PDF – A11 LAND FORM CONSERVATION,
PREPARED BY CUNNINGHAM
ENVIRONMENTAL ASSOCIATES,
DECEMBER, 2023

# LANDFORM CONSERVATION ASSESSMENT

# 1972229 Ontario Ltd.

## **5239 Old Brock Road**

Lots 16, 17, 18 and 20 and Part of
Lots 15, 19, 21 and 27 and Parts of Alfred Street and Tracey Street
Registered Plan 94
Geographic Township of Pickering
Now in the City of Pickering
Regional Municipality of Durham

December 2023



Cunningham Environmental Associates

## CUNNINGHAM ENVIRONMENTAL ASSOCIATES

Natural Resources Consultants

December 18, 2023 File No. 1917

Mr. Art Sympatico Sympatico Group (1972229 Ontario Ltd.) Sympatico Property Services Ltd. 91 Esna Park Drive, Unit #1 Markham, Ontario L3R 2R2

Re: Landform Conservation Assessment, 1972229 Ontario Ltd., 5329 Old Brock Road, Lots 16, 17, 18 and 20 and Parts of Alfred Street and Tracey Street, Registered Plan 94, Geographic Township of Pickering, Now in the City of Pickering, Regional Municipality of Durham: Our File 1917

Dear Mr. Sympatico:

## 1.0 BACKGROUND

Cunningham Environmental Associates (CEA) was retained in May 2019 by the Owner (1972229 Ontario Ltd.) of a parcel of land (herein known as the "subject property", "property" or "site"), located at 5329 Old Brock Road, in the Hamlet of Claremont, City of Pickering, Regional Municipality of Durham, Ontario. The property is relatively flat, with the exception of the intermittent tributary which borders the southern property perimeter. Th property is roughly rectangular in-shape and covers approximately 0.060 hectares (1.5 acres). **Figure 1** schematically shows the location of the subject property in a local context.

The entire property lies within the Oak Ridges Moraine (ORM), namely within the ORM Rural Hamlet and Rural Settlement Designation. The majority of the property is regulated under the *Conservation Authorities Act* (Conservation Ontario 2023), with the majority of the property regulated by the *Toronto Region Conservation Authority (TRCA) Ontario Regulation 166/06* (Province of Ontario 2006), with the exception of a small triangle-shaped portion in the southeast corner.

It is to be noted that a Natural Heritage Evaluation (CEA 2021) was previously submitted and reviewed by the TRCA. **Figure 2** schematically shows the Ecological Land Classification (ELC) Unit – Vegetation Communities and on-site structures and equipment as of the spring and summer of 2019.

There are other technical reports, drawings and figures listed in the City of Pickering Pre-Consultation Meeting Minutes/Meeting Summary (City of Pickering 2019), which have been submitted in regards to the proposed Zoning By-law Amendment Application No. A 14/21, as well as a Site Plan Approval (SPA) application.



Figure 1. Study Site Location

## 5329 Old Brock Road

Hamlet of Claremont City of Pickering

City of Pickering
197229 Ontario Ltd.
Lots 16, 17, 18 and 20
and Part of Lots 15, 19, 21, and 22
and Part of Alfred Street
and Part of Tracey Street
Registered Plan 94
Geographic Township of Pickering
Now in the City of Pickering, Regional Municipality of Durham

subject property



Cunningham Environmental Associates



Figure 2. Ecological Land Classification (ELC) Units

5329 Old Brock Road **Hamlet of Claremont City of Pickering** 

1972229 Ontario Ltd.\* Lots 16, 17, 18 and 20 and Part of Lots 15, 19, 21, and 22 and Part of Alfred Street and Part of Tracey Street Registered Plan 94 **Geographic Township of Pickering** Now in the City of Pickering, **Regional Municipality of Durham** 



subject property boundary (approx.)



--<- intermittent swale/drainage ditch (direction of flow)

**Ecological Land Classification Code** (see Table 1 for details)

Rural Residential (gravel yard - pad)

MEGM3-4 Mineral Cultural Meadow

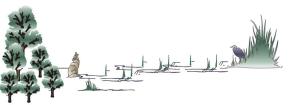
**Naturalized Deciduous Hedgerow** FODM11

**Naturalized Coniferous Hedgerow** 

FODM4-11 Dry-Fresh Black Locust Woodland (copse)

SWDM4-5 Poplar Mineral Deciduous Swamp

MAMM1-12/MASM1-1 Common Reed Graminoid Mineral Meadow Marsh/Cattail Mineral Shallow Marsh



Cunningham Environmental Associates

As part of TRCA review and comments in regards to the proposed Zoning By-law Amendment Application No. A 14/21 (TRCA 2022a), the TRCA has requested the submission of a Landform Conservation Assessment to show conformity with Oak Ridges Moraine Conservation Plan (ORMCP) Technical Paper #4 Land Conservation. However, as CEA understands at present ORMCP issues are no longer under the jurisdiction of the TRCA, as of the passing of Bill 23 (Province of Ontario 2022). However, based on a review of the City of Pickering Official Plan (City of Pickering 2018), there are policies which apply to ORMCP Landforms. Chapter 16 – Development Review, Policy 16.41 Landform Conservation Areas – Oak Ridges Moraine is applicable to the subject property. There are also Durham Region ORMCP Landform policies applicable to the proposed development.

The Pickering OP policy reads as follow:

- **16.41** City Council, in recognition of the need to maintain the significant landform conservation areas (Categories 1 and 2) on the Oak Ridges Moraine as shown on Schedule VI:
- (a) maintain significant landform features such as steep slopes, kames, kettles, ravines and ridges in their natural undisturbed form;
- (b) limit the portion of the net developable area of the site that is disturbed to not more than 25 percent of the total area of the site, and limit the net developable area of the site that has impervious surfaces to not more than 15 percent of the total area of site for areas shown as Category 1 Areas with the exception of mineral aggregate operations (see Schedule VI);
- (c) limit the portion of the net developable area of the site that is disturbed to not more than 50 percent of the total area of the site, and limit the net developable area of the site that has impervious surfaces to not more than 20 percent of the total area of the site for areas shown as Category 2 Areas with the exception of mineral aggregate operations (see Schedule VI);
- (d) require proponents of an application for major development with respect to land in a landform conservation area (Categories 1 and 2) to include a landform conservation plan that:
  - (i) identifies elevation contours in sufficient detail to show the basic topographic character of the site, with an interval of not more than 2.0 metres;
  - (ii) analysis of the site by slope type;
  - (iii) identifies significant landform features such as kames, kettles, ravines and ridges; and
  - (iv) identifies all water bodies including intermittent streams and ponds;
- (e) require that the landform conservation plan shall also include a development strategy that identifies appropriate planning, design and construction practices to minimize disruption to landform character, including:
  - (i) retention of significant landform features in an open, undisturbed form;
  - (ii) road alignment and building placement to minimize grading requirements;
  - (iii) concentration of development on portions of the site that are not significant;
  - (iv) use of innovative building design to minimize grading requirements; and
  - (v) use of selective grading techniques;

(f) require that proponents of an application for development or site alteration with the exception of mineral aggregate operations that does not constitute major development, with respect to land in a landform conservation area (Categories 1 and 2), shall require a site plan that:

- (i) identifies the areas within which all building, grading and related construction will occur; and (ii) demonstrates that buildings and structures will be located within the areas referred to in clause (i) so as to minimize the amount of site alteration required; and
- (g) require Site Plan Control to limit grading and the alteration of the natural landscape to implement the policies of this section of the Plan.

As stated in TRCA (2022), the proposed development includes: a landscape and pool installation business; outdoor storage of landscape material; an office; and a storage barn for landscape equipment and materials. Proposed Zoning By-law Amendment No. A 14/21 will permit the existing landscape and pool installation business.

## 2.0 METHODS

Extensive natural environment field inventories were undertaken as part of the Natural Heritage Evaluation (CEA 2021). CEA is knowlegeable as to the land use, topography and drainage, soils and groundwater based on the team consulting reports, drawings and figures prepared for the proposed development and uses on the property. In this regard, the NHE (CEA 2021) should be consulted in its entirety for details as to these physical and natural parameters.

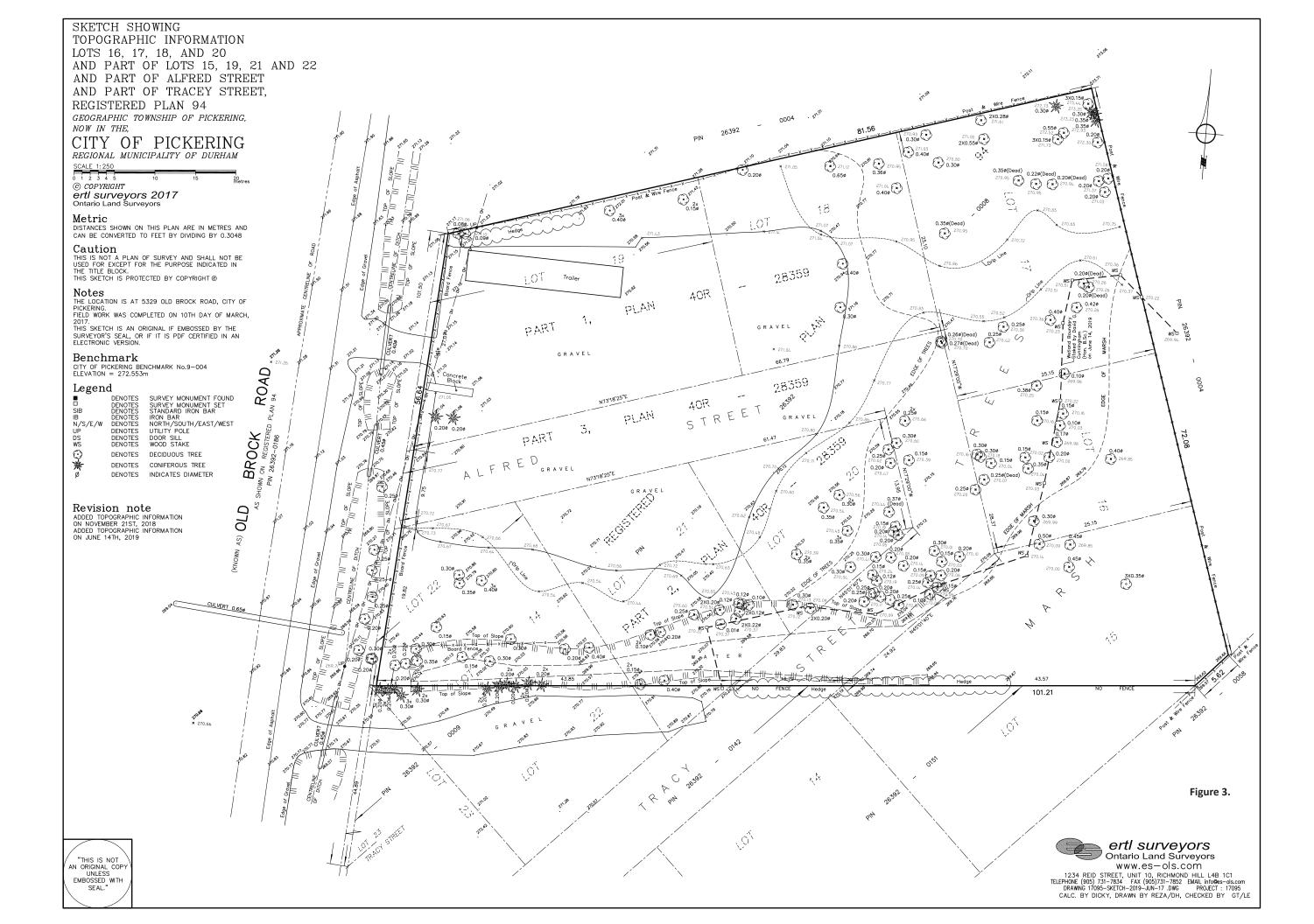
The ORMCP Technical Paper Services 4 – Landform Conservation has been reviewed as to its applicability to the proposed development. Technical drawings provided to CEA which are germane to the proposed development and protection of the Category 2 Landform Conservation area as identified under the ORMCP, Durham OP and Pickering OP.

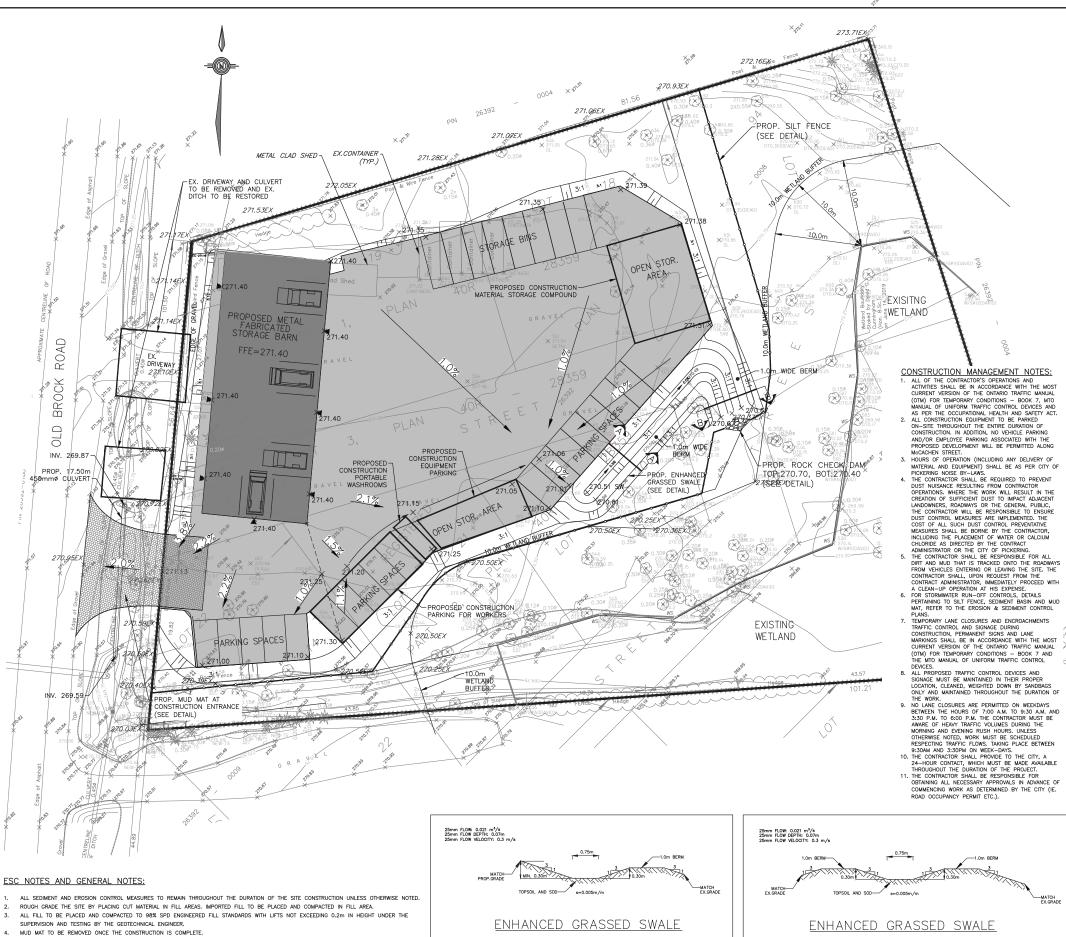
In addition to the Category 2 Landform Conservation Assessment issues, the TRCA provided Ecology Comment 3 as follows: "TRCA accept the species proposed in the buffer planting plan. Please update the planting plan to include the quantity of each species proposed. Please see TRCA Mix Guideline to help with the soil preparation and improvements to the planting plan."

## 3.0 GENERAL FINDINGS

## 3.1 Category 2 Landform

As shown and surveyed on the Sketch Showing Topographic Information – **Figure 3** (ertl surveyors 2017), the spot topographical elevations show the majority of the property is relatively flat from north to south and west to east. Spot elevations around the edges of the proposed development area range from 271.05 masl at the north property edge, to 270.55 masl at the south edge along the edge of the intermittent tributary, to 270.72 masl at the west property edge. Other technical drawings germane to the assessment of ORMCP landforms and protection of the on-site natural features (unevaluated wetland, intermittent tributary, black locust woodland, and hedgerows) are shown on **Figure 4** – Site Grading, ESC+Construction Management Plan (Valdor Engineering Inc. 2021) and **Figure 5** – SWM Drainage Plan Post-Development (Valdor Engineering In. 2023).





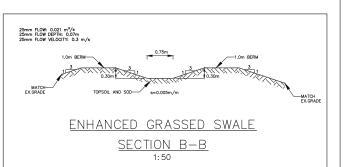
SECTION A-A

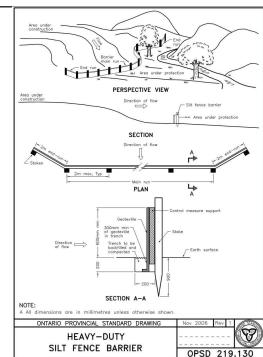
1:50

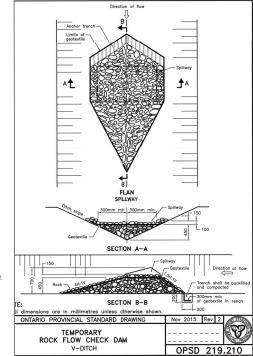
SILT FENCE AND ROCK CHECK DAM TO BE INSPECTED REGULARLY AND REPAIRED/MAINTAINED AS NECESSARY

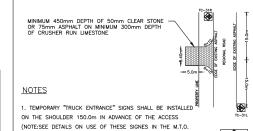
ROADS TO BE CLEANED PERIODICALLY TO AVOID ACCUMULATION OF MUD. AS REQUIRED.

SILT FENCE AND ROCK CHECK DAM TO BE REMOVED UPON COMPLETION OF CONSTRUCTION AND STABILIZATION OF DISTURBED AREAS.









UNIFORM TRAFFIC CONTROL DEVICE MANUAL) THE APPLICANT WILL BE RESPONSIBLE FOR THE COST OF OBTAINING, ERECTING

2. TEMPORARY CONSTRUCTION ACCESS SHALL BE REMOVED

N.T.S.



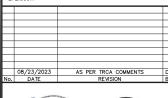
LEGEND: + 188.50FX EXISTING ELEVATION **⊀ 188.50** PROPOSED ELEVATION

2.0% PROPOSED SLOPE PROPOSED SWALE PROPOSED OVERLAND FLOW DIRECTION FINISHED GROUND FLOOR ELEVATION

> ROOF DOWNSPOUT SILTATION FENCE

Figure 4.

ELEVATION:







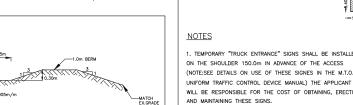


#### PROPOSED CONTRACTOR'S YARD

5329 OLD BROCK ROAD CITY OF PICKERING

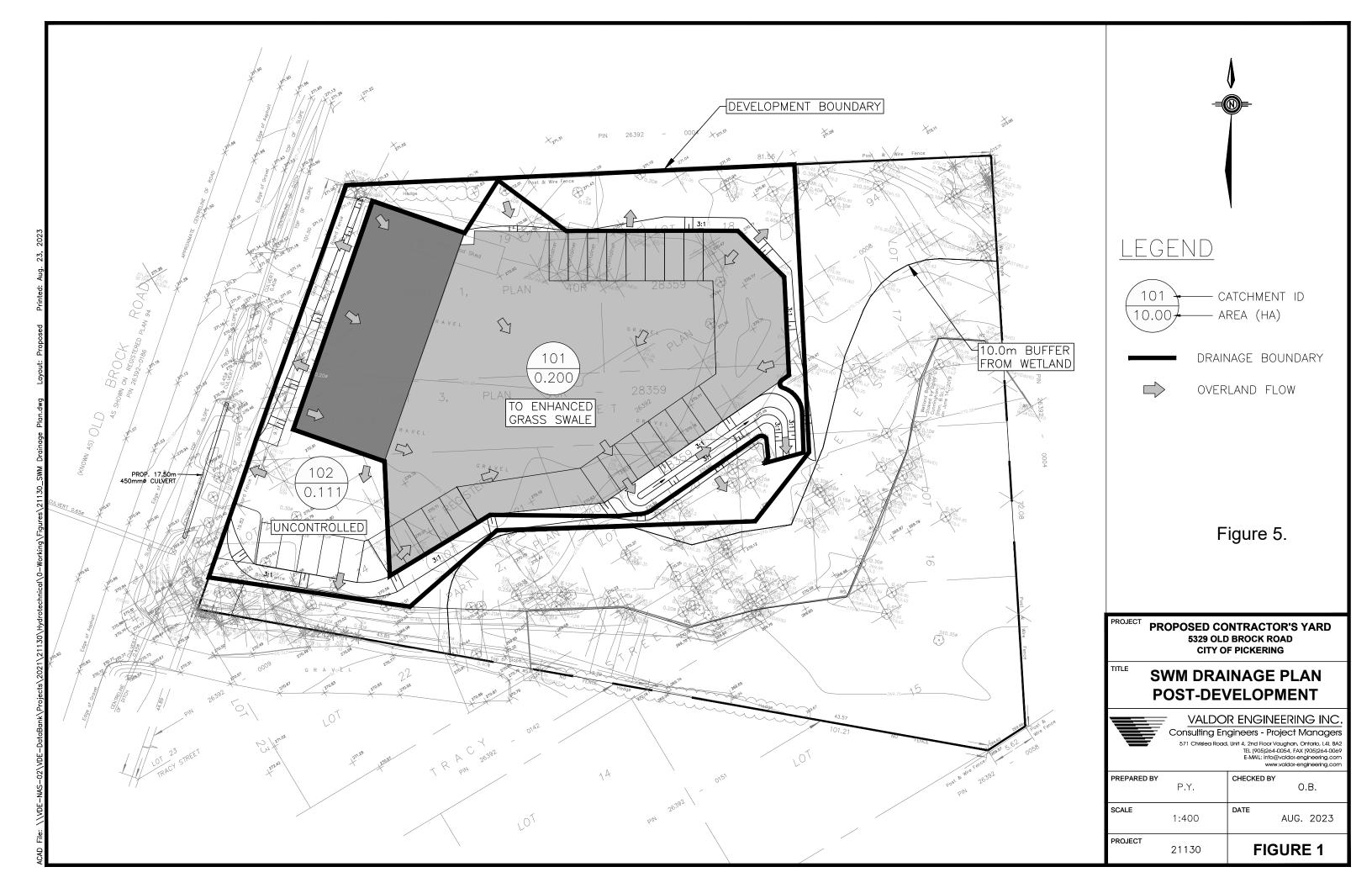
SITE GRADING, ESC+CONSTRUCTION MANAGEMENT PLAN

SCALE	DATE OF DWG.	PROJECT NO.
1:200	AUG. 23, 2021	2113
DRAWN BY	DRAWING NO.	
P.Y.		
CHKD BY	SG	-1
D.G.		



FROM THE REGIONAL ROAD ALLOWANCE AND ALL UNDISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER

MUD MAT FOR TEMPORARY CONSTRUCTION ACCESS



As stated in Section 4.2 of the ORMCP, the delineation and definition of a Category 2 (Moderately Complex Landform) is as follows:

#### 4.2 Landform Conservation Areas - Category 2 (Moderately Complex Landform)

Landform conservation areas – Category 2 are land areas within the ORM that have significant portions of their land surface dominated by complex landform patterns. They have been identified by the province as areas having 20% to 50% of the land surface comprised of:

- lands with slopes in excess of 10%;
- land with distinctive landform features such as ravines, kames and kettles; and/or
- land with a diversity of land slope classes\*.

Other land areas within the ORM not dominated by complex or distinctive landform features, are not subject to the landform conservation requirements of Section 30 and 35(6) of the ORMCP. Such features constitute less than 20% of the land surface.

The province has prepared **1:50,000** scale mapping that identifies the two landform categories occupying the ORM. This mapping can be used as a basis for determining where and how landform conservation policies should be applied to planning or development applications within the ORM.

As an alternative to using mapping provided by the province to identify Category 1 and 2 landform conservation areas, the municipality may develop more detailed landform conservation mapping provided:

- the mapping is prepared at a scale of 1:10,000 or greater; and
- the mapping is developed on the basis of comprehensive planning for landform units identified and/or approved by MNR.

The more detailed evaluation may be used to:

- refine the boundaries of the landform conservation areas (Category 1 and 2) identified by MNR in accordance with the criteria outlined in Section 30(3) of the ORMCP;
- demonstrate how the municipality will meet the impervious cover and disturbance requirements of Section 30(5) and 30(6) on a landscape rather than site specific basis; and/or
- develop a comprehensive landform conservation strategy consistent with the intent of the ORMCP to guide development.

Prior to developing such a strategy, the municipality must develop a term of reference that will be reviewed and approved by the province.

As stated above, "Landform conservation areas – Category 2 are land areas within the ORM that have significant portions of their land surface dominated by complex landform patterns. They have been identified by the province as areas having 20% to 50% of the land surface comprised of:

- lands with slopes in excess of 10%;
- land with distinctive landform features such as ravines, kames and kettles; and/or
- land with a diversity of land slope classes \*."

Based on the detailed 1:250 Sketch Showing Topographic Information – **Figure 3** (ertl surveyors 2017), the property, including the proposed development area **DOES NOT** contain: lands with slopes in excess of 10% (average slopes on the property are < 1.0%); land with distinctive landform features such as ravines, kames and kettle; and/or land with a diversity of land slope classes. Therefore, based on this analysis there is no Category 2 Landform Conservation Area on the property, based on the ORMCP Technical Paper #4 guidance. Other technical drawings relevant to the determination of the Category 2 Landform Conservation Assessment includes **Figure 6** (TVAL Planning & Design Consultants 2023).

## 3.2 Landscape Planting Plan (Green Area 804.30 m<sup>2</sup>)

As per TRCA Ecology Comment 3, "TRCA accept the species proposed in the buffer planting plan. Please update the planting plan to include the quantity of each species proposed. Please see TRCA Mix Guideline to help with the soil preparation and improvements to the planting plan."

In terms of landscaping for the property, **Figure 6** Site Plan & Statistics shows the: proposed locations of metal fabricated storage barn; parking spaces, open storage areas; and storage bins, the Industrial Commercial Area (3110.29 m<sup>2</sup>). The Industrial Commercial Area more or less is restricted to the gravel yard – pad shown as CVR\_4 on **Figure 2**. The strip of disturbed grassland bordering the gravel yard – pad, shown as Green Area (864.30 m<sup>2</sup>) border the outer edges on the pad on the north, east and south sides. All perimeters of the work area will be fenced.

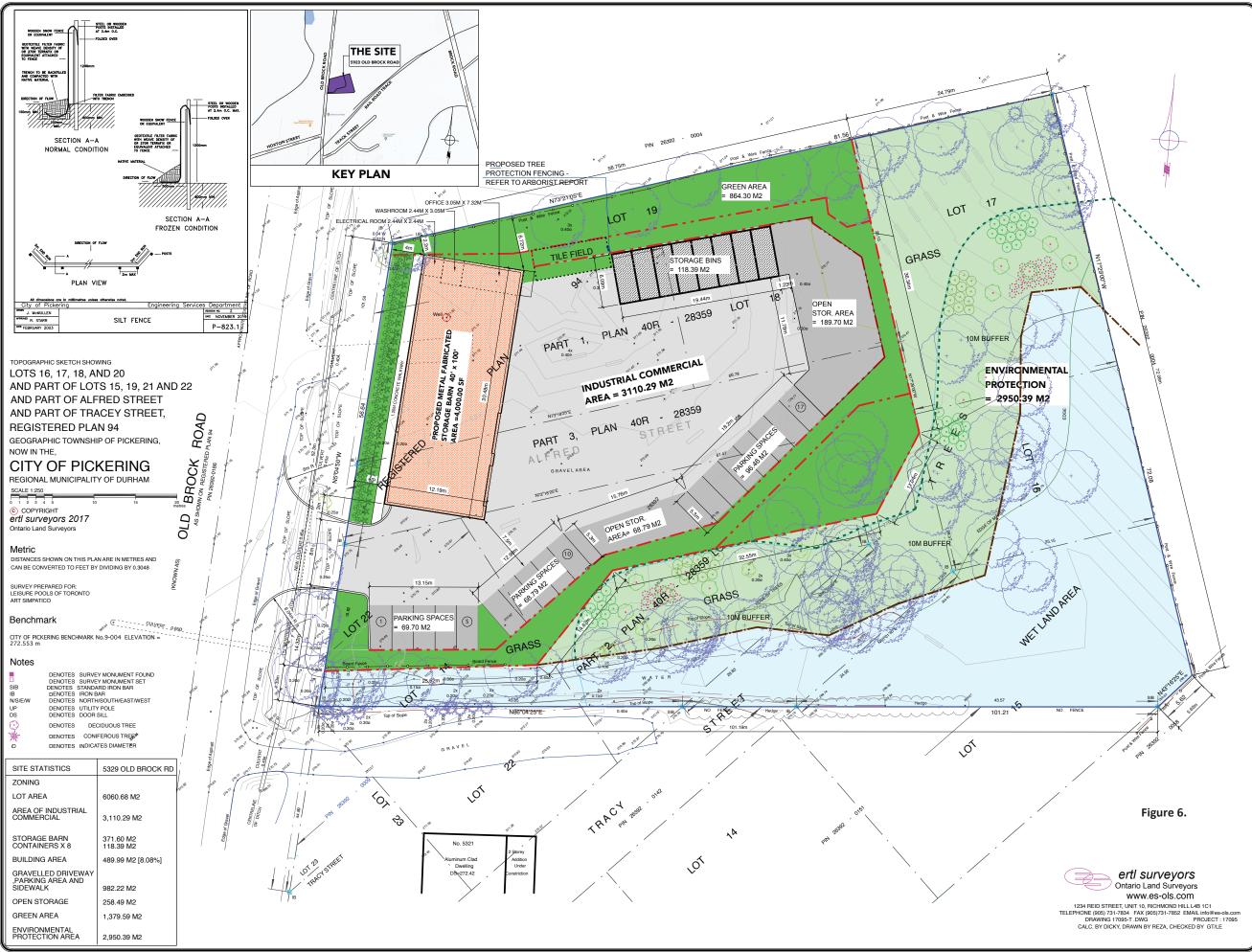
It is intended, that this disturbed grassland area (as of 2019) will be planted with a restoration grass seed mix suited for the topography, soils and moisture conditions in the Green Area. Seeding will be based on the: 1) Post-construction Soil Quality and Depth; 2) Selection of Seed Mixes; 3) Seed Mix Application; Timing; and 4) Caveats, as outlined in the TRCA Seed Mix Guideline V.2.0 (TRCA 2022b).

As per Appendix B: Seed Mix Examples in TRCA (2022b), Table 1 Nurse and Cover Crops, namely Native Perennials such as Canada Wild Rye (*Elymus canadensis*), Virginia Wild Rye (*Elymus virginicus*) and Riverbank Wild Rye (*Elymus riparius*). Other suitable grasses for the flat terrain and gentle slopes in the Grass Area, could include Switch Grass (*Panicum vulgare*), Fringed Brome (*Bromus ciliatus*), along with sedges. It is our opinion that as the Owner owns a landscape company, input as to what native seed mix to plant in the Green Area should include their suggestions, in consult with the TRCA and the Owners landscape architect.

## 4.0 PROFESSIONAL OPINION & CONCLUDING REMARKS

Based on the previous field work and our knowledge of the property, we have concluded that the proposed development will not affect the ecological integrity of the ORMCP Category 2 Landform which exists off site, and not on-site.

As shown on **Figure 3** the slope differential from north to south and west to east is less than 1 percent, showing the property is more or less flat. Therefore, the landform feature within the property is not considered a Category 2 Landform or a Category 1 Landform as defined in the ORMCP. None of the proposed development area lies within an ORMCP landform and neither do the other wooded and wetland features on and abutting the property.





PLANNING

7	03 2023	REVISED LAYOUT	AE
6	03 2021	PROVIDE SITE STATISTICS	AE
5	11 2020	GENERAL REVISIONS	AE
4	04 2020	REV DRAWINGS WITH EROSION CONTOL FENCE & DETAIL	AE
3	03 2020	REVISED per NEW SURVEY	AE
2	05 2019	REVISED LAYOUT	AE
1	08 17	ISSUED FOR CLIENT REVIEW	AE
No.	Date	Issuance and or Revisions	Ву

Revisions

All drawings are the property of this firm and shall not be used without their expressed written

All work to conform with all governing codes and y-laws. All prints of plans and specifications are the property of the designer and shall be returne





and has	the Qualifications and meets the req Ontario Building Code to be	
Require	QUALIFICATION INFOR	
	TONY VALENTIN	20917
	Name	BCIN
1	( Welter '	04 08 15
	Signature	Date
	REGISTRATION INFORM	
	unless design is exempt under 2.17.4	
	DNY VALENTIN DESIGN	28858

## Grant Morris Associates Ltd. PLANNING & DEVELOPMENT CONSULTANTS

**PROPOSED DEVELOPMENT** 

5329 OLD BROCK ROAD CITY OF PICKERING

Drawing title:

SITE PLAN & STATISTICS

hecked By

AUG 2017 1:200 M

project no

## 5.0 REFERENCES

AVTL Planning & Design Consultants.

2023. Proposed Development 5329 Old Brock Road, City of Pickering – Site Plan & Statistics. Sheet No. A1 (Version 8).

#### City of Pickering.

- 2018. City of Pickering Official Plan. Edition 8. Office Consolidation.
- 2019. City of Pickering Meeting/Minutes Summary Pre-consultation Meeting. 5329 Brock Road, Claremont (Lots 16-20 Pt Lots 15, 21, 22, 23 and Plan 94). 1972229 Ontario Ltd. January 18, 2019.

#### Conservation Ontario.

2023. *Conservation Authorities Act, R.S.O. 1900, c. C.27.* July 1, 2023 – (e-Laws currency date). https://www.ontario.ca/laws/statute/90c27.

## Cunningham Environmental Associates (CEA).

2021. Natural Heritage Evaluation 5329 Old Brock Road Hamlet of Claremont, City of Pickering. 1972229 Ontario Ltd. Lots 16, 17, 18 and 20 and Part of Lots 15, 19, 21, and 22 and Part of Alfred Street and Part of Tracey Street, Registered Plan 95, Geographic Township of Pickering, Now in the City of Pickering, Regional Municipality of Durham. March 11, 2021.

#### ertl surveyors.

2017. Sketch Showing Topographic Information Lots 16, 17, 18 and 20 and Part of Lots 15, 19, 21, and 22 and Part of Alfred Street and Part of Tracey Street, Registered Plan 94, Geographic Township of Pickering, Now, in the City of Pickering, Region Municipality of Durham. Project 17095. www.es\_ols.com

#### Province of Ontario.

- 2006. O. Reg. 166/06: Toronto and Region Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. Under Conservation Authorities Act, R.S.O. 1900, c C.27.
- 2022. **Bill 23, More Homes Built Faster Act, 2022.** <a href="https://www.ola.org/en/legislative-business/bills/parliament-43/session-1/bill-23">https://www.ola.org/en/legislative-business/bills/parliament-43/session-1/bill-23</a>.

#### Toronto Region Conservation Authority.

2022a. Letter dated June 22, 2022 to Isabel Lima, Planner II, City of Pickering, City Development Department, One the Esplanade, Pickering, ON L1V 6K7 from Stephanie Dore, Planner, Development Planning and Permits, Development Planning Services, Toronto Region Conservation Authority. File CFN 66475.01.

2022b. Seed Mix Guideline V.2.0. January 2022.

Valdor Engineering Inc.

- 2021. Proposed Contractor's Yard. 5329 Old Brock Road, City of Pickering, Site Grading, ESC+Construction Management Plan. August 23, 2021. Drawing No. SG-1. Project No. 21130.
- 2023. SWM Drainage Plan Post-Development. Proposed Contractor's Yard, 5329 Old Brock Road, City of Pickering. August 2023. Project 21130.

Sincerely,

CUNNINGHAM ENVIRONMENTAL ASSOCIATES

David G. Cunningham, Spec. Hons. BSc.

Senior Ecologist/Principal

David & Cunningham

c.c. Grant Morris Associates Ltd.