April 25, 2025 – 4670 Sideroad 10 North

Meritech Engineering Responses – 2025-05-05			
	Drawing/Document	Comment	Response
CONVERSATION AUTHORITY – Grand River Conservation	• Municipal Development Standards (MDS), Township of Puslinch, dated September 2019. • Township of Puslinch Comprehensive Zoning By-Law No. 023-18, dated May 2021. • By-Law Number 2023-057, The Corporation of the Township of Puslinch. • Major Site Alteration Permit Requirement Checklist and Process. • 4670 Sideroad 10 N Application Form, dated 2025-03-05 • Letter: Extension of Operating Hours, prepared by Meritech Engineering, dated 2025-01-09 • Letter: Justification for Importing Fill, prepared by Meritech Engineering, dated 2025-03-05 • Letter: No Adverse Effect, prepared by Meritech Engineering, dated 2025-03-05 • Communication: Site alteration Permit – Retaining of QP, signed by Gino Martinello, dated 2025-03-05 • Haul Route Permit for 4670 Sideroad 10N, signed by Mike Fowler, dated 2025-01-17 • GRCA Approval, granted by Chris Lorenz M. Sc., dated 2022-08-31 • Site Alteration Permit Owner Authorization, signed by Gino Martinello 2025-01-09	GRCA's comments are outstanding and will be provided as soon as received.	1. We understand GRCA comments have been provided indicating no concerns and no permit is required.
Grit Engineering Inc.		See Attached.	2. Please see attached letter regarding SWM where we indicate that we do not believe SWM is required. 3. We previously coordinated with Township staff and it had been agreed that for a project of this scope individual tree inventory was not required and was disproportionate. We have used the dripline provided from the topographic surveyor. This was missing on one part of the drawing and we have updated the drawing. Based on the above, we are requesting an exception to this control plan requirement.
Trace Associates Inc /XCG– Thomas Kolodziej, P. Eng.		See Attached.	4. We believe there may be confusion with regards to "previously imported material". We expect Trace Associates letter is referring to previous fill operations from a number of years ago. This work is not related to this project and has been

			resolved through a recent legal resolution with land owner and the Township. However, six truckloads of fill were brought to the site in the area of the pole barn as part of an approved building permit application. While this material was understood to be covered by the building permit, this work has stopped with the Order. Attached are material testing results.
Township of Puslinch – Andrew Hartholt, Chief Building Official		The applicant needs to show the existing & proposed septic systems on the site plan/Control plan. The building department has issued a new septic permit for the existing house, and the existing septic serving that house will need to be decommissioned. Any site alteration in the area of the existing septic will need to be put on hold until the new system is installed/operational, and the existing system has been decommissioned.	5. The drawings have been updated and the existing and proposed septic systems are shown. It is understood that site alteration work in the area of these two locations needs to delayed as indicated. It is understood that no adjacent work shall compromise the function of the existing system.

April 25, 2025 – 4670 Sideroad 10 North

Township of Puslinch – Mike Fowler, Director of Public Works, Parks and Facilities		Public works has no concerns or comments at this time.	

April 25, 2025 – 4670 Sideroad 10 North

	• Drawing Set: 4670 Sideroad 10 North, Prepared by Meritech Engineering, dated 2025-01-xx • Figure: Land Use, prepared by Meritech Engineering, dated 2022-08-23 • Excess Soil Management Plan (ESMP) Beneficial Reuse Site, prepared by Fortis Environmental, dated 2025-02-14 • Letter: QP Declaration – Excess Soils Management, prepared by Fortis Environmental, dated 2025-03-14 • Soil Characterization Report, prepared by Soil-Mat Engineers & Consultants Ltd., dated 2024-11-15 • Topsoil Sampling and Chemical Analysis, prepared by DS Consultants Ltd., dated 2024-10-28		
Township of Puslinch – Justine Brotherston, Designated Official		If the applicant does not intend to identify all of their source sites in advance of the project, we request that they develop a protocol outlining how source sites will be presented to the Township for review prior to the importation of fill to the site.	6. The Excess Soil Management Plan (ESMP) Report has been updated supplementing the previously provide protocol for obtaining approval of source material to include the step that an amended site alteration permit is required from the Township with the new source site listed. Section 5.3.7 highlights this as part of Section 5.3 which addresses approval of source sites for this project.

April 25, 2025 – 4670 Sideroad 10 North

GRIT Engineering retained by Township		Consideration should be made with regard to stormwater quantity and quality control, and erosion control to lessen the impact of the increased surface runoff volume and time of concentration (due to the removal of depression storage), for runoff trib utary towards the GRCA-regulated wetland area.	7. Please see comment 2 above addressing SWM controls. 8. ESC controls are proposed with silt fence to be installed and maintained along perimeter, as well as a mud mat at the construction entrance. Note that proposed slopes are very gradual.
		The location size, species, and condition of all trees as defined in the Town of Puslinch By-law, including their dripline, and the composite dripline of all other vegetation; should be included on the existing conditions or grading plan.	9. Please see our response in comment 3 above.

FORTIS ENVIRONMENTAL

Excess Soil Management Plan (ESMP) – Beneficial Reuse Site

4670 Sideroad 10 North
Puslinch, Ontario

Job No.
F199412006-000
(Revision 1)

Client:
Nicholls Ventures Inc.

Report Date:
May 2, 2025

Fortis Environmental Inc.
942 Yonge Street Suite 324
Toronto / ON
M4W 3S8
T: 416-452-6965
F: 647-417-7192
E: info@fortisenv.ca
www.fortisenv.ca

FORTIS ENVIRONMENTAL

Excess Soil Management Plan (ESMP) – Beneficial Reuse Site
4670 Sideroad 10 North
Puslinch / ON

To Whom It May Concern,

Please find enclosed an Excess Soil Management Plan (ESMP) conducted on your behalf. Please feel free to contact us at info@fortisenv.ca if you require any further information.

x_[redacted]____

Andrew Topp, President
P.Geo. Q.P.ESA.
Master of Environmental Science
Bachelor of Science – Biology, Geology

Contents

List of Figures and Appendices

1 Introduction

Nicholls Ventures Inc. in conjunction with Fortis Environmental Inc. are pleased to provide this Excess Soil Management Plan (ESMP) for the Importation of Excess Soils for the purpose of beneficial reuse to the property located at 4670 Sideroad 10 North in Puslinch, Ontario (hereby referred to as “The Reuse Site” or “The Subject Property”).

1.2 O.Reg 406 / 19 – Excess Soils Management

Soil is an important resource. The protection and conservation of soil in Ontario is a valuable component of maintaining the environment for present and future generations. The Ministry of the Environment, Conservation and Parks (MECP) encourages the beneficial reuse of excess soil in a manner promoting sustainability and protection of the ecological, human, and natural environment.

An estimated 25 million cubic metres of excess soil is generated in Ontario every year. While most excess soils can be reused safely, some excess soil may have limited levels of contaminants and care must be taken when determining where it may be reused. This is a significant concern in urban centres and surrounding communities (including suburban municipalities, rural areas and Indigenous communities).

Improper management of excess soil can negatively affect ground or surface water quality and/or quantity in natural areas and agricultural lands. It is also associated with local issues like noise, dust, truck traffic, road damage, erosion, drainage and other social, economic, health and environmental concerns.

Local reuse, proper management and tracking of excess soil have many benefits including but not limited to the following:

- Significantly reducing greenhouse gas emissions from transport
- Reduction of illegal dumping and inappropriate / unnecessary relocation
- Decreasing road damage
- Decreasing amount of reusable, clean soil filling up landfills
- Project cost savings associated with decreases in transportation and landfilling of excess soil

The best practices described within this document are intended to assist those managing excess soil, particularly when the soil may be affected by contamination, in preventing and mitigating the potential for adverse effects to site stakeholders and local receptors.

2 Objective

The present report was prepared on behalf of Nicholls Ventures Inc. (The Property Representative or the Client) In order to provide a Standard Operating Procedure (SOP) as part of an overall compliance program for the importation of excess soil to the Subject Property / Reuse Site.

The current report has been designed in order to ensure overall general health and safety during the importation of materials, environmental protection and compliance with O.Reg 406/19 – On-Site and Excess Soil Management.

3 Site Location and Property Description

The site is presently developed under agricultural land use. The surface area of The Site contains primarily an agricultural tract adjacent to residential dwellings and other minor site structures. The majority of the site is consists of a low-lying rehabilitated aggregate pit which presently is occupied by low-intensive farmland, and due to sloped and uneven topography of the lands it anticipated that the Property shall be in-filled to improve the workability of the property.

The portion of the property which is the subject of the current excess soil re-use operation has a present surface area of ~9.86 ha.

Due to the present grades of the Project Area, the property owner has proposed the importation of excess soils in order to develop a flat and even surface for the proposed future land uses including the development of a pole barn on the northwestern quadrant of the site. The main purposes for the site alterations are as follows: 1) Expanding and improving the farmland as there are both steep grades and flat lands with minimal slope in order to improve the arable acreage. 2) The development of the aforementioned pole barn and adjacent lands, which requires a flat and even topography for its construction. 3) Development of a flat surface for a proposed residential dwelling structure as part of a future residential expansion at The Site.

Surrounding Land Uses are as follows:

North: Aggregate Extraction Pit (Active)
East: Residential, Former Aggregate Extraction Pit (Non-Active)
South: Vacant Woodlot, Residential
West: Agricultural

Please refer to Appendix A for a copy of the Proposed Grading Plan.

3.1 Physical Setting

The Natural Resource Canada Topographic Map review and site reconnaissance are summarized as follows. The Subject Property has an undulating dipping topography in all directions. As previously mentioned, the area where the filling is to take place ranges from ~ 325 masl to ~ 326 masl.

The bedrock geology map containing information about the solid rock underlying the Province of Ontario was reviewed. The information reveals that the Site is underlain by Paleozoic – Sandstone, shale, dolostone and siltstone of the Guelph Formation.

The Quaternary geology map containing information about the Overburden deposits located at the subject property were reviewed. The information reveals that the Site is underlain by Glaciofluvial Outwash Deposits: Gravel and Sand, includes proglacial river and deltaic deposits.

3.1.1 Surface water, Groundwater, Hydrology, Well Records

MECP well records were reviewed for the site and study area. Multiple potable well records were identified within the study area, outlining the historic and present use of privately drilled wells within the Study Area.

The overburden bedrock interface was identified to exist at approximately 35 mbgl (Well ID 7374518) Indicating that the site is not considered a shallow soil property.

4 Proposed Operational Concept

The property owner is proposing the importation of excess soils to the Subject Property for the purpose of site improvement and the eventual development of a proposed pole barn on the north, western quadrant of the site. The location of the proposed location as to where excess soil is to be finally places is provided in the attached grading plan in Appendix A. Approximately a maximum of 145,000 cubic meters of excess soil and topsoil will be imported over a period of 2-3 years.

All proposed grading plans including quantities are provided in Appendix A.

5 Importation of Excess Soils

In December 2020, Ontario amended O. Reg. 406/19, the On-Site and Excess Soil Management Regulation, to require that the Registry to be used for filing of notices under the Excess Soil Use Regulation is the Registry operated by the Resource Productivity and Recovery Authority (the Authority) under section 50 of the Resource Recovery and Circular Economy Act, 2016 (RRCEA). When the MECP regulated registry is operational, sites generating excess soil and reuse sites accepting more than 10,000 m^3 of excess soil will need to comply with the registration requirements.

Simply, the Excess Soil Reuse Regulation applies to excess soil, including soil mixed with rock, which is excavated at a project area and leaves the project area. All excess soils are considered to be a waste unless the following are satisfied:

- The excess soil is transported directly to a Reuse Site, Class 1 Site, Class 2 Site, or local waste transfer facility;
- The Owner or Operator of the re-use site or receiving site consents in writing;
- The excess soil is dry, or if not dry, there is an instrument that authorizes placement of liquid soil;
- The Reuse Site is governed by an instrument such as municipal bylaws/permits/or other approvals, licence or permit issued under the Aggregate Resources Act, Certificate of Property Use under the Brownfield legislation or other that has quality and quantity requirements stipulated in the instrument; and
- If the Reuse Site is not governed by a site-specific instrument or by-law, the following are met.
  - The soil quality must not exceed the applicable Excess Soil Standards or the site-specific soil quality standards developed by a Qualified Person (QP);
  - If applicable, leachate analysis confirms that the potential for compounds to leach from the soil meet the Leachate Screening Levels that are associated with the Excess Soil Standards
  - The soil is used for a beneficial purpose;
  - The quantity of soil must not exceed the quantity required for beneficial use;
  - The Reuse Site is not being used solely or primarily for the purpose of depositing excess soil; and
  - The soil is finally placed at the Reuse Site within two years of its initial deposit.

5.1 General Overview

The main requirements of the Excess Soil Reuse Regulation can be grouped as follows:

1. Registry;

2. Planning Documentation for Source Site prepared by a 3rd party QP;
   - Assessment of Past Uses;
   - Sampling and Analysis Plan;
   - Soil Characterization Report; and
   - Excess Soil Destination Assessment.

3. Tracking; and

4. Record Keeping.

The following sections of this ESMP Report will outline the procedures implemented by The Client to comply with the aforementioned sections within O.Reg 406/19.

5.2 Registry

The Registry is intended as a tracking device / information repository for the movement of excess soil from a Source Site to the reuse location. The link to the Registry can be found below:

https://rpra.ca/excess-soil-registry/

The Project Area(s) generating the excess soil is required to file in the Registry Notice unless they are exempt. As the Subject Property is classified as a Re-Use Site (alternatively to a Project Area) All of the SOPs for The Subject Property will follow the prescribed practices outlined in the Reg.

The draft RPRA filing for the Reuse Site was completed and will be finalized upon initiation of the Project in an amendment to this current report:

- N00001948 – January 27, 2025

Please refer to Appendix B for a copy of the Registry Filing(s) Submitted for the Subject Property.

5.2.1 Property Owner

The following information was uploaded to the registry with regards to the Project Leader (Contractor):

Owner
Gino Martinello
4670 Sideroad 10 N
Puslinch / ON
N1H 6J3
[redacted]

Contractor
Jerome Nicholls
Nicholls Ventures Inc.
91 Norton Drive
Guelph / ON
N1E 7L3
Nventuresinc@gmail.com
905-802-1189

5.2.2 Qualified Person

The following information was uploaded to the registry with regards to the Qualified Person:

Andrew Topp
Fortis Environmental Inc.
942 Yonge Street, Unit 324
Toronto / ON
M4W 3S8
atopp@fortisenv.ca
416-452-6965

5.2.3 Site Instrument

MECP:

Fortis personnel has not corresponded with the MECP; however, it was instructed to Fortis that all on-site work must be carried out in accordance with O.Reg 406/19 and that periodic inspections will be conducted by local MECP personnel as the project progresses.

Municipality:

The Property Owner is presently applying for a Major Site Alteration Permit with the Municipality of Puslinch. At this time, the instrument has not been issued for the Reuse site, however once / if this is completed, the RPRA filing and this ESMP shall be updated accordingly.

MNRF:

No MNRF aggregate license was identified on the Subject Property. Therefore, correspondence with the MNRF shall not be required as part of this Soil Management Plan.

Conclusions:

This section of the ESMP should be updated to include the applicable site alteration permit instrument details once acquired from the governing municipality.

5.2.4 Beneficial Use of Soils On-Site

The current beneficial use of the Soil to be imported to the site is for the following purposes (As filed on the registry):

“Grading of the present site topography in order to improve the workability of the lands for agricultural and proposed residential purposes.”

5.2.5 Approximate Quantity of Soils to be brought to the Site & Timeline

As is currently filed on the Registry, The Property Owner has registered approximately 145,000 cubic meters of excess soils to be brought to the site as of the proposed plan. If the actual soil brought to the site exceeds this number, then the total amount shall be updated on the Registry. The expected timeline for soil to be imported to the Subject Property is between: January 31, 2025 – December 31, 2028.

5.2.6 Excess Soil Quality Standards

Under O.Reg 406/19, in order for excess soil not to be designated a waste when deposited at a reuse site, one of the conditions that must be satisfied is that the excess soil must meet the applicable excess soil quality standards.

To determine which table of excess soil quality standards apply to the deposit of excess soil at a reuse site in a particular case requires the consideration of several factors.

- property use for the reuse site (e.g., agricultural, residential).

- the volume of excess soil that will be finally placed at the reuse site in respect of the undertaking (e.g., the amount of soil required for final grading for a planned development), the reuse site characteristics (e.g., is it a shallow soil site), if the site is within thirty metres of a water body, and whether the reuse site is in an area serviced by a municipal drinking water system then there may be the option of applying non-potable standards if particular requirements are met.

- Tables 2 to 9.1 provide excess soil quality standards in respect of two different volume classes of excess soil that may be deposited at a reuse site for final placement. In relation to each volume class, eight tables are provided for different location placement conditions, including: full-depth placement, stratified placement, potability of ground water, shallow overburden thickness and proximity to a nearby water body.

- The tables of standards for small volumes of excess soil may be used for excess soil volumes up to 350 cubic metres. The tables of standards for small volumes of excess soil are the coarse textured soil standards in Tables 2 to 9.

- The tables for volume independent excess soil quality standards must be used where Tables 2 to 9 (the small volume tables) cannot be used, given the total volume of excess soil that will be finally placed at a reuse site. For ease of reference, these tables have been presented in the same order with the same placement site conditions as the tables for small volume excess soil quality standards.

General

In order to generally assess materials on-site and to determine their re-use at The Project or at an applicable fill site / receiver site, The QP will follow the guidelines in the following Table:

Table Description	Small Volume (up to 350 m^3)[1]	Volume Independent
Full Depth, Background	Table 1	Table 1
Full Depth, Potable	Table 2	Table 2.1
Full Depth, Non-Potable	Table 3	Table 3.1
Stratified, Potable	Table 4	Table 4.1
Stratified, Non-Potable	Table 5	Table 5.1
Full Depth, Shallow Soil, Potable	Table 6	Table 6.1
Full Depth, Shallow Soil, Non-Potable	Table 7	Table 7.1
Full Depth, Within 30 m of a Water Body, Potable	Table 8	Table 8.1
Full Depth, Within 30 m of a Water body, Non-Potable	Table 9	Table 9.1

According to the “Rules for Soil Management and Excess Soil Quality Standards” it has been determined that the following standards shall be applied to the subject property and that imported material is to meet the applicable criteria:

At depths below 1.5 mbgl in areas designated for growing crops:

Table 2.1 – Full Depth Excess Soil Quality Standards in a Potable Groundwater Condition – Agricultural Property Use. (In locations of dedicated agricultural use)

At depths above 1.5 mbgl in areas designated for growing crops:

Table 1 – Full Depth Background Site Condition Standards – Agricultural Property Use. (In locations of dedicated agricultural use)

Full Depth in locations designated for Residential Land Use:

Table 2.1 – Full Depth Excess Soil Quality Standards in a Potable Groundwater Condition – Residential / Parkland / Institutional Property Use. (In locations for proposed residential use)

EC/SAR thresholds can be determined by the QP and Owner of the property however, it is anticipated that imported material will have exceedances for the ESQS for EC and SAR and such material should be placed at a minimum of 1.5 m below the soil surface and in accordance with the soil rules.

The recommended quality standards are provided in Appendix C of this report and can be found on pages 61 – 64 in the Rules for Soil Management and Excess Soil Quality Standards Document.

5.2.7 Registry Conclusions

No further filings on the registry are required for the Subject Site as of present date with the exception of amending the “Total amount of excess soil to be imported (Presently: 145,000 m^3) in the event that it is found that additional material is required.

5.3 Planning Documentation for Source Site (Project Area) QP

If you are required to file a Notice on the Registry for the movement of excess soils from your site (Source Site), then the preparation of planning documentation is required by the Source Site. For Reuse Sites, the review of the planning documents from the Source Site is required prior to soils coming to your site. The planning documents are described in Sections 11 to 13 of the Excess Soil Reuse Regulation. Before soil is removed from the Source Site, the reports discussed in the following sections are required to be prepared by or overseen by a QP.

The planning documentation described below is not required if:

- Soil is from a site characterized as agricultural land use (only) (i.e. no other Potentially Contaminating Activity (PCA)/Areas of Potential Environmental Concern (APEC)s have been determined by QP at the Source Site); or

- Soil is from a site characterized as parkland, residential or institutional use or a combination thereof and soil will not be transported to a site that is used for agricultural land (i.e. no other PCA/APECs as determined by QP at the Source Site).

The following sections will outline the required documentation that will be obtained and reviewed prior to the importation of any material to the Subject Property for beneficial Re-Use.

5.3.1 Pre-Approval

The following package of four (4) documents will be submitted to the Site Owner (For each source site) and be reviewed by the Reuse Site QP before any material is imported to the Site. After review, if all documentation is sufficient, a project number will be created for the Site and the importation of material can begin.

5.3.2 Excess Soil Profile Sheet (ESPS)

Any potential Project Site (and therefore Project Leader must initially complete an “excess soil profile sheet” (ESPS) which will act as the Project Area Representative Declaration of the quality of the material. The aim therefore of the ESPS is to provide all the required information (in a generic template) as to the nature of the material so it can be reviewed and approved / declined by personnel at the Re-Use Site.

Additionally, the ESPS is specific to the fill site so therefore it provides an onus of accountability (declaration) to the source in the event that all materials cannot be inspected by the receiver and improper material is mistakenly shipped to an improper location. Additionally, it provides context to the material being transported, including estimated dates of import, quantities, land-use of the source site and reasoning for disposal.

All ESPS’s and associated laboratory analyses are stored in a centralized on-site location, physically or digitally, in order to provide for ease of access if required. Therefore in the event that a retained QP or regulator is to conduct an audit of the site, all information is readily available for review.

Please refer to Appendix D for an example of the ESPS which is utilized for the current operations.

5.3.3 Assessment of Past Uses and Soil Sampling Plan

Accompanying the ESPS (provided for the purpose of context) an assessment of past uses report (APUR) will be required to be submitted to the Site owner for pre-approval. The objective of the APUR is as follows:

- To develop a preliminary determination of the likelihood that one or more contaminants have affected soil or rock in a location where soil or crushed rock is to be excavated within the project area.

- To identify any areas of potential environmental concern (APECs) within the project area and to determine if any location where soil or crushed rock is to be excavated could have been affected by a potentially contaminating activity (PCA).

- To identify the contaminants of potential concern (COPCs) to determine the focus of the sampling and analysis plan, if any areas of potential environmental concern (APECs) are identified.

The APUR will contain the following components at a minimum:

- Historical Records Review (including but not limited to: FIPs, Aerials, Title Search, ERIS, TSSA FOI, MECP FOI);

  - The specific objective of the records review is to obtain and review records that relate to the assessment of past uses study area, including both the current and past uses of the project area and the potentially contaminating activities (PCAs) at or affecting the project area, in order to determine if an area of potential environmental concern (APEC) exists within the project area. The records review component must comply, with necessary modifications, with all of the requirements of O. Reg. 153/04, unless the qualified person, having regard to the specific objective of this component and the general objectives of the assessment of past uses, is of the opinion that it is not necessary to comply with one or more of these requirements.

- Interviews, if necessary, having regard to the general objectives of the assessment of past uses;

  - The specific objectives of the interview component of the assessment of past uses are to obtain information to assist in determining if an area of potential environmental concern (APEC) exists within the project area and identify details of potentially contaminating activities (PCAs) or potential contaminant pathways that could result in the presence of contaminants in soil or crushed rock that is to be excavated within the project area.

- Site reconnaissance / Inspection;

  - The specific objectives of the site reconnaissance component of the assessment of past uses are to determine if any areas of potential environmental concern (APECs) exist within the project area, through observations about current and past uses and potentially contaminating activities (PCAs).

- Potential contaminant pathways that could result in the presence of contaminants in soil to be excavated within the project area;

- Every area of potential environmental concern (APEC) and the contaminant of potential concern (COPC) within the project area where soil will be excavated.

- A review and evaluation of the information gathered from the records review, interviews and site reconnaissance including the preparation of a conceptual site model, and preparation of the Assessment Report.

- It should be noted that low-risk Project Areas may be exempt from this requirement.

5.3.4 Soil Characterization Report

Accompanying the ESPS (provided for the purpose of context) a Soil Characterization Report in including a CALA certified (or equivalent) analytical report will be required to be submitted to the Site owner for pre-approval.

There are specific minimum requirements for sampling provided in the Excess Soil Reuse Rules that is to include, at a minimum:

- pH (must be a sufficient number of soil samples)

- Petroleum Hydrocarbons (PHCs)/ Benzene, Toluene, Ethylbenzene and Xylenes (BTEX)

- Metals and hydride-forming metals (including arsenic) (refer to O.Reg. 153/04 standards)

- Sodium Adsorption Ratio (SAR)/Electrical Conductance (EC)

- Other required COPC identified in the Assessment of Past Land Uses Report

- Leachate analysis for COPCs identified in the Assessment of Past Uses Report (leaching potential of COPCs)

General in situ sampling frequency can be found in the table below:

VOLUME THRESHOLD	MINIMUM # OF SAMPLES FOR BULK SOIL ANALYSIS		MINIMUM # OF SAMPLES FOR LEACHATE ANALYSIS
	SMALL VOLUME PROJECTS	VOLUME INDEPENDENT PROJECTS	
≤350 m^3	≥ 3 samples	-	-
≤350 m^3 to <600 m^3	-	≥ 3 samples	≥ 3 samples
>600 m^3 to <10,000 m^3		≥1 sample for each additional 200 m^3 within threshold limits	3 samples + **10% of Bulk Soil samples collected**
>10,000 m^3 to <40,000 m^3		≥1 sample for each additional 450 m^3 within threshold limits	
>40,000 m^3		≥1 sample for each additional 2,000 m^3 beyond threshold limit	

General Stockpile sampling frequency can be found in the table below:

Item	Stockpile Volume (m3)	Minimum Number of Samples
1	≤130	3
2	>130 to 220	4
3	>220 to 320	5
4	>320 to 430	6
5	>430 to 550	7
6	>550 to 670	8
7	>670 to 800	9
8	>800 to 950	10
9	>950 to 1100	11
10	>1100 to 1250	12
11	>1250 to 1400	13
12	>1400 to 1550	14
13	>1550 to 1700	15
14	>1700 to 1850	16
15	>1850 to 2050	17
16	>2050 to 2200	18
17	>2200 to 2350	19
18	>2350 to 2500	20
19	>2500 to 2700	21
20	>2700 to 2900	22
21	>2900 to 3100	23
22	>3100 to 3300	24
23	>3300 to 3500	25
24	>3501 to 3700	26
25	>3700 to 3900	27
26	>3900 to 4100	28
27	>4100 to 4300	29
28	>4300 to 4500	30
29	>4500 to 4700	31
30	>4700 to 5000	32
31	>5000	N=32+(V−5000)÷300

The report will strive to include the following:

- Each area of potential environmental concern (APEC) within the project area;
- Each part of the project area that was subject to sampling;
- Each area of excavation and their approximate dimensions (volumes);
- Investigation methods including drilling and excavating test pits, soil sampling, sediment sampling, field screening measurements, analytical testing,

- Stratigraphy from ground surface to the depth of the deepest planned excavation;
- Approximate depth to water table, including whether the depths of excavation for each area where soil excavation is planned are below the water table;
- minimum number of samples required, and total number of samples collected;
- the locations and depths of samples, and a rationale for the selection of sampling locations;
- If an in-situ sampling approach was used, an explanation and rationale of how the delineation of the APECs was determined;
- The parameter groups (As per O.Reg 153/04) for analysis, including a rationale for the choice of parameter groups, where additional parameter groups were added;
- the date of sample collection and date of analysis;
- Tables summarizing results;
- Test Pit / Borehole logs if necessary;
- Laboratory Certificates of Analyses (COA) in the Appendices;
- Notable chemical results (parameters with non-detect, measurable and exceeding results);
- Conclusion / discussion of any soil field screening results along with a discussion and analysis of the laboratory analytical results;
- QP Authentication.

5.3.5 Additional Documentation

Any additional, pertinent supporting documentation such as any Phase II ESA, Soil sampling program, Record of Site Condition Report etc. can also be included with the submission for pre-approval for review by the property owner or on-site agents.

5.3.6 QP Declaration

A QP involved in the preparation of the above referenced documentation is required to sign a declaration indicating that the documents have been prepared in accordance with the Regulation and Rules and are complete and accurate. The QP declaration is covered in Section 5.3.2 – ESPS.

5.3.7 Municipal Correspondence

Due to the fact that it is anticipated that the total volume of excess soil which is proposed to be imported to the Reuse Site will originate from multiple Project Areas, it has been requested by The Municipality that the Project Documentation Package listed in Sections 5.3.1 to 5.3.6 be submitted to a municipal representative for secondary approval. Once this process is completed (And the municipal representative issues the amended site alteration permit); The operator will follow the steps outlined in Section 5.4 onward.

As per correspondence with municipal representatives, this secondary review is expected to take place within 48 hours of submission.

5.4 Acceptance / Rejection of Pre-Approval Documentation

Upon review of the provided documentation by a Site Representative or retained QP, the proposed project may be accepted or rejected. If rejected, the pre-approval submission package will still be stored in an on-site centralized location for the purpose of potential audit. If the material is accepted the following steps will be completed.

Please refer to Appendix E and F for general checklists pertaining to the acceptance criteria of material to the Subject Site.

5.4.1 Assignment of Project Number / ESD- Slips

Each completed ESPS will constitute a “Project”. Once a project is accepted, then a unique project number will be assigned. As expected, quantities are to be provided in the ESPS; “Excess Soil Deposit Slips” (ESD-Slips) can be sold at an agreed upon rate to the source site each containing a unique project number.

All excess soil deposit slips will contain the following information:

- The owner of the Source site location and name of person at the Source site responsible for overseeing the loading of the excess soil for transportation;
- Source Site location;
- The quality and quantity of the load of excess soil being removed from the project area;
- The name of the hauling company;
- License plate number and truck identifier of the hauler (if one exists);
- The date and time of the soil leaving the source location and date and time of arrival at the Re-use site;

- The name, contact information and signature of an authorized representative of the site receiving the excess soil; and

- Confirmation that the excess soil and the volume of soil received at the site where the excess soil was deposited is the same vehicle as that which left the Source Site area.

Fortis Environmental Inc.
942 Yonge Street, Suite 324
Toronto / ON

Tel: 416-452-6965
Fax: 647-417-7192
Email: info@fortisenv.ca

5.5 Importation of Material

When a hauler carrying material arrives at the site, the operator of the scale house can review the ESD-Slips and keep them in the assigned project folder with all other documentation.

General Guidelines - When receiving soils, a bill of lading or electronic verification should be provided prior to any truck(s) entering your site. The gatekeeper should cross-reference the information on the bill of lading or electronic documentation with the master list that should include truck ticket numbers issued according to the Source Site). Untested and/or undocumented loads or loads without a bill of lading or electronic verification should not be accepted under any circumstances. Paper backup may be required if electronic verification/documentation is not available.

If the Source Site implements a tracking system and maintains the hauling records, then the receiving site should request copies of the hauling records from the Source Site in advance of any soils being brought to the receiving property.

5.6 Daily Summary Log

A daily summary log should be maintained at the site by operator and/or representative of the QP that should include:

- Date;
- Total number of trucks entering the property
- Total number of trucks accepted;
- Total number of trucks rejected (and reasons for rejection); and
- For each Source Location:
  - Project number for each ESD-Slip received on that date.
  - Location of where soil was placed on your site or GPS coordinates / drone photography of fill placed.

5.7 Record Keeping

There is a requirement in the Excess Soil Reuse Regulation to retain all records for seven (7) years for the Project Leader of the Source Site and for the Operator of a temporary soil storage site, a soil bank storage site, a soil processing site, or a landfill or a Reuse Site (including any contracts for management of excess soil).

There is also a seven (7) year requirement for record retention for the hauler transporting excess soil.

5.8 On-Site Quality Control (Audit / Validation Sampling)

For every 1500 m^3- 3000 m^3 (~150-300 loads) of material imported the Site owner will conduct random validation sampling to ensure that all quality objectives are met. A sampling and analyses report will be prepared by a retained QP and kept under a different project class for the purpose of any potential audit. It is recommended that one to two (1-2) sample(s) for the following parameters will be conducted upon importation of such quantities of materials. The following Contaminants of Concern will be utilized by Fortis for the majority of the duration of The Project:

Item	Type
VOCs – Volatile Organic Compounds BTEX – Benzene, Toluene, Ethylbenzene, Xylenes PHCs – Petroleum Hydrocarbons	Bulk - Chemical
Metals – General Regulated Metals Inorganics – Chromium 6, Mercury, Cyanide, EC, SAR, Boron, Hot Water Soluble	
PAHs – Polycyclic Aromatic Hydrocarbons	
PCBs – Polychlorinated Biphenyls	
OCP – Organochlorine Pesticides	
VOCs – Volatile Organic Compounds	TCLP - Chemical
Metals – General Regulated Metals Inorganics – Chromium 6, Mercury, Cyanide, EC, SAR, Boron, Hot Water Soluble	
PAHs – Polycyclic Aromatic Hydrocarbons	
PCBs – Polychlorinated Biphenyls	
VOCs – Volatile Organic Compounds BTEX – Benzene, Toluene, Ethylbenzene, Xylenes PHCs – Petroleum Hydrocarbons	mSPLP, SPLP - Chemical
Metals – General Regulated Metals Inorganics – Chromium 6, Mercury, Cyanide, EC, SAR, Boron, Hot Water Soluble	
pH Grain Size, Sieve Salinity Moisture	Bulk - Physical

Validation Soil Chemical analyses shall be conducted by the following, third party laboratory which is listed below:

ALS Environmental
Analyses Conducted in Waterloo
CALA Client ID: 1003149

ALS laboratories is fully accredited under the CALA (Canadian Association for Laboratory Accreditation) for environmental testing and can be found in the up-to-date directory on the following link: https://directory.cala.ca/directory-search

ALS will be utilized throughout the duration of The Project and shall be assessed periodically based on projected turnaround times, quality of results and overall efficiency, based on the Judgement of the QP and Contractor.

It should be noted that Fortis does not have any vested interest in either lab thereby relegating any potential conflict of interest in the analyses procedures or results.

Representative soil samples will be collected in containers supplied by the CALA-accredited laboratory. The field technician will identify a unique sample ID for each sample collected. Samples collected must be placed in coolers and on ice to preserve sample integrity for shipment to the laboratory. Samples to be shipped for chemical analysis will be packaged in coolers and on ice, with sufficient packing material to ensure the safe shipment of samples. All field and supervisory personnel should be instructed in proper sampling handling, documentation, and chain-of-custody procedures before beginning field activities. Clean nitrile gloves and appropriate decontamination procedures should be used for sampling to eliminate cross-contamination between sampling points.

5.9 Importation of Soils Exceeding SAR and EC Criteria

A soil that is shown to exceed criteria for sodium adsorption ratio and electrical conductivity is generally referred to as a “salt impacted soil”.

The Excess Soil Reuse Rules [Section D (3)] also indicate exceptions for placement of salt impacted soils at Reuse Sites. Salt impacted soils may be placed at a Reuse Site:

- Where soil will be similarly impacted as a result of continued application of a substance for the safety of vehicular or pedestrian traffic under conditions of snow or ice (eg. road salt); or
- The re-use site is an industrial or commercial property to which non-potable standards apply; or
- The soils are to be placed at least 1.5 metres below the surface of the soil.

Regardless of the above exemptions, salt impacted excess soils cannot be placed:

- Within 30 metres of a waterbody;
- Within 100 metres of a potable water well; or
- On property that will be used for growing crops or pasturing livestock unless placed 1.5 metres below the soil surface.

5.10 Accidental Importation of Unacceptable Materials

Should excess soil of unacceptable quality be discovered at your site (either at the gate, during or after placement), the following actions or best management practices will be followed:

- All unacceptable excess soil should be located, recovered, and stockpiled separately for further inspection, sample collection and laboratory analysis under the oversight of the Excess Soil Committee or Lead.

- Based on the inspection and analytical results:

- If the quantity of unacceptable excess soil is minimal (e.g., <10% of load) it could be hand sorted and disposed of off-Site.

- If the quantity is excessive, the entire load should be isolated and removed from site.

- The rejected excess soil should be returned to either the Source Site or disposed of at an MECP approved waste disposal site. If the excess soil is transported to an approved waste disposal site, then further characterization and Notice on Registry may be required. Also, it is suggested that you obtain documentation from the MECP approved facility indicating name and location of receiving site, copy of Environmental Compliance Approval, and confirmation that the facility has reviewed and accepted the excess soil. An agreement may be required with each Source Site that includes a clause that any rejected loads (at the sole discretion of the Owner) will be removed from the Reuse Site at their cost.

- Importation of the excess soil from the Source Site should cease until it has been confirmed that the excess soil is acceptable for receipt at the Site. The QP should review the analytical results of the imported fill on a more frequent basis to determine if there is an issue with the excess soil from a particular Source Site/project or it is an isolated occurrence (i.e., an individual load that is not representative of the larger soil volume). The on-site representative can employ policies such as a standard “three strike” rule or equivalent) to address these situations. At each non-compliance stage increased scrutiny could be imposed until the site representative is convinced that the issue was isolated and not a reoccurring trend.

6 On-Site Operational Best Management Practices (BMPs)

6.1 Silt Fence and Soil Bank Inspections

As part of on-going compliance, Property Boundary inspections shall be conducted, and summaries (including photographs) should be conducted on a monthly basis or after a storm event as to ensure on-going public safety for neighbouring lands. The proposed locations of on-site silt fences are provided in the grading plan.

6.2 Proposed Operations

The Receiving Site will be fenced and gated to prevent unauthorized access to the Site. The Site will be manned by a trained gate keeper during the times that off-site material is to be received at Site.

The trained gatekeeper will have a written record of information relating to the materials approved for acceptance at the Site, including name of the Source site and authorized representative, the type of materials to be shipped and the approximate times of delivery to the Site and the name of the hauler.

Each load to the Receiving Site will be accompanied by a completed bill of lading indicating the name of the Source site, the name of the hauler, the name of the driver, the date and time of shipment, and each bill of lading will be signed by an authorized representative of the Source Site.

No load of material will be permitted access to the Site unless the material has been approved through the application process and is accompanied by a Bill of Lading completed in accordance with the Protocol. The bill of lading is to be presented to the gatekeeper on arrival at the Site.

The gatekeeper will compare the Bill of Lading presented to him with his record of material approved for acceptance at the Site to ensure the materials has been approved through the application process.

The gatekeeper will complete a visual inspection of each load prior to permitting access to the Receiving Site. Loads containing material not approved for acceptance or exhibiting evidence of possible chemical impact (e.g., unusual odors or staining) will not be permitted access to the Site.

Once the gatekeeper approves the load of acceptance at the Site, he/ she will sign the Bill of Lading and direct the driver to a specific dumping location at the Site. The assigned location will be noted on the manifest and in the log which shall be maintained of each shipment of material to the Site.

A log will be maintained of each load shipped to the Site including rejected loads. The log entry for each load will include the Source Site location the name of the hauler and driver, the license plate of the transporting vehicle, the time and date of arrivals of the load at the Site where the material was deposited and/ or the reasons for rejections of the load if applicable.

All applications and related reports, manifests, logs of materials accepted at the Site, records of material approved for acceptance at the Site will be retained by the Site Owner and/ or the licensee for a minimum of seven years.

Each load of material deposited on the Site will be graded and compacted as required by the Grading Plan.

Each incoming load is to be visually inspected and screened for odors, staining, debris or other forms of contamination whether known or suspected. The use of photo ionization detector (PID) or flame ionization detector (FID) should be used to screen for VOC's. The daily shipments are to be reviewed by the Receiving Site QP or QP Designate to ensure each load is coming from an approved Source Site.

Fill that is observed to contain unacceptable materials, odors, staining or elevated headspace vapors as determined using a PID or FID, must be returned to the Source Site . The bill of lading is forfeited under

the circumstances. Should the Source Site refuses to take back the unacceptable load (s), the Owner is responsible for ensuring such loads are removed and brought to a facility approved to accept such loads. Staff at the Receiving Site shall record the rejected load in a daily log. The Receiving Site QP will also keep a record of the contaminated load and its fate.

Any further soils from the Source Site will not be permitted to be shipped to the Receiving Site until the unacceptable materials is removed to an appropriate facility or returned to the Source Site and until it can be demonstrated that the remaining soil at the Source Site that are destined to be shipped to the Receiving Site meets the appropriate standard for the Receiving Site. This will be carried out through confirmatory sampling of stockpiles or excavations at the frequencies required by O.Reg. 153/04, as amended - See Tables 2 and 3 in Schedule E of Part 12 of 0. Reg. 153/04, as amended.

The QP at the Receiving Site shall record, in a log kept at the Receiving Site, any instances when fill is returned under these circumstances, recording the Source Site, hauler, date of the incident and any and all information pertaining to the unacceptable fill.

Soils from each Source Site shall be deposited in segregated areas within the approved fill area of the Receiving Site so that they can be assessed via the audit testing described below and returned to the Source Site if necessary.

7 Conclusion

Nicholls Ventures Inc. and Fortis Environmental strive to provide a safe and productive re-use site in compliance with all applicable regulations governed under O.Reg 406/19 for Excess Soil Management, setting an example for future projects in the Region.

Respectfully Submitted
Fortis Environmental Inc.

[redacted]

Andrew Topp, President, P.Geo. Q.P.ESA.
Master of Environmental Science
Bachelor of Science – Biology, Geology
atopp@fortisenv.ca

[redacted]

In Conjunction with,

X_____
Jerome Nicholls
Nicholls Ventures Inc.

8 Definitions

Class 1 soil management site means a soil bank storage site or a soil processing site

Class 2 soil management site means a waste disposal site, other than a Class 1 soil management site, at which excess soil is managed on a temporary basis and that is,

(a) Located on a property owned by a public body or by the project leader for the project from which the excess soil was excavated, or

(b) Operated by the project leader for the project from which the excess soil was excavated;

Dry soil means soil that is not liquid soil;

Dump has the same meaning as in Regulation 347;

Enhanced investigation project area means a project area used,

(a) For an industrial use,

(b) As a garage,

(c) As a bulk liquid dispensing facility, including a gasoline outlet, or

(d) For the operation of dry cleaning equipment;

Excess soil means soil, or soil mixed with rock, that has been excavated as part of a project and removed from the project area for the project;

Excess Soil Standards means the document entitled “Part II: Excess Soil Quality Standards”, published by the Ministry and dated November 19, 2019, available on a website of the Government of Ontario as Part II of the document entitled “Rules for Soil Management and Excess Soil Quality Standards”;

Infrastructure means all physical structures, facilities and corridors relating to,

(a) Public highways,

(b) Transit lines and railways,

(c) Gas and oil pipelines,

(d) Sewage collection systems and water distribution systems,

(e) Storm water management systems,

(f) Electricity transmission and distribution systems,

(g) Telecommunications lines and facilities, including broadcasting towers,

(h) Bridges, interchanges, stations and other structures, above and below ground, that are required for the construction, operation or use of the items listed in clauses (a) to (g), or

(i) Rights of way required in respect of existing or proposed infrastructure listed in clauses (a) to (h); ("infrastructure")

Landfilling has the same meaning as in Regulation 347;

Liquid soil means soil that has a slump of more than 150 millimetres using the Test Method for the Determination of "Liquid Waste" (slump test) set out in Schedule 9 to Regulation 347;

Local waste transfer facility has the same meaning as in Regulation 347;

Ontario Regulation 153/04 means Ontario Regulation 153/04 (Records of Site Condition — Part XV.1 of the Act) made under the Act;

Project means any project that involves the excavation of soil and includes,

(a) any form of development or site alteration,
(b) the construction, reconstruction, erecting or placing of a building or structure of any kind,
(c) the establishment, replacement, alteration or extension of infrastructure, or
(d) any removal of liquid soil or sediment from a surface water body;

Project area means, in respect of a project, a single property or adjoining properties on which the project is carried out;

Project leader means, in respect of a project, the person or persons who are ultimately responsible for making decisions relating to the planning and implementation of the project;

Public body means,

(a) A municipality, local board or conservation authority,

(b) A ministry, board, commission, agency or official of the Government of Ontario or the Government of Canada,

(c) A port authority under the *Canada Marine Act*, or

(d) The Toronto Waterfront Revitalization Corporation under the *Toronto Waterfront Revitalization Corporation Act, 2002*;

Qualified Person means,

(a) Subject to clause (b), a qualified person within the meaning of section 5 of Ontario Regulation 153/04, and

(b) For the purposes of subsections 5 (2) to (5), 6 (4), paragraph 7 of subsection 19 (4), section 20 and section 13 of Schedule 1, a qualified person within the meaning of section 5 or 6 of Ontario Regulation 153/04;

Registry has the same meaning as in Part XV.1 of the Act;

Regulation 347 means Regulation 347 of the Revised Regulations of Ontario, 1990 (General — Waste Management) made under the Act;

Reuse site means a site at which excess soil is used for a beneficial purpose and does not include a waste disposal site;

Rock means a naturally occurring aggregation of one or more naturally occurring minerals that is 2 millimetres or larger in size or that does not pass the US #10 sieve;

Soil means unconsolidated naturally occurring mineral particles and other naturally occurring materials resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are smaller than 2 millimetres in size or that pass the US #10 sieve;

Soil bank storage site means a waste disposal site at which excess soil is managed on a temporary basis and that is operated, by a person who is not the project leader for all of the projects from which the excess soil was excavated, for the primary purpose of storing the excess soil from one or more projects until the soil can be transported to a site for final placement or disposal;

Soil processing site means a waste disposal site at which excess soil is managed on a temporary basis, that is operated for the primary purpose of processing excess soil in order to reduce contaminants in the excess soil.

Soil Rules means the document entitled “Part I: Rules for Soil Management”, published by the Ministry and as amended from time to time, available on a website of the Government of Ontario as Part I of the document entitled “Rules for Soil Management and Excess Soil Quality Standards”;

Supervisee means an individual who is supervised by a qualified person;

Vehicle includes a trailer or other equipment attached to the vehicle.

Non-application of Regulation

O.Reg 406/19 does not apply in respect of the following:

- The excavation of soil that is hazardous waste or asbestos waste, both within the meaning of Regulation 347.
- The operation of a pit or quarry from which consolidated or unconsolidated aggregate within the meaning of the Aggregate Resources Act is excavated, including the use and production of recycled aggregate in the pit or quarry.
- The excavation of topsoil in accordance with a permit issued under the Aggregate Resources Act.
- The production of peat from a peat extraction operation.

The final placement of excess soil on the bed of a surface water body.

Appendix A
Proposed Grading Plan

Servicing Legend

Ex=Existing
- Ex Sanitary/Storm Manhole/CB Manhole
- Ex Sanitary Sewer (Flow Direction)
- Ex Storm Sewer (Flow Direction)
- Ex Water Valve/Curb Stop
- Ex Fire Hydrant & Valve Set

Pr=Proposed
- Pr Sanitary/Storm Manhole
- Pr Sanitary Sewer (Flow Direction)
- Pr Storm Sewer (Flow Direction)
- Pr Water Valve/Curb Stop/Reducer
- Pr Fire Hydrant & Valve Set
- Siamese Connection

Grading Legend

Symbol	Description	Symbol	Description
123.45	Original Ground Elevation	123	Draft Plan/R-Plan Lot No.
123.45 / 123.45	Proposed Ground Elevation / Original Ground Elevation	Block 23	Block Number
TFE=123.45 / FFE=123.75 / BFE=121.10	Top Of Foundation Elevation / First Floor Elevation / Basement Floor Elevation	#12	Municipal Address
TC=123.45	Top Of Casting Elevation	123.45	Ground Elevation At Face Of Building
	Retaining Wall	S.F.	Denotes Lot Contains Structural Fill
	Armour Stone	N	Lot Subject To Noise and/or Vibration Measures
	Overland Flow Direction	Infil	Infiltration Measures Required
2.0%	Surface Drainage Direction/Slope	PRV	Pressure Reducing Valve Required
	Swale Direction at Lot Corner	A, B, C and/or D	Lot Grading Type, Per Municipality
	Swale Flow Direction		High/Low Point
D	Drainage Divide Line		

Utilities Legend

Symbol	Description	Symbol	Description
A/G H	Above Ground Hydro Lines		Utility Pole & Guy
U/G H	Below Ground Hydro Lines		Street Light/Light Pole
TEL	Above/Below Ground Telephone Lines		Hydro Transformer/vault
CATV	Above/Below Ground Cable TV Lines		Utility Pedestal
GAS	Gas Main	T	Telephone Manhole
UTI	Combined Utility Ducts (Hydro & Telecommunications)	H	Hydro Meter
U/G H	Underground ducts	GV	Gas Valve
		G	Gas Meter

Misc Features Legend

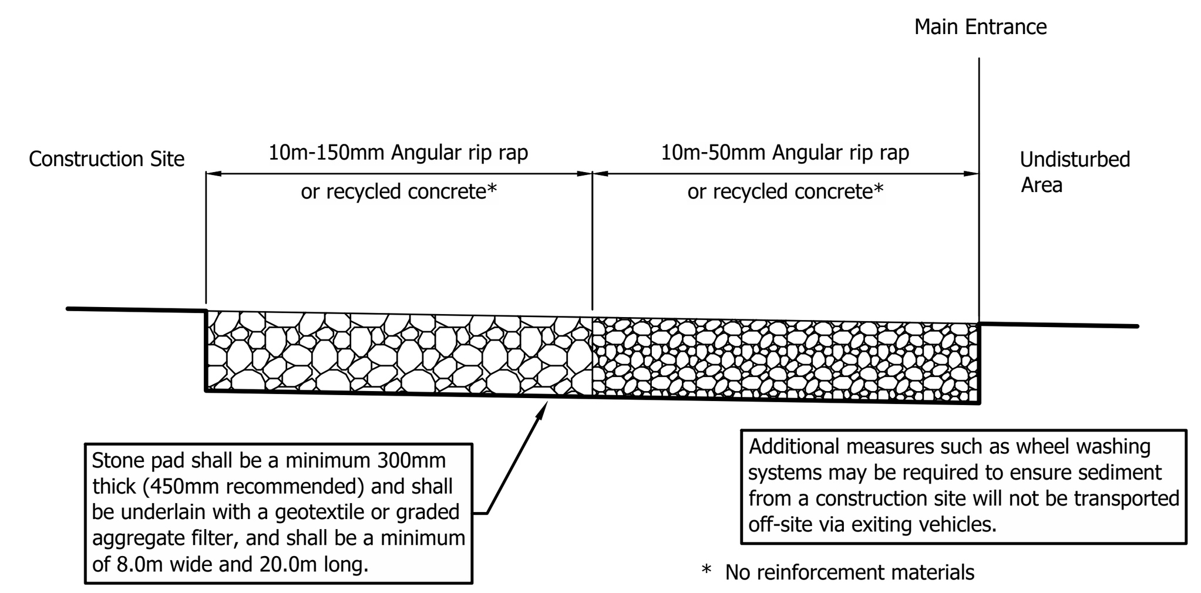
Symbol	Description	Symbol	Description
	Ex Building		Ponding Areas
	Pr Building		On-street Parking Locations Where Lot Frontage Is Less Than 14.0m. Semi-detached Lot Driveway Locations To Be Determined At Time Of Construction.
	Site Boundary		Building Entrance (Man Door, Drive-In, Loading Dock)
BM	Geodetic/Local Benchmark		Bike Rack
	Regulatory Floodline		Downspout Location
	Community/Single Mailbox		Sump Pump Location, Outlet Direction
BH# GWT	Borehole Locations (ID Number & Elevation)	W	Well
TP# GWT	Test Pit (ID Number & Groundwater Elevation)		Specified Driveway Location Depressed Curb
	Vegetation Line (Dripline or Bush/Shrub)		Signage (Misc & Railway)
	Trees (Deciduous/Coniferous)		Railway Tracks
	Landscape Rock/Boulder		Embankment
	Truncated Dome Plates		Guardrail
x	Fencelines - Chainlink - Post & Wire - Board on Board - Noise Fence/wall	A	Section Arrow

ESC Legend

Symbol	Description	Symbol	Description
SF / TPF	Silt Fence / Tree Protection Fence		Rock/Straw Bale Check Dam
	Topsoil/Material Stockpile Location		Ex/Pr RipRap

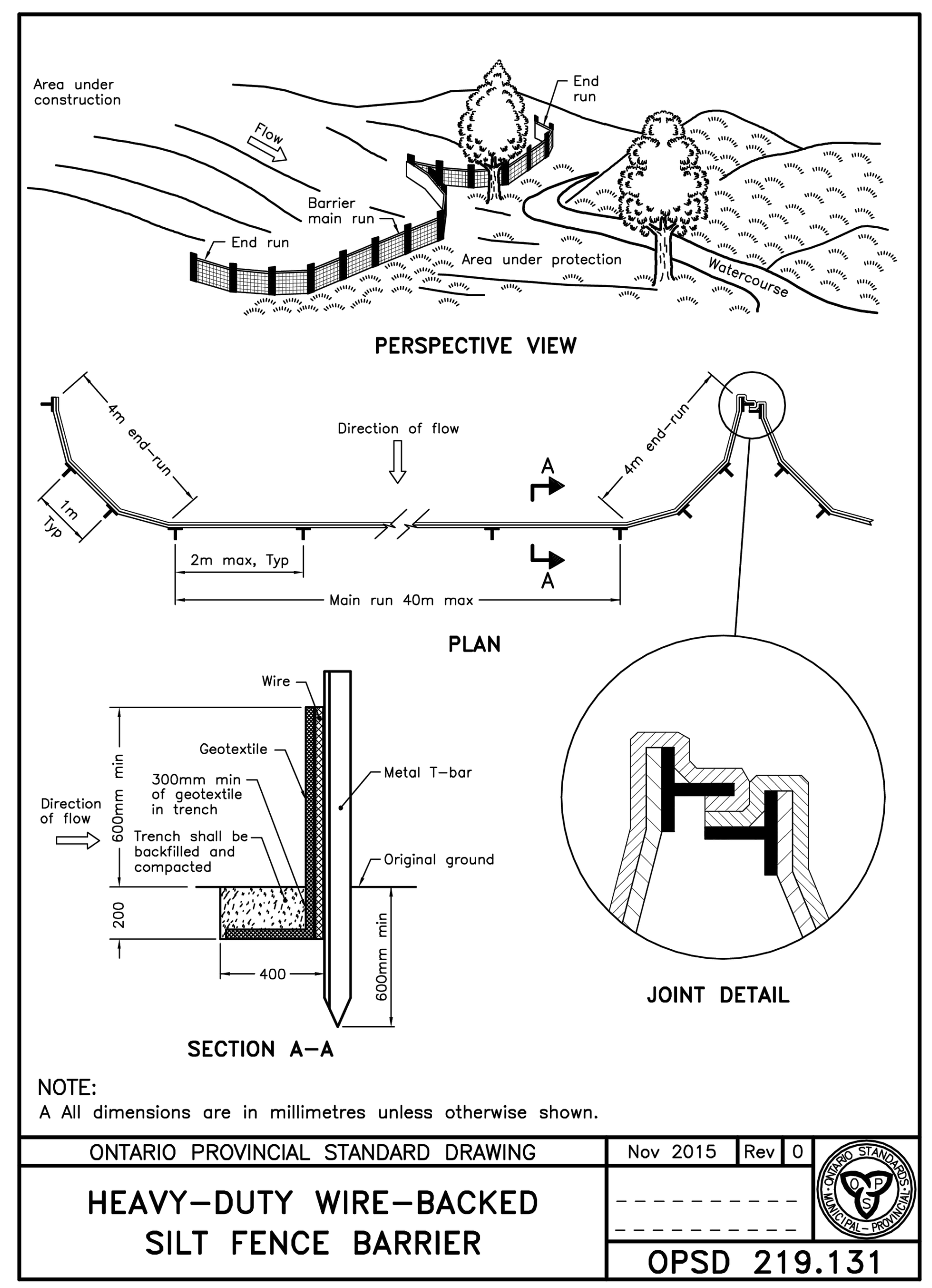
Removals Legend

Symbol	Description	Symbol	Description
	Concrete Pavement With Bituminous Surface To Be Removed		Area To Be Close Cut Cleared
	Bituminous Pavement To Be Removed		Area To Be Cleared
	Concrete Pavement To Be Removed		Area To Be Grubbed
	Gravel Surface To Be Removed		Area To Be Cleared & Grubbed
		or	Items To Be Removed



Construction Entrance (Mud Mat) Detail

Not to Scale



Project Notes

1. All dimensions are in metres unless otherwise noted. This drawing shall not be scaled.
2. All work shall be in accordance with the requirements of the local municipality, the latest relevant sections of the OPSS's, OPSD's, and the Ontario Building Code.
3. Soil Management Regulations: All import or export of soil related to this site is to be completed in conformance with Ontario Regulation 406/19: On-site and Excess Soil Management. Per the regulation, it is the responsibility of the owner to retain a Qualified Person (QP) to investigate and/or develop (or supervise the development of) a site-specific excess soil plan.
4. The Contractor shall obtain all necessary locates & permits prior to commencing work.
5. The Contractor shall notify the Engineer 24 hours prior to constructing any works in order to coordinate inspections.
6. The Contractor shall, at their own cost, install and maintain erosion control measures for the duration of construction, in accordance with local and provincial regulations or as directed by the Engineer.
7. Only drawings stamped "Issued for Construction" shall be used for construction.
8. All embankment slopes are at maximum 3:1, unless otherwise shown.
9. Proposed grades are to match existing grades at the perimeter of the work site, unless otherwise shown.

Specifications

OPSS and OPSD refer to Ontario Provincial Standard Specifications and Drawings.

The following minimum specifications shall apply unless otherwise noted:

1. Excavation, Backfilling, Grading and Compaction:
   a. Work shall be completed in accordance with OPSS.MUNI 206, 401 and 501. (Method A); standard proctor maximum dry density (SPMDD) shall apply.
   b. Earth fill placed as "structural fill" shall be compacted to 98% SPMDD. Each lift shall be inspected and approved by the Geotechnical Engineer.
   c. Surplus topsoil and/or earth shall be stockpiled on the work site; all other material shall be removed from the Work site in accordance with OPSS 180.

Erosion and Sediment Control Notes

1. All works to be done in accordance with OPSS 805.
2. All silt fence to be installed prior to commencement of any area grading, excavating or demolition, unless noted otherwise.
3. Erosion control fencing to be placed around the base of all stockpiles. All stockpiles to be kept a minimum of 5m from all property lines. A 5m maintenance strip must be maintained around all stockpiles (between the stockpile and the fencing).
4. Additional erosion control measures may be required as site development progresses. Contractor to provide all additional erosion control structures in accordance with the contingency allowance.
5. The Engineer shall monitor the site development to ensure all erosion controls are installed and maintained to the municipal requirements, and any damage repaired immediately. Contractor to comply with the Engineer's instructions to install, modify, or maintain erosion control works. Sediments to be removed when accumulations reach a maximum of one third (1/3) the height of the silt fence.
6. All erosion control structures to remain in place until all disturbed ground surfaces have been re-stabilized either by paving or restoration of vegetative ground cover.
7. No alternate methods of erosion control protection shall be permitted unless approved by the Engineer and the municipality.
8. The contractor is responsible for removing sediments from the municipal roadway and sidewalks at the end of each work day.
9. Sediment traps to be provided on site at all locations where construction vehicles exit the site. Sediment traps shall be a minimum of 4.0m wide, 10.0m long and 300mm deep and shall consist of 50-150mm angular rip rap material or approved equivalent. Contractor to ensure all vehicles leave the site via the construction access and that the sediment trap is maintained in a manner to maximize its effectiveness at all times.
10. Areas affected by grading activities shall be topsoiled (125mm minimum thickness) and seeded within 30 days of site activity ceasing.
11. Excess fill material shall not be disposed of within environmentally sensitive areas, including wetlands, woodlots, regulated areas, or adjacent properties.
12. The property owner is responsible for restoration of all damaged and/or disturbed property within the municipal right-of-way to the municipal standards.
13. If, for unforeseen reasons the Owner and/or his/her representative must encroach onto private lands to undertake any works, he/she must obtain written permission from the adjacent property owners prior to entering upon the private property to perform any works. Copies of these letters of consent must be submitted to the municipality, prior to any work being performed. Failure to comply with the above is at the owners own risk.
14. Monitoring and weekly inspection reporting per the municipal requirements.
15. Majority of final land use to be agricultural crops. Any lands not used to be hydro seeded.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

No.	REVISION/ISSUE	DATE	BY
4.	Issued Review and Approval	Dec 5, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5,2024	JAS
1.	Issued for Site Alteration Permit	Aug 23,2022	AWB

OWNER: [redacted]

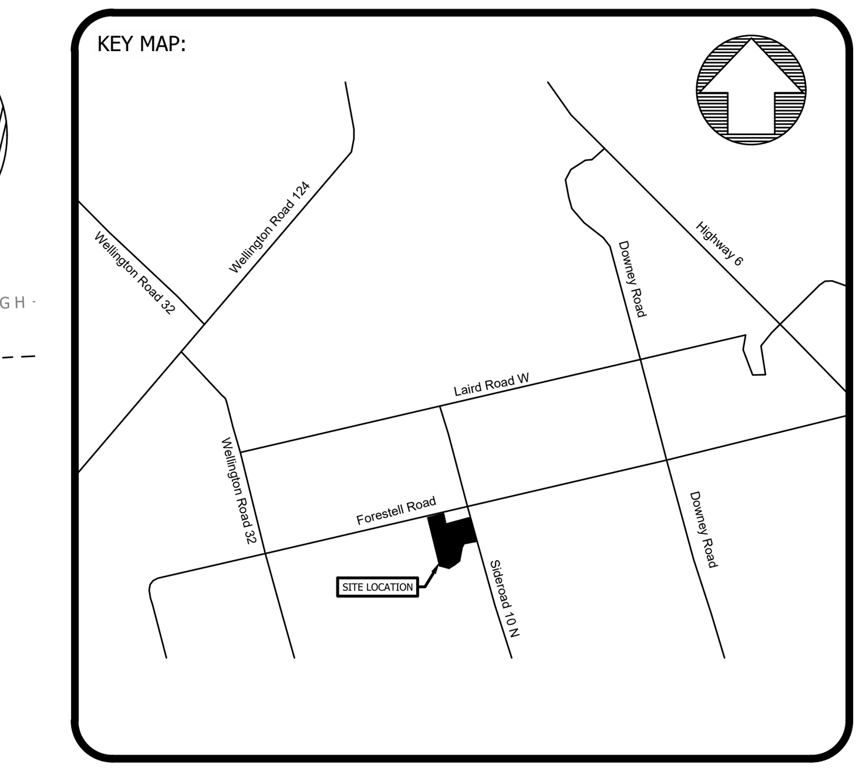
LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DRAWING: Legend, Details & Project Notes

DESIGNED BY: JAS	CHECKED BY: BRE	CONTRACT: CTR-004076	
DRAWN BY: JAS	DATE: Aug 23,2022	FILE NAME: 4076	
DRAWING: 4076 SHEET: 1 of 5	SCALE: Not to Scale		

Filename: 4076.Topsoil.dwg, 4076 -- Plotted: December 5, 2024 11:55 AM, Jauhars



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86Ha
Pr Fill Import Volume	145,000 m³

Schedule		
Equipment	Day	Time
Skidsteer		
Bull Dozer		
Triaxle End Dump Trucks		

Proposed Work	Start Date	Completion day

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

No.	REVISION/ISSUE	DATE	BY
4.	Issued Review and Approval	Dec 5, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

OWNER: [redacted]

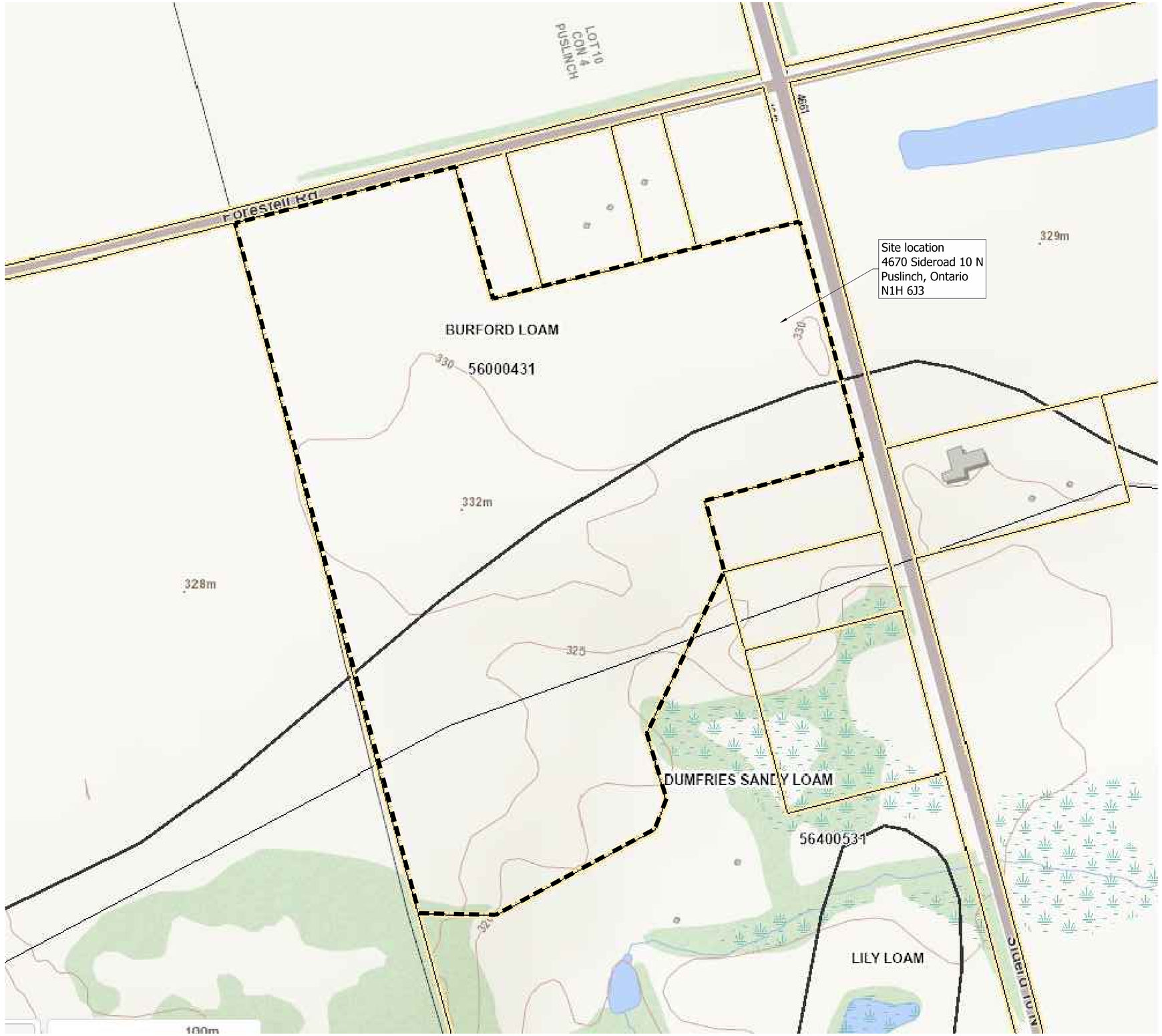
LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

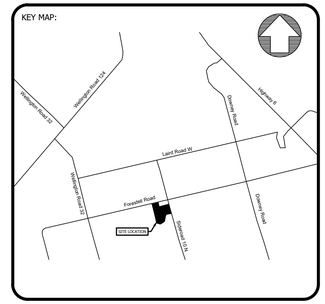
DRAWING: Original Conditions and ESC Plan

DESIGNED BY: JAS
DRAWN BY: JAS
CHECKED BY: BRE
DATE: Aug 23,2022
SCALE: 1:1000
CONTRACT: CTR-004076
FILE NAME: 4076.Topsoil
DRAWING: 4076
SHEET: 2 of 5

Filename: 4076.Topsoil.dwg, 4076 -- Plotted: December 5, 2024 11:55 AM, Jauhars



KEY MAP:



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

No.	DATE	BY
4.	Dec 5, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB
	REVISION/ISSUE		

DRAWING: Predominant Soil Type

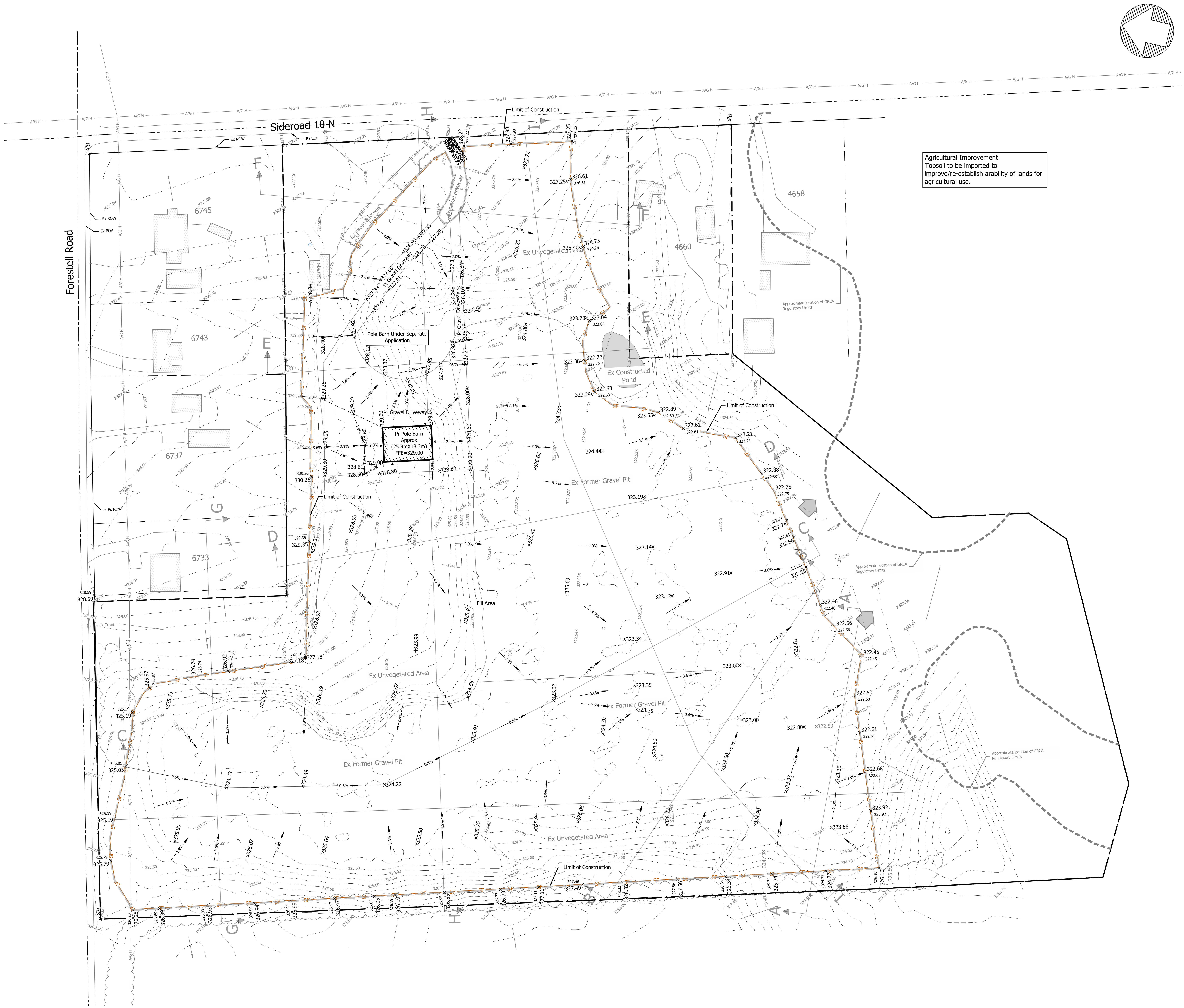
OWNER: [redacted]

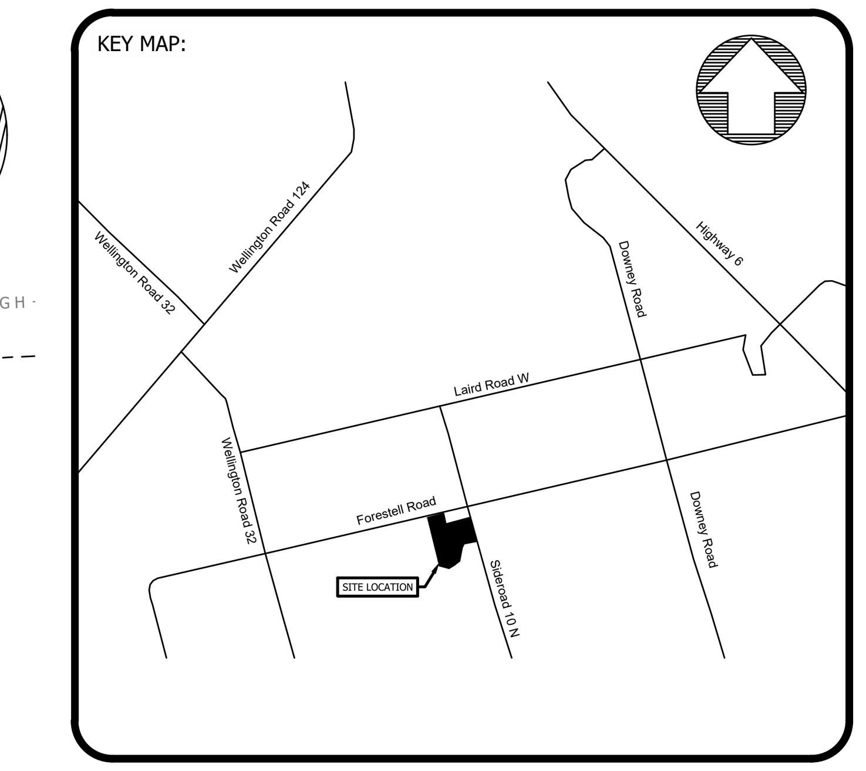
LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DESIGNED BY:	JAS
DRAWN BY:	JAS
DRAWING: SHEET:	4076 3 of 5
CHECKED BY:	BRE
DATE:	Aug 23,2022
SCALE:	Not to Scale
CONTRACT:	CTR-004076
FILE NAME:	4076 Topsoil

Filename: 4076 Topsoil.dwg, 4076 -- Plotted: December 5, 2024 11:55 AM, Jauhars





1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86 Ha
Pr Fill Import Volume	145,000 m^3

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

No.	REVISION/ISSUE	DATE	BY
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

OWNER: [redacted]

LOCATION: Puslinch, Ontario

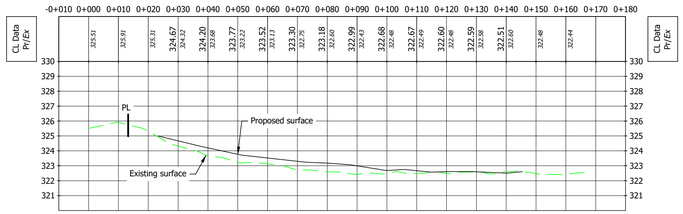
PROJECT: 4670 Sideroad 10 North

DRAWING: Grading Plan

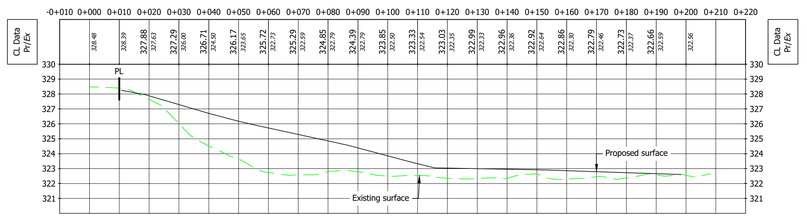
DESIGNED BY: JAS	CHECKED BY: BRE	CONTRACT: CTR-004076
DRAWN BY: JAS	DATE: Aug 23,2022	FILE NAME: 4076.Topsoil
DRAWING: 4076 SHEET: 4 of 5	SCALE: 1:1000	

Filename: 4076.Topsoil.dwg, 4076 -- Plotted: December 5, 2024 11:56 AM, Jauhars

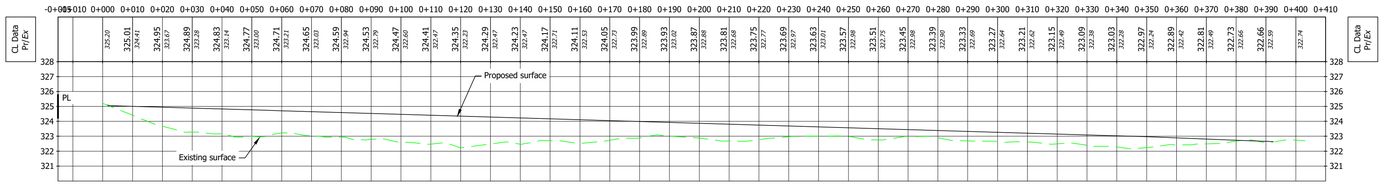
A-A



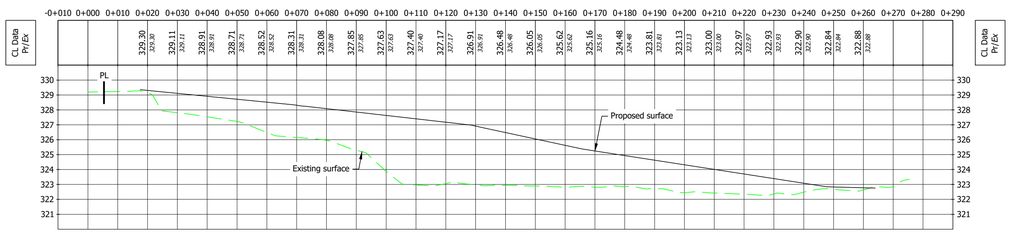
B-B



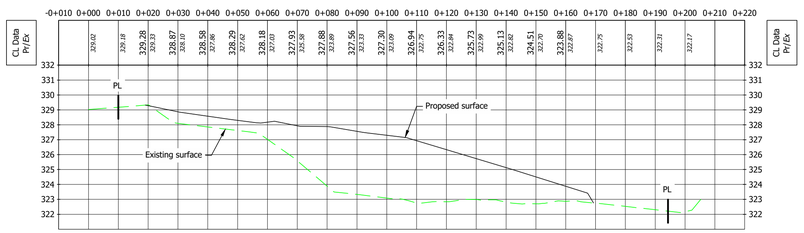
C-C



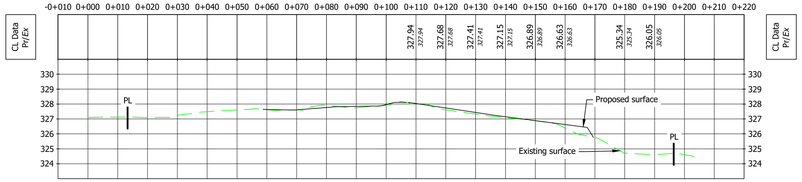
D-D



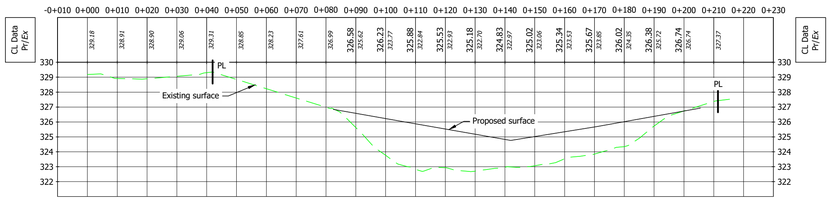
E-E



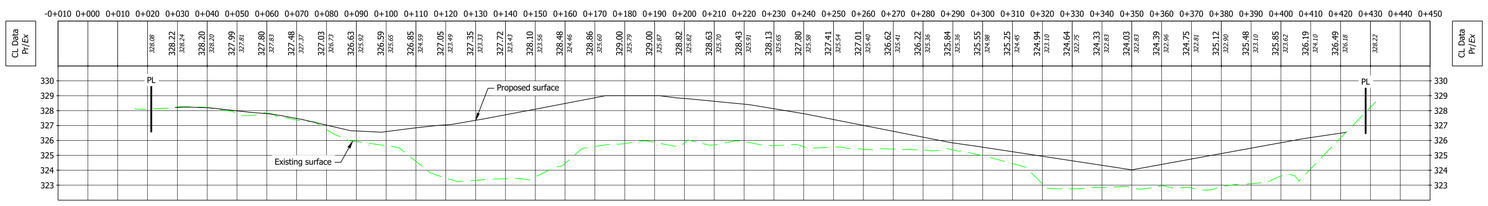
F-F



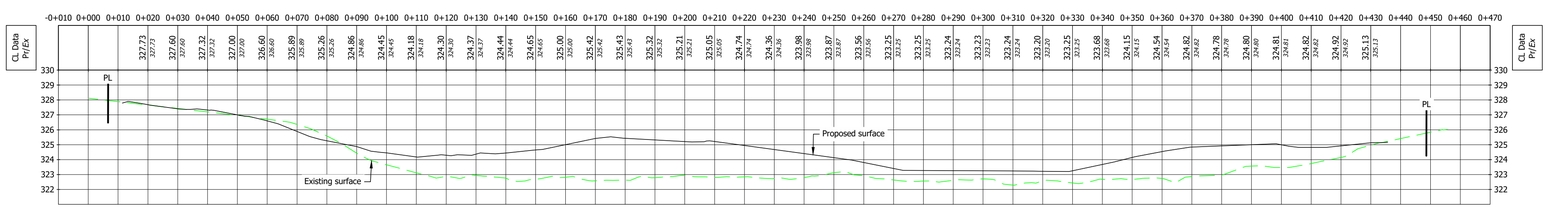
G-G

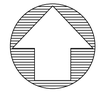


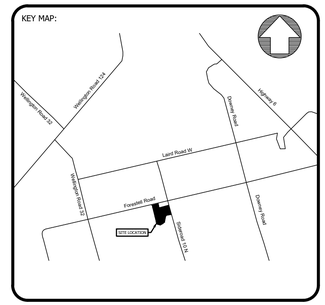
H-H



I-I







1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T: 519.623.1140 F: 519.623.7334 www.meritech.ca

No.	REVISION/ISSUE	DATE	BY
4.	Issued Review and Approval	Dec 5, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

OWNER: [redacted]

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DRAWING: Section View

DESIGNED BY:	JAS	CHECKED BY:	BRE
DRAWN BY:	JAS	DATE:	Aug 23,2022
DRAWING: 4076 SHEET: 5 of 5		SCALE:	1:1000

CONTRACT: CTR-004076

FILE NAME: 4076.Topsoil

0 5 10 20 30 40
1:1000

Filename: 4076.Topsoil.dwg, 4076 – Plotted: December 5, 2024 11:56 AM, Jauhars

Appendix B
Excess Soil Registry Filing

Notice Details

Company Name	**Fortis Environmental Inc.**
Notice ID	**N00001948**
Filing Type	**Reuse Site Notice**
Submission Status	**In Progress**
Notice last updated by	**Andrew Topp on Jan 27, 2025 02:16 PM**

Pre-Screening Questions

Review the notice filling requirements for a reuse site to ensure you are required to submit a notice before you begin your submission. For more information, visit our Excess Soil Webpage.
If you voluntarily file a reuse notice, you will be required to pay the applicable fees and your notice will be publicly available.
Do you wish to proceed?

Yes

Contact Details

Contact Name	**Jerome Nicholls**
Contact Type	**Owner**
Company Name	**Nicholls Ventures Inc.**
Email	**nventuresinc@gmail.com**
Business Phone Number	**9058021189**
Address	**91 Norton Drive, Guelph, Ontario, N1E 7L3**

Contact Name	**Jerome Nicholls**
Contact Type	**Operator**
Company Name	**Nicholls Ventures Inc.**

Email	**nventuresinc@gmail.com**
Business Phone Number	**9058021189**
Address	**91 Norton Drive, Guelph, Ontario, N1E 7L3**

Site Details

Site Name	**4670 Sideroad 10 North, Puslinch - Residential Alteration**
Description of the Reuse Site	**Import material for the purpose of site alteration to improve the grade and workability of present lands.**
Type of Undertaking	**Other**
Description of the Undertaking	**Grading of the present site topography in order to improve the workability of the lands for residential purposes**

Properties

Property Description	
Primary	✓
Municipality	**Puslinch, Township of**
Municipal Address	**4670 Sideroad 10 North, Puslinch, Ontario, N1H6J3, Canada**
Latitude	**43.47160**
Longitude	**-80.25400**
Legal Description of the Property	

Site Instrument Details

Issuing Type	Issuing Authority ID	Issued To	Issue Date

Property Use

Current Property Uses	**Agricultural,Residential**
Future Property Uses	**Agricultural,Residential**

Soil Details

Excess Soil Quality Standards Applicable to your filing

- [x] From Excess Soil Quality Standard Tables (provide details)
- [ ] Site-specific Excess Soil Quality Standard with BRAT or Risk Assessment (provide details)
- [ ] Site-specific Excess Soil Quality Standard from Site Instrument

Excess Soil Quality Standard Tables

Volume	Applicable Table	Type of Property Use
Volume Independent	Table 2.1 - Full Depth, Potable	Residential/Parkland/Institutional

Additional information

Soil details

Date first load of excess soil was or will be deposited:	**31-Jan-2025**
Estimated date final load of excess soil deposited:	**31-Dec-2028**
Inventory amount of excess Soil (m3):	**0.00**
Total amount of excess Soil to be deposited (m3):	**145000.00**

Appendix C
Excess Soil Quality Standards (Table 2.1)

TABLE 2.1: Full Depth Excess Soil Quality Standards in a Potable Ground Water Condition

Volume Independent (Unit in µg/g)

Contaminant	Agricultural or Other Property Use	Residential/ Parkland/ Institutional Property Use	Industrial/ Commercial/ Community Property Use
Acenaphthene	2.5	2.5	2.5
Acenaphthylene	0.093	0.093	0.093
Acetone	0.5	0.5	0.5
Aldrin	0.05	0.05	0.088
Anthracene	0.058	0.16	0.16
Antimony	7.5 [a]	7.5 [a]	40 [a]
Arsenic	11	18	18
Barium	390 [a]	390 [a]	670 [a]
Benzene	0.02	0.02	0.02
Benz[a]anthracene	0.5	0.5	0.92
Benzo[a]pyrene	0.31	0.31	0.31
Benzo[b]fluoranthene	3.2	3.2	3.2
Benzo[ghi]perylene	6.6	6.6	13
Benzo[k]fluoranthene	3.1	3.1	3.1
Beryllium	4 [a]	4 [a]	8 [a]
Biphenyl 1,1'-	0.05	0.05	0.05
Bis(2-chloroethyl)ether	0.5 [a]	0.5 [a]	0.5 [a]
Bis(2-chloroisopropyl)ether	0.5 [a]	0.5 [a]	0.5 [a]
Bis(2-ethylhexyl)phthalate	5	5	9.9
Boron (Hot Water Soluble)*	1.5	1.5	2
Boron (total)	120 [a]	120 [a]	120 [a]
Bromodichloromethane	0.05	0.05	0.05
Bromoform	0.05	0.05	0.05
Bromomethane	0.05 [a]	0.05 [a]	0.05 [a]
Cadmium	1 [a]	1.2	1.9 [a]
Carbon Tetrachloride	0.05 [a]	0.05 [a]	0.05 [a]
Chlordane	0.05	0.05	0.05
Chloroaniline p-	0.5 [a]	0.5 [a]	0.5 [a]
Chlorobenzene	0.083	0.083	0.083
Chloroform	0.05	0.05	0.05
Chlorophenol, 2-	0.1	0.1	0.1
Chromium Total	160 [a]	160 [a]	160 [a]

Contaminant	Agricultural or Other Property Use	Residential/ Parkland/ Institutional Property Use	Industrial/ Commercial/ Community Property Use
Chromium VI	8	8	8
Chrysene	7	7	9.4
Cobalt	22 [a]	22 [a]	80 [a]
Copper	140 [a]	140 [a]	230 [a]
Cyanide (CN-)	0.051	0.051	0.051
Dibenz[a h]anthracene	0.57	0.57	0.7
Dibromochloromethane	0.05	0.05	0.05
Dichlorobenzene, 1,2-	3.4 [a]	3.4 [a]	6.8 [a]
Dichlorobenzene, 1,3-	0.26	0.26	0.26
Dichlorobenzene, 1,4-	0.05 [a]	0.05 [a]	0.05 [a]
Dichlorobenzidine, 3,3'-	1 [a]	1 [a]	1 [a]
Dichlorodifluoromethane	1.5	1.5	1.5
DDD	3.3	3.3	4.6
DDE	0.26	0.26	0.52
DDT	0.078	1.4	1.4
Dichloroethane, 1,1-	0.05	0.05	0.05
Dichloroethane, 1,2-	0.05 [a]	0.05 [a]	0.05 [a]
Dichloroethylene, 1,1-	0.05 [a]	0.05 [a]	0.05 [a]
Dichloroethylene, 1,2-cis-	0.05 [a]	0.05 [a]	0.05 [a]
Dichloroethylene, 1,2-trans-	0.05 [a]	0.05 [a]	0.05 [a]
Dichlorophenol, 2,4-	0.1	0.1	0.1
Dichloropropane, 1,2-	0.05 [a]	0.05 [a]	0.05 [a]
Dichloropropene,1,3-	0.05	0.05	0.05
Dieldrin	0.05 [a]	0.05 [a]	0.088 [a]
Diethyl Phthalate	0.5 [a]	0.5 [a]	0.5 [a]
Dimethylphthalate	0.5 [a]	0.5 [a]	0.5 [a]
Dimethylphenol, 2,4-	0.43	0.43	0.43
Dinitrophenol, 2,4-	2 [a]	2 [a]	2 [a]
Dinitrotoluene, 2,4 & 2,6-	0.5 [a]	0.5 [a]	0.5 [a]
Dioxane, 1,4	0.2 [a]	0.2 [a]	0.2 [a]
Dioxin/Furan (TEQ)	0.000013	0.000013	0.000022
Endosulfan	0.04	0.04	0.04
Endrin	0.04 [a]	0.04 [a]	0.04 [a]
Ethylbenzene	0.05	0.05	0.05
Ethylene dibromide	0.05 [a]	0.05 [a]	0.05 [a]

Contaminant	Agricultural or Other Property Use	Residential/ Parkland/ Institutional Property Use	Industrial/ Commercial/ Community Property Use
Fluoranthene	0.69	0.69	2.8
Fluorene	6.8	6.8	6.8
Heptachlor	0.072	0.072	0.072
Heptachlor Epoxide	0.05 [a]	0.05 [a]	0.05 [a]
Hexachlorobenzene	0.034	0.034	0.034
Hexachlorobutadiene	0.01	0.01	0.01
Hexachlorocyclohexane Gamma-	0.01	0.01	0.01
Hexachloroethane	0.01	0.01	0.01
Hexane (n)	2.5	2.5	2.5
Indeno[1 2 3-cd]pyrene	0.38	0.38	0.76
Lead	45	120	120
Mercury	0.24	0.27	0.27
Methoxychlor	0.13	0.13	0.19
Methyl Ethyl Ketone	0.5	0.5	0.5
Methyl Isobutyl Ketone	0.5	0.5	0.5
Methyl Mercury **	0.00097	0.00097	0.00097
Methyl tert-Butyl Ether (MTBE)	0.05	0.05	0.05
Methylene Chloride	0.05	0.05	0.05
Methlynaphthalene, 2-(1-) ***	0.096	0.59	0.59
Molybdenum	6.9 [a]	6.9 [a]	40 [a]
Naphthalene	0.2	0.2	0.2
Nickel	100 [a]	100 [a]	270 [a]
Pentachlorophenol	0.1	0.1	0.34
Petroleum Hydrocarbons F1****	17	25	25
Petroleum Hydrocarbons F2	10	10	26
Petroleum Hydrocarbons F3	240	240	240
Petroleum Hydrocarbons F4	2800	2800	3300
Phenanthrene	6.2	6.2	12
Phenol	2.4	2.4	2.4
Polychlorinated Biphenyls	0.35	0.35	0.78
Pyrene	28	28	28
Selenium	2.4 [a]	2.4 [a]	5.5 [a]
Silver	20 [a]	20 [a]	40 [a]
Styrene	0.05	0.05	0.05
Tetrachloroethane, 1,1,1,2-	0.05	0.05	0.05

Contaminant	Agricultural or Other Property Use	Residential/ Parkland/ Institutional Property Use	Industrial/ Commercial/ Community Property Use
Tetrachloroethane, 1,1,2,2-	0.05 [a]	0.05 [a]	0.05 [a]
Tetrachloroethylene	0.05 [a]	0.05 [a]	0.05 [a]
Thallium	1 [a]	1 [a]	3.3 [a]
Toluene	0.2	0.2	0.2
Trichlorobenzene, 1,2,4-	0.17	0.17	0.51
Trichloroethane, 1,1,1-	0.11	0.11	0.12
Trichloroethane, 1,1,2-	0.05	0.05	0.05
Trichloroethylene	0.05 [a]	0.05 [a]	0.05 [a]
Trichlorofluoromethane	0.17	0.25	0.25
Trichlorophenol, 2,4,5-	0.11	0.11	0.11
Trichlorophenol, 2,4,6-	4.4 [a]	4.4 [a]	10 [a]
Uranium	23 [a]	23 [a]	33 [a]
Vanadium	86	86	86
Vinyl Chloride	0.02	0.02	0.02
Xylene Mixture	0.091	0.091	0.091
Zinc	340 [a]	340 [a]	340 [a]
Electrical Conductivity (mS/cm)	0.7	0.7	1.4
Sodium Adsorption Ratio	5	5	12

Notes:

[a]: Leachate analysis is required only for contaminants that are identified as contaminants of potential concern in *excess soil* (as specified in subsection 1 (7) in Section A of PART II of this document).

*: The boron standards are for hot water soluble extract for all *surface soils*. For *subsurface soils* the standards are for total boron (mixed strong acid digest), since plant protection for *soils* below the root zone is not a significant concern.

**: Analysis for methyl mercury only applies when mercury (total) standard is exceeded.

***: The methyl naphthalene standards are applicable to both 1-methyl naphthalene and 2- methyl naphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.

****: F1 fraction does not include benzene, toluene, ethylbenzene and xylene (BTEX); however, the proponent has the choice as to whether or not to subtract BTEX from the analytical result.

Appendix D
Excess Soil Profile Sheet

Excess Soil Profile Sheet

Instructions:

Please complete the following form. This form must be completed as accurately as possible. Material cannot be accepted at The ReUse Site unless this Excess Soil Profile Sheet (ESPS) has been submitted and approved.

Source Site Information

Owner's Name: **Contact Person:**

Mailing Address: **Telephone (Cell):**

Source Site Address: **Telephone (Office):**

City / Province: **Email Address:**

Land Use of the Source Site (Agricultural / Residential / Commercial / Industrial / Other:)

Description of the source site:

Describe the nature of the excess material:

***Does the source site retain a Qualified Person (Q.P.) ?** Y ◯ N ◯

If yes please provide the following information

Source Site Information – QP

Name: **Company:**

Address: **Telephone (Cell):**

P.Eng / P.Geo license number: **Telephone (Office):**

City / Province: **Email Address:**

Hauler Information

Company Name: **Contact Person:**

Mailing Address: **Telephone (Cell):**

Source Site Address: **Telephone (Office):**

City / Province: **Email Address:**

MECP License Number:

Excess Material Description

Estimated Quantify of Soil (Truck loads, Trailer Loads, Metric Tonnes or Cubic Meters - please specify):

% of Sand: **% of Silt:** **% of Clay:** **% of Topsoil:** **% of Concrete:** **% of Brick:**
% of metal: **% of wood:** **% of other:** **:**

Has Analytical Testing Been Completed? If Yes, please provide which criteria the material meets (The most stringent):

Table:

Land Use:

Texture:

Sampling Requirements (at least one of each is required)

VOCs, PHCs, PAHs, Metals + Inorganics, TCLP Heavy Metals

If not all analyses were conducted, please provide rational as to why:

Acknowledgment

The Customer acknowledges that the information provided in this profile as well as all other supporting analytical results are a true and accurate representation of the material to be shipped to 708 Ski Hill Road in Bethany / ON. The customer understands and acknowledges that the failure to properly describe the material could result in Nicholson Brothers (The owner of the fill site) incurring expenses (administrative, professional, legal, regulatory penalties, fines or orders) in order to properly dispose of the material and to comply with the applicable laws. The Customer agrees to indemnify The Property Owner for all costs that may arise from the misrepresentation of the material.

Authorized Person:

Signature:

Date:

Please fill out this form and email it to: atopp@fortisenv.ca

For Office Use Only:

Date of Receipt:

Is Analyses Included:

Has Analyses been reviewed by a QP:

Criteria:

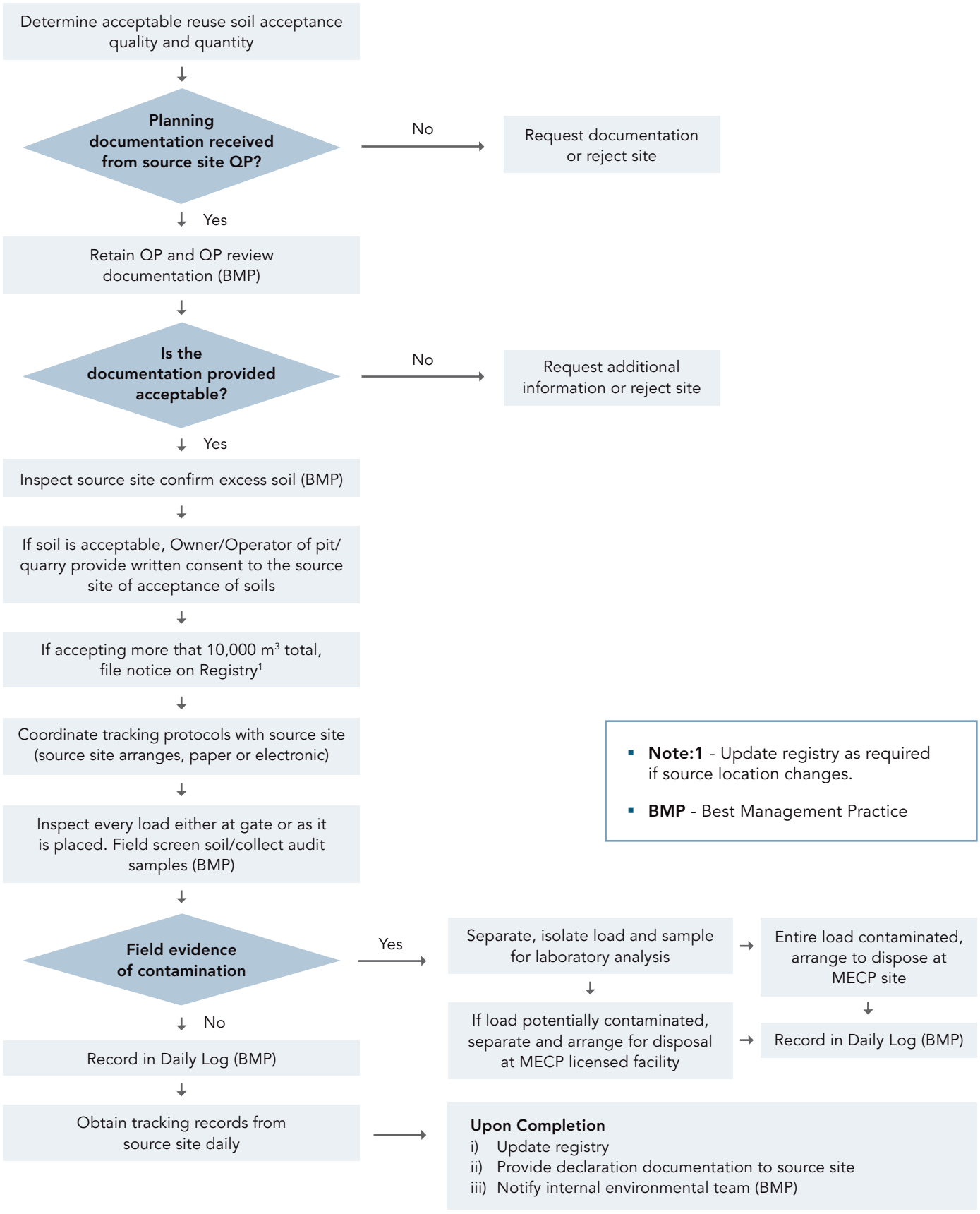
Approved by:

Date:

Assigned Job #:

Appendix E
Receiving Soil Flow Chart

Receiving Excess Soils at Aggregate Operations



Appendix F
Checklist for Each Source Site

Checklist for Importation of Soil for Pit/Quarry Rehabilitation

(to completed for each Source Site)

	Activity	*Yes* [1]	*No*	*Comments*
1.	**Background**			
a.	Has the quality and quantity of soil for acceptance been determined for your site? (this may be indicated on the site plans or licence issued for your site)	☐	☐	
b.	Has a fill committee or environmental coordinator been established?	☐	☐	
c.	Has a Qualified Person (QP) been retained for your site?	☐	☐	
d.	Do you know where excess soil is to be placed at the Site or has a fill management plan been prepared indicating where and how soils are to be placed?	☐	☐	
2.	**Planning (Prior to acceptance of excess soil)**			
	Background Soil Characterization Documentation			
a.	Has there been initial contact and coordination with the Source Site of the excess soils?	☐	☐	
b.	Has background documentation on the excess soils to be imported been provided or requested? If the response is no, please request this information.	☐	☐	
c.	Has the following documentation been provided or requested from the Source Site?:	☐	☐	
	i. Assessment of Past Uses of the Source Site	☐	☐	
	ii. Sampling and Analysis Plan	☐	☐	
	iii. Soil Characterization Report	☐	☐	
	iv. Soil Destination Report	☐	☐	
d.	Has a member of the Fill Committee or QP reviewed the background documentation and provided written acceptance of the excess soil? Some key items that should be reviewed for consistency with the Excess Soil Rules (see Excess Soil Rules for details) include:	☐	☐	
	▪ Does the Assessment of Past Uses provide a determination the one or more contaminants may have affected the excess soil? ▪ Does the Assessment of Past Uses identify areas of potential environmental concern (APECs)? ▪ Is a figure provided showing location and depth of excess soil on the Source Site and the distribution of contaminants? ▪ Have soil samples been collected within the area where excess soil is to be generated? ▪ Frequency of samples analyzed based on volume of soil to be imported consistent with Regulation? ▪ Is the analysis of the samples consistent with the contaminants of concern and areas of environmental concern identified in the Assessment of Past Uses ▪ Have the reports been prepared or overseen by a QP? ▪ Is the sampling plan and characterization of the excess soil consistent with the requirements of the Regulation? ▪ What standards have the soil analytical results been assessed to? Do the results met the quality standards determined for your site? ▪ Characterization of the distribution of contaminants in soil stockpiles? ▪ Does the sampling program satisfy the minimum sampling requirements in the Regulation? ▪ Has mandatory leachate analysis been undertaken?			
e.	Has the Source Site been inspected by someone from the Fill Committee or QP to provide assurance that the requirements are met? *(BMP)*	☐	☐	
f.	Has Fill Committee or environmental coordinator been notified of acceptance excess soil? Have they acknowledged acceptance of soils?	☐	☐	
	Tracking System			
g.	Has a tracking system for the excess soil been coordinated with the Source Site? (i.e., paper or electronic)	☐	☐	
h.	Has the Source Site provided details on implementation of the tracking system?	☐	☐	
i.	Has Source Site provided details on how tracking records will be provided per truck and daily?	☐	☐	
j.	Has the Fill Committee or Environmental Representative or QP reviewed and accepted the proposed tracking system?	☐	☐	
	Documentation Control			
k.	Is a system is place to store and maintain records for the soil importation? *(BMP)*	☐	☐	
3.	**Registry Notice (comes into effect January 2022)**			
a.	If more that 10,000 m^3 in total is to be imported for entire project, has notice been filed on Registry by you or someone from the Fill Committee **prior** to the importation of any soil from each Source Site?	☐	☐	
b.	Have you or someone from the Fill Committee updated the Registry to indicate amount of soil removed and date last load of soil removed? (i.e., must be done within 30 days after soil removed)	☐	☐	
c.	Has the Registry been updated to indicate any changes in the amount of soil recieved and/or the Source Site location? (i.e., must be done within 30 days of change)	☐	☐	
4.	**Acceptance of Excess Soil**			
a.	Has written consent been provided to the Source Site for the acceptance of the excess soil?	☐	☐	
b.	Has the QP for the source site provided written declaration that was involved in the preparation of the planning documentation that the reports prepared are complete and accurate ? Contents of the declaration are discussed in the Excess Soil Reuse Rules (see Section B(6) of the Rules).	☐	☐	
5.	**Importation and Placement of Excess Soil**			
a.[3]	A system must be in place to inspect **each** truck load prior entering the site. Has every truck load been inspected at the gate prior to the truck entering the site? Under any circumstances, excess soil in any truck shall not contain any of the following and shall not be permitted to enter the site:	☐	☐	
	▪ Any putrescible materials except for small amounts of vegetation. ▪ Drums and containers. ▪ Stained or discoloured earth in contrast with adjoining soil. ▪ Excess soil containing debris. ▪ Trash/garbage or waste. ▪ Suspected odours that emanate when the earth is disturbed. ▪ Oily residue intermixed with earth. ▪ Sheens, films or discolorations on soil. ▪ Concrete. Concrete, crushed concrete or concrete product fines/sludges. ▪ Cinders/ash or other combustion by products, like ash. ▪ Free of termites and invasive species. ▪ The excess soil shall be dry and shall pass a slump test as outlined in the General Waste Management Regulation (O. Reg. 347 pursuant to the EPA), as may be amended.			
	Note: If the excess soil contains any of the above, the load should be rejected immediately and the Environmental Committee or representative contacted immediately for guidance.			

b.	For **each** truck load, has the driver provided appropriate copies of the tracking documentation for their vehicle and is this documentation consistent with the records provided by the Source Site?	☐	☐	
d.	For **each** truck load, is the soil being placed in accordance with site plans for rehabilitation?	☐	☐	
e.	Is a daily summary log maintained at the Site during the placement of the fill ? As minimum it should include: ▪ Date. ▪ Total number of trucks entering the property. ▪ Total number of trucks accepted. ▪ Total number of trucks rejected (and reasons for rejection). ▪ For each Source Location: ▪ Identification number for each Bill of Lading received on that date.	☐	☐	
f.	*Best Management Practices (BMP). These are optional*			
i.	Placement of fill in designated areas by Source Site?	☐	☐	
ii.	Collection of audit confirmatory soil samples to confirm soil quality? This should be under the supervision of a QP and typically done at a frequency of one sample per 2,000 m^3.	☐	☐	
iii.(3)	Inspection of fill as it is placed? Under no circumstances shall the soil contain any of the materials indicated in Item 4a. The preference is to inspect the soils both at the gate and as it is being placed.	☐	☐	
iv.	Field screening of soil with a Photoionization detector or similar device as it is being placed?	☐	☐	
	If inspection, field screening and audit sampling results are acceptable, has excess soil for that specific Source Site been graded or moved to final placement location?	☐	☐	
v.	Survey of the final location for the fill from each specific Source Site using GPS?	☐	☐	
6.	**Closeout Documentation and Notification**			
a.	Have you or someone from the Fill Committee provided a declaration to the Source Site, stating that every load of excess soil has been received, inspected and accepted for final placement and if soil is temporarily stored at the site, measures are in placed to ensure it does not cause an adverse effect?.	☐	☐	
b.	Has the Environmental Committee or Environmental manager been notified of the completion of the filling activities from each Source Site?	☐	☐	
c.	Is a system in place to ensure records from Source Site and the trucking company are retained for seven years?	☐	☐	

Notes:

(1) Responses to all of the above should be yes. If there is a no response, contact your environmental manager or committee immediately for guidance on next steps.

(2) *BMP* - Best Management Practice

(3) Should excess soil of unacceptable quality be discovered at the Site (either at the gate or during placement), the following will be undertaken:

i. All unacceptable excess soil shall be located and recovered and stockpiled for further inspection sample collection and laboratory analysis by the Qualified Person.

ii. Based on the inspection and analytical results:

1. If the quantity of unacceptable excess soil is minimal (e.g., <10% of load) it can be hand sorted and disposed of off Site.
2. If the quantity is excessive, the entire load is to be isolated and removed from Site.

iii. The rejected excess soil shall be removed to either the Source Site or disposed of at a MECP approved waste disposal site. If the excess soil is transported to an approved waste disposal site, obtain documentation from the MECP approved facility indicating name and location of receiving site, copy of Environmental Compliance Approval, and confirmation that the facility has reviewed and accepted the excess soil. The cost of the management and disposal of the rejected excess soil shall be at the cost of the Source Site.

iv. Importation of the excess soil from the Source Site shall cease until it has been confirmed that the excess soil is acceptable for receipt at the Site.

Checklist for Excess Soil Leaving a Site that is not within a Pit/Quarry Operation

	Activity	*Yes* [1]	*No*	*Comments*
1.	**Background**			
a.	Has an environmental coordinator been established?	☐	☐	
b.	Has a Qualified Person (QP) been retained for your site to oversee or prepare planning documentation	☐	☐	
c.	Will the excess soil be transported off site?	☐	☐	
d.	Is there a requirement to file notice on Registry? See Schedule 2 of O.Reg 406/19 for exemptions. If the response is yes to both 1b and 1c, then complete 2 to 5 below.	☐	☐	
2.	**Planning (Prior to excess soil leaving site)**			
	Background Soil Characterization Documentation			
a.	Is the soil dry? If the soils are wet, passive dewatering may be able to be undertaken before it leaves the site in accordance with Section 6(3) of O. Reg. 406/19 or it would have to be managed as waste and disposed of at a facilitythat has an Environmental Compliance Approval (ECA)	☐	☐	
b.	Is there field evidence of contamination such as debris present in soil or diesel/gasoline odours or sheen on soil? If the response is yes, then a i) reporting to the MECP may be required under Part X of the EPA and ii) QP would need to be retained to collect samples to characterize or oversee characterization of soils for disposal at facility with ECA.	☐	☐	
c.	If there is no field evidence of contamination, has the following documentation been prepared by or overseen by a QP characterizing the quality and quantity of excess soil ?:	☐	☐	
	i. Assessment of Past Uses of the Source Site	☐	☐	
	ii. Sampling and Analysis Plan	☐	☐	
	iii. Soil Characterization Report	☐	☐	
	iv. Soil Destination Report	☐	☐	
	If the response is no, then these documents need to be prepared.			
d.	Based on the documentation prepared, has a potential Source Site been located for acceptance of soils? This is for both soils acceptable for reuse or soils destined to facilities with ECAs	☐	☐	
e.	Has the documentation above been provided to the Resuse Site or site with ECA? If the soil is going to a site with an ECA, there may be specific requirements in the ECA attached to the site for the documentation required.	☐	☐	
f.	Has Fill Committee or environmental coordinator been notified of acceptance excess soil? Have they acknowledged acceptance of soils for placement at reuse site or disposal at site with ECA?	☐	☐	
	Tracking System			
g.	Has the source site provided written consent for the excess soils to be placed at their site? Consent must be provided by the owner or operator of the site.	☐	☐	
h.	Has a tracking system for the excess soil been established? (i.e., paper or electronic)	☐	☐	
i.	Have the details on implementation of the tracking system been provided to the Reuse Site or site with ECA?	☐	☐	
j.	Have details been provided on how tracking records will be provided per truck and daily to the Reuse Site or site with ECA?	☐	☐	
k.	Has the Environmental Coordinator or QP reviewed and accepted the proposed tracking system?	☐	☐	
	Documentation Control			
l.	Is a system is place to store and maintain records for the soil leaving the site? *(BMP)*	☐	☐	
3.	**Registry Notice (comes into effect January 2022)**			
a.	Has notice been filed on Registry by you or someone from the Environmental Committee**prior** to the soil leaving the site?	☐	☐	
b.	Have you or the Environmental Coordinator updated the Registry to indicate the amount of soil removed and date last load of soil removed? (i.e., must be done within 30 days after soil removed)	☐	☐	
c.	Has the Registry been updated to indicate any changes in the amount of soil leaving the site? (i.e., must be donewithin 30 days of change)	☐	☐	
4.	**Excess Soil leaving the Site**			
a.	Are the soils being inspected as they are excavated. Under any circumstances, excess soil destined for a Reuse Site shall not contain:	☐	☐	
	▪ Any putrescible materials. ▪ Drums and containers. ▪ Stained or discoloured earth in contrast with adjoining soil. ▪ Excess soil material containing debris(2). ▪ Trash/garbage or waste(2). ▪ Suspected odours that emanate when the earth is disturbed. ▪ Oily residue intermixed with earth. ▪ Sheens, films or discolorations on groundwater or soil. ▪ Concrete. Concrete, crushed concrete or concrete product fines/sludges(2). ▪ Cinders/ash or other combustion by products, like ash(2). ▪ Free of termites and invasive species. ▪ The excess soil shall be dry and it shall pass a slump test as outlined in the General Waste Management			
	Note: If the excess soil contains any of the above, it should be managed as waste and disposed of at a site with an Environmental Compliance Approval.			
b.	For **each** truck load, has the driver been provided appropriate copies of the tracking documentation for their vehicle and copies provided to the Reuse Site or site with ECA ?	☐	☐	
e.	Is a daily summary log maintained at the Site documenting soil leaving the site ? As minimum it should include: ▪ Date. ▪ Total number of trucks leaving the property. ▪ Total number of trucks accepted. ▪ Total number of trucks rejected (and reasons for rejection). ▪ For each Source Location, Identification number for each Bill of Lading .	☐	☐	
5.	**Closeout Documentation and Notification**			
a.	Have you or the Environmental Coordinator provided written sign off to the Reuse Site?	☐	☐	
b.	Has the Environmental Coordinator been notified of the completion of the soil removal activities	☐	☐	
c.	Is a system in place to ensure records from your site and the trucking company are retained for seven years?	☐	☐	

Notes: (1) Responses to all of the above should be yes. If there is a no response, contact your environmental manager or committee immediately for guidance on next steps.

(2) Depending on the quantity of material present in the soil, removal of debris in accordance with Section 6(3) of O Reg. 406/19 could be undertaken before moving the soil off-site. NOTE: evidence of significant amounts of waste/debris could also indicate former illegal waste disposal activities which may require approval if the waste is to be left in the ground.

(3) Depending on the circumstances, dewatering in accordance with Section 6(3) of O. Reg. 406/19 could be undertaken before moving the soil off-site.

May 6, 2025

Township of Puslinch
7404 Wellington Road 34
Puslinch, ON N0B 2J0

Attention: Justine Brotherston
Interim Director of Corporate Services/Municipal Clerk
Manager of Corporate Services/Deputy Clerk

Dear Ms. Brotherston,

Re: Stormwater Management
4670 Sideroad 10 N, Puslinch
Township of Puslinch

In support of a site alteration permit application, Meritech Engineering has prepared a grading design to facilitate the filling and re-grading of a former gravel pit to improve soil conditions and drainage for current agricultural use. A recently approved building permit application for this property includes the construction of a pole barn and associated access driveway.

It is our opinion that storm water management (SWM) quantity or quality measures are not required for the proposed project. The measures are either not necessary or would be disproportionate. With regards to quantity control, in the rural setting of the project, the proportional increases are negligible considering the impervious area change on the property is calculated to be just over 3%. With regards to quality control, the "clean" barn roof runoff and periodic use of farm access lane will produce runoff with minimal treatment requirements. We note that the storm runoff is conveyed through agricultural lands and then through more than 80m of natural vegetation before arriving at the small watercourse to the north.

We recommend that SWM quantity or quality controls not be required for this project.

Yours very truly,

MERITECH ENGINEERING

[redacted]

Brian Enter, P.Eng.
Project Manager

BE/sk

cc

Meritech Engineering 1315 Bishop St. North Suite 202 Cambridge ON N1R 6Z2 t 519.623.1140
f 519.623.7334

Servicing Legend

- Ex=Existing
- Pr=Proposed
- Ex Sanitary/Storm Manhole/CB Manhole
- Pr Sanitary/Storm Manhole
- Ex Sanitary Sewer (Flow Direction)
- Pr Sanitary Sewer (Flow Direction)
- Ex Storm Sewer (Flow Direction)
- Pr Storm Sewer (Flow Direction)
- Ex Water Valve/Curb Stop
- Pr Water Valve/Curb Stop/Reducer
- Ex Fire Hydrant & Valve Set
- Pr Fire Hydrant & Valve Set
- Siamese Connection

Grading Legend

- 123.45 — Original Ground Elevation
- 123.45 / 123.45 — Proposed Ground Elevation / Original Ground Elevation
- TFE=123.45 / FFE=123.75 / BFE=121.10 — Top Of Foundation Elevation / First Floor Elevation / Basement Floor Elevation
- TC=123.45 — Top Of Casting Elevation
- Retaining Wall
- Armour Stone
- Overland Flow Direction
- 2.0% — Surface Drainage Direction/Slope
- Swale Direction at Lot Corner
- Swale Flow Direction
- D — Drainage Divide Line
- 123 — Draft Plan/R-Plan Lot No.
- Block 23 — Block Number
- #12 — Municipal Address
- (123.45) — Ground Elevation At Face Of Building
- (S.F.) — Denotes Lot Contains Structural Fill
- (N) — Lot Subject To Noise and/or Vibration Measures
- (Infil) — Infiltration Measures Required
- (PRV) — Pressure Reducing Valve Required
- A, B, C and/or D — Lot Grading Type, Per Municipality
- High/Low Point

Utilities Legend

- A/G H — Above Ground Hydro Lines
- U/G H — Below Ground Hydro Lines
- TEL — Above/Below Ground Telephone Lines
- CATV — Above/Below Ground Cable TV Lines
- GAS — Gas Main
- UTI — Combined Utility Ducts (Hydro & Telecommunications)
- U/G H — Underground ducts
- Utility Pole & Guy
- Street Light/Light Pole
- Hydro Transformer/vault
- Utility Pedestal
- Telephone Manhole
- Hydro Meter
- Gas Valve
- Gas Meter

Misc Features Legend

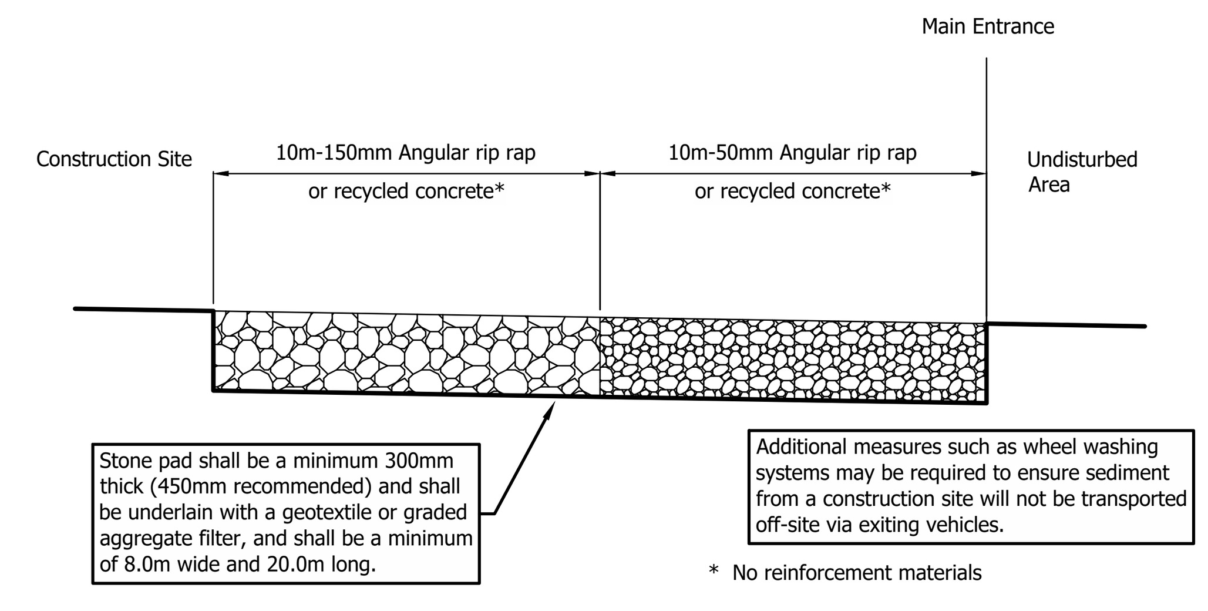
- Ex Building
- Pr Building
- Site Boundary
- BM — Geodetic/Local Benchmark
- Regulatory Floodline
- Community/Single Mailbox
- BH# GWT — Borehole Locations (ID Number & Elevation)
- TP# GWT — Test Pit (ID Number & Groundwater Elevation)
- Vegetation Line (Dripline or Bush/Shrub)
- Trees (Deciduous/Coniferous)
- Landscape Rock/Boulder
- Truncated Dome Plates
- Fencelines
  - Chainlink
  - Post & Wire
  - Board on Board
  - Noise Fence/wall
- Ponding Areas
- On-street Parking Locations Where Lot Frontage Is Less Than 14.0m. Semi-detached Lot Driveway Locations To Be Determined At Time Of Construction.
- Building Entrance (Man Door, Drive-In, Loading Dock)
- Bike Rack
- Downspout Location
- Sump Pump Location, Outlet Direction
- Well
- Specified Driveway Location Depressed Curb
- Signage (Misc & Railway)
- Railway Tracks
- Embankment
- Guardrail
- A — Section Arrow

ESC Legend

- SF / TPF — Silt Fence / Tree Protection Fence
- Topsoil/Material Stockpile Location
- Rock/Straw Bale Check Dam
- Ex/Pr RipRap

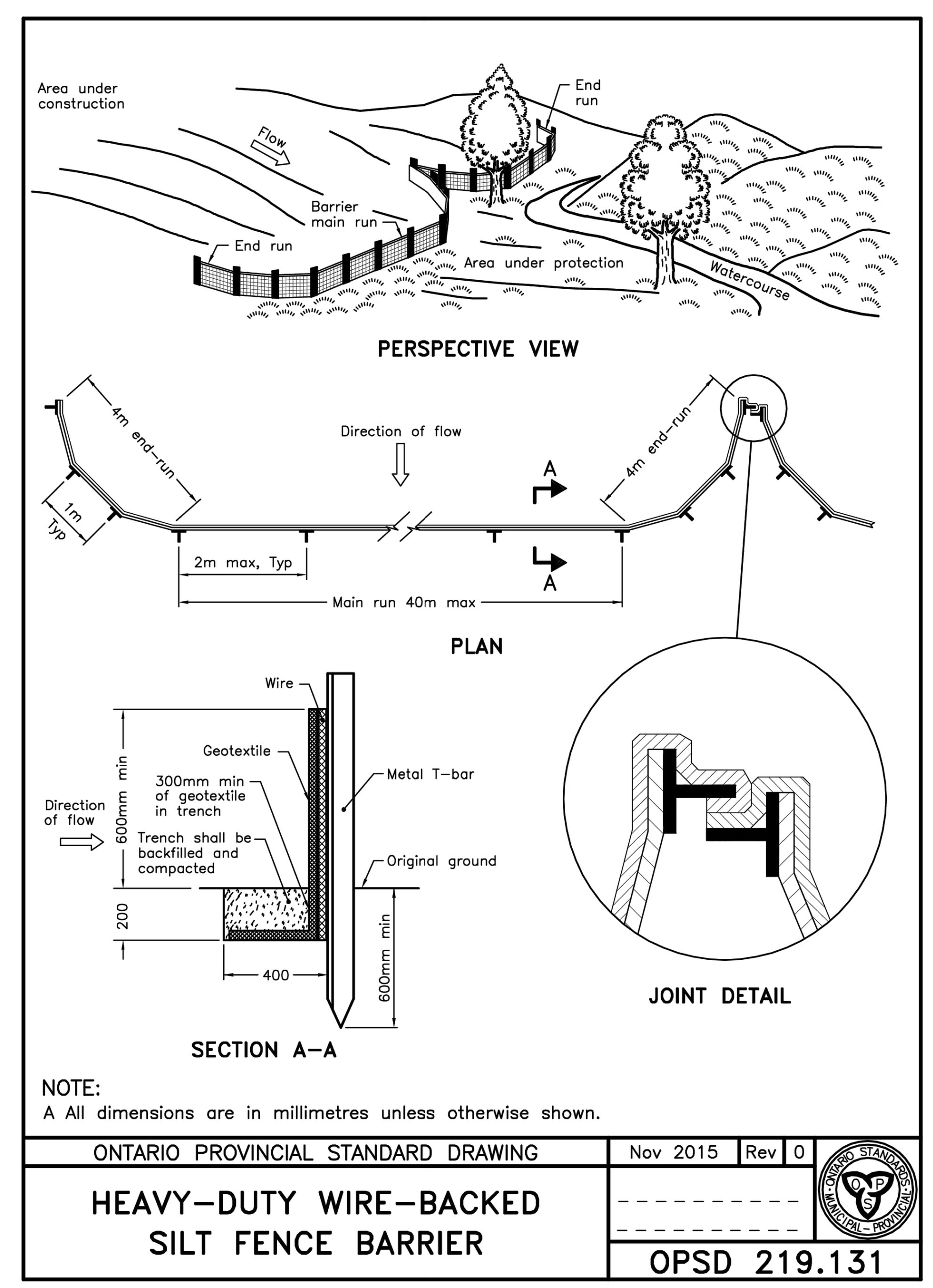
Removals Legend

- Concrete Pavement With Bituminous Surface To Be Removed
- Bituminous Pavement To Be Removed
- Concrete Pavement To Be Removed
- Gravel Surface To Be Removed
- Area To Be Close Cut Cleared
- Area To Be Cleared
- Area To Be Grubbed
- Area To Be Cleared & Grubbed
- or — Items To Be Removed



Construction Entrance (Mud Mat) Detail

Not to Scale



Project Notes

1. All dimensions are in metres unless otherwise noted. This drawing shall not be scaled.
2. All work shall be in accordance with the requirements of the local municipality, the latest relevant sections of the OPSS's, OPSD's, and the Ontario Building Code.
3. Soil Management Regulations: All import or export of soil related to this site is to be completed in conformance with Ontario Regulation 406/19: On-site and Excess Soil Management. Per the regulation, it is the responsibility of the owner to retain a Qualified Person (QP) to investigate and/or develop (or supervise the development of) a site-specific excess soil plan.
4. The Contractor shall obtain all necessary locates & permits prior to commencing work.
5. The Contractor shall notify the Engineer 24 hours prior to constructing any works in order to coordinate inspections.
6. The Contractor shall, at their own cost, install and maintain erosion control measures for the duration of construction, in accordance with local and provincial regulations or as directed by the Engineer.
7. Only drawings stamped "Issued for Construction" shall be used for construction.
8. All embankment slopes are at maximum 3:1, unless otherwise shown.
9. Proposed grades are to match existing grades at the perimeter of the work site, unless otherwise shown.

Specifications

OPSS and OPSD refer to Ontario Provincial Standard Specifications and Drawings.

The following minimum specifications shall apply unless otherwise noted:

1. Excavation, Backfilling, Grading and Compaction:
   a. Work shall be completed in accordance with OPSS.MUNI 206, 401 and 501. (Method A); standard proctor maximum dry density (SPMDD) shall apply.
   b. Earth fill placed as "structural fill" shall be compacted to 98% SPMDD. Each lift shall be inspected and approved by the Geotechnical Engineer.
   c. Surplus topsoil and/or earth shall be stockpiled on the work site; all other material shall be removed from the Work site in accordance with OPSS 180.

Erosion and Sediment Control Notes

1. All works to be done in accordance with OPSS 805.
2. All silt fence to be installed prior to commencement of any area grading, excavating or demolition, unless noted otherwise.
3. Erosion control fencing to be placed around the base of all stockpiles. All stockpiles to be kept a minimum of 5m from all property lines. A 5m maintenance strip must be maintained around all stockpiles (between the stockpile and the fencing).
4. Additional erosion control measures may be required as site development progresses. Contractor to provide all additional erosion control structures in accordance with the contingency allowance.
5. The Engineer shall monitor the site development to ensure all erosion controls are installed and maintained to the municipal requirements, and any damage repaired immediately. Contractor to comply with the Engineer's instructions to install, modify, or maintain erosion control works. Sediments to be removed when accumulations reach a maximum of one third (1/3) the height of the silt fence.
6. All erosion control structures to remain in place until all disturbed ground surfaces have been re-stabilized either by paving or restoration of vegetative ground cover.
7. No alternate methods of erosion control protection shall be permitted unless approved by the Engineer and the municipality.
8. The contractor is responsible for removing sediments from the municipal roadway and sidewalks at the end of each work day.
9. Sediment traps to be provided on site at all locations where construction vehicles exit the site. Sediment traps shall be a minimum of 4.0m wide, 10.0m long and 300mm deep and shall consist of 50-150mm angular rip rap material or approved equivalent. Contractor to ensure all vehicles leave the site via the construction access and that the sediment trap is maintained in a manner to maximize its effectiveness at all times.
10. Areas affected by grading activities shall be topsoiled (125mm minimum thickness) and seeded within 30 days of site activity ceasing.
11. Excess fill material shall not be disposed of within environmentally sensitive areas, including wetlands, woodlots, regulated areas, or adjacent properties.
12. The property owner is responsible for restoration of all damaged and/or disturbed property within the municipal right-of-way to the municipal standards.
13. If, for unforeseen reasons the Owner and/or his/her representative must encroach onto private lands to undertake any works, he/she must obtain written permission from the adjacent property owners prior to entering upon the private property to perform any works. Copies of these letters of consent must be submitted to the municipality, prior to any work being performed. Failure to comply with the above is at the owners own risk.
14. Monitoring and weekly inspection reporting per the municipal requirements.
15. Majority of final land use to be agricultural crops. Any lands not used to be hydro seeded.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

PROFESSIONAL ENGINEER [redacted] PROVINCE OF ONTARIO

No.	REVISION/ISSUE	DATE	BY
6.	Address Township comments	Apr 29, 2025	JAS
5.	Issued for Site Alteration Permit Application	Jan 08, 2025	JAS
4.	Issued for Haul Route Permit	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

OWNER: Gino & Gina Martinello

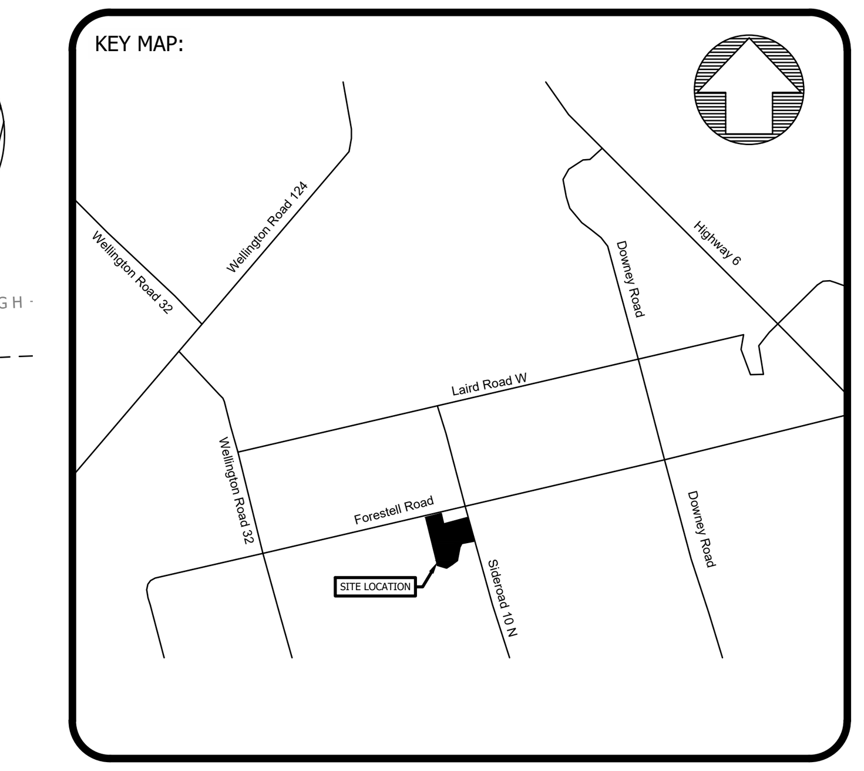
LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DRAWING: Legend, Details & Project Notes

DESIGNED BY: JAS | CHECKED BY: BRE | CONTRACT: CTR-004076
DRAWN BY: JAS | DATE: Aug 23,2022 | FILE NAME: 4076
DRAWING: 4076-1 | SHEET: 1 of 7 | SCALE: Not to Scale

Filename: 4076.dwg, 4076 -- Plotted: May 6, 2025 11:22 AM, Jauhars



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86Ha
Pr Fill Import Volume	145,000 m³

Schedule		
Equipment	Day	Time
Skidsteer		
Bull Dozer		
Water truck		
Packer		

Proposed Work	Start Date	Completion day

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

Information shown on this plan is compiled from various sources, and is believed to be true and accurate. Meritech Engineering has attempted to verify, where possible, all information. The Contractor is responsible for verifying all data and information relative to this project, and indicate any discrepancies to the Engineer prior to commencement of work. Failure to do so will rest sole responsibility of said discrepancies on the Contractor.

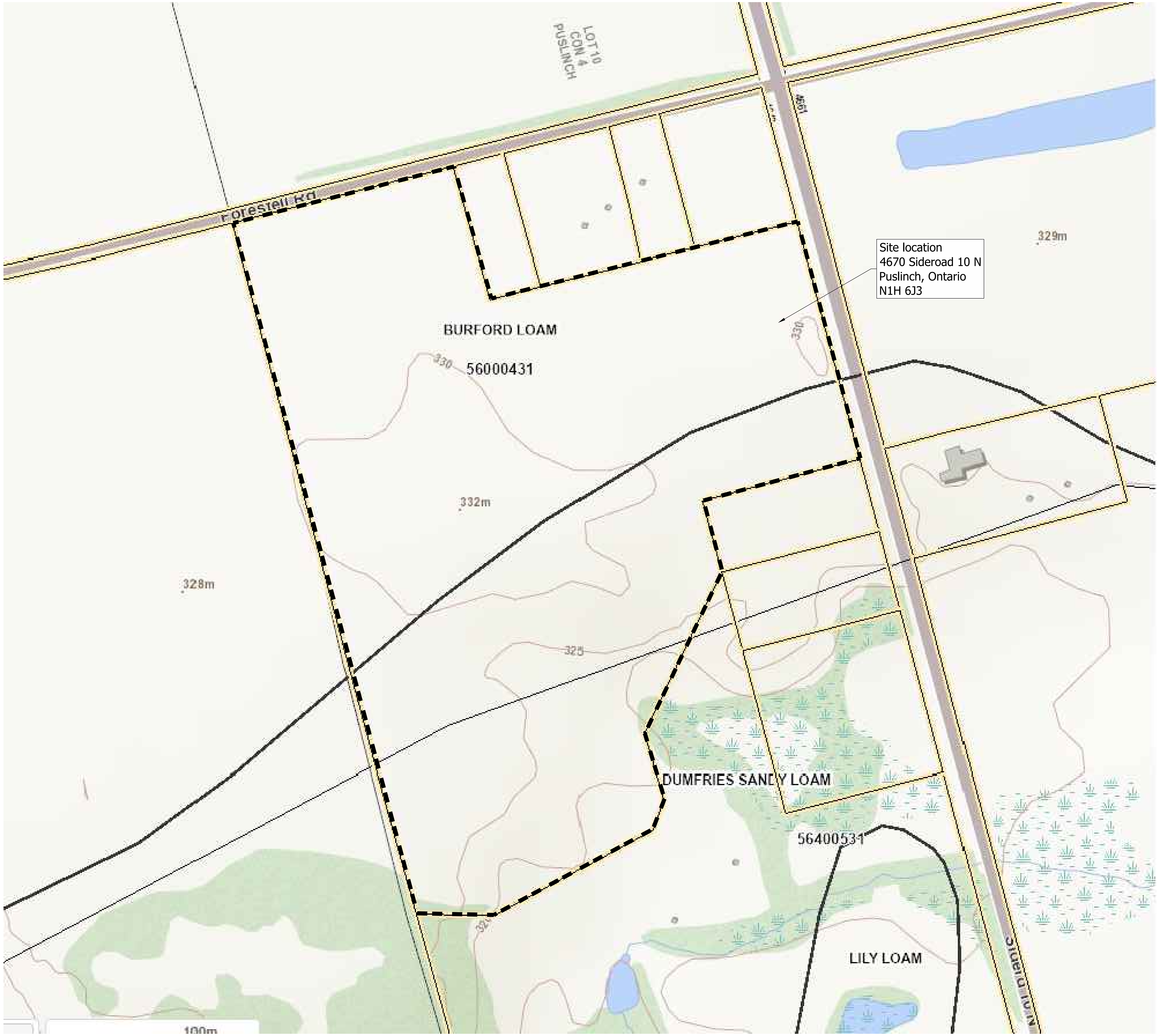
[redacted]

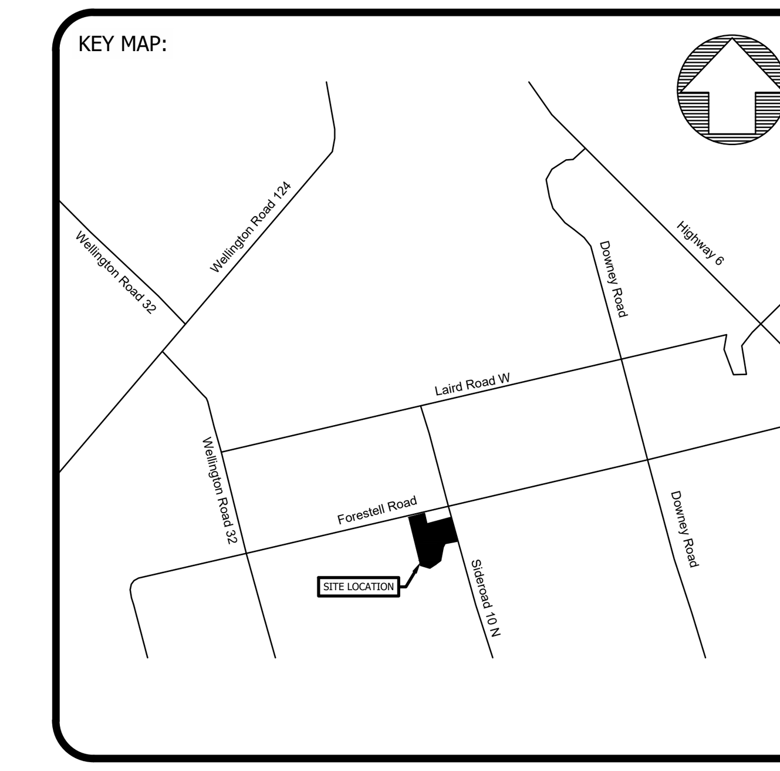
No.	REVISION/ISSUE	DATE	BY
6.	Address Township comments	Apr 29, 2025	JAS
5.	Issued Site Alteration Permit Application	Jan 08, 2025	JAS
4.	Issued for Haul Route Permit	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

OWNER: Gino & Gina Martinello
LOCATION: Puslinch, Ontario
PROJECT: 4670 Sideroad 10 North

DRAWING:
Original Conditions and ESC Plan

DESIGNED BY: JAS | CHECKED BY: BRE | CONTRACT: CTR-004076
DRAWN BY: JAS | DATE: Aug 23,2022 | FILE NAME: 4076
DRAWING: 4076-2 | SCALE: 1:1000 | 1:1000
SHEET: 2 of 7





1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

LICENSED PROFESSIONAL ENGINEER [redacted] PROVINCE OF ONTARIO

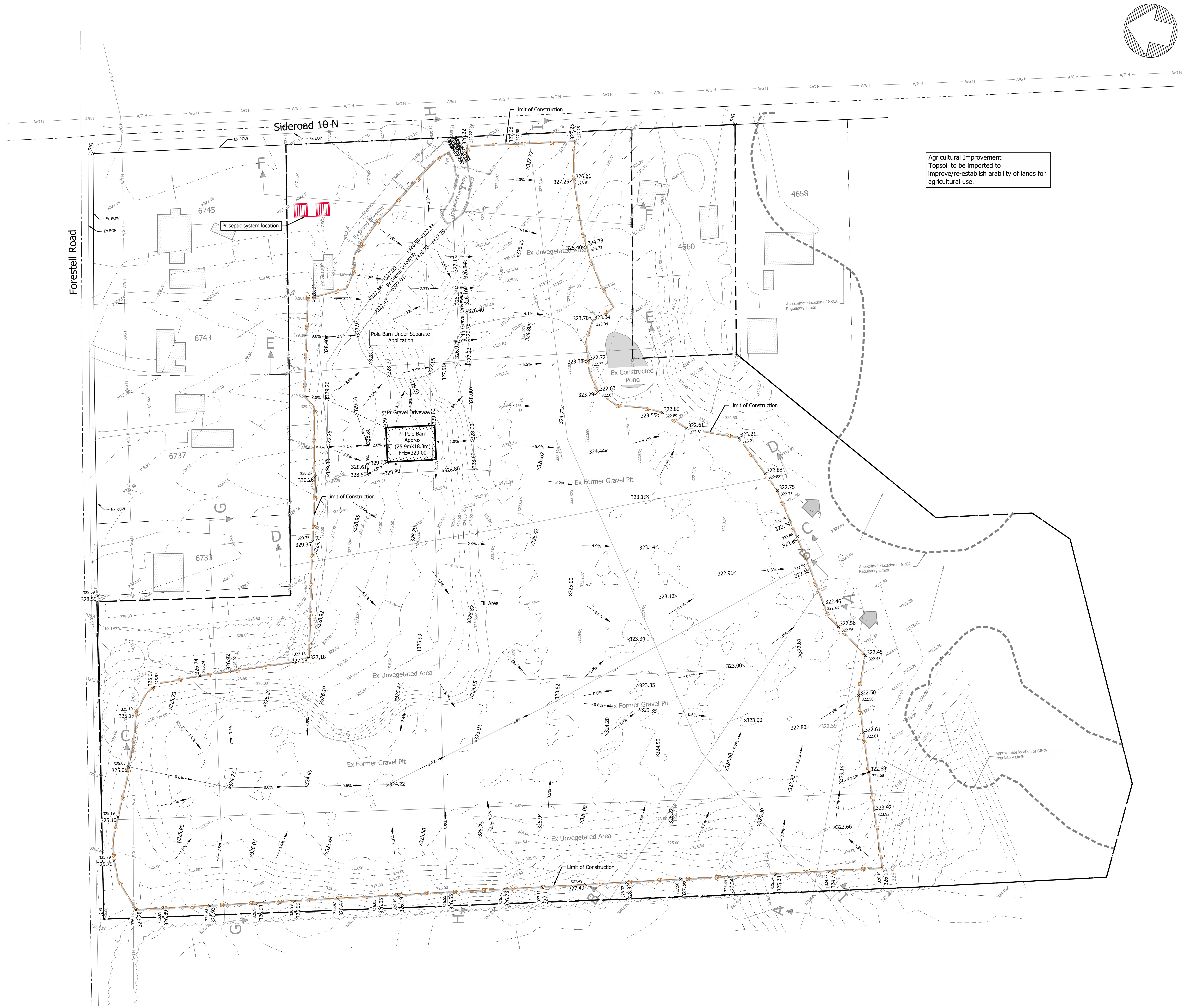
No.	REVISION/ISSUE	DATE	BY
6.	Address Township comments	Apr 29, 2025	JAS
5.	Issued Site Alteration Permit Application	Jan 08, 2025	JAS
4.	Issued for Haul Route Permit	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

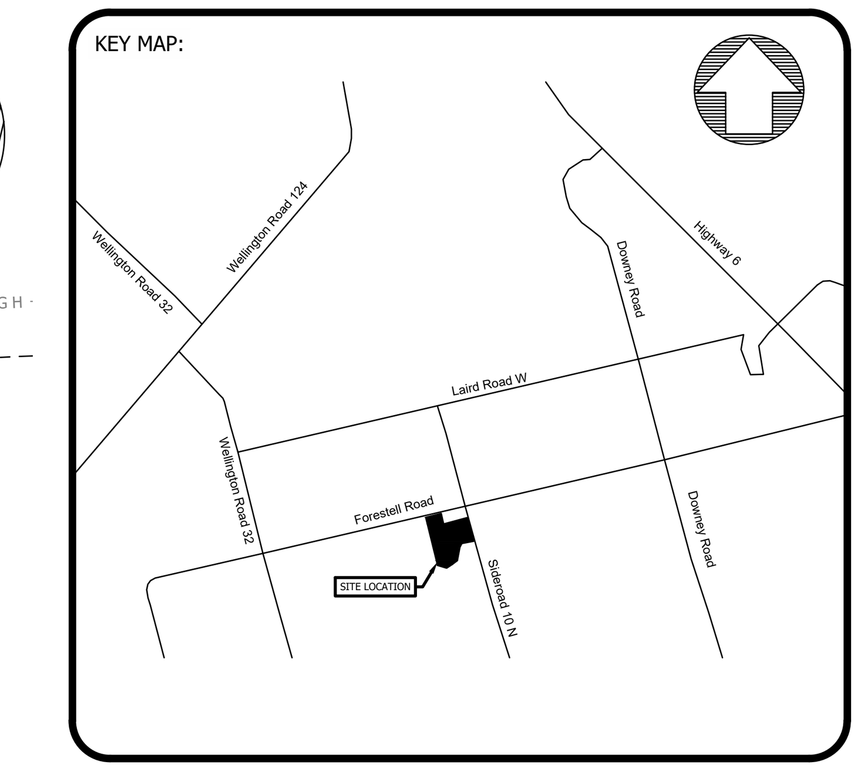
DRAWING:
Predominant Soil Type

OWNER: Gino & Gina Martinello
LOCATION: Puslinch, Ontario
PROJECT: 4670 Sideroad 10 North

DESIGNED BY: JAS	CHECKED BY: BRE	CONTRACT: CTR-004076
DRAWN BY: JAS	DATE: Aug 23,2022	FILE NAME: 4076
DRAWING: 4076-3 SHEET: 3 of 7	SCALE: Not to Scale	

Filename: 4076.dwg, 4076 -- Plotted: May 6, 2025 11:22 AM, Jauhars





1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86 Ha
Pr Fill Import Volume	145,000 m³

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

Information shown on this plan is compiled from various sources, and is believed to be true and accurate. Meritech Engineering has attempted to verify, where possible, all information. The Contractor is responsible for verifying all data and information relative to this project, and indicate any discrepancies to the Engineer prior to commencement of work. Failure to do so will rest sole responsibility of said discrepancies on the Contractor.

LICENSED PROFESSIONAL ENGINEER [redacted] PROVINCE OF ONTARIO

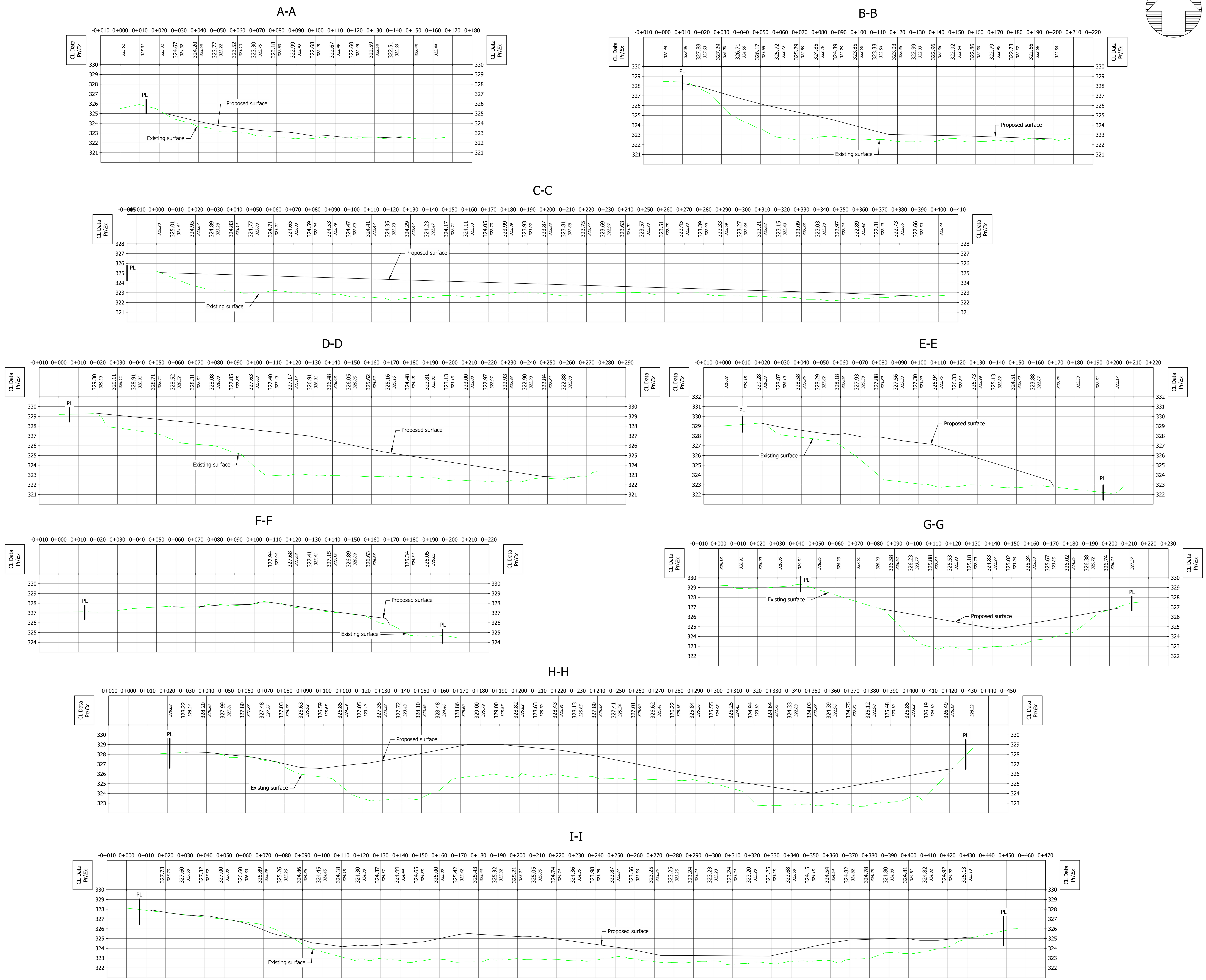
No.	REVISION/ISSUE	DATE	BY
6.	Address Township comments	Apr 29, 2025	JAS
5.	Issued Site Alteration Permit Application	Jan 08, 2025	JAS
4.	Issued for Haul Route Permit	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

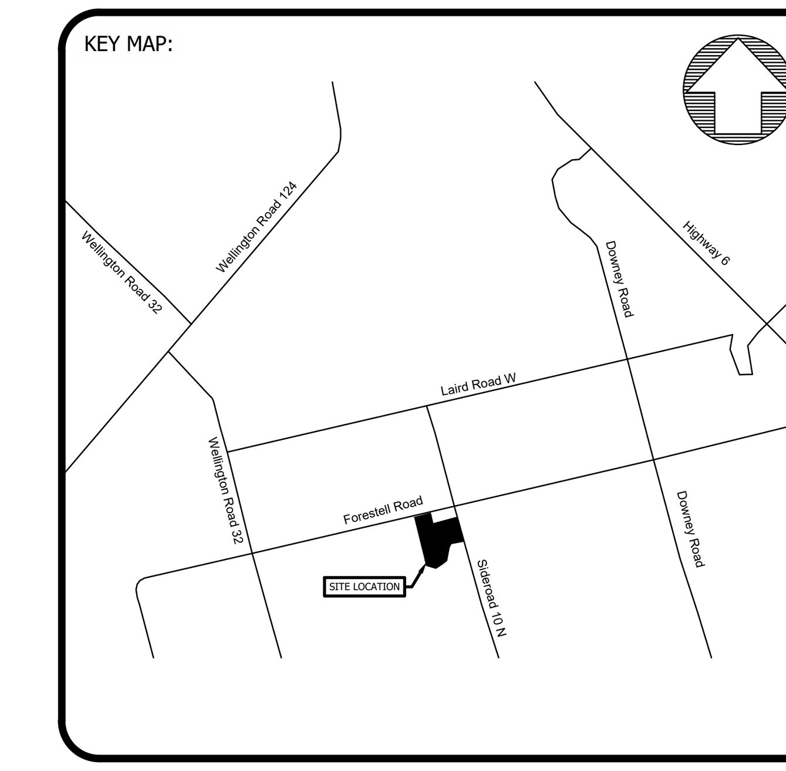
OWNER: Gino & Gina Martinello
LOCATION: Puslinch, Ontario
PROJECT: 4670 Sideroad 10 North

DRAWING: Grading Plan

DESIGNED BY: JAS | CHECKED BY: BRE | CONTRACT: CTR-004076
DRAWN BY: JAS | DATE: Aug 23,2022 | FILE NAME: 4076
DRAWING: 4076-4 | SCALE: 1:1000
SHEET: 4 of 7

Filename: 4076.dwg, 4076 -- Plotted: May 6, 2025 11:22 AM, Jauhars





1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

MERITECH engineering

1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

Information shown on this plan is compiled from various sources, and is believed to be true and accurate. Meritech Engineering has attempted to verify, where possible, all information. The Contractor is responsible for verifying all data and information relative to this project, and indicate any discrepancies to the Engineer prior to commencement of work. Failure to do so will rest sole responsibility of said discrepancies on the Contractor.

LICENSED PROFESSIONAL ENGINEER [redacted] PROVINCE OF ONTARIO

No.	REVISION/ISSUE	DATE	BY
6.	Address Township comments	Apr 29, 2025	JAS
5.	Issued Site Alteration Permit Application	Jan 08, 2025	JAS
4.	Issued for Haul Route Permit	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

OWNER: Gino & Gina Martinello

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DRAWING: Section View

DESIGNED BY: JAS | CHECKED BY: BRE | CONTRACT: CTR-004076

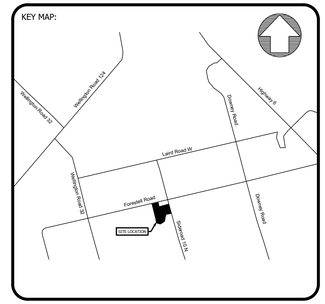
DRAWN BY: JAS | DATE: Aug 23,2022 | FILE NAME: 4076

DRAWING: 4076-5 | SCALE: 1:1000 (0 5 10 20 30 40; 1:1000)

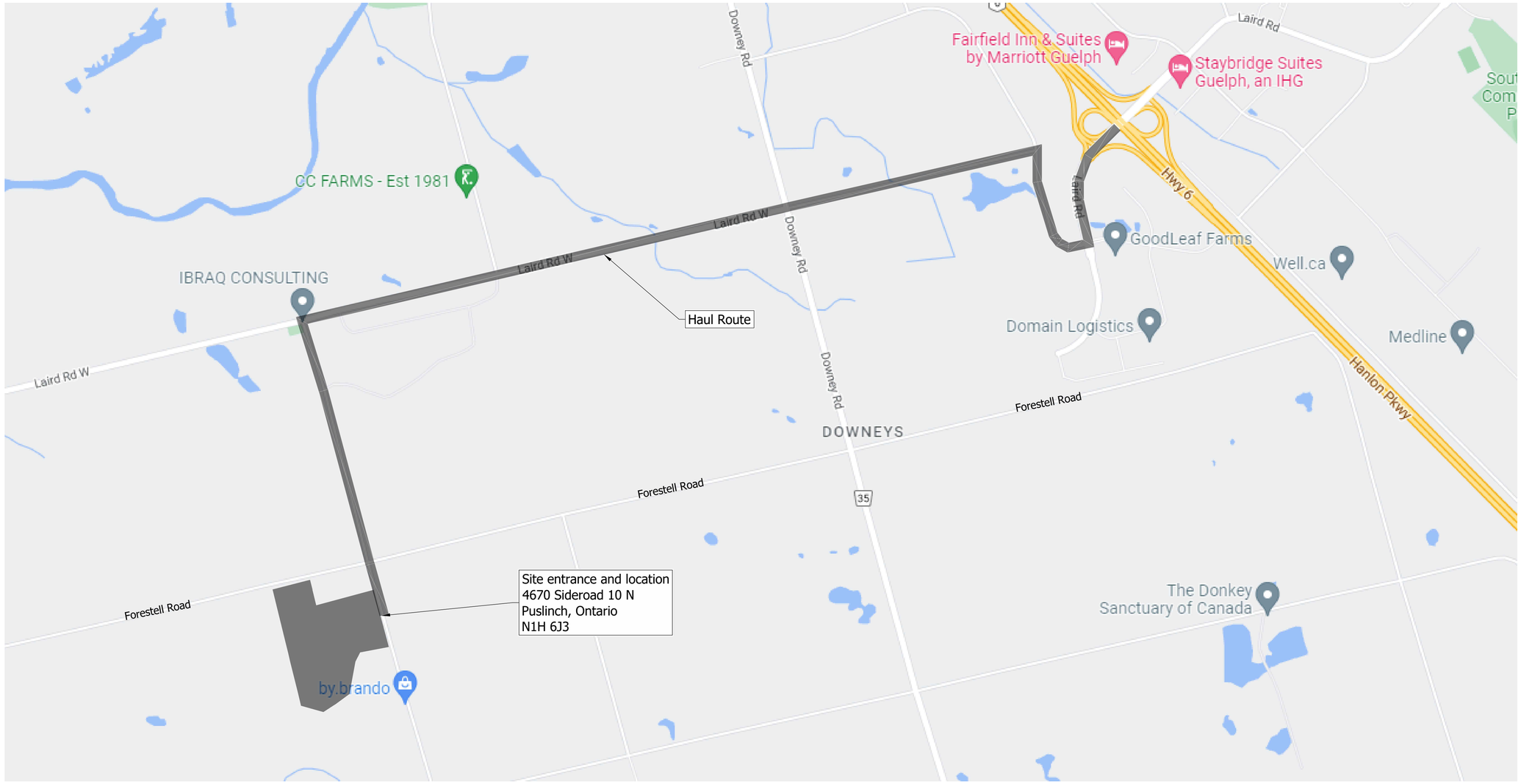
SHEET: 5 of 7

Filename: 4076.dwg, 4076 -- Plotted: May 6, 2025 11:22 AM, Jauhars

KEY MAP:



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.



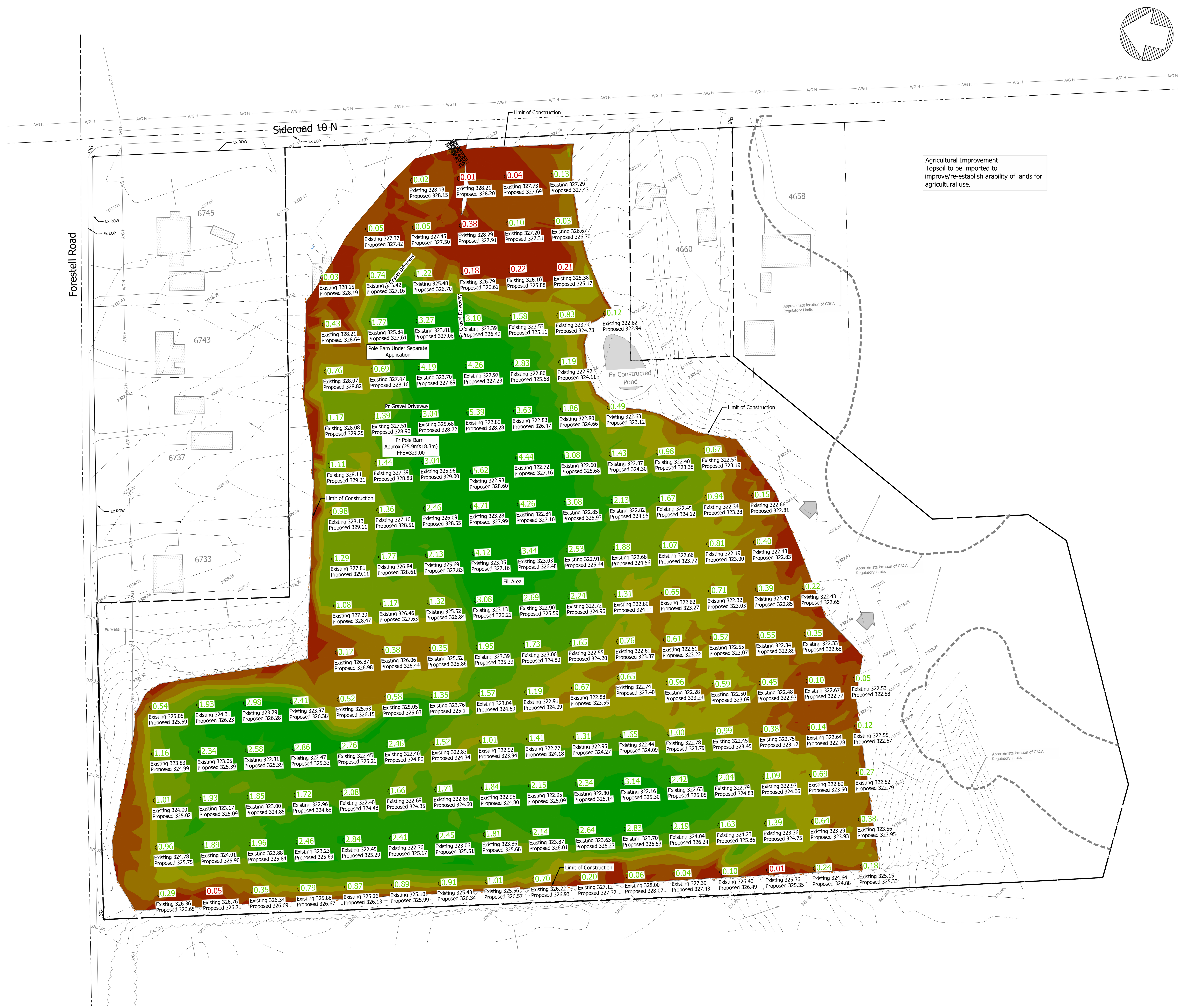
Proposed Haul Route

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

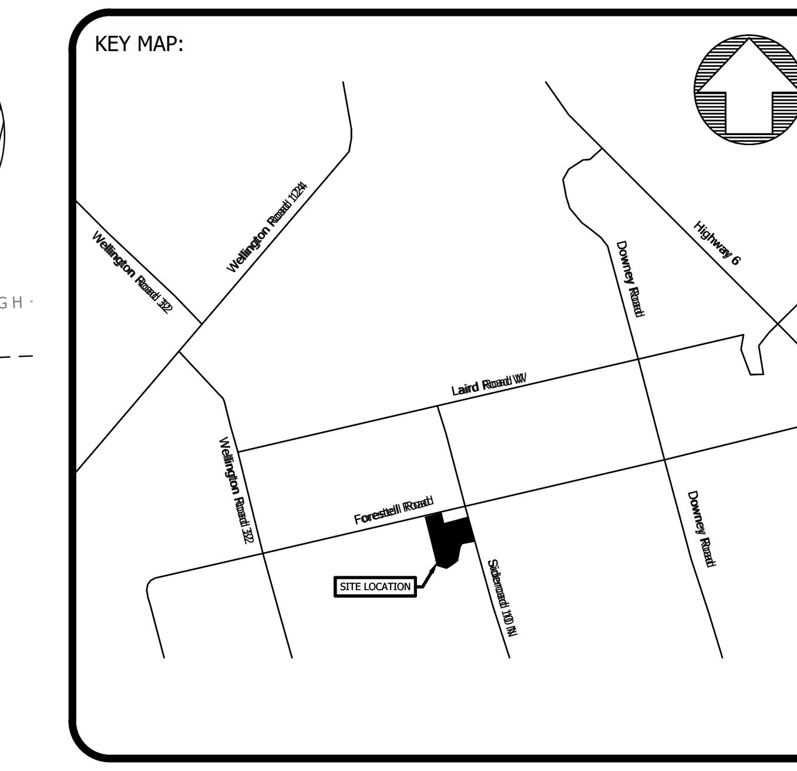
No.	REVISION/ISSUE	DATE	BY
6.	Address Township comments	Apr 29, 2025	JAS
5.	Issued Site Alteration Permit Application	Jan 08, 2025	JAS
4.	Issued for Haul Route Permit	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

DRAWING: Proposed Haul Route
DESIGNED BY: JAS
DRAWN BY: JAS
DRAWING: 4076-6
SHEET: 6 of 7
CHECKED BY: BRE
DATE: Aug 23,2022
SCALE: Not to Scale
CONTRACT: CTR-004076
FILE NAME: 4076
OWNER: Gino & Gina Martinello
LOCATION: Puslinch, Ontario
PROJECT: 4670 Sideroad 10 North

Filename: 4076.dwg, 4076 – Plotted: May 6, 2025 11:22 AM, Jauhars



Agricultural Improvement
Topsoil to be imported to improve/re-establish arability of lands for agricultural use.



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86 Ha
Pr Fill Import Volume	145,000 m³

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

[redacted]

No.	REVISION/ISSUE	DATE	BY
6.	Address Township comments	Apr 29, 2025	JAS
5.	Issued Site Alteration Permit Application	Jan 08, 2025	JAS
4.	Issued for Haul Route Permit	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

OWNER: Gino & Gina Martinello
LOCATION: Puslinch, Ontario
PROJECT: 4670 Sideroad 10 North

DRAWING: General Cut/Fill Plan
DESIGNED BY: JAS
CHECKED BY: BRE
CONTRACT: CTR-004076
DRAWN BY: JAS
DATE: Aug 23,2022
FILE NAME: 4076
DRAWING: 4076-7
SHEET: 7 of 7
SCALE: 1:1000

Filename: 4076.dwg, 4076 -- Plotted: May 6, 2025 11:22 AM, Jauhars