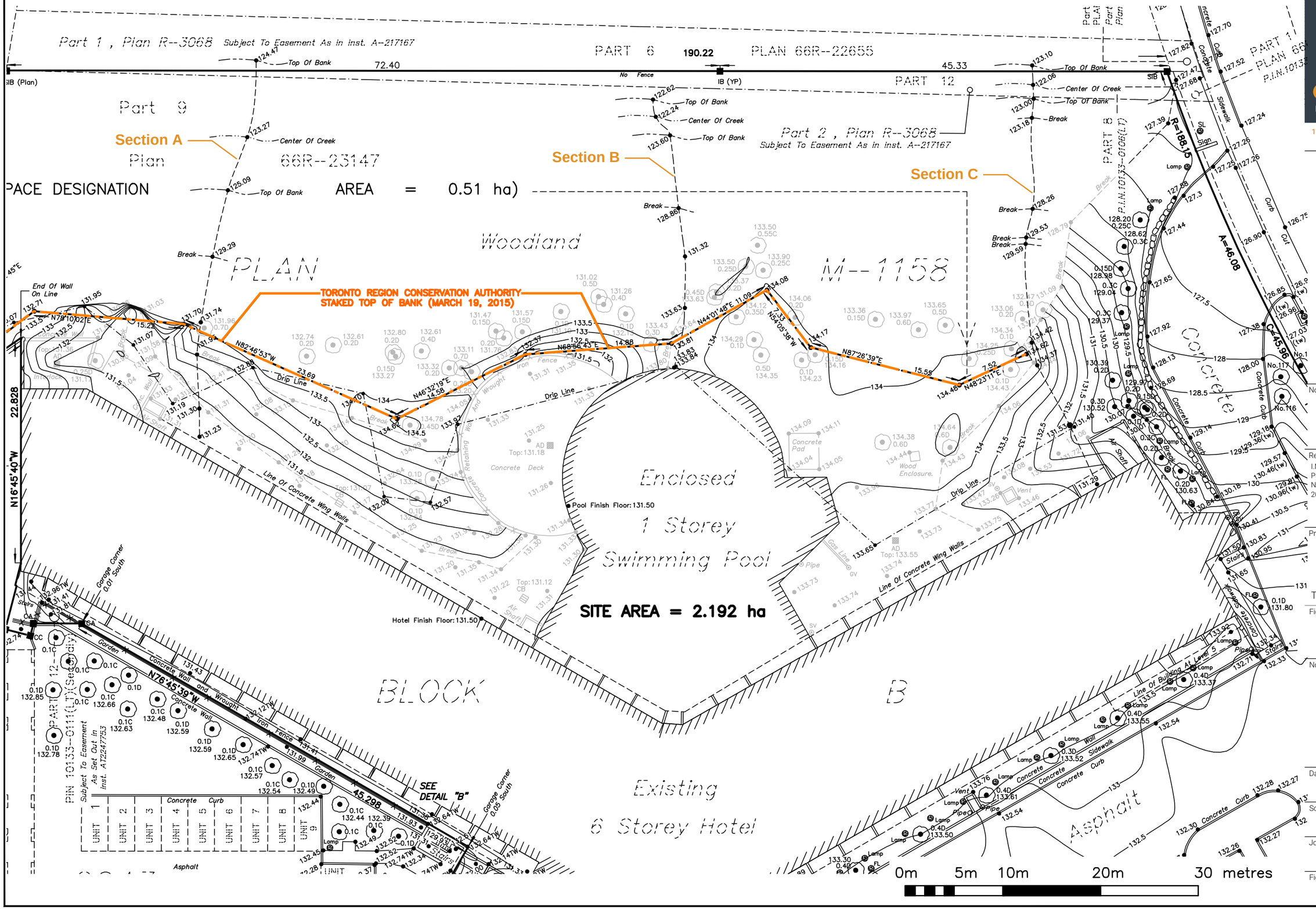
North

Date
AUGUST 2020

Scale
AS INDICATED

Job No
20-153

Figure No
FIGURE 1



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LEGEND

- SECTION LOCATIONS
- TRCA STAKED TOP OF BANK

Note

Reference
I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated AUGUST 21, 2012

Project
175 WYNFORD DRIVE
175 WYNFORD DRIVE
TORONTO, ONTARIO, M3C 1J3

Figure Title
CROSS-SECTION LOCATION PLAN

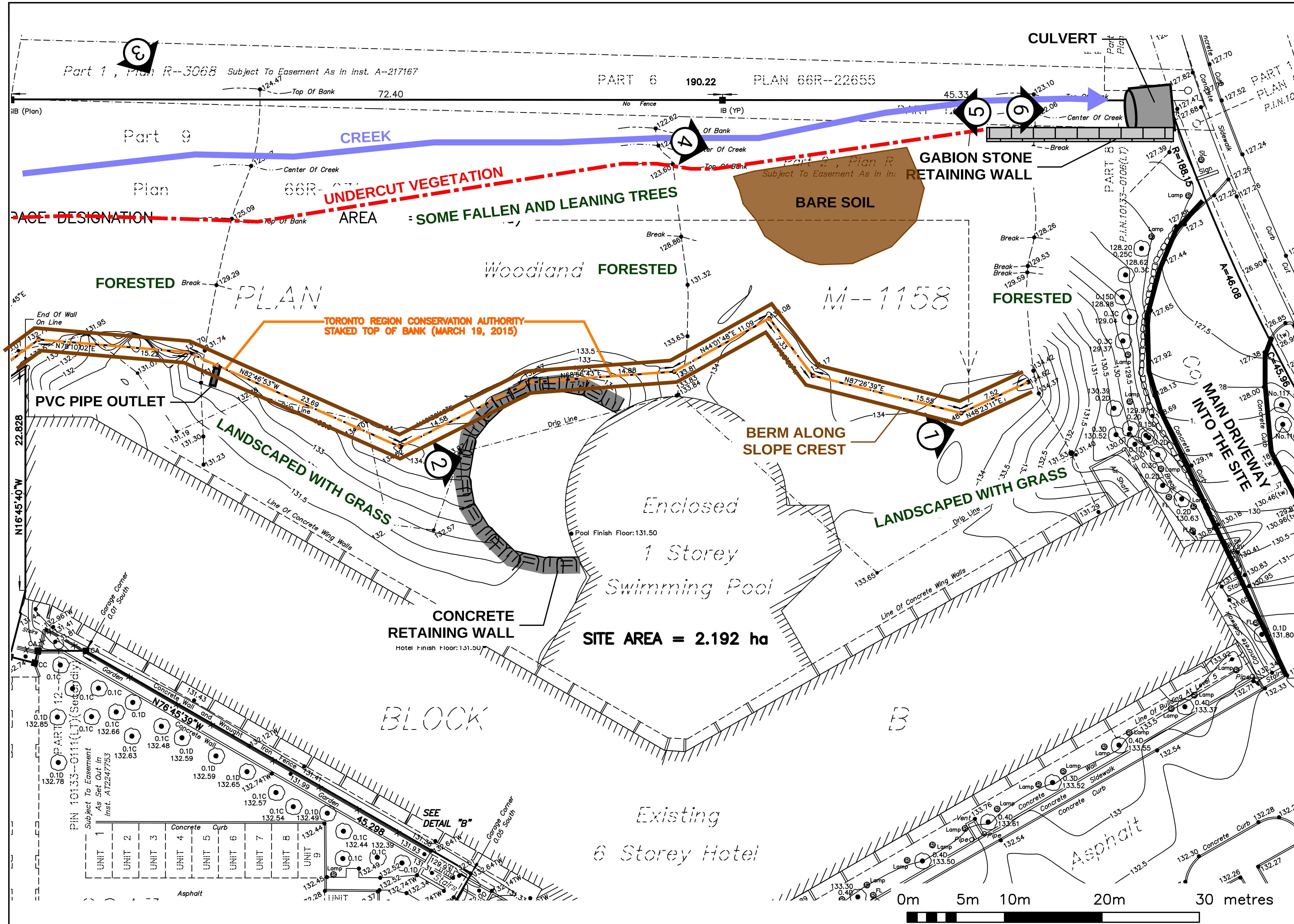
North

Date
AUGUST 2020

Scale
AS INDICATED

Job No
20-153

Figure No
FIGURE 2



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PHOTOGRAPH LOCATIONS

SECTION LOCATIONS

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Reference

I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated AUGUST 21, 2012

Project

175 WYNFORD DRIVE

175 WYNFORD DRIVE
TORONTO, ONTARIO, M3C 1J3

Figure Title

SITE FEATURE AND PHOTO LOCATION PLAN

North

Date

AUGUST 2020

Scale

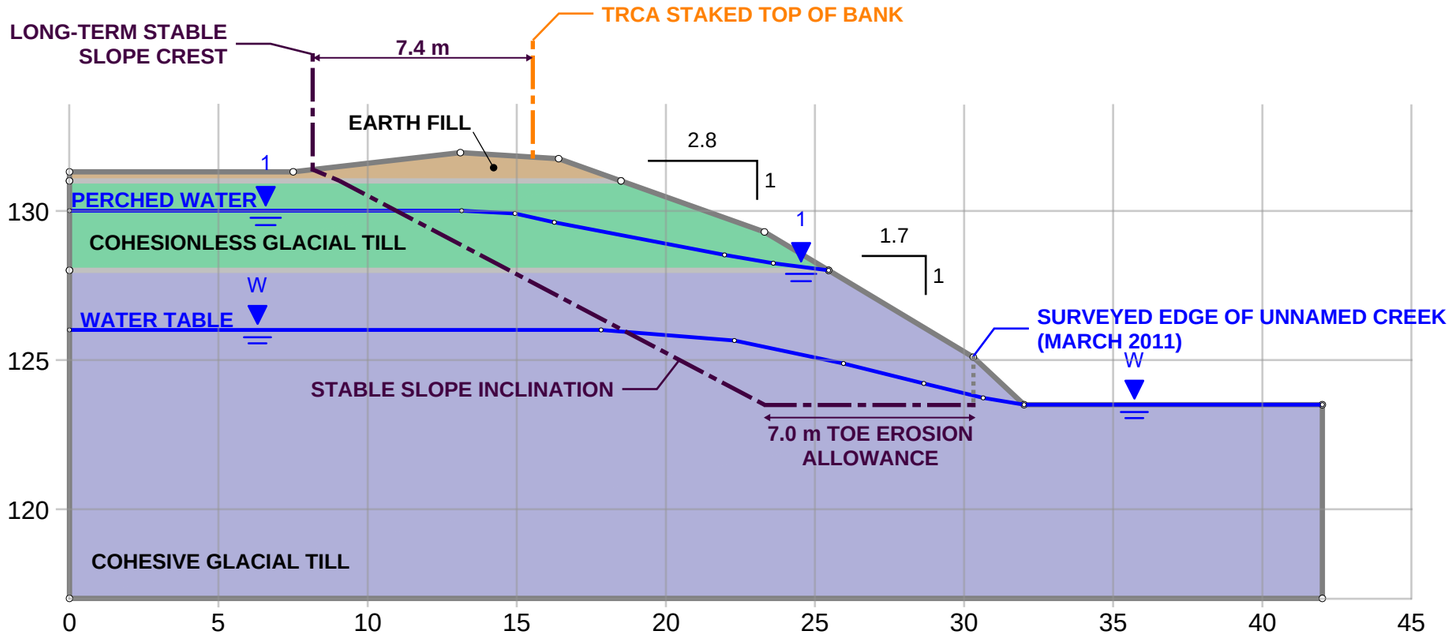
AS INDICATED

Job No

20-153

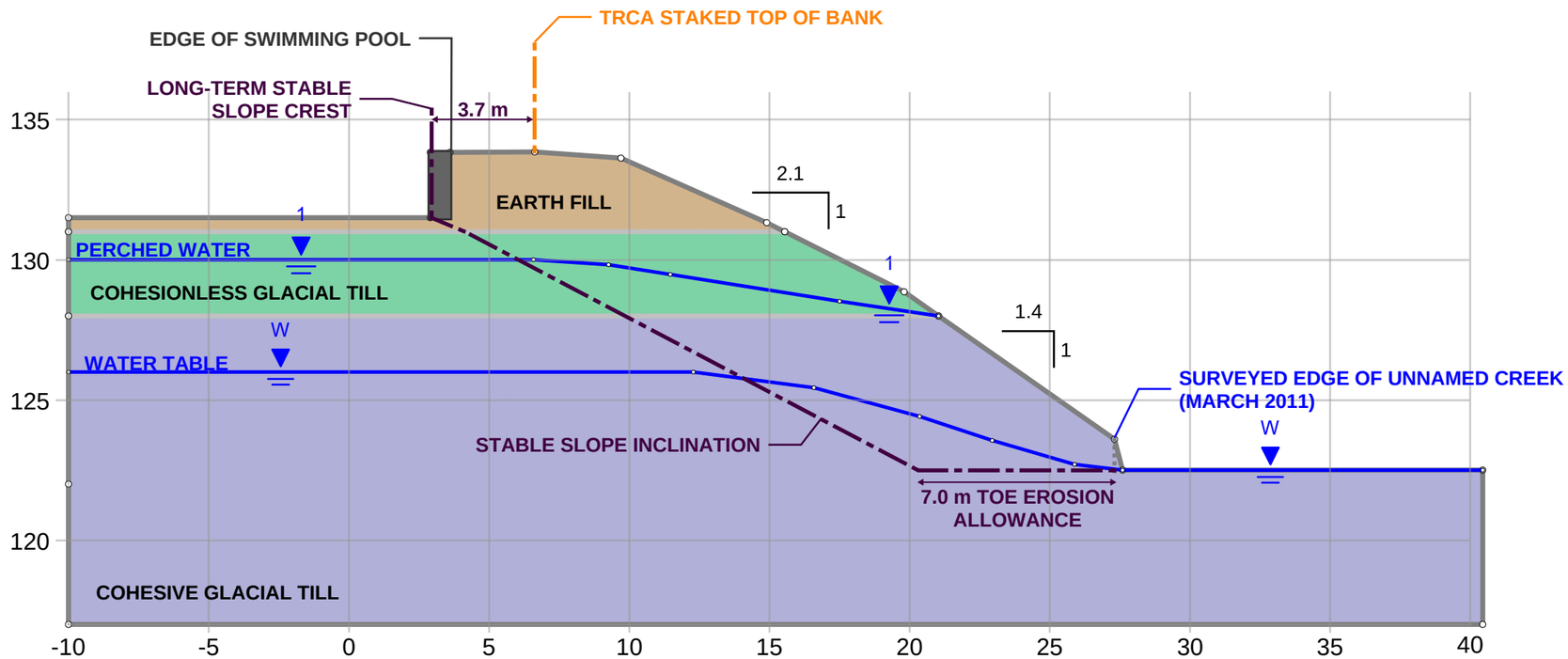
Figure No

FIGURE 3



SECTION A

Soil Type	Stable Slope Inclinations
EARTH FILL	2.4H : 1V
NATIVE	1.9H : 1V



SECTION B

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Project

175 WYNFORD DRIVE

175 WYNFORD DRIVE
TORONTO, ONTARIO, M3C 1J3

Figure Title

DETAILED CROSS SECTIONS

North

Date

AUGUST 2020

Scale

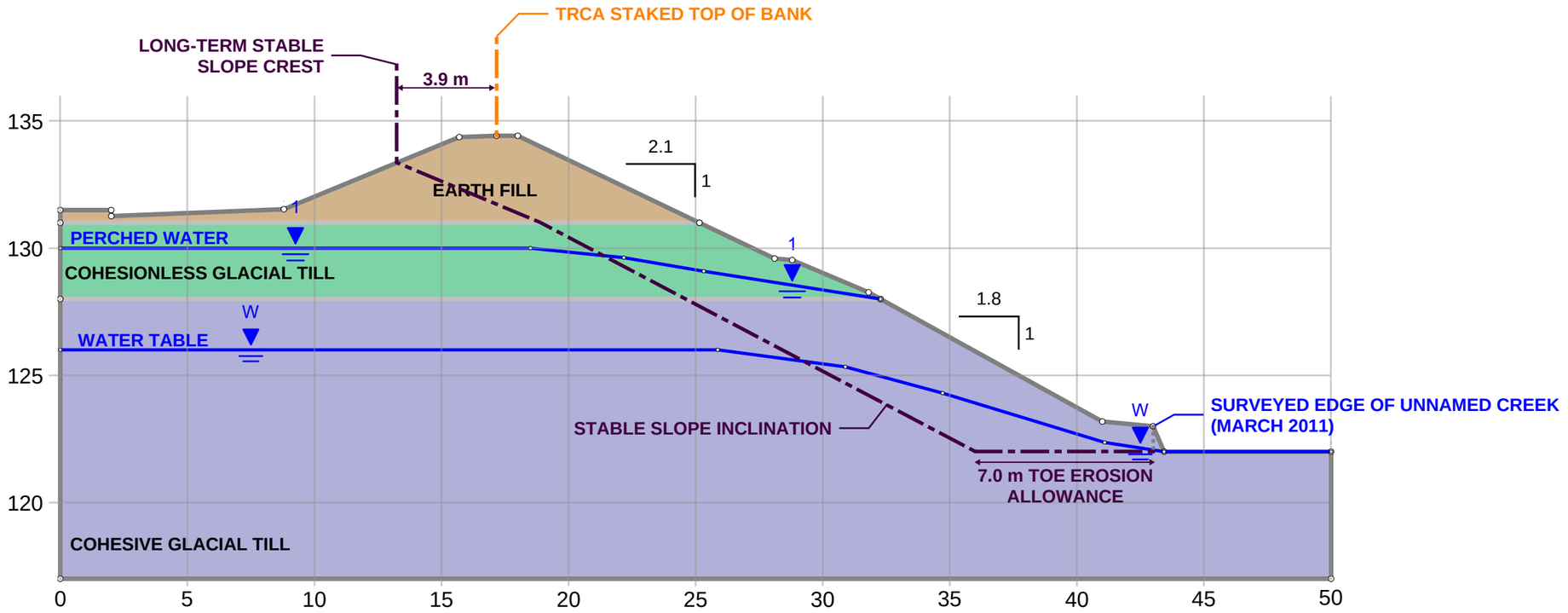
AS INDICATED

Job No

20-153

Figure No

FIGURE 4A



SECTION C

Soil Type	Stable Slope Inclinations
EARTH FILL	2.4H : 1V
NATIVE	1.9H : 1V

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Note

Reference

Project

175 WYNFORD DRIVE

175 WYNFORD DRIVE
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Figure Title

DETAILED CROSS SECTIONS

North

Date

AUGUST 2020

Scale

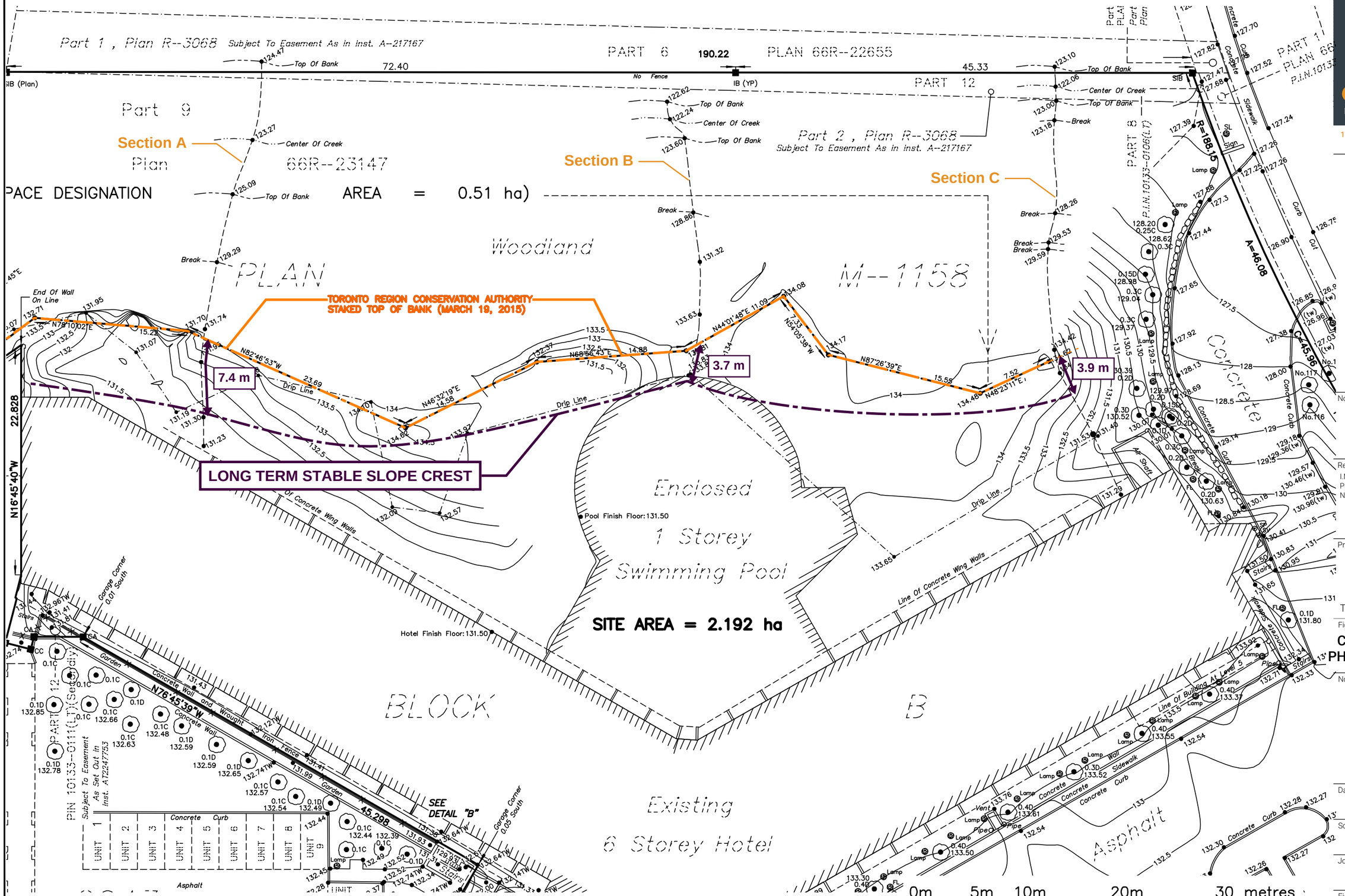
AS INDICATED

Job No

20-153

Figure No

FIGURE 4B



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LEGEND

- SECTION LOCATIONS
- TRCA STAKED TOP OF BANK
- LONG TERM STABLE SLOPE CREST

Note

Reference
I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, AUGUST 21, 2012

Project
175 WYNFORD DRIVE
175 WYNFORD DRIVE
TORONTO, ONTARIO, M3C 1J3

Figure Title
CROSS-SECTION AND PHOTO LOCATION PLAN

North

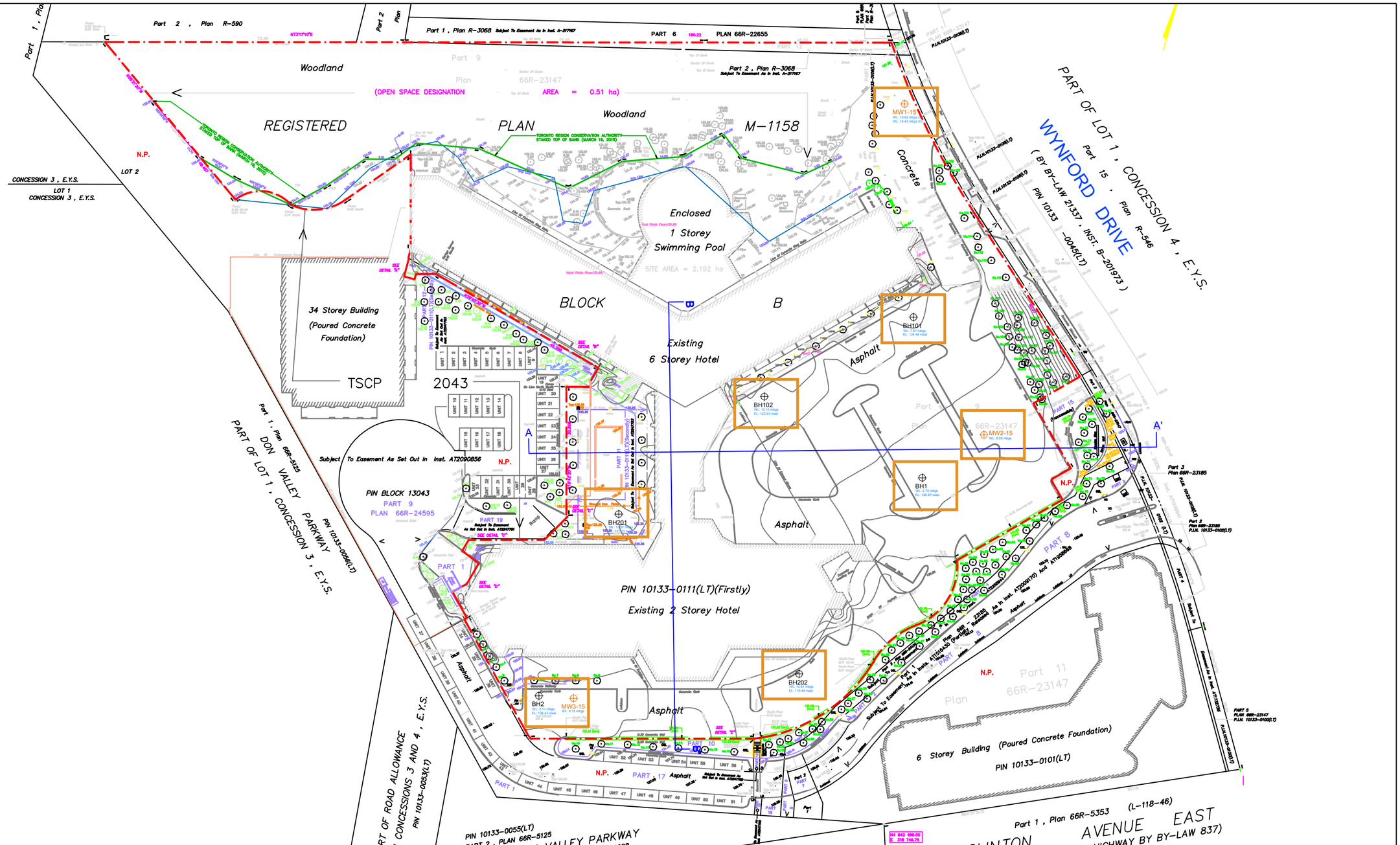
Date
AUGUST 2020

Scale
AS INDICATED

Job No
20-153

Figure No
FIGURE 5

APPENDIX A



LEGEND:

- PROPERTY BOUNDARY
- MONITORING WELL INSTALLED BY MCR, 2018

PROJECT NORTH
TRUE NORTH

0 1 2 5 10
SCALE (m)

Drawing Notes: Image drafted from property survey, Toronto Maps, Google Maps, and site inspections. Not for construction purposes.

McCLYMONT&RAK ENGINEERS, INC.
GEO-ENVIRONMENTAL CONSULTANTS

175 WYNFORD DRIVE, TORONTO, ONTARIO

BOREHOLE LOCATION PLAN

Project No.	Date	Drawing No.
MGE5276	MAY 2019	1

APPENDIX B

RECORD OF BOREHOLE 1

PROJECT : MGE5276
LOCATION : 175 Wynford Drive, Toronto, Ontario
STARTED : January 3, 2018
COMPLETED : January 11, 2018

MC CLYMONT & RAK ENGINEERS, INC.

SHEET 1 OF 2
DATUM Geodetic

DEPTH SCALE (metres)	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	BLOWS/0.3m	ORGANIC VAPOUR READINGS (ppm) 100 200 300 400 ⊗ / % LEL - (hexane) □ 20 40 60 80	SHEAR STRENGTH: Cu, KPa nat V - ✚ rem V - ● Q - ✖ U - ▲ 20 40 60 80 / WATER CONTENT, PERCENT wp w wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		131.73							
		100 mm ASPHALT / 350 mm GRANULAR FILL		131.60 0.13							
		FILL: sandy silt, trace of clay, gravel and organics, brown, moist, compact.		131.28 0.45	1	AS		0 ⊗			
				130.83 0.90	2	SS	18	0 ⊗			
		SAND: medium to fine, trace of gravel, brown, moist, compact.		130.21 1.52	3	SS	22	0 ⊗			
2		SANDY SILT TILL: trace of clay and gravel, brown, moist, compact. -wet sand seam at 1,8 m depth. -some clay at 2.3 m depth. -wet coarse sand seam at 2.6 m depth.			4	SS	29	0 ⊗			
				128.38 3.35	5	SS	18	0 ⊗			
4		CLAYEY SILT TILL: trace of sand and gravel, grey, moist, very stiff.									
6		**PMT1** at elevation 125.96 m asl.			6	SS	22	0 ⊗			
8		**PMT2** at elevation 122.93 m asl.		122.28 9.45	7	SS	23	0 ⊗			
10		SILTY CLAY: trace of sand, grey, moist to wet, very stiff									
12				119.08 12.65	8	SS	25	0 ⊗			
		SANDY SILT TILL: some clay, trace of gravel, grey, moist to wet, compact.									
14											
16		**PMT3** at elevation 115.34 m asl.		114.66 17.07	9	SS	20	0 ⊗			
		CLAYEY SILT TILL: trace of sand and gravel, grey, moist to wet, very stiff.									
18											
20		**PMT4** at elevation 112.11 m asl.		111.46 20.27	10	SS	30	0 ⊗			
		SILTY SAND: trace of gravel, brown, moist, dense.									
22		**PMT5** at elevation 109.17 m asl.		108.57 23.16	11	SS	>100	0 ⊗			
		SANDY SILT TILL: trace of clay, gravel and shale fragments, brown, moist, very dense.									
24											

Flush Mount Cover
Bentonite
9.14 m Long 50 mm ID PVC Riser
124.13
Silica Sand
122.59
3.05 m Long 50 mm ID Well Screen
119.54
Well installed in separate borehole drilled next to BH!

GROUNDWATER ELEVATIONS

▽ SHALLOW/SINGLE INSTALLATION
WATER LEVEL: 2.76 m bgs

▼ DEEP/DUAL INSTALLATION
WATER LEVEL:

LOGGED : PL
CHECKED : LM

MCR BOREHOLE LOG 5276.GPJ 10/11/18

RECORD OF BOREHOLE 1

PROJECT : MGE5276
LOCATION : 175 Wynford Drive, Toronto, Ontario
STARTED : January 3, 2018
COMPLETED : January 11, 2018

MC CLYMONT & RAK ENGINEERS, INC.

SHEET 2 OF 2
DATUM Geodetic

DEPTH SCALE (metres)	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	ORGANIC VAPOUR READINGS (ppm) 100 200 300 400 / % LEL - (hexane) 20 40 60 80	SHEAR STRENGTH: Cu, KPa (nat V - ✚, rem V - ●, Q - ✖, U - ▲) 20 40 60 80 / WATER CONTENT, PERCENT wp w wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		131.73							
26	POWER BORING / ROTARY MUD DRILLING	**PMT6** at elevation 106.12 m asl. -seams with some clay at 26.2 m depth.			12	SS	>100	10 ⊗			
28		**PMT7** at elevation 102.61 m asl.									
30		CLAYEY SILT TILL: trace of sand and gravel, brown, moist, hard.		102.01 29.72	13	SS	62	0 ⊗			
32		**PMT8** at elevation 99.90 m asl.			14	SS	43	0 ⊗			
34		**PMT9** at elevation 96.57 m asl.									
36		SILT: some clay, trace of fine sand, grey, moist, hard.		95.92 35.81	15	SS	45	0 ⊗			
38		**PMT10** at elevation 93.52 m asl.									
40		SAND: medium to fine, brown, moist to wet, very dense		92.87 38.86	16	SS	>100	0 ⊗			
42		**PMT11** at elevation 90.47 m asl. CLAYEY SILT TILL: trace of sand and gravel, grey, moist, hard.		89.82 41.91	17	SS	53	0 ⊗			
44		**PMT12** at elevation 87.42 m asl.									
46		SHALE: grey, moist. End of Borehole		86.77 44.96 86.73 45.00	18	SS	>100				
48		Note: 1) Water level was not measured on completion of drilling due to use of mud. 2) Combustible vapour reading was 10 ppm at 1.8 m depth in open borehole. 3) Soil samples were screened using a RKI Eagle gas meter with methane response mode off. 4) Water level was measured at 6.94 m bgs on February 16, 2018. 5) Water level was measured at 4.27 m bgs on July 23, 2018. 6) Water level was measured at 2.76 m bgs on October 10, 2018.									
50											

GROUNDWATER ELEVATIONS

▽ SHALLOW/SINGLE INSTALLATION — WATER LEVEL: 2.76 m bgs

▼ DEEP/DUAL INSTALLATION — WATER LEVEL:

LOGGED : PL
CHECKED : LM

MCR BOREHOLE LOG 5276.GPJ 10/11/18

RECORD OF BOREHOLE 2

PROJECT : MGE5276
LOCATION : 175 Wynford Drive, Toronto, Ontario
STARTED : February 6, 2018
COMPLETED : February 9, 2018

MC CLYMONT & RAK ENGINEERS, INC.

SHEET 1 OF 2
DATUM Geodetic

DEPTH SCALE (metres)	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	ORGANIC VAPOUR READINGS (ppm) ⊗ 100 200 300 400 / % LEL - (hexane) □ 20 40 60 80	SHEAR STRENGTH: Cu, KPa nat V - ✚ rem V - ● Q - ✖ U - ▲ 20 40 60 80 / WATER CONTENT, PERCENT wp w wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		129.60							
	POWER BORING / ROTARY MUD DRILLING	75 mm ASPHALT / 300 mm GRANULAR FILL		129.52 0.08	1	SS	0	⊗ 0			Flush Mount Cover
		SANDY SILT: trace of clay and gravel, sand seams, brown, moist, loose.		129.22 0.38	2	SS	7	⊗ 5			Bentonite
2		CLAYEY SILT TILL: some sand, trace of gravel, brown, moist, very stiff.		128.08 1.52	3	SS	15	⊗ 0			3.05 m Long PVC Riser
		-grey below 2.45 m depth.			4	SS	17	⊗ 0			127.15 Silica Sand ▽ 126.55
4					5	SS	21	⊗ 0			3.05 m Long 50 mm ID Well Screen
		SANDY SILT TILL: trace of clay and gravel, grey, moist, compact. -fine sand seam, wet in the upper 300 mm.		125.03 4.57	6	SS	25	⊗ 0			
6					7	SS	21	⊗ 0			123.50 Well installed in separate borehole drilled next to BH2
8					8	SS	26	⊗ 0			
		SILT: some sand, grey, moist to wet, very dense.		120.46 9.14	9	SS	65	⊗ 0			
10		SAND: medium to fine, grey, moist to wet, very dense.		118.93 10.67	10	SS	74	⊗ 0			
12		SILT: some sand, trace of clay, grey, moist to wet, very dense to dense..		117.41 12.19	11	SS	54	⊗ 0			
14					12	SS	40	⊗ 0			
		CLAYEY SILT: trace of sand, grey, moist, hard to very stiff.		114.36 15.24	13	SS	38	⊗ 0			
16		-occasional clayey seams below 16.75 m depth.			14	SS	42	⊗ 0			
18					15	SS	25	⊗ 0			
20											
		SANDY SILT TILL: some clay, trace of gravel, grey, moist, very dense.		108.26 21.34	16	SS	>100	⊗ 0			
22											

GROUNDWATER ELEVATIONS

▽ SHALLOW/SINGLE INSTALLATION
WATER LEVEL: 3.17 m bgs

▼ DEEP/DUAL INSTALLATION
WATER LEVEL:

LOGGED : PL
CHECKED : LM

MCR BOREHOLE LOG 5276.GPJ 7/30/18

RECORD OF BOREHOLE 2

PROJECT : MGE5276
LOCATION : 175 Wynford Drive, Toronto, Ontario
STARTED : February 6, 2018
COMPLETED : February 9, 2018

MC CLYMONT & RAK ENGINEERS, INC.

SHEET 2 OF 2
DATUM Geodetic

DEPTH SCALE (metres)	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	BLOWS/0.3m	ORGANIC VAPOUR READINGS (ppm) ⊗ 100 200 300 400 / % LEL - (hexane) □ 20 40 60 80	SHEAR STRENGTH: Cu, KPa nat V - ✚ rem V - ● Q - ✖ U - ▲ 20 40 60 80 / WATER CONTENT, PERCENT wp w wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		129.60							
24	POWER BORING ROTARY MUD DRILLING	SILT: some clay, trace of sand, grey, moist. hard.		105.22 24.38	17	SS	51	0 ⊗			
26											
28					18	SS	52	0 ⊗			
30											
32					19	SS	43	0 ⊗			
34					20	SS	39	0 ⊗			
36											
38		CLAYEY SILT: grey, moist, hard.		93.02 36.58	21	SS	40	0 ⊗			
40		-some sand below 39.6 m depth. -200 mm wet sand seam, coarse to medium at 39.9 m depth.			22	SS	91				
		SHALE: grey, moist.		89.06 40.54	23	SS	>100				
42		End of Borehole Note: 1) Water level was not measured on completion of drilling due to use of mud. 2) Combustible vapour reading was 10 ppm at 1.8 m depth in open borehole. 3) Soil samples were screened using a RKI Eagle gas meter with methane response mode off. 4) Water level was measured at 3.12 m bgs on February 16, 2018. 5) Water level was measured at 2.05 m bgs on June 13, 2018. 6) Water level was measured at 3.17 m bgs on July 23, 2018.		88.07 41.53	24	SS	>100				
44											

GROUNDWATER ELEVATIONS

▽ SHALLOW/SINGLE INSTALLATION
WATER LEVEL: 3.17 m bgs

▼ DEEP/DUAL INSTALLATION
WATER LEVEL:

LOGGED : PL
CHECKED : LM

MCR BOREHOLE LOG 5276.GPJ 7/30/18

RECORD OF BOREHOLE 101

PROJECT : MGE5276
LOCATION : 175 Wynford Drive, Toronto, Ontario
STARTED : July 9, 2018
COMPLETED : July 9, 2018

MC CLYMONT & RAK ENGINEERS, INC.

SHEET 1 OF 1
DATUM Geodetic

DEPTH SCALE (metres)	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	BLOWS/0.3m	ORGANIC VAPOUR READINGS (ppm) ⊗ 100 200 300 400 / % LEL - (hexane) □ 20 40 60 80	SHEAR STRENGTH: Cu, KPa nat V - ✚ rem V - ● Q - ✖ U - ▲ 20 40 60 80 / WATER CONTENT, PERCENT wp w wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		132.33							
	POWER BORING / HOLLOW STEM BORING	100 mm ASPHALT / 180 mm GRANULAR FILL		132.23 0.10							Flush Mount Cover
		FILL: sand, trace of gravel, brown, moist, compact.		132.05 0.28	1	SS	27	⊗ 10			
		CLAYEY SILT TILL: trace of sand and gravel, brown, moist, stiff to very stiff. -oxidized fissures below 1.5 m depth.		131.26 1.07	2	SS	12	⊗ 15			
2					3	SS	20	⊗ 15			
					4	SS	22	⊗ 30			Bentonite
		-grey below 3.35 m depth.			5	SS	18	⊗ 25			
4					6	SS	11	⊗ 15			
					7	SS	18	⊗ 10			9.14 m Long 50 mm ID PVC Riser
6											
					8	SS	16	⊗ 5			▽
8											123.80 Silica Sand
		SILTY CLAY: trace of sand, grey, moist, stiff to very stiff.		123.19 9.14	9	SS	13	⊗ 5			123.19
10					10	SS	15	⊗ 5			3.05 m Long 50 mm ID Well Screen
		-moist to wet below 12.2 m depth.			11	SS	13	⊗ 5			120.14
12				119.68 12.65							
		End of Borehole									
14		Note: 1) Borehole remained dry on completion of drilling. 2) Soil samples were screened using a RKI Eagle gas meter with methane response mode off. 3) Water level was measured at 11.92 m bgs on July 23, 2018. 4) Water level was measured at 7.87 m bgs on October 10, 2018.									

GROUNDWATER ELEVATIONS

▽ SHALLOW/SINGLE INSTALLATION
WATER LEVEL: 7.87 m bgs

▼ DEEP/DUAL INSTALLATION
WATER LEVEL:

LOGGED : FR
CHECKED : LM

MCR BOREHOLE LOG 5276.GPJ 10/11/18

RECORD OF BOREHOLE 102

PROJECT : MGE5276
LOCATION : 175 Wynford Drive, Toronto, Ontario
STARTED : July 9, 2018
COMPLETED : July 9, 2018

MC CLYMONT & RAK ENGINEERS, INC.

SHEET 1 OF 1
DATUM Geodetic

DEPTH SCALE (metres)	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	BLOWS/0.3m	ORGANIC VAPOUR READINGS (ppm) ⊗ 100 200 300 400 / % LEL - (hexane) □ 20 40 60 80	SHEAR STRENGTH: Cu, KPa nat V - ✚ rem V - ● Q - ✖ U - ▲ 20 40 60 80 / WATER CONTENT, PERCENT wp w wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		132.63							
	POWER BORING / HOLLOW STEM BORING	100 mm ASPHALT / 300 mm GRANULAR FILL		132.53 0.10							Flush Mount Cover
		FILL: silty sand, trace of gravel and organics, brown, moist, compact.		132.23 0.40	1	SS	21	5			
					2	SS	14	5			
2		SILTY SAND: trace of coarse sand, brown, moist, compact to loose. -trace of gravel in the upper 400 mm. -wet below 2.3 m depth.		131.11 1.52	3	SS	15	10			
					4	SS	8	5			Bentonite
		SILTY CLAY: trace of sand, brown to grey, wet, soft.		129.58 3.05	5	SS	3	20			
4											
		CLAYEY SILT TILL: trace of sand and gravel, grey, moist to wet, stiff to very stiff.		128.06 4.57	6	SS	10	10			
											9.14 m Long 50 mm ID PVC Riser
6		-moist below 6.1 m depth.			7	SS	25	5			
					8	SS	21	5			
8											124.10
											Silica Sand
		SANDY SILT TILL: trace of clay and gravel, grey, moist, compact.		123.49 9.14	9	SS	18	5			123.49
10		-moist to wet below 10. 65 m depth.			10	SS	29	5			▽ 3.05 m Long 50 mm ID Well Screen
		-moist below 12.2 m depth.			11	SS	13	5			
12											120.44
		End of Borehole		119.98 12.65							
14		Note: 1) Borehole remained dry on completion of drilling. 2) Soil samples were screened using a RKI Eagle gas meter with methane response mode off. 3) Water level was measured at 10.66 m bgs on July 23, 2018. 4) Water level was measured at 10.10 m bgs on October 10, 2018.									

GROUNDWATER ELEVATIONS

▽ SHALLOW/SINGLE INSTALLATION
WATER LEVEL: 10.10 m bgs

▼ DEEP/DUAL INSTALLATION
WATER LEVEL:

LOGGED : FR
CHECKED : LM

MCR BOREHOLE LOG 5276.GPJ 10/11/18

RECORD OF BOREHOLE 201

PROJECT : MGE5276
LOCATION : 175 Wynford Drive, Toronto, Ontario
STARTED : September 28, 2018
COMPLETED : September 28, 2018

MC CLYMONT & RAK ENGINEERS, INC.

SHEET 1 OF 1
DATUM Geodetic

DEPTH SCALE (metres)	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	BLOWS/0.3m	ORGANIC VAPOUR READINGS (ppm) ⊗ 100 200 300 400 / % LEL - (hexane) □ 20 40 60 80	SHEAR STRENGTH: Cu, KPa nat V - ✚ rem V - ● Q - ✖ U - ▲ 20 40 60 80 / WATER CONTENT, PERCENT wp w wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		132.30							
	POWER BORING / HOLLOW STEM BORING	FILL: silty sand, medium to fine, trace of clay and gravel, slight petroleum odour, brown, moist, loose to compact.			1	SS	4	150			Flush Mount Cover
					2	SS	5	120			
2		-wet seam at 1.8 m depth.			3	SS	7	120			
		-grey, some clay, trace of asphalt pieces and moist to wet below 2.3 m depth. -wet seam at 2.45 m depth.			4	SS	13	100			Bentonite
				129.25 3.05							
		SILTY SAND: silty sand, medium to fine, trace of clay and gravel, clayey silt seams, brown, moist, compact.			5	SS	21	100			
4											
				127.73 4.57							
		SANDY SILT TILL: trace of clay and gravel, grey, moist, compact to very dense,			6	SS	16	30			
6					7	SS	23	80			9.14 m Long 50 mm ID PVC Riser
											124.68
		-moist to wet below 7.6 m depth.			8	SS	21	40			Silica Sand
8											
		-wet below 9.1 m depth.			9	SS	72	40			123.16
10											3.05 m Long 50 mm ID Well Screen ▽
					10	SS	65	35			
12		-moist below 12.2 m depth.			11	SS	51	35			120.11
				119.65 12.65							
		End of Borehole									
14		Note: 1) Borehole remained dry on completion of drilling. 2) Soil samples were screened using a RKI Eagle gas meter with methane response mode off. 3) Water level was measured at 10.97 m bgs on October 2, 2018. 4) Water level was measured at 10.70 m bgs on October 10, 2018.									

GROUNDWATER ELEVATIONS

▽ SHALLOW/SINGLE INSTALLATION
WATER LEVEL: 10.70 m bgs

▼ DEEP/DUAL INSTALLATION
WATER LEVEL:

LOGGED : MH
CHECKED : LM

MCR BOREHOLE LOG 5276.GPJ 10/11/18

RECORD OF BOREHOLE 202

PROJECT : MGE5276
LOCATION : 175 Wynford Drive, Toronto, Ontario
STARTED : September 28, 2018
COMPLETED : September 28, 2018

MC CLYMONT & RAK ENGINEERS, INC.

SHEET 1 OF 1
DATUM Geodetic

DEPTH SCALE (metres)	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	NUMBER	TYPE	BLOWS/0.3m	ORGANIC VAPOUR READINGS (ppm) ⊗ 100 200 300 400 / % LEL - (hexane) □ 20 40 60 80	SHEAR STRENGTH: Cu, KPa nat V - ✚ rem V - ● Q - ✖ U - ▲ 20 40 60 80 / WATER CONTENT, PERCENT wp w wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		130.10							
	POWER BORING / HOLLOW STEM BORING	75 mm ASPHALT / 225 mm GRANULAR FILL		130.02 0.08							Flush Mount Cover
		FILL: clayey silt, some sand, trace of gravel, brown, moist, compact.		129.80 0.30	1	SS	10	⊗ 50			
		CLAYEY SILT TILL: some sand, trace of gravel, brown, moist, very stiff to stiff,		129.34 0.76	2	SS	19	⊗ 50			
2					3	SS	26	⊗ 40			
		-75 mm sandy silt seam at 2.4 m depth. -trace of sand and grey below 2.5 m depth			4	SS	13	⊗ 40			Bentonite
					5	SS	14	⊗ 30			
4											
		SANDY SILT TILL: trace of clay and gravel, grey, moist, compact to dense,		125.53 4.57	6	SS	18	⊗ 35			
											9.14 m Long 50 mm ID PVC Riser
6					7	SS	23	⊗ 20			124.00
		-silty sand seams at 7.6 m depth.			8	SS	24	⊗ 20			
8											Silica Sand
		-wet below 9.1 m depth.			9	SS	46	⊗ 46			120.96 ▽
10											
					10	SS	42	⊗ 42			3.05 m Long 50 mm ID Well Screen
12		-moist below 12.2 m depth.			11	SS	14	⊗ 14			117.91
		End of Borehole		117.45 12.65							
		Note: 1) Water level was measured at 12.11 m bgs on completion of drilling, 2) Soil samples were screened using a RKI Eagle gas meter with methane response mode off. 3) Water level was measured at 10.61 m bgs on October 2, 2018. 4) Water level was measured at 9.32 m bgs on October 10, 2018.									
14											

GROUNDWATER ELEVATIONS

▽ SHALLOW/SINGLE INSTALLATION
WATER LEVEL: 9.32 m bgs

▼ DEEP/DUAL INSTALLATION
WATER LEVEL:

LOGGED : MH
CHECKED : LM

MCR BOREHOLE LOG 5276.GPJ 10/11/18

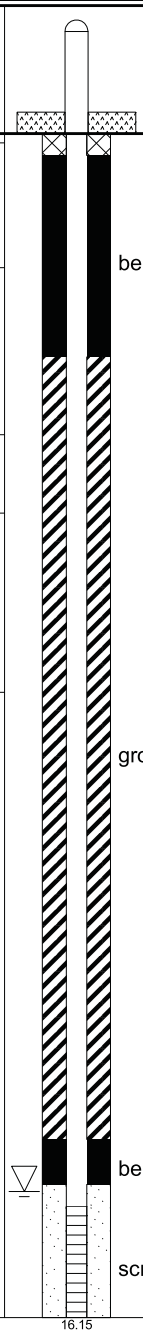
LOG OF DRILLING OPERATIONS

MW1d-15

R.J. Burnside & Associates Limited
292 Speedvale Avenue West, Guelph, Ontario N1H 1C4
telephone (519) 823-4995 fax (519) 836-5477

Client: **Allied Don Valley Hotel Inc.**	Project Name: **Don Valley Hotel HydroG Study**	Logged by: **D. Durham**
Project No.: **300037774**	Location: **175 Wynford Drive**	Ground (m amsl):
Drilling Co.: **Lantech Drilling Services Inc.**	Date Started: **10/14/2015**	Static Water Level Depth (m): **14.43**
Drilling Method: **Hollow Stem Auger**	Date Completed: **10/14/2015**	Sand Pack Depth (m) :

Depth Scale (ft)	Depth Scale (m)	Stratigraphic Description	Strat. Plot	Depth (m)	SAMPLE Num.	Type	Int.	N.Val.
		Dark Brown TOPSOIL.		0.13		SS		28
	1.0	SILTY SAND, light to med brown, trace to some gravel, trace clay, stiff, dry, minor plasticity.				SS		31
5.0	2.0	SILT AND CLAY, med grey with some mottling near 1.83m, varying sand and gravel content, some to trace gravel, sandy to some sand, soft to firm, moist, some plasticity.		1.83		SS		29
	3.0					SS		13
10.0	4.0					SS		6
		SILTY SAND, med grey, trace gravel, clayey near 5.18m, soft, moist, generally not plastic except for clayey zone near 5.18m.		4.11		SS		13
15.0	5.0					SS		20
		CLAYEY SILT, med grey, trace fine gravel, soft to firm, moist, some plasticity.		5.18				
20.0	6.0					SS		21
	7.0							
25.0	8.0	SANDY SILT, med grey, some clay, trace gravel, firm, moist, some plasticity. Sand is fine to very fine grained.		7.62		SS		25
	9.0							
30.0	10.0	Minor sand zones at: 11.0 - 11.3 m, 13.7 - 14.0 m, and 15.2 - 15.5 m.				SS		22
35.0	11.0					SS		16
	12.0							
40.0	13.0					SS		29
45.0	14.0					SS		100+
	15.0							
50.0	16.0			16.15		SS		61



Prepared By: **D. Durham** Checked By: Date Prepared: **10/23/2015**

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LEGEND
- Water found @ time of drilling
- Static Water Level - 10/22/2015

MONITORING WELL DATA
- Pipe: **51 mm dia. PVC**
- Screen: **51 mm dia. PVC #10 slot**

SAMPLE TYPE
- AC Auger Cutting
- CS Continuous
- RC Rock Core
- SS Split Spoon
- AR Air Rotary
- WC Wash Cuttings

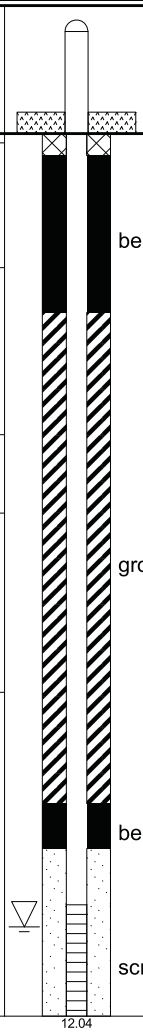
LOG OF DRILLING OPERATIONS

MW1s-15

R.J. Burnside & Associates Limited
292 Speedvale Avenue West, Guelph, Ontario N1H 1C4
telephone (519) 823-4995 fax (519) 836-5477

Client: **Allied Don Valley Hotel Inc.**	Project Name: **Don Valley Hotel HydroG Study**	Logged by: **D. Durham**
Project No.: **300037774**	Location: **175 Wynford Drive**	Ground (m amsl):
Drilling Co.: **Lantech Drilling Services Inc.**	Date Started: **10/13/2015**	Static Water Level Depth (m): **10.82**
Drilling Method: **Hollow Stem Auger**	Date Completed: **10/13/2015**	Sand Pack Depth (m) :

Depth Scale (ft)	Depth Scale (m)	Stratigraphic Description	Strat. Plot	Depth (m)	SAMPLE Num.	SAMPLE Type	SAMPLE Int.	Depth Scale (ft)	Depth Scale (m)
		Dark Brown TOPSOIL.		0.13					
5.0	1.0	SILTY SAND, light to med brown, trace to some gravel, trace clay, stiff, dry, minor plasticity.						5.0	1.0
	2.0	SILT AND CLAY, med grey with some mottling near 1.83m, varying sand and gravel content, some to trace gravel, sandy to some sand, soft to firm, moist, some plasticity.		1.83					2.0
10.0	3.0							10.0	3.0
	4.0	SILTY SAND, med grey, trace gravel, clayey near 5.18m, soft, moist, generally not plastic except for clayey zone near 5.18m.		4.11					4.0
15.0	5.0			5.18				15.0	5.0
	6.0	CLAYEY SILT, med grey, trace fine gravel, soft to firm, moist, some plasticity.						20.0	6.0
20.0	7.0								7.0
25.0	8.0	SANDY SILT, med grey, some clay, trace gravel, firm, moist, some plasticity. Sand is fine to very fine grained.		7.62				25.0	8.0
30.0	9.0	Minor sand zone at: 11.0 - 11.3 m.						30.0	9.0
	10.0								10.0
35.0	11.0							35.0	11.0
	12.0			12.04					12.0



Prepared By: **D. Durham** Checked By: Date Prepared: **10/23/2015**

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LEGEND
- Water found @ time of drilling
- Static Water Level - 10/22/2015

MONITORING WELL DATA
- Pipe: **51 mm dia. PVC**
- Screen: **51 mm dia. PVC #10 slot**

SAMPLE TYPE
- AC Auger Cutting
- CS Continuous
- RC Rock Core
- SS Split Spoon
- AR Air Rotary
- WC Wash Cuttings

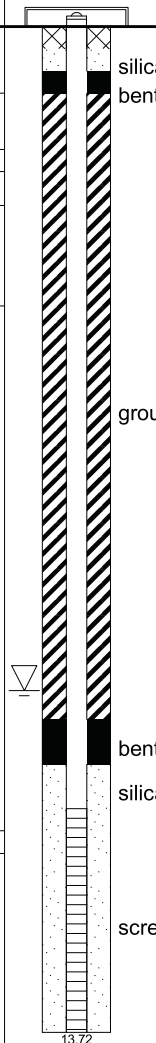
LOG OF DRILLING OPERATIONS

MW2-15

R.J. Burnside & Associates Limited
292 Speedvale Avenue West, Guelph, Ontario N1H 1C4
telephone (519) 823-4995 fax (519) 836-5477

Client: **Allied Don Valley Hotel Inc.**	Project Name: **Don Valley Hotel HydroG Study**	Logged by: **D. Durham**
Project No.: **300037774**	Location: **175 Wynford Drive**	Ground (m amsl):
Drilling Co.: **Lantech Drilling Services Inc.**	Date Started: **10/14/2015**	Static Water Level Depth (m): **9.06**
Drilling Method: **Hollow Stem Auger**	Date Completed: **10/15/2015**	Sand Pack Depth (m) :

Depth Scale (ft)	Depth Scale (m)	Stratigraphic Description	Strat. Plot	Depth (m)	SAMPLE Num.	Type	Int.	N.Val.
		FILL. Brown/grey gravel and sand, compact, moist.				SS		27
	1.0	GRAVELLY SAND, speckled brn/blk/grey, loose to compact, moist to wet, non-plastic.		0.91		SS		23
5.0	2.0	SAND, brown, medium, compact, wet, non-plastic, uniform.		1.68 1.98		SS		26
		SILT and FINE SAND, brown with rust coloured mottling, trace small stones, moist, stiff, competent. Till like.		2.44		SS		38
10.0	3.0	SANDY SILT, medium grey, fine sand, trace clay and gravel, firm, moist, some plasticity.		3.81		SS		15
	4.0	CLAYEY SANDY SILT, medium grey, some clay to clayey, trace gravel, stiff, moist, some plasticity.				SS		17
15.0	5.0					SS		13
20.0	6.0					SS		11
25.0	7.0					SS		17
30.0	8.0					SS		18
35.0	9.0					SS		21
40.0	10.0	SAND, medium grey, fine, some silt, some to trace clay, trace gravel, firm, wet, some plasticity.		10.97 11.28		SS		22
45.0	11.0	SILT and FINE SAND, medium grey, some to trace clay, trace gravel, firm, wet, some plasticity.		14.33		SS		21



Prepared By: **D. Durham** Checked By: Date Prepared: **10/23/2015**

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LEGEND
- Water found @ time of drilling
- Static Water Level - 10/22/2015

MONITORING WELL DATA
- Pipe: **51 mm dia. PVC**
- Screen: **51 mm dia. PVC #10 slot**

SAMPLE TYPE
- AC Auger Cutting
- CS Continuous
- RC Rock Core
- SS Split Spoon
- AR Air Rotary
- WC Wash Cuttings

LOG OF DRILLING OPERATIONS

MW3-15

BURNSIDE

R.J. Burnside & Associates Limited
292 Speedvale Avenue West, Guelph, Ontario N1H 1C4
telephone (519) 823-4995 fax (519) 836-5477

Client: **Allied Don Valley Hotel Inc.**	Project Name: **Don Valley Hotel HydroG Study**	Logged by: **D. Durham**
Project No.: **300037774**	Location: **175 Wynford Drive**	Ground (m amsl):
Drilling Co.: **Lantech Drilling Services Inc.**	Date Started: **10/15/2015**	Static Water Level Depth (m): **9.15**
Drilling Method: **Hollow Stem Auger**	Date Completed: **10/15/2015**	Sand Pack Depth (m) :

Depth Scale (ft)	Depth Scale (m)	Stratigraphic Description	Strat. Plot	Depth (m)		SAMPLE Num.	Type	Int.	N.Val.	Depth Scale (ft)	Depth Scale (m)
		FILL, grey.		0.18	silica sand pack		SS		13		
	1.0	SAND, fine, brown with mottles, some silt, soft to firm, moist to wet, non-plastic.		0.61	bentonite seal		SS		18		1.0
5.0	2.0	CLAYEY SILT, grey with some mottling, trace gravel and fine sand, firm, moist, some plasticity.		2.13			SS		14	5.0	2.0
		SANDY CLAYEY SILT, medium grey, trace gravel, firm, moist, some plasticity.					SS		19		
10.0	3.0						SS		16	10.0	3.0
	4.0	SANDY SILT, medium grey, trace gravel and clay, stiff to very stiff, dry to moist, non-plastic.		3.81			SS		50		4.0
15.0				4.57	grout					15.0	
	5.0	SAND, fine to medium, grey, trace silt, loose to compact, saturated, non-plastic.		4.88			SS		26		5.0
		SANDY CLAYEY SILT, medium grey, trace gravel, firm, moist, some plasticity.									
20.0	6.0						SS		22	20.0	6.0
	7.0										7.0
25.0							SS		30	25.0	
	8.0				bentonite seal						8.0
	9.0				silica sand pack						9.0
30.0		SILT, medium grey, trace fine sand, stiff, moist, non-plastic.		9.14			SS		88+	30.0	
	10.0										10.0
35.0				10.67	screen		SS		86+	35.0	
	11.0	SAND, grey speckled, medium, some silt, dense, saturated, non-plastic.		10.97							11.0
	12.0	SANDY SILT, medium grey, stiff, moist, non-plastic.									12.0
40.0					12.19		SS		70+	40.0	
				12.80							

Prepared By: **D. Durham** Checked By: Date Prepared: **10/23/2015**

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LEGEND
- Water found @ time of drilling
- Static Water Level - 10/22/2015

MONITORING WELL DATA
- Pipe: **51 mm dia. PVC**
- Screen: **51 mm dia. PVC #10 slot**

SAMPLE TYPE
- AC Auger Cutting
- CS Continuous
- RC Rock Core
- SS Split Spoon
- AR Air Rotary
- WC Wash Cuttings

APPENDIX C

SLOPE INSPECTION FORM

GROUNDED ENGINEERING

1. INSPECTION DATE (DD-MM-YYYY): July 31, 2020

FILE NO. 20-153

WEATHER (circle):

☒ sunny ☐ partly cloudy ☐ cloudy ☐ calm ☐ breeze ☐ windy

☐ clear ☐ fog ☐ rain ☐ snow ☐ cold ☐ cool ☐ warm

☒ hot

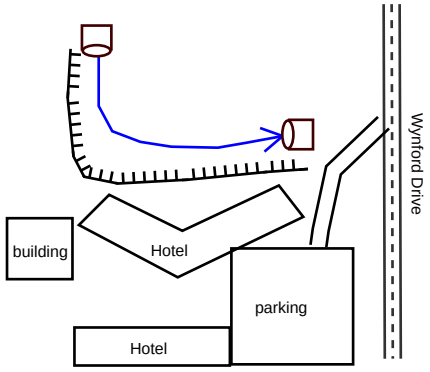
INSPECTED BY (name): J. Hunter, J. Bobro

2. SITE LOCATION / DIRECTIONS (describe main roads, features)

175 Wynford Drive

N

SKETCH



3. WATERSHED

Unnamed creek at the toe of slope flowing towards the Don River

4. PROPERTY OWNERSHIP (name, address, phone):

LEGAL DESCRIPTION

Lot Concession

Township County

CURRENT LAND USE (circle and describe)

☐ **vacant** - field, bush, woods, forest, wilderness, tundra,

☐ **passive** - recreational parks, golf courses, non-habitable structures, buried utilities, swimming pools,

☒ **active** - habitable structures, residential, commercial, industrial, warehousing and storage,

☐ **infra-structure or public use** - stadiums, hospitals, schools, bridges, high voltage power lines, waste management sites,

SLOPE INSPECTION FORM

GROUNDED ENGINEERING

5. SLOPE DATA

HEIGHT □ 3 - 6 m [X] 6 - 10 m [X] 10 - 15 m □ 15 - 20 m □ 20 - 25 m □ 25 - 30 m □ > 30 m

estimated height (m): **7-11 m (from survey)**

INCLINATION AND SHAPE

□4:1 or flatter 25 % 14 deg.	□up to 3:1 33 % 18½ deg.	□up to 2:1 50 % 26½ deg.
[X]up to 1:1 100 % 45 deg.	□up to ½:1 200 % 63½ deg.	□steeper than > 63½ deg.

6. SLOPE DRAINAGE (describe)

TOP

PVC pipe observed coming from hotel with an outlet at the slope crest. No erosion was observed downslope from the outlet. Overland sheet flow is partially obstructed due to a berm beside the ravine.

FACE

No drainage observed on the slope face.

BOTTOM

A culvert north of the property feeds the unnamed creek at the toe of slope. The creek flows into a culvert at the toe of slope.

7. SLOPE SOIL STRATIGRAPHY (describe, positions, thicknesses, types)

TOP

The berm appears to be constructed from earth fill.

FACE

The soil on the slope face has cohesion.
Boreholes indicate the stratigraphy consists of glacial till.

BOTTOM

The creek bed contains cobbles and boulders.

8. WATER COURSE FEATURES (circle and describe)

SWALE, CHANNEL

GULLY

STREAM, (CREEK), RIVER Unnamed creek at the toe of slope flows into a culvert directed towards the Don River east of the property.

POND, BAY, LAKE

SPRINGS

MARSHY GROUND

9. VEGETATION COVER (grasses, weeds, shrubs, saplings, trees)

TOP

The tableland is vegetated with landscaped grass, with some areas of the tableland forested.

FACE

The slope face is forested with understory to mature trees.
A failure scarp is present west of the study area.

BOTTOM

The banks of the creek are bare and the vegetation is undercut, larger trees have their root bulbs exposed.

10. STRUCTURES (buildings, walls, fences, sewers, roads, stairs, decks)

TOP

There is a concrete pool structure approximately at the slope crest. The structure is in a good state of maintenance.
The hotel is present greater than 6 m from the slope crest in the tableland.

FACE

The driveway into the property is present east of the ravine.

BOTTOM

At the east end of site the creek flows into the culvert. There is a gabion stone retaining wall at the slope toe approximately 10 m in length at the culvert.

11. EROSION FEATURES (scour, undercutting, bare areas, piping, rills, gully)

TOP

No erosion was observed in the tableland.

FACE

There are erosion scarps on the slope face.

BOTTOM

The vegetation along the creek is undercut and the root bulb for some trees is exposed.

12. SLOPE SLIDE FEATURES (tension cracks, scarps, slumps, bulges, grabens, ridges, bent trees)

TOP

No slope slide features were observed in the tableland.

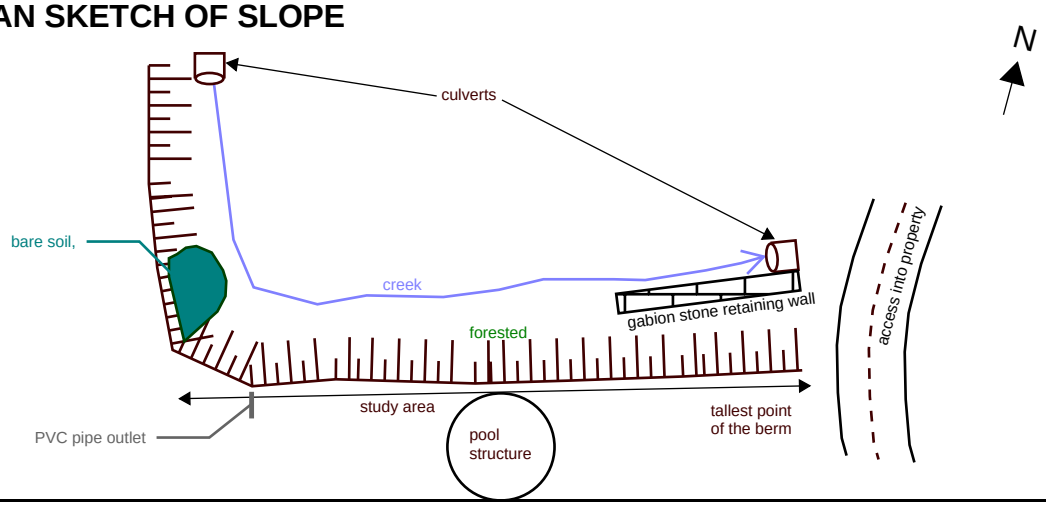
FACE

No slide features were observed at the toe of slope.

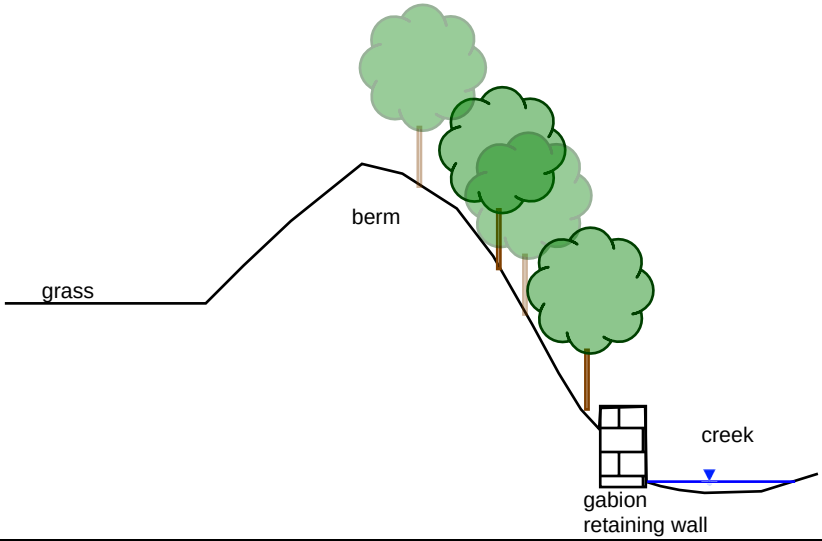
BOTTOM

No slide features were observed at the toe of slope.

13. PLAN SKETCH OF SLOPE



14. PROFILE SKETCH OF SLOPE



SLOPE RATING CHART

GROUNDED ENGINEERING

Site Location: **175 Wynford Drive**

File No. **20-153**

Property Owner:

Inspection Date: **July 31, 2020**

Inspected By: **J. Hunter, J. Bobro**

Weather: **sunny, 25 deg C**

				Rating Value
1.	**SLOPE INCLINATION**			
		degrees	**horiz. : vert.**	
	a)	18 or less	3 : 1 or flatter	0
	b)	18 - 26	2 : 1 to 3 : 1	6
	c)	more than 26	steeper than 2 : 1	(16)
2.	**SOIL STRATIGRAPHY**			
	a)	Shale, Limestone, Granite (Bedrock)		0
	b)	Sand, Gravel		6
	c)	Glacial Till		(9)
	d)	Clay, Silt		12
	e)	Fill		(16)
	f)	Leda Clay		24
3.	**SEEPAGE FROM SLOPE FACE**			
	a)	None or Near bottom only		(0)
	b)	Near mid-slope only		6
	c)	Near crest only or, From several levels		12
4.	**SLOPE HEIGHT**			
	a)	2 m or less		0
	b)	2.1 to 5 m		2
	c)	5.1 to 10 m		(4)
	d)	more than 10 m		(8)
5.	**VEGETATION COVER ON SLOPE FACE**			
	a)	Well vegetated; heavy shrubs or forested with mature trees		(0)
	b)	Light vegetation; Mostly grass, weeds, occasional trees, shrubs		4
	c)	No vegetation, bare		(8)
6.	**TABLE LAND DRAINAGE**			
	a)	Table land flat, no apparent drainage over slope		(0)
	b)	Minor drainage over slope, no active erosion		2
	c)	Drainage over slope, active erosion, gullies		4
7.	**PROXIMITY OF WATERCOURSE TO SLOPE TOE**			
	a)	15 metres or more from slope toe		0
	b)	Less than 15 metres from slope toe		(6)
8.	**PREVIOUS LANDSLIDE ACTIVITY**			
	a)	No		(0)
	b)	Yes		6

	SLOPE INSTABILITY RATING	**RATING VALUES TOTAL**	**INVESTIGATION REQUIREMENTS**	**TOTAL**
1.	Low potential	< 24	Site inspection only, confirmation, report letter.	
2.	Slight potential	25-35	Site inspection and surveying, preliminary study, detailed report.	**35 - 54**
(3.)	Moderate potential	> 35	Boreholes, piezometers, lab tests, surveying, detailed report.	

NOTES:
a) Choose only one from each category; compare total rating value with above requirements.
b) If there is a water body (stream, creek, river, pond, bay, lake) at the slope toe; the potential for toe erosion and undercutting should be evaluated in detail and, protection provided if required.

APPENDIX D

Photograph 1

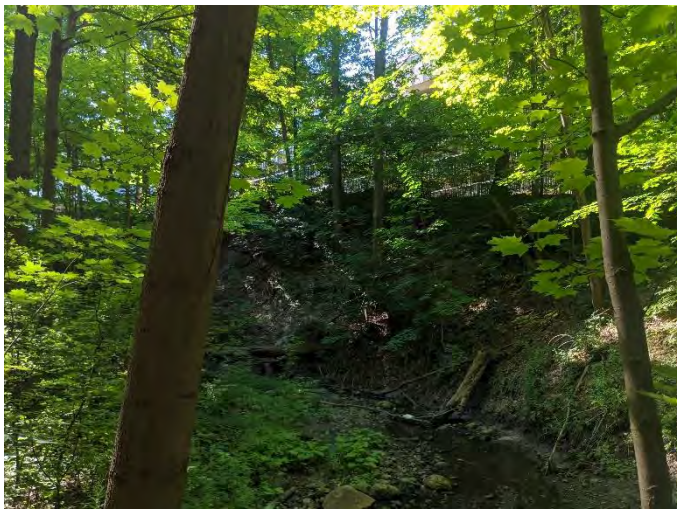
Position:	Tableland
Direction/Object:	East
Description:	The tableland is landscaped with grass. The forested berm is present north of the hotel at the slope crest.

Photograph 2

Position:	Pool building
Direction/Object:	East
Description:	The pool building is present approximately at the slope crest. There is a concrete retaining wall next to the pool.

Photograph 3

Position:	Within ravine
Direction/Object:	South
Description:	The slope is forested with mature trees and understory.



Photograph 4

Position:	In the creek
Direction/Object:	East
Description:	There are some fallen and slightly leaning trees in the ravine. The slope face is bare and at a steep inclination, appears to be a historic failure scarp.

Photograph 5

Position:	In the creek
Direction/Object:	West
Description:	Erosion is visible along the creek bank, vegetation has been undercut.

Photograph 6

Position:	In the creek
Direction/Object:	East
Description:	There is a gabion stone retaining wall along the creek bank at the east side of the property.

APPENDIX E

GROUNDED ENGINEERING
12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

Note

Reference
City of Toronto Aerial Photographs Archive

Project
175 WYNFORD DRIVE TORONTO, ON

Figure Title
AERIAL PHOTO 1947

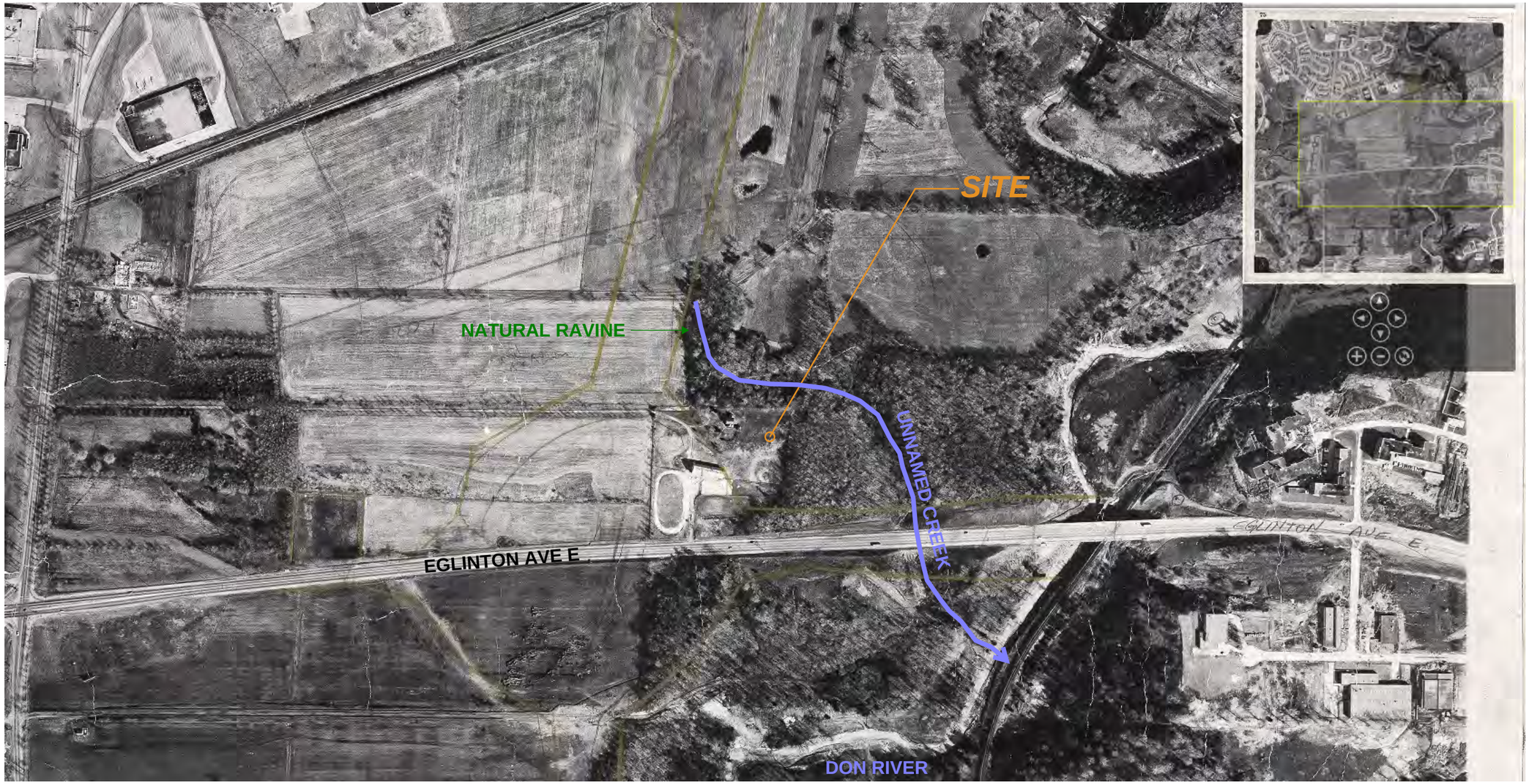
North
TRUE
PROJECT

Date
AUGUST 2020

Scale
AS INDICATED

Job No
20-153

Figure No
Appendix



GROUNDED
ENGINEERING
12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

Note

Reference

City of Toronto Aerial Photographs Archive

Project

175 WYNFORD DRIVE TORONTO, ON

Figure Title

AERIAL PHOTO 1959

North

TRUE
PROJECT

Date

AUGUST 2020

Scale

AS INDICATED

Job No

20-153

Figure No

Appendix

GROUNDED ENGINEERING
12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

Note

Reference

City of Toronto Aerial Photographs Archive

Project

175 WYNFORD DRIVE TORONTO, ON

Figure Title

AERIAL PHOTO 1969

North

TRUE PROJECT

Date

AUGUST 2020

Scale

AS INDICATED

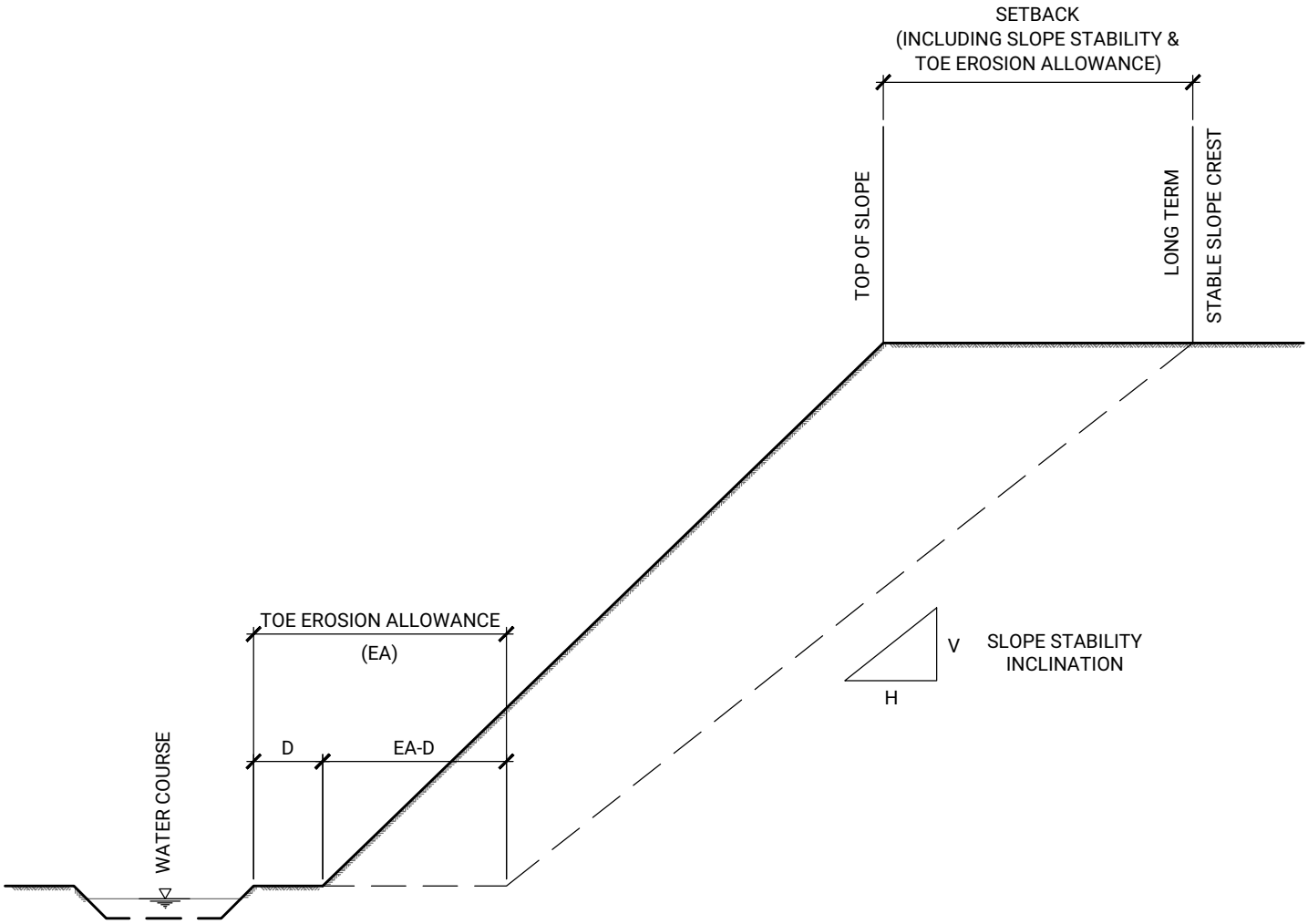
Job No

20-153

Figure No

Appendix

APPENDIX F



LEGEND

D = AVAILABLE FLOOD PLAIN BETWEEN EDGE OF WATERCOURSE AND SLOPE TOE

EA = TOE EROSION ALLOWANCE

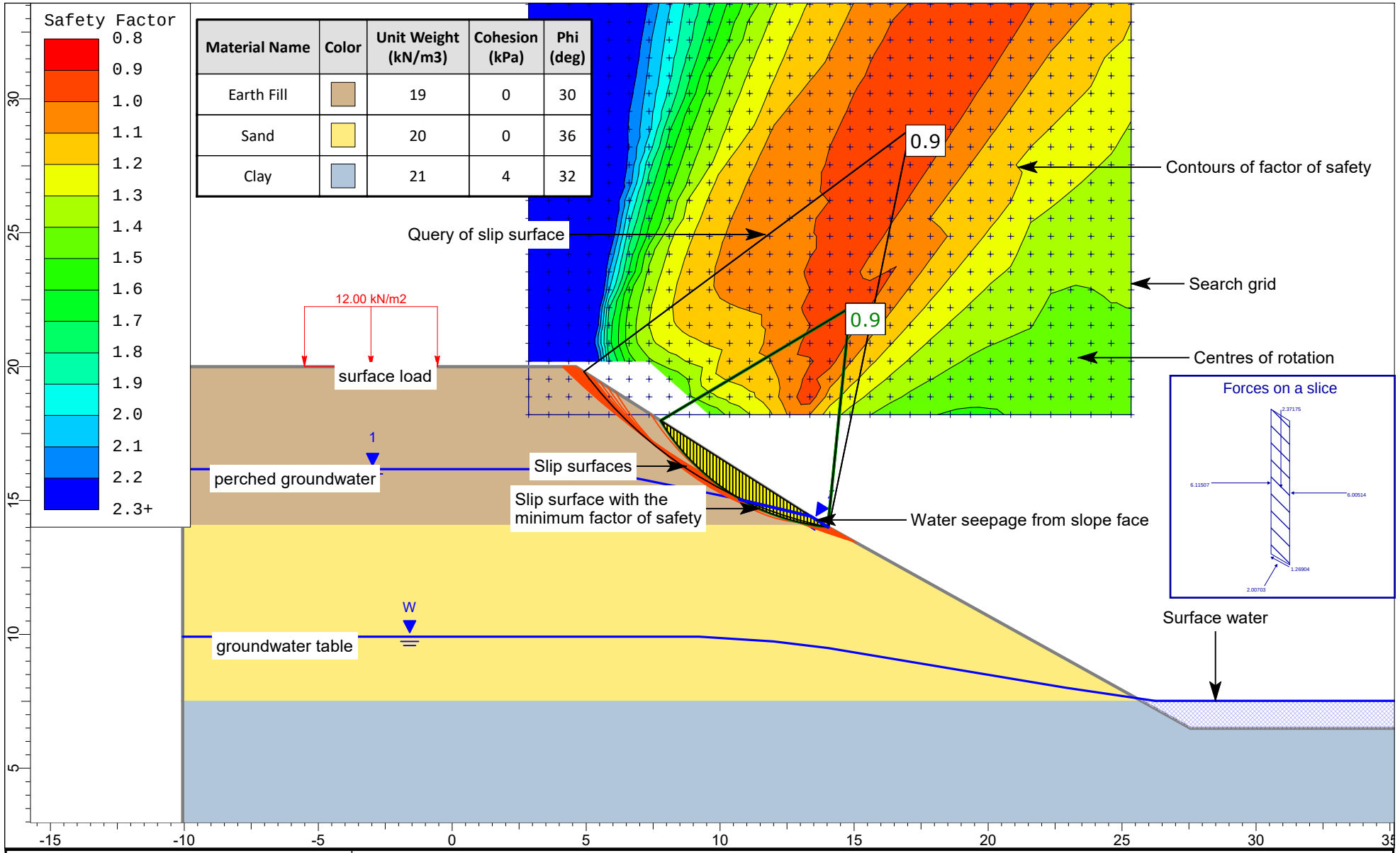
*THE DRAWING PROVIDED IS NOT TO SCALE

GROUNDED ENGINEERING

Title

LONG TERM STABLE SLOPE CREST MODEL

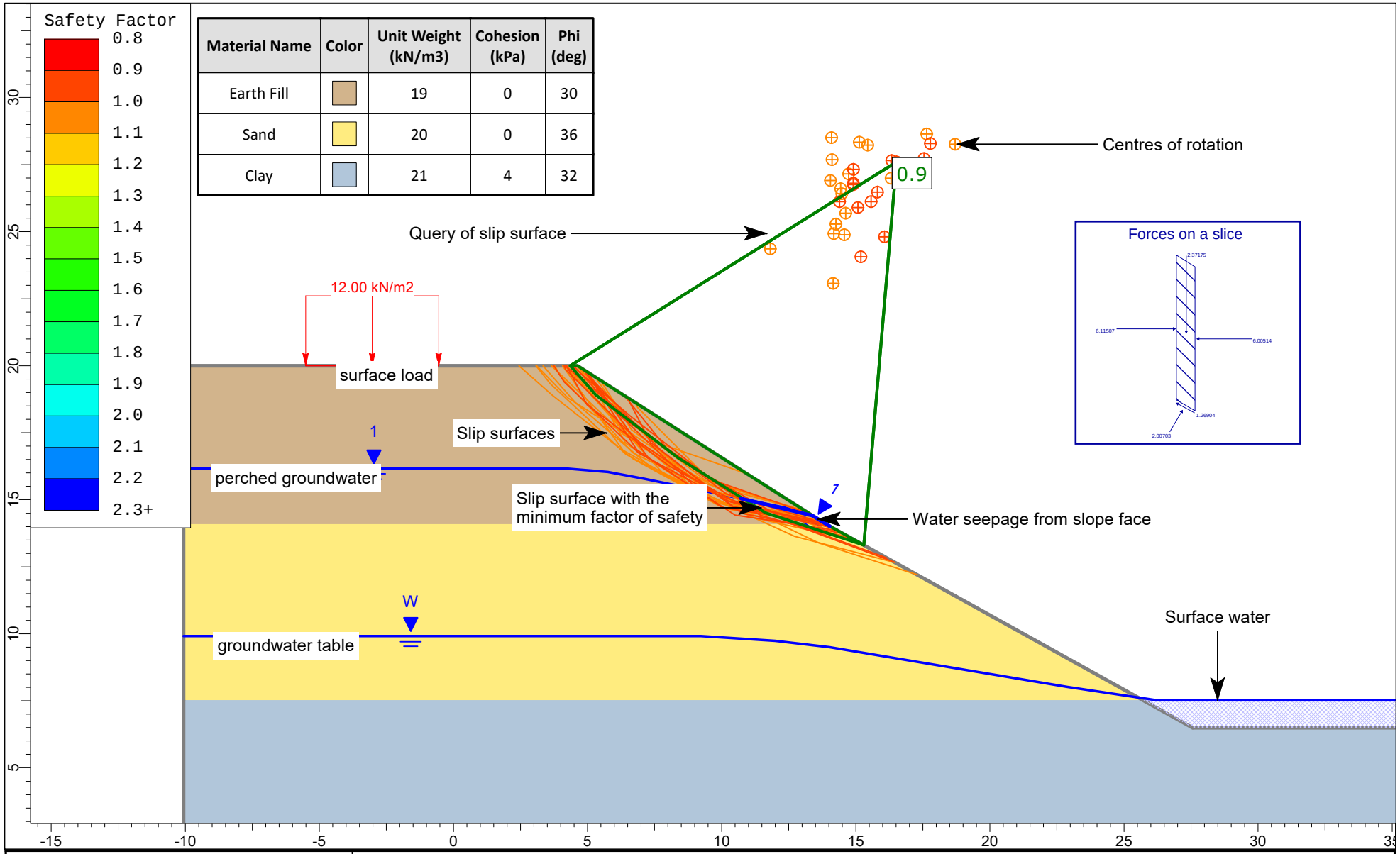
APPENDIX G



GROUNDED ENGINEERING

SLIDEINTERPRET 8.029

Project	EXAMPLE SLOPE STABILITY ANALYSIS		
Analysis Description	Global Stability	Model	Example | circular surfaces
Drawn By	Grounded Engineering	Scale 1:200	Date 2019-12-01
Source	Source		File Name Slide Example.slmd

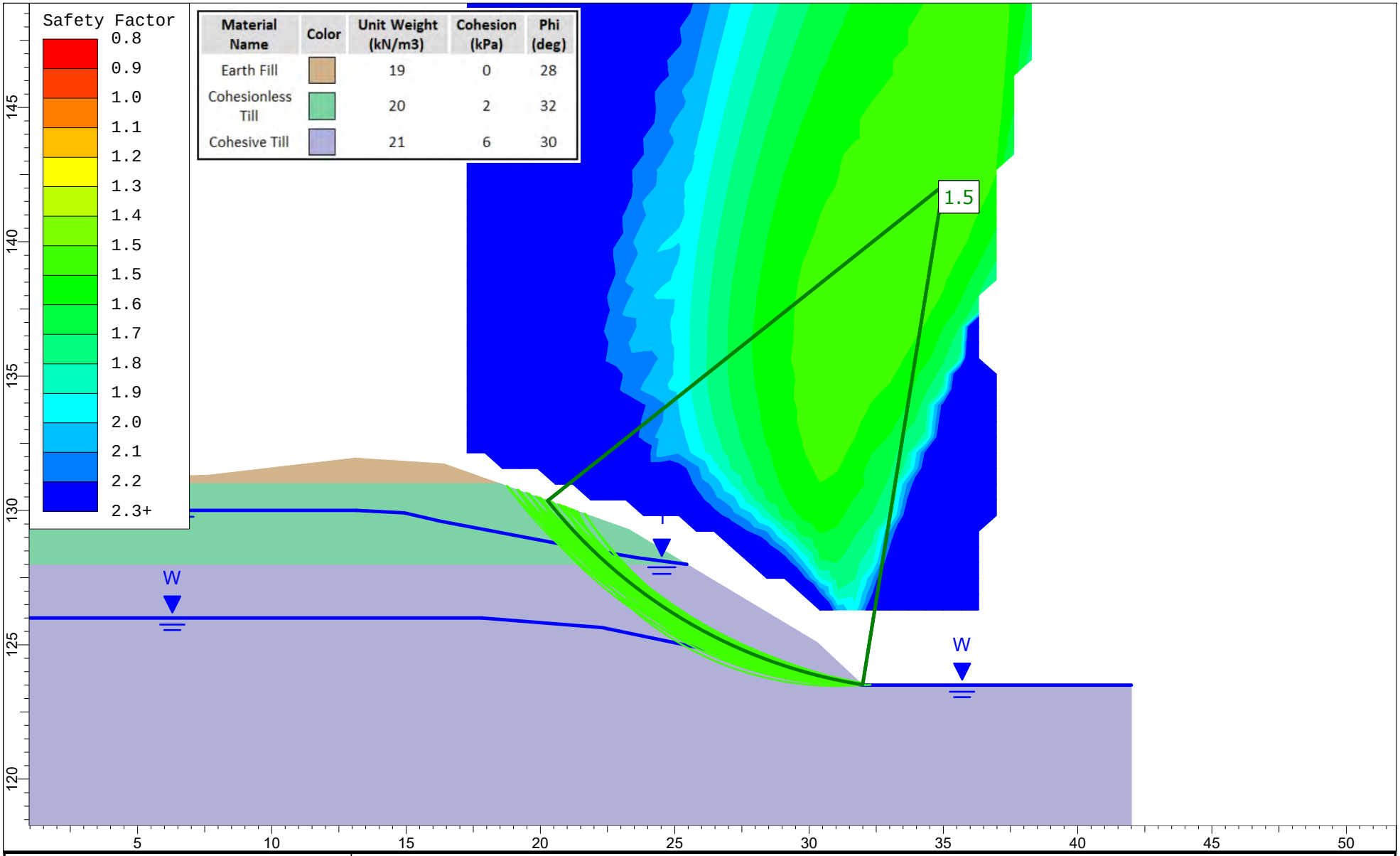


GROUNDED ENGINEERING

SLIDEINTERPRET 8.029

Project	EXAMPLE SLOPE STABILITY ANALYSIS		
Analysis Description	Global Stability	*Model*	Example | non-circular surfaces
Drawn By	Grounded Engineering	*Scale* 1:200	*Date* 2019-12-01
Source	Source		*File Name* Slide Example.slmd

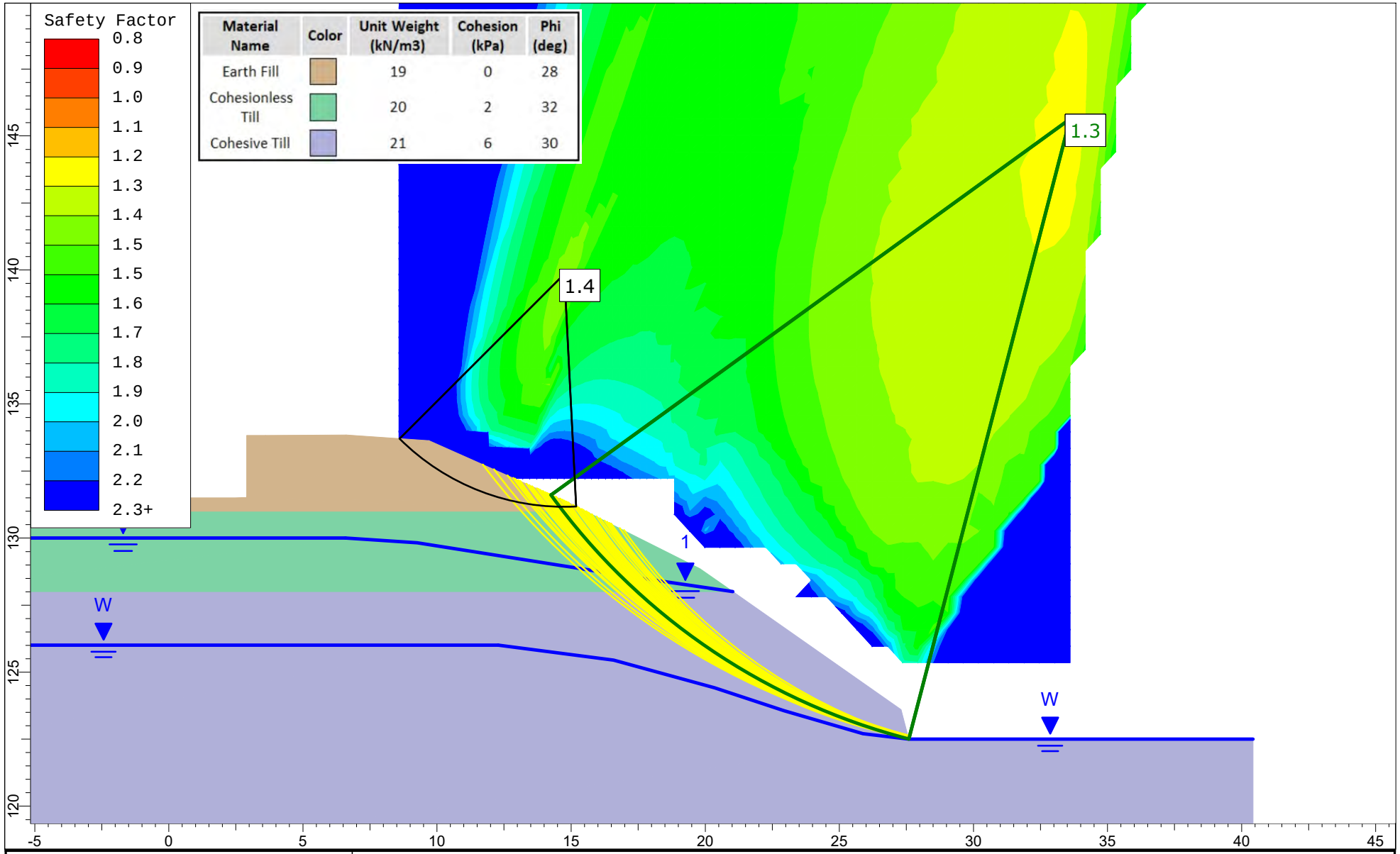
APPENDIX H



GROUNDED ENGINEERING

Project	20-153 | 175 Wynford Drive		
Analysis Description	Global Stability	Model	Section A | Circular surfaces, nwt
Drawn By	JH	Scale 1:200	Date 2020-08-09
Source	I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011	File Name	20-153 175 Wynford Drive - Existing.slmd

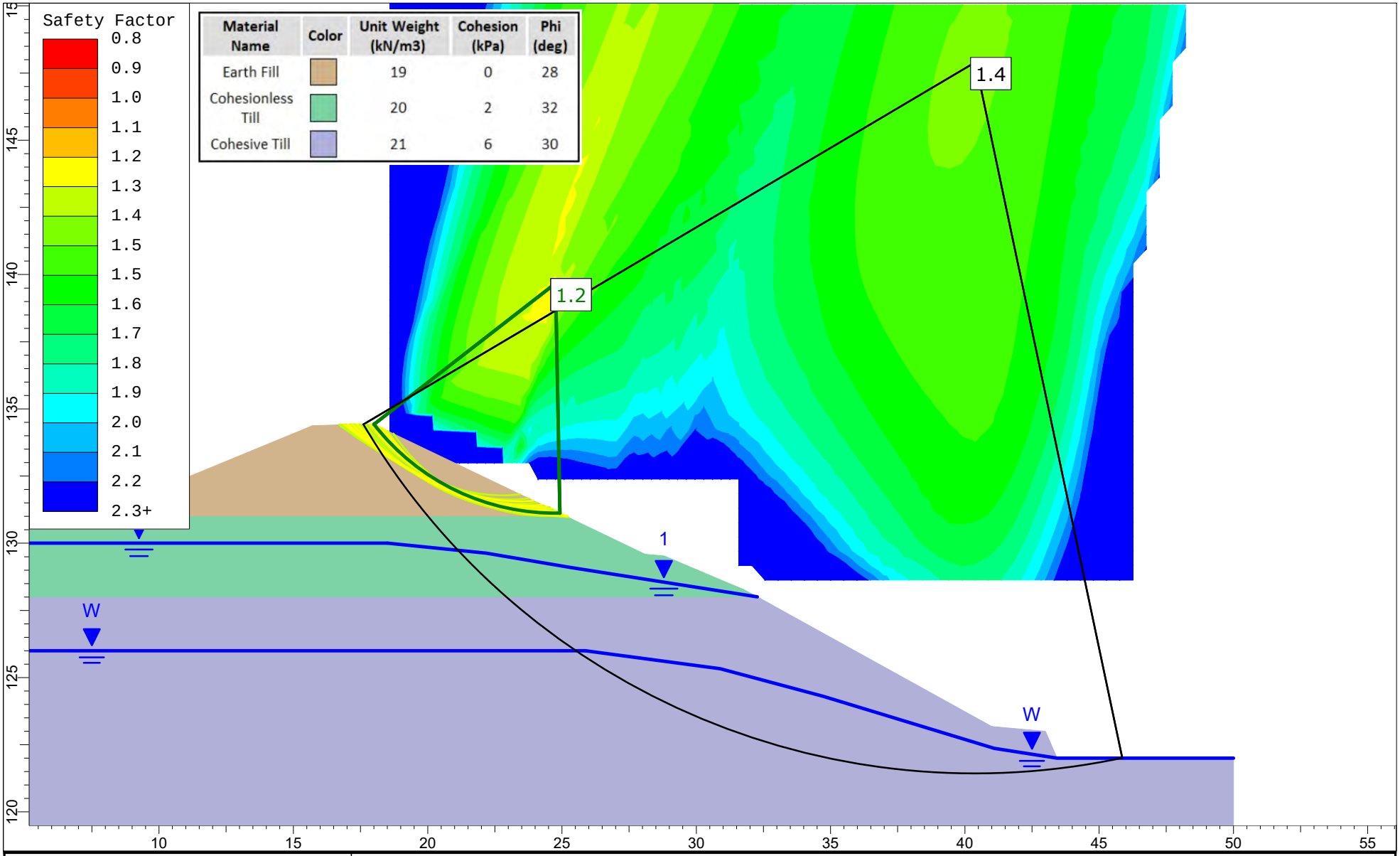
SLIDEINTERPRET 9.008



GROUNDED ENGINEERING

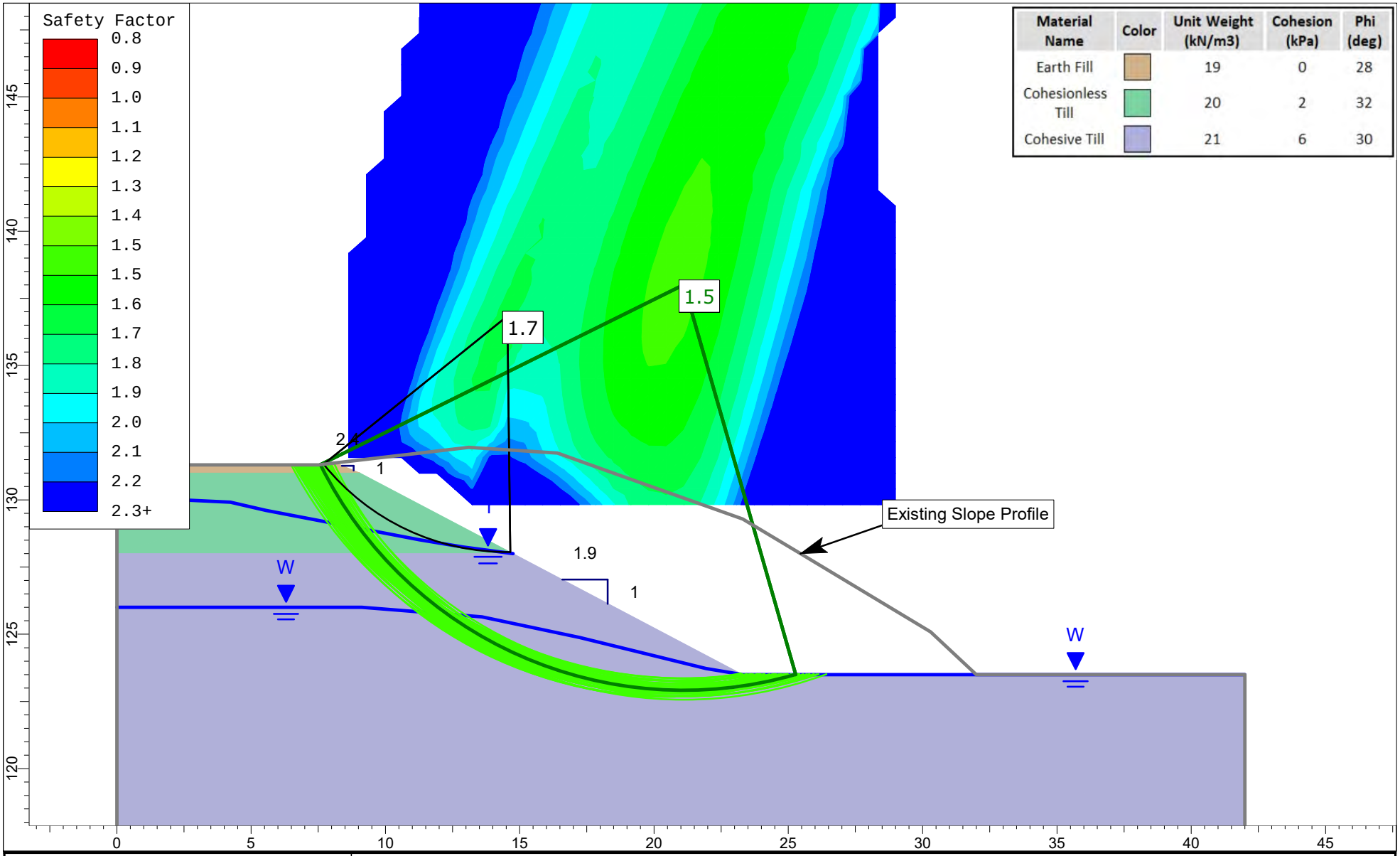
SLIDEINTERPRET 9.008

Project	20-153 | 175 Wynford Drive		
Analysis Description	Global Stability	Model	Section B | Circular surfaces, nwt
Drawn By	JH	Scale 1:200	Date 2020-08-09
Source	I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011	File Name	20-153 175 Wynford Drive - Existing.slmd

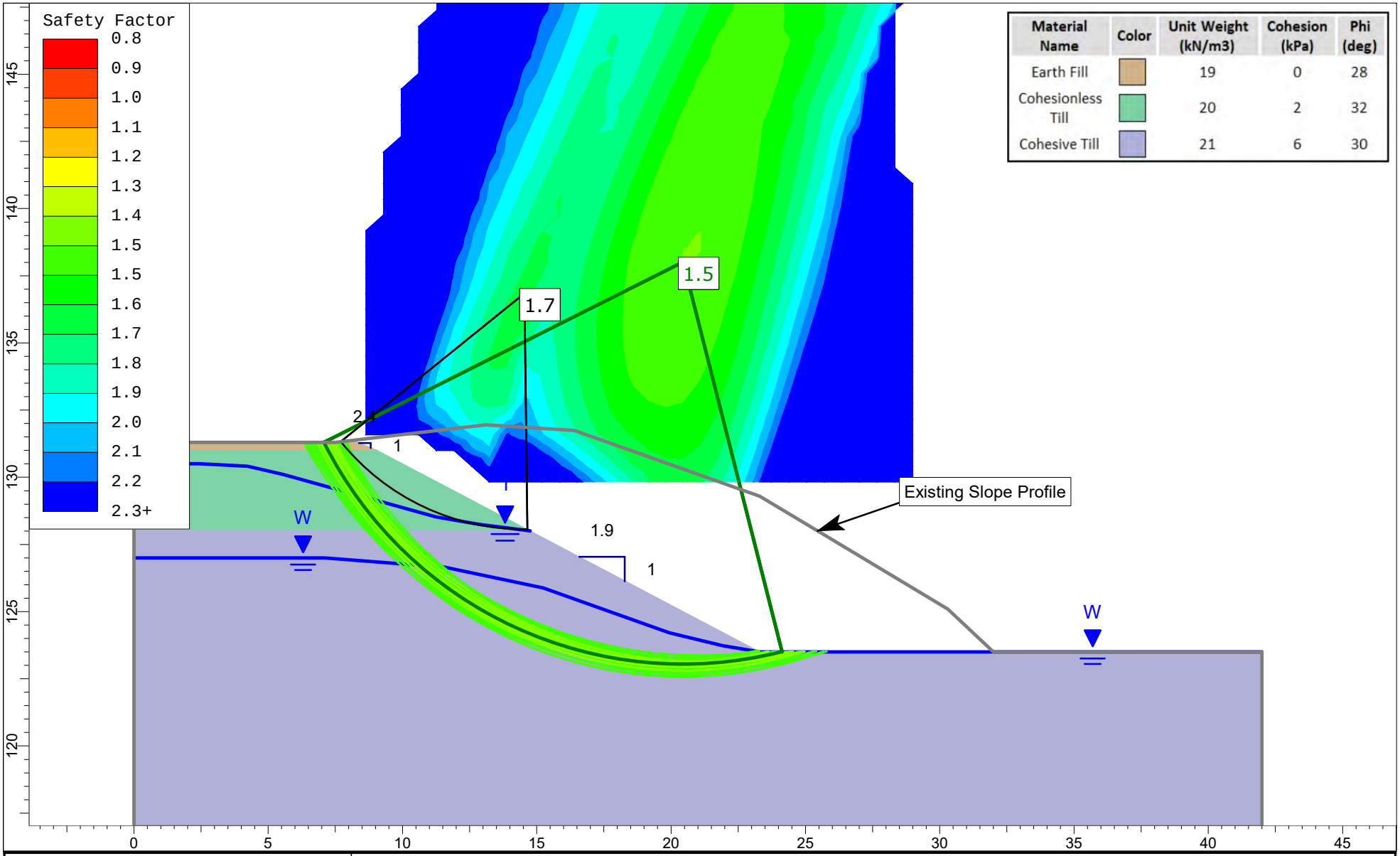


GROUNDED ENGINEERING	Project: 20-153 | 175 Wynford Drive		
	Analysis Description: Global Stability		Model: Section C | Circular surfaces, nwt
	Drawn By: JH	Scale: 1:200	Date: 2020-08-09
SLIDEINTERPRET 9.008	Source: I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011		File Name: 20-153 175 Wynford Drive - Existing.slmd

APPENDIX I



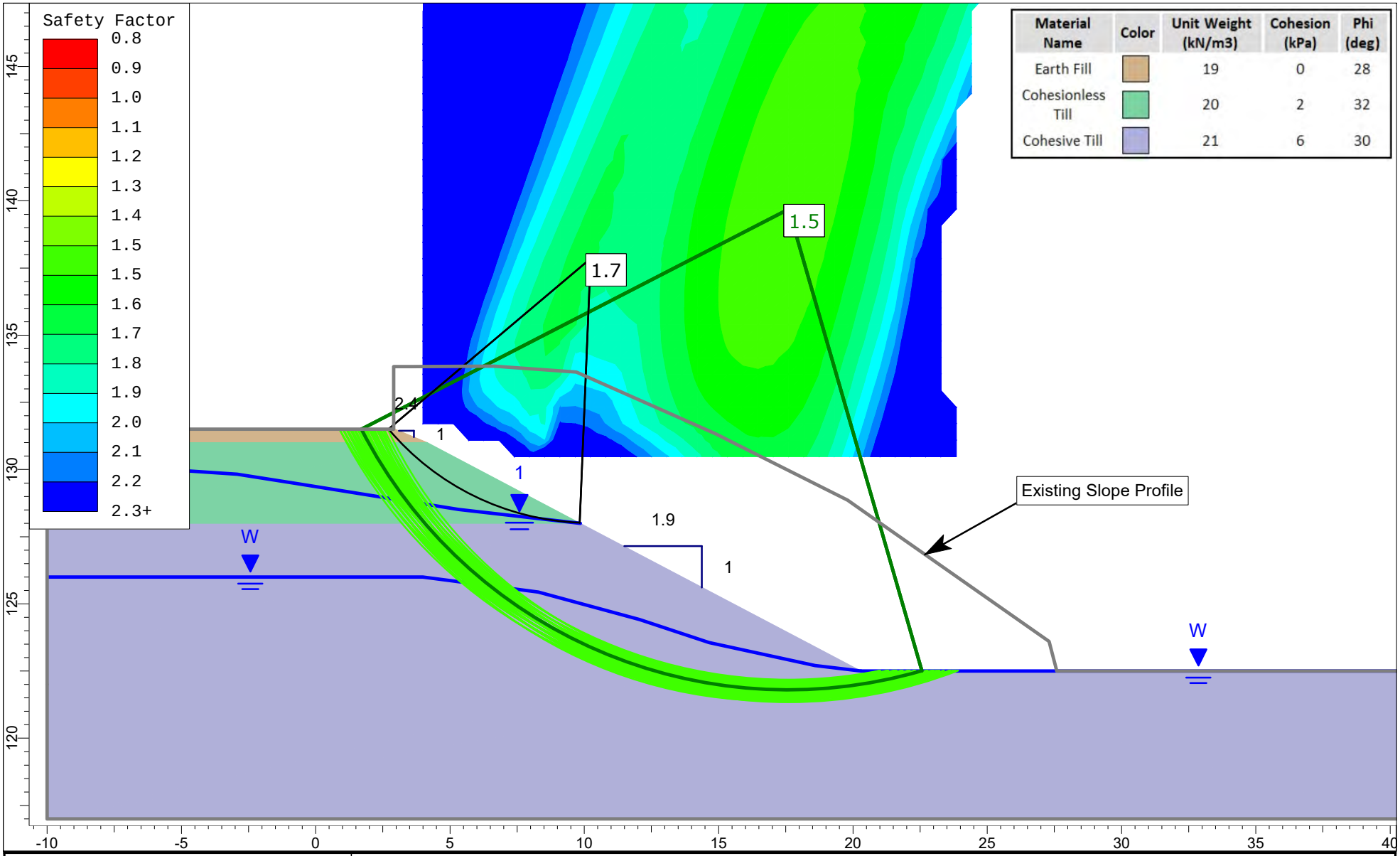
GROUNDED ENGINEERING	*Project* 20-153 | 175 Wynford Drive		
	Analysis Description Global Stability		*Model* Section A | Circular surfaces, nwt
	Drawn By JH	*Scale* 1:200	*Date* 2020-08-12
SLIDEINTERPRET 9.008	*Source* I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011		*File Name* 20-153 175 Wynford Drive - LTSSC.slmd



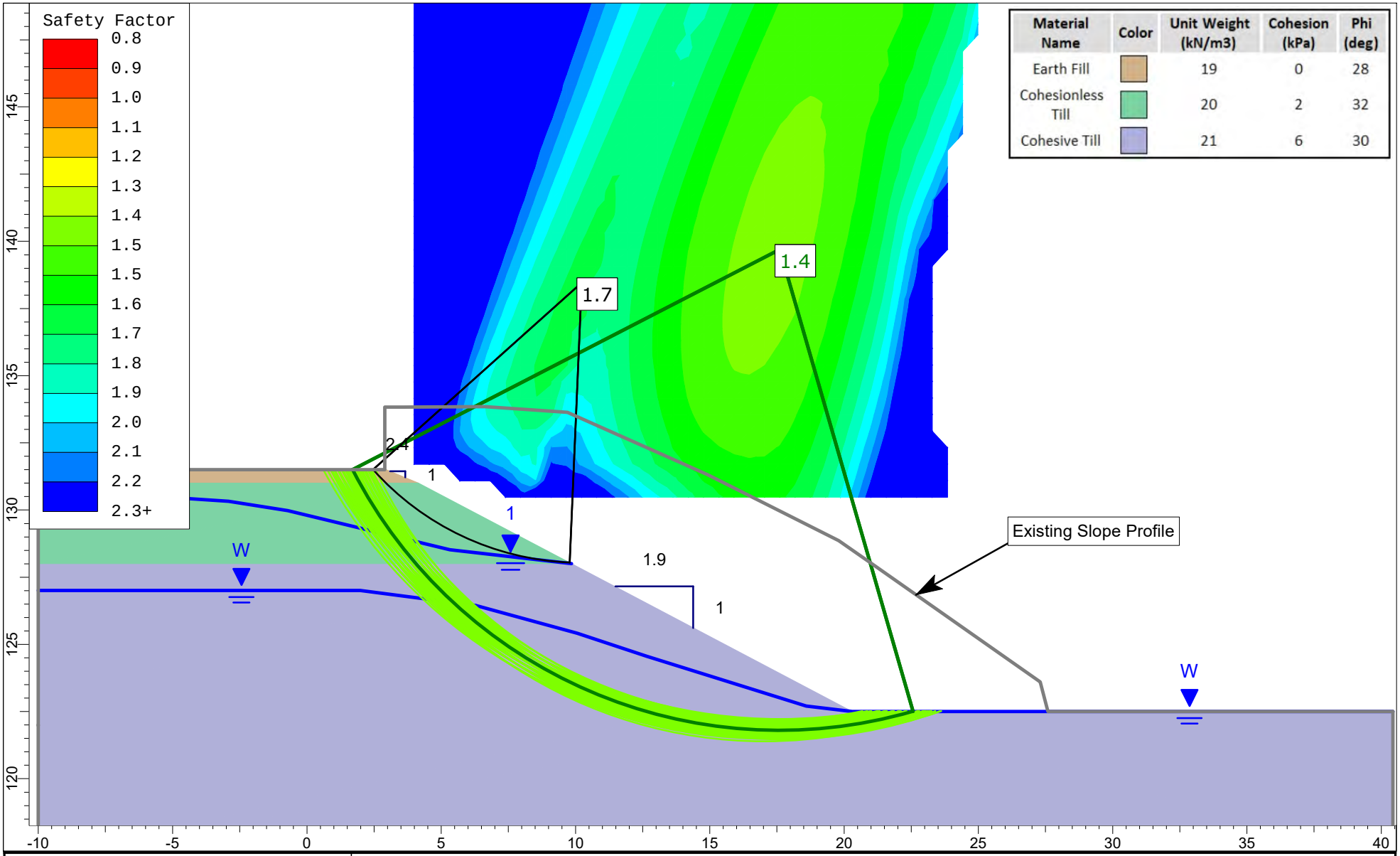
GROUNDED ENGINEERING

SLIDEINTERPRET 9.008

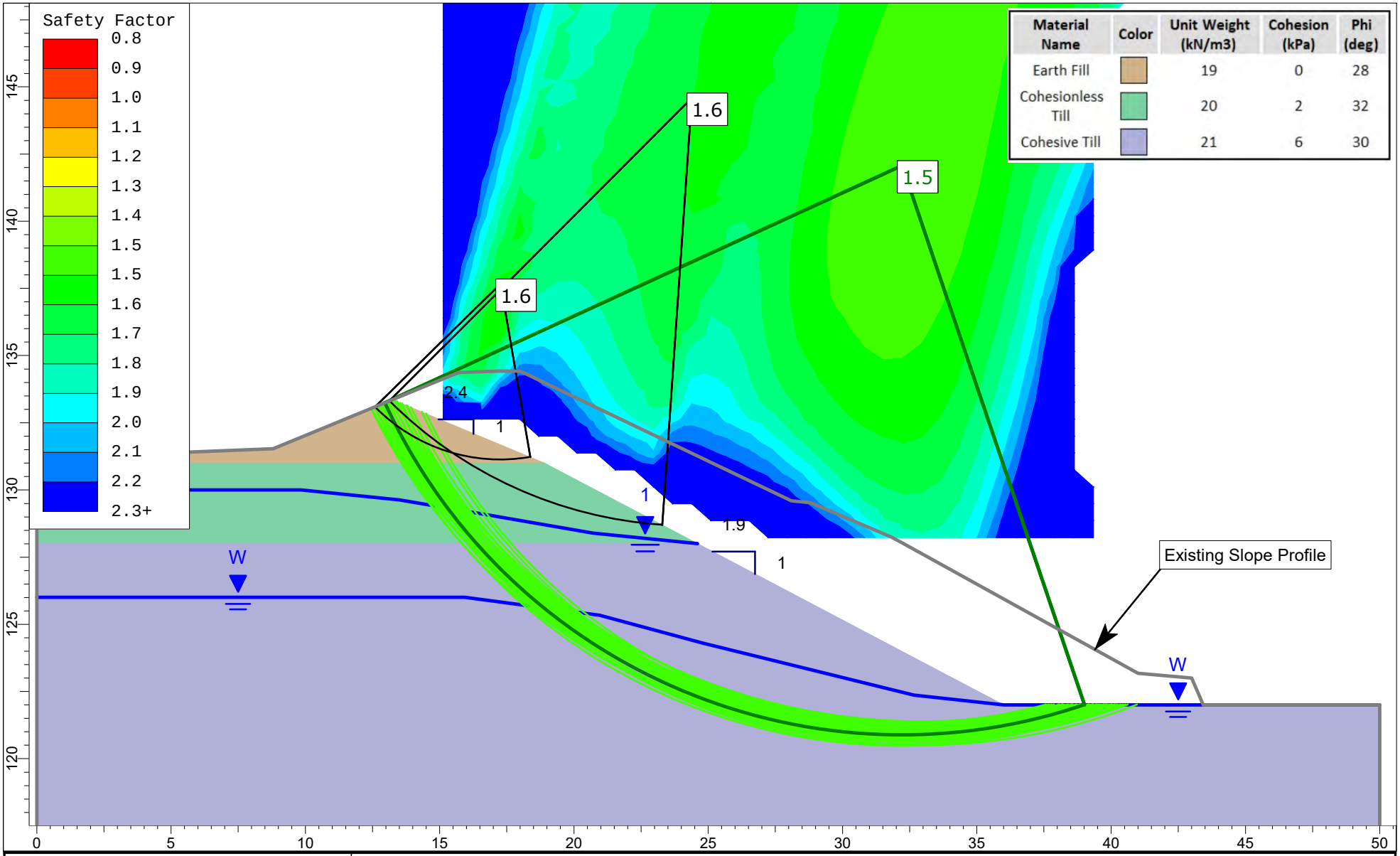
Project	20-153 | 175 Wynford Drive		
Analysis Description	Global Stability	Model	Section A | Circular surfaces, hwt
Drawn By	JH	Scale 1:200	Date 2020-08-12
Source	I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011	File Name	20-153 175 Wynford Drive - LTSSC.slmd



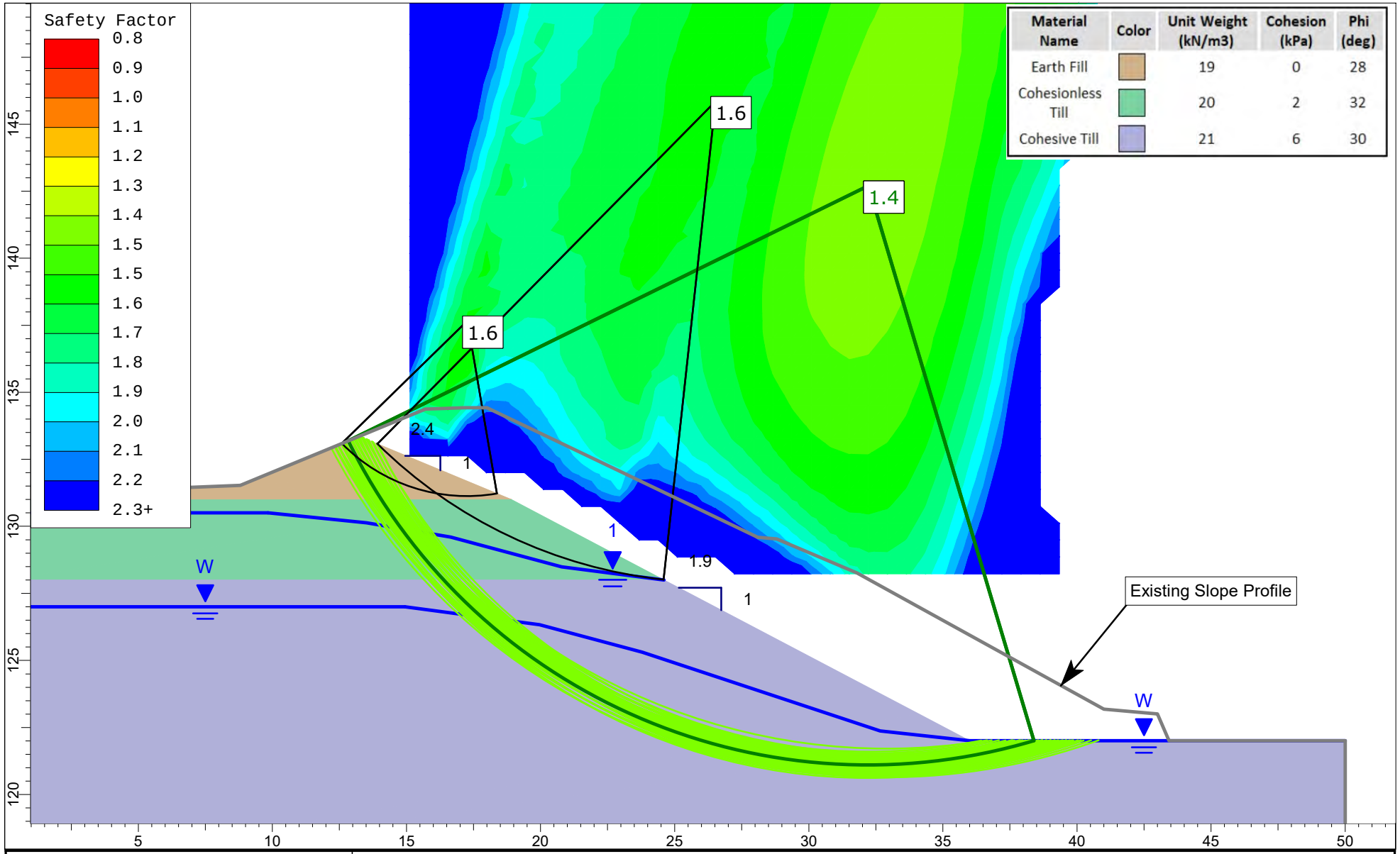
GROUNDED ENGINEERING	Project: 20-153 | 175 Wynford Drive		
	Analysis Description: Global Stability		Model: Section B | Circular surfaces, nwt
	Drawn By: JH	Scale: 1:200	Date: 2020-08-12
SLIDEINTERPRET 9.008	Source: I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011		File Name: 20-153 175 Wynford Drive - LTSSC.slmd



GROUNDED ENGINEERING	Project: 20-153 | 175 Wynford Drive		
	Analysis Description: Global Stability		Model: Section B | Circular surfaces, hwt
	Drawn By: JH	Scale: 1:200	Date: 2020-08-12
SLIDEINTERPRET 9.008	Source: I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011		File Name: 20-153 175 Wynford Drive - LTSSC.slmd



GROUNDED ENGINEERING	Project: 20-153 | 175 Wynford Drive		
	Analysis Description: Global Stability		Model: Section C | Circular surfaces, nwt
	Drawn By: JH	Scale: 1:200	Date: 2020-08-12
SLIDEINTERPRET 9.008	Source: I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011		File Name: 20-153 175 Wynford Drive - LTSSC.slmd



GROUNDED ENGINEERING

SLIDEINTERPRET 9.008

Project	20-153 | 175 Wynford Drive		
Analysis Description	Global Stability	*Model*	Section C | Circular surface, hwt
Drawn By	JH	*Scale* 1:200	*Date* 2020-08-12
Source	I.M. PASTUSHAK, PART OF BLOCK B, PLAN M-1158 CITY OF TORONTO, Job No. 15-15-005-00, dated March 17, 2011	*File Name*	20-153 175 Wynford Drive - LTSSC.slmd