



February 13, 2023 (revised December 13, 2023)

Our File Ref.: 01348

MacEwen Petroleum Inc.
18 Adelaide Street, P. O Box 100
Maxville, Ontario K0C 1T0

Attention: Roch Lortie

Subject: Environmental Impact Statement – Unevaluated Wetland – Proposed Fuel
Dispensing Facility Re-development
5546 Albion Road South, Ottawa (Gloucester), Ontario

Dear Mr. Lortie,

LRL Associates Ltd. (LRL) was retained by MacEwen Petroleum Inc. (MPI) to carry out an Environmental Impact Statement (EIS) on the property located at 5546 Albion Road in Ottawa, Ontario (herein referred to as the 'Site'). The location of the Site is shown in the attached **Figure 1**. The Ministry of Natural Resources and Forestry (MNRF) and the City of Ottawa identified an unevaluated wetland and an unnamed ditch located west of the Site boundary. The ditch is noted as a watercourse according to the corresponding conservation authority. The unevaluated wetland and the ditch to the west of the Site are the focus of this EIS. The EIS was prepared as part of a proposed site re-development and associated Site Plan Application submission to the City of Ottawa.

It is anticipated that the existing fuel dispensing facility will be re-developed to include new fuel storage and dispensing equipment, and convenience store serviced by a private water supply and sewage disposal system. At the time this EIS was prepared, the Site conditions and operations included the following:

- The central approximate 400 m² is anticipated to be re-developed as a convenience store;
- The southern and eastern approximate 4200 m² is anticipated to be a paved parking lot; and
- The remaining 6250 m² is anticipated to remain grassed.



1 SCOPE OF WORK

Although the EIS will encompass the entirety, further focus to the western portion of 5546 Albion Road, Ottawa, Ontario will be exhibited, which is identified as being in closer vicinity to the identified natural features on the neighbouring lands.

According to the City of Ottawa Official Plan (OP) and Comprehensive Zoning By-law requires a minimum setback of 30 meters from the normal high-water mark of a watercourse. The City identifies lands adjacent to a Natural Heritage Feature as follows:

- *“development and site alteration will not be permitted within 30 meters of the boundary of a Natural Heritage Feature unless an Environmental Impact Statement demonstrates that there will be no negative impacts on the natural features within the area of their ecological functions.”*

This statement is not intended to be an identification or evaluation of the natural heritage features but to investigate if any negative impacts on the identified features may occur due to development.

2 BACKGROUND

2.1 Unevaluated Wetland

The unevaluated wetland is located on the neighbouring property to the west of the Site and is located and outlined by the MNRF. The Provincial Policy Statement (PPS) defines a wetland as:

“means land that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants.”

Section 2.1 (Natural Heritage Policy) of the PPS states that development and site alteration may not take place in an unevaluated wetland except in accordance with Provincial and Federal requirements. According to the City of Ottawa’s OP, development, and site alterations within 30 m of a Natural Heritage Feature, including wetlands, may be permitted if it has been demonstrated through an Environmental Impact Statement that there will be no negative impacts on the natural features or ecological functions. The location of the unevaluated wetland and unnamed ditch as determined by the MNRF are presented in the attached **Figure 2**.

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) were retained by MacEwen Petroleum Inc. to complete a Wetland Boundary Assessment for the unevaluated wetland on the neighbouring lands. The assessment was initiated to confirm the extents of the unevaluated wetland in support of planning and design of the proposed re-development of the Site. The conclusions of the report revealed that the unevaluated wetland boundaries, based on vegetation species, extends approximately 40 m from the western boundary of the Site. Therefore, it can be concluded that the proposed re-development activities will not encompass the extents of the unevaluated wetland. Further discussion with respect to possible impacts to the natural feature are described herein.

A copy of this report is included in **Attachment A** and summarized in greater detail below in Section 4.



2.2 Watercourse

According to Mr. Jamie Batchelor of the Rideau Valley Conservation, at the time of the development pre-consultation with the City of Ottawa, a watercourse has been identified on the adjacent property. More specifically, the watercourse is an un-named ditch like feature to the west of the Site along Mitch Owens Road. It is noted that select re-development features are within 30 metres of the watercourse.

The City's OP and Comprehensive Zoning By-law enforces that a minimum of 30 metres from the normal highwater mark of a watercourse must be maintained from development. A reduction to this setback may be considered if it has been demonstrated through an Environmental Impact Statement that there will be no negative impacts on the natural features or ecological functions.

3 SITE DESCRIPTION

3.1 Site

The Site is located at the northwest corner of the Albion Road and Mitch Owens Road intersection. The Site's location is presented in the attached **Figure 1**. The adjacent properties consist of treed land and low- to- medium density residential.

The property is irregularly shaped, being between approximately 97 m and 110 m wide (east-west) and between approximately 90 m and 115 m deep (north-south) with an approximate area of 10850 m² (2.7 acres). The topography of the property is generally flat being approximately 104 m above mean sea level (amsl). The central portion of the Site is developed with a convenience store. The southern and eastern portion of the Site is developed with an asphalt parking lot and fuel dispensing pumps. The northern and western portions of the Site are grassed with some trees throughout. These Site features are presented in **Figure 3**. Due to construction grading, surface water flows towards on-site catch basins and towards the man-made ditch along Mitch Owens Road.

3.1.1 Geology

Surficial soil deposits mapping¹ indicates that the surficial geology is fine- to medium-grained sand, calcareous and commonly fossiliferous; nearshore sand generally occurs as a sheet or as bars or spits associates with glaciofluvial materials. Bedrock mapping² indicates that the bedrock is described as the Oxford Formation: dolomite and limestone.



3.2 Natural Features

3.2.1 Unevaluated Wetland

The unevaluated wetland identified by the MNRF covers the property immediately to the west and north. This wetland is part of a larger wetland complex that stretches from Mitch Owens Road to Rideau Road. **Figure 4** shows the extent of the unevaluated wetland on the surrounding properties.

3.2.2 Watercourse

An un-named ditch is located on the neighbouring property west of the Site. Based on the topography of the area, it is inferred that the ditch flows in a southwest direction. The location of the ditch and the minimum 30 m buffer (as outlined in Section 2.2) are shown in **Figure 5**.

4 PREVIOUSLY PREPARED REPORTS

The *Wetland Boundary Assessment, Unevaluated Wetland. Lot 30, Concession 3, From Rideau River Gloucester, Ottawa, Ontario* report was prepared by GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) for MacEwen Petroleum Inc. in support of the proposed Site re-development application. The purpose of the report was to provide a summary of the wetland boundary present on the property immediately west of the subject Site. The boundary was determined through the *50/50 Vegetation Rule* as outlined in the Ontario Wetland Evaluation System for Southern Ontario (OMNRF, 2014).

The wetland boundary is determined to be the point along each transect when 50% of the vegetation becomes comprised of hydrophilic or obligate wetland species. The assessment determined that the wetland extent closest to the subject Site is approximately 40 m from the western boundary of the Site and approximately 65 m from the proposed re-development of the Site, well beyond the 30 m setback as defined by the City of Ottawa OP.

A copy of this report is included in **Attachment A**.

5 RARE, THREATENED AND ENDANGERED SPECIES

The MNR Natural Heritage Information Centre (NHIC) compiles, maintains and provides information on rare, threatened and endangered species in Ontario. This information is stored in a central repository containing a computerized database, map files and an information library, which are accessible for conservation applications, land use planning, park management, etc. Natural areas and element occurrence data can be accessed through a geographic query. Our request for information from the NHIC revealed five (5) element occurrences for species of special concern, are threatened or endangered species within one kilometer of the Site which include the following:

- The Eastern Meadowlark (*Sturnella magna*) was identified with a status of THR which represents a species that is threatened;
- The Bobolink (*Dolichonyx oryzivorus*) was identified with a status of THR which represents a species that is threatened;
- The Wood Thrush (*Hylocichla mustelina*) was identified with a status of SC which represents a species of special concern;



- The Butternut (*Juglans cinerea*) was identified with a status of END which represents a species that is endangered; and
- The Snapping Turtle (*Chelydra serpentina*) was identified with a status of SC which represents a species that is of special concern.

None of the above mentioned rare, threatened or endangered species were observed at the time of our Site visit. The Site visit is summarized in greater detail below in Section 7.

6 ECOLOGICAL LAND CLASSIFICATION

The Ecological Land Classification (ELC) is Statistics Canada’s official classification for ecological areas in Canada. It is a hierarchical framework that classifies ecological areas or ecosystems and incorporates major components of ecosystems such as air, water, land and biota.

The Ecological Land Classification for the Site are as follows:

Ecological Land Classification Unit	Classification
Ecozone	Mixedwood Plains
Ecoregion	Lake Simcoe – Rideau (6-E)
Ecodistrict	Kemptville

As part of the proposed re-development plan, the southeastern portion of the Site will be an asphalt while including fuel dispensing pumps and a convenience store. The remainder of the Site is proposed to remain grassed with some trees. The developed area of the Site and associated structures is considered to have be a community class of cultural, while the grassed area is considered to be cultivated. The adjacent property to the left of the Site would have a community series designation of a deciduous forest, with dominant vegetation of maple, poplar and wild raspberry. The different land use types on the site are displayed in **Figure 9**.

7 SITE VISIT

LRL visited the subject site on September 8, 2022 to assess the extent of the un-evaluated wetland located west of the Site based on GEMTEC’s Wetland Boundary Assessment, in addition to confirming the extents of the identified watercourse with respect to the subject Site property boundaries. Although the EIS will encompass the entirety, further focus to the western portion of 5546 Albion Road, Ottawa, Ontario will be exhibited, which is identified as being in closer vicinity to the identified natural features on the neighbouring lands. Photographs from the site visit are attached **Appendix B**.

The western portion of the Site is grassed with trees along the western border of the Site. Trees encountered across the western portion of the Site consist mainly of poplar, spruce and maple. In general, the tree diameters vary between 8 and 20 cm.

The unnamed ditch identified by the MNR was visible, with a width of approximately 40 cm, bank height of approximately 20 cm, water depth of 5 cm. The base of the ditch was a light brown, sandy bottom. There were not any aquatic species identified during our Site visit.

The locations of these features are presented in **Figure 2**.



7.1 Forested Areas

The dominant cover (canopy) for the site was poplar and maple. The forest is quite immature/young with the following tree species observed and measured.

- Primarily consists of poplar (approximately 50%) of between 8 and 15 cm in diameter;
- Secondary (approximately 35%) consists of maple being between approximately 10 and 20 cm in diameter;
- Three (3) white birch having diameters of 9 and 14 cm; and
- Six (6) white spruce having diameters of between 15 and 30 cm.

There was also an abundance of wild raspberry bushes on the western border of the Site. The tree species identified on the lot are commonly found throughout this area of Ontario (Great Lakes-St. Lawrence Forest Region), as they grow easily over this type of terrain. Therefore, this is typical of tree species found across The City of Ottawa.

No butternut was observed on the Site at the time of the survey. The trees encountered on the Site are limited to those identified above. No development or Site alterations by our client will take place beyond the property boundary which was reviewed as part of this assessment. Based on these findings and rationale, although the NHIC has identified Butternut as historically being encountered within 1 km of the Site, no observations or evidence of this species was encountered, therefore a formal Butternut survey is not required.

7.2 Wildlife

During the site visit conducted September 8, 2022, the following species were observed. There was not any identification of rare, threatened or endangered species at the time of our Site visit.

Species Name	Resident/Visitor	Evidence
Bluejay	Resident	Visually observed
Crow	Resident	Audibly observed

8 IMPACT STATEMENT

For the purpose of this report, it is assumed that the proposed development plan will be constructed on the Site. The proposed re-development plan can be seen in the attached **Figure 6**.

The typical activities associated with the construction for this type of commercial development include tree clearing, removal and stock piling of topsoil, construction of a convenience store house and septic system (including excavation) and parking lot construction and paving. The Site is currently and will continue to be serviced by a private well and private septic system. Based on the findings of GEMTEC's Wetland Boundary Assessment, the proposed developments are beyond the 30 m setback from both the un-evaluated wetland and unnamed ditch (watercourse). The proposed development areas and 30 m setbacks as presented in **Figure 4** and **Figure 5**. The placement of the development features will allow mitigation measures to be used to minimize the impact on the unevaluated wetland, identified by the MNRF and the unnamed ditch, identified by the City of Ottawa.



8.1 Potential Effects of Development

The potential effects with respect to construction activities include:

- Grading and construction activities can impact the wetland and change the soil's characteristics such as water table levels, the density of the soil (through compaction), erosion potential, surface run-off and the drainage patterns.
- Increase in sediment runoff towards the ditch through excavation activities, stockpiling of soil and removal of trees, which can control erosion. Increase in sediments can smother incubating eggs or other organisms that live in the ditch.
- Vegetation along the ditch buffer can also be impacted during construction activities. Riparian zones are important features to protect as they directly contribute to aquatic habitat by providing shade, cover and food production areas. These zones also act as natural biofilters, protecting aquatic environments from excessive sedimentation, polluted surface runoff and erosion.
- Fuel spills as a result of vehicle use and storage. Spills can lead to soil, surface water and groundwater contamination.
- Site may be more vulnerable to invasion by non-native species of plants or wildlife.
- Disturbance of wildlife species as a result of construction activities.
- Increased erosional potential, changes in natural drainage and increased surface run-off.
- Construction activities can damage roots of trees that remain on site.

8.2 Mitigation Measures

The impacts of the construction activities on the woodlands can be mitigated using the following measures:

- Properly installed sedimentation barriers (such as silt fences or straw bails) should be used along the banks or in any drainage ditches or swales that can flow toward the fish habitat. Stockpiled soil should be placed as far from the ditch and wetland as practically possible during construction. The stockpiles should be covered, especially during any rain events, to reduce any sedimentation run-off from the construction site. The sedimentation barriers shall be properly installed prior to construction, and be maintained throughout the project. They shall be left in place until the vegetation (i.e. grass) has been established on the site.
- Equipment used during the construction activities should be properly maintained to reduce any fuel or lubricant leaks. No fuel should be stored on site and the equipment should be fuelled off-site. Any leaks or spills must be promptly contained and addressed.
- Use sedimentation and erosion controls and maintain as much vegetation as possible during construction to reduce erosion. Prior to any site alteration, silt fencing should be placed along the perimeters of the work area. It is important that the fence is properly keyed in and maintained during the entire construction phase to filter any surface water runoff and to contain sediment before the water leaves the work area. The fencing should be checked weekly and following a rain event to insure that the temporary structure is suitable for erosion control purposes.



- Once construction is complete, the compacted soil will be aerated to allow vegetation to establish more quickly. Revegetation after development with native species to reduce non-native species invasion.
- Noise impacts can be reduced by delaying the construction until later in the spring, after breeding has occurred and migrating birds have left the area. The effects of noise will be short term, only during construction activities, and no negative impacts will persist beyond this time. To minimize the potential impacts on wildlife, no woody vegetation removal should occur between April 15th and August 15th until verified by a qualified person, unless a breeding bird survey, completed by a qualified professional within five days of the proposed vegetation removal, detects no breeding activity.
- The following techniques can minimize impacts on the health and longevity of retained individual trees during and post-construction.
 - Around the treed perimeter erect a sturdy 1 m high snow fence to protect adjacent trees. This should be placed at a minimum distance of the critical root zone (CRZ) and remain in place until construction is completed. The critical root zone is established as being 10 centimeters from the trunk of a tree for every centimeter of trunk diameter at breast height (DBH). This prevents damage to the retained tree from compaction of the soil due to heavy equipment. Excavations are not permitted in proximity to the edge of the work areas so the critical root zones of the adjacent retained trees will be well protected.
 - If excavation must take place adjacent to or within the CRZ, tunnel or bore carefully by hand and cut the root cleanly. Machinery should be kept to the outside of the cut, away from the tree trunk. An arborist will be required on site if excavation within the CRZ is required.
 - If surface tree roots are disturbed, they should be covered with soil, woodchips or filter cloth and kept moist until construction is complete under the guidance of an onsite arborist.
 - If limbs need to be trimmed or removed due to utilities or construction they should be cut using a chain saw using accepted arboricultural practices.
 - All grading and other site disturbances are to be restricted to the work area. Changes to grading or water flow around preserved trees can impact on the health of the tree. Where grade changes cannot be avoided, the installation of retaining walls or tree wells should be considered for retained trees under the guidance of an onsite arborist.
 - Grading completed on the Site, as well as the presence of catch basins throughout the proposed parking lot will lead surface water runoff from the parking lot to municipal storm sewers and a man made ditch, located south of the Site along Mitch Owens Road.

8.3 Significance of Environmental Impacts Following Mitigation

It is assumed that potential development would be constructed beyond the 30 m buffer from the identified unevaluated wetland. No significant adverse cumulative effects are anticipated as a result of the construction activities following the use of the above mitigation measures. No ongoing monitoring is recommended following the construction activities, other than those mitigation measures mentioned above.



No Butternut species were observed on the Site at the time of the Site visit. No additional requirements related to survey is required at this time. The tree species identified as being present on the Site are not of risk or concern.

Based on the short term proposed construction activities, and the proposed development footprint characteristics anticipated for the lands within 15 m of the identified watercourse (grassed lawn), no significant adverse cumulative effects are anticipated as a result of the construction activities following the use of the above mitigation measures. The reduction of the setback from the watercourse is considered to be acceptable as the grassed lawn will continue to act as an interceptor of Site activities and possible run-off or increase sediment. No on-going monitoring is recommended following the construction activities.

9 CONCLUSIONS

It is our professional opinion that with the use of the above mitigation measures, the impacts on the wetland and unnamed ditch (watercourse) as a result of the proposed land severance and enlargement and the unanticipated proposed development will be negligible.

Yours truly,
LRL Associates Ltd.

Jessica Arthurs

Jessica Arthurs
Environmental Engineering Manager



Figures





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PROJECT

ENVIRONMENTAL IMPACT STATEMENT
UN-EVALUATED WETLAND
5546 ALBION ROAD
OTTAWA, ONTARIO

DRAWING TITLE

SITE LOCATION
(NOT TO SCALE)
SOURCE: GeoOTTAWA

CLIENT

MACEWEN PETROLEUM INC.

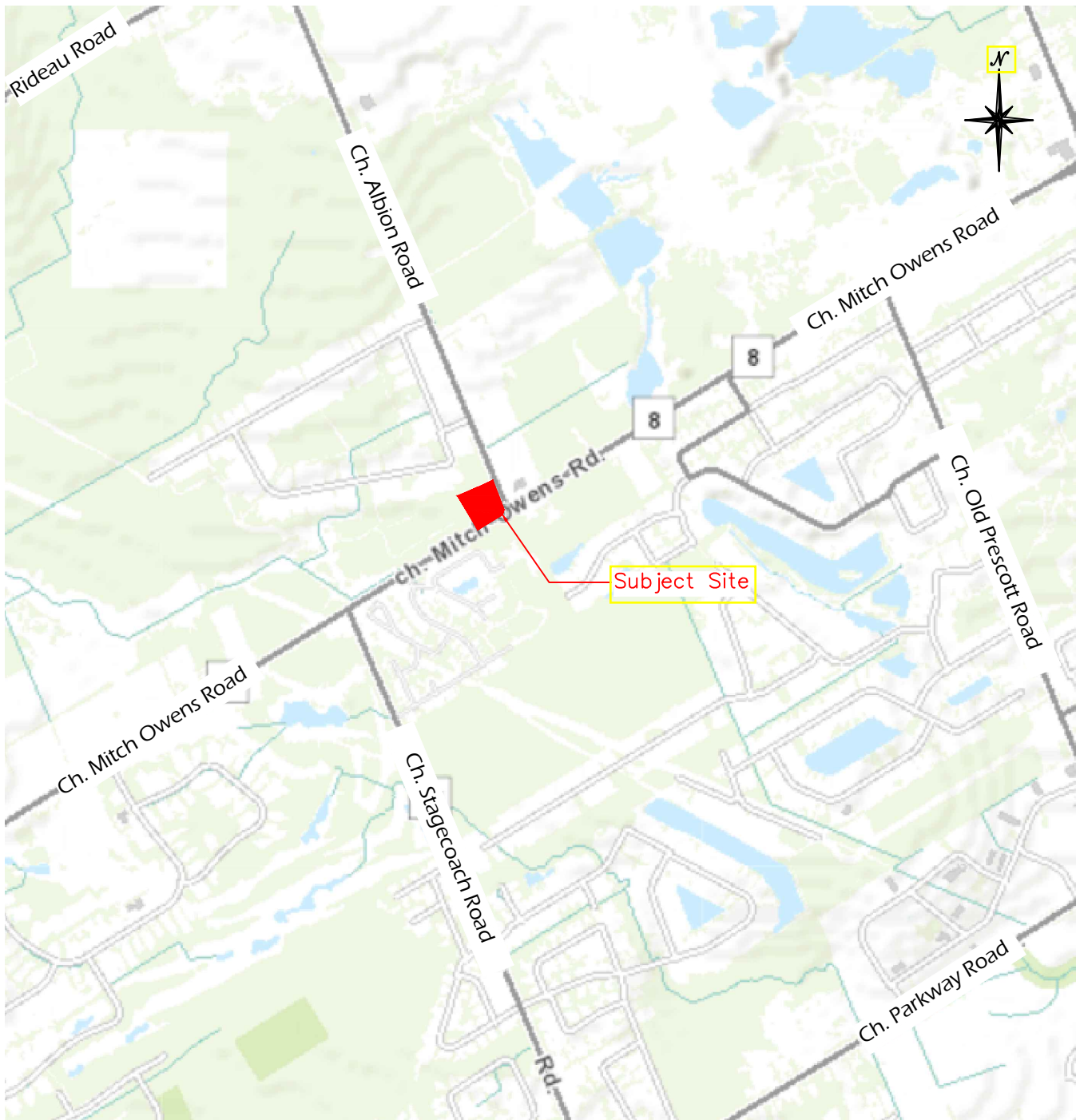
DATE

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PROJECT

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FIGURE 1





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ENVIRONMENTAL IMPACT STATEMENT
UN-EVALUATED WETLAND
5546 ALBION ROAD
OTTAWA, ONTARIO

DRAWING TITLE

SITE, UNEVALUATED WETLAND AND DITCH LOCATION
(NOT TO SCALE)

SOURCE: MNRF Make A Map

CLIENT

MACEWEN PETROLEUM INC.

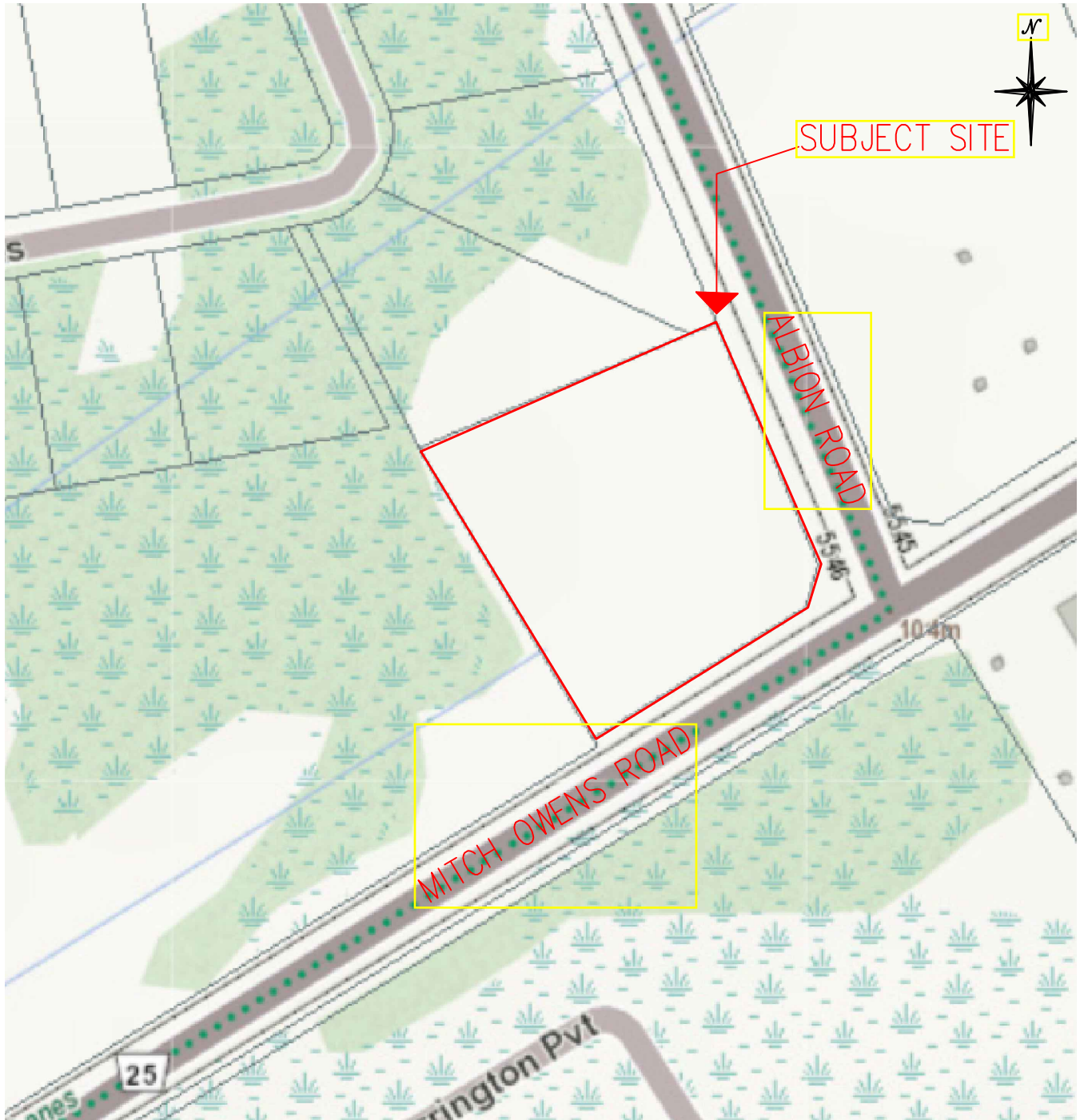
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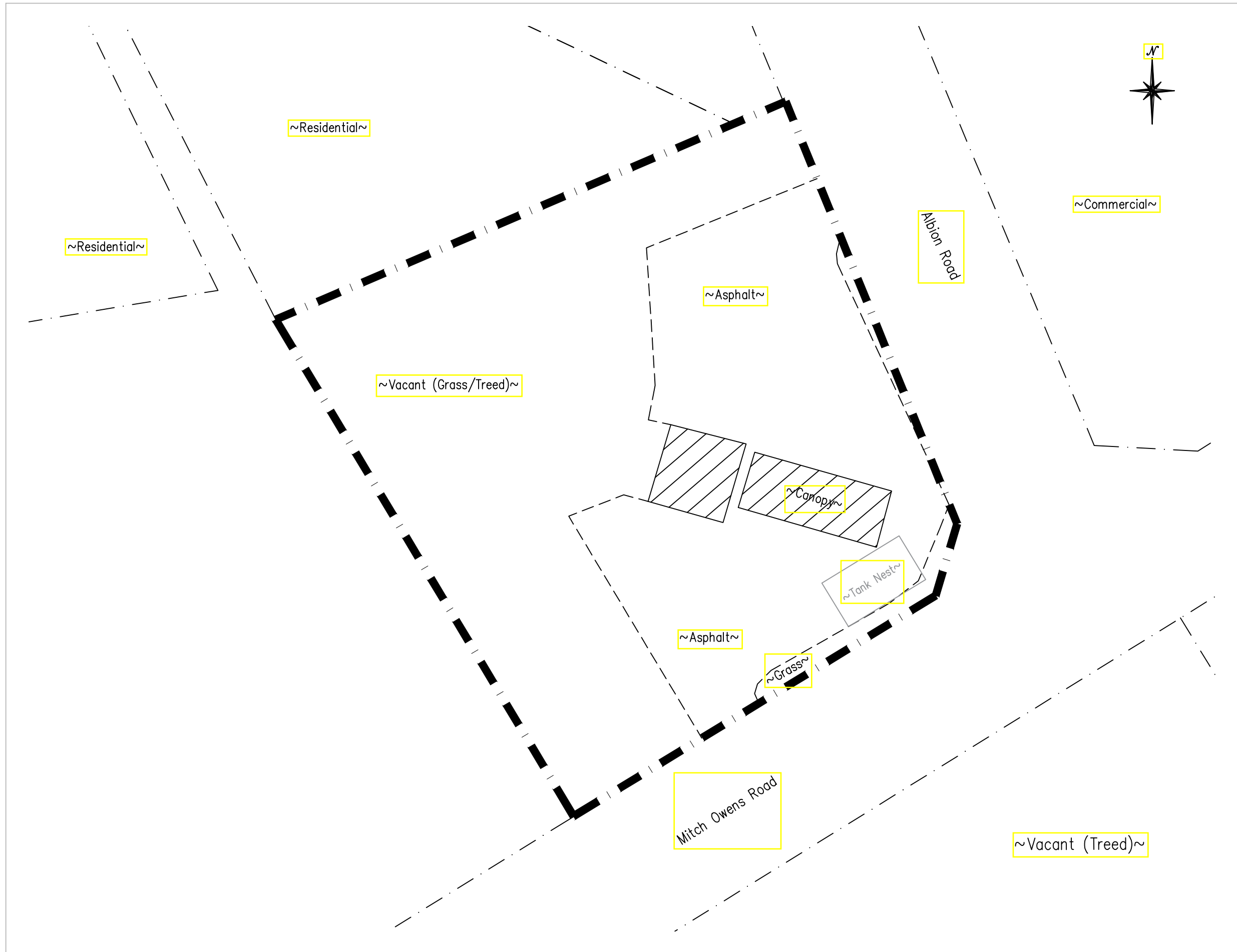
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FIGURE 2



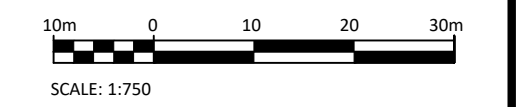
/// /// /// /// ///
UNEVALUATED WETLAND BOUNDARY DETERMINED BY
THE MINISTRY OF NATURAL RESOURCES AND FORESTRY

— — — — —
UNEVALUATED DITCH DETERMINED BY THE MINISTRY
OF NATURAL RESOURCES AND FORESTRY



LEGEND

	Property Line
	Proposed Structure
	Division Amongst Surface Materials
	Grassed Area
	Unevaluated Wetland Extent
	30 M Buffer From Wetland



No.	REVISIONS	BY	DATE
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CLIENT
MACEWEN PETROLEUM INC.

DESIGNED BY: -- DRAWN BY: G.M. APPROVED BY: J.L.

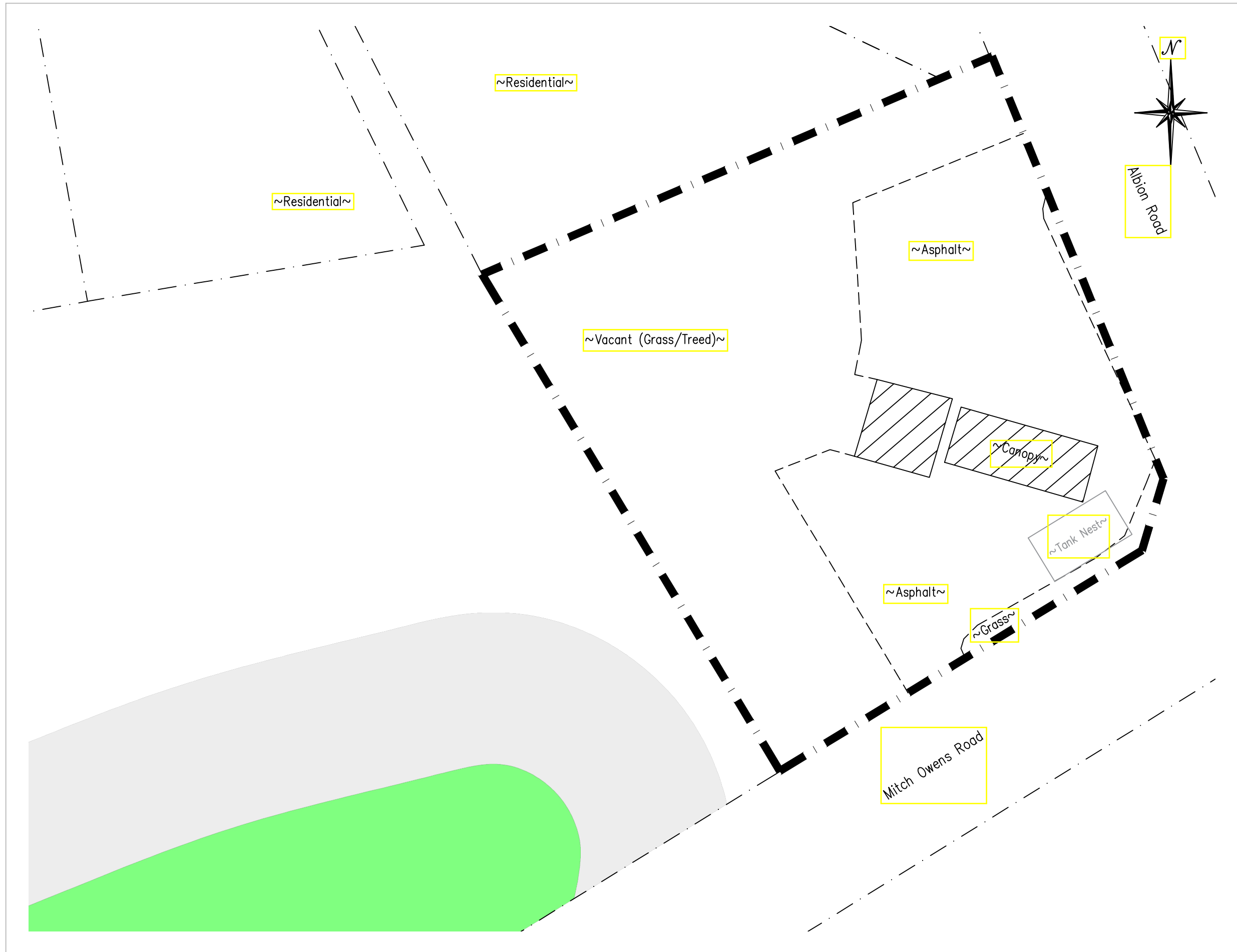
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**ENVIRONMENTAL IMPACT STATEMENT
5546 ALBION ROAD
OTTAWA, ONTARIO**

DRAWING TITLE
SITE PLAN

PROJECT NO.
01348

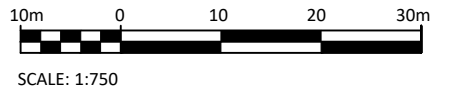
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FIGURE 3



LEGEND

	Property Line
	Proposed Structure
	Division Amongst Surface Materials
	Grassed Area
	Unevaluated Wetland Extent



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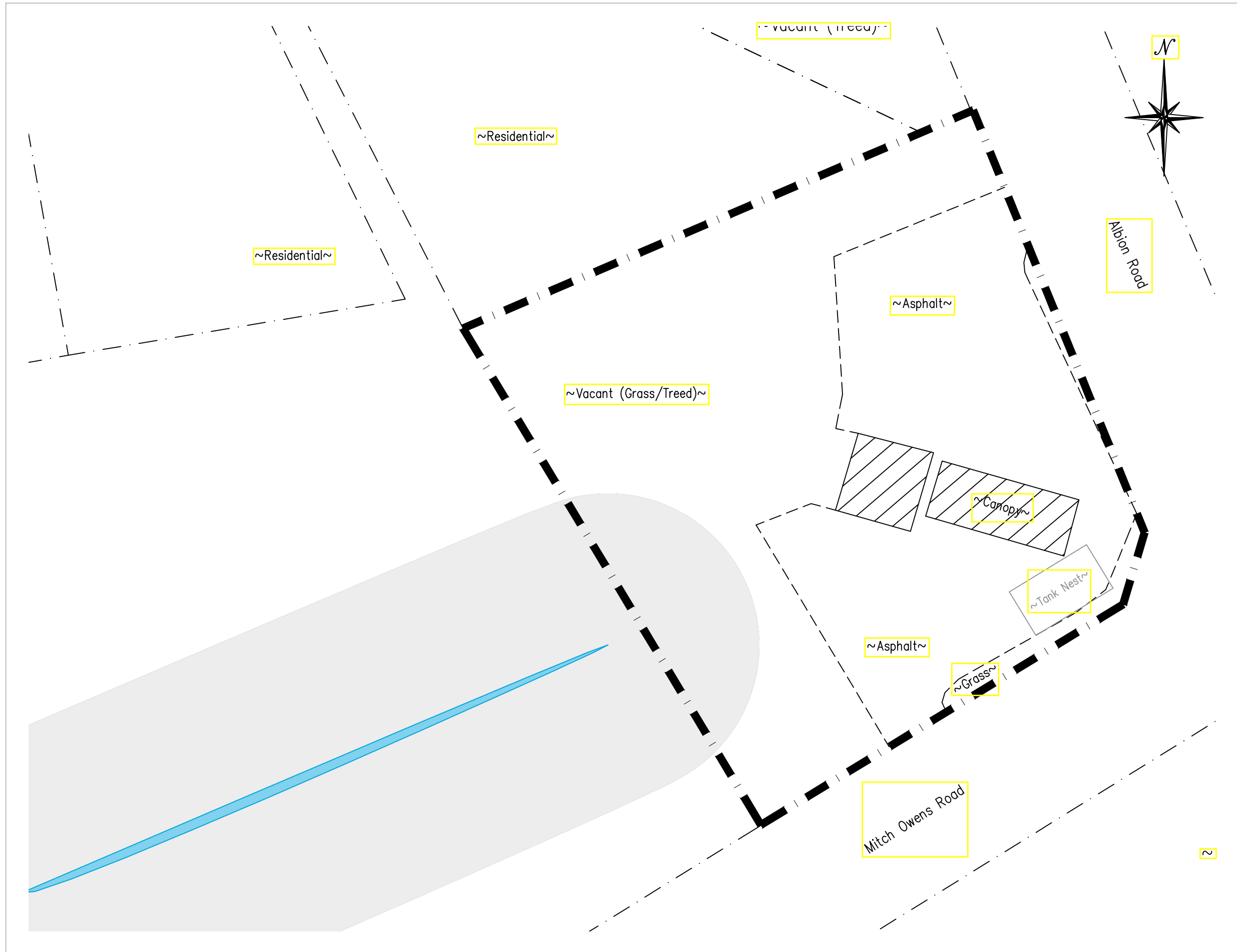
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**ENVIRONMENTAL IMPACT STATEMENT
5546 ALBION ROAD
OTTAWA, ONTARIO**

DRAWING TITLE
**CURRENT SITE PLAN WITH 30 M
WETLAND SETBACK**

PROJECT NO.
01348

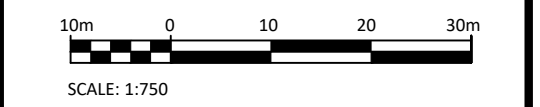
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FEBRUARY 2023

FIGURE 4



LEGEND

	Property Line
	Existing Structure
	Division Amongst Surface Materials
	Unnamed Ditch Extent
	30 M Buffer From Unnamed Ditch



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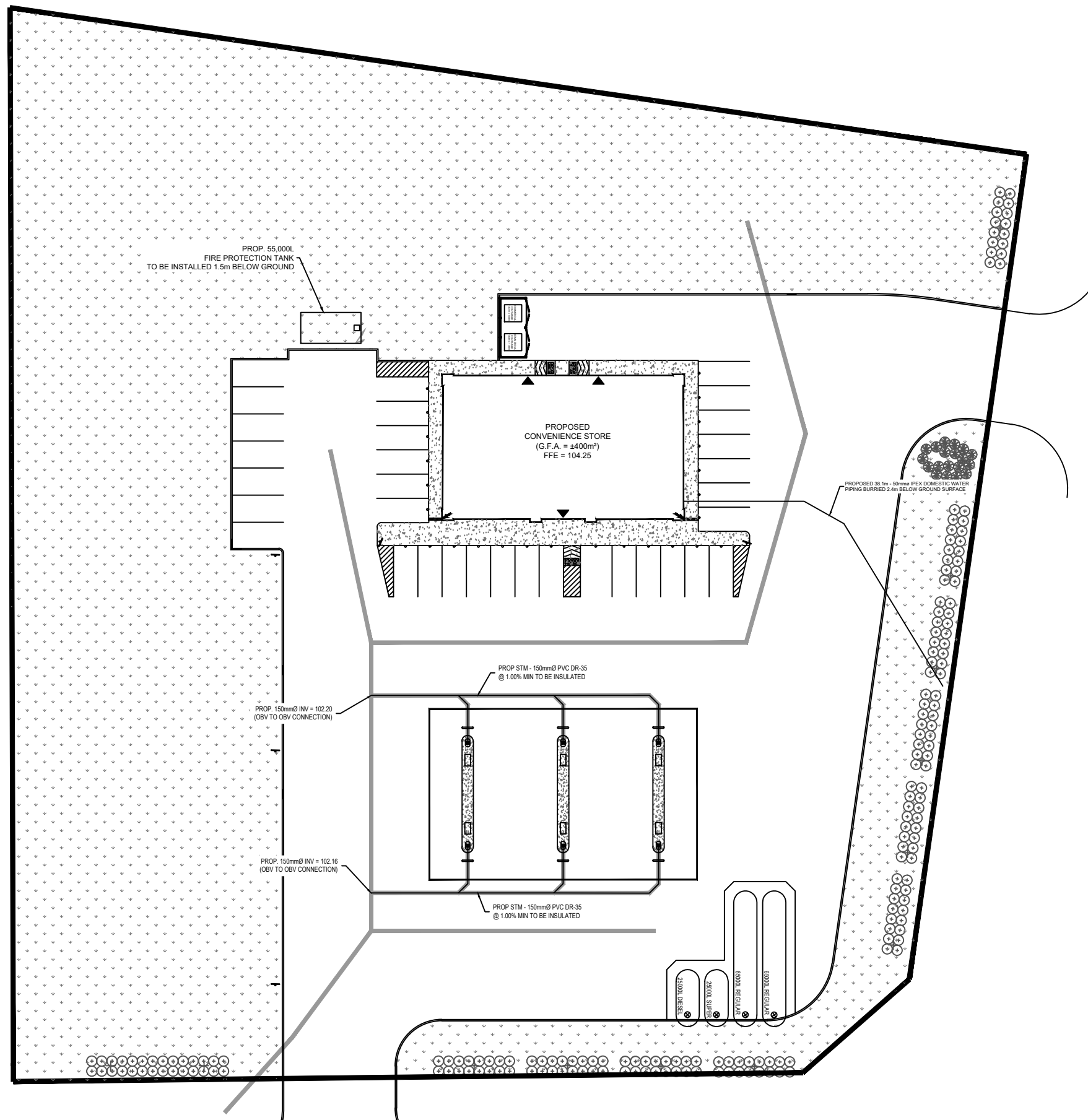
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PROJECT
**ENVIRONMENTAL IMPACT STATEMENT
5546 ALBION ROAD
OTTAWA, ONTARIO**

DRAWING TITLE
**CURRENT SITE PLAN WITH 30 M
UNNAMED DITCH SETBACK**

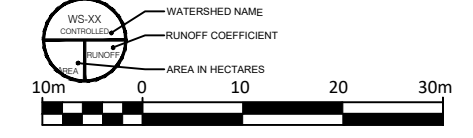
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FEBRUARY 2023

FIGURE 5



LEGEND:

- EXISTING PROPERTY LINE TO REMAIN
- PROPOSED CURB
- PROPOSED GRASSED AREA
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED LIGHT DUTY ASPHALT
- PROPOSED RIP RAP
- PROPOSED ELEVATION
- PROPOSED HIGH POINT ELEVATION
- PROPOSED SWALE ELEVATION
- PROPOSED BOTTOM OF CURB / ASPHALT ELEVATION
- PROPOSED TOP OF CURB ELEVATION
- MATCH INTO EXISTING ELEVATION
- EXISTING ELEVATION
- PROPOSED OVERLAND MAJOR FLOW ROUTE
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING MANHOLE
- EXISTING CATCHBASIN
- PROPOSED CATCHBASIN-MANHOLE/CATCHBASIN
- PROPOSED MANHOLE
- PROPOSED CURB STOP
- PROPOSED PIPE INSULATION
- PROPOSED 100 YEAR HIGH WATER LEVEL (ELEV = 103.85)
- PROPOSED 5 YEAR HIGH WATER LEVEL (ELEV = 103.80)
- STORM WATERSHED EXTENT



01	FINAL	D.C.	10/01/2023
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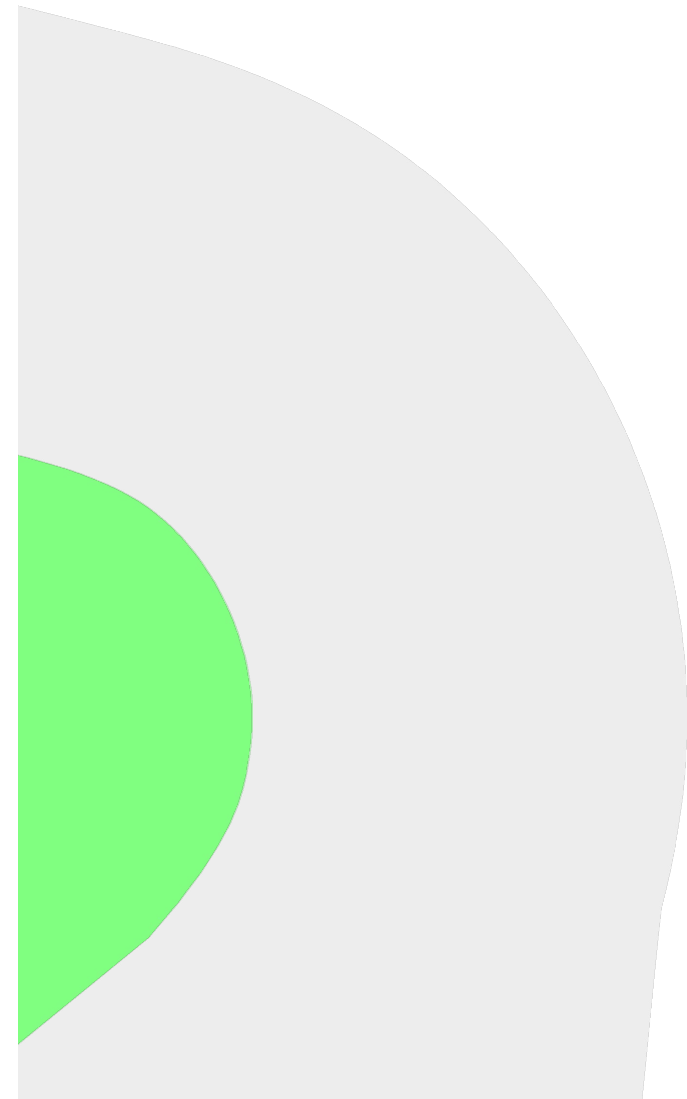
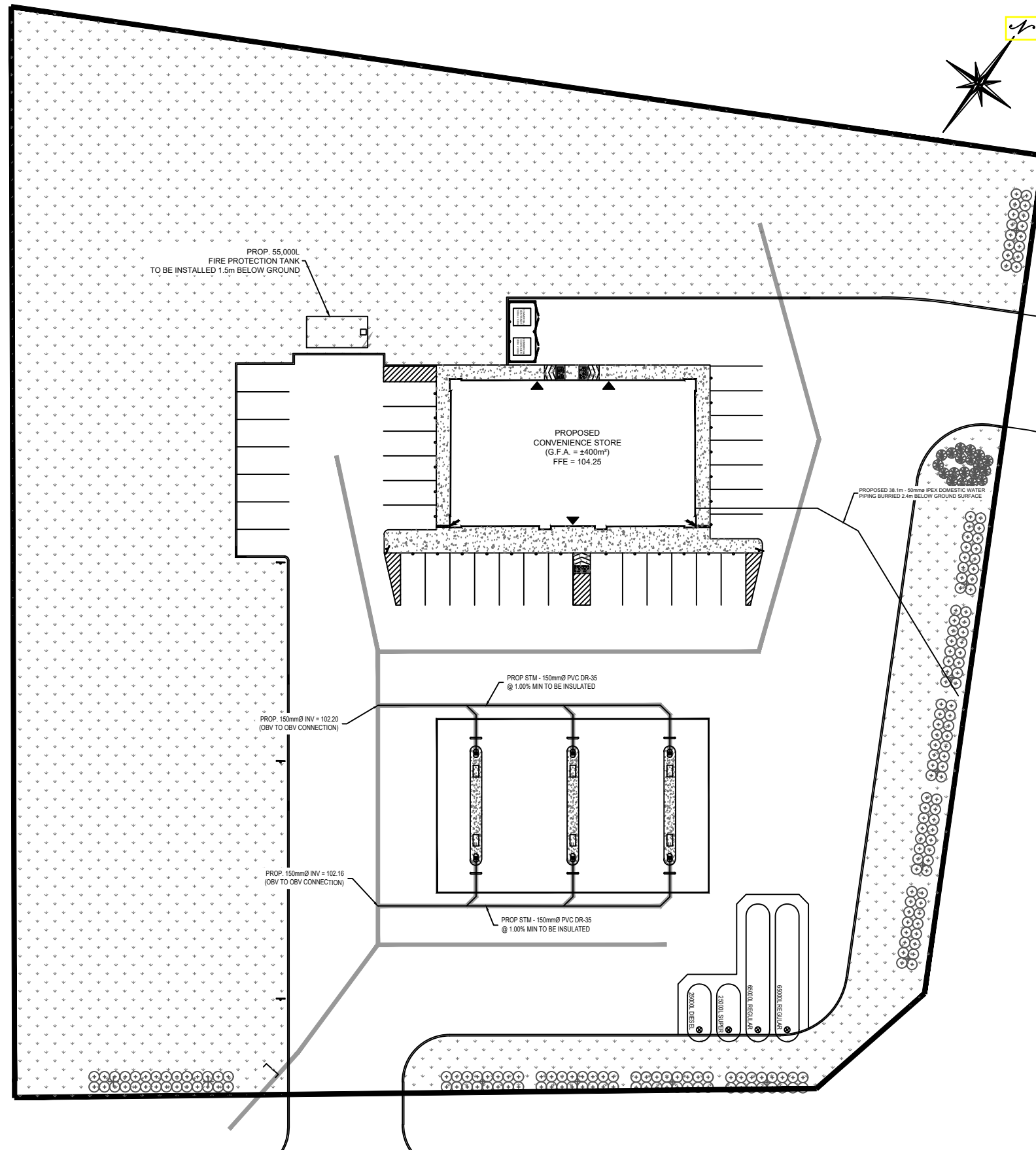
PROJECT
**ENVIRONMENTAL IMPACT STATEMENT
5546 ALBION ROAD
OTTAWA, ONTARIO**

DRAWING TITLE
PROPOSED SITE RE-DEVELOPMENT PLAN

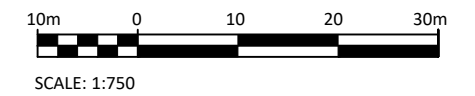
PROJECT NO.
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DATE
FEBRUARY 2023

FIGURE 6



LEGEND	
	Property Line
	Proposed Structure
	Division Amongst Surface Materials
	Grassed Area
	Unevaluated Wetland Extent
	30 M Buffer From Wetland



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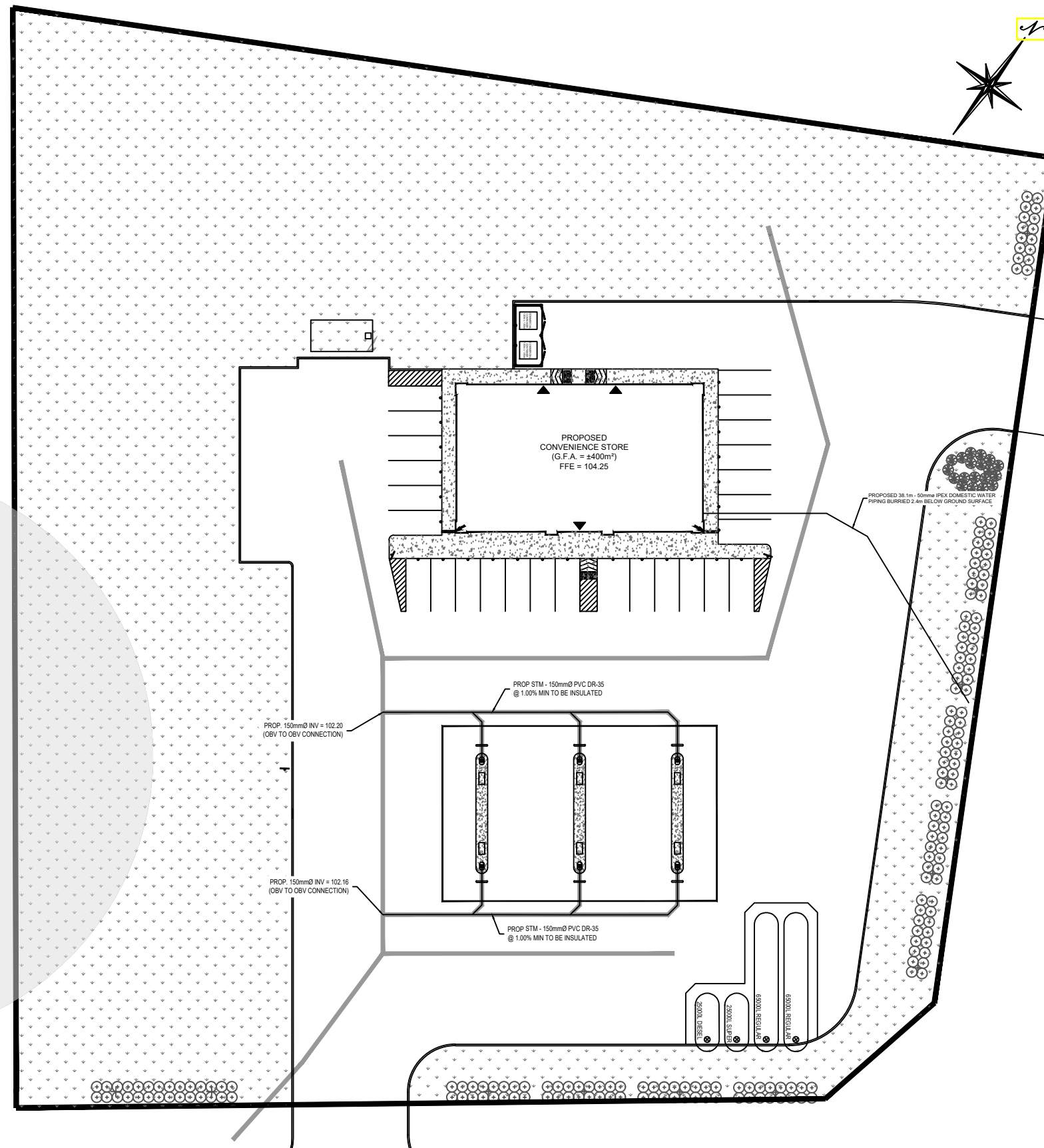
PROJECT
**ENVIRONMENTAL IMPACT STATEMENT
5546 ALBION ROAD
OTTAWA, ONTARIO**

DRAWING TITLE
**PROPOSED SITE RE-DEVELOPMENT PLAN
WITH 30 M WETLAND SETBACK**







PROJECT NO.
01348

DATE
FEBRUARY 2023

FIGURE 7



LEGEND

-  Property Line
-  Existing Structure
-  Division Amongst Surface Materials
-  Cultivated Land
-  Cultural Land
-  Deciduous Forest



SCALE: 1:750

No.	REVISIONS	BY	DATE
01	FINAL	D.C.	10/01/2023



LRJ

ENGINEERING | INGÉNIÉRIE
5430 Canotek Road | Ottawa, ON, K1J 9G2
www.lrj.ca | (613) 842-3434

CLIENT
MACEWEN PETROLEUM INC.

DESIGNED BY: -- DRAWN BY: G.M. APPROVED BY: J.L.

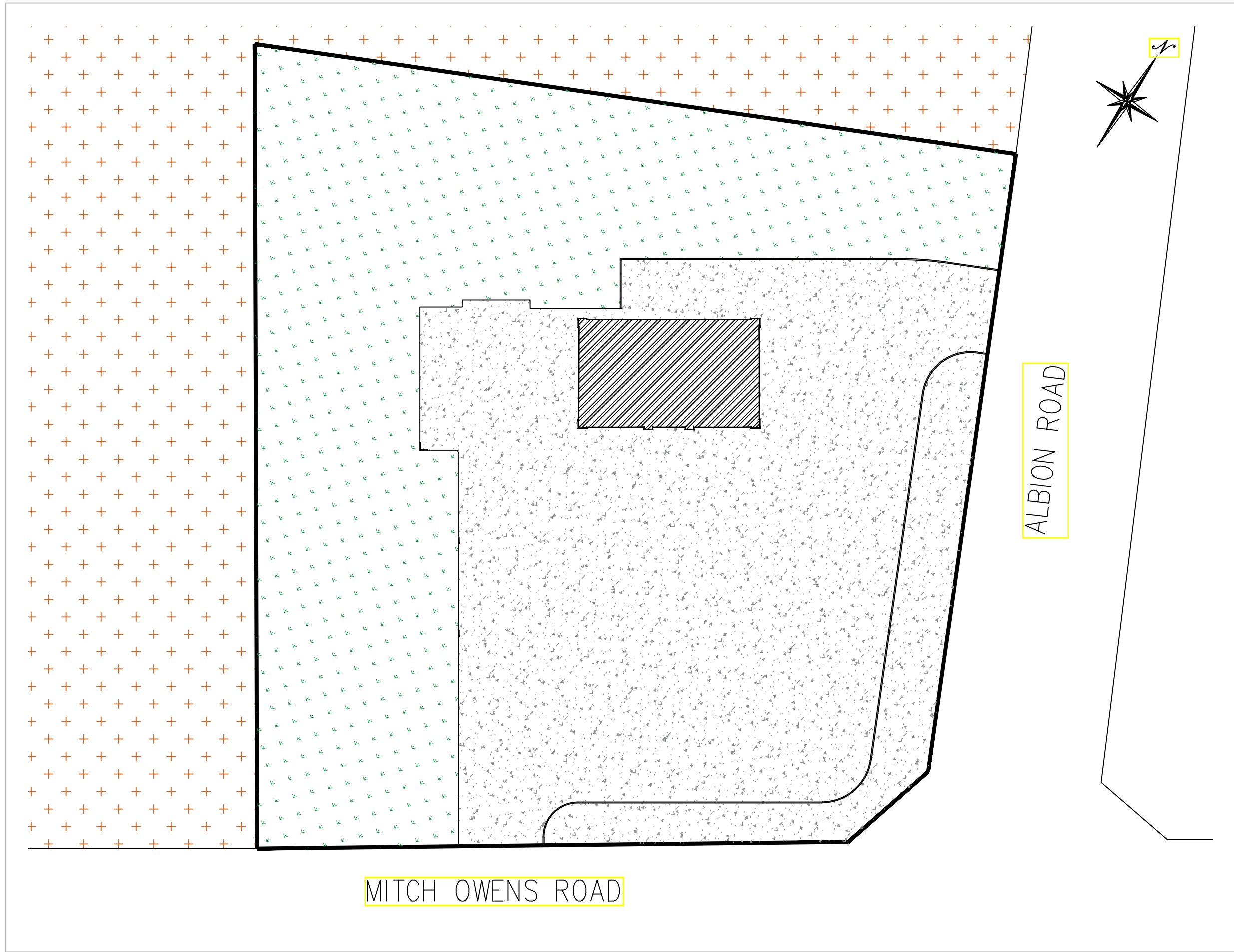
PROJECT
**ENVIRONMENTAL IMPACT STATEMENT
5546 ALBION ROAD
OTTAWA, ONTARIO**

DRAWING TITLE
**PROPOSED SITE RE-DEVELOPMENT PLAN
WITH 30 M UNNAMED DITCH SETBACK**







PROJECT NO.
01348

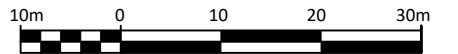
DATE
FEBRUARY 2023

FIGURE 8



LEGEND

-  Property Line
-  Existing Structure
-  Division Amongst Surface Materials
-  Cultivated Land
-  Cultural Land
-  Deciduous Forest



SCALE: 1:750

No.	REVISIONS	BY	DATE
01	FINAL	D.C.	10/01/2023



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CLIENT
MACEWEN PETROLEUM INC.

DESIGNED BY: -- DRAWN BY: G.M. APPROVED BY: J.L.

PROJECT
**ENVIRONMENTAL IMPACT STATEMENT
5546 ALBION ROAD
OTTAWA, ONTARIO**

DRAWING TITLE
**PROPOSED SITE RE-DEVELOPMENT PLAN
WITH ECOLOGICAL LAND
CLASSIFICATION**

PROJECT NO.
01348

DATE
FEBRUARY 2023

FIGURE 9

Appendix A

Wetland Boundary Assessment, Unevaluated Wetland

GEMTEC Consulting Engineers and Scientists



June 6, 2022

File: 101972.001

LRL Engineering
5430 Canotek Road
Ottawa, Ontario
K1J 9G2

Attention: Maxime Longtin, C.E.T. – Civil Team Manager

**Re: Wetland Boundary Assessment, Unevaluated Wetland
Lot 30, Concession 3, From Rideau River Gloucester
Ottawa, Ontario**

Please accept this letter as the GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) Wetland Boundary Assessment completed for the property parcel municipally addressed as 5546 Albion Road and the west adjacent property located on Lot 30, Concession 3, From Rideau River Gloucester, herein collectively referred to as the study area.

INTRODUCTION

The purpose of this letter report is to provide a summary of the wetland boundary assessment completed for the unevaluated, local wetland identified by the City of Ottawa as occupying portions of both property parcels comprising the study area. The study area is illustrated on Figure A.1 in Attachment A.

BACKGROUND

It is GEMTEC's understanding that LRL Engineering (LRL) is completing an Environmental Impact Statement (EIS) for 5546 Albion Road and requires a certified Ontario Wetland Evaluation System (OWES) wetland evaluator to establish and ground-truth the boundary of wetlands within the study area.

The unevaluated, local wetland as identified by the City of Ottawa, covers approximately 10 ha, and is located immediately north of Mitch Owens Road, south of Ballycastle Crescent, east of the Spratt Municipal Drain (SMD) and west of Albion Road.

The nearest Provincially Significant Wetland (PSW), the Osgood PSW complex, is located approximately 4 km southeast of the study area.

Based on review of aerial photography (1976, 1999, 2002-2018) the study area was cleared sometime prior to 1976. Since 1976, the study area has been left in a fallow state to revegetate with the exception of periodic drainage improvements to the SMD and the construction of stormwater infrastructure associated with the Ballycastle Crescent subdivision to the north.

METHODOLOGY

To complete this Wetland Boundary Assessment, vegetation communities were delineated following the protocols outlined in the Wetland Evaluation System for Southern Ontario (OMNRF, 2014) supported by publicly available air photos and surficial soil data from the Ontario Soil Survey Complex (OMAFRA, 2022). A single field investigation was completed on May 25, 2022, from 07:00 to 09:00 to provide field verification of vegetation communities delineated during the desktop review. The conditions at the time of the field investigation were: clear skies with no precipitation, 21°C and light wind.

Field verification of vegetation communities was completed by walking linear transects along the soil moisture gradient from drier to wetter ecosites while documenting dominant vegetation species within the various vegetation community forms. The boundary between wetland ecosites and terrestrial ecosites was determined using the *50/50 Vegetation Rule* as outlined in the Ontario Wetland Evaluation System for Southern Ontario (OMNRF, 2014), where the wetland boundary is determined to be the point along each transect when 50% of the vegetation becomes comprised of hydrophilic or obligate wetland species.

EXISTING CONDITIONS

The study area is comprised of three vegetation communities including two upland vegetation communities and one wetland vegetation community. In general, vegetation on the subject property is consistent with cultural vegetation communities, those communities whose composition and form are heavily influenced by historical or on-going anthropogenic activities.

Vegetation communities present on the subject property are summarized in Table 1 below and are illustrated on Figure A.1.

Photograph 1 below provides illustrates the typical community form of the upland vegetation community present within the study area, while Photograph 2 illustrates the typical community form of the wetland vegetation community within the study area.

Table 1 - Vegetation Communities

ELC Type	Description
Fresh – Moist Poplar Deciduous Woodland (WODM5-1)	This upland vegetation community occurs over the eastern portions of the study area and is characterized by a semi-mature, fresh to moist poplar deciduous woodland. Dominant tree species included trembling aspen (<i>Populus tremuloides</i>), large-toothed aspen (<i>Populus grandidentata</i>) and sugar maple (<i>Acer saccharum</i>), and with lesser constituents including white pine (<i>Pinus strobus</i>), white elm (<i>Ulmus americana</i>), green ash (<i>Fraxinus pennsylvanica</i>) and glossy buckthorn (<i>Frangula alnus</i>).
Mineral Deciduous Thicket Swamp (SWT2)	This immature deciduous swamp is located over the western and central portion of the study area and is comprised primarily of hydrophilic tall shrub species. Dominant species consisted primarily of green alder (<i>Alnus viridis</i>) glossy buckthorn, red maple (<i>Acer rubrum</i>), slender willow (<i>Salix petiolaris</i>) and nannyberry (<i>Viburnum lentago</i>)

Photograph One



Photograph Two



SUMMARY

Based on the results of the desktop evaluation and completion of the vegetation survey, the ground-truthed wetland boundary is presented on Figure A.1.

We trust this report is sufficient for your current needs; however, should you require any clarification of the information presented above, please do not hesitate to contact the undersigned.

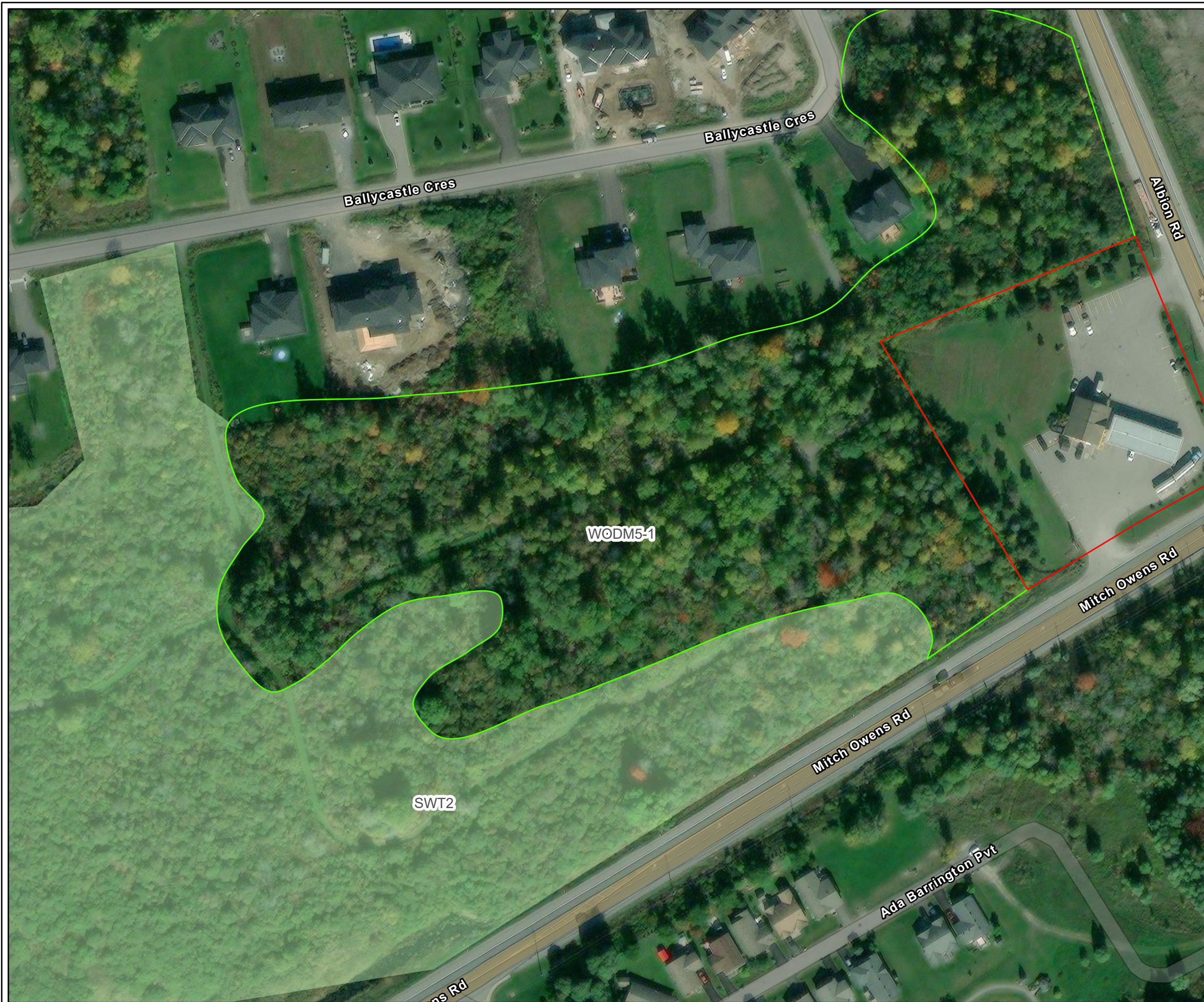
Sincerely,

Drew Paulusse, B.Sc.
Senior Biologist,
Manager, Environmental Services



ATTACHMENTS

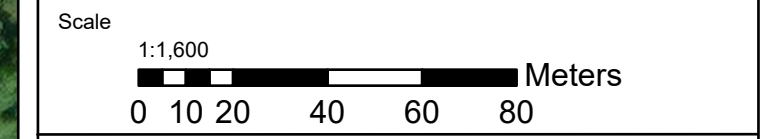
Figure A.1 – Site Layout



Legend

- Property Boundary
- Local Wetland
- Vegetation Community

SWT2 = Mineral Deciduous Thicket Swamp
 WODM5-1 = Fresh-Moist Poplar Deciduous Woodland



GEMTEC
CONSULTING ENGINEERS
 AND SCIENTISTS

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 T: (613) 836-1422
 www.gemtec.ca
 ottawa@gemtec.ca

Client: LRL Associates Ltd.	Project: 101972.001
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Location
**5546 Albion Road
 Ottawa, Ontario**

Drwn By: JD	Chkd By: DP	Site Location
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Date: June 2022	Rev. 0	Figure: A.1
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Coordinate System: NAD 1983 UTM Zone 18N
 Service Layer Credits: World Imagery: Maxar, Microsoft
 Hybrid Reference Layer: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCAN, Parks Canada

Appendix B

Site Visit Photos







SITE VISIT PHOTOGRAPHS


Our File Ref.: 01348
Client: MacEwan Petroleum Inc.
Project: Environmental Impact Statement
Site Location: 5546 Albion Road, Ottawa, Ontario

Photograph No. 1	
Date: 9/8/2022	
<p>Description</p> <p>Taken from the western boundary of the Site, facing west. Typical canopy cover of the adjacent property to the west can be seen.</p>	


Photograph No. 2	
Date: 9/8/2022	
<p>Description</p> <p>Taken from the western boundary of the Site, facing south. Mitch Owens Road can be seen in the background.</p>	



Photograph No. 3	
Date: 9/8/2022	
<p>Description</p> <p>Photo of the ditch identified by The City of Ottawa and MNR. Photo taken facing northwest from the western boundary of the Site.</p>	

Photograph No. 4	
Date: 9/8/2022	
<p>Description</p> <p>Photo of the western boundary of the Site. Taken in the northern portion of the Site. Typical canopy cover of the adjacent property can be seen.</p>	



Photograph No. 5	
Date: 9/8/2022	
Description Canopy cover of the western site boundary.	

