Consulting Engineers
9 Auriga Drive
Ottawa, Ontario
K2E 7T9
Tel: (613) 226-7381

Geotechnical Engineering
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August 28, 2026
PG7849-LET.01

Kenvest Group
680 Kama Place
Ottawa, Ontario
K1J 8W2

Attention: **Jake Kendrick**

Subject: **Geotechnical Desktop Slope Stability Assessment**
Proposed Residential Development
6772 Rocque Street
Ottawa, Ontario

Dear Jake,

Further to your request and authorization, Paterson Group (Paterson) prepared the present letter report to provide our geotechnical desktop slope stability assessment of the existing escarpment slope located to the southeast of the subject site between St. Joseph Boulevard and Notre Dame Street.

1.0 Background Information

The desktop slope stability analysis described in the present report was undertaken in response to the July 2026 Guidance letter (referred to as “Guidance letter” in this report) provided by the City of Ottawa outlining requirements for assessing the presence of clay soils susceptible to retrogressive landslides within the nearby escarpment slope. The present report was prepared to investigate the potential exemption for escarpment slopes, particularly the existing escarpment slope located between St. Joseph Boulevard and Notre Dame Street, approximately 370 m southeast of the subject site.

In summary, the Guidance letter recommends that the following criteria be determined prior to confirming whether an escarpment slope may be deemed exempt from the minimum field and laboratory requirements outlined in the Guidance letter: *demonstrates that the escarpment slope meets the minimum factors of safety as follows:*

- ≥ 1.5 under static conditions
- ≥ 1.1 under seismic conditions
- ≥ 1.3 under post-seismic conditions

The following sections present the methodologies, assumptions, and existing data used in the analysis, along with a summary and discussion of the results of the desktop slope stability analysis completed by Paterson.

2.0 Proposed Development

Based on the available drawings and information provided by the client, it is understood that the proposed development will consist of a multi-storey residential building. Landscaped access paths and amenity areas are also anticipated as part of the development. The development is anticipated to be municipally serviced. The approximate site location is shown in the attached *Figure 1 – Key Plan.*

3.0 Existing Geotechnical Information

3.1 Surface Conditions and Topography

Escarpment Slope Profile

Paterson completed a review of the general topography of the subject escarpment slope based on available LiDAR topographic data (2015). The steepest section of the subject escarpment slope was noted to generally extend from a top of slope geodetic elevation 75 m to a bottom of slope geodetic elevation 61.5 m. The inclination was generally noted to be approximately 18.5° (33.5%).

The existing average ground surface elevation across the top of the escarpment slope was noted to increase gently in a southward direction but was generally noted to be at-grade with surrounding areas and roadways. The ground surface elevation across the bottom of the escarpment slope was noted to slope gently east to west along the existing Bilberry Creek between approximate geodetic elevations 62.5 to 60.5 m, respectively. Beyond the toe of the escarpment slope, the ground surface was noted to consist of a slope extending from the creek elevation northwards towards St. Joseph Boulevard between approximate geodetic elevations 61.5 to 68 m, respectively.

North of Escarpment Slope – North Side of St. Joseph Boulevard & Subject Site

The existing average ground surface elevation north of the subject escarpment slope (towards and including the subject site), was noted to slope downwards gently from St. Joseph Boulevard in a north direction between approximate geodetic elevations 68 to 63.5 m. The properties to the north of the subject escarpment slope were noted to include multi-storey commercial and residential buildings, church buildings, residential dwellings, parking lots, and landscaped areas.

3.2 Escarpment Slope Subsurface Conditions

Overburden

Paterson completed a review of several borehole log reports completed historically by Paterson and by Others that were previously advanced within the top side of the subject escarpment slope. Further, Paterson completed a review of several borehole log reports completed historically by Paterson north of the escarpment slope and within the subject site boundary. Generally, based on our review and our knowledge of the area, the subsurface soil profile typically consists of topsoil underlain by a layer of desiccated brown silty clay crust, further underlain by a layer of unweathered grey silty clay, further underlain by a glacial till deposit and underlying bedrock formation.

Bedrock

Based on available geological mapping, bedrock underlying the subject escarpment slope consists of sandstone, limestone and shale of the Rockcliffe with an overburden drift thickness ranging between 15 to 25 m. Based on our review of available Ontario Well Records and boreholes completed by the Ontario Geological Survey (OGS), the bedrock surface was noted to deepen in a south direction from the subject site. *It should be noted that geological mapping is approximate and published data may vary from in-situ conditions.* It should be further noted that the slope stability analysis presented herein does not rely on the bedrock depths from the above-noted available geological mapping. Reference should be made to the slope stability section of this report for more information and clarification.

Groundwater

Groundwater levels were previously measured in piezometers and monitoring wells within the boreholes from the surrounding investigations completed at nearby properties along the high side of the subject escarpment slope. The long-term groundwater level can also be estimated based on moisture levels, consistency, and coloring of the recovered samples. Based on the existing groundwater information and our knowledge of the groundwater within the nearby properties, the long-term groundwater level is estimated to be between **3 and 5 m** below the existing ground surface.

However, for slope stability analysis purposes, the long-term groundwater level has been conservatively considered to be **1.5 m** below the existing ground surface. Reference should be made to the slope stability analysis section of the present report for more information and clarification.

4.0 Geotechnical Desktop Slope Stability Analysis

4.1 Considerations and Assumptions

Existing Slope Profile Topography

The slope stability analysis was completed using the existing slope topography derived from available LiDAR topographic data (2015). The LiDAR-derived ground surface was used to develop the representative slope profile adopted for the analysis. The available LiDAR dataset was considered suitable for defining slope geometry at the level of accuracy required for the slope stability analysis.

It should be noted that the slope profile modeled in the slope stability analysis was intentionally modelled using a cross-section that changes direction across the subject escarpment. **This alignment was selected to maintain a conservative approach by keeping the cross-section perpendicular to the local orientation of the slope**, thereby representing the slope profile in its steepest and most critical direction. Modelling the cross-section along a straight alignment toward the subject site would instead intersect part of the slope diagonally, resulting in an artificially flatter profile and introducing an unrepresentative geometric benefit into the slope stability analysis.

Subsurface Information

The slope stability analysis was completed using available nearby and surrounding subsurface investigation data, including historical borehole logs and in-situ shear strength testing results, to assess the anticipated stratigraphy, soil strength parameters, and bedrock profile along the analyzed slope cross-section. The subsurface profile and associated soil strength parameters incorporated into the analysis were selected conservatively to provide a reasonable worst-case assessment of slope stability conditions.

Paterson completed a review of several historical borehole investigation reports from test holes previously advanced south of the high side of the subject escarpment slope. The reviewed borehole data generally demonstrated consistent subsurface conditions and soil strength characteristics throughout the local silty clay deposit, with no significant stratigraphic discontinuities identified between investigation locations. Based on this consistency, Paterson considers the available nearby subsurface information to be representative and suitable for desktop slope stability assessment purposes.

The analysis approach adopted herein incorporates conservative assumptions regarding both soil strength and bedrock geometry. Reference should be made to Drawings *PG7849-2 – Test Hole Location Plan* and *PG7849-3 Extrapolated Borehole Data Cross-Section* attached to the present report for the approximate borehole locations considered in our assessment.

Subsoil Stratigraphy

While several historical boreholes have been advanced within the escarpment slope area, borehole BC-05 (by Others) was selected for general modelling purposes as it was advanced along the top of the subject escarpment slope and in close proximity to the analyzed cross-section location. Nevertheless, available data from nearby boreholes were also reviewed and considered when developing the analysis parameters.

Brown Silty Clay

Based on the reviewed nearby borehole data, the upper brown silty clay crust was noted to exhibit a hard to very stiff consistency, with Standard Penetration Test (SPT) N-values of 5 blows per 300 mm or greater, and undrained shear strength values greater than 120 kPa. This layer was noted to generally extend from the existing ground surface to an approximate depth of 6 m below the existing ground surface.

Stiff Grey Silty Clay

Beneath the crust, a stiff grey silty clay layer was noted, generally characterized by undrained shear strength values ranging between approximately 65 and 72 kPa. This layer was noted to extend from approximately 6 to 12 m below the existing ground surface.

Stiff to Very Stiff Grey Silty Clay

The underlying grey silty clay deposit was noted to exhibit a stiff to very stiff consistency with undrained shear strength values generally ranging between approximately 75 and greater than 100 kPa. This layer was noted to extend from approximately 12 to 20 m below the existing ground surface (i.e. termination depth of the borehole). It should be noted that based on nearby borehole data, the grey silty clay deposit beyond a depth of 20 m below the existing ground surface was noted to exhibit a very stiff consistency, generally characterized by undrained shear strength values exceeding 100 kPa.

Glacial Till and Bedrock

Glacial till deposits were identified within portions of the reviewed historical test hole and well record datasets and were intentionally omitted from the modeled stratigraphy to maintain a conservative approach and to avoid incorporating additional stabilizing benefit associated with the presence of higher-strength materials.

Strength Parameter Selection Background Information

The soil strength parameter selection was completed conservatively to reflect potential variability in subsurface conditions across the subject silty clay deposit. The undrained shear strength profile was developed by grouping the undrained shear strength testing results into geologically consistent layers based on the observed changes in physical characteristics and measured shear strength values.

For each layer, the design undrained shear strength was selected primarily from the field vane testing completed at the borehole advanced adjacent to the top of the escarpment slope, with consideration also given to nearby field vane data. To account for the observed variability within each layer, the lowest representative undrained shear strength values were adopted for each layer. This approach provides a reasonable lower-bound estimate of the available data while maintaining a conservative basis for the slope stability analysis.

Additionally, although nearby field vane testing within the local silty clay deposit indicated undrained shear strength values greater than 100 kPa at depths exceeding 20 m below the existing ground surface, the design undrained shear strength for this portion of the deposit was limited to 100 kPa. This upper limit was applied to avoid relying on the higher measured values and to maintain a conservative approach throughout the analysis.

The post-seismic slope stability assessment was completed using a strain-softened undrained shear strength approach to account for the potential cyclic degradation of the silty clay soils following seismic loading. The assessment methodology considers the post-cyclic degradation approach presented by Ajmera (2015)[1], while considering its applicability based on published cyclic loading studies and literature on sensitive Champlain Sea clays in eastern Ontario and Quebec, including Mitchell and King (1977)[2] and LeBoeuf et al. (2016)[3].

The Canadian Foundation Engineering Manual (CFEM) (2023) criterion regarding the potential use of remoulded shear strength was also considered. Although the subject clay exhibits high sensitivity, remoulded shear strength represents a fully de-structured soil condition associated with large strain deformation and substantial breakdown of the natural clay fabric. The available Canadian-based literature indicates that cyclic degradation of Champlain Sea clay is progressive and governed by stress level, pore pressure response, and the accumulation of cyclic strains, rather than an immediate transition to a fully remoulded condition. Of particular relevance, LeBoeuf et al. (2016) reported that Rigaud clay (located roughly 100km east of Ottawa within the historical Champlain Sea) subjected to approximately 150 loading cycles at a cyclic deviatoric stress equal to approximately 80% of the sample's undrained shear strength did not exhibit a significant reduction in subsequent peak undrained shear strength.

[1] Ajmera, Beena. (2015). Factors Influencing the Post-Earthquake Shear Strength.
[2] Mitchell and King. (1977). Cyclic loading of an Ottawa area Champlain Sea Clay.
[3] LeBoeuf, Denis. (1977). Cyclic Softening and Failures in Sensitive Clays and Silts.

Considering the available cyclic loading research, the limited number of significant stress cycles anticipated during a design earthquake in eastern Ontario, and the calculated seismic factor of safety exceeding 1.1 (as discussed in subsequent sections of the present report), widespread deformation and the large strains required to fully de-structure the clay deposit are not anticipated. As such, the use of fully remoulded shear strength for the post-seismic assessment is not considered representative of the anticipated in-situ response for the subject escarpment slope. Accordingly, a post-seismic degradation ratio of $\delta = 0.67$ was adopted and was considered to provide a conservative representation of a degraded, but not fully remoulded, undrained shear strength condition for the post-seismic slope stability assessment.

Strength Parameters

The soil strength parameters presented in Table 1, 2 and 3 were considered for the slope stability analysis under Static, Seismic, and Post-Seismic conditions, respectively.

Table 1 – Effective Stress Soil Parameters (Static Analysis)

Soil Layer	Unit Weight (kN/m^3)	Friction Angle (degrees)	Cohesion (kPa)
Brown Silty Clay Crust	17	33	5
Stiff to Very Stiff Grey Silty Clay	16	33	10
Bedrock	21	-	-

Table 2 – Total Stress Soil Parameters (Seismic Analysis)

Soil Layer	Unit Weight (kN/m^3)	Friction Angle (degrees)	Cohesion (kPa)
Brown Silty Clay Crust	17	0	120
Stiff Grey Silty Clay	16	0	65
Stiff to Very Stiff Grey Silty Clay	16	0	75
Very Stiff Grey Silty Clay	16	0	100
Bedrock	21	-	-

Table 3 – Residual Total Stress Soil Parameters (Post-Seismic Analysis)

Soil Layer	Unit Weight (kN/m^3)	Friction Angle (degrees)	Cohesion (kPa)
Brown Silty Clay Crust	17	0	80
Stiff Grey Silty Clay	16	0	44
Stiff to Very Stiff Grey Silty Clay	16	0	50
Very Stiff Grey Silty Clay	16	0	67
Bedrock	21	-	-

Bedrock Profile

The slope stability analysis considers a bedrock surface elevation tapering from north to south between approximate elevation 57 m beyond the toe of slope (within the subject site boundary), and 42 m beyond the top of slope (towards the south). These interpolated bedrock surface elevations are based on DCPT refusal encountered at the test hole advanced within the subject site boundary during the current investigation, and available Ontario Well Record bedrock data. Nearby Ontario Well Record data indicates that the bedrock surface north of the subject escarpment slope generally rises toward the north. Nevertheless, the bedrock surface adopted in the analysis was conservatively interpolated at a greater depth, thereby omitting the stabilizing benefit associated with shallower bedrock and allowing for the evaluation of a broader range of potential slip surfaces within the deeper soil profile.

Reference should be made to Drawings PG7849-2 – Test Hole Location Plan and PG7849-3 Extrapolated Borehole Data Cross-Section attached to the present report for the approximate test hole locations considered in our assessment when modelling the bedrock surface.

Groundwater

The groundwater table depth incorporated into the slope stability analysis was assigned a depth limited by foundation drainage systems and hardscaping and considered as **1.5 m** below the existing ground surface, which is considered the minimum founding depth below ground surface for heated occupied structures to be founded below the local depth of frost migration.

4.2 Slope Stability Analysis

Analysis Methodology

One (1) cross-section (Section A) was studied as a worst-case scenario. The location of Section A was selected to model the slope in its unsupported state rather than relying on the potential stability increase that the various existing retaining walls along the subject escarpment slope toe would provide. The cross-section location is presented on Drawing PG7849-2 – Test Hole Location Plan, attached to the present report.

The slope stability analysis was carried out using SLIDE, a computer program which permits a two-dimensional slope stability analysis using several methods including Bishop's method, which is a widely used and accepted analysis method. The program calculates a factor of safety, which represents the ratio of the forces resisting failure to those favoring failure. Theoretically, a factor of safety of 1.0 represents a condition where the slope is stable. However, due to intrinsic limitations of the calculation methods and variability of the subsoil and groundwater conditions, a factor or safety greater than one is usually required to ascertain the risks of failure is acceptable.

A minimum factor of safety of 1.5 is generally recommended under static conditions where the failure of the slope would endanger permanent structures. A factor of safety of 1.1 is considered to be satisfactory for stability analysis considering seismic loading. A factor of safety of 1.3 is considered to be satisfactory for stability analysis considering post-seismic conditions.

Analysis Results

Static Loading

The results of the existing escarpment slope under static loading conditions at Section A are shown in Figure 1A attached to the present report. The overall slope stability factor of safety for the subject section was found to be greater than 1.5. As such, a stable slope allowance setback is not required for the subject escarpment slope under static conditions.

Seismic Loading

An analysis considering seismic loading was also completed as part of the slope stability analysis. A horizontal seismic loading acceleration, Kh, of 0.2g was considered for the analyzed section. The results of the existing escarpment slope under seismic loading conditions at Section A are shown in Figure 1B attached to the present report. The overall slope stability factor of safety for the subject section was found to be greater than 1.1. As such, a stable slope allowance setback is not required for the subject escarpment slope under seismic conditions.

Post-Seismic Loading

An analysis considering post-seismic loading was also completed as part of the slope stability analysis. Reduced undrained shear strength values were considered for the analyzed section, as discussed in previous sections of the present report. The results of the existing escarpment slope under post-seismic loading conditions at Section A are shown in Figure 1C attached to the present report. The overall slope stability factor of safety for the subject section was found to be greater than 1.3. As such, a stable slope allowance setback is not required for the subject escarpment slope under post-seismic conditions.

Sensitivity Analysis

A series of sensitivity analyses were completed as part of the revised slope stability assessment to evaluate the influence of uncertainty associated with the interpreted subsurface conditions, groundwater levels and adopted undrained shear strength parameters. These analyses were completed to support the conservative approach of the slope stability model, recognizing that subsurface conditions were interpolated from the available borehole data in the vicinity of the analyzed cross-section.

High-Groundwater Scenario

A high groundwater sensitivity analysis was completed with the groundwater table placed at the existing ground surface to assess the potential influence of adverse groundwater conditions that may occur during periods of significant snowmelt or precipitation. The results of the analyses completed using both groundwater conditions indicated that the calculated factors of safety remained above the minimum values required by the Guidance letter. The results of the high-groundwater scenario analysis yielded factors of safety of 1.56, 1.45, and 1.74 under static, seismic, and post-seismic loading conditions, respectively. Reference should be made to Figures 2A to 2C attached to the present report.

Undrained Shear Strength

Sensitivity analyses were also completed to assess the influence of the adopted undrained shear strength profile. As mentioned in previous sections of this report, the undrained shear strength values were developed from a statistical interpretation of the available field vane test data and were conservatively selected as the mean value less one standard deviation for each interpreted layer of the deposit. To further assess the reliability of the stability results, an additional sensitivity analysis was completed using an additional 10% reduction in the <u>already conservatively selected</u> undrained shear strength values for the seismic and post-seismic loading conditions.

The results of the reduced undrained shear strength analysis yielded factors of safety of 1.31 and 1.57 under seismic and post-seismic conditions, respectively. Both results are greater than the minimum values required by the Guidance letter under seismic and post-seismic conditions. Reference should be made to Figures 3A to 3B attached to the present report.

Concluding Remarks

Based on our review and analysis, the subject escarpment slope was found to satisfy and exceed the minimum factors of safety of 1.5, 1.1, and 1.3 under static, seismic, and post-seismic conditions, respectively, as outlined in the *Possible exemption for escarpment slopes* section of the Guidance document. As such, Paterson considers the subject escarpment slope exempt from the minimum field investigation and laboratory testing requirements outlined within the aforementioned Guidance letter.

Furthermore, the sensitivity analyses demonstrate that the conclusions of the slope stability analysis are not significantly affected by reasonable variations in the interpreted groundwater depth or undrained shear strength parameters. The results further support that the adopted subsurface model and input parameters provide a conservative assessment of the stability of the escarpment slope. Accordingly, Paterson finds the subject site parcel located north of the escarpment slope (6772 Rocque Street) suitable for the proposed development from a geotechnical and slope stability perspective.

5.0 Statement of Limitations

The recommendations made in this report are in accordance with our present understanding of the project. A desktop investigation is a limited investigation of a site. Should any conditions at the site be encountered which differ from those at the test locations, we request that we be notified immediately in order to permit reassessment of our recommendations.

The present report applies only to the project described in this document. Use of this report for purposes other than those described herein or by person(s) other than Kenvest Group or their agents, without review by this firm for the applicability of our recommendations to the altered use of the report.

We trust that the current submission meets your immediate requirements.

Best Regards,

Paterson Group Inc.

LICENSED PROFESSIONAL ENGINEER
August 28, 2026
D. J. PETAHTEGOOSE
100568013
PROVINCE OF ONTARIO

Nicholas F. R. Versolato, P.Eng., ing.

Drew Petahtegoose, P.Eng.

Attachments:

- ❑ Soil Profile and Test Data Sheets
- ❑ Symbols and Terms
- ❑ Soil Profile and Test Data Sheets by Others
- ❑ Ontario Well Records.
- ❑ Figure 1 – Key Plan.
- ❑ Figures 1A to 3B – Slope Stability Analysis.
- ❑ Drawing PG7849-2 – Test Hole Location Plan.
- ❑ Drawing PG7849-3 - Extrapolated Borehole Data Cross-Section.

Report Distribution

- ❑ Kenvest Group (e-mail copy)
- ❑ Paterson Group (1 copy)

PATERSON GROUP

SOIL PROFILE AND TEST DATA

Geotechnical Investigation

6772 Rocque Street, Ottawa, Ontario

COORD. SYS.: MTM ZONE 9 **EASTING:** 381186.20 **NORTHING:** 5037664.20 **ELEVATION:** 64.03

PROJECT: Proposed Development

ADVANCED BY: CME-55 Low Clearance Drill

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** January 14, 2026

FILE NO. : PG7849

HOLE NO. : BH 1-26

SAMPLE DESCRIPTION

GROUND SURFACE

TOPSOIL with organics, some brown silty clay

0.28m [63.75m]

Hard to very stiff, brown **SILTY CLAY**

- Silt content increasing by 2.3 m depth

- Grey by 5.2 m depth

6.02m [58.01m]

GLACIAL TILL: Brown silty clay with sand, trace to some gravel

6.71m [57.32m]

End of Borehole

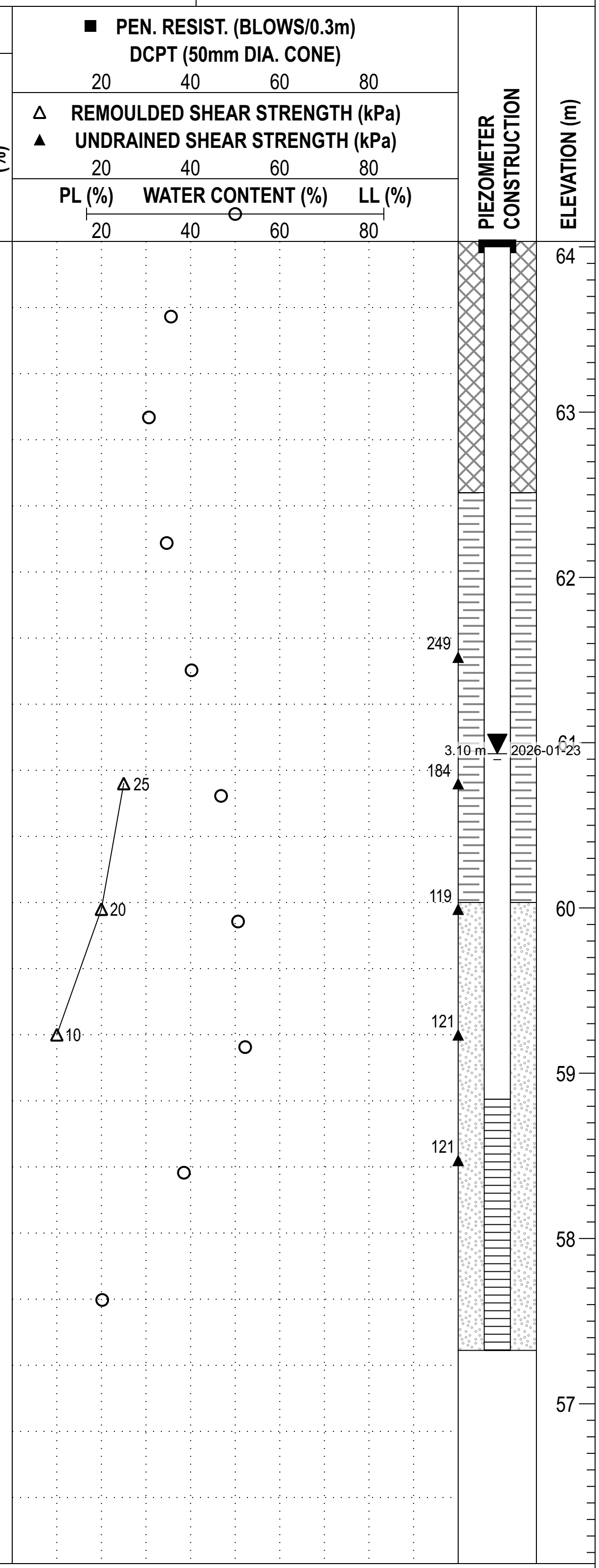
GWL at 3.10 m depth - January 23, 2026

SAMPLE

TYPE AND NO.	RECOVERY (%)	N OR RQD	WATER CONTENT (%)
AU 1			36
SS 2	75	2-3-4-4 7	31
SS 3	100	3-5-6-8 11	35
SS 4	100	P	40
SS 5	100	1-2-2-1 4	47
SS 6	100	P	51
SS 7	100	P	52
SS 8	67	P	39
SS 9	50	5-4-5-6 9	20

DEPTH (m): 1, 2, 3, 4, 5, 6, 7, 8

ELEVATION (m): 64, 63, 62, 61, 60, 59, 58, 57



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation

6772 Rocque Street, Ottawa, Ontario

PATERSON GROUP

COORD. SYS.: MTM ZONE 9 **EASTING:** 381169.58 **NORTHING:** 5037670.69 **ELEVATION:** 63.68

PROJECT: Proposed Development

ADVANCED BY: CME-55 Low Clearance Drill

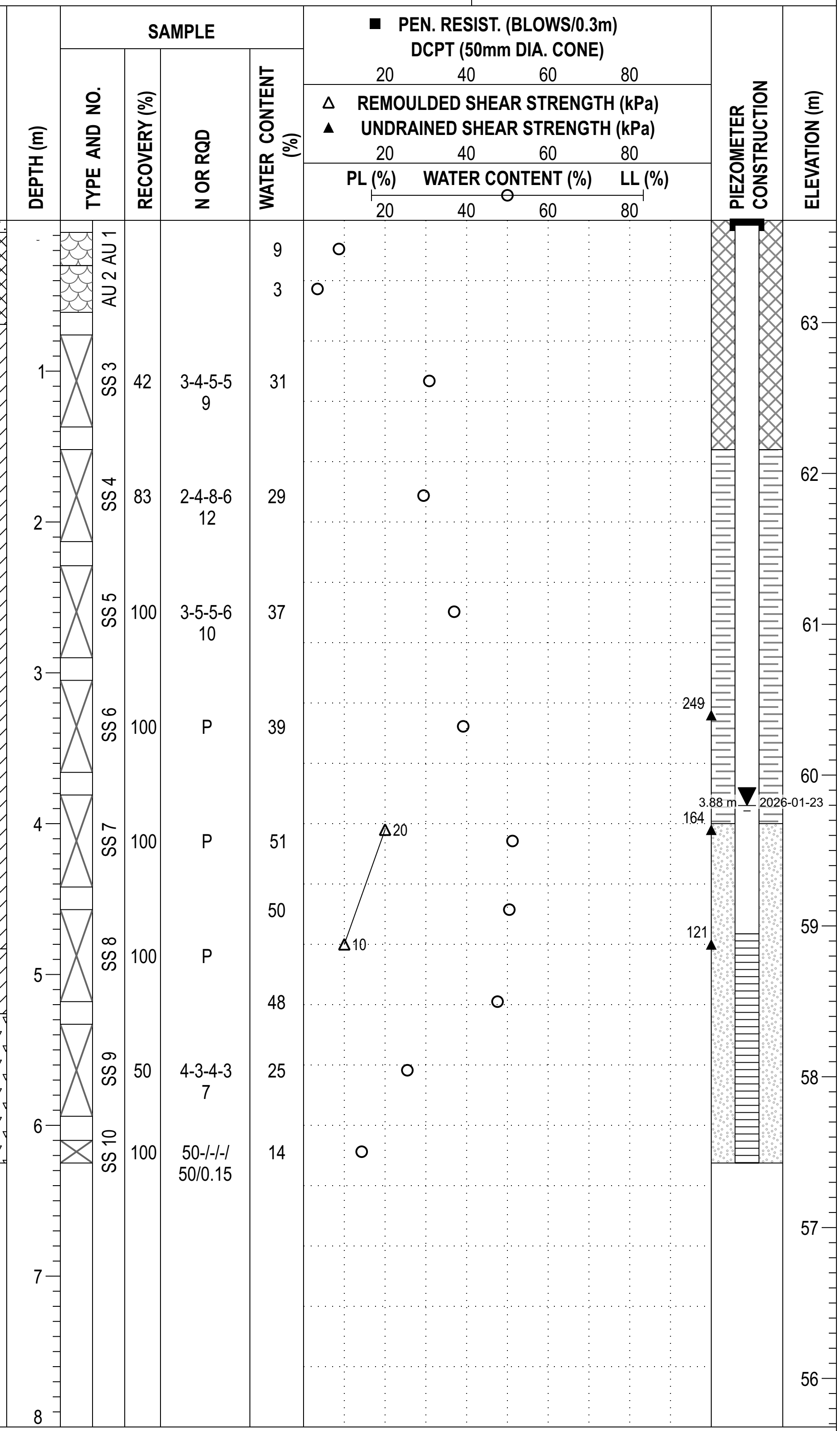
REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** January 14, 2026

FILE NO. : PG7849

HOLE NO. : BH 2-26

SAMPLE DESCRIPTION (GROUND SURFACE)	Depth / Elevation
ASPHALT	0.08m [63.60m]
FILL: Brown silty sand with gravel and granular crushed stone	0.69m [62.99m]
Hard to very stiff, reddish-brown **SILTY CLAY**, trace sand and organics - Silt content increasing by 3.0 m depth	4.83m [58.85m]
Brown **SILTY CLAY** with interbedded layer of sand	5.26m [58.42m]
GLACIAL TILL: Compact to dense, grey clayey silt with some sand and gravel - With gravel by 6.1m depth	6.25m [57.43m]
End of Borehole GWL at 3.88 m depth - January 23, 2026	

TYPE AND NO.	RECOVERY (%)	N OR RQD	WATER CONTENT (%)
AU 1			9
AU 2			3
SS 3	42	3-4-5-5 9	31
SS 4	83	2-4-8-6 12	29
SS 5	100	3-5-5-6 10	37
SS 6	100	P	39
SS 7	100	P	51
			50
SS 8	100	P	
			48
SS 9	50	4-3-4-3 7	25
SS 10	100	50-/-/-/ 50/0.15	14



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PATERSON GROUP

SOIL PROFILE AND TEST DATA

Geotechnical Investigation

6772 Rocque Street, Ottawa, Ontario

COORD. SYS.: MTM ZONE 9 **EASTING:** 381173.72 **NORTHING:** 5037680.74 **ELEVATION:** 63.58

PROJECT: Proposed Development

ADVANCED BY: CME-55 Low Clearance Drill

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** January 14, 2026

FILE NO. : PG7849

HOLE NO. : BH 3-26

SAMPLE DESCRIPTION	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	WATER CONTENT (%)
GROUND SURFACE				
TOPSOIL with organics — 0.28m [63.30m]				
Hard to very stiff, reddish-brown **SILTY CLAY**	AU 1			32
	SS 2	42	2-3-4-3 7	46
	SS 3	100	3-7-3-4 10	35
	SS 4	100	2-3-4-5 7	39
	SS 5	100	P	49
	SS 6	100	P	63
4.50m [59.08m] Grey **SILT**, trace to some clay	SS 7	50	5-9-9-3 18	30
5.26m [58.32m] **GLACIAL TILL:** Grey silty clay with gravel and sand	SS 8	33	4-5-7-7 12	11
6.25m [57.33m] Dynamic Cone Penetration Test commenced at 6.25 m depth	SS 9	87	50-/-/-/ 50/0.05	20
6.55m [57.03m] End of Borehole				

Practical refusal to DCPT at 6.55 m depth

GWL at 3.88 m depth - January 23, 2026

■ PEN. RESIST. (BLOWS/0.3m) DCPT (50mm DIA. CONE): 100 (at 6.25 m)

△ REMOULDED SHEAR STRENGTH (kPa): 25, 10

▲ UNDRAINED SHEAR STRENGTH (kPa): 239, 169

PL (%) WATER CONTENT (%) LL (%)

PIEZOMETER CONSTRUCTION: 3.88 m 2026-01-23

DEPTH (m): 1, 2, 3, 4, 5, 6, 7, 8

ELEVATION (m): 63, 62, 61, 60, 59, 58, 57, 56

SYMBOLS AND TERMS

SOIL DESCRIPTION

Behavioural properties, such as structure and strength, take precedence over particle gradation in describing soils. Terminology describing soil structure are as follows:

Desiccated	-	having visible signs of weathering by oxidation of clay minerals, shrinkage cracks, etc.
Fissured	-	having cracks, and hence a blocky structure.
Varved	-	composed of regular alternating layers of silt and clay.
Stratified	-	composed of alternating layers of different soil types, e.g. silt and sand or silt and clay.
Well-Graded	-	Having wide range in grain sizes and substantial amounts of all intermediate particle sizes (see Grain Size Distribution).
Uniformly-Graded	-	Predominantly of one grain size (see Grain Size Distribution).

The standard terminology to describe the strength of cohesionless soils is the relative density, usually inferred from the results of the Standard Penetration Test (SPT) 'N' value. The SPT N value is the number of blows of a 63.5 kg hammer, falling 760 mm, required to drive a 51 mm O.D. split spoon sampler 300 mm into the soil after an initial penetration of 150 mm.

Relative Density	'N' Value	Relative Density %
Very Loose	<4	<15
Loose	4-10	15-35
Compact	10-30	35-65
Dense	30-50	65-85
Very Dense	>50	>85

The standard terminology to describe the strength of cohesive soils is the consistency, which is based on the undisturbed undrained shear strength as measured by the in situ or laboratory vane tests, penetrometer tests, unconfined compression tests, or occasionally by Standard Penetration Tests.

Consistency	Undrained Shear Strength (kPa)	'N' Value
Very Soft	<12	<2
Soft	12-25	2-4
Firm	25-50	4-8
Stiff	50-100	8-15
Very Stiff	100-200	15-30
Hard	>200	>30

SYMBOLS AND TERMS (continued)

SOIL DESCRIPTION (continued)

Cohesive soils can also be classified according to their “sensitivity”. The sensitivity is the ratio between the undisturbed undrained shear strength and the remoulded undrained shear strength of the soil.

Terminology used for describing soil strata based upon texture, or the proportion of individual particle sizes present is provided on the Textural Soil Classification Chart at the end of this information package.

ROCK DESCRIPTION

The structural description of the bedrock mass is based on the Rock Quality Designation (RQD).

The RQD classification is based on a modified core recovery percentage in which all pieces of sound core over 100 mm long are counted as recovery. The smaller pieces are considered to be a result of closely-spaced discontinuities (resulting from shearing, jointing, faulting, or weathering) in the rock mass and are not counted. RQD is ideally determined from NXL size core. However, it can be used on smaller core sizes, such as BX, if the bulk of the fractures caused by drilling stresses (called “mechanical breaks”) are easily distinguishable from the normal in situ fractures.

RQD %	**ROCK QUALITY**
90-100	Excellent, intact, very sound
75-90	Good, massive, moderately jointed or sound
50-75	Fair, blocky and seamy, fractured
25-50	Poor, shattered and very seamy or blocky, severely fractured
0-25	Very poor, crushed, very severely fractured

SAMPLE TYPES

SS	-	Split spoon sample (obtained in conjunction with the performing of the Standard Penetration Test (SPT))
TW	-	Thin wall tube or Shelby tube
PS	-	Piston sample
AU	-	Auger sample or bulk sample
WS	-	Wash sample
RC	-	Rock core sample (Core bit size AXT, BXL, etc.). Rock core samples are obtained with the use of standard diamond drilling bits.

SYMBOLS AND TERMS (continued)

GRAIN SIZE DISTRIBUTION

MC%	-	Natural moisture content or water content of sample, %
LL	-	Liquid Limit, % (water content above which soil behaves as a liquid)
PL	-	Plastic limit, % (water content above which soil behaves plastically)
PI	-	Plasticity index, % (difference between LL and PL)
Dxx	-	Grain size which xx% of the soil, by weight, is of finer grain sizes These grain size descriptions are not used below 0.075 mm grain size
D10	-	Grain size at which 10% of the soil is finer (effective grain size)
D60	-	Grain size at which 60% of the soil is finer
Cc	-	Concavity coefficient = $(D30)^2$ / (D10 x D60)
Cu	-	Uniformity coefficient = D60 / D10

Cc and Cu are used to assess the grading of sands and gravels:
Well-graded gravels have: 1 < Cc < 3 and Cu > 4
Well-graded sands have: 1 < Cc < 3 and Cu > 6
Sands and gravels not meeting the above requirements are poorly-graded or uniformly-graded.
Cc and Cu are not applicable for the description of soils with more than 10% silt and clay (more than 10% finer than 0.075 mm or the #200 sieve)

CONSOLIDATION TEST

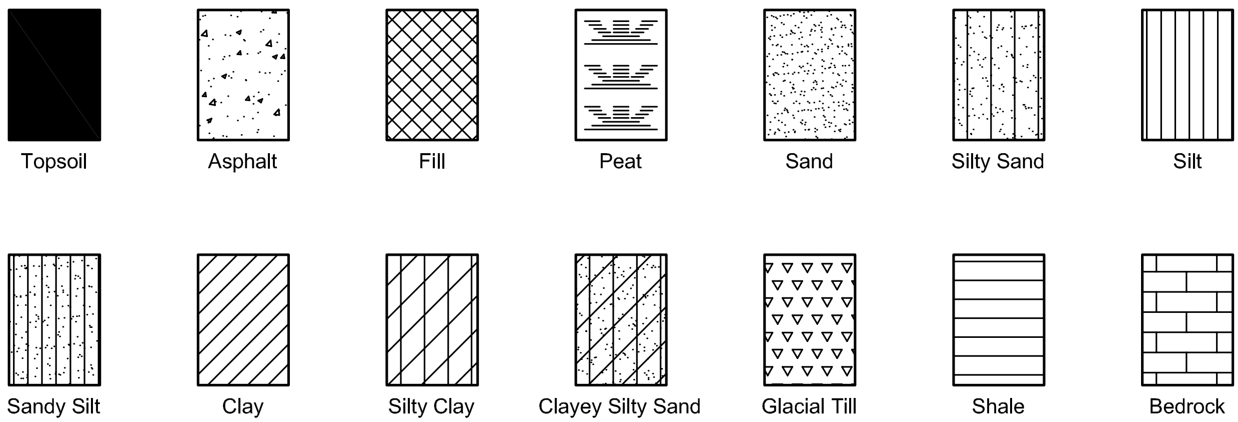
p'_o	-	Present effective overburden pressure at sample depth
p'_c	-	Preconsolidation pressure of (maximum past pressure on) sample
Ccr	-	Recompression index (in effect at pressures below p'_c)
Cc	-	Compression index (in effect at pressures above p'_c)
OC Ratio		Overconsolidaton ratio = p'_c / p'_o
Void Ratio		Initial sample void ratio = volume of voids / volume of solids
Wo	-	Initial water content (at start of consolidation test)

PERMEABILITY TEST

k	-	Coefficient of permeability or hydraulic conductivity is a measure of the ability of water to flow through the sample. The value of k is measured at a specified unit weight for (remoulded) cohesionless soil samples, because its value will vary with the unit weight or density of the sample during the test.

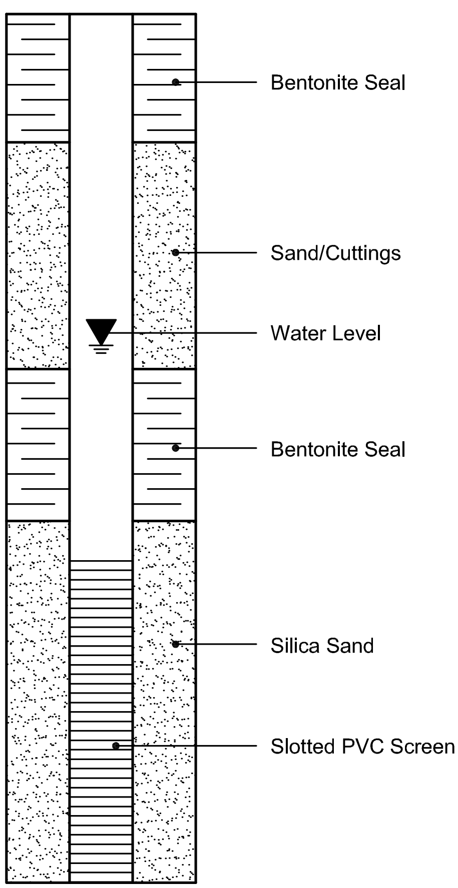
SYMBOLS AND TERMS (continued)

STRATA PLOT

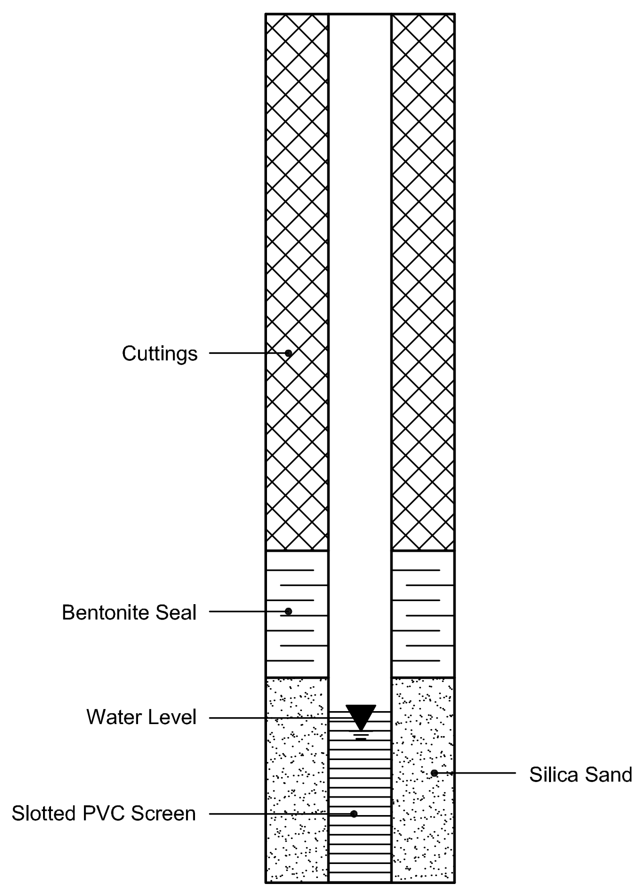


MONITORING WELL AND PIEZOMETER CONSTRUCTION

MONITORING WELL CONSTRUCTION



PIEZOMETER CONSTRUCTION



RECORD OF BOREHOLE BC-05S/V

PROJECT: 61901.09
LOCATION: See Test Site Plan
BORING DATE: 10/22/2019

SHEET 1 OF 1
DATUM: CGVD28
SPT HAMMER: 64 kg

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	ELEV. DEPTH (m)	NUMBER	TYPE	BLOWS/0.3m	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0	Wash Casing HW (114mm OD)	Ground Surface	77.56					
0–2.29		(CH) Clay, presence of sand, gravel and wood (FILL MATERIAL) Red-brown to grey-brown		1	SS	3	MH	Bentonite
2.29–3.05		(SP-GP) Sand and gravel, trace silt and ceramics (FILL MATERIAL) Loose Brown	75.27 / 2.29	2	SS	6		
3.05–6.18		(CH) FAT CLAY (WEATHERED CRUST) Very stiff Grey-brown W > PL	74.51 / 3.05	3	SS	5	MH	
6.18–12.19		(CH) FAT CLAY Stiff Grey W > PL	71.38 / 6.18	4	TO	PH	F	
				5	TO	PH	MH,F	
12.19–20.42		(CL) LEAN CLAY Stiff to very stiff Grey W > PL	65.37 / 12.19	6	TO	PH	F	
				7	TO	PH	MH,F	Cave
				8	TO	PH	F	
				9	TO	PH	MH,F	
20.42		End of Borehole	57.14 / 20.42					

DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m: 20 40 60 80
SHEAR STRENGTH Cu, kPa: nat. V - + Q - ● rem. V - ⊕ U - ○ : 20 40 60 80
HYDRAULIC CONDUCTIVITY, k, cm/s: 10^{-5} 10^{-4} 10^{-3} 10^{-2}
WATER CONTENT, PERCENT: Wp W Wl : 20 40 60 80

Depth scale: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

316/5h. "A"

UTM 1 8 Z 4 5 9 2 2 0 E

5 R 5 0 3 5 5 0 0 N

Elev. 4 R 0 2 2 0

Basin 2 5

26

GROUND WATER BRANCH
15 No 625
JUN 1 1962
ONTARIO WATER
RESOURCES COMMISSION

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District CARLETON Township, Village, Town or City GLOUCESTER

Con. I OF Lot 2 Date completed 12 (day) may (month) 1962 (year)

[redacted]dress Orléans St. Pierre St.

Casing and Screen Record

Inside diameter of casing 2"

Total length of casing 21 ft.

Type of screen none

Length of screen " "

Depth to top of screen

Diameter of finished hole 2"

Pumping Test

Static level 25 ft.

Test-pumping rate 3 G.P.M.

Pumping level 32 ft.

Duration of test pumping 1/2 H.

Water clear or cloudy at end of test clear

Recommended pumping rate 3 G.P.M.

with pump setting of 50 feet below ground surface

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Sand	0	4	70	Fresh
Grey lime stone	4	70		

For what purpose(s) is the water to be used? Home

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm Francel Comette

Address Orléans Ont.

Licence Number 614

Name of Driller or Borer

Address Same

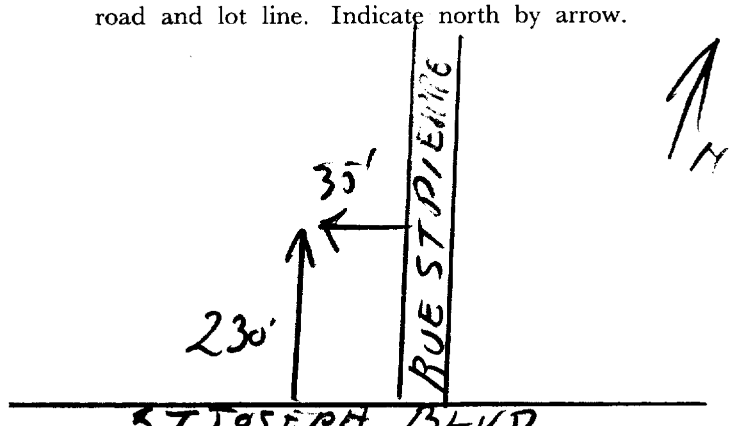
Date May 28/62

Mr. Comette

(Signature of Licensed Drilling or Boring Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 7 5M-61-3852

OWRC COPY

CSS.58

316/56. A38

UTM 18 Z 4 5 9 2 6 0 E

OTT RVR FRONT 5 R 5 0 3 5 3 8 5 N

Elev. 4 R 0 2 2 3

Basin 2 5 4

The Ontario Water Resources Commission Act, 1957

GROUND WATER BRANCH No 620
AUG 10 1959
ONTARIO WATER RESOURCES COMMISSION

C

WATER WELL RECORD

County or ~~District~~ Carleton .... Township, Village, Town or City ~~Orleans~~, Twp. Gloucester

[redacted] ... completed March 13, 1959 (day month year)

[redacted] ress Orleans, Ont.

Casing and Screen Record

Inside diameter of casing 2"

Total length of casing 43'

Type of screen

Length of screen

Depth to top of screen

Diameter of finished hole 2"

Pumping Test

Static level 10'

Test-pumping rate 6 G.P.M.

Pumping level 25'

Duration of test pumping 2 hrs.

Water clear or cloudy at end of test clear

Recommended pumping rate 5 G.P.M.

with pumping level of 20'

Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
blue clay	0	40	~~[illegible]~~	~~[illegible]~~	sulphur
gravel	40	42			
lime stone	42	43	43	33	

For what purpose(s) is the water to be used?

domestic

Is well on upland, in valley, or on hillside? upland

Drilling Firm G. CHARBONNEAU

Address DIAMOND DRILLER ARTESIAN WELLS ~~MODERN HOME BUILDERS~~ ORLEANS, ONT. R.R. 1 Navan 9R-25

Licence Number 164

Name of Driller G. Charbonneau

Address R. R. Orleans, Ont.

Date March 13, 1959

G. Charbonneau

(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.

NORTH

OLD Hy THRU ORLEANS

CON I LOT 2

30

575

CSS.S8

Form 5
15M-58-4149

31G5h 28b

UTM 1 8 Z 4 5 9 1 9 5 E

5 R 5 0 3 5 1 0 0 N

Elev. 5 R 0 2 6 0

Basin 2 5

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Carleton Township, Village, Town or City Gloucester

Con. 2 OF Lot 2 Date completed 19 September, 1962 (day month year)

[redacted]dress Orleans, Ont.

Casing and Screen Record

Inside diameter of casing 2"

Total length of casing 110'

Type of screen

Length of screen

Depth to top of screen

Diameter of finished hole 2"

Pumping Test

Static level 50'

Test-pumping rate 8 G.P.M.

Pumping level 70'

Duration of test pumping 2 hrs.

Water clear or cloudy at end of test clear

Recommended pumping rate 8 G.P.M.

with pump setting of 70 feet below ground surface

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
blue clay	0	108	~~82'~~	
grey limestone	108	122	122'	shade of ~~sulph~~ sulphur

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm G. Charbonneau, Cable & Diamond Drilling

Address R.R.# 1, Box 194, Orleans, Ont.

Licence Number 600

Name of Driller or Borer G. Charbonneau

Address R.R. # 1, Box 194, Orleans, Ont.

Date September 19, 1962

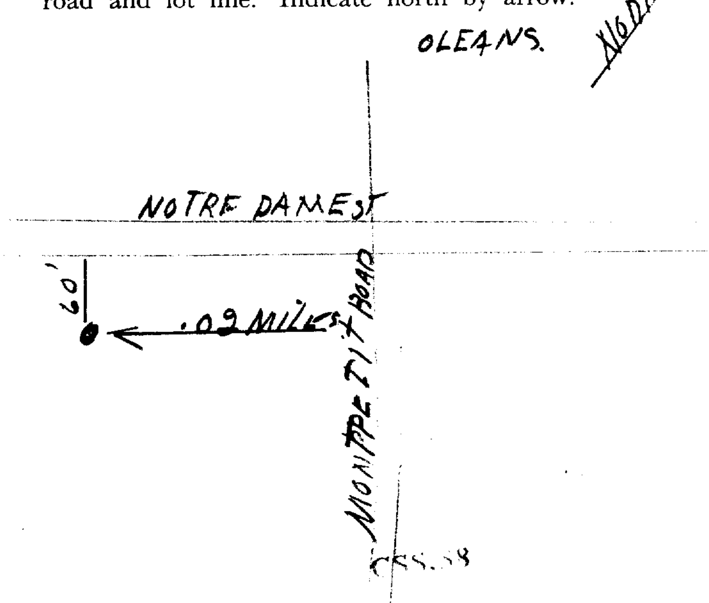
Gerard Charbonneau
(Signature of Licensed Drilling or Boring Contractor)

Form 7 10M-62-1152

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



UTM 1 8 Z 4 5 9 4 2 0 E 31G5h 283

5 R 5 0 3 4 9 4 5 N

Elev. 6 R 0 2 8 0

Basin 2 5

GROUND WATER BRANCH
15 No 1170
JUN 1 1962
ONTARIO WATER RESOURCES COMMISSION

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District .... Carleton .... Township, Village, Town or City .... ~~Orleans~~ Gloucester

Con. 2 OF .... Lot 2 .... Date completed 9 (day) Mai (month) 1962 (year)

[redacted] ddress 755 Cork St Ottawa

Casing and Screen Record		Pumping Test	
Inside diameter of casing	127' X 4" # 12X 2"	Static level	68'
Total length of casing	127	Test-pumping rate	18 G.P.M.
Type of screen		Pumping level	80'
Length of screen		Duration of test pumping	2 Hrs
Depth to top of screen		Water clear or cloudy at end of test	Clear
Diameter of finished hole	2"	Recommended pumping rate	18 G.P.M.
		with pump setting of	80' feet below ground surface

Well Log / **Water Record**

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Blue Clay	0'	125'		
Bolders Fine Sand	125'	137'		
Grey limestone	137'	140'	140'	Shad-Sulphur

For what purpose(s) is the water to be used? Domestic

Is well on upland, in valley, or on hillside? Up

Drilling or Boring Firm G. CHARBONNEAU DIAMOND DRILLER ARTESIAN WELLS MODERN HOME BUILDERS

Address ORLEANS, ONT. R.R. 1 Navan 9R - 25

Licence Number 600

Name of Driller or Borer Gerard Charbonneau

Address

Date Mai 9/62

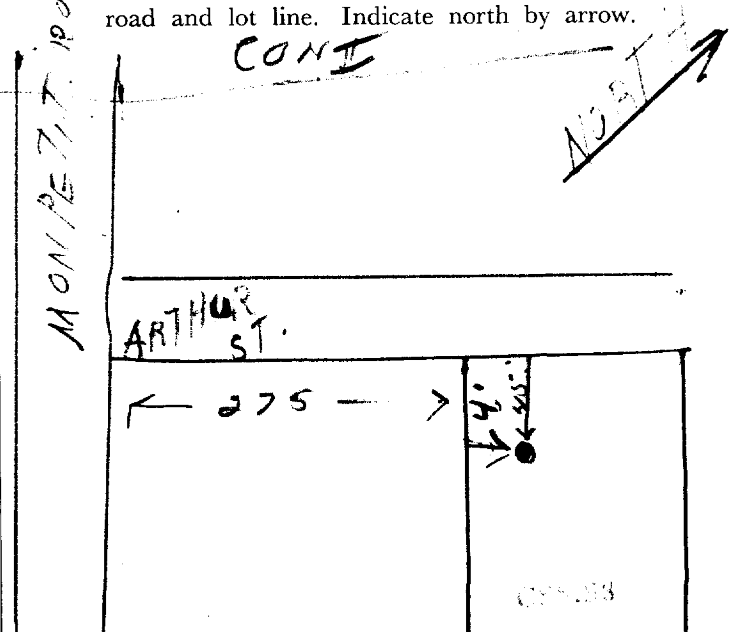
Gerard Charbonneau
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M Sets 60-5930

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



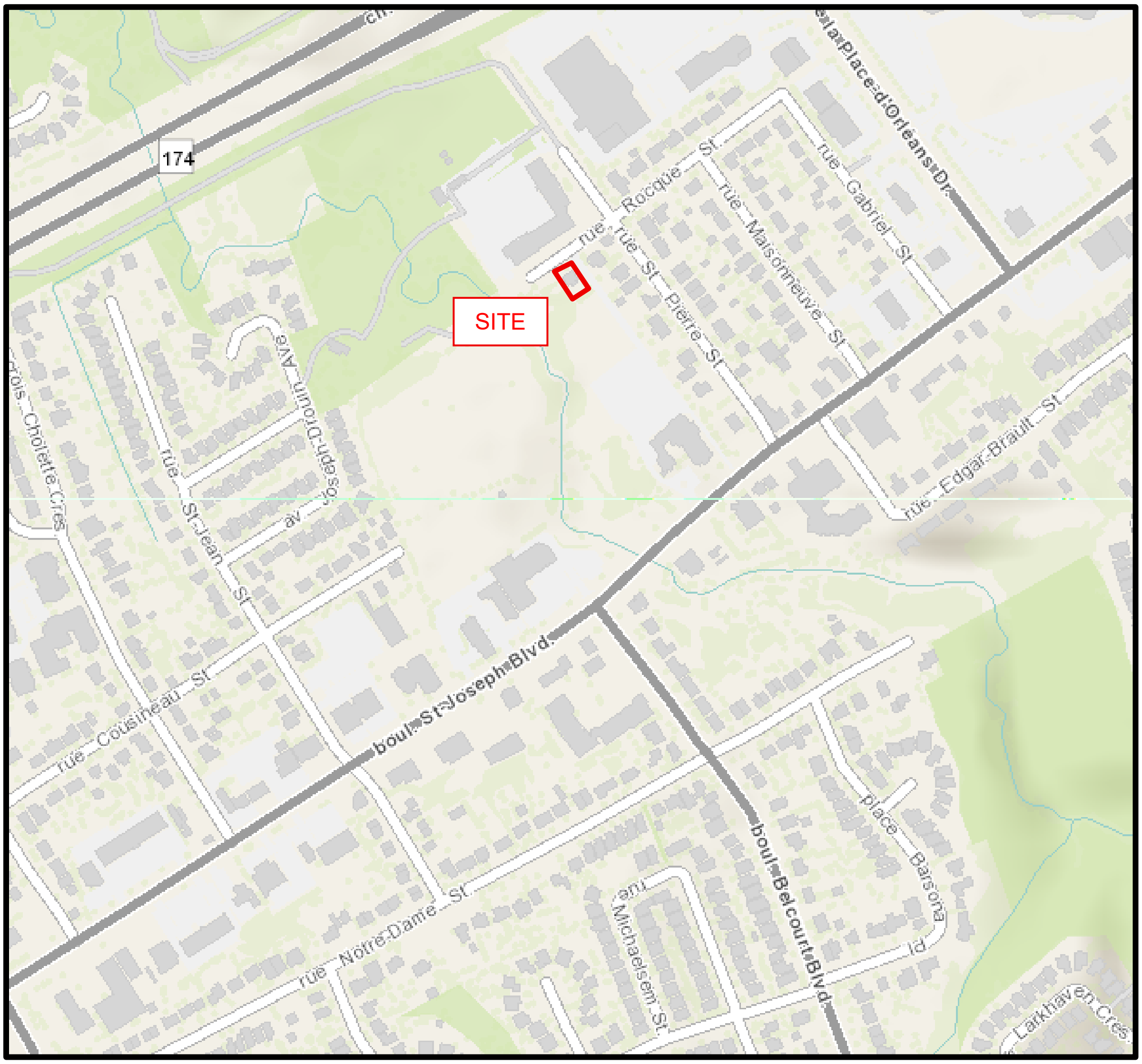
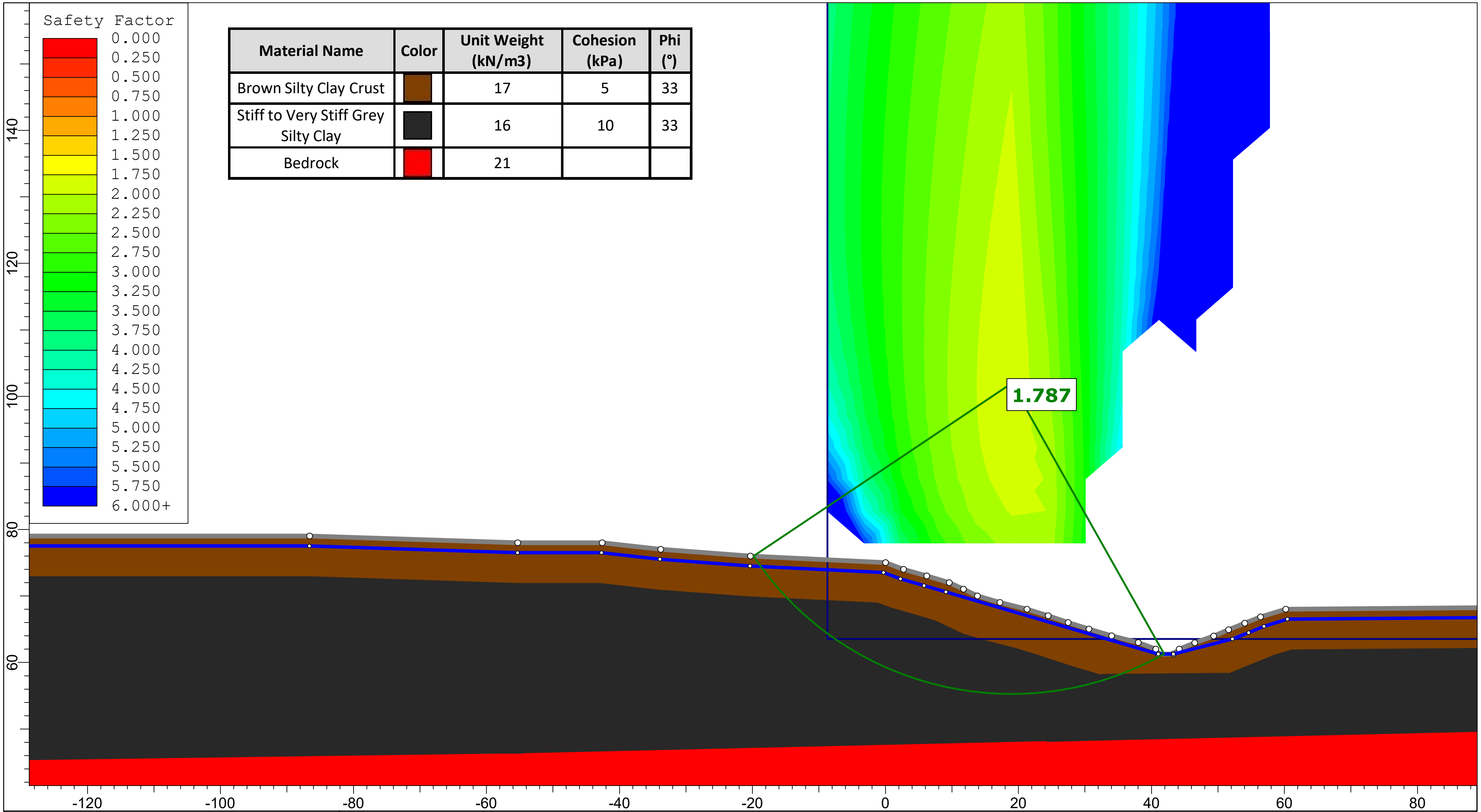


FIGURE 1

KEY PLAN

PATERSON GROUP

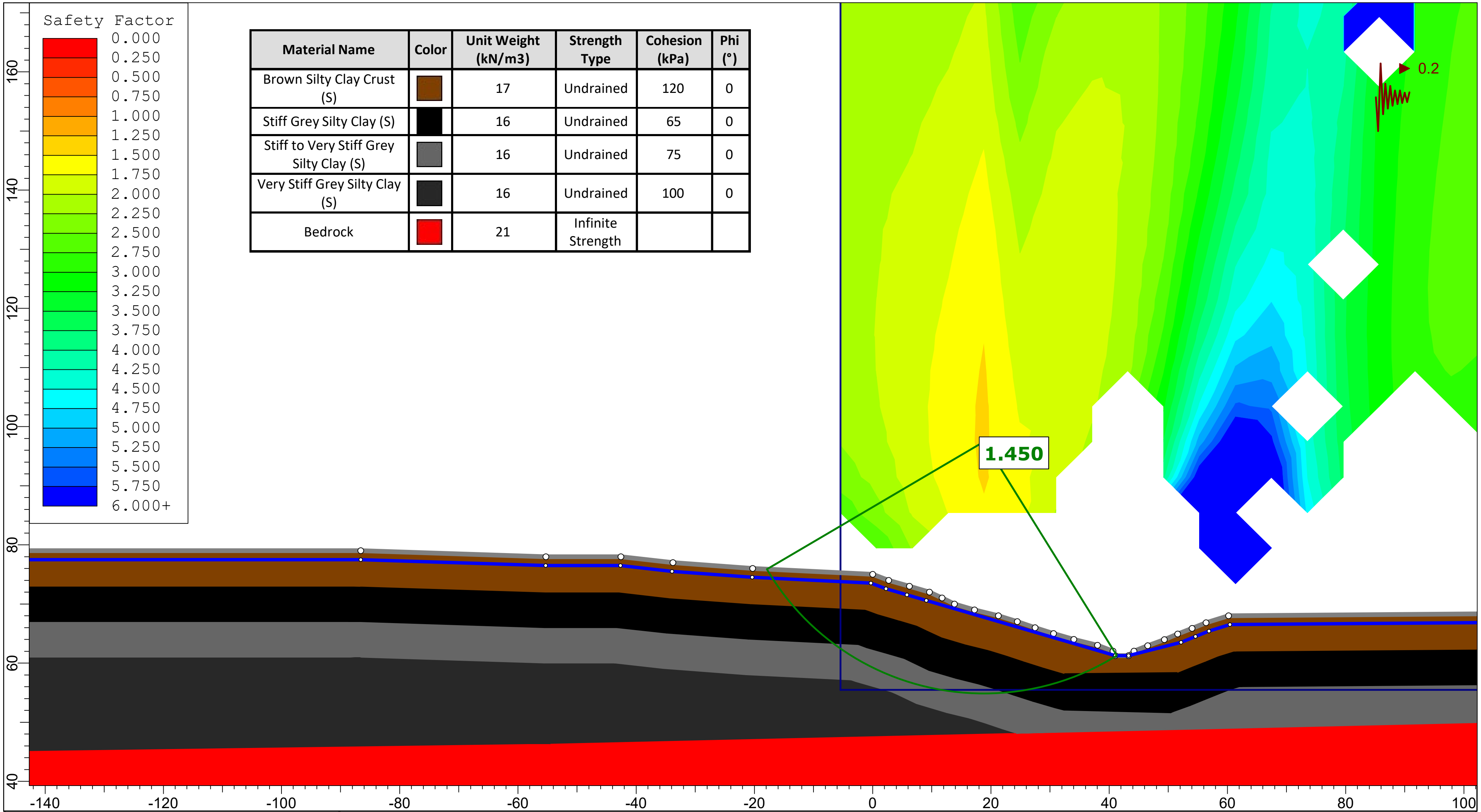


Material Name	Color	Unit Weight (kN/m3)	Cohesion (kPa)	Phi (°)
Brown Silty Clay Crust		17	5	33
Stiff to Very Stiff Grey Silty Clay		16	10	33
Bedrock		21		

PATERSON GROUP

SLIDEINTERPRET 9.036

Project No.:	**Kenvest Group** **Slope Stability Analysis** **6772 Rocque Street, Ottawa, Ontario**
Drawing No.:	**Figure 1A - Section A - Static Loading**
Prepared By: NFRV	*File No.* PG7849

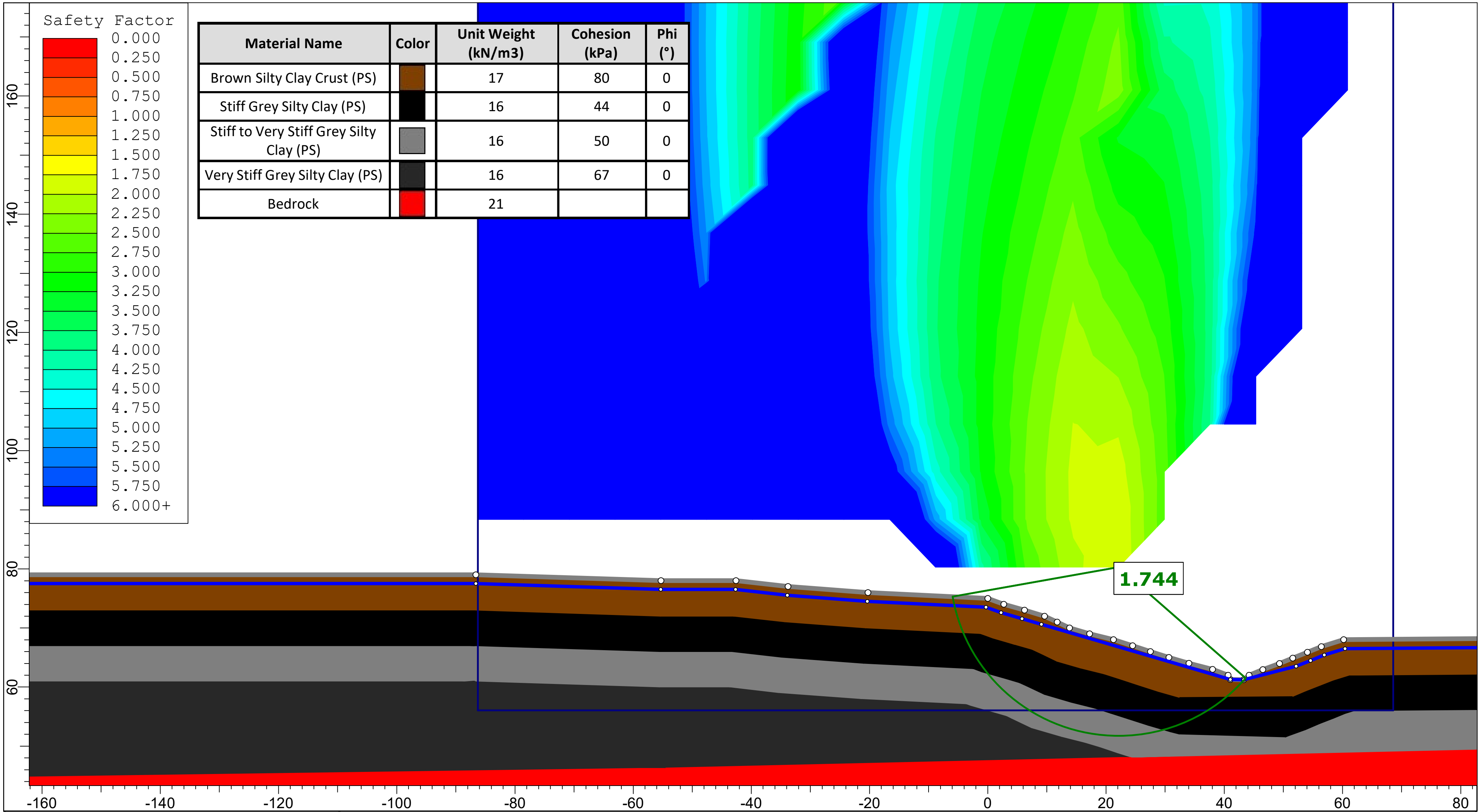


Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)
Brown Silty Clay Crust (S)		17	Undrained	120	0
Stiff Grey Silty Clay (S)		16	Undrained	65	0
Stiff to Very Stiff Grey Silty Clay (S)		16	Undrained	75	0
Very Stiff Grey Silty Clay (S)		16	Undrained	100	0
Bedrock		21	Infinite Strength		

PATERSON GROUP

SLIDEINTERPRET 9.036

Project No.:	**Kenvest Group** **Slope Stability Analysis** **6772 Rocque Street, Ottawa, Ontario**		
Drawing No.:	**Figure 1B - Section A - Seismic Loading**		
Prepared By:	NFRV	*File No.*	PG7849



Material Name	Color	Unit Weight (kN/m3)	Cohesion (kPa)	Phi (°)
Brown Silty Clay Crust (PS)		17	80	0
Stiff Grey Silty Clay (PS)		16	44	0
Stiff to Very Stiff Grey Silty Clay (PS)		16	50	0
Very Stiff Grey Silty Clay (PS)		16	67	0
Bedrock		21		

PATERSON GROUP

SLIDEINTERPRET 9.036

Project No.:

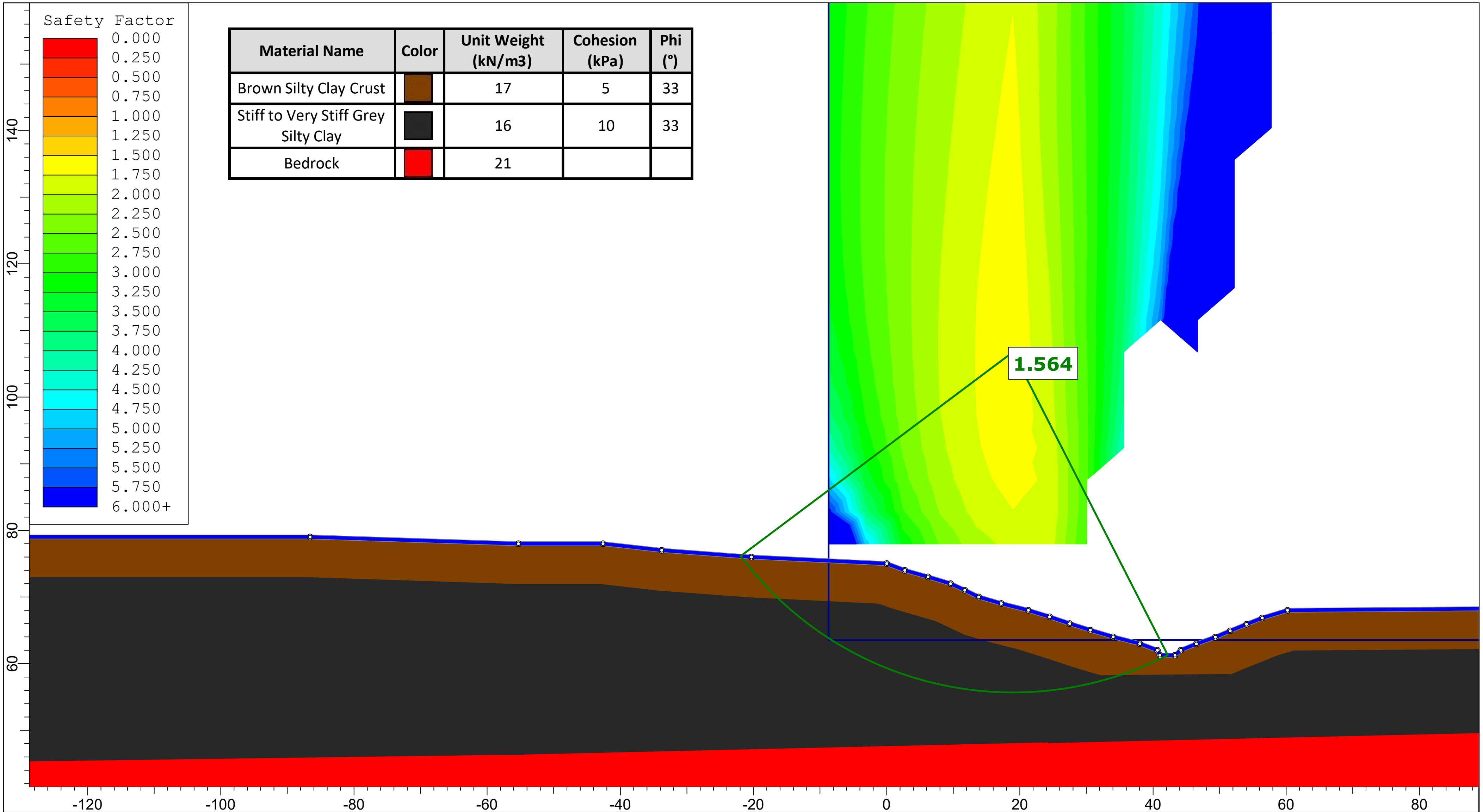
Kenvest Group
Slope Stability Analysis
6772 Rocque Street, Ottawa, Ontario

Drawing No.:

Figure 1C - Section A - Post-Seismic Loading

Prepared By: NFRV

File No. PG7849

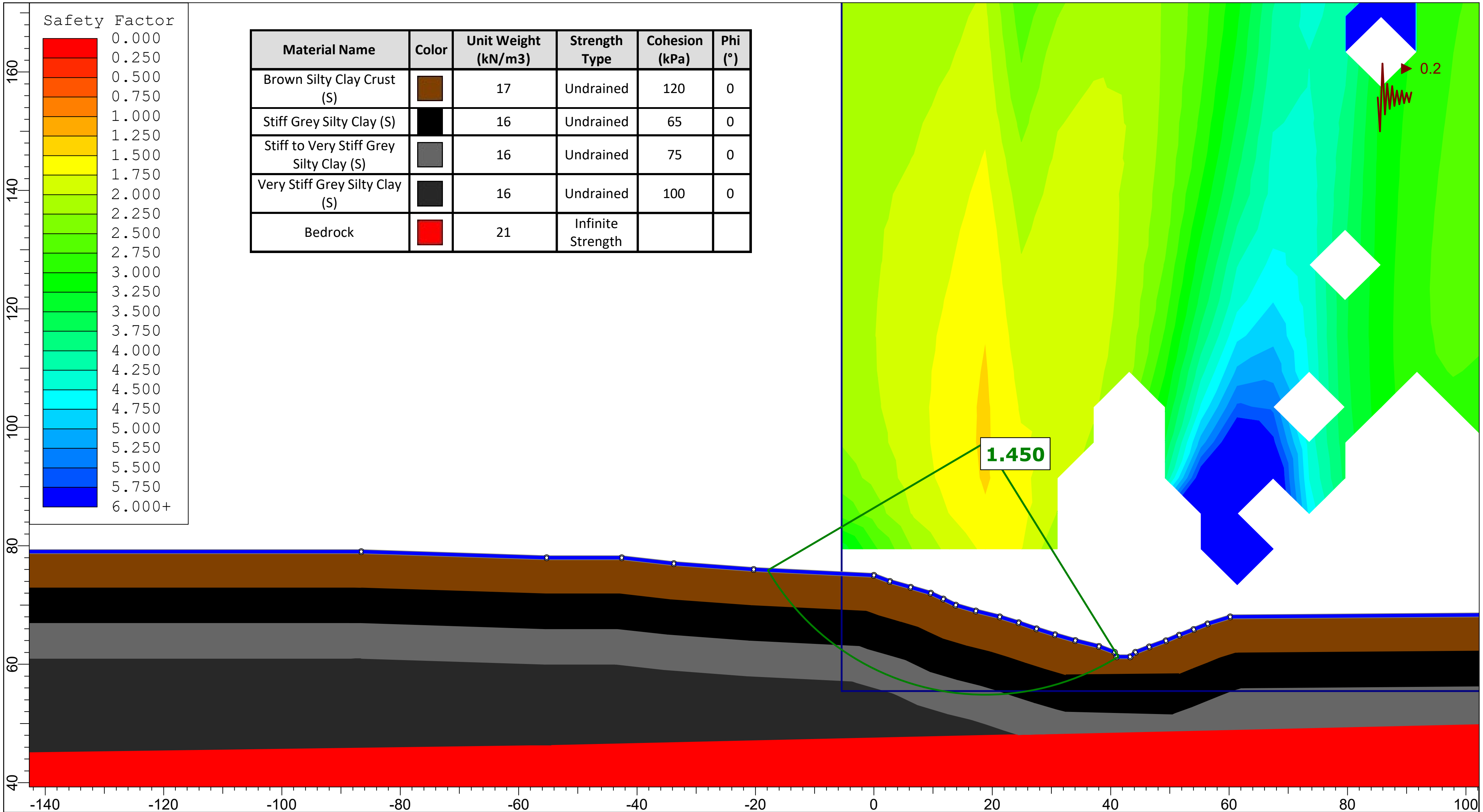


Material Name	Color	Unit Weight (kN/m3)	Cohesion (kPa)	Phi (°)
Brown Silty Clay Crust		17	5	33
Stiff to Very Stiff Grey Silty Clay		16	10	33
Bedrock		21		

PATERSON GROUP

SLIDEINTERPRET 9.036

Project No.:	**Kenvest Group** **Slope Stability Analysis** **6772 Rocque Street, Ottawa, Ontario**		
Drawing No.:	**Figure 2A - Section A - Static Loading**		
Prepared By:	NFRV	*File No.*	PG7849

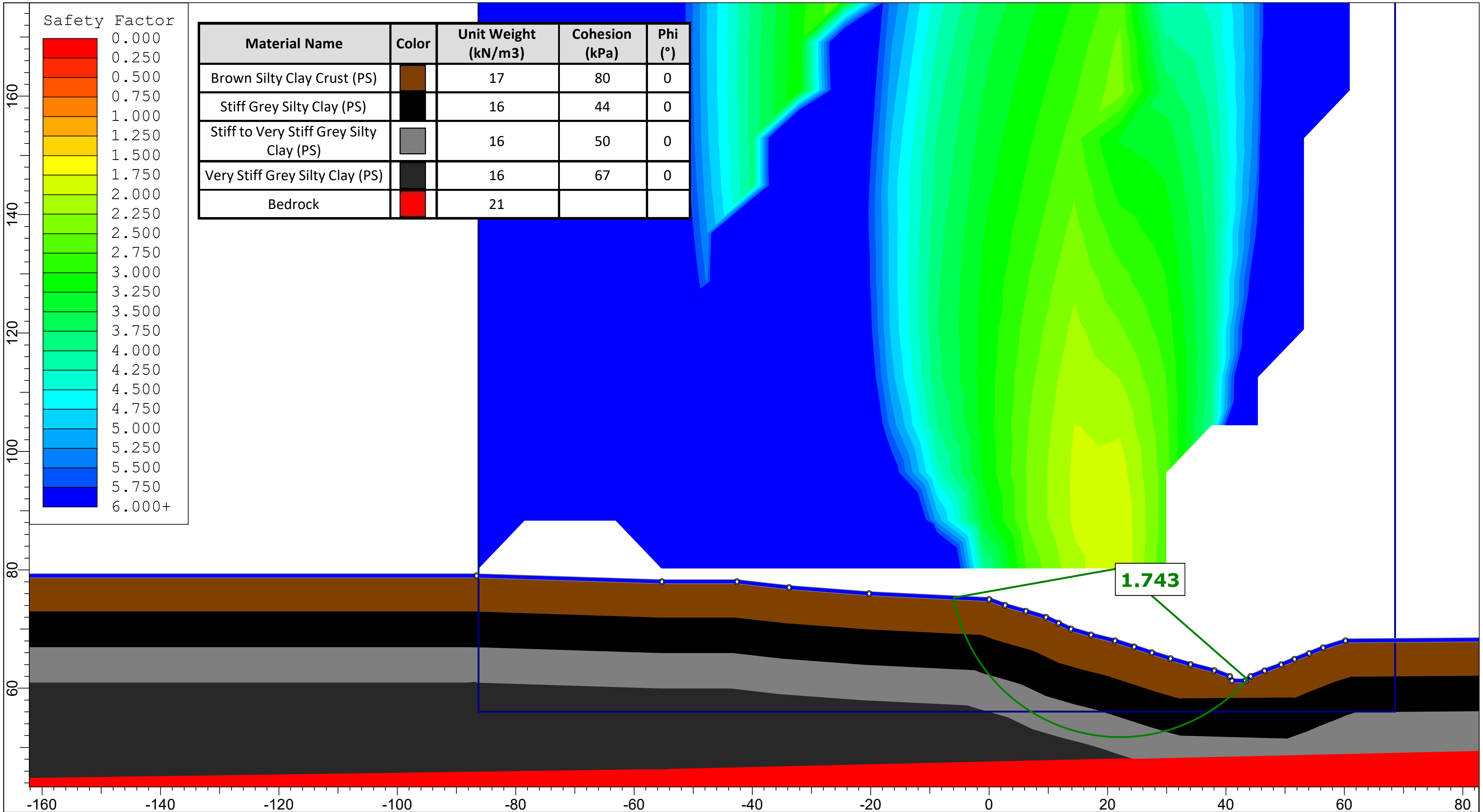


Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)
Brown Silty Clay Crust (S)		17	Undrained	120	0
Stiff Grey Silty Clay (S)		16	Undrained	65	0
Stiff to Very Stiff Grey Silty Clay (S)		16	Undrained	75	0
Very Stiff Grey Silty Clay (S)		16	Undrained	100	0
Bedrock		21	Infinite Strength		

PATERSON GROUP

SLIDEINTERPRET 9.036

Project No.:	**Kenvest Group** **Slope Stability Analysis** **6772 Rocque Street, Ottawa, Ontario**
Drawing No.:	**Figure 2B - Section A - Seismic Loading**
Prepared By: NFRV	*File No.* PG7849

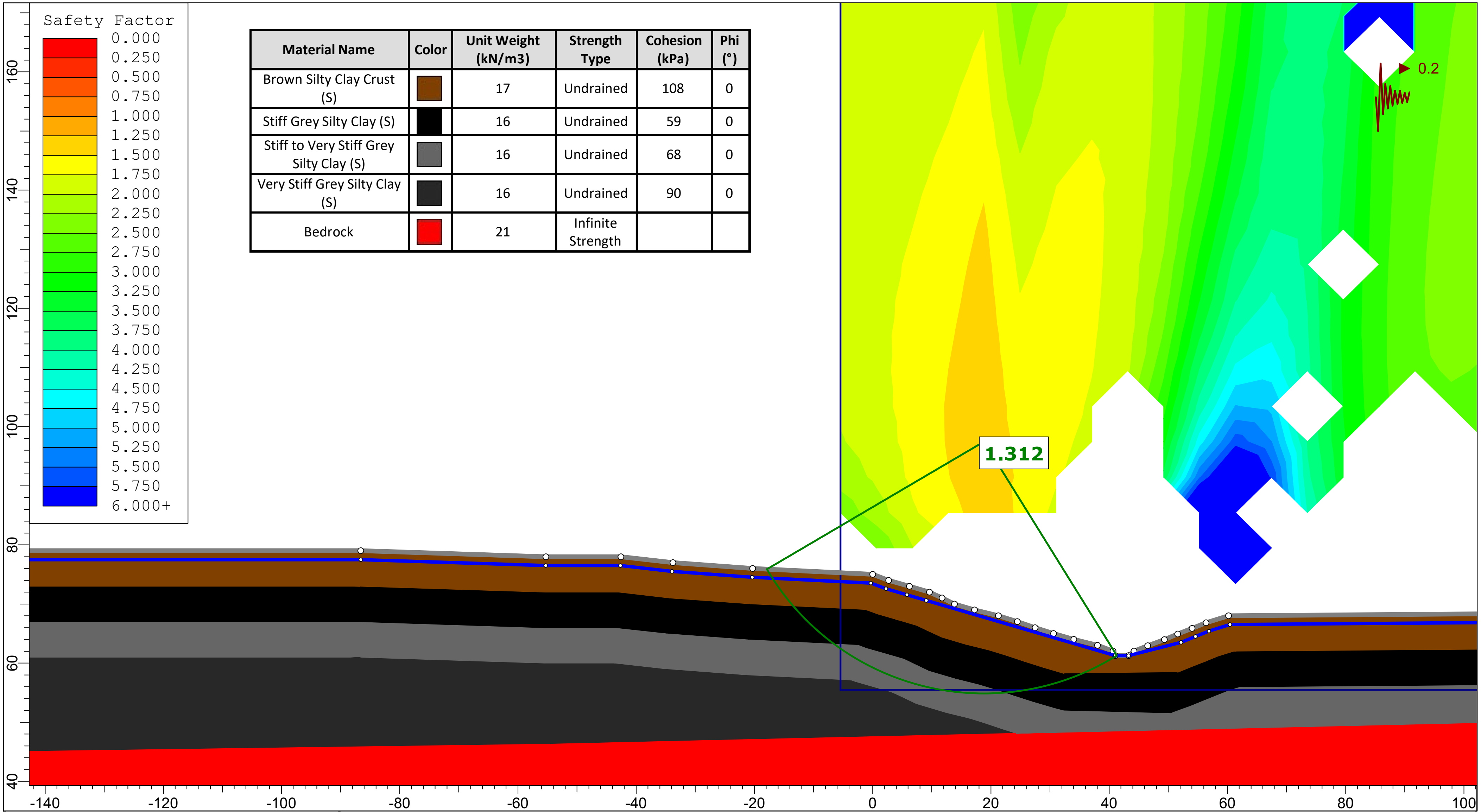


Material Name	Color	Unit Weight (kN/m3)	Cohesion (kPa)	Phi (°)
Brown Silty Clay Crust (PS)		17	80	0
Stiff Grey Silty Clay (PS)		16	44	0
Stiff to Very Stiff Grey Silty Clay (PS)		16	50	0
Very Stiff Grey Silty Clay (PS)		16	67	0
Bedrock		21		

PATERSON GROUP

SLIDEINTERPRET 9.036

Project No.:	**Kenvest Group** **Slope Stability Analysis** **6772 Rocque Street, Ottawa, Ontario**
Drawing No.:	**Figure 2C - Section A - Post-Seismic Loading**
Prepared By: NFRV	*File No.* PG7849

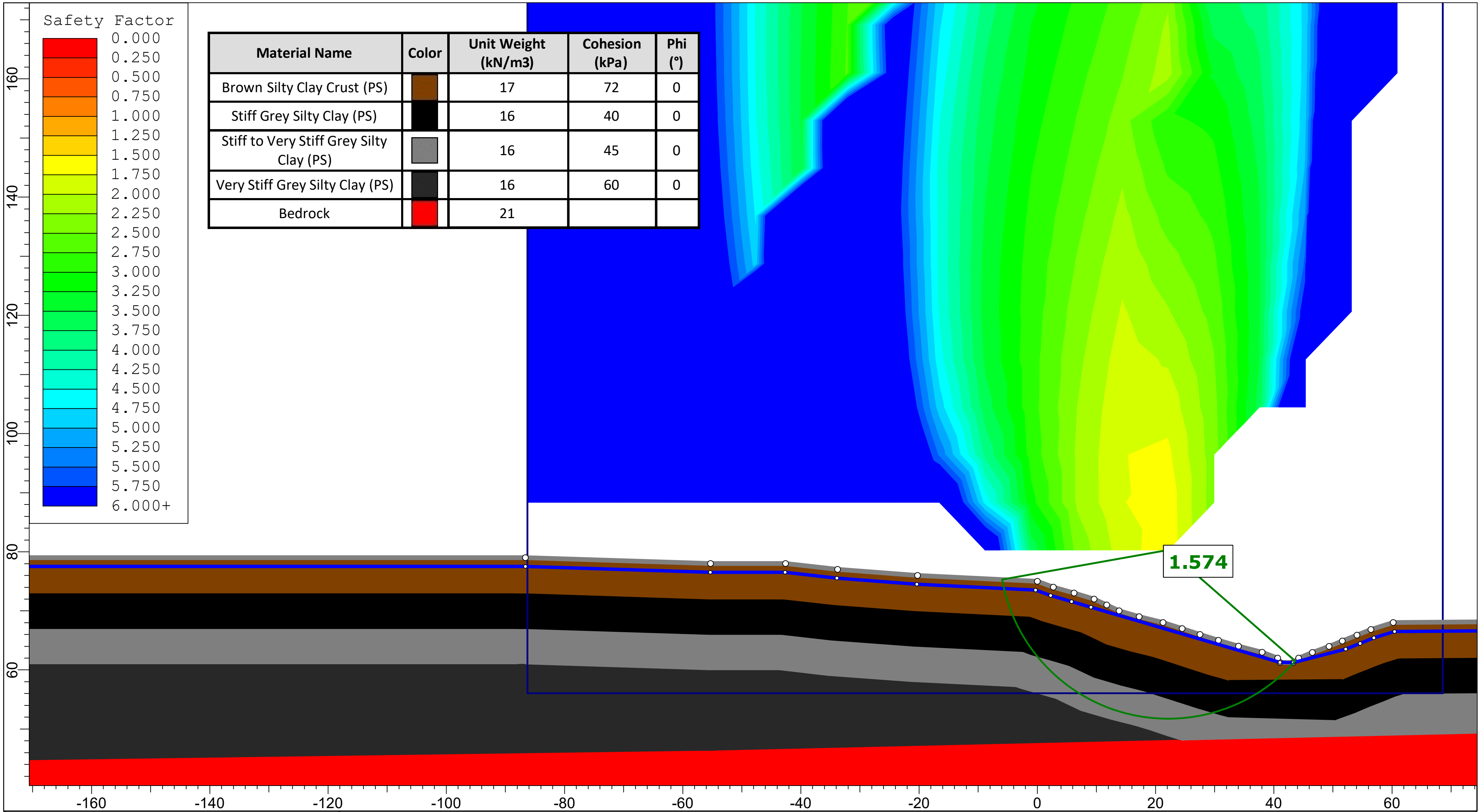


Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)
Brown Silty Clay Crust (S)		17	Undrained	108	0
Stiff Grey Silty Clay (S)		16	Undrained	59	0
Stiff to Very Stiff Grey Silty Clay (S)		16	Undrained	68	0
Very Stiff Grey Silty Clay (S)		16	Undrained	90	0
Bedrock		21	Infinite Strength		

PATERSON GROUP

SLIDEINTERPRET 9.036

Project No.:	**Kenvest Group** **Slope Stability Analysis** **6772 Rocque Street, Ottawa, Ontario**
Drawing No.:	**Figure 3A - Section A - Seismic Loading**
Prepared By: NFRV	*File No.* PG7849



Material Name	Color	Unit Weight (kN/m3)	Cohesion (kPa)	Phi (°)
Brown Silty Clay Crust (PS)		17	72	0
Stiff Grey Silty Clay (PS)		16	40	0
Stiff to Very Stiff Grey Silty Clay (PS)		16	45	0
Very Stiff Grey Silty Clay (PS)		16	60	0
Bedrock		21		

PATERSON GROUP

SLIDEINTERPRET 9.036

Project No.:

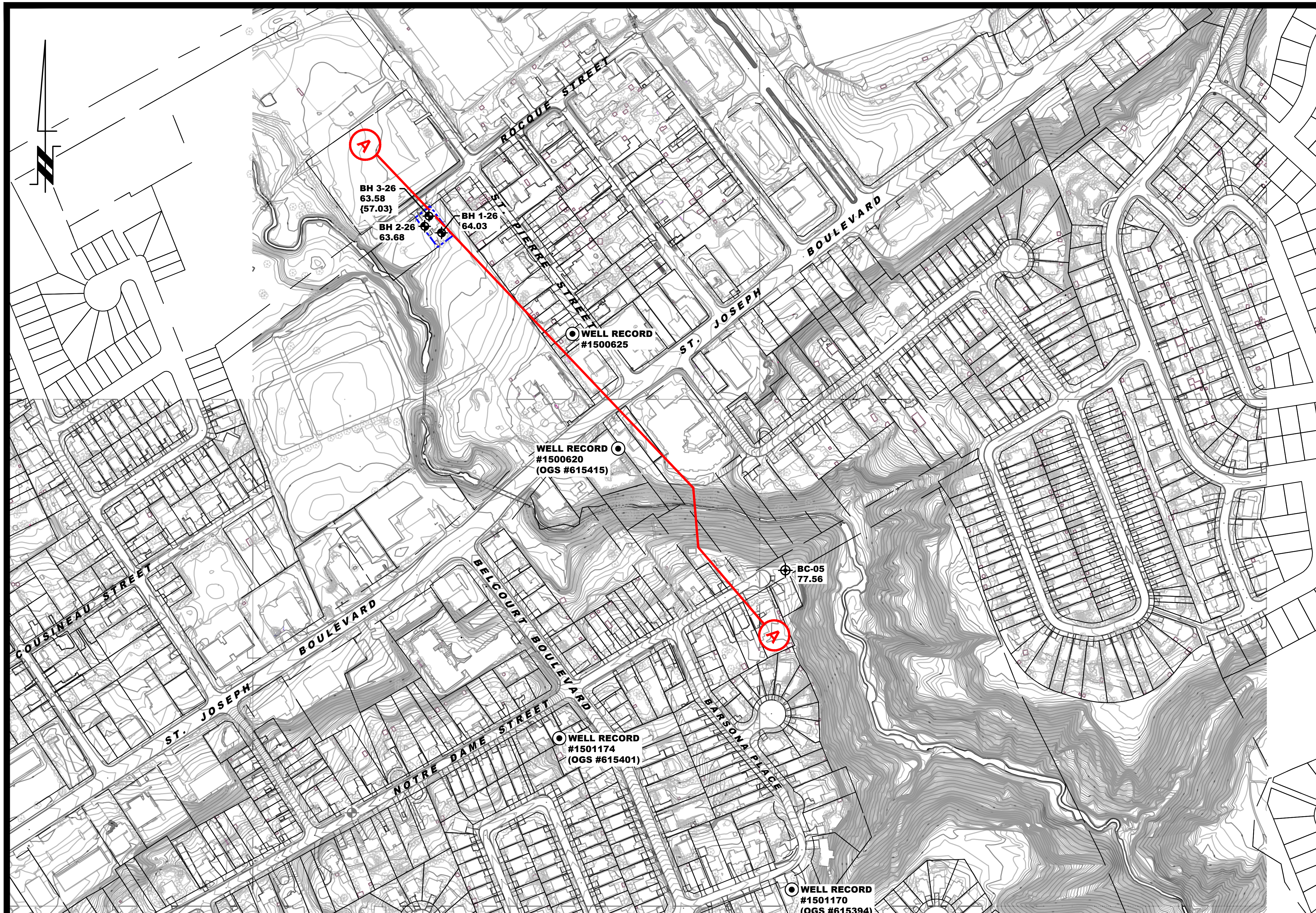
Kenvest Group
Slope Stability Analysis
6772 Rocque Street, Ottawa, Ontario

Drawing No.:

Figure 3B - Section A - Post-Seismic Loading

Prepared By: NFRV

File No. PG7849



LEGEND:

- BOREHOLE LOCATION (PATERSON, 2026)
- HISTORICAL BOREHOLE LOCATION (PATERSON)
- BOREHOLE LOCATION BY OTHERS (GEMTEC, 2019)
- WELL RECORD BORING LOCATION
- A—A SLOPE STABILITY CROSS-SECTION LOCATION
- SUBJECT SITE BOUNDARY
- 63.56 GROUND SURFACE ELEVATION (m)
- {49.89} PRACTICAL REFUSAL TO DCPT ELEVATION (m)

NOTE: TOPOGRAPHIC CONTOUR DATA DEPICTED HEREIN ARE BASED ON 1:1000 SCALE LiDAR DIGITAL MAPPING DATA (2015)

SCALE: 1:4000

0 50 100 150 200 250m

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DD/MM/YYYY	INITIAL

KENVEST GROUP

GEOTECHNICAL DESKTOP SLOPE STABILITY ANALYSIS
6772 ROCQUE STREET

OTTAWA, ONTARIO

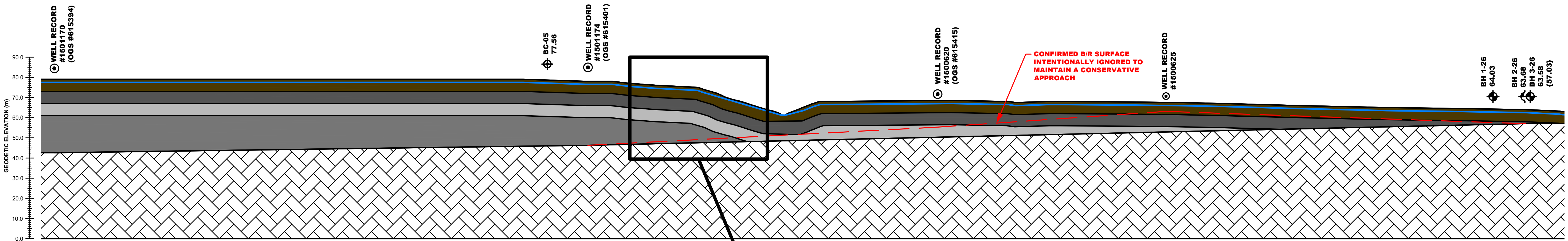
Title:

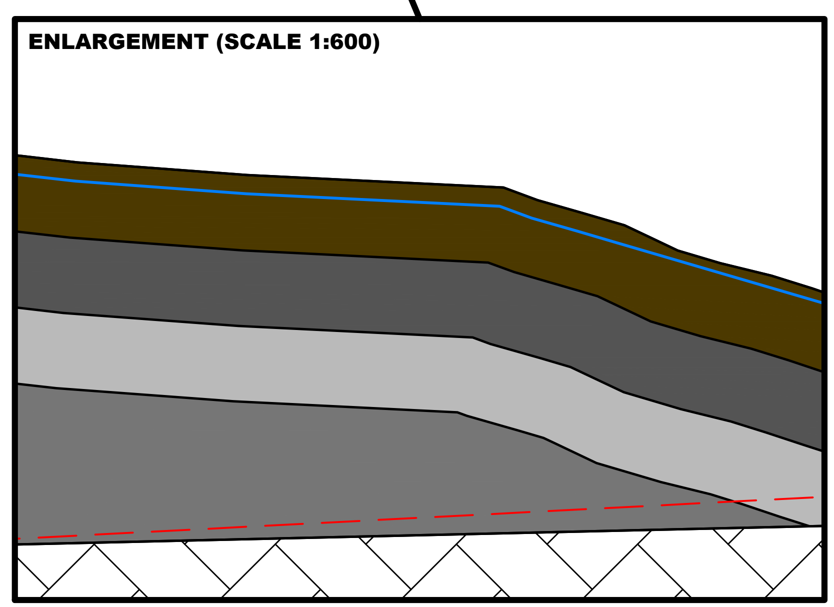
TEST HOLE LOCATION PLAN

Scale: 1:4000	Date: 08/2026
Drawn by: NFRV	Report No.: PG7849-LET.01
Checked by: NFRV	Dwg. No.: PG7849-2
Approved by: DP	Revision No.:

p:\autocad drawings\geotechnical\pg78xx\pg7849\pg7849-2-test hole location plan.dwg

11x17





LEGEND:

- BOREHOLE LOCATION (PATERSON GROUP, 2026)
- BOREHOLE LOCATION (GEMTEC, 2019)
- OGS BOREHOLE/ONTARIO WELL RECORD
- BROWN SILTY CLAY CRUST
- STIFF GREY SILTY CLAY
- STIFF TO VERY STIFF GREY SILTY CLAY
- VERY STIFF GREY SILTY CLAY
- BEDROCK
- LONG-TERM GROUNDWATER TABLE (1.5m DEEP)

SCALE: 1:2000

0 25 50 75 100 125 150m

GENERAL NOTES:

1. THE GROUNDWATER TABLE WAS ASSIGNED A DEPTH LIMITED BY FOUNDATION DRAINAGE SYSTEMS AND CONSIDERED AS 1.5m BELOW THE EXISTING GROUND SURFACE, WHICH IS CONSIDERED THE MINIMUM FOUNDING DEPTH BELOW GROUND SURFACE FOR HEATED OCCUPIED STRUCTURES TO BE FOUNDED BELOW THE LOCAL DEPTH OF FROST MIGRATION.

2. THE BEDROCK SURFACE WAS EXTRAPOLATED CONSIDERING THE REFUSAL TO DCPT FROM BH 3-26 (PATERSON, 2026), NEARBY ONTARIO GEOLOGICAL SURVEY (OGS) BOREHOLES, NEARBY ONTARIO WELL RECORDS, AND EXISTING NEARBY REFUSAL DATA AVAILABLE TO PATERSON.

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DD/MM/YYYY	INITIAL

KENVEST GROUP

GEOTECHNICAL DESKTOP SLOPE STABILITY ANALYSIS
6772 ROCQUE STREET

OTTAWA, ONTARIO

Title:
EXTRAPOLATED BOREHOLE DATA CROSS-SECTION

Scale: 1:2000	Date: 08/2026
Drawn by: NFRV	Report No.: PG7849-LET.01
Checked by: NFRV	Dwg. No.: PG7849-3
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