TECHNICAL MEMORANDUM

DATE October 02, 2025
TO Brian Henderson
WSP

Project No. CA-GLD-19126620-Rev1

FROM Inkeyshaff Khaja; Chris Hendry

EMAIL inkeyshaffuddin.khaja@wsp.com; chris.hendry@wsp.com

SLOPE STABILITY ASSESSMENT

HIGHLAND LINE PIT CONCESSION 10, LOT 5

As requested, WSP Canada Inc. (WSP) has conducted a preliminary slope stability assessment for the Highland Line pit slope located along Highland Line Road at Concession 10, Lot 5.

The purpose of this assessment is to evaluate the stability of the slope and any potential impact to Highland Line Road and Anderson Lane. The following presents a summary of our understanding of the project context, the methodology used and the results of the assessment.

The reader is referred to the 'Important Information and Limitations of This Report' which follows the text but forms an integral part of this document.

1.0 SITE DESCRIPTION

The Highland Line Pit is located on the south side of Highland Line Road, in the Township of Lanark Highlands, Lanark County, Ontario (the Site). Surrounding land uses around the site include an existing sugarbush to the west, deciduous, mixed and coniferous forest and wetland to the south, east and north, interspersed with small patches of active agriculture. Immediately southeast of the site is Barbers Lake.

The distance from the edge of Highland Line Road to the property line is approximately 8 m. An additional 30 m setback will be provided between the property line to the crest of the proposed pit slope (so the effective setback from the crest of the slope to the edge of the road will be approximately 38 m). The pit side slopes will be excavated at an approximate 3H:1V slope and will be excavated in the wet where below groundwater.

The configuration for the pit development along Anderson Lane is similar to Highland Road except the pit slopes will be excavated at a flatter angle, approximately 5H:1V.

2.0 SLOPE STABILITY ASSESSMENT

The evaluation of the stability of a slope depends on several parameters, including:

- The geometry of the slope
- The ground conditions which form the slope (i.e., the thickness and orientation of the soil/bedrock strata)
- The shear strength parameters of the soils which form the slope

- The unit weight (i.e., density) of the soils which form the slope
- The groundwater levels and flow gradients within the slope.

These are discussed further below.

Slope Geometry

As shown in Figure 1, a slope stability analysis was conducted for slope cross-section 1-1' and 2-2'. These slopes are adjacent to the existing Highland Line Road. The slope geometry used in the analyses was based on the proposed pond design and topographic information provided to WSP.

Based on the design information provided, it is understood that the base of the pit will be excavated to an elevation of 176 m, and as discussed above will incorporate 3H:1V slopes set back approximately 30 m from the property line.

Soil Conditions and Soil Parameters

No subsurface investigation was carried on site as part of the current assessment. Subsurface information for the site has been assumed based on previous hydrogeological and hydrological investigations carried out by Golder Associates (now WSP) in 2020. The results of this investigation are documented in Report No. 19126620, titled "Level 1 and Level 2 Water Report, Proposed Highland Line Pit, Township of Lanark Highlands, Ontario", dated December 2022.

Data from nearby Test Pits TP21/MW20-5 and TP18/MW20-2 indicates the area to be underlain by sand. The test pits only extended to depths of 3.4 m and 3.2 m below the ground surface. For the purposes of the stability analysis, it has been assumed that similar sand exists to the depth of the proposed pit excavation (though this has not been confirmed through additional investigations).

For the purposes of this assessment, the sand has been assumed to have a unit weight of 20 kN/m^3 and an angle of effective internal friction of 30 degrees over the entire depth of the slope.

Groundwater Conditions

Groundwater elevations in the area at the crest of the slope were assumed to be at approximately 191 m (based on measurements of existing groundwater level in test pits). It is understood the pond elevation will be controlled with a structure which will maintain the pond elevation at approximately 186 m.

Slope Stability Assessment

The stability of the slopes was evaluated using the commercially available program Slope/W, which is part of the GeoStudio 2024 package, employing the Morgenstern-Price method of analysis. Morgenstern-Price is a general method of slices which is based on the equilibrium of forces and moments acting on each slice of soil mass above the potential failure surface. The factor of safety is defined as the ratio of the magnitude of the forces/moments tending to resist failure to the magnitude of the forces/moments tending to cause failure. Theoretically, a slope with a factor of safety of less than 1.0 will fail and one with a factor of safety of 1.0 or greater will stand. Because the modeling is not exact and natural variations exist for all the parameters affecting slope stability, a factor of safety of 1.5 is used to define a stable slope (for static loading conditions) for structures and major infrastructure (though lower values can be adopted for less critical receptors).

The results of the stability analyses carried out for static loading conditions indicate that the calculated factor of safety against large-scale instability for the proposed pit slopes is approximately 1.4 for both slope sections analysed.

The factor of safety for any potential slip surfaces which could extend to the property line or Highland Line Road is greater than or equal to 1.5 (for both sections analyzed). As a result, the slope would therefore generally be considered adequately stable as far as any potential impacts to Highland Line Road.

Anderson Lane

A small access road (Anderson Lane) connects to the south side of Highland Line and crosses the proposed pit. In this location, the same 30 m setback is maintained between Anderson Lane and the pit slope. In addition, the pit slopes are 5H:1V (instead of 3H:1V) along Highland Line. The slopes adjacent to Anderson Lane have not been analysed as part of this assessment. However, because the setback is the same and the slopes are flatter, the Factors of safety for potential slip surfaces impacting Anderson Lane will be higher than those for Highland Line.

3.0 CLOSURE

We trust this provides the information you require at this time. Should you have any questions, or require anything further please contact the undersigned at your convenience.

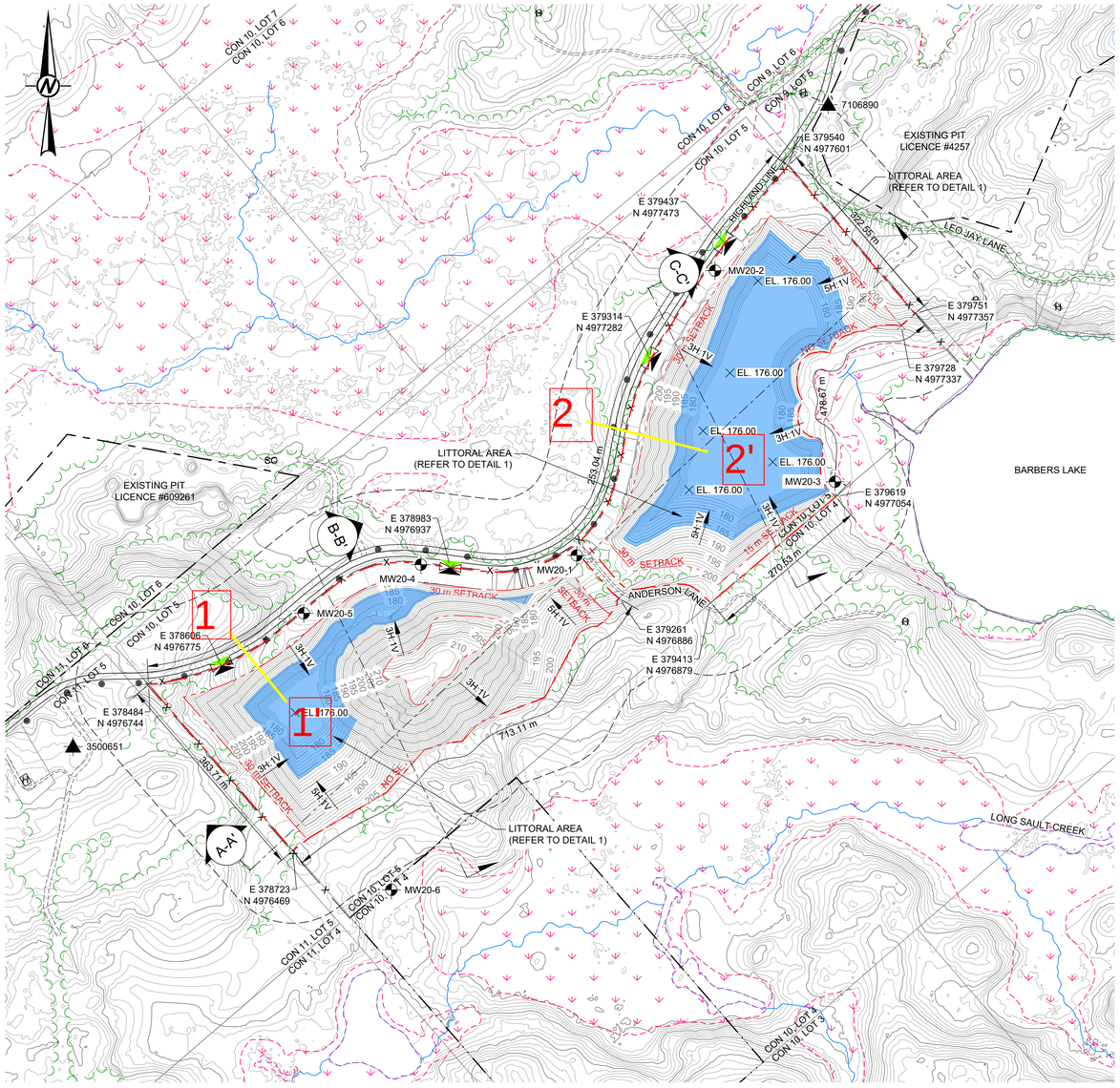
WSP CANADA INC.

Chris Hendry, P.Eng.
Senior Geotechnical Engineer

IK/CH/yj

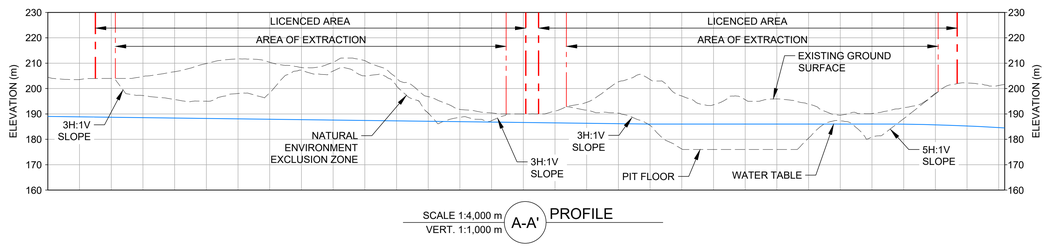
Distribution: 1 e-copy Township of Lanark Highlands, Lanark County

Attachments: Figure 1 – Site Plan
Figure A – Static Slope Stability Analysis Results for Cross-Section 1-1'
Figure B – Static Slope Stability Analysis Results for Cross-Section 2-2'



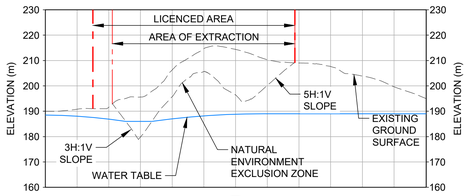
REHABILITATION PLAN

SCALE 1:4,000 m



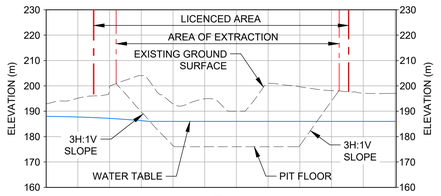
SCALE 1:4,000 m
VERT. 1:1,000 m

A-A' PROFILE



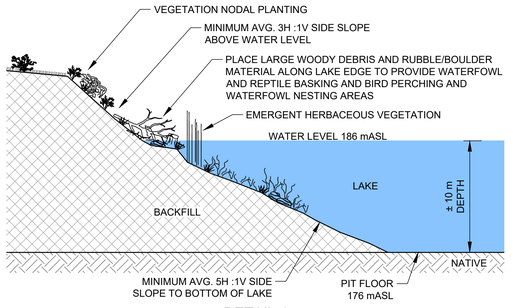
SCALE 1:4,000 m
VERT. 1:1,000 m

B-B' SECTION



SCALE 1:4,000 m
VERT. 1:1,000 m

C-C' SECTION



DETAIL 1
NOT TO SCALE

0 200 400
1:4,000 METRES

REHABILITATION PLAN NOTES (PAGE 5 OF 5):

NOTE: THE NUMBERS BELOW REFER TO AGGREGATE RESOURCES OF ONTARIO: SITE PLAN STANDARDS (AUGUST 2020)

59 PROPOSED FINAL REHABILITATION OF THE SITE

THE PROPOSED FINAL REHABILITATION OF THE SITE IS AS A LAKE. ALONG THE SIDES OF THE EXCAVATIONS, TYPICAL 3:1 (HORIZONTAL:VERTICAL) SLOPES WILL BE CONSTRUCTED. ALONG THE MAJORITY OF THE BOUNDARIES WITH SELECTED AREAS HAVING SHALLOWER SLOPES AT THE LAKE LEVEL (I.E., 5:1 HORIZONTAL:VERTICAL) TO CREATE SHALLOW LITTORAL ZONES FOR INCREASED HABITAT DIVERSITY.

60 SEQUENCE AND DIRECTION OF PROGRESSIVE REHABILITATION

PROGRESSIVE REHABILITATION WILL BE COMPLETED IN DIRECT CORRELATION TO THE DEVELOPMENT OF THE PIT AS THE EXTRACTION LIMITS ARE REACHED AND ENOUGH AREA IS AVAILABLE TO ENSURE THAT THE PRODUCTION, STOCKPILING AND PROCESSING OF AGGREGATE MATERIALS WILL NOT INTERFERE WITH REHABILITATION ACTIVITIES.

THE MAXIMUM DISTURBED AREA FOR THE SITE SHALL NOT EXCEED 50% OF THE TOTAL EXTRACTION AREA, WHICH INCLUDES BOTH EXTRACTION AREA 1 AND EXTRACTION AREA 2. ONCE 50% OF THE EXTRACTION AREA HAS BEEN DISTURBED, PROGRESSIVE REHABILITATION SHALL TAKE PLACE ON FINAL SIDE SLOPES PRIOR TO THE DEVELOPMENT OF ADDITIONAL DISTURBED AREA.

DURING OPERATIONS, REHABILITATED SIDE SLOPES WILL BE ESTABLISHED IN AREAS WHERE THE PIT HAS REACHED THE FINAL DEPTH AND HAS EXTENDED TO THE EXCAVATION LIMIT.

61 USE OF OVERBURDEN AND TOPSOIL IN PROGRESSIVE AND FINAL REHABILITATION

OVERBURDEN WILL BE USED IN REHABILITATION TO COVER THE BACKFILLED PORTIONS OF THE REHABILITATED PIT AND THE ABOVE WATER SLOPES APPROACHING THE PIT LAKE. ALL TOPSOIL OR OVERBURDEN STRIPPED IN THE OPERATION OF THE SITE WILL BE USED IN THE REHABILITATION OF THE SITE.

62 PROPOSED IMPORTATION OF MATERIAL TO FACILITATE REHABILITATION

ALL TOPSOIL AND OVERBURDEN STRIPPED IN THE OPERATION OF THE SITE WILL BE USED IN THE REHABILITATION OF THE SITE. AS THERE WILL BE INSUFFICIENT QUANTITIES OF NATIVE TOPSOIL AND/OR OVERBURDEN AVAILABLE FOR THE PROPOSED REHABILITATION, SOIL AND ROCK MAY BE IMPORTED FOR USE IN THE ESTABLISHMENT OF THE FINAL REHABILITATION CONTOURS OUTLINED IN THIS PLAN (PAGE 5 OF 5).

1. EXCESS SOIL, AS DEFINED IN ONTARIO REGULATION 244/97 MAY BE IMPORTED TO THIS SITE TO FACILITATE THE FOLLOWING REHABILITATION:
   - A. ~~FOR USE IN THE CONSTRUCTION OF BERMS FOR FUTURE USE IN FINAL REHABILITATION~~
   - A. ~~ESTABLISH FINAL GRADES AS DESCRIBED ON THE SITE PLAN~~ CREATION OF 3:1 SLOPES (OR SLOPING RATIO OTHERWISE DESCRIBED ON THE FINAL REHABILITATION PLAN PAGE 5 OF 5)
   - B. TOP DRESSING TO ESTABLISH VEGETATION.
2. LIQUID SOIL, AS DEFINED IN ONTARIO REGULATION 406/19 UNDER THE ENVIRONMENTAL PROTECTION ACT, IS NOT AUTHORIZED FOR IMPORTATION TO THE SITE.
3. THE QUALITY OF EXCESS SOIL IMPORTED TO THE SITE FOR FINAL PLACEMENT MUST BE EQUIVALENT TO OR MORE STRINGENT THAN THE APPLICABLE EXCESS SOIL QUALITY STANDARDS AS DETERMINED IN ACCORDANCE WITH ONTARIO REGULATION 244/97 AS AMENDED FROM TIME TO TIME AND MUST BE CONSISTENT WITH THE SITE CONDITIONS AND THE END USE IDENTIFIED IN THE APPROVED REHABILITATION PLAN.
4. WHERE A QUALIFIED PERSON IS RETAINED OR REQUIRED TO BE RETAINED IN ACCORDANCE WITH ONTARIO REGULATION 244/97, THE QUALITY, STORAGE, AND FINAL PLACEMENT OF EXCESS SOILS SHALL BE DONE ACCORDING TO THE ADVICE OF THE QUALIFIED PERSON.
5. EXCESS SOIL IMPORTED TO FACILITATE REHABILITATION AS DESCRIBED ON THIS SITE PLAN SHALL BE UNDERTAKEN IN ACCORDANCE WITH ONTARIO REGULATION 244/97 UNDER THE AGGREGATE RESOURCES ACT, AS AMENDED FROM TIME TO TIME.
6. THE CUMULATIVE TOTAL AMOUNT OF EXCESS SOIL THAT MAY BE IMPORTED TO THIS SITE FOR REHABILITATION PURPOSES IS ~~4,110,000~~ 4,000,000 CUBIC METRES.

63 VEGETATION TO BE ESTABLISHED DURING PROGRESSIVE AND FINAL REHABILITATION

DURING PROGRESSIVE AND FINAL REHABILITATION, ABOVE WATER SLOPES WILL BE SEEDED WITH A MIX OF BUNCH AND SPREADING GRASSES AND FORBS CONSISTING OF NON-INVASIVE SPECIES TO PREVENT EROSION. EXAMPLES OF SUITABLE SPECIES OF GRASS AND FORBS INCLUDE, BUT ARE NOT LIMITED TO, WHITE CLOVER, RED CLOVER, ALFALFA, ORCHARD GRASS, PERENNIAL RYEGRASS, MEADOW BROME, KENTUCKY BLUEGRASS, CANADA BLUEGRASS, CREEPING RED FESCUE AND TALL FESCUE. ORCHARD GRASS AND PERENNIAL RYEGRASS ARE FAST-ESTABLISHING. NATIVE SPECIES WILL ALSO BE INCLUDED IN THE SEED MIX, SUCH AS BLACK-EYED SUSAN, NEW ENGLAND ASTER, CANADA WILD RYE AND LITTLE BLUESTEM (AS AVAILABLE FROM SUPPLIERS).

FINAL REHABILITATION WILL ALSO INCLUDE THE CREATION OF SHALLOW LITTORAL ZONES AT SELECT LOCATIONS TO CREATE MORE DIVERSE AQUATIC HABITAT. SHALLOW EMERGENT MARSH VEGETATION WILL BE PLANTED IN WATER +/- 0.15 METRES DEEP AND EXTEND +/-5 METRES FROM THE SHORE AND WILL BE INTERSPERSED WITH COVER STRUCTURES (E.G., BOULDERS AND ROOT WADS). IN ADDITION, BASKING LOGS, WOODY DEBRIS AND NESTING PLATFORMS WILL BE INSTALLED FOR WILDLIFE HABITAT, SUCH AS TURTLES, WATERFOWL AND FISH. A CONCEPTUALIZATION OF THE SHALLOW SHORELINE TREATMENTS IS SHOWN ON DETAIL 1 INCLUDED ON THIS PLAN.

WITHIN THE SHALLOW LITTORAL ZONES, APPROXIMATELY 100 NODES OF HERBACEOUS AND/OR WOODY WETLAND SPECIES WILL BE PLANTED WITH A TARGETED DENSITY OF 75% COVER AT ESTABLISHMENT, AND A TARGET DIVERSITY OF AT LEAST 10 SPECIES.

NODAL PLANTINGS WILL ALSO BE COMPLETED WITHIN SELECTED AREAS AROUND THE LAKE AND WILL INCLUDE EDGE, SUBMERGENT AND EMERGENT SPECIES SUCH AS RED-OSIER DOGWOOD, SLENDER WILLOW AND HERBACEOUS PLANTS SUCH AS WATER PLANTAIN, LAKE SEDGE, SWAMP MILKWEED, SOFTSTEM BULRUSH AND COMMON CATTAIL.

MONITORING WILL CONSIST OF PLOTS WITHIN THE LITTORAL ZONES. A TARGET OF 60% COVER BY NATIVE SPECIES, AND 60% SURVIVAL OF WOODY PLANTS WILL BE IMPLEMENTED. PERCENT COVERAGE AND DIVERSITY WILL BE NOTED AND MONITORED EACH SUMMER FOR THREE YEARS AFTER PLANTING. SHOULD ANY WOODY SPECIES CONSISTENTLY UNDERPERFORM, THAT SPECIES SHALL BE REPLACED WITH A DIFFERENT SPECIES. A GENERAL ASSESSMENT OF THE UPLAND SEEDED SLOPES WILL ALSO BE CONDUCTED AT THE SAME TIME. USING A SYSTEMATIC MEANDER APPROACH TO COVER THE ENTIRE AREA. IF BARE SOILS ARE WIDESPREAD (E.G., >25%) OVERSEEDING WITH THE SAME SEED MIX WILL BE COMPLETED, AFTER THE INITIAL THREE YEARS OF THE MONITORING PROGRAM, THE NEED FOR ADDITIONAL REMEDIAL ACTION AND ADDITIONAL MONITORING WILL BE ASSESSED.

THE FINAL DETAILS OF THE REHABILITATION PLANTING PROGRAM WILL BE ESTABLISHED IN CONSULTATION WITH MINISTRY OF ~~NORTHERN DEVELOPMENT,~~ NATURAL RESOURCES AND FORESTRY STAFF JUST PRIOR TO FINAL REHABILITATION TO ENSURE THAT THE PLAN IS APPROPRIATE FOR CONDITIONS AT THAT TIME.

64 PIT SLOPING

IN MOST CASES, 3:1 (HORIZONTAL:VERTICAL) SLOPES WILL BE CONSTRUCTED AROUND THE SIDES OF THE PIT SO THAT IT CAN BE REHABILITATED AS A LAKE. SELECTED AREAS DESIGNATED FOR SHALLOW SHORELINE TREATMENTS (LITTORAL ZONES) AT THE LAKE LEVEL WILL BE SLOPED ACCORDINGLY (APPROXIMATELY 5:1 HORIZONTAL:VERTICAL). A CONCEPTUALIZATION OF THE SHALLOW SHORELINE TREATMENTS IS SHOWN ON DETAIL 1 INCLUDED ON THIS PLAN (PAGE 5 OF 5).

65 ANY BUILDINGS OR STRUCTURES TO REMAIN ON SITE

NO BUILDINGS OR STRUCTURES WILL REMAIN ON SITE. INTERNAL HAUL ROADS WILL BE REMOVED.

66 FINAL SURFACE WATER DRAINAGE

THE SITE WILL BE REHABILITATED AS TWO LAKES. DRAINAGE FROM EXTRACTION AREA 2 WILL FLOW TOWARDS EXTRACTION AREA 1 THROUGH THE UNEXTRACTED MATERIAL BENEATH ANDERSON LANE. DRAINAGE FROM EXTRACTION AREA 1 WILL BE TOWARDS BARBERS LAKE, DISCHARGING AT THE LOW POINT ON THE EDGE OF THE EXCAVATION AND FLOWING INTO THE LAKE.

IF THERE IS CONSISTENT DIRECT SURFACE WATER OUTFLOW FROM THE PIT LAKE, AN OUTFLOW STRUCTURE WITH EROSION CONTROL SHALL BE CONSTRUCTED AND/OR RETAINED AT THE OUTFLOW LOCATION.

67 FINAL ELEVATIONS OF REHABILITATED AREA

THE FINAL ELEVATIONS OF THE REHABILITATED AREAS OF THE SITE EXPRESSED AS METRES ABOVE SEA LEVEL ARE SHOWN ON THE DRAWING ON REHABILITATION PLAN (PAGE 5 OF 5).

REHABILITATION CROSS-SECTIONS

69 LOCATION OF CROSS-SECTIONS

REFER TO DRAWING (THIS PLAN) FOR LOCATION OF REHABILITATION CROSS-SECTIONS.

70 HORIZONTAL AND VERTICAL SCALES

APPROPRIATE HORIZONTAL AND VERTICAL SCALES ARE MARKED ON THE CROSS-SECTIONS.

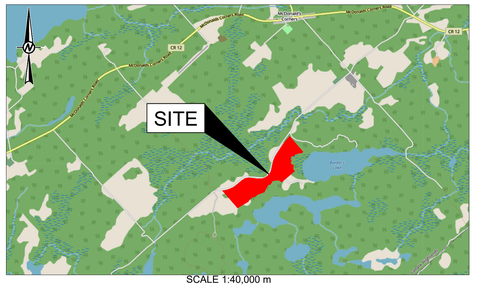
71 REHABILITATION CROSS-SECTIONS

THREE REHABILITATION CROSS-SECTIONS ARE PROVIDED ON THE REHABILITATION PLAN (PAGE 5 OF 5). THE GROUNDWATER TABLE IN THE AREA OF THE PIT WILL REMAIN AT PRE-DEVELOPMENT CONDITIONS. CLOSER TO THE PIT THE WATER TABLE WILL SLOPE UP OR DOWN TO MEET THE ANTICIPATED PIT LAKE LEVEL (APPROXIMATELY 186 METRES ABOVE SEA LEVEL). THE PREDICTED WATER TABLE DURING REHABILITATION IS SHOWN ON THE CROSS-SECTIONS ON THIS PLAN (PAGE 5 OF 5).

73 TYPICAL BERM DESIGN

A CROSS-SECTION OF A TYPICAL BERM DESIGN IS SHOWN ADJACENT TO THE REHABILITATION CROSS-SECTIONS (PAGE 5 OF 5).

KEY MAP



SCALE 1:40,000 m

HIGHLAND LINE PIT

LOT 5, CONCESSION 10

GEOGRAPHIC TOWNSHIP OF DALHOUSIE

TOWNSHIP OF LANARK HIGHLANDS,

LANARK COUNTY, ONTARIO

APPLICANT:
THOMAS CAVANAGH CONSTRUCTION LIMITED
9094 CAVANAGH ROAD
ASHTON, ONTARIO
K0A 1B0

PIT LICENCE NO. 626599

NOTE(S)

1. LICENCED AREA, HIGHLAND LINE PIT **37.60** HECTARES.
2. AREA OF OPERATION, HIGHLAND LINE PIT **28.39** HECTARES.
3. THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS A LICENCE FOR A PIT BELOW THE GROUND WATER TABLE.
4. THIS PLAN WAS PREPARED USING PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHS.
5. LOT, CONCESSION AND BOUNDARY LINES ON THIS PLAN ARE APPROXIMATE.
6. THIS IS NOT A LEGAL SURVEY DRAWING IN ACCORDANCE WITH THE PROVINCE OF ONTARIO SURVEYORS ACT 1987. THIS DRAWING WAS PRODUCED USING STANDARD PHOTOGRAMMETRIC PRACTICES.

LEGEND

- BOUNDARY OF AREA TO BE LICENCED
- LIMIT OF EXTRACTION
- 120-METRE SURROUND
- BOREHOLE / MONITORING WELL
- PRIVATE WELL (AS PER MINISTRY OF ENVIRONMENT, CONSERVATION AND PARKS WATER WELL INFORMATION SYSTEM)
- CON 10, LOT 5 / CON 10, LOT 4 — LOTS AND CONCESSION LINES
- ADJACENT PIT AND QUARRY BOUNDARY
- UTILITY POLE
- BUILDING; S-SILO, H-HOUSE, G-GARAGE, B-BARN, S-SHED, O-OFFICE, SC-SCALE HOUSE
- ROAD: PAVED
- ROAD: GRAVEL
- CONTOURS/INDEX CONTOURS
- WOODED AREA
- WATERCOURSE
- WETLAND
- x — x PAGE WIRE FENCE/GATE
- A-A' CROSS-SECTIONS
- EL. 176.00 PROPOSED PIT FLOOR SPOT ELEVATION, mASL

REFERENCE(S)

1. KEY PLAN: Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community.
2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2016
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28

LICENSED PROFESSIONAL ENGINEER
B. J. HENDERSON
100108864
01-13-25
PROVINCE OF ONTARIO

SIGNATURE OF APPLICANT/LICENSEE — 01-13-25 DATE

PREPARED UNDER THE DIRECTION OF: BRIAN HENDERSON — 01-13-25 DATE

THOMAS CAVANAGH CONSTRUCTION LIMITED

AMENDMENTS	DATE	APPROVAL DATE

SITE PLANS APPROVED BY THE MINISTRY OF NATURAL RESOURCES AND FORESTRY.

SIGNATURE — DATE

CLIENT
THOMAS CAVANAGH CONSTRUCTION LIMITED

PROJECT
HIGHLAND LINE PIT

TITLE
REHABILITATION PLAN

APPLICANT
THOMAS CAVANAGH CONSTRUCTION LIMITED

YYYY-MM-DD	2025-01-13
DESIGNED	BH
PREPARED	JM
REVIEWED	KAM
APPROVED	KAM

PROJECT NO.	CONTROL	REV.	DRAWING
19126620	0014	1	5 OF 5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI F
0 25 mm

Path: \\corp.pbwan.net\CA\CAM\S300\C7X_Data\SIM\Clients\Thomas_Cavanagh_Construction\Duncan_Pit\99_PRO\19126620_Cavanagh_ARA\0014_Site_Plans\ | File Name: 19126620-CH-0014-0005.dwg | Last Edited By: pld_mcconnell Date: 2025-01-13 Time:4:03:39 PM | Printed By: pld_mcconnell Date: 2025-01-13 Time:4:04:04 PM

Name: Section 1-1'
Analysis Type: Morgenstern-Price
Description: Static analysis
Minimum Slip Surface Depth: 1 m

Color	Name	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Surface
	Sand	20	0	30	1

Factor of Safety
1.4 - 1.5
≥ 1.5

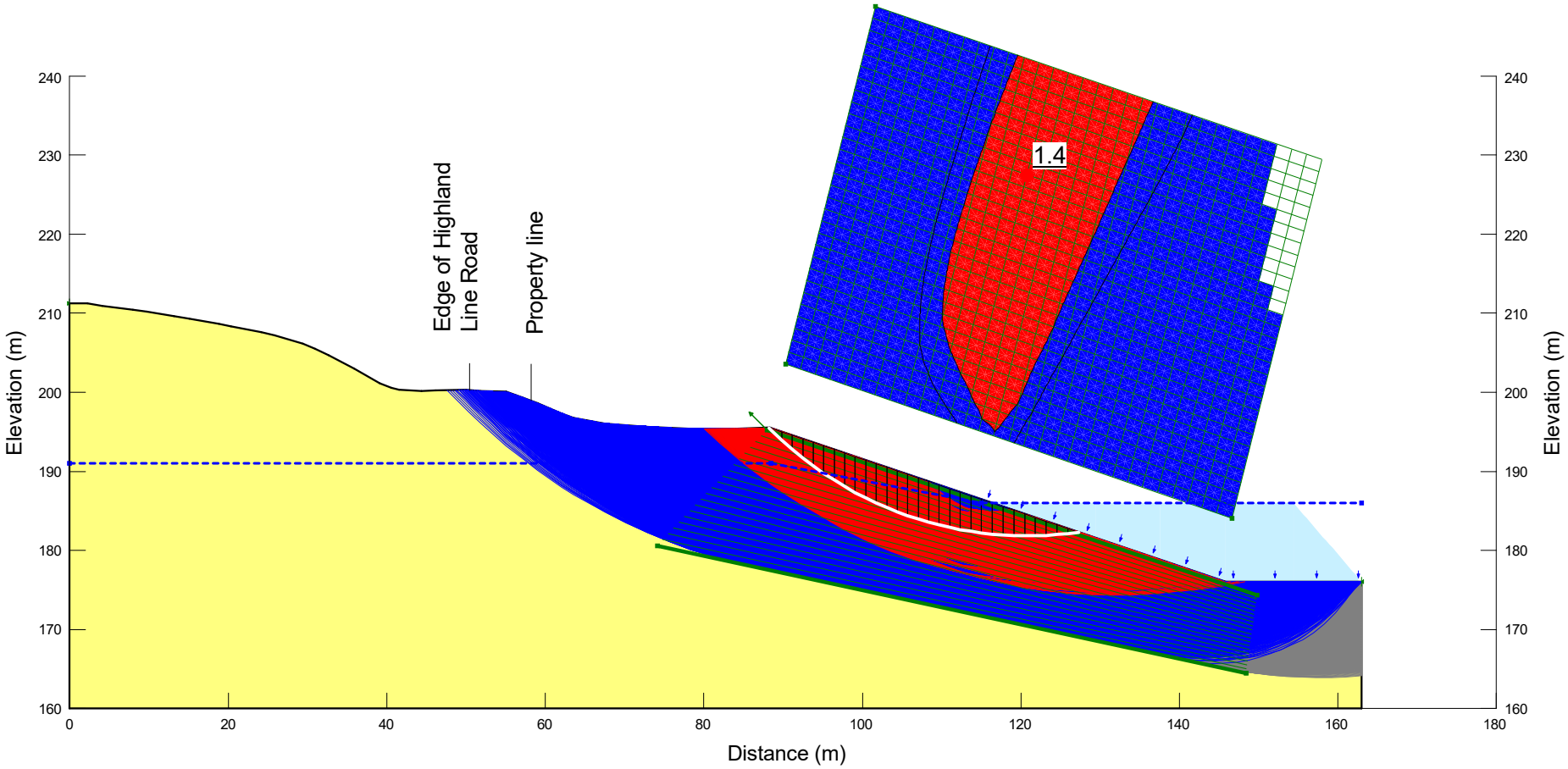


Figure A: Static Analysis for section 1-1'

Name: Section 2-2'
Analysis Type: Morgenstern-Price
Description: Static Analysis
Minimum Slip Surface Depth: 1 m

Color	Name	Unit Weight (kN/m³)	Effective Cohesion (kPa)	Effective Friction Angle (°)	Piezometric Surface
	Sand	20	0	30	1

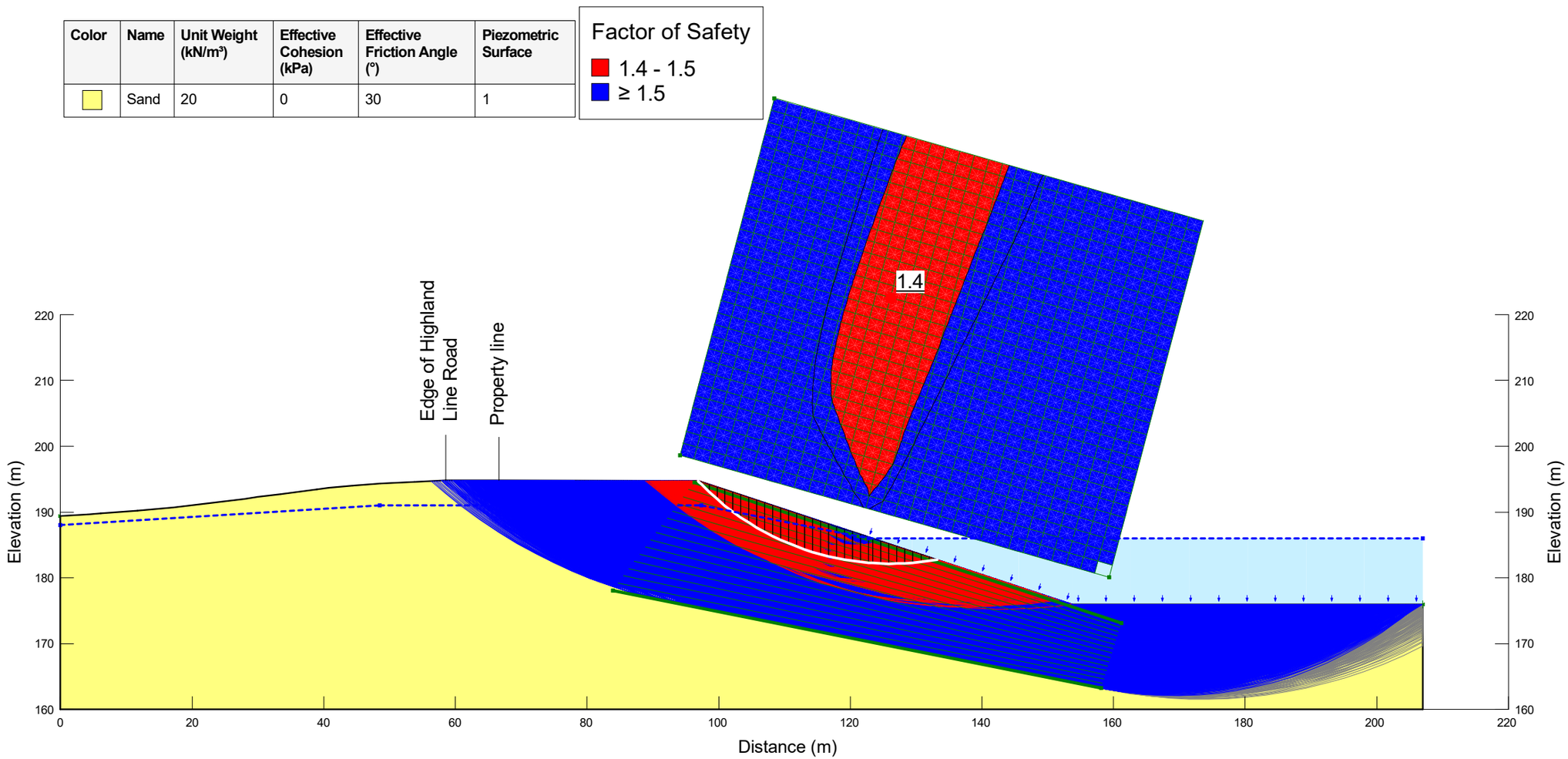


Figure B: Static Analysis for section 2-2'