CAMBIUM

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Building Sciences

Construction Testing & Inspection

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Peterborough
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February 13, 2026

Welsh Custom Homes Inc.
2302 Brock Road
Douro-Dummer, Ontario. K0L 2H0

Attn: Daryl Welsh

Re: Slope Stability Inspection at 1182 Birchview Road, Lakefield, Ontario
Cambium Reference: CAM23286.001

Dear Mr. Welsh,

As requested, Cambium Inc. (Cambium) has completed a slope stability study at 1182 Birchview Road, in Lakefield, Ontario, on Clear Lake (Site) as shown in Figure 1. The study was required to assess the stability of the slope in support of the construction of a new larger structure, in the location of the existing residential structure, extending further to the east, west, and south, and no closer to the shore than the existing structure. The study was also required to assess the stability of the slope in support of the construction of a new garage structure and guesthouse structure in the southern portion of the Site. A new boathouse structure will be constructed to the west of the existing boathouse structure. These proposed buildings are shown in Figure 2. The study is required to determine if the Site is subject to erosion hazards through a stability study on the proposed redevelopment of the existing structure, based on the Ontario Ministry of Natural Resources and Forestry (MNRF) “Geotechnical Principles For Stable Slopes” (June 1998). It is understood that all proposed structures will be founded on bedrock.

SCOPE OF WORK

An on-site visual inspection of the western slope (Cross Section A-A’) and eastern slope (Cross Sections B-B’, C-C’, and D-D’) was completed on November 19, 2025, with a primary focus on the eastern-most slope, the location of all proposed development aside from the proposed boathouse. The inspection included a visual assessment of the site, bedrock depth probing, test pits, limited surveying of the slope, and completion of slope inspection records and slope

rating chart. Cambium conducted a limited topographic survey of the slope, using a Sokkia Real Time Kinetic unit, to generate cross sections across the width of the entire lot, which are presented in Figure 3 to Figure 6. The field investigation work is summarized below with the Slope Inspection Record and Rating Chart provided in Appendix A and site photographs presented in Appendix B.

SLOPE STABILITY INSPECTION

The slopes in question at the Site are generally defined as the inclination that extends southeast from the shoreline of Clear Lake, landward to the top of the approximately 17 m to 21 m high slope, near Birchview Road.

The slope on the west side of the property can be characterized as generally less steep than that on the eastern side of the lot. The western slope is comprised of an upper slope, a middle slope, and a lower slope, with the proposed boathouse to be located on the lower slope and the driveway located along the top of the middle slope and continuing to the top of the upper slope. The inclination of the slope varies from 2.5 Horizontal to 1 Vertical (2.5H:1V) to 2H:1V along the slope faces of the lower, middle, and upper slopes. Relatively flat areas are evident between each slope with inclinations of approximately 7H:1V to near level. At the top of the upper slope, the land slopes down to the west, allowing for only minor drainage over slope. Mature trees throughout the site are near vertical.

The slope on the east side of the lot is considerably steeper than on that on the west side. The easter slope is also comprised of an upper slope, middle slope, and lower slope. The existing residential building is located along the lower slope, whereas the proposed residential building will span from the lower slope back into the middle slope. The proposed garage structure and guest house structure are to be located within the upper slope, with the driveway extending from the middle slope on the east to the upper slope on the west. The inclination varies between 3.5H:1V and 1H:1V over the lower slope, between 2.5H:1V to 1H:1V along the middle slope, and between 3.5H:1V and 2H:1V along the upper slope. Relatively flat areas are evident between each slope with inclinations of approximately 7H:1V to near level. The land at the top of the slope is relatively

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flat, allowing for minor drainage over slope. Mature trees throughout the site are near vertical.

Near-vertical bedrock exposures, undercutting of exposed bedrock, and evidence of loose unstable surficial bedrock were commonly observed throughout the middle slope along with evidence of some minor rock falls. Undercutting was not observed and near-vertical bedrock exposures were found to be minimal in the upper slope however, evidence of loose, unstable surficial bedrock was common. These features were not encountered in the lower slope. Exposed bedrock was commonly observed throughout the slope. Probing inspection with a T-bar confirmed bedrock is present across the slope, with depths generally no greater than 0.3 m, except in the flat, terraced areas between slopes and immediately downslope of the undercutting, where the slope appears to be a mix of rock and soil. Depths of rock and soil are not anticipated to have a significant depth as exposed bedrock is visible both above and below. It was not confirmed visually whether the foundation of the existing building was set on bedrock.

Three test pits were conducted along the top of the upper slope on the eastern slope. Several layers of loose surficial limestone were observed to overlay massive, unweathered, bedrock in each test pit location. Vertical T-bar probing was conducted into voids encountered across the site with penetration extending to depths of 600 mm to 900 mm in various locations, which was similar to the thickness of weathered bedrock at the top of the site. Lateral T-bar probing within the bedrock undercuts revealed maximum undercut depths of 1.7 m to 3 m laterally into the slope.

As per the appended Slope Inspection Record and Slope Stability Rating Chart, found in Appendix A, the total ratings value sums to 32 for the existing slope on the west side of the property (Cross Section A-A') and a total value of 40 for the existing slope on the east side of the property (Cross Section B-B', C-C', and D-D'). Based on the MNRF technical guide the western slope is considered to have slight potential for instability, while the eastern slope is considered to have moderate potential for instability. The proposed structures are situated primarily on the eastern slope and as such will be the focus of the discussion henceforth.

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Specific items of interest that contribute to the rating of moderate potential for instability in the eastern slope are outlined below:

1. Slope Inclination – based on surveyed elevations, the slope has an inclination steeper than 2H:1V, giving a rating value of 16.
2. Soil Stratigraphy –The slope consists mainly of bedrock, with a thin cover of topsoil, giving a rating of 0.
3. Seepage from Slope Face – At the time of the investigation, there was no apparent seepage from the slope face giving a best-case rating of 0.
4. Slope Height – Based on survey data, the height of the existing slope is generally around 17m to 21 m, resulting in a maximum rating of 8.
5. Vegetation Cover on Slope Face – The slope was well vegetated consisting of mixed coniferous and deciduous trees standing vertical or near-vertical throughout the slope, giving a rating of 0.
6. Table Land Drainage – the table land at the top of the slope is relatively flat, but there is some inclination to the slope, allowing for some drainage over the slope. Undercutting of the bedrock on the slope face was evident in several areas, giving a maximum rating of 4.
7. Proximity of Watercourse to Slope Toe – Stoney Lake is located at the base of the slope, resulting in a rating of 6.
8. Previous Landslide Activity – No apparent previous landslide activity was observed at the time of the investigation, however there was evidence of minor rock falls, particularly in the middle slope, giving a worst-case rating of 6.

EROSION HAZARD ASSESSMENT

Based on the visual inspection and cross sections generated from the survey completed on Site, it is evident that the existing structure is currently within the erosion hazard limit and all proposed structures fall within the erosion hazard limit, and as such, determination of the exact location of the erosion hazard limit has no bearing on the proposed development.

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DISCUSSION

The western slope is considered to have a slight potential for instability, and the eastern slope is considered to have a moderate potential for instability. While the western slope is considerably less steep with minimal visual signs of instability, it is understood the Client wishes to construct the much larger proposed home within the eastern slope. It is also understood that the conservation authority has suggested that effort be made to erect any proposed structure in areas previously disturbed by development, limiting the disturbance of otherwise natural areas.

Given that the lower slope has inclination of generally no steeper than 3H:1V and is comprised of bedrock, the potential for erosion is negligible and has no impact on development that is founded on bedrock.

Bedrock slopes with inclination shallower than 1H:1V are generally considered stable. This Site, specifically the easter slope at this Site, has bedrock slope inclinations that range from 2.5H:1v to near vertical in places with evidence of undercutting and minor rockfalls. As such the existing slope in its current condition is not considered fully stable.

For development to occur within the erosion hazard limit of the eastern slope, the slope will need to be modified to remove the potential for instability. The following modifications and construction recommendations are required to ensure stability is achieved and the risk of damage to the proposed structures diminished.

- All loose, unstable, and weathered bedrock must be removed from below the proposed structures and structures must be founded on massive, unweathered bedrock.
- All loose, unstable, and weathered bedrock must be removed from slopes with inclination of 3H:1V or steeper, which are upslope of the main residential structure to prevent rockfalls into the structure.
- Where undercuts are present, the bedrock must be cut back to the furthest most point of the under cut and reshaped as outlined below.

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- Slopes immediately upslope of the development, with inclination of steeper than 1H:1V, must be reshaped to provide stability
    - Slopes may be reshaped to a stable 1H:1V slope with all loose and weathered rock removed, or
    - Slopes may be stepped/benched at a ratio of 1H:1V with batter no greater than 90 degrees, provided all loose, weathered bedrock is removed.
- Modified slopes must be inspected by Cambium prior to development to ensure acceptable stability and safety.
- Bedrock should be inspected prior to placing footings to ensure competent bedrock and confirm bearing capacity
- Slopes generated with soil must maintain an inclination of shallower than 3H:1V or be properly stabilized.
- Footings placed on sloped bedrock should be dowelled/anchored into competent bedrock
- Where structures are placed on stilts/piers within the slope, the surrounding unstable and weathered bedrock must be removed and piers advanced into the bedrock a minimum of 5 m.

During construction, erosion control measures should be put in place to maintain the stability of the slope, including ensuring that there is no concentration of runoff from downspouts down the slope. A sediment control fence must be erected and maintained during construction to isolate work area from the neighbouring properties, the adjoining slope, and the lake shore.

It is understood that the Client prefers a natural look to the slope and as such, excavated limestone rock with moss and other natural looking phenomenon may be reused within the slope but must meet the requirements for slope outlined above and must be approved by a structural engineer if used as a retaining structure.

It is recommended that a Cambium representative be on Site to inspect the sloe during construction to ensure the proper requirements are met. A Cambium

representative should also inspect bedrock at footing depth prior to placing the footings to ensure that the subsurface conditions are similar to those identified during this investigation and that the bedrock is adequately unweathered and free of voids and fractures. Cambium should also inspect the bedrock to estimate bearing capacity values and inspect dowels/anchors.

CLOSING

Please note that this report letter is governed by the attached qualifications and limitations. We trust that this letter meets your current needs for this project. If you have questions or comments regarding this document, please do not hesitate to contact the undersigned.

Best regards,

Cambium Inc.

DocuSigned by:
0B68D45279A94B7...

Stuart Baird, P.Eng.
Director of Technical Operations, Services

DocuSigned by:
933CC186AE884A5...

Brian Peterkin, M.Eng., P.Eng., P.Geo.
Senior Project Manager.

DocuSigned by:
7FDF31DDD18E4AA...

Josh Riseling, EIT
Coordinator - Geotechnical

SEB/bjp/jfr

Encl. *Standard Limitations*
Figure 1 Site Location Plan
Figure 2 Site Plan
Figure 3 Cross Section A-A'
Figure 4 Cross Section B-B'
Figure 5 Cross Section C-C'
Figure 6 Cross Section D-D'
Appendix A Slope Stability Inspection Record and Rating Charts
Appendix B Site Photographs

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February 13, 2026

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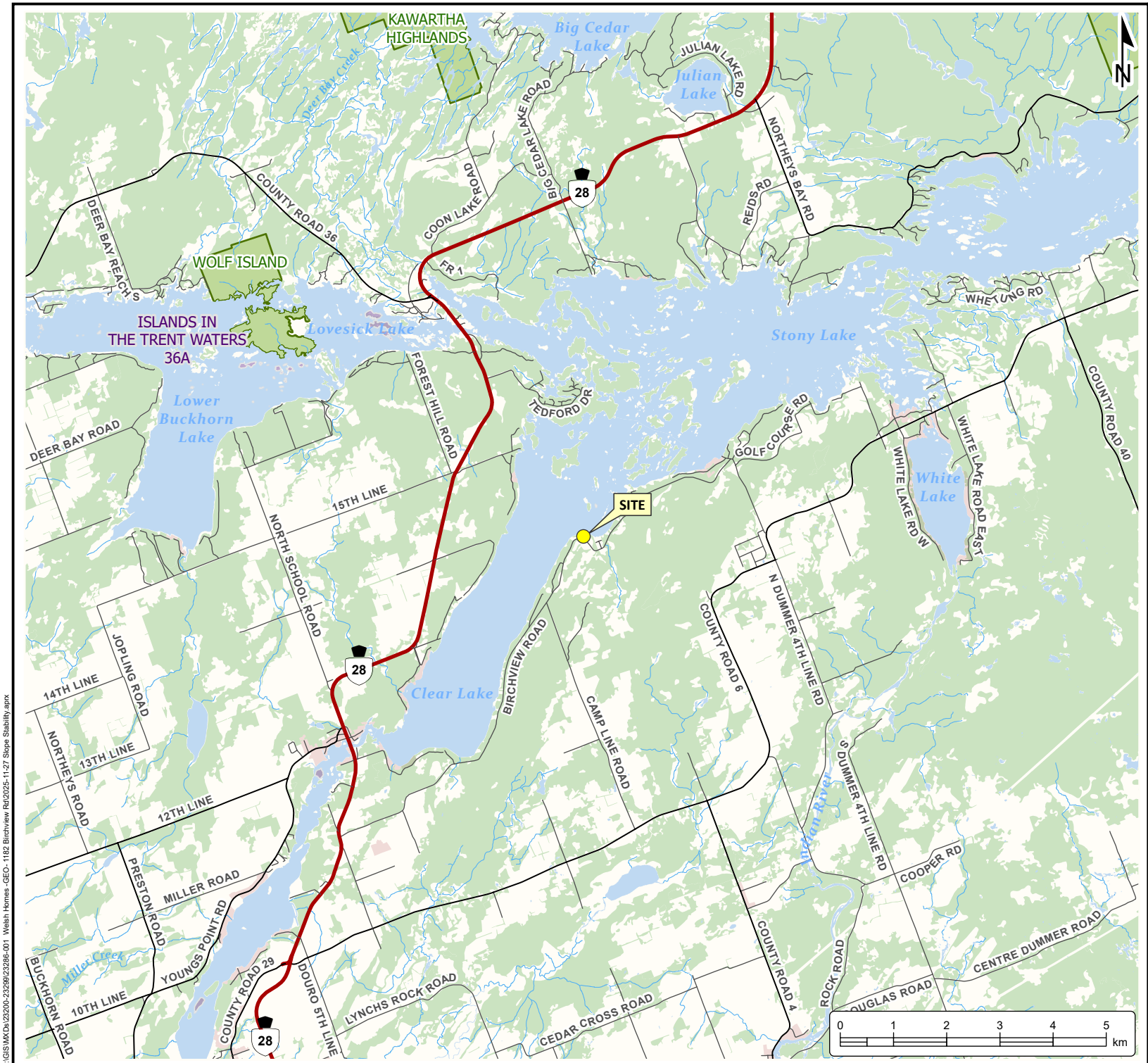

SLOPE STABILITY ANALYSIS

WELSH HOMES
1182 Birchview Road
Lakefield, Ontario

LEGEND

- Highway
- Major Road
- Minor Road
- Watercourse
- First Nations Reserve
- Provincial Park
- Water Area
- Wooded Area
- Built Up Area
- Site (approximate)

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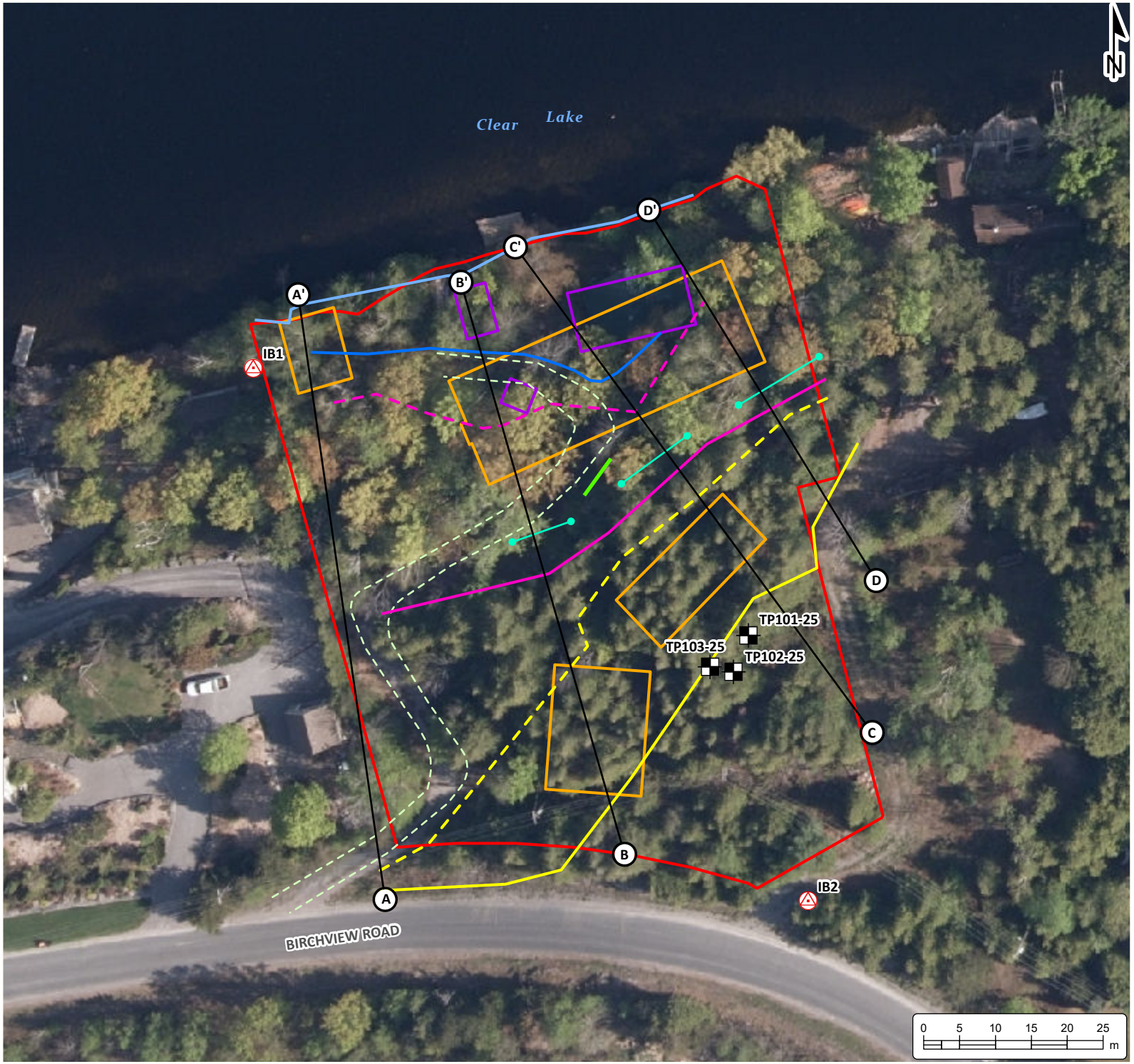
SITE LOCATION PLAN

Project No.: 23286.001	Date: December 2025
Scale: 1:100,000	Projection: NAD 1983 UTM Zone 17N
Created by: DBC	Checked by: BP
Figure: 1	

O:\GIS\MXDs\23200-23299\23286-001 Welsh Homes -GEO- 1182 Birchview Rd\2025-11-27 Slope Stability.aprx



SLOPE STABILITY ANALYSIS

WELSH HOMES
1182 Birchview Road
Lakefield, Ontario

LEGEND

- Benchmark
- Test Pit
- Edge of Driveway
- Waters Edge
- Broken Shelves
- Undercutting
- Top of Upper Slope
- Bottom of Upper Slope
- Top of Middle Slope
- Bottom of Middle Slope
- Top of Lower Slope
- Cross Section
- Proposed Building
- Existing Building
- Site (approximate)

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SITE PLAN

Project No.:	Date:
23286.001	December 2025
Scale: 1:750	Projection: NAD 1983 UTM Zone 17N

Created by:	Checked by:	Figure:
DBC	BP	2

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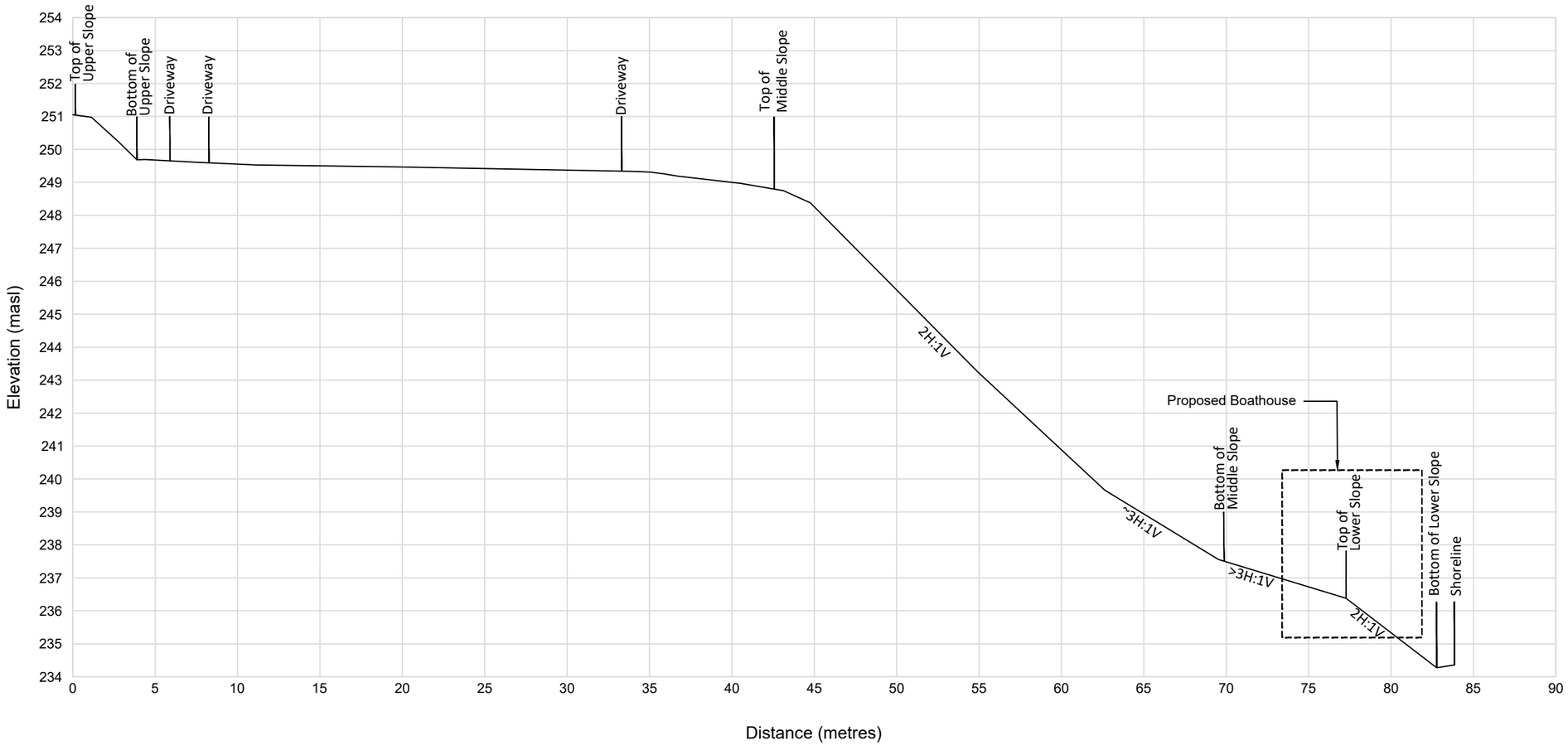
SLOPE STABILITY

WELSH HOMES
Street Address
1182 Birchview Rd,
Lakefield, Ontario

LEGEND

Cross Section A - A'



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CROSS SECTION A-A'

Project No.:	Date:
23286-001	December 2025
Horizontal Scale: 1:300	Vertical Scale: 1:150 (2x)
Drawn By: DBC	Checked By: BP
Figure: 3	

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SLOPE STABILITY

WELSH HOMES
Street Address
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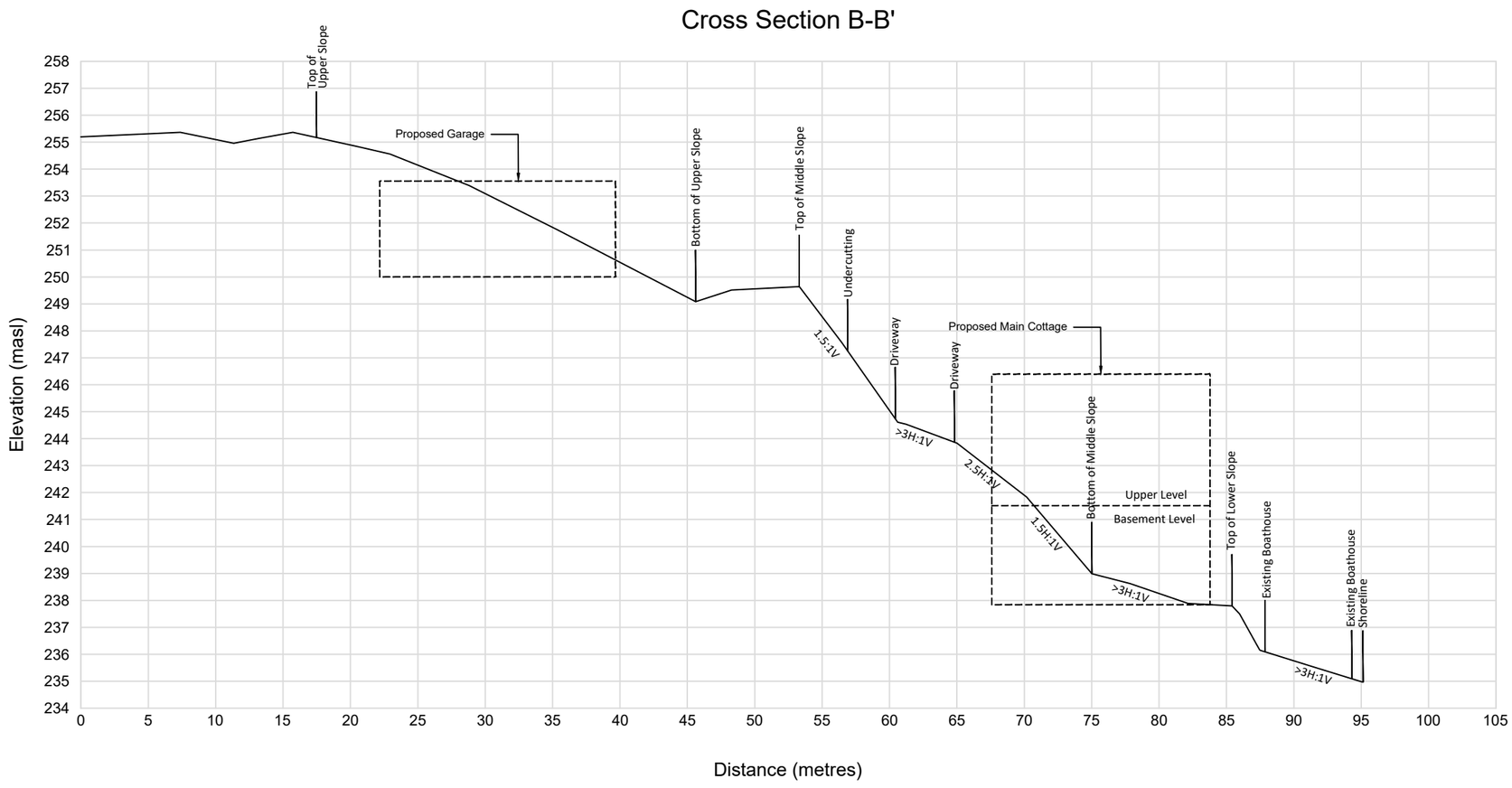

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CROSS SECTION B-B'

Project No.:	Date:
23286-001	December 2025
Horizontal Scale: 1:400	Vertical Scale: 1:200 (2x)
Drawn By: DBC	Checked By: BP
Figure: 4	

SLOPE STABILITY

WELSH HOMES
Street Address
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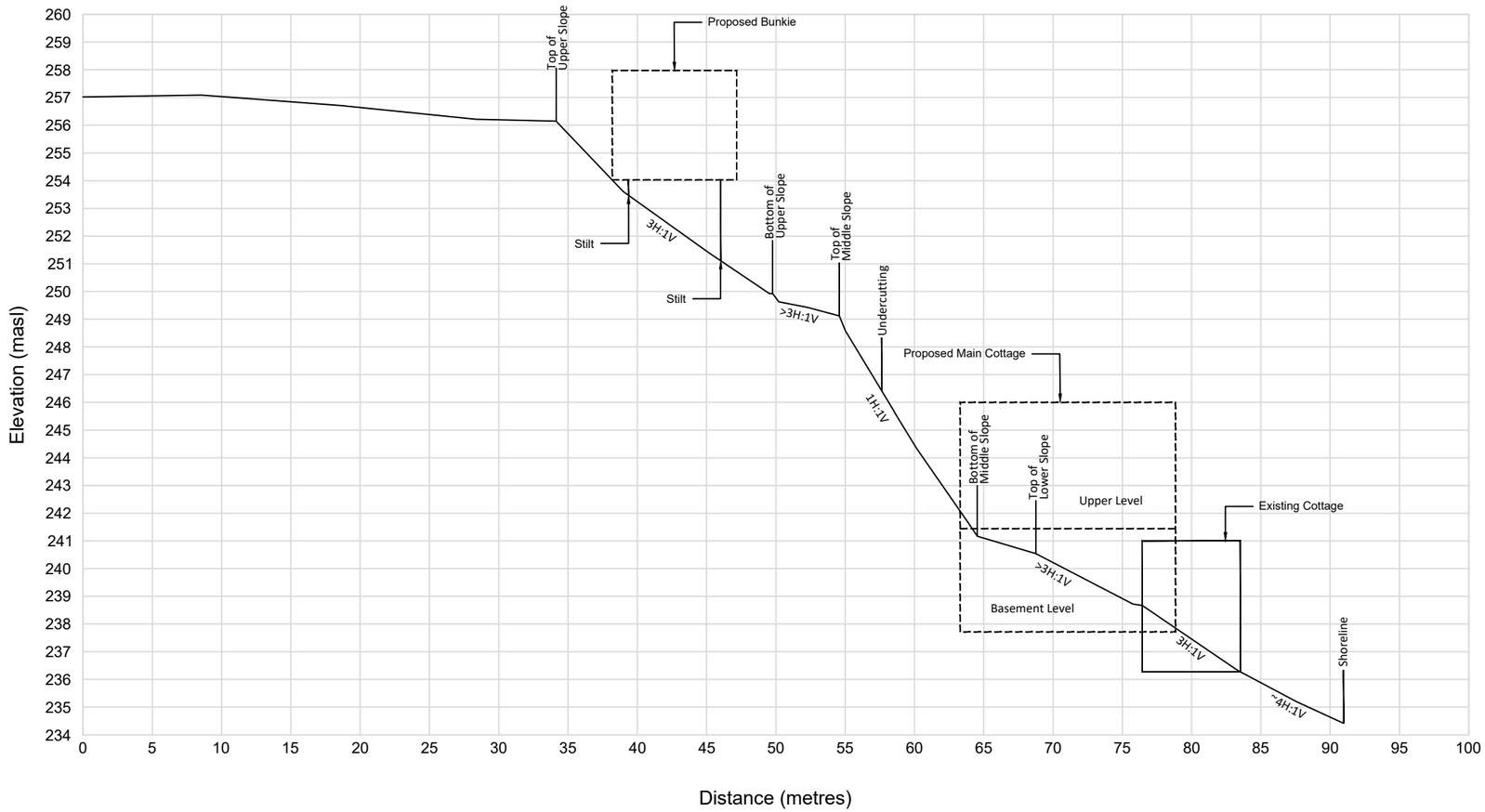
Lakefield, Ontario

Cross Section C - C'



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CROSS SECTION
C-C'

Project No.:	Date:
23286-001	December 2025
Horizontal Scale: 1:400	Vertical Scale: 1:200 (2x)
Drawn By: DBC	Checked By: BP
Figure: 5	

SLOPE STABILITY

WELSH HOMES
Street Address
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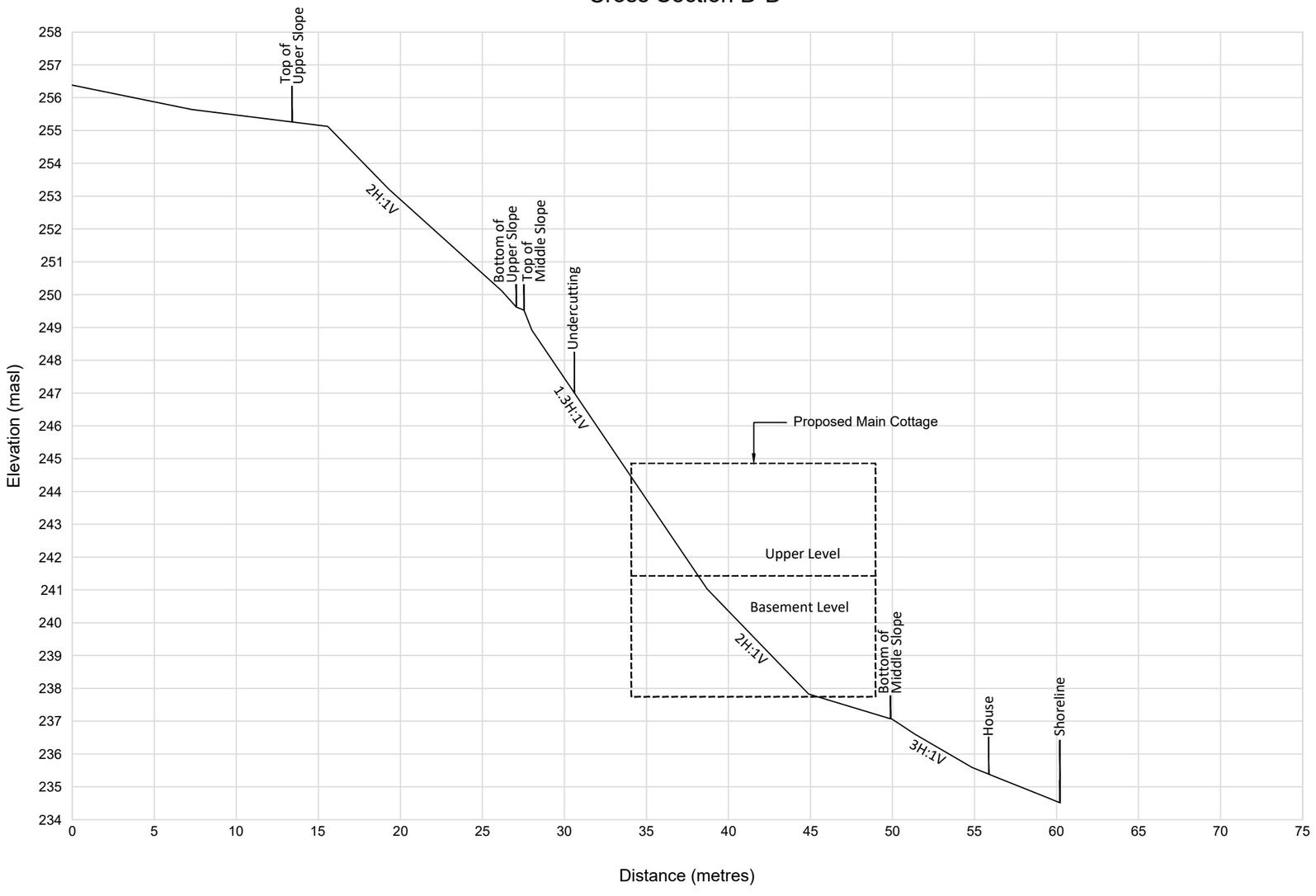
Cross Section D-D'



LEGEND

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CROSS SECTION
D-D'

Project No.:	Date:
23286-001	December 2025
Horizontal Scale: 1:300	Vertical Scale: 1:150 (2x)
Drawn By: DBC	Checked By: BP
Figure: 6	

SLOPE INSPECTION RECORD

TABLE 4.1 - Slope Inspection Record - West Slope

1. FILE NAME/NO. 23286-001

INSPECTION DATE: 11-19-25

WEATHER (circle):

sunny	partly cloudy			cloudy
calm	breeze			windy
clear	fog		rain	snow
cold	cool		warm	hot

estimated air temperature: -1°C

INSPECTED BY: J. Riseling

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

Address: 1182 Birchview Road, Lakefield, ON

Lot to be severed on the north side of Valleyview Drive, approximately 100 m west of the intersection of Valleyview Drive and Parkwood Lane. Proposed development is a residential dwelling in the clearing immediatley west of the existing residential structure.

3. PROPERTY OWNERSHIP (name, address, phone): Daryl Welsh (705-772-3951)
2302 Brock Road, Douro-Dummer, ON. K0L 2H0

LEGAL DESCRIPTION

Lot
Concession
Township
County

CURRENT LAND USE (circle and describe)

- active: habitable structures, residential, commerical, industrial, warehousing and storage

Existing residential structure, boathouse structure, shed structure, and hydro poles.

4. SLOPE DATA:

HEIGHT

- 3-6 m	- 6-10 m	- 10-15 m	- 15-20 m	
- 20-25 m	- 25-30 m	- >30 m		

estimated height (m): 15 m to 17 m

INCLINATION AND SHAPE:

4:1 or flatter 25% 14°	up to 3:1 33% 18°	up to 2:1 50% 26°	
up to 1:1 100% 45°	up to :1 200% 63°	steeper than :1 >63°	

SLOPE INSPECTION RECORD

5. SLOPE DRAINAGE (describe):

TOP	No observable seepage. Table land is relatively flat, with a slight decline to the west as well, away from the slope.
FACE	No observable seepage. Some icicles observed on rock face from snow melt running over the surface.
BOTTOM	No observable seepage. Clear Lake at the base of the slope.

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

TOP	Thin layer of topsoil over weathered limestone, underlain by bedrock.
FACE	Thin layer of topsoil over weathered limestone, underlain by bedrock.
BOTTOM	Clear Lake at the base of the slope.

7. WATER COURSE FEATURES (circle and describe)

SWALE, CHANNEL

GULLY

STREAM, CREEK, RIVER:

POND, BAY, LAKE: Clear Lake at the base of the slope

SPRINGS

MARSHY GROUND

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

TOP	Mixed mature coniferous and deciduous trees. Open area due to gravel driveway.
FACE	Mixed mature coniferous and deciduous trees.
BOTTOM	Clear Lake at the base of the slope. Mixed mature trees along shoreline.

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

TOP	N/A
FACE	Boathouse structure.
BOTTOM	N/A

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

TOP	N/A
FACE	N/A
BOTTOM	N/A

SLOPE INSPECTION RECORD

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

TOP N/A

FACE N/A

BOTTOM N/A

12. PLAN SKETCH OF SLOPE

See additional report appendices

13. PROFILE SKETCH OF SLOPE

See additional report appendices

SLOPE STABILITY RATING CHART

Site Location:	1182 Birchview Road, Lakefield	File No.	23286-001
Property Owner:	Welsh Custom Homes	Inspection Date:	2025-11-19
Inspected By:	Josh Riseling	Weather:	Sunny, cold

Inspection Task		Rating Value
1. SLOPE INCLINATION		
Degrees	**Horizontal:Vertical**	
a) 18 or less	3:1 or flatter	0
b) 18 to 26	2:1 to more than 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 m or more from slope toe		0
b) Less than 15 m from slope toe		6
8. PREVIOUS LANDSLIDE ACTIVITY		
a) No		0
b) Yes		6
	RATING VALUES TOTAL	**32**

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

Notes:

a) Choose only one rating value from each category; compare total rating value with above requirements

b) If there is a waterbody (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.

c) For leda clay and rock slopes, additional evaluation must be carried out

Source: Table 8.1 Geotechnical Principles for Stable Slopes (June 1998), Ontario Ministry of Natural Resources

SLOPE INSPECTION RECORD

TABLE 4.1 - Slope Inspection Record - East Slope

1. FILE NAME/NO. CAM23286.001

INSPECTION DATE: 11-19-25

WEATHER (circle):

sunny	partly cloudy			cloudy
calm	breeze			windy
clear	fog		rain	snow
cold	cool		warm	hot

estimated air temperature: -1°C

INSPECTED BY: J. Riseling

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

Address: 1182 Birchview Road, Lakefield, ON

Lot to be severed on the north side of Valleyview Drive, approximately 100 m west of the intersection of Valleyview Drive and Parkwood Lane. Proposed development is a residential dwelling in the clearing immediatley west of the existing residential structure.

3. PROPERTY OWNERSHIP (name, address, phone): Daryl Welsh (705-772-3951)
2302 Brock Road, Douro-Dummer, ON. K0L 2H0

LEGAL DESCRIPTION

Lot
Concession
Township
County

CURRENT LAND USE (circle and describe)

- active: habitable structures, residential, commerical, industrial, warehousing and storage

Existing residential structure, boathouse structure, shed structure, and hydro poles.

4. SLOPE DATA:

HEIGHT

- 3-6 m	- 6-10 m	- 10-15 m	- 15-20 m	
- 20-25 m	- 25-30 m	- >30 m		

estimated height (m): 21 m to 22 m

INCLINATION AND SHAPE:

4:1 or flatter 25% 14°	up to 3:1 33% 18°	up to 2:1 50% 26°	
up to 1:1 100% 45°	up to :1 200% 63°	steeper than :1 >63°	

SLOPE INSPECTION RECORD

5. SLOPE DRAINAGE (describe):

TOP	No observable seepage. Table land is relatively flat, with a slight decline to the west as well, away from the slope.
FACE	No observable seepage. Some icicles observed on rock face from snow melt running over the surface.
BOTTOM	No observable seepage. Clear Lake at the base of the slope.

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

TOP	Thin layer of topsoil over weathered limestone, underlain by bedrock. Exposed bedrock is evident as well.
FACE	Thin layer of topsoil over weathered limestone, underlain by bedrock. Exposed bedrock is evident as well.
BOTTOM	Clear Lake at the base of the slope.

7. WATER COURSE FEATURES (circle and describe)

SWALE, CHANNEL

GULLY

STREAM, CREEK, RIVER:

POND, BAY, LAKE: Clear Lake at the base of the slope

SPRINGS

MARSHY GROUND

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

TOP	Mixed mature coniferous and deciduous trees. Open area due to tree recent tree clearing.
FACE	Mature mostly coniferous trees.
BOTTOM	Clear Lake at the base of the slope. Mixed mature trees along shoreline.

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

TOP	Hydro poles.
FACE	Residential structure, boathouse structure, shed structure.
BOTTOM	N/A

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

TOP	Weathered bedrock with large gaps between surficial limestone rock.
FACE	Weathered bedrock with large gaps between surficial limestone rock. Several layers of the exposed limestone on the near vertical slope face have undercutting extending up to 2.95 m into the slope face. Dissolution of some bedrock shelves were observed.
BOTTOM	N/A

SLOPE INSPECTION RECORD

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

TOP	Some loose boulders and surficial rock layers appear to have larger gaps between rocks closer to the edge of the slope.
FACE	Some loose boulders appear to have broken from the rock face and slid down slope. Some rock shelves have fallen and slid down slope slightly. Mirnor rock falls.
BOTTOM	N/A

12. PLAN SKETCH OF SLOPE

See additional report appendices

13. PROFILE SKETCH OF SLOPE

See additional report appendices

SLOPE STABILITY RATING CHART

Site Location:	1182 Birchview Road, Lakefield	File No.	CAM23286.001
Property Owner:	Welsh Custom Homes	Inspection Date:	2025-11-19
Inspected By:	Josh Riseling	Weather:	Sunny, cold

Inspection Task		Rating Value
1. SLOPE INCLINATION		
Degrees	**Horizontal:Vertical**	
a) 18 or less	3:1 or flatter	0
b) 18 to 26	2:1 to more than 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 m or more from slope toe		0
b) Less than 15 m from slope toe		6
8. PREVIOUS LANDSLIDE ACTIVITY		
a) No		0
b) Yes		6
	RATING VALUES TOTAL	**40**

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

Notes:

a) Choose only one rating value from each category; compare total rating value with above requirements

b) If there is a waterbody (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.

c) For leda clay and rock slopes, additional evaluation must be carried out

Source: Table 8.1 Geotechnical Principles for Stable Slopes (June 1998), Ontario Ministry of Natural Resources

Photo 1 View of the top of the middle slope at Cross Section A-A, looking west. Showing the driveway, mixed mature trees along the slope crest.

Photo 2 View of middle slope face near Cross Section A-A, looking west, showing loose surficial boulders and mixed mature trees.

Photo 3 View of middle slope face near Cross Section A-A and B-B, looking west, showing the driveway, shed structure and mixed mature trees.

Photo 4 View looking up the middle slope from near the base of the middle slope at Cross Section A-A, looking south, showing mixed mature trees.

Photo 5 View of the bottom of the middle slope and the lower slope at Cross Section A-A, looking west. Showing the driveway, mixed mature trees, and Clear Lake.

Photo 6 View of the top of slope at the upper slope at Cross Section B-B, looking east, showing mixed mature trees, and loose surficial rocks.

Photo 7 View of upper slope face near Cross Section B-B, looking northeast, showing loose surficial boulders and mixed mature trees.

Photo 8 View of the bottom of the upper slope and top of the middle slope near Cross Section B-B, looking southwest, showing the driveway and mixed mature trees. The upper slope at Cross Section A-A is evident in the background.

Photo 9 View of the top of the middle slope at Cross Section B-B, looking east. Showing mixed mature trees.

Photo 10 View of the crest of the middle slope at Cross Section B-B, looking northeast. Showing mixed mature trees and the existing residential structure.

Photo 11 View of middle slope face near Cross Section B-B, looking east, showing the driveway, exposed bedrock, and mixed mature trees.

Photo 12 View of middle slope face near Cross Section B-B, looking southwest, showing the driveway and mixed mature trees.

Photo 13 View of the bottom of middle slope face and top of the lower slope near Cross Section B-B, looking west, showing the driveway, shed structure, residential structure, and mixed mature trees.

Photo 14 View of the bottom of the lower slope near Cross Section B-B, looking west, showing the boathouse structure, Clear Lake, and mixed mature trees.

Photo 15 View of the top of slope at the upper slope at Cross Section C-C, looking southeast, showing mixed mature trees, and hydro lines.

Photo 16 View of upper slope face near Cross Section C-C, looking northeast, showing loose surficial boulders and mixed mature trees.

Photo 17 View of the bottom of the upper slope and top of the middle slope at Cross Section C-C, looking northeast. Showing mixed mature trees.

Photo 18 View of middle slope face near Cross Section C-C, looking east, showing exposed bedrock and mixed mature trees. Loose surficial rock is evident on top of the bedrock.

Photo 19 View of the bottom of middle slope face and top of the lower slope near Cross Section C-C, looking east, showing the driveway, residential structure, and mixed mature trees.

Photo 20 View of the lower slope near Cross Section C-C, looking east, showing the residential structure, Clear Lake, and mixed mature trees.

Photo 21 View of the bottom of the lower slope near Cross Section C-C, looking east, showing the residential structure, Clear Lake, and mixed mature trees.

Photo 22 View of the top of slope at the upper slope near Cross Section D-D, looking east, showing mixed mature trees, and excavated surficial rock.

Photo 23 View of upper slope face near Cross Section D-D, looking southwest, showing loose surficial boulders and mixed mature trees.

Photo 24 View of the bottom of the upper slope and top of the middle slope at Cross Section D-D, looking west. Showing mixed mature trees.

Photo 25 View of middle slope face near Cross Section D-D, looking southwest, showing exposed bedrock and mixed mature trees. Some undercutting was observed along the slope face.

Photo 26 View of middle slope face from the base of the middle slope along Cross Section D-D, looking southeast. Showing residential structure and mixed mature trees.

Photo 27 View of the bottom of the lower slope near Cross Section D-D, looking west, showing the residential structure, Clear Lake, and mixed mature trees.

Photo 28 Exposed bedrock along the eastern middle slope. Showing undercutting and broken shelves.

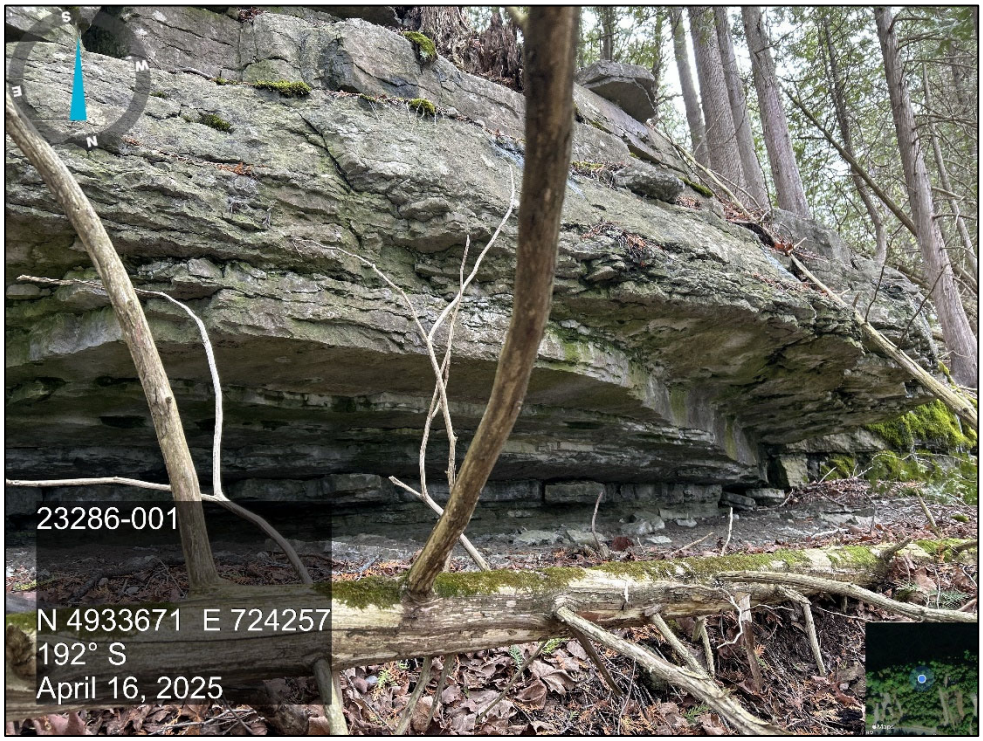

Photo 29 Exposed bedrock along the eastern middle slope. Showing undercutting and broken shelves.

Photo 30 Test pits excavated along the top of the upper slope face near Cross Section C-C. Showing limestone bedrock with few joints beneath the loose surficial rock.