APPLICATIONS FOR MINOR VARIANCE

Tom Davies Square
200 Brady Street
Sudbury, Ontario P3A 5P3

January 21, 2026

PUBLIC HEARINGS

PL-MV-2025-00167 **DANIEL PLANTE**
DENISE PLANTE

Ward: 8

PIN(s) 73567-0335, Parcel 33376 SEC SES SRO, Part Lot 12, Concession 6, Part Lot 14, Plan M-287, Part 1, Plan SR-1862, Township of Neelon, 1282 Paquette Street, Sudbury, [By-law 2010-100Z, R2-2]

For relief from Part 4, Section 4.15, subsection 4.15.2 and Part 5, Section 5.2, subsection 5.2.9.3 and Section 5.4, subsection 5.4.2 d) of By-law 2010-100Z, being the Zoning By-law for the City of Greater Sudbury, as amended, to permit two existing dwelling units within the existing two-unit dwelling for a total of four-dwelling units providing, firstly, a minimum 21% of the required front yard to be maintained as landscaped open space, where 50% is required, secondly, a driveway accessing a parking area to be a minimum width of 3.0m for two-way traffic, where a minimum width of 6.0m is required, and thirdly, an outdoor parking area in the required front yard to a maximum width of 12.0m, where 7.62m is permitted.

PREVIOUSLY SUBJECT TO CONSENT APPLICATION B389/68 (APR 8/68)

PL-MV-2025-00169 **ANDRE LANGLOIS**

Ward: 12

PIN(s) 02133-0303, Part Lot 5, Concession 4, Lot 1, Plan 54-S, except Part 1, Plan 53R-20290, Township of McKim, 399 Caron Street, Sudbury, [By-law 2010-100Z, R2-3]

For relief from Part 4, Section 4.2, Table 4.1, Section 4.15, subsections 4.15.1 e) and 4.15.2 and Part 6, Section 6.3, Table 6.4 of By-law 2010-100Z, being the Zoning By-law for the City of Greater Sudbury, as amended, to permit the existing addition and uncovered deck on the existing dwelling containing three-units providing, firstly, the uncovered deck to encroach 4.17m into the required front yard and maintain a 1.8m setback, where uncovered decks 1.2m or less in height may encroach 1.2m into the required front yard, secondly, a 1.8m-wide landscaped area adjacent to Caron Street, where a 3.0m-wide landscaped area adjacent to the full length of the lot line shall be required abutting all public road having a width greater than 10.0 metres, thirdly, a minimum 28% of the required front yard to be maintained as landscaped open space, where 50% of all required front yards shall be maintained as landscaped open space in Low Density Residential Two (R2) Zones, and fourthly, a 1.8m front yard setback for the addition, where 6.0m is required.

PL-MV-2025-00170 **TIM SMITH**
FAY SMITH

Ward: 9

PIN(s) 73478-0421, Parcel 39756 SEC SES, Lot 20, Plan M-265, Part Lot 1, Concession 5, Township of Broder, 2745 Henri Street, Sudbury, [By-law 2010-100Z, R1-2]

For relief from Part 6, Section 6.3, Table 6.2 of By-law 2010-100Z, being the By-law for the City of Greater Sudbury, as amended, to approve the lands to be retained, subject of Consent Application PL-CON-2025-00094, providing a minimum lot frontage of 22.5m, where 36.0m is required.

CURRENTLY SUBJECT TO CONSENT APPLICATION PL-CON-2025-00094 AND MINOR VARIANCE APPLICATION PL-MV-2025-00171

PL-MV-2025-00171 **TIM SMITH**
FAY SMITH

Ward: 9

PIN(s) 73478-0421, Parcel 39756 SEC SES, Lot 20, Plan M-265, Part Lot 1, Concession 5, Township of Broder, 2745 Henri Street, Sudbury, [By-law 2010-100Z, R1-2]

For relief from Part 6, Section 6.3, Table 6.2 of By-law 2010-100Z, being the By-law for the City of Greater Sudbury, as amended, to approve the lands to be severed, subject of Consent Application PL-CON-2025-00094, providing a minimum lot frontage of 26.3m, where 36.0m is required.

CURRENTLY SUBJECT TO CONSENT APPLICATION PL-CON-2025-00094 AND MINOR VARIANCE APPLICATION PL-MV-2025-00170

PL-MV-2025-00173 **DEVLA PROPERTIES INC.**

Ward: 2

PIN(s) 73378-0004, Parcel 10702 SEC SWS, Part Lot 7, Concession 4 as in LT70852, Township of Waters, 36 Old Soo Road, Lively, [By-law 2010-100Z, R3.D45]

For relief from Part 4, Section 4.2, Table 4.1, Section 4.15, subsection 4.15.1 e) and Part 6, Section 6.3, Table 6.5 of By-law 2010-100Z, being the By-law for the City of Greater Sudbury, as amended, to facilitate the development of five 2-storey Row Dwelling buildings consisting of 20-dwelling units providing, firstly, the western 1.73m high retaining wall to provide a 0.2m setback from the interior side lot line, where an accessory structure 2.5m or less in height shall be no closer than 0.6m from the side lot line, secondly, a 2.8m-wide landscaped area adjacent to the full length of the lot line abutting Old Soo Road, where a 3.0m-wide landscaped area adjacent to the full length of a lot line shall be required abutting all public roads having a width greater than 10.0m in all Zones, thirdly, the western 1.73m high retaining wall to provide a front yard setback of 3.0m, where 6.0m is required, fourthly, the eastern 1.17m high retaining wall to provide no front yard setback (0.0m), where 6.0m is required, fifthly, Row Dwelling Blocks A and B to provide a rear yard setback of 6.7m, where 7.5m is required, sixthly, Row Dwelling Blocks A and B to provide a privacy yard depth of 6.7m and Row Dwelling Block C to provide a privacy yard depth of 6.1m, where 7.5m is required, and seventhly, Row Dwelling Blocks A and B to provide a minimum court distance of 2.4m, where 3.0m is required where opposing walls of one or more row dwellings on the same lot do not contain balconies or habitable room windows.

A reminder... the next scheduled meeting is Wednesday, February 4, 2026.

Box 5000, Station A
200 Brady Street
Sudbury, Ontario P3A 5P3
(705) 671-2489 ext 4376 or 4346
(705) 673-2200 FAX

Record #: PL-MV-2025-00167

APPLICATION SUMMARY

File Date: 12/02/2025

Application Type: Minor Variance

Address(es): 1282 Paquette Street, Sudbury P3A 3Y2

Applicant(s): DANIEL PLANTE

Owner(s): DANIEL PLANTE AND DENISE PLANTE

PLANNING APPLICATION

Are there multiple properties associated with the application?
No

Please describe the additional properties associated with this application

What is the date the current Owner(s) acquired the property?
2007

Are you the registered owner or an authorized agent?
Registered Owner

What is the number of dwelling units on the property?
4

What is the number of proposed new dwelling units on the property?
0

What is the number of proposed new buildings/structures on the property?
0

What is the number of existing buildings/structures on the property?
2

If this application is approved, would any existing dwelling units be legalized?
No

How many dwelling units will be legalized?

Is this property located within an area subject to the Greater Sudbury Source Protection Plan?

No

Provide details on how the property is designated in the Source Protection Plan

Current Official Plan designation
Living Area I

Current Official Plan designation (additional)
Living Area I

Current Zoning By-law designation
R2-2

Provide a detailed description of what is being proposed
reduce front green grass for parking.

Provide a detailed reason why the proposal cannot comply with the Zoning By-law
not enough parking space in the back.

Is there an eave encroachment?
No

Size of eaves

Lot Frontage of the property
15.24

Lot Depth of the property
45.7

Lot Area of the property
675

Total width of the public road giving access to the property
20

List all buildings and structures on the property and their respective date of construction
main building 1964 shed uknow

Existing use(s) of the subject property and length of time it/they have continued, ex. Residential, Commercial, Institutional, Park, etc.
residential since 1964

Is the use remaining the same? If no, please provide the proposed new use
residential

Existing uses of neighbouring properties
residential

Has the property ever been subject of a previous application for minor variance/permission?
No

Do you require zoning relief from Section 4.41 (Waterbodies – Water Frontage, Setbacks and Buffers)?
No

Have you consulted with the Strategic and Environmental Planning department regarding this relief?

Have you consulted with Conservation Sudbury regarding this relief?

WATER SUPPLY AND SEWAGE DISPOSAL

Municipally owned and operated piped water system	[X]
Municipally owned and operated sanitary sewage system	[X]
Lake	[ ]
Pit Privy	[ ]
Individual Well	[ ]
Communal Well	[ ]
Individual Septic System	[ ]
Communal Septic System	[ ]
Other	[ ]

Explain Other

PROPERTY ACCESS

Provincial highway	[ ]
Right-of-way	[ ]
Municipal road that is maintained seasonally	[ ]
Municipal road that is maintained year-round	[X]
Water	[ ]

Indicate the parking and docking facilities to be used if via water

Estimate the distance of these facilities from the retained land and nearest public road by water

CONCURRENT APPLICATIONS

Is the property the subject of a current application for Consent?
No

Indicate the application number(s) and status of the application(s)

Is the property the subject of a current application for a Plan of Subdivision?
No

Indicate application number(s) and application status

PROPOSED BUILDING/STRUCTURE

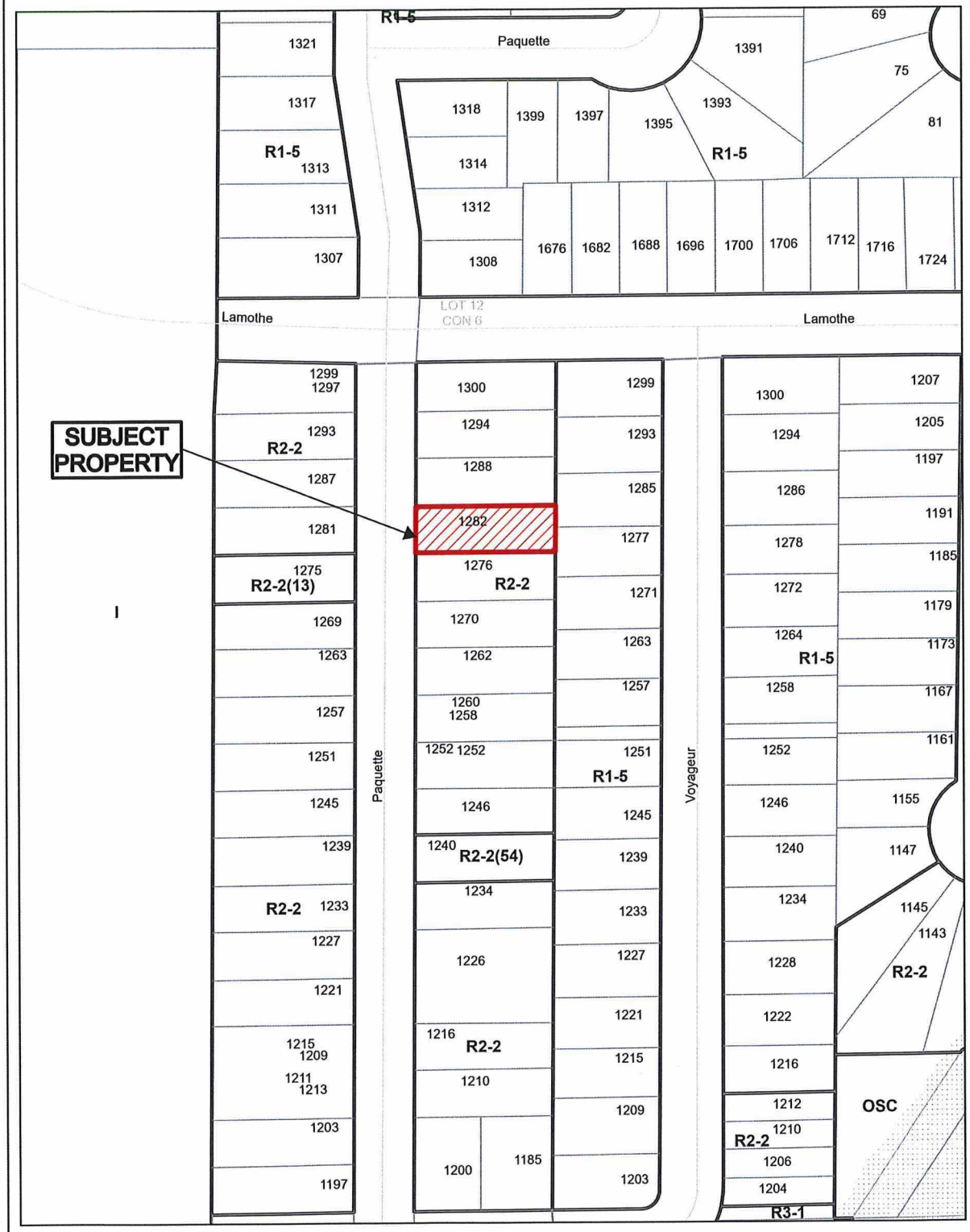
Building Description	Same As Existing	Proposed Ground Floor Area (m2)	Proposed Gross Floor Area (m2)	Proposed Number of Storeys	Proposed Width (m)	Proposed Length (m)	Proposed Height (m)	Proposed Front Yard Setback (m)	Proposed Rear Yard Setback (m)	Proposed Side Yard Setback (m)	Proposed Side Yard Setback Other (m)

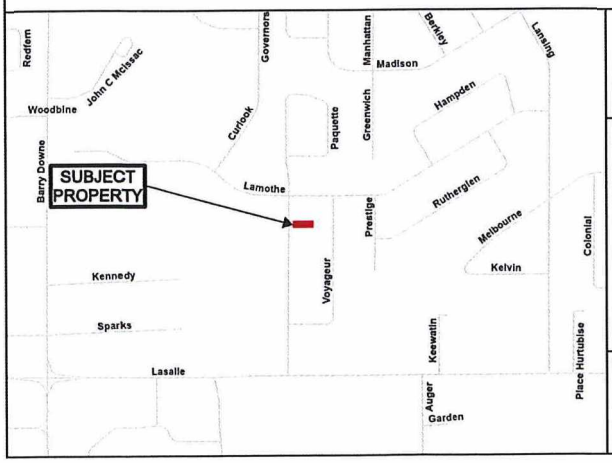
EXISTING BUILDING/STRUCTURE

Building Description	To Be Demolished	Existing Ground Floor Area (m2)	Existing Gross Floor Area (m2)	Existing Number of Storeys	Existing Width (m)	Existing Length (m)	Existing Height (m)	Existing Front Yard Setback (m)	Existing Rear Yard Setback (m)	Existing Side Yard Setback (m)	Existing Side Yard Setback Other (m)
Dwelling	No	126	252	2	11	17.4	6.4	10.2	18.12	3	1.2
Shed	No	15.68	15.68	1	3.2	4.9	2.4	27.6	14.92	1.2	9.14

ZONING BY-LAW RELIEF

Variance To	By-law Requirement	Proposed (m)	Difference (m)
Parking area in required front yard	Max width of 7.62m	To permit 2 parking spaces to max width of 12.0m	4.38m
Less than 50% landscape in required front yard	50%	21.26%	28.74%
Drive aisle	6m	3	3





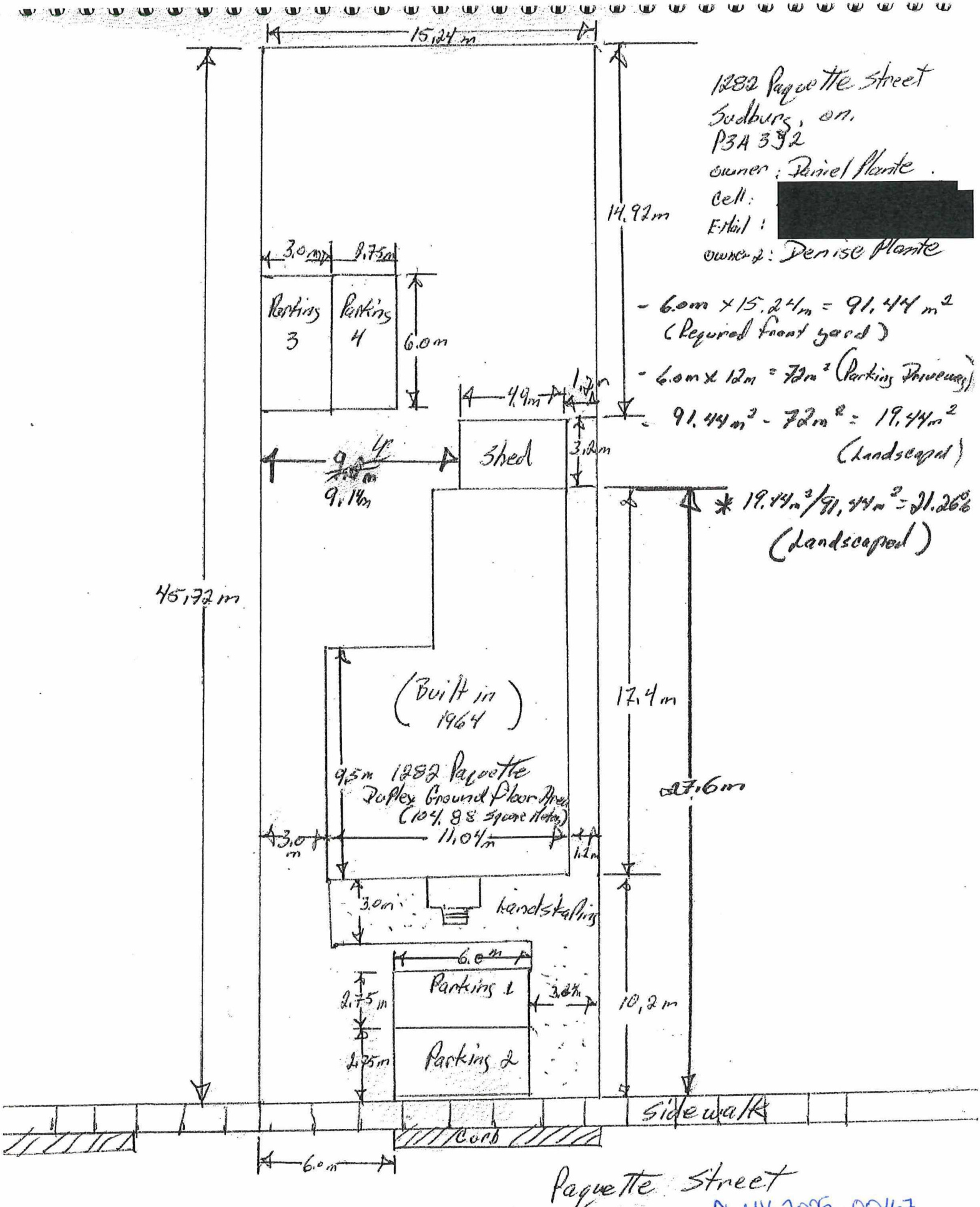
Application for Minor Variance or Permission

N

Subject Property being PIN 73567-0335,
Parcel 33376 SEC SES SRO,
Part Lot 12, Concession 6,
Part Lot 14, Plan M-287,
Part 1, Plan SR-1862,
Township of Neelon,
1282 Paquette Street, Sudbury,
City of Greater Sudbury

Sketch 1, NTS
NDCA

PL-MV-2025-00167
Date: 2025 12 04


15.24m
1282 Paquette Street
Sudbury, on.
P3A 3G2
owner: Daniel Plante.
Cell: [redacted]
E-Mail: [redacted]
owner 2: Denise Plante
14.92m
3.0m
2.75m
Parking 3
Parking 4
6.0m
- 6.0m x 15.24m = 91.44 m² (Required front yard)
- 6.0m x 12m = 72m² (Parking Driveway)
91.44m² - 72m² = 19.44m²
(Landscaped)
4.9m
1.2m
3.2m
Shed
9.14m
* 19.44m²/91.44m² = 21.26%
(Landscaped)
45.72m
(Built in 1964)
17.4m
9.5m 1282 Paquette Duplex Ground Floor Area (104.88 Square Meters)
27.6m
3.0m
11.04m
1.2m
3.0m
Handstanding
6.0m
Parking 1
2.75m
3.2m
10.2m
2.75m
Parking 2
Sidewalk
Curb
6.0m
Paquette Street
PL-MV-2085-00167
Sketch 2

Box 5000, Station A
200 Brady Street
Sudbury, Ontario P3A 5P3
(705) 671-2489 ext 4376 or 4346
(705) 673-2200 FAX

Record #: PL-MV-2025-00169

APPLICATION SUMMARY

File Date: 12/04/2025

Application Type: Minor Variance

Address(es): 399 Caron Street, Sudbury P3C 5H3

Applicant(s): ANDRE LANGLOIS

Owner(s): ANDRE LANGLOIS

PLANNING APPLICATION

Are there multiple properties associated with the application?
No

Please describe the additional properties associated with this application

What is the date the current Owner(s) acquired the property?
2015

Are you the registered owner or an authorized agent?
Registered Owner

What is the number of dwelling units on the property?
3

What is the number of proposed new dwelling units on the property?
0

What is the number of proposed new buildings/structures on the property?
0

What is the number of existing buildings/structures on the property?
2

If this application is approved, would any existing dwelling units be legalized?
No

How many dwelling units will be legalized?

Is this property located within an area subject to the Greater Sudbury Source Protection Plan?

No

Provide details on how the property is designated in the Source Protection Plan

Current Official Plan designation
Living Area I

Current Official Plan designation (additional)

Current Zoning By-law designation
R2-3

Provide a detailed description of what is being proposed
Reduced front yard setback for front addition and deck and reduced front landscape

Provide a detailed reason why the proposal cannot comply with the Zoning By-law
House is currently 6m from front lot line, and not enough room to accomodate the addition (entrance) and deck

Is there an eave encroachment?
No

Size of eaves

Lot Frontage of the property
15.24

Lot Depth of the property
45.72

Lot Area of the property
1156.64

Total width of the public road giving access to the property
20

List all buildings and structures on the property and their respective date of construction
House 1930
Shed 2021

Existing use(s) of the subject property and length of time it/they have continued, ex. Residential, Commercial, Institutional, Park, etc.
Residential since 1940

Is the use remaining the same? If no, please provide the proposed new use
same

Existing uses of neighbouring properties
Residential

Has the property ever been subject of a previous application for minor variance/permission?
Yes

Do you require zoning relief from Section 4.41 (Waterbodies – Water Frontage, Setbacks and Buffers)?
No

Have you consulted with the Strategic and Environmental Planning department regarding this relief?

Have you consulted with Conservation Sudbury regarding this relief?

WATER SUPPLY AND SEWAGE DISPOSAL

Municipally owned and operated piped water system	[X]
Municipally owned and operated sanitary sewage system	[X]
Lake	[ ]
Pit Privy	[ ]
Individual Well	[ ]
Communal Well	[ ]
Individual Septic System	[ ]
Communal Septic System	[ ]
Other	[ ]

Explain Other

PROPERTY ACCESS

Provincial highway	[ ]
Right-of-way	[ ]
Municipal road that is maintained seasonally	[ ]
Municipal road that is maintained year-round	[X]
Water	[ ]

Indicate the parking and docking facilities to be used if via water

Estimate the distance of these facilities from the retained land and nearest public road by water

CONCURRENT APPLICATIONS

Is the property the subject of a current application for Consent?
No

Indicate the application number(s) and status of the application(s)

Is the property the subject of a current application for a Plan of Subdivision?
No

Indicate application number(s) and application status

PROPOSED BUILDING/STRUCTURE

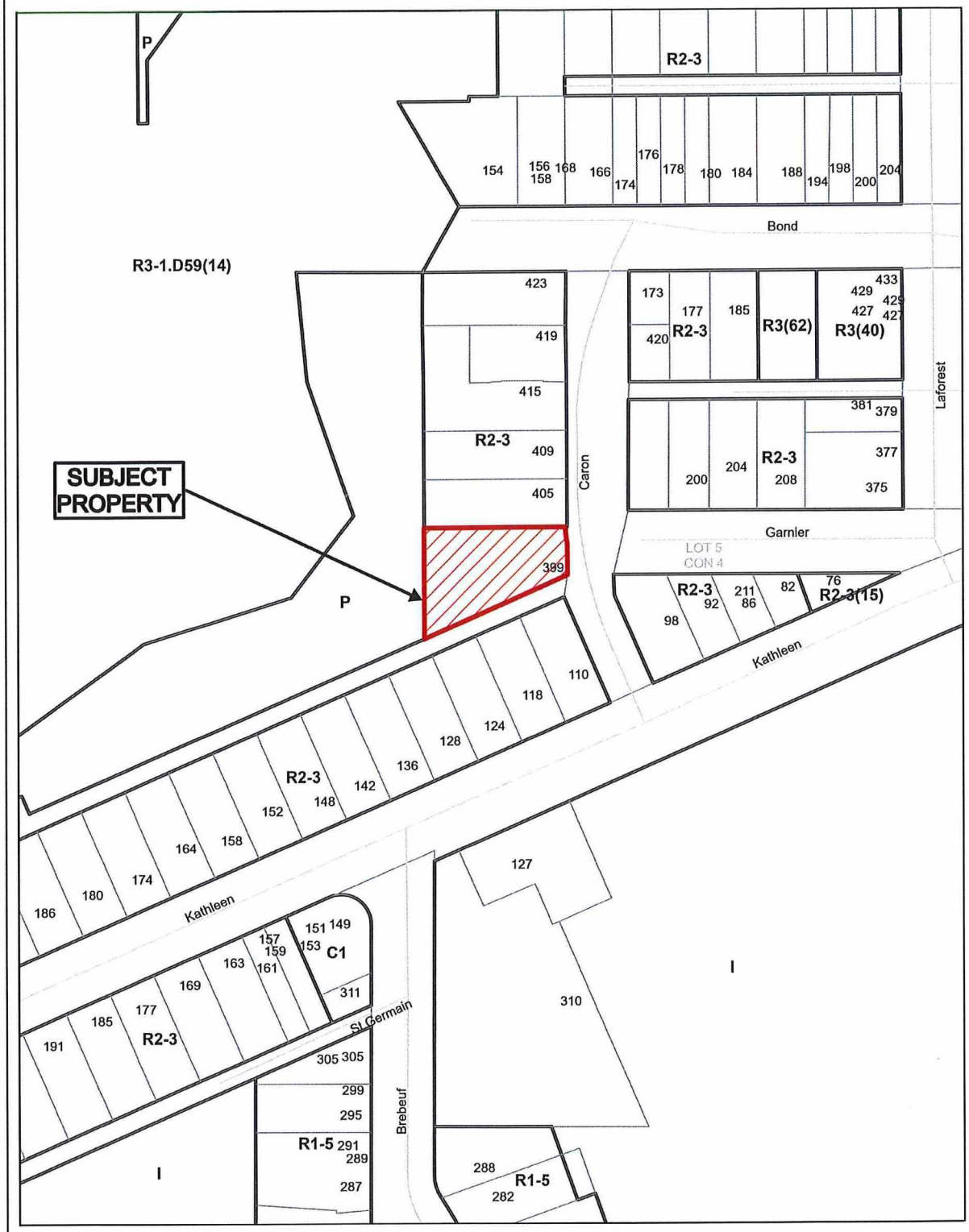
Building Description	Same As Existing	Proposed Ground Floor Area (m2)	Proposed Gross Floor Area (m2)	Proposed Number of Storeys	Proposed Width (m)	Proposed Length (m)	Proposed Height (m)	Proposed Front Yard Setback (m)	Proposed Rear Yard Setback (m)	Proposed Side Yard Setback (m)	Proposed Side Yard Setback Other (m)

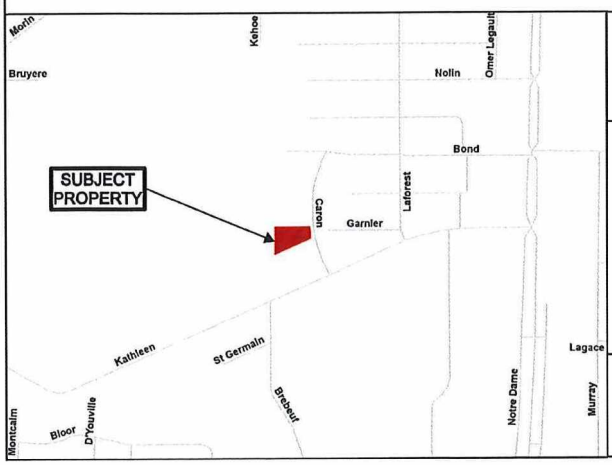
EXISTING BUILDING/STRUCTURE

Building Description	To Be Demolished	Existing Ground Floor Area (m2)	Existing Gross Floor Area (m2)	Existing Number of Storeys	Existing Width (m)	Existing Length (m)	Existing Height (m)	Existing Front Yard Setback (m)	Existing Rear Yard Setback (m)	Existing Side Yard Setback (m)	Existing Side Yard Setback Other (m)
House	No	154.5	309	2	12.5	13.72	7.5	4.88	26	0	7.01
Shed	No	8.9	8.9	1	3	3.66	2.44	27.41	14.32	13.26	11.52
Addition - entrance	No	9.29	9.29	1	3.05	3.05	3.4	1.83	40.84	10.67	2.13
Deck - front	No	9.29	9.29	1	3.05	3.05	0.03	1.83	40.84	7.62	5.18

ZONING BY-LAW RELIEF

Variance To	By-law Requirement	Proposed (m)	Difference (m)
Deck front yard setback	4.8m	1.829m	2.971m
Front entrance setback	6m	1.829m	4.171m
Reduced front landscape	50%	28%	22%
Reduced landscaped area	3.0m-wide	1.8m	1.2m





Application for Minor Variance or Permission

N

Subject Property being PIN 02133-0303,
Part Lot 5, Concession 4,
Lot 1, Plan 54-S, except Part 1, Plan 53R-20290,
Township of McKim,
399 Caron Street, Sudbury,
City of Greater Sudbury

Sketch 1, NTS
NDCA

PL-MV-2025-00169
Date: 2025 12 09

① SFD w/ 2 additional dwelling units
② Show parking spaces (2.75m x 6.0m)
(Zoned R2-3)

GENERAL NOTES:

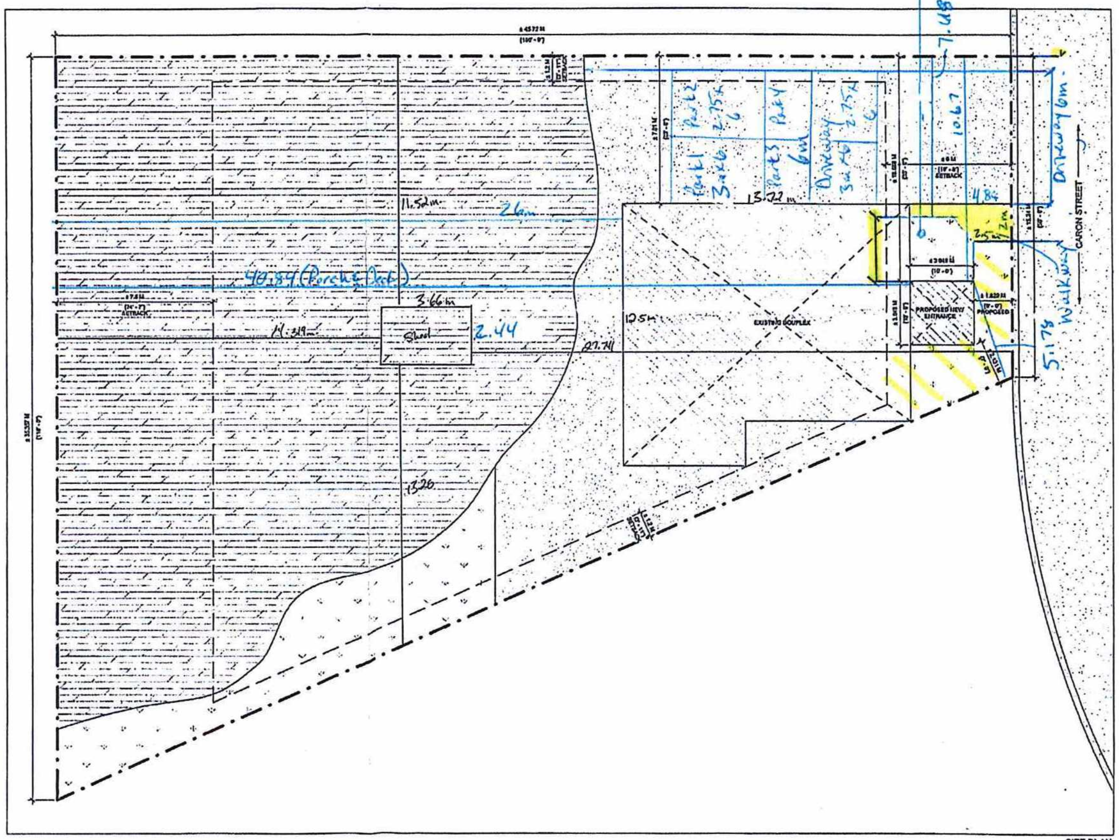
1. EXISTING REFER TO DRAWING PREPARED BY BORTOLUSSI SURVEYING FOR GRADING INFORMATION.
2. PROVIDE NEW 3" WIDE (WHITE) LINE PAINTING ON ALL NEW ASPHALT.
3. ALL SIDEWALKS & PATHWAYS TO BE 5'-0" MIN. WIDE UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO LOCATE ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORK.

SITE PLAN LEGEND

- PROPOSED NEW
- DENOTES EXISTING BUILDING
- DENOTES GRAVEL
- DENOTES ASPHALT
- DENOTES GRASS
- DENOTES CONCRETE WALKWAY
- DENOTES EXPOSED BEDROCK
- DENOTES PROPERTY LINE
- DENOTES SETBACK LINE

DIMENSIONS ON SITE PLAN TO BE FIELD VERIFIED BY HOME OWNER, CONTRACTOR OR SITE SURVEY. ANY DISCREPANCIES SHALL BE REPORTED TO KOMRI ENGINEERING

ZONE =	~R2-3
TOTAL PROPERTY AREA=	~±1158.64 m^2
EXISTING DOUPLEX=	~±154.5 m^2
PROPOSED ENTRANCE=	~±9.3 m^2
NEW TOTAL LOT COVERAGE=	~14.16%
MAXIMUM LOT COVERAGE=	~10%
MAXIMUM HEIGHT=	~11m
MINIMUM LOT FRONTAGE=	~12m
MINIMUM FRONT YARD=	~0m
MINIMUM REAR YARD=	~7.5m
MINIMUM INTERIOR SIDE YARD=	~1.2m
MINIMUM CORNER SIDE YARD=	~4.5m



SITE PLAN
1/8" = 1'-0"

ISSUED FOR PERMIT - JULY 20, 2022

KOMRI ENGINEERING

SITE PLAN

DRAWN: DL
CHECKED: KO
SCALE: As Indicated
SHEET: A01

PL-MV-2025-00169
Sketch 2

Box 5000, Station A
200 Brady Street
Sudbury, Ontario P3A 5P3
(705) 671-2489 ext 4376 or 4346
(705) 673-2200 FAX

Record #: PL-MV-2025-00170

APPLICATION SUMMARY

File Date: 12/05/2025

Application Type: Minor Variance

Address(es): 2745 Henri Street, Sudbury P3G 1C2

Applicant(s): TIM SMITH

Owner(s): TIM SMITH AND FAY SMITH

PLANNING APPLICATION

Are there multiple properties associated with the application?
No

Please describe the additional properties associated with this application

What is the date the current Owner(s) acquired the property?
Aug 15, 2025

Are you the registered owner or an authorized agent?
Registered Owner

What is the number of dwelling units on the property?
2

What is the number of proposed new dwelling units on the property?
0

What is the number of proposed new buildings/structures on the property?
0

What is the number of existing buildings/structures on the property?
1

If this application is approved, would any existing dwelling units be legalized?
No

How many dwelling units will be legalized?

Is this property located within an area subject to the Greater Sudbury Source Protection Plan?

No

Provide details on how the property is designated in the Source Protection Plan

Current Official Plan designation
Living Area II

Current Official Plan designation (additional)
Living Area II

Current Zoning By-law designation
R1-2

Provide a detailed description of what is being proposed
lot severance

Provide a detailed reason why the proposal cannot comply with the Zoning By-law
frontage too short.22.58 instead of 36

Is there an eave encroachment?
No

Size of eaves

Lot Frontage of the property
22.58

Lot Depth of the property
74.71

Lot Area of the property
1687

Total width of the public road giving access to the property
20.12

List all buildings and structures on the property and their respective date of construction
1 dwelling - 2020

Existing use(s) of the subject property and length of time it/they have continued, ex. Residential, Commercial, Institutional, Park, etc.
residential and institutional

Is the use remaining the same? If no, please provide the proposed new use
yes

Existing uses of neighbouring properties
Residential

Has the property ever been subject of a previous application for minor variance/permission?
No

Do you require zoning relief from Section 4.41 (Waterbodies – Water Frontage, Setbacks and Buffers)?
No

Have you consulted with the Strategic and Environmental Planning department regarding this relief?

Have you consulted with Conservation Sudbury regarding this relief?

WATER SUPPLY AND SEWAGE DISPOSAL

Municipally owned and operated piped water system	[X]
Municipally owned and operated sanitary sewage system	[ ]
Lake	[ ]
Pit Privy	[ ]
Individual Well	[ ]
Communal Well	[ ]
Individual Septic System	[X]
Communal Septic System	[ ]
Other	[ ]

Explain Other

PROPERTY ACCESS

Provincial highway	[ ]
Right-of-way	[ ]
Municipal road that is maintained seasonally	[ ]
Municipal road that is maintained year-round	[X]
Water	[ ]

Indicate the parking and docking facilities to be used if via water

Estimate the distance of these facilities from the retained land and nearest public road by water

CONCURRENT APPLICATIONS

Is the property the subject of a current application for Consent?
Yes

Indicate the application number(s) and status of the application(s)
PL-CON-2025-00094

Is the property the subject of a current application for a Plan of Subdivision?
No

Indicate application number(s) and application status

PROPOSED BUILDING/STRUCTURE

Building Description	Same As Existing	Proposed Ground Floor Area (m2)	Proposed Gross Floor Area (m2)	Proposed Number of Storeys	Proposed Width (m)	Proposed Length (m)	Proposed Height (m)	Proposed Front Yard Setback (m)	Proposed Rear Yard Setback (m)	Proposed Side Yard Setback (m)	Proposed Side Yard Setback Other (m)

EXISTING BUILDING/STRUCTURE

Building Description	To Be Demolished	Existing Ground Floor Area (m2)	Existing Gross Floor Area (m2)	Existing Number of Storeys	Existing Width (m)	Existing Length (m)	Existing Height (m)	Existing Front Yard Setback (m)	Existing Rear Yard Setback (m)	Existing Side Yard Setback (m)	Existing Side Yard Setback Other (m)
dwelling	No	229	229	1	16.49	14.45	5	25	35.24	3.65	2.45

ZONING BY-LAW RELIEF

Variance To	By-law Requirement	Proposed (m)	Difference (m)
lot width - 22.58 instead of 36	36	22.58	13.42

Hydrogeological Assessment for Proposed Individual Residential Wastewater System, 2745 Henri Street, City of Greater Sudbury, ON

ECO Septic

Type of Document:
Hydrogeological Assessment

Project Name:
Hydrogeological Assessment for Proposed Individual Residential Wastewater System, 2745 Henri Street, City of Greater Sudbury, ON

Project Number:
SUD-25015409-A0

Prepared By:
EXP Services Inc.
885 Regent Street
Sudbury, Ontario, P3E 5M4
t: +1.705.674.9681
f: +1.705.674.5583

Date Submitted:
2025-11-18

Table of Contents

List of Figures

1. Introduction

EXP Services Inc. (EXP) was retained by Mr. Tim Smith of ECO Septic Solutions ("the Client") to complete a Hydrogeological Assessment for a proposed individual residential wastewater system to be constructed at 2745 Henri Street, City of Greater Sudbury, Ontario ("the Site").

2. Background

It is proposed to subdivide an existing residential lot located at 2745 Henri Street, City of Greater Sudbury (CGS), Ontario. The proposed lot to be subdivided is approximately 0.4 hectares (Ha) in size. The lot is proposed to be serviced by the municipal water supply system (no groundwater well required for the proposed lot). The property is not proposed to be serviced by the municipal sanitary sewer. The Client has consulted with the CGS. The CGS has requested that the Client complete a hydrogeological assessment in accordance with the City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems. Based on the City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems, where development is outside fully serviced areas, the proponent must prove that the soil conditions of the proposed site are suitable for a waste sewage disposal system and that there is a proven source of potable water available. A hydrogeological assessment is required where the minimum lot size is less than 0.8 hectare (2 acres).

3. Methodology

3.1 Field Work

EXP supervised the excavation of one (1) test pit to a depth of 2.8 m below ground surface at the Site in the general area of the proposed septic field bed, located within the proposed area to be subdivided (north half of the lot. 2745 Henri Street). The GPS coordinates for TP-01 are 5142161.5 N, 503959.0 E. The test pit was excavated at the Site on November 6, 2025 by the client's sub-contractor. Representative soil samples were collected from the test pit for geotechnical materials laboratory testing (moisture content and gradation analyses). The test pit was backfilled at the end of day.

A level survey was conducted during the Site investigative activities, with the purpose of obtaining relative vertical control of the test pit location. The ground surface level of the test pit was surveyed in reference to a non-geodetic temporary benchmark (TBM) and identified as being "top of concrete patio slab at 2745 Henri St.", (GPS coordinates 5142146.3 N, 503974 E) and provided with a non-geodetic level of 100.0 m. The locations of the test pit and temporary benchmark are shown on Drawing A-1.

3.2 Laboratory Testing

Representative soil samples from the excavated test pit were submitted to EXP's materials testing laboratory in Sudbury for testing. Grain-size analysis was completed from soil obtained below the topsoil (fill soil material) at approximately 0.08 m – 0.5m below ground surface and 0.75 m – 1.5 m below ground surface. Based on soil gradation results, estimated hydraulic conductivity and percolation time of the soil samples were determined.

4. Subsurface Conditions

A test pit log of the subsurface condition encountered at the Site is provided in Appendix A of this report and summarized below.

4.1 Geological, Soil and Topographical Mapping

The following geological maps were reviewed:

Ontario Geological Survey OGS Earth https://www.geologyontario.mndm.gov.on.ca/ogsearth.html#quaternary-geology and https://www.geologyontario.mndm.gov.on.ca/ogsearth.html#bedrock-geology.

A review of quaternary geology mapping suggests that undifferentiated igneous and metamorphic rock, exposed at surface or covered by a discontinuous, thin layer of drift exists at the Site. Bedrock geology mapping suggests that quarts-feldspar sandstone, argillite and conglomerate, Huronian Supergroup, Hough Lake Gorup and Mississage Formation underly the Site.

Topographic mapping provided by the Ministry of Natural Resources was available for the completion of this report. Based on the mapping, the area of the Site is generally sloping from north to south, toward McFarlane Lake. The noted elevations range from +/- 240.0 m in the area of the Site toward McFarlane Lake at +/- 227.0 m (+/- 13 m grade change). As such, shallow local groundwater flow in the area of the site is expected to flow (generally) south towards McFarlane Lake. Surface water flow in the area of the Site flows in a southerly direction from Richard Lake to McFarlane Lake. The Site is approximately 700m north of McFarlane Lake.

The *actual* groundwater flow direction can only be determined by a long-term groundwater elevation investigation in the area.

See Drawings A-2 to A-4 for geological, quaternary and topographical mapping information.

4.2 Soil Conditions

A total of one (1) test pit was excavated at the Site. Test pit TP-01 was advanced to a depth of 2.8 meters below ground surface (mbgs). The following section summarizes the soil conditions encountered at the TP-01 location.

Surficial Topsoil

Surficial topsoil was encountered at the TP-01 location. The topsoil layer was approximately 75 mm in thickness.

Fill

A layer of brown, silty sand, trace gravel fill was identified below the surficial topsoil layer. The insitu fill material extended to a depth of 0.6 mbgs. The moisture content of the insitu fill material was found to be 15.0% by weight (moist condition).

A buried organic layer (organic material mixed with sandy silt soil) identified as possible fill material was identified below the upper level insitu fill. This mixed soil material extended to a depth of 0.75 mbgs. The moisture content of the mixed insitu fill material was found to be 18.0% by weight (moist condition).

Native Silt

A deposit of native brown silt, some clay, trace sand in a moist state was identified below the fill soils. The native silt deposit extended from the base of the fill material to the termination depth of the test pit (2.8 mbgs). The moisture content of the native sandy silt deposit was found to range from 18% to 23% (at 1.5 mbgs) by weight (moist condition).

4.3 Groundwater

The groundwater level (or groundwater ingress) was not encountered at the TP-01 location between surface and the test pit termination depth at 2.8 mbgs. The brown silt soil was found to be dilatant below 1.5 mbgs.

4.4 Hydraulic Conductivity

Two (2) representative samples were gathered from TP-01 for submission into EXP's materials laboratory in Sudbury for testing. Based on grain-size analysis, the percolation time (T-time) and hydraulic conductivity (K) was estimated for each submitted sample. Hydraulic conductivity was estimated using the Hazen method, which is dependent on the D_{10} effective grain size of the soil sample. Table 4.1 summarizes the estimated T-times and K for the soil samples, (see Appendix A for grainsize distribution).

Table 4.1. Estimated Hydraulic Conductivity (K) of Soil Samples from Site.

Soil Sample Location	Sample Depth (m)	Design T-Time (min/cm)	Estimated K (cm/sec)	Soil Classification
TP-01, Sample 1	0 - 0.5	20	5.3×10^{-4}	SM
TP-01, Sample 3	0.75 – 1.5	>50	1.4×10^{-6}	ML

The grain-size estimates confirm that the Site appears to be underlain by sandy fill soils with a native silt deposit below the upper soil levels. Fill soil at the TP-1 location, within the upper +/- 0.5 m soil zone was found to have K estimation of 5.3×10^{-4} cm/sec (5.3×10^{-6} m/sec), SM classified soil. The design T-Time of the identified fill soil was found to be 20 min/cm (medium permeability).

Based on grain-size estimates of deeper level native silt soils, K estimation of 1.4×10^{-6} cm/sec (1.4×10^{-8} m/sec), ML classified soil was determined. The design T-Time of the identified silt soil was found to be >50 min/cm (low permeability).

An overall geometric average K of 2.7×10^{-5} cm/sec (2.7×10^{-7} m/sec), ML and SM classified soil was calculated for the soils encountered at the Site, indicating low permeability soils.

The soil properties indicated above and within the soil gradation results (Septic Soil Testing) attached in Appendix A are representative only of the sample delivered to our facilities. It must be noted that the permeability and percolation rates have been estimated based on an approximate relationship of soil types as determined by the grain size distribution test conducted. Variability of soil types and actual performance of in-situ soils may vary across the Site.

4.5 Water Well Records

A MOECP Well Records database search was completed for the adjacent properties to the north, south, east and west of 2745 Henri Street. Based on the MOECP Well Records database, no water well records exist for the adjacent properties to the north, east and south. A total of eleven (11) water well records were identified for the adjacent property to the west. Of the eleven (11) water well records, ten (10) water well records are for test holes/monitoring wells and one (1) water well record (Record No. 5900448, approximately 150 m southwest) is for domestic water supply (fresh water, Static Level 10', drill depth 132' or 40

m). The groundwater well records indicate that a sand to sand and gravel deposit exists from near surface to the well termination depth. These monitoring wells and domestic water supply well are considered to be cross gradient from the Site.

Well record 5904282 located approximately 125 m southeast of the Site (down gradient and cross gradient) was advanced to 145' (44 m) depth. A clay deposit with boulders was noted to exist from surface to 120' (36.6 m) below surface. The well was abandoned and unfinished due to low groundwater quantity.

Well record 5908060 located approximately 225 m southeast of the Site (down gradient and cross gradient) was advanced to 142' (43.3 m) depth. A clay deposit with boulders was noted to exist from surface to 113' (34.4 m) below surface. The well was terminated in bedrock. Groundwater (fresh) was encountered at 120 ' (36.6 m) with a static level of 3.0 m.

Well record 5906078 located approximately 150 m northeast of the Site (up gradient and cross gradient) was advanced to 132' (40.2 m) depth. A clay deposit with boulders was noted to exist from surface to 15' (4.6 m) below surface. The well was terminated in a sand and gravel deposit (4.6 m to 40.2 m). Groundwater (fresh) was encountered at 132 ' (40.2 m) with a static level of 3.7 m.

Well records from the WWIS database suggest that the local aquifer exhibits upward gradient, the clay and silt soils overlying the lower soil deposits and bedrock near (and at) the Site may likely provide a confined or semi-confined condition (i.e., hydraulic separation between the aquifer and the proposed septic system). In particular, this may likely provide protection from potential elevated nitrate levels originating from on-site septic beds. The locations of local MOECP Well Records are included in Drawing A-5, the noted well records are included in Appendix B.

5. Groundwater Quality Impacts

5.1 General

MECP Procedures D-5-4 describes a three-step procedure to assess the impacts of individual on-site sewage systems to groundwater:

- Step 1: Assess whether average lot size is greater than 1 hectare (ha).
- Step 2: Demonstrate whether on-site individual sewage systems are hydraulically isolated from existing or potential water supply aquifers.
- Step 3: Examine potential contaminant loadings to groundwater from the proposed on-site sewage systems.

MECP Procedure D-5-4 stipulates that if lot sizes are greater than 1 ha, or if the average lot size is 1 ha with no lot less than 0.8 ha, a hydrogeological assessment may not be required. The current proposed sub-divided lot is proposed to be 0.4 hectares in size. Since the proposed subdivision plan does not allow the establishment of average lot sizes of 1 ha, the scope of work for this undertaking involved the completion of Step 2 and Step 3.

MECP Procedures D-5-4 stipulates that individual on-site sewage systems may be deemed acceptable if it can be demonstrated that effluent from on-site sewage systems are hydraulically isolated from existing or potential supply aquifers in the vicinity.

A review of quaternary geology mapping suggests that undifferentiated igneous and metamorphic rock, exposed at surface or covered by a discontinuous, thin layer of drift exists at the Site. Bedrock geology mapping suggests that quarts-feldspar sandstone, argillite and conglomerate, Huronian Supergroup, Hough Lake Gorup and Mississage Formation underly the Site. Local MOECP groundwater well records indicate that an upper-level clayey deposit, overlying a sand to sand and gravel deposit extends to bedrock level (bedrock level near +/- 36 m depth).

An overall geometric average K of 2.7 x 10^{-5} cm/sec (2.7 x 10^{-7} m/sec), ML and SM classified soil was calculated for the soils encountered at the Site, indicating low permeability soils. The low permeability soils extended to the test pit excavation depth of 2.8 mbgs. Groundwater ingress was not encountered during test pit excavation. These conditions are generally amenable to hydraulic isolation between surface infrastructure and lower-level aquifers. As such, it is concluded that hydraulic isolation exists between potential on-site sewage system and the existing or potential groundwater supply aquifers. The site is not considered to be a sensitive site.

EXP completed a predictive assessment of potential combined impacts from the on-site sewage systems to water supply sources at the Site boundaries based on MECP Procedures D-5-4. A predictive assessment of potential combined impacts from the on-site sewage systems to water supply aquifers at the Site boundaries was completed.

The contaminant attenuation model for the Site was based on the following assumptions:

- Dilution from infiltrating precipitation as the only mechanism for attenuation of contaminants (nitrate-nitrogen);
- Estimation of infiltration based on site-specific conditions, including soils, topography, geology and impermeable surfaces (such as paved areas), Infiltration factor applied (0.6);
- Proposed attenuation area per Lot were adjusted to accommodate Site topography;
- It is assumed that proposed development and placement of septic systems will not be located at the property boundary and local groundwater flow is expected toward the south;
- Nitrate-nitrogen is the critical contaminant with an initial concentration of 40 mg/L;
- A nitrate-nitrogen concentration of 0.5 mg/L has been designated for the infiltrating precipitation. This is considered conservative for precipitation in Northern Ontario;
- The estimated daily effluent flow rate for the Site is 1,000 L/lot/day.
- Environment Canada Climate Normal precipitation data for the Sudbury, Ontario Climate Station (Climate ID: 6068150, 46°37'32.000" N, 80°47'52.000" W) between the years 1991 and 2020 indicates an average annual precipitation rate of approximately 912 mm/yr. Using the Thornthwaite Mathar Water Balance Model (1963), a water surplus was calculated to be 425 mm/yr, which is the difference between the mean annual precipitation and the annual evapotranspiration.

The MECP Design Guideline for Sewage Works, 2008 (Table 22-2) provides concentrations of contaminants in typical residential wastewater. Nitrates are listed as being <1mg/L. However, the Guideline states, "It should be assumed that all nitrite and ammonia will convert to nitrate." Total nitrogen is listed as ranging from 26 mg/L to 75 mg/L. A nitrate concentration of 40 mg/L is to be used for predictive assessments.

The predictive assessment assumes that the critical point is where effluent-impacted groundwater migrates across the Site or Lot property boundary of the proposed subdivision. Groundwater flow direction has been established to follow local topography, flowing in a southerly direction.

The contaminant concentrations at the Site boundaries (C_T) were derived from the total mass loading of nitrate-nitrogen in input waters (M_T) divided by the total volume of the input waters (V_T):

$$C_T = M_T / V_T$$

V_T is equal to the total volume of infiltrating precipitation (V_i) and the total volume of discharge from all on-site sewage systems (V_e). M_T is equal to the total mass of contaminant contained in both the infiltration precipitation (M_i) and the sewage effluent (M_e):

$$M_i = C_i \times V_i$$

$$M_e = C_e \times V_e$$

Where C_i and C_e are the nitrate-nitrogen concentrations in infiltrating precipitation and sewage effluent, respectively.

5.2 Groundwater Impact Findings

Based on the above assumptions, the predicted total nitrates concentration at the Site boundary are summarized in Table 5.1.

Table 5.1. Predicted Nitrates Concentrations at Site Boundary

Average Annual Precipitation 912.0 mm, Per Lot Assessment Area					
Lot Number	**Total Infiltration Area (m^2)**	**Infiltration Available for Dilution (L/day)**	**Average Effluent Discharge (L/day)**	**Nitrates Concentration in Effluent(mg/L)**	**Average Nitrates Concentration at Site Boundary (mg/L)**
New Lot	4,000	4,000	1,000	40	**9.5**

The total predicted nitrate-nitrogen loadings to groundwater from the proposed effluent sources at the Site are based on projected loadings from infiltrating precipitation, and from sewage effluent discharges per the formulae defined above in Section 5.1. The predicted loadings to groundwater indicate that nitrate-nitrogen at the Site boundary for the proposed new lot (north half of 2745 Henri Street) would be approximately 9.5 mg/L, and would be less than the allowable Ontario Drinking Water Objective (ODWO) of 10 mg/L. This result indicates that the soil conditions of the proposed new lot is considered to be suitable for a residential waste sewage disposal system.

If Lot owners choose to install potable groundwater wells on their property, nitrate levels in the groundwater may be a concern. Ontario regulations, including Ontario Regulation 903 and the Ontario Building Code, have rules concerning separation distances between septic beds and potable groundwater wells. Nonetheless, proximity to larger septic beds – especially during peak occupancy periods may lead to high nitrate levels in source groundwater. If owners are considering water well installation, they should also consider nitrate treatment for their sewage system.

There are a number of available nitrate treatment systems, including the POINTTM system, the Waterloo Biofilter and the Premier Tech Environment Ecoflow Biofilter, for example. Many of the readily available nitrate treatment systems are capable of removing 40% of nitrogen compounds consistently from the effluent. Typically, these systems require smaller field bed areas compared to conventional systems.

Available information, including case studies, suggests that Waterloo Biofilters systems can remove the following total nitrogen compounds consistently:

- Single-Pass Waterloo System – 25 to 35% total nitrogen removal;
- Double-Pass Waterloo System – 50 – 65% total nitrogen removal.

6. Summary and Recommendations

It is proposed to subdivide an existing residential lot located at 2745 Henri Street, City of Greater Sudbury (CGS), Ontario. The proposed lot to be subdivided is approximately 0.4 hectares (Ha) in size. The lot is proposed to be serviced by the municipal water supply system (no groundwater well required for the proposed lot). The property is not proposed to be serviced by the

municipal sanitary sewer. The Client has consulted with the CGS. The CGS has requested that the Client complete a hydrogeological assessment in accordance with the City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems. Based on the City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems, where development is outside fully serviced areas, the proponent must prove that the soil conditions of the proposed site are suitable for a waste sewage disposal system and that there is a proven source of potable water available. A hydrogeological assessment is required where the minimum lot size is less than 0.8 hectare (2 acres).

The assessment provided the following findings:

- One (1) test pit was unexcavated in the area of the proposed septic, within the area of the Lot to be sub-divided.
- Overburden soils at the Site comprises of a thin surficial organic deposit (75 mm in thickness), an upper-level fill or disturbed soil layer of silty sand, trace gravel in moist state. The mixed fill or disturbed upper soil layer contained varied amounts a of organics. The mixed fill or disturbed upper soil layer extended to an approximate depth of 0.75 mbgs. A native deposit of silt, some clay, trace sand was identified below the topsoil and mixed fill, extending to the test pit termination depth of 2.8 mbgs. Groundwater was not encountered at the test pit location.
- Based on the MOECP Well Records database, adjacent groundwater wells and local surrounding groundwater wells indicate a thick deposit of upper-level clay and bounder soil material over native sand to sand deposits at depth. Bedrock was identified near a depth of 35 m below ground surface. Groundwater was identified at a depth near 35.0 m – 40.0 m below ground surface with static levels near 3.0 – 4.0 m below ground surface (upward gradient).
- Topographic mapping provided by the Ministry of Natural Resources was available for the completion of this report. Based on the mapping, the area of the Site is generally sloping from north to south, toward McFarlane Lake (+/- 700 m south of Site). The noted elevations range from +/- 240.0 m in the area of the Site toward McFarlane Lake at +/- 227.0 m (+/- 13 m grade change). As such, shallow local groundwater flow in the area of the site is expected to flow (generally) south towards McFarlane Lake
- An overall geometric average K of 2.7 x 10^{-5} cm/sec (2.7 x 10^{-7} m/sec), ML and SM classified soil was calculated for the soils encountered at the Site, indicating low permeability soils. The low permeability soils extended to the test pit excavation depth of 2.8 mbgs. Groundwater ingress was not encountered during test pit excavation. These conditions are generally amenable to hydraulic isolation between surface infrastructure and lower-level aquifers. As such, it is concluded that hydraulic isolation exists between potential on-site sewage system and the existing or potential groundwater supply aquifers. The site is not considered to be a sensitive site.
- The predicted loadings to groundwater indicate that nitrate-nitrogen at the Site boundary for the proposed new lot (north half of 2745 Henri Street) would be approximately 9.5 mg/L, and would be less than the allowable Ontario Drinking Water Objective (ODWO) of 10 mg/L. This result indicates that the soil conditions of the proposed new lot is considered to be suitable for a residential waste sewage disposal system.

The following recommendations are provided:

1. Consult a sewage system expert for the design of the septic system based on anticipated site sewage loading volume.
2. Due to the presence of medium permeable insitu fill materials over to low permeable native silt soils as encountered at the Site (a percolation time of 20 to greater than 50 minutes) raised area beds and associated mantles is recommended.

7. Qualifications of Assessor

Sean O'Mara, P. Geo., is a Professional Geoscientist at EXP with over 25 years of experience in Geo-Environmental assessment. He has conducted numerous geotechnical investigations, construction materials inspection and testing projects, environmental site assessments, site remediation, landfill surface water and groundwater monitoring projects, and hydrogeological studies for residential, commercial, and industrial properties.

Yves Beauparlant, P.Eng. is a Professional Engineer with EXP and has broad experience in a wide range of engineering projects, including numerous Phase I and II ESA's, remediations and abatement projects. Mr. Beauparlant is currently the Manager of Earth and Environmental Services for Northern Ontario.

8. Limitations

The information presented in this report is based on a limited investigation designed to provide baseline information to support an assessment of the hydrogeological conditions and wastewater servicing options within the subject property. The conclusions and recommendations presented in this report reflect Site conditions existing at the time of the investigation. More specific information with respect to the conditions may become apparent during site development operations.

The environmental investigation was carried out to address the intent of applicable provincial and municipal Regulations, Guidelines, Policies, Standards, Protocols and Objectives administered by the Ministry of Environment, the 2020 Provincial Policy Statement under the Planning Act and City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems. It should also be noted that current Regulations, Guidelines, Policies, Standards, Protocols and Objectives are subject to change, and such changes, when put into effect, could alter the conclusions and recommendations noted throughout this report. Achieving the study objectives stated in this report has required us to arrive at conclusions based upon the best information presently known to us. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgment was exercised in gathering and analyzing the information obtained and in the formulation of the conclusions. Like all professional persons rendering advice we do not act as absolute insurers of the conclusions we reach, but we commit ourselves to care and competence in reaching those conclusions.

Our undertaking at EXP, therefore, is to perform our work within limits prescribed by our clients, with the usual thoroughness and competence of the engineering profession. It is intended that the outcome of this investigation assist in reducing the client's risk associated with environmental impairment. Our work should not be considered 'risk mitigation'. No other warranty or representation, either expressed or implied, is included or intended in this report.

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9. Closure

We thank you for the opportunity of working for you on this project. If you have any questions regarding the content of this report or related issues, please contact the undersigned directly.

Yours truly,

EXP Services Inc.

Sean O'Mara, P.Geo.
Project Manager, Earth & Environmental
Northeastern Ontario

Yves Beauparlant, P.Eng.
Manager, Earth & Environmental
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Drawings

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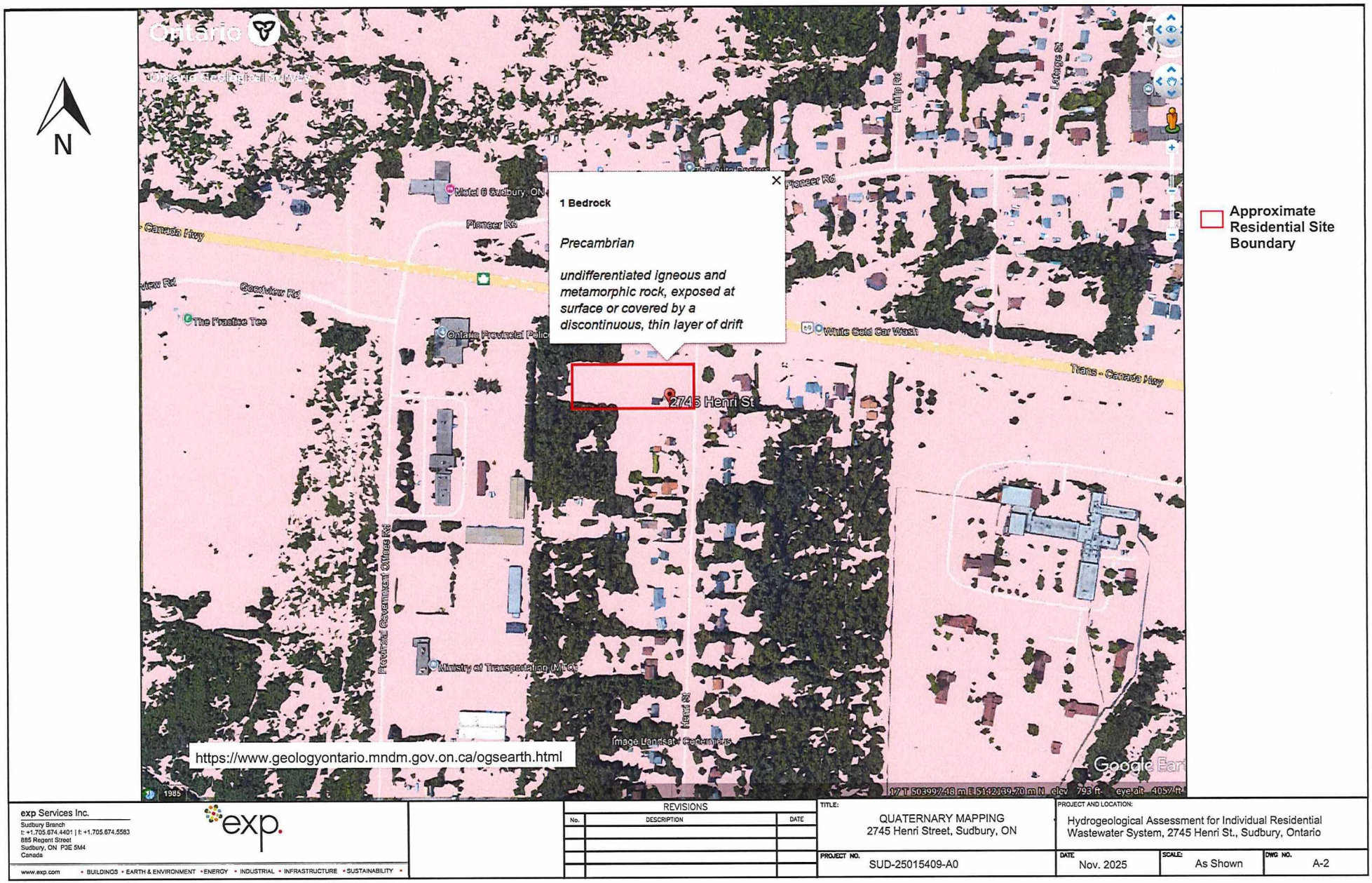
REVISIONS		
No.	DESCRIPTION	DATE

TITLE: Test Pit Location Plan & Groundwater Flow Plan 2745 Henri St., Sudbury, Ontario	PROJECT AND LOCATION: Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario		
PROJECT NO. SUD-25015409-A0	DATE November 2025	SCALE: NTS	DWG NO. A-1

PL-MV-2025-00170
PL-MV-2025-00171



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REVISIONS		
No.	DESCRIPTION	DATE

TITLE: QUATERNARY MAPPING
2745 Henri Street, Sudbury, ON

PROJECT AND LOCATION: Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario

PROJECT NO. SUD-25015409-A0

DATE Nov. 2025

SCALE: As Shown

DWG NO. A-2

PL-MV-2025-00170
PL-MV-2025-00171

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No.	DESCRIPTION	DATE

TITLE: BEDROCK GEOLOGY MAPPING
2745 Henri Street, Sudbury, ON

PROJECT AND LOCATION: Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario

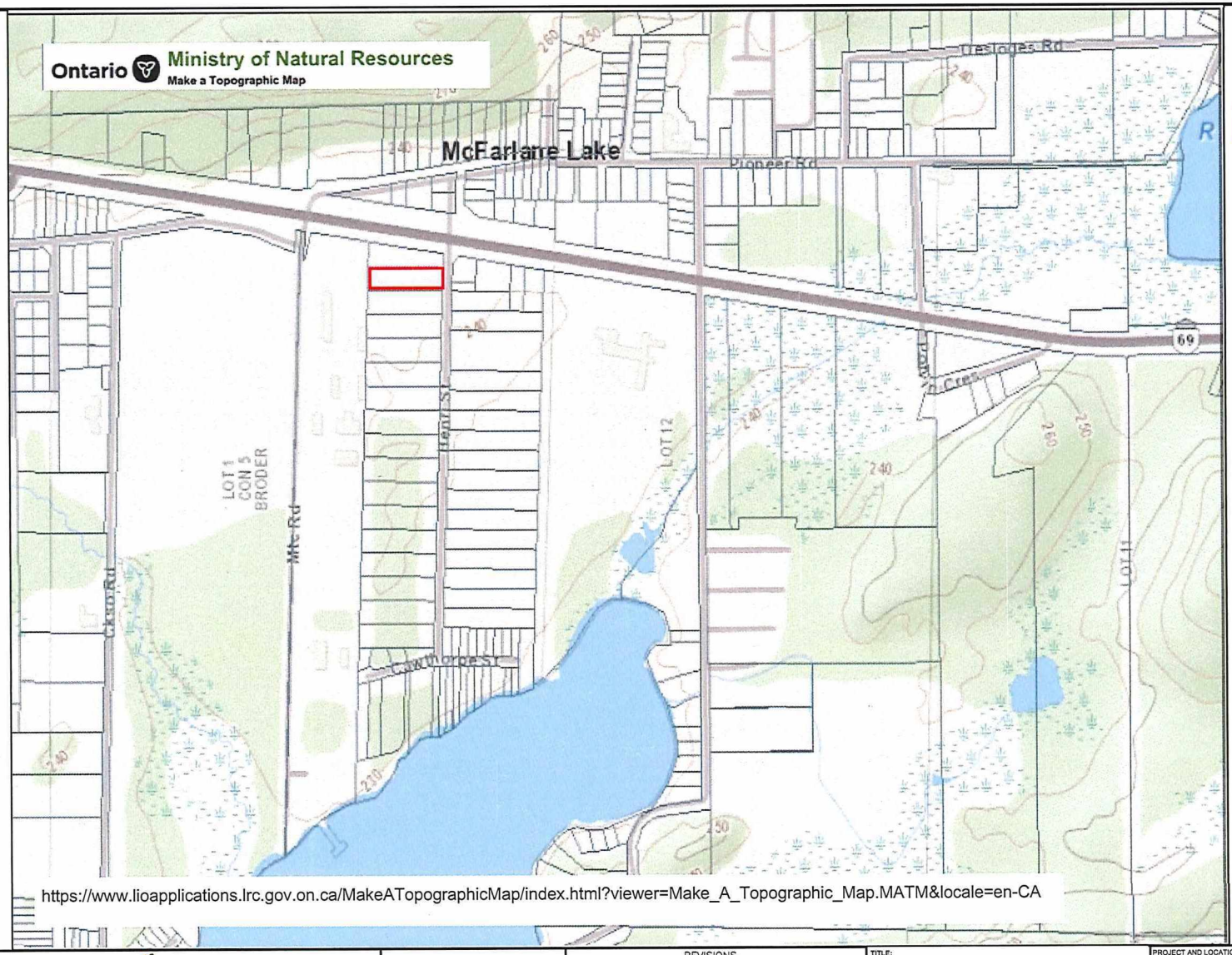
PROJECT NO. SUD-25015409-A0

DATE: Nov. 2025

SCALE: As Shown

DWG NO. A-3

PL-MV-2025-00170
PL-MV-2025-00171



N

Approximate Site Boundary

Legend

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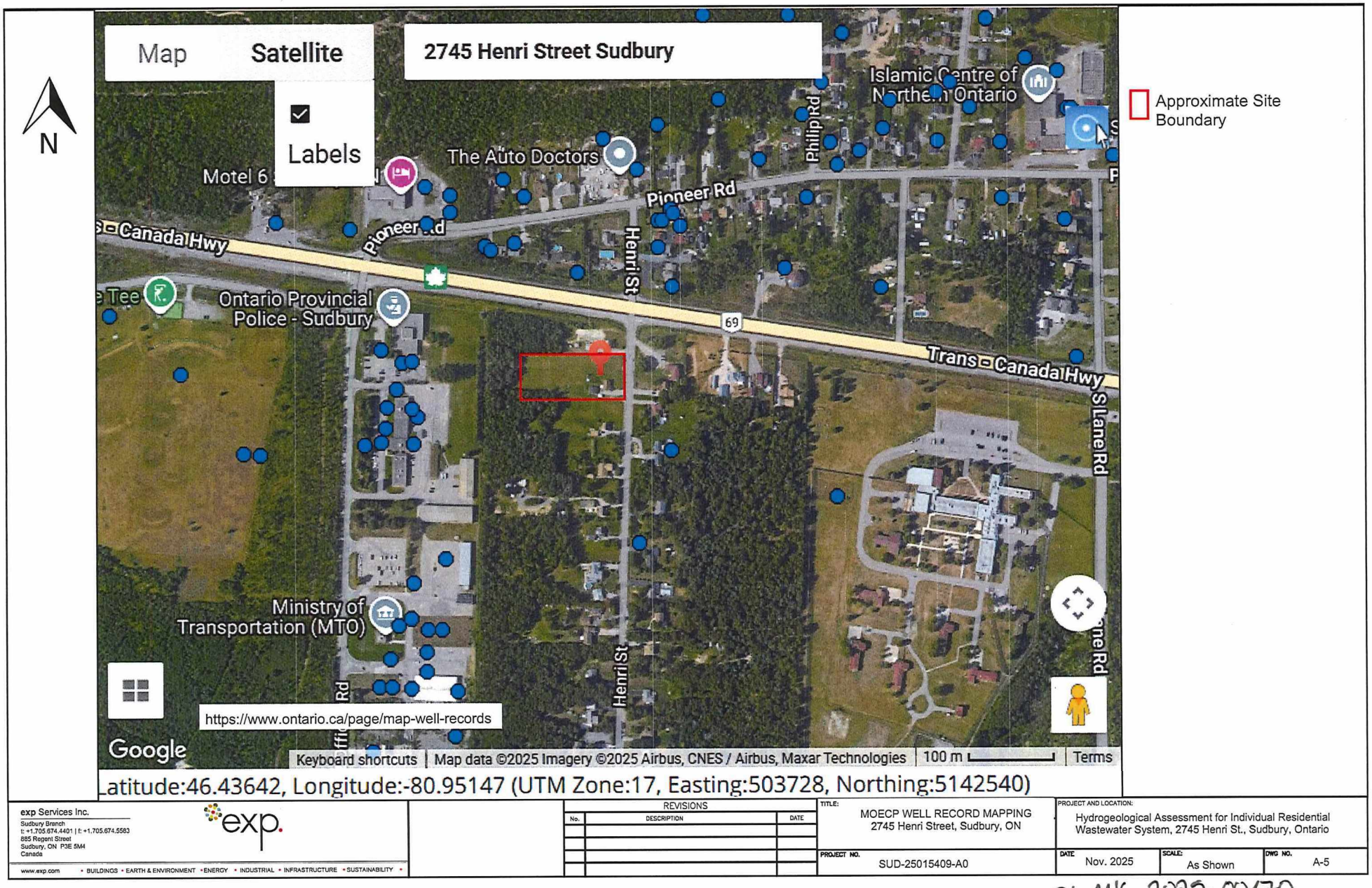
REVISIONS		
No.	DESCRIPTION	DATE

TITLE:	TOPOGRAPHICAL MAPPING 2745 Henri Street, Sudbury, ON
PROJECT AND LOCATION:	Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario
PROJECT NO.	SUD-25015409-A0
DATE	Nov. 2025
SCALE:	As Shown
DWG NO.	A-4

PL-MV-2025-00170
PL-MV-2025-00171



Latitude:46.43642, Longitude:-80.95147 (UTM Zone:17, Easting:503728, Northing:5142540)

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No.	DESCRIPTION	DATE

TITLE: MOECP WELL RECORD MAPPING
2745 Henri Street, Sudbury, ON

PROJECT AND LOCATION: Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario

PROJECT NO. SUD-25015409-A0

DATE Nov. 2025

SCALE: As Shown

DWG NO. A-5

PL-MV-2025-00170
PL-MV-2025-00171

Appendix A: Test Pit Log & Gradation Analyses

Log of Test Pit TP-1

Project No. SUD-25015409-A0

Figure No. B-2

Project: Hydrogeological Assessment For Wastewater

Sheet No. 1 of 1

Location: 2745 Henri Street, Sudbury, Ontario

503959E;5142161N

Date Excavated: November 6, 2025

Excavator Type: Excavator

Datum: Non-Geodetic

Grab Sample

Penetrometer

Field Vane Test (S)

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at % Strain at Failure

GWL	SYMBOL	Soil Description	ELEV. m	DEPTH
		TOPSOIL For 75 mm	99.50	0
		FILL Silty Sand, trace gravel, trace organics, brown, moist	99.4	
			98.9	
		TOPSOIL For 150 mm	98.8	
		SILT some clay, trace sand, brown, moist		1
				2
		END OF TESTPIT AT ~ 2.8 m	96.7	

N Value: 20, 40, 60, 80

Shear Strength kPa: 50, 100

Combustible Vapour Reading (ppm): 25, 50, 75

Natural Moisture Content % Atterberg Limits (% Dry Weight): 10, 20, 30

SAMPLES	Sample Number
G	GS1
G	GS2
G	GS3
G	GS4
G	GS5

TESTPIT (GEO) SUD-25015409 - TP SEPTIC HENRI ST.GPJ NEW.GDT 11/18/25

EXP Services Inc.
885 Regent Street
Sudbury, ON P3E 5M4
CANADA
t: +1.705.674.9681
f: +1.705.674.5583

Test Pit data requires interpretation assistance from EXP before use by others.

See Figures B-1A and B-1B for Notes on Sample Description

Time	Water Level (m)	Depth to Cave (m)
Upon Completion	Dry	N/A

PL-MV-2025-00170
PL-MV-2025-00171

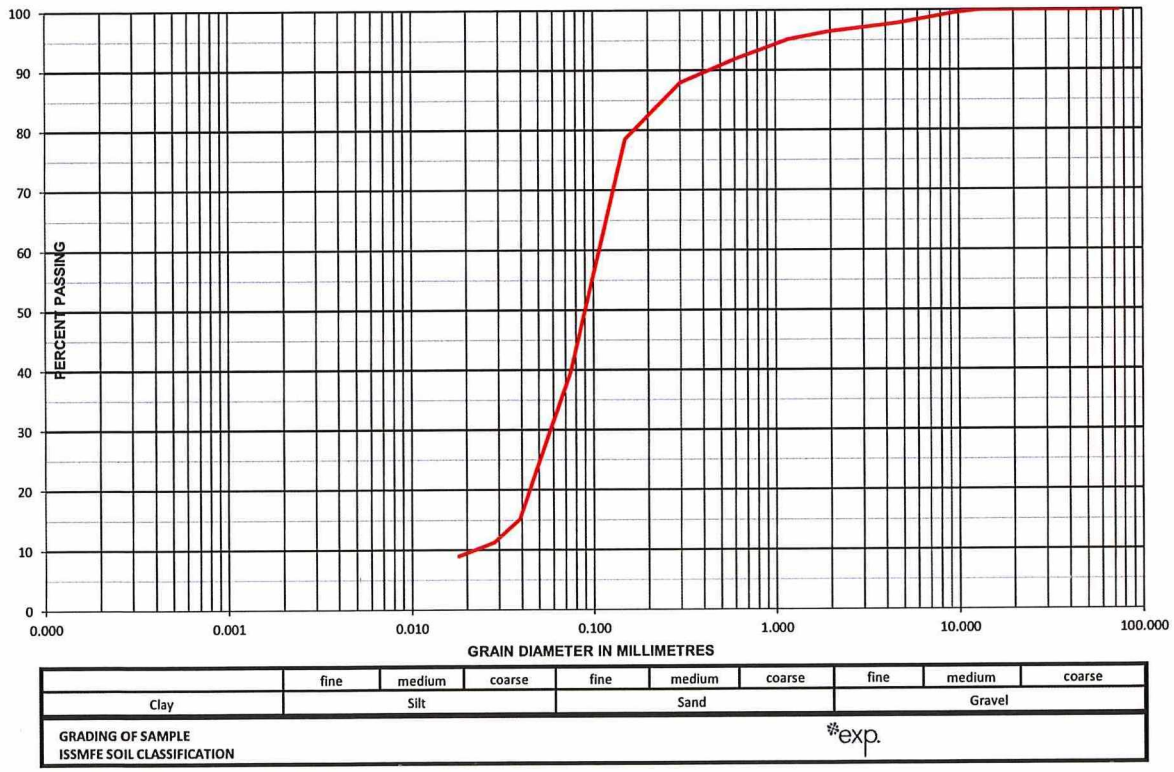
SEPTIC SOIL TESTING

Project # SUD-25015409-A0
Ticket # 21856

Client: Eco Septic Solutions (1754364) Ontario Ltd.
65 Makynen Road
Sudbury, ON, P3E 4N1
[redacted]

RE: TP1 - GS1

GRADATION OF SAMPLE SUBMITTED TO BE USED AS NATIVE MATERIAL FOR CLASS 4 SEWAGE SYSTEM



UNIFIED SOIL CLASSIFICATION		UNIFIED SOIL CLASSIFICATION:	SM
D_{10} =	0.023	Estimated Hyd. Cond. (K) =	5.29E-04 cm/sec
D_{60} =	0.114	Estimated Perc. Time (T) =	15-20 min/cm
C_u =	5.0	Recommended Perc. Time (T) =	**20** min/cm

PL-MV-2025-00170
PL-MV-2025-00171

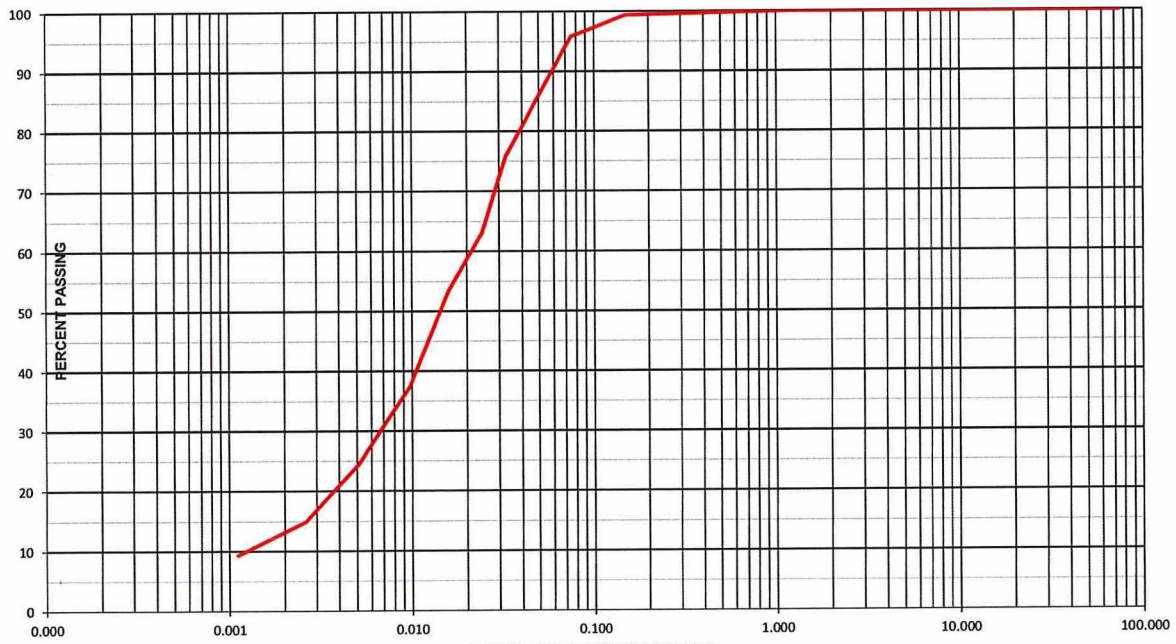
SEPTIC SOIL TESTING

Project # SUD-25015409-A0
Ticket # 21858

Client: Eco Septic Solutions (1754364) Ontario Ltd.
65 Makynen Road
Sudbury, ON, P3E 4N1
[redacted]

RE: TP1 - GS3

GRADATION OF SAMPLE SUBMITTED TO BE USED AS NATIVE MATERIAL FOR CLASS 4 SEWAGE SYSTEM



UNIFIED SOIL CLASSIFICATION		UNIFIED SOIL CLASSIFICATION:	ML
D_{10} =	0.0012	Estimated Hyd. Cond. (K) =	1.44E-06 cm/sec
D_{60} =	0.0217	Estimated Perc. Time (T) =	35-50 min/cm
C_u =	18.1	Recommended Perc. Time (T) =	**50** min/cm

PL-MV-2025-00170
PL-MV-2025-00171

Appendix B: MOECP Well Records

A'I 7 p

UTM 17 Z 5 0 3 7 6 0 E
19 R 5 1 A 1 8 8 0 N
Elev. 9 R 0 7 8 0
Basin 2 V

59 No. 148

RECEIVED
AUG 22 1949
GEOLOGICAL BRANCH
DEPARTMENT OF MINES

ONTARIO

The Well Drillers Act

Department of Mines, Province of Ontario

Water Well Record

BRODER (S DILL)

[redacted] Con. 5 Lot 1 Pt. Lot ....
[redacted] udbury. Ontario Acres 80
[redacted] cluding pump) $931.17

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	6"	Date	
Length(s) of casing(s)	132' 8"	Developed Capacity	
Length of screen		Duration of Test	
Type of screen		Pumping Rate	
Type of pump		Drawdown	
Capacity of pump		Static level of completed well	110' ?
Depth of pump setting		Is well a gravel-wall type?	

Water Record

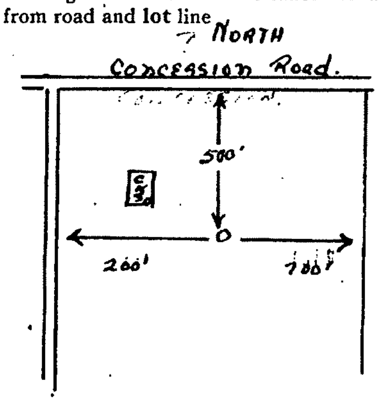
		Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
Kind (fresh or mineral)	Fresh			
Quality (hard, soft, contains iron, sulphur etc.)	soft	?		?
Appearance (clear, cloudy, coloured)	clear	~~110'~~	good	122'
For what purpose(s) is the water to be used?	DOMESTIC	132		
How far is well from possible source of contamination?				
What is source of contamination?	none			
Enclose a copy of any mineral analysis that has been made of water				

Well Log

Drift and Bedrock Record	From	To
(77)	0 ft.	......ft.
Quicksand	'	130'
Coarse-Sand, Gravel	130'	132'

Location of Well

In diagram below show distances of well from road and lot line



South

Situation: Is well on upland, in valley, or on hillside? ....

Drilling Firm ..... McRae Well Drilling

Address ..... 204 King Street, Sudbury.

Recorded by ..... B. Scagnetti ..... Address ....

Date ..... July 15, 1949 ..... Licence Number ....

PL-MV-2025-00170
PL-MV-2025-00171

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

411/7e.

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 5904282 | MUNICIP. 59051 | CON. CON | 05

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	09
SUDBURY	BROADER TWP.	9	

[redacted] Box 64 Site 32 RR#3 Sudbury. DATE COMPLETED DAY 01 MO. 05 YR. 80

[redacted] 141840 | RC. 4 | ELEVATION 0775 | RC. 5 | BASIN CODE 22

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
GREY	CLAY	BOULDERS	HARD CLAY 0-120	0	120'
		DRILLED IN	BOULDERS	120	145'

31 | 01204051373 | 0145 | 13
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
02"	1 ☐ STEEL 2 ☒ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	1/16	0	0120 (120')
02	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		120	0145
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.) | DIAMETER INCHES | LENGTH FEET
MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD 1 ☐ PUMP 2 ☐ BAILER | PUMPING RATE GPM | DURATION OF PUMPING HOURS MINS

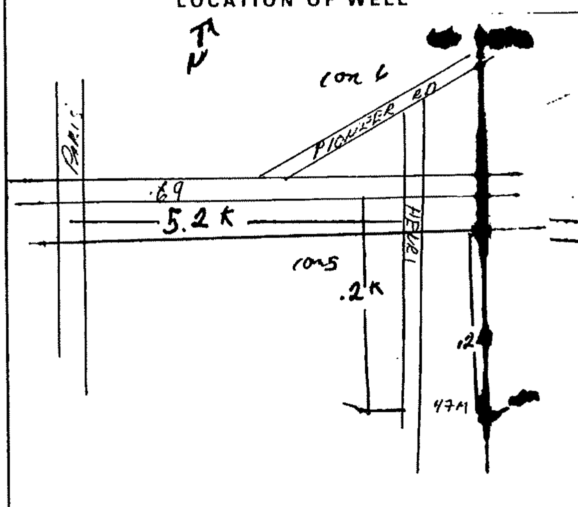
STATIC LEVEL FEET | WATER LEVEL END OF PUMPING FEET | WATER LEVELS DURING 1 ☐ PUMPING 2 ☐ RECOVERY: 15 MINUTES FEET, 30 MINUTES FEET, 45 MINUTES FEET, 60 MINUTES FEET

IF FLOWING, GIVE RATE GPM | PUMP INTAKE SET AT FEET | WATER AT END OF TEST 1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE ☐ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING FEET | RECOMMENDED PUMPING RATE GPM

GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL



DRILLERS REMARKS:

FINAL STATUS OF WELL 5
1 ☐ WATER SUPPLY
2 ☐ OBSERVATION WELL
3 ☐ TEST HOLE
4 ☐ RECHARGE WELL
5 ☒ ABANDONED, INSUFFICIENT SUPPLY
6 ☐ ABANDONED, POOR QUALITY
7 ☒ UNFINISHED

WATER USE 01
1 ☒ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
☐ OTHER
5 ☐ COMMERCIAL
6 ☐ MUNICIPAL
7 ☐ PUBLIC SUPPLY
8 ☐ COOLING OR AIR CONDITIONING
9 ☐ NOT USED

METHOD OF DRILLING 7
1 ☐ CABLE TOOL
2 ☐ ROTARY (CONVENTIONAL)
3 ☐ ROTARY (REVERSE)
4 ☐ ROTARY (AIR)
5 ☐ AIR PERCUSSION
6 ☐ BORING
7 ☒ DIAMOND
8 ☐ JETTING
9 ☒ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: CHARLES KIRKEY | LICENCE NUMBER: 3137
ADDRESS: RR#3 CHELMSFORD ONT. P0M 1L0
NAME OF DRILLER OR BORER: CHARLES KIRKEY | LICENCE NUMBER: 3137
SIGNATURE OF CONTRACTOR: C. Kirkey | SUBMISSION DATE DAY 12 MO. 6 YR. 80

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 3137 | DATE RECEIVED 180680
DATE OF INSPECTION July 31/80 | INSPECTOR
REMARKS:
P
WI

FORM 7 MOE 07-091

MINISTRY OF THE ENVIRONMENT COPY

PL-MV-2025-00170
PL-MV-2025-00171

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 5906078 | MUNICIP 59051 | CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON BLOCK TRACT SURVEY ETC	LOT
[redacted]	[redacted]	M 373 Con 5	35

[redacted] 2694 Henri St. Sudbury

DATE COMPLETED: DAY 16 MO 10 YR 89

RC. | ELEVATION | RC. | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Grey	Clay			0	15
"	Quick	Sand		15	131
	SAND + GRAVEL			131	132

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
132	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0	132
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.) | DIAMETER INCHES | LENGTH FEET
MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER
PUMPING RATE: 4 GPM
DURATION OF PUMPING: 1 HOURS __ MINS

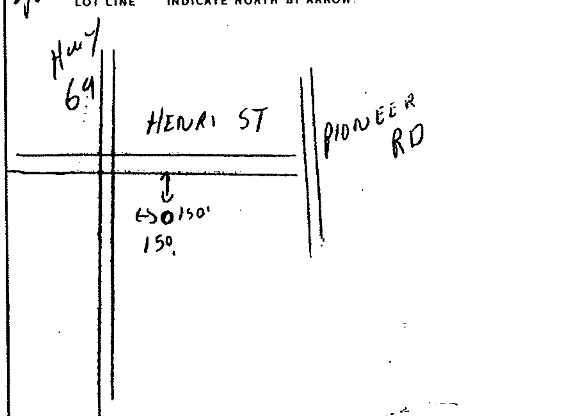
STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
12 FEET	FEET	FEET	FEET	FEET	FEET

WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: FEET
WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 120 FEET
RECOMMENDED PUMPING RATE: 4 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



58788

DRILLERS REMARKS

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY
2 ☐ OBSERVATION WELL
3 ☐ TEST HOLE
4 ☐ RECHARGE WELL
5 ☐ ABANDONED, INSUFFICIENT SUPPLY
6 ☐ ABANDONED, POOR QUALITY
7 ☐ UNFINISHED
☐ DEWATERING

WATER USE

1 ☒ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
☐ OTHER
5 ☐ COMMERCIAL
6 ☐ MUNICIPAL
7 ☐ PUBLIC SUPPLY
8 ☐ COOLING OR AIR CONDITIONING
9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☐ CABLE TOOL
2 ☐ ROTARY (CONVENTIONAL)
3 ☐ ROTARY (REVERSE)
4 ☐ ROTARY (AIR)
5 ☒ AIR PERCUSSION
6 ☐ BORING
7 ☐ DIAMOND
8 ☐ JETTING
9 ☐ DRIVING
☐ DIGGING
☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: HOULE WELL DRILLING
WELL CONTRACTOR'S LICENCE NUMBER: 2612
ADDRESS: HOULE RD. NOELVILLE ONT
NAME OF WELL TECHNICIAN: RICK HOULE
WELL TECHNICIAN'S LICENCE NUMBER: T0200
SIGNATURE OF TECHNICIAN/CONTRACTOR: D Houle
SUBMISSION DATE: DAY 16 MO 10 YR 89

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 2612 | DATE RECEIVED MAY 28 1990
DATE OF INSPECTION: 28/07/93
INSPECTOR: Frank Ostrick
REMARKS: Underground

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

PL-MV-2025-00170
PL-MV-2025-00171

Ontario Ministry of the Environment

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 (1 2) **5908060** Municipality 59051 (10 14) Con. CON (15 22 23 24) 06

County or District	Township/Borough/City/Town/Village	Con block tract survey, etc.	Lot (25-27)
Sudbury	ISRODER	6	12

[redacted] Address 2555 Lafonge Rd Sudbury ont. Date completed (48-53) 19 day 10 month 01 year

21 (1 2) Northing (10 12 17) RC (25) Elevation (26 30) RC (31) Basin Code (i ii iii iv) (47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
SAND	& Clay	Boulders		0'	113'
GREY	Rock	Soft		113'	142'

31 (10 14 15 21) 32 (32 43 54 65 75 80)

41 WATER RECORD

Water found at - feet	Kind of water	
120 (10-13)	1 ☐ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (14)
(15-18)	1 ☐ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (19)
(20-23)	1 ☐ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (24)
(25-28)	1 ☐ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (29)
(30-33)	1 ☐ Fresh 2 ☐ Salty	3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas (34) (80)

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6 1/4 (10-11)	1 ☐ Steel (12) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	0'	114' (13-16)
6" (17-18)	1 ☐ Steel (19) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic		114'	142' (20-23)
(24-25)	1 ☐ Steel (26) 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			(27-30)

SCREEN

Sizes of opening (Slot No.) (31-33)	Diameter (34-36) inches	Length (39-40) feet
Material and type	Depth at top of screen (41-44) feet	(30)

61 PLUGGING & SEALING RECORD

☐ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)
(10-13)	(14-17)	
(18-21)	(22-25)	
(26-29)	(30-33) (80)	

71 PUMPING TEST

Pumping test method (34) 1 ☐ Pump 2 ☐ Bailer — Pumping rate (11-14) 15 GPM — Duration of pumping (15-16) 2 Hours (17-18) Mins

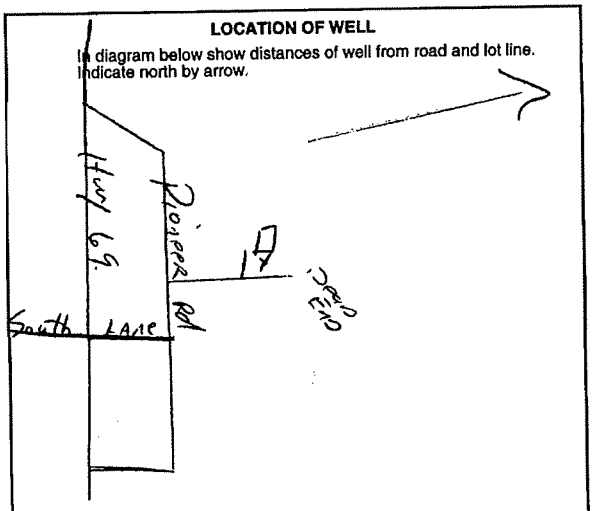
Static level	Water level end of pumping	Water levels during (25) 1 ☐ Pumping 2 ☐ Recovery			
10 (19-21) feet	142 (22-24) feet	15 minutes (26-28) 142 feet	30 minutes (29-31) 140 feet	45 minutes (32-34) 142 feet	60 minutes (35-37) 142 feet

If flowing give rate (38-41) GPM — Pump intake set at feet — Water at end of test (42) ☐ Clear ☐ Cloudy

Recommended pump type ☐ Shallow ☐ Deep — Recommended pump setting (43-45) 60' feet — Recommended pump rate (46-49) 15 GPM (50-53)

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



231160

FINAL STATUS OF WELL (54)

1 ☐ Water supply 2 ☐ Observation well 3 ☐ Test hole 4 ☐ Recharge well 5 ☐ Abandoned, insufficient supply 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other) 8 ☐ Dewatering 9 ☐ Unfinished 10 ☐ Replacement well

WATER USE (55-56)

1 ☐ Domestic 2 ☐ Stock 3 ☐ Irrigation 4 ☐ Industrial 5 ☐ Commercial 6 ☐ Municipal 7 ☐ Public supply 8 ☐ Cooling & air conditioning 9 ☐ Not use 10 ☐ Other

METHOD OF CONSTRUCTION (57)

1 ☐ Cable tool 2 ☐ Rotary (conventional) 3 ☐ Rotary (reverse) 4 ☐ Rotary (air) 5 ☐ Air percussion 6 ☐ Boring 7 ☐ Diamond 8 ☐ Jetting 9 ☐ Driving 10 ☐ Digging 11 ☐ Other

Name of Well Contractor	Well Contractor's Licence No.
Gilles Bouthard Drilling Ltd	1462.
Address: Sturgeon Falls ont.	
Name of Well Technician: Claude Bouthard	Well Technician's Licence No. 1634
Signature of Technician/Contractor	Submission date: 01 day 12 mo 01 yr

MINISTRY USE ONLY

Data source (58) — Contractor 1462 (59-62) — Date received (63-68) DEC 04 2001 (80)

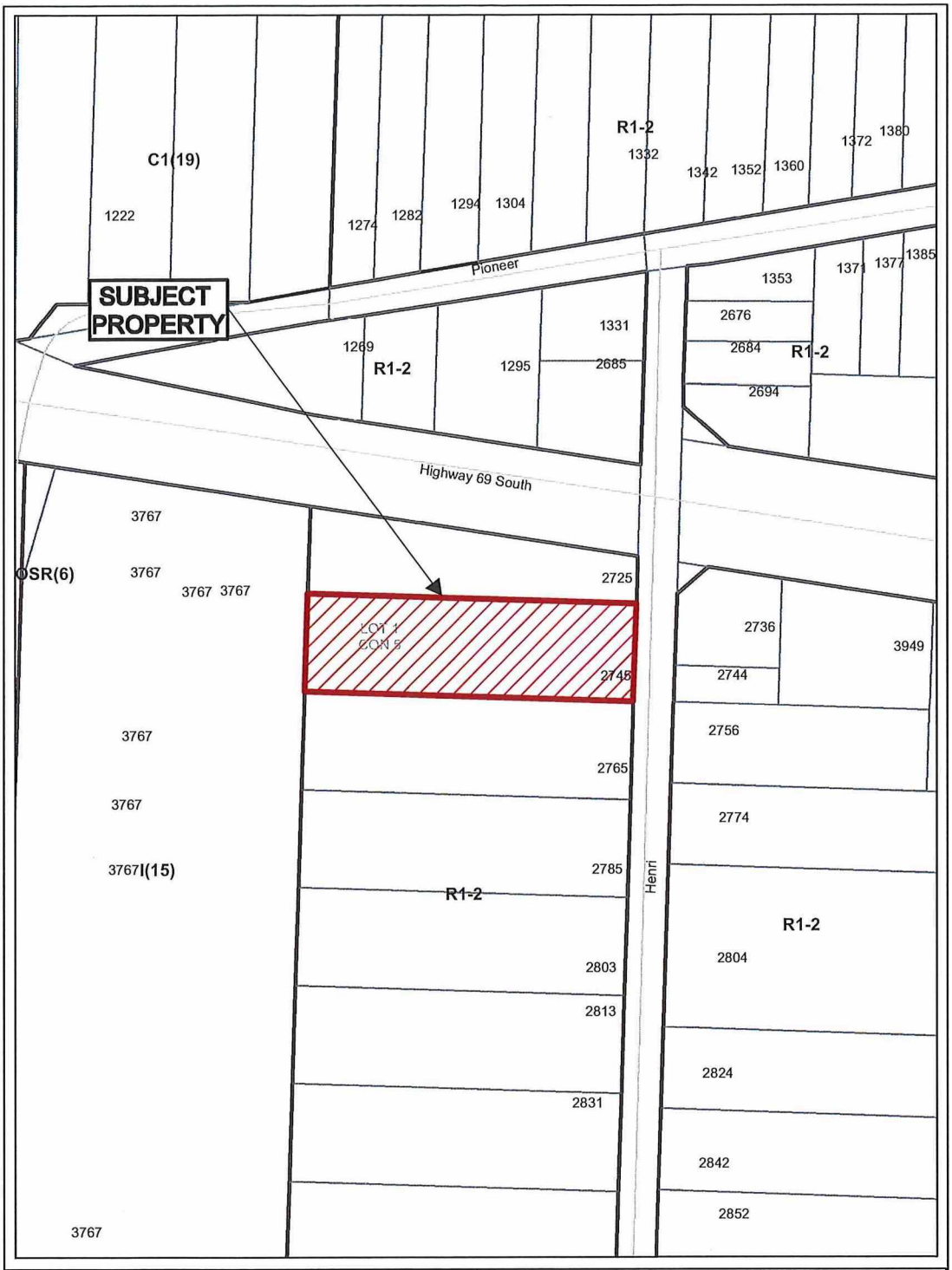
Date of inspection — Inspector

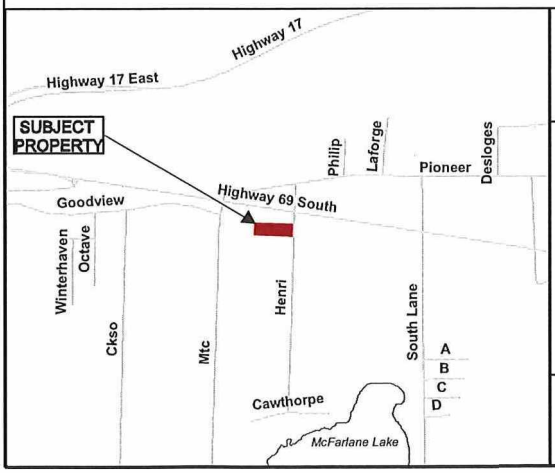
Remarks

0506 (07/00) Front Form 9

2 - MINISTRY OF THE ENVIRONMENT COPY

PL-MV-2025-00170
PL-MV-2025-00171





Application for Minor Variance or Permission

N

Subject Property being PIN 73478-0421,
Parcel 39756 SEC SES,
Lot 20, Plan M-265,
Part Lot 1, Concession 5,
Township of Broder,
2745 Henri Street, Sudbury,
City of Greater Sudbury

Sketch 1, NTS

PL-MV-2025-00170
PL-MV-2025-00171

NDCA

Date: 2025 12 11

SKETCH SHOWING PROPOSED SEVERENCE

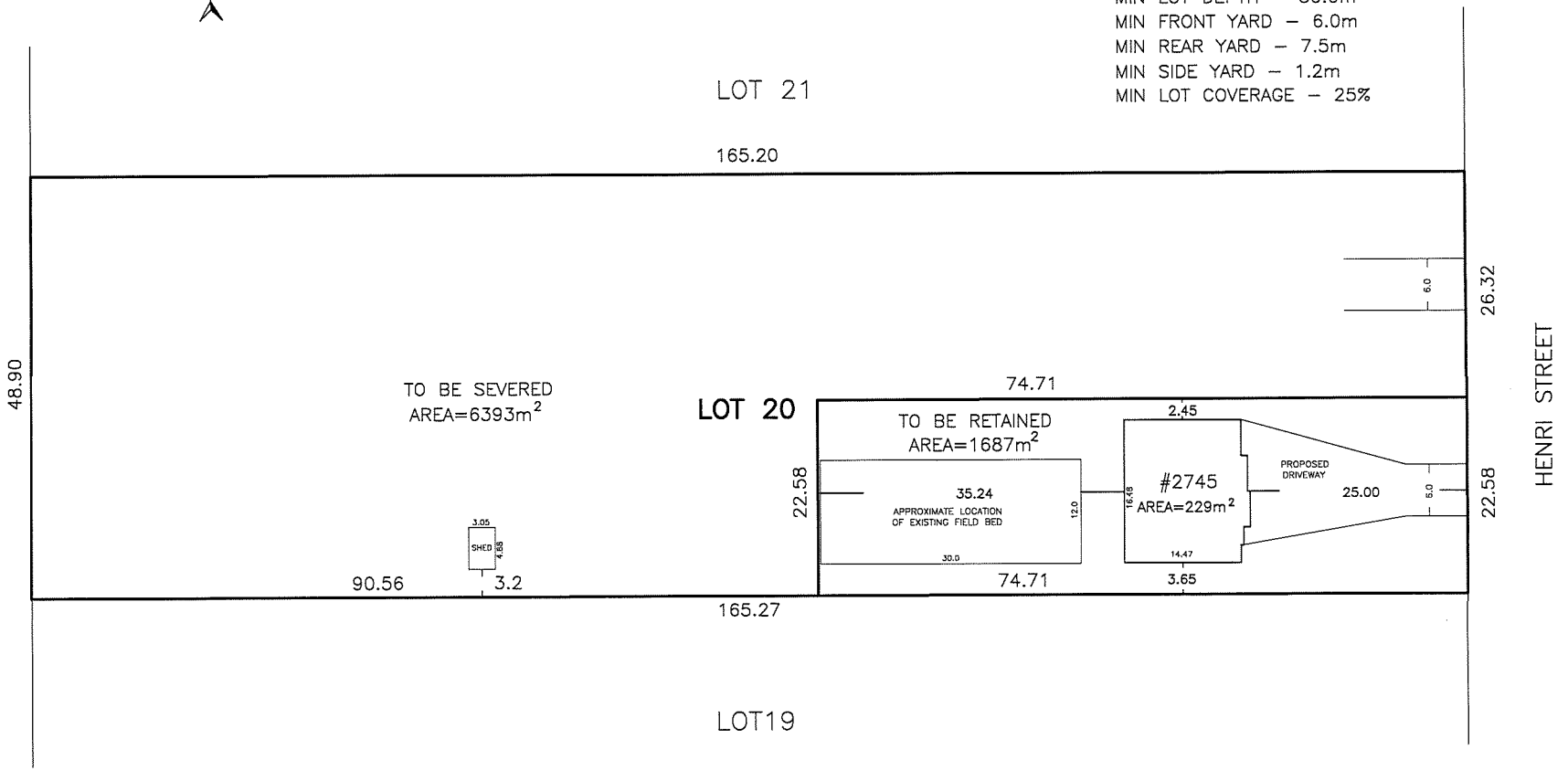
LOT 20
REGISTERED PLAN M-265

2745 HENRI STREET

SCALE: 1 : 500

0 10 20 30 40

ZONING – R1-2
MIN LOT AREA – 1302m²
MIN LOT FRONTAGE – 36.0m
MIN LOT DEPTH – 30.0m
MIN FRONT YARD – 6.0m
MIN REAR YARD – 7.5m
MIN SIDE YARD – 1.2m
MIN LOT COVERAGE – 25%



PL-MV-2025-00170
Sketch 2

Box 5000, Station A
200 Brady Street
Sudbury, Ontario P3A 5P3
(705) 671-2489 ext 4376 or 4346
(705) 673-2200 FAX

Record #: PL-MV-2025-00171

APPLICATION SUMMARY

File Date: 12/05/2025

Application Type: Minor Variance

Address(es): 2745 Henri Street, Sudbury P3G 1C2

Applicant(s): TIM SMITH

Owner(s): TIM SMITH AND FAY SMITH

PLANNING APPLICATION

Are there multiple properties associated with the application?
No

Please describe the additional properties associated with this application

What is the date the current Owner(s) acquired the property?
Aug 15, 2025

Are you the registered owner or an authorized agent?
Registered Owner

What is the number of dwelling units on the property?
0

What is the number of proposed new dwelling units on the property?
2

What is the number of proposed new buildings/structures on the property?
1

What is the number of existing buildings/structures on the property?
1

If this application is approved, would any existing dwelling units be legalized?
No

How many dwelling units will be legalized?

Is this property located within an area subject to the Greater Sudbury Source Protection Plan?

No

Provide details on how the property is designated in the Source Protection Plan

Current Official Plan designation
Living Area II

Current Official Plan designation (additional)
Living Area II

Current Zoning By-law designation
R1-2

Provide a detailed description of what is being proposed
single family dwelling.

Provide a detailed reason why the proposal cannot comply with the Zoning By-law
not enough frontage

Is there an eave encroachment?
No

Size of eaves

Lot Frontage of the property
26.32

Lot Depth of the property
165.20

Lot Area of the property
6393

Total width of the public road giving access to the property
20.12

List all buildings and structures on the property and their respective date of construction
shed - 1993

Existing use(s) of the subject property and length of time it/they have continued, ex. Residential, Commercial, Institutional, Park, etc.
Residential and Institutional

Is the use remaining the same? If no, please provide the proposed new use
Residential

Existing uses of neighbouring properties
Residential

Has the property ever been subject of a previous application for minor variance/permission?
No

Do you require zoning relief from Section 4.41 (Waterbodies – Water Frontage, Setbacks and Buffers)?
No

Have you consulted with the Strategic and Environmental Planning department regarding this relief?

Have you consulted with Conservation Sudbury regarding this relief?

WATER SUPPLY AND SEWAGE DISPOSAL

Municipally owned and operated piped water system	[X]
Municipally owned and operated sanitary sewage system	[ ]
Lake	[ ]
Pit Privy	[ ]
Individual Well	[ ]
Communal Well	[ ]
Individual Septic System	[X]
Communal Septic System	[ ]
Other	[ ]

Explain Other

PROPERTY ACCESS

Provincial highway	[ ]
Right-of-way	[ ]
Municipal road that is maintained seasonally	[ ]
Municipal road that is maintained year-round	[X]
Water	[ ]

Indicate the parking and docking facilities to be used if via water

Estimate the distance of these facilities from the retained land and nearest public road by water

CONCURRENT APPLICATIONS

Is the property the subject of a current application for Consent?
Yes

Indicate the application number(s) and status of the application(s)
PL-CON-2025-00094

Is the property the subject of a current application for a Plan of Subdivision?
No

Indicate application number(s) and application status

PROPOSED BUILDING/STRUCTURE

Building Description	Same As Existing	Proposed Ground Floor Area (m2)	Proposed Gross Floor Area (m2)	Proposed Number of Storeys	Proposed Width (m)	Proposed Length (m)	Proposed Height (m)	Proposed Front Yard Setback (m)	Proposed Rear Yard Setback (m)	Proposed Side Yard Setback (m)	Proposed Side Yard Setback Other (m)

EXISTING BUILDING/STRUCTURE

Building Description	To Be Demolished	Existing Ground Floor Area (m2)	Existing Gross Floor Area (m2)	Existing Number of Storeys	Existing Width (m)	Existing Length (m)	Existing Height (m)	Existing Front Yard Setback (m)	Existing Rear Yard Setback (m)	Existing Side Yard Setback (m)	Existing Side Yard Setback Other (m)
shed	Yes	14.86	14.86	1	3.04	4.88	4.26	90	70	3.2	40.8

ZONING BY-LAW RELIEF

Variance To	By-law Requirement	Proposed (m)	Difference (m)
lot width	36	26.32	9.68

Hydrogeological Assessment for Proposed Individual Residential Wastewater System, 2745 Henri Street, City of Greater Sudbury, ON

ECO Septic

Type of Document:
Hydrogeological Assessment

Project Name:
Hydrogeological Assessment for Proposed Individual Residential Wastewater System, 2745 Henri Street, City of Greater Sudbury, ON

Project Number:
SUD-25015409-A0

Prepared By:
EXP Services Inc.
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Date Submitted:
2025-11-18

Table of Contents

List of Figures

1. Introduction

EXP Services Inc. (EXP) was retained by Mr. Tim Smith of ECO Septic Solutions ("the Client") to complete a Hydrogeological Assessment for a proposed individual residential wastewater system to be constructed at 2745 Henri Street, City of Greater Sudbury, Ontario ("the Site").

2. Background

It is proposed to subdivide an existing residential lot located at 2745 Henri Street, City of Greater Sudbury (CGS), Ontario. The proposed lot to be subdivided is approximately 0.4 hectares (Ha) in size. The lot is proposed to be serviced by the municipal water supply system (no groundwater well required for the proposed lot). The property is not proposed to be serviced by the municipal sanitary sewer. The Client has consulted with the CGS. The CGS has requested that the Client complete a hydrogeological assessment in accordance with the City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems. Based on the City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems, where development is outside fully serviced areas, the proponent must prove that the soil conditions of the proposed site are suitable for a waste sewage disposal system and that there is a proven source of potable water available. A hydrogeological assessment is required where the minimum lot size is less than 0.8 hectare (2 acres).

3. Methodology

3.1 Field Work

EXP supervised the excavation of one (1) test pit to a depth of 2.8 m below ground surface at the Site in the general area of the proposed septic field bed, located within the proposed area to be subdivided (north half of the lot. 2745 Henri Street). The GPS coordinates for TP-01 are 5142161.5 N, 503959.0 E. The test pit was excavated at the Site on November 6, 2025 by the client's sub-contractor. Representative soil samples were collected from the test pit for geotechnical materials laboratory testing (moisture content and gradation analyses). The test pit was backfilled at the end of day.

A level survey was conducted during the Site investigative activities, with the purpose of obtaining relative vertical control of the test pit location. The ground surface level of the test pit was surveyed in reference to a non-geodetic temporary benchmark (TBM) and identified as being "top of concrete patio slab at 2745 Henri St.", (GPS coordinates 5142146.3 N, 503974 E) and provided with a non-geodetic level of 100.0 m. The locations of the test pit and temporary benchmark are shown on Drawing A-1.

3.2 Laboratory Testing

Representative soil samples from the excavated test pit were submitted to EXP's materials testing laboratory in Sudbury for testing. Grain-size analysis was completed from soil obtained below the topsoil (fill soil material) at approximately 0.08 m – 0.5m below ground surface and 0.75 m – 1.5 m below ground surface. Based on soil gradation results, estimated hydraulic conductivity and percolation time of the soil samples were determined.

4. Subsurface Conditions

A test pit log of the subsurface condition encountered at the Site is provided in Appendix A of this report and summarized below.

4.1 Geological, Soil and Topographical Mapping

The following geological maps were reviewed:

Ontario Geological Survey OGS Earth https://www.geologyontario.mndm.gov.on.ca/ogsearth.html#quaternary-geology and https://www.geologyontario.mndm.gov.on.ca/ogsearth.html#bedrock-geology.

A review of quaternary geology mapping suggests that undifferentiated igneous and metamorphic rock, exposed at surface or covered by a discontinuous, thin layer of drift exists at the Site. Bedrock geology mapping suggests that quarts-feldspar sandstone, argillite and conglomerate, Huronian Supergroup, Hough Lake Gorup and Mississage Formation underly the Site.

Topographic mapping provided by the Ministry of Natural Resources was available for the completion of this report. Based on the mapping, the area of the Site is generally sloping from north to south, toward McFarlane Lake. The noted elevations range from +/- 240.0 m in the area of the Site toward McFarlane Lake at +/- 227.0 m (+/- 13 m grade change). As such, shallow local groundwater flow in the area of the site is expected to flow (generally) south towards McFarlane Lake. Surface water flow in the area of the Site flows in a southerly direction from Richard Lake to McFarlane Lake. The Site is approximately 700m north of McFarlane Lake.

The *actual* groundwater flow direction can only be determined by a long-term groundwater elevation investigation in the area.

See Drawings A-2 to A-4 for geological, quaternary and topographical mapping information.

4.2 Soil Conditions

A total of one (1) test pit was excavated at the Site. Test pit TP-01 was advanced to a depth of 2.8 meters below ground surface (mbgs). The following section summarizes the soil conditions encountered at the TP-01 location.

Surficial Topsoil

Surficial topsoil was encountered at the TP-01 location. The topsoil layer was approximately 75 mm in thickness.

Fill

A layer of brown, silty sand, trace gravel fill was identified below the surficial topsoil layer. The insitu fill material extended to a depth of 0.6 mbgs. The moisture content of the insitu fill material was found to be 15.0% by weight (moist condition).

A buried organic layer (organic material mixed with sandy silt soil) identified as possible fill material was identified below the upper level insitu fill. This mixed soil material extended to a depth of 0.75 mbgs. The moisture content of the mixed insitu fill material was found to be 18.0% by weight (moist condition).

Native Silt

A deposit of native brown silt, some clay, trace sand in a moist state was identified below the fill soils. The native silt deposit extended from the base of the fill material to the termination depth of the test pit (2.8 mbgs). The moisture content of the native sandy silt deposit was found to range from 18% to 23% (at 1.5 mbgs) by weight (moist condition).

4.3 Groundwater

The groundwater level (or groundwater ingress) was not encountered at the TP-01 location between surface and the test pit termination depth at 2.8 mbgs. The brown silt soil was found to be dilatant below 1.5 mbgs.

4.4 Hydraulic Conductivity

Two (2) representative samples were gathered from TP-01 for submission into EXP's materials laboratory in Sudbury for testing. Based on grain-size analysis, the percolation time (T-time) and hydraulic conductivity (K) was estimated for each submitted sample. Hydraulic conductivity was estimated using the Hazen method, which is dependent on the D_{10} effective grain size of the soil sample. Table 4.1 summarizes the estimated T-times and K for the soil samples, (see Appendix A for grainsize distribution).

Table 4.1. Estimated Hydraulic Conductivity (K) of Soil Samples from Site.

Soil Sample Location	Sample Depth (m)	Design T-Time (min/cm)	Estimated K (cm/sec)	Soil Classification
TP-01, Sample 1	0 - 0.5	20	5.3×10^{-4}	SM
TP-01, Sample 3	0.75 – 1.5	>50	1.4×10^{-6}	ML

The grain-size estimates confirm that the Site appears to be underlain by sandy fill soils with a native silt deposit below the upper soil levels. Fill soil at the TP-1 location, within the upper +/- 0.5 m soil zone was found to have K estimation of 5.3×10^{-4} cm/sec (5.3×10^{-6} m/sec), SM classified soil. The design T-Time of the identified fill soil was found to be 20 min/cm (medium permeability).

Based on grain-size estimates of deeper level native silt soils, K estimation of 1.4×10^{-6} cm/sec (1.4×10^{-8} m/sec), ML classified soil was determined. The design T-Time of the identified silt soil was found to be >50 min/cm (low permeability).

An overall geometric average K of 2.7×10^{-5} cm/sec (2.7×10^{-7} m/sec), ML and SM classified soil was calculated for the soils encountered at the Site, indicating low permeability soils.

The soil properties indicated above and within the soil gradation results (Septic Soil Testing) attached in Appendix A are representative only of the sample delivered to our facilities. It must be noted that the permeability and percolation rates have been estimated based on an approximate relationship of soil types as determined by the grain size distribution test conducted. Variability of soil types and actual performance of in-situ soils may vary across the Site.

4.5 Water Well Records

A MOECP Well Records database search was completed for the adjacent properties to the north, south, east and west of 2745 Henri Street. Based on the MOECP Well Records database, no water well records exist for the adjacent properties to the north, east and south. A total of eleven (11) water well records were identified for the adjacent property to the west. Of the eleven (11) water well records, ten (10) water well records are for test holes/monitoring wells and one (1) water well record (Record No. 5900448, approximately 150 m southwest) is for domestic water supply (fresh water, Static Level 10', drill depth 132' or 40

m). The groundwater well records indicate that a sand to sand and gravel deposit exists from near surface to the well termination depth. These monitoring wells and domestic water supply well are considered to be cross gradient from the Site.

Well record 5904282 located approximately 125 m southeast of the Site (down gradient and cross gradient) was advanced to 145' (44 m) depth. A clay deposit with boulders was noted to exist from surface to 120' (36.6 m) below surface. The well was abandoned and unfinished due to low groundwater quantity.

Well record 5908060 located approximately 225 m southeast of the Site (down gradient and cross gradient) was advanced to 142' (43.3 m) depth. A clay deposit with boulders was noted to exist from surface to 113' (34.4 m) below surface. The well was terminated in bedrock. Groundwater (fresh) was encountered at 120 ' (36.6 m) with a static level of 3.0 m.

Well record 5906078 located approximately 150 m northeast of the Site (up gradient and cross gradient) was advanced to 132' (40.2 m) depth. A clay deposit with boulders was noted to exist from surface to 15' (4.6 m) below surface. The well was terminated in a sand and gravel deposit (4.6 m to 40.2 m). Groundwater (fresh) was encountered at 132 ' (40.2 m) with a static level of 3.7 m.

Well records from the WWIS database suggest that the local aquifer exhibits upward gradient, the clay and silt soils overlying the lower soil deposits and bedrock near (and at) the Site may likely provide a confined or semi-confined condition (i.e., hydraulic separation between the aquifer and the proposed septic system). In particular, this may likely provide protection from potential elevated nitrate levels originating from on-site septic beds. The locations of local MOECP Well Records are included in Drawing A-5, the noted well records are included in Appendix B.

5. Groundwater Quality Impacts

5.1 General

MECP Procedures D-5-4 describes a three-step procedure to assess the impacts of individual on-site sewage systems to groundwater:

- Step 1: Assess whether average lot size is greater than 1 hectare (ha).
- Step 2: Demonstrate whether on-site individual sewage systems are hydraulically isolated from existing or potential water supply aquifers.
- Step 3: Examine potential contaminant loadings to groundwater from the proposed on-site sewage systems.

MECP Procedure D-5-4 stipulates that if lot sizes are greater than 1 ha, or if the average lot size is 1 ha with no lot less than 0.8 ha, a hydrogeological assessment may not be required. The current proposed sub-divided lot is proposed to be 0.4 hectares in size. Since the proposed subdivision plan does not allow the establishment of average lot sizes of 1 ha, the scope of work for this undertaking involved the completion of Step 2 and Step 3.

MECP Procedures D-5-4 stipulates that individual on-site sewage systems may be deemed acceptable if it can be demonstrated that effluent from on-site sewage systems are hydraulically isolated from existing or potential supply aquifers in the vicinity.

A review of quaternary geology mapping suggests that undifferentiated igneous and metamorphic rock, exposed at surface or covered by a discontinuous, thin layer of drift exists at the Site. Bedrock geology mapping suggests that quarts-feldspar sandstone, argillite and conglomerate, Huronian Supergroup, Hough Lake Gorup and Mississage Formation underly the Site. Local MOECP groundwater well records indicate that an upper-level clayey deposit, overlying a sand to sand and gravel deposit extends to bedrock level (bedrock level near +/- 36 m depth).

An overall geometric average K of 2.7 x 10^{-5} cm/sec (2.7 x 10^{-7} m/sec), ML and SM classified soil was calculated for the soils encountered at the Site, indicating low permeability soils. The low permeability soils extended to the test pit excavation depth of 2.8 mbgs. Groundwater ingress was not encountered during test pit excavation. These conditions are generally amenable to hydraulic isolation between surface infrastructure and lower-level aquifers. As such, it is concluded that hydraulic isolation exists between potential on-site sewage system and the existing or potential groundwater supply aquifers. The site is not considered to be a sensitive site.

EXP completed a predictive assessment of potential combined impacts from the on-site sewage systems to water supply sources at the Site boundaries based on MECP Procedures D-5-4. A predictive assessment of potential combined impacts from the on-site sewage systems to water supply aquifers at the Site boundaries was completed.

The contaminant attenuation model for the Site was based on the following assumptions:

- Dilution from infiltrating precipitation as the only mechanism for attenuation of contaminants (nitrate-nitrogen);
- Estimation of infiltration based on site-specific conditions, including soils, topography, geology and impermeable surfaces (such as paved areas), Infiltration factor applied (0.6);
- Proposed attenuation area per Lot were adjusted to accommodate Site topography;
- It is assumed that proposed development and placement of septic systems will not be located at the property boundary and local groundwater flow is expected toward the south;
- Nitrate-nitrogen is the critical contaminant with an initial concentration of 40 mg/L;
- A nitrate-nitrogen concentration of 0.5 mg/L has been designated for the infiltrating precipitation. This is considered conservative for precipitation in Northern Ontario;
- The estimated daily effluent flow rate for the Site is 1,000 L/lot/day.
- Environment Canada Climate Normal precipitation data for the Sudbury, Ontario Climate Station (Climate ID: 6068150, 46°37'32.000" N, 80°47'52.000" W) between the years 1991 and 2020 indicates an average annual precipitation rate of approximately 912 mm/yr. Using the Thornthwaite Mathar Water Balance Model (1963), a water surplus was calculated to be 425 mm/yr, which is the difference between the mean annual precipitation and the annual evapotranspiration.

The MECP Design Guideline for Sewage Works, 2008 (Table 22-2) provides concentrations of contaminants in typical residential wastewater. Nitrates are listed as being <1mg/L. However, the Guideline states, "It should be assumed that all nitrite and ammonia will convert to nitrate." Total nitrogen is listed as ranging from 26 mg/L to 75 mg/L. A nitrate concentration of 40 mg/L is to be used for predictive assessments.

The predictive assessment assumes that the critical point is where effluent-impacted groundwater migrates across the Site or Lot property boundary of the proposed subdivision. Groundwater flow direction has been established to follow local topography, flowing in a southerly direction.

The contaminant concentrations at the Site boundaries (C_T) were derived from the total mass loading of nitrate-nitrogen in input waters (M_T) divided by the total volume of the input waters (V_T):

$$C_T = M_T / V_T$$

V_T is equal to the total volume of infiltrating precipitation (V_i) and the total volume of discharge from all on-site sewage systems (V_e). M_T is equal to the total mass of contaminant contained in both the infiltration precipitation (M_i) and the sewage effluent (M_e):

$$M_i = C_i \times V_i$$

$$M_e = C_e \times V_e$$

Where C_i and C_e are the nitrate-nitrogen concentrations in infiltrating precipitation and sewage effluent, respectively.

5.2 Groundwater Impact Findings

Based on the above assumptions, the predicted total nitrates concentration at the Site boundary are summarized in Table 5.1.

Table 5.1. Predicted Nitrates Concentrations at Site Boundary

Average Annual Precipitation 912.0 mm, Per Lot Assessment Area					
Lot Number	**Total Infiltration Area (m^2)**	**Infiltration Available for Dilution (L/day)**	**Average Effluent Discharge (L/day)**	**Nitrates Concentration in Effluent(mg/L)**	**Average Nitrates Concentration at Site Boundary (mg/L)**
New Lot	4,000	4,000	1,000	40	**9.5**

The total predicted nitrate-nitrogen loadings to groundwater from the proposed effluent sources at the Site are based on projected loadings from infiltrating precipitation, and from sewage effluent discharges per the formulae defined above in Section 5.1. The predicted loadings to groundwater indicate that nitrate-nitrogen at the Site boundary for the proposed new lot (north half of 2745 Henri Street) would be approximately 9.5 mg/L, and would be less than the allowable Ontario Drinking Water Objective (ODWO) of 10 mg/L. This result indicates that the soil conditions of the proposed new lot is considered to be suitable for a residential waste sewage disposal system.

If Lot owners choose to install potable groundwater wells on their property, nitrate levels in the groundwater may be a concern. Ontario regulations, including Ontario Regulation 903 and the Ontario Building Code, have rules concerning separation distances between septic beds and potable groundwater wells. Nonetheless, proximity to larger septic beds – especially during peak occupancy periods may lead to high nitrate levels in source groundwater. If owners are considering water well installation, they should also consider nitrate treatment for their sewage system.

There are a number of available nitrate treatment systems, including the POINTTM system, the Waterloo Biofilter and the Premier Tech Environment Ecoflow Biofilter, for example. Many of the readily available nitrate treatment systems are capable of removing 40% of nitrogen compounds consistently from the effluent. Typically, these systems require smaller field bed areas compared to conventional systems.

Available information, including case studies, suggests that Waterloo Biofilters systems can remove the following total nitrogen compounds consistently:

- Single-Pass Waterloo System – 25 to 35% total nitrogen removal;
- Double-Pass Waterloo System – 50 – 65% total nitrogen removal.

6. Summary and Recommendations

It is proposed to subdivide an existing residential lot located at 2745 Henri Street, City of Greater Sudbury (CGS), Ontario. The proposed lot to be subdivided is approximately 0.4 hectares (Ha) in size. The lot is proposed to be serviced by the municipal water supply system (no groundwater well required for the proposed lot). The property is not proposed to be serviced by the

municipal sanitary sewer. The Client has consulted with the CGS. The CGS has requested that the Client complete a hydrogeological assessment in accordance with the City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems. Based on the City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems, where development is outside fully serviced areas, the proponent must prove that the soil conditions of the proposed site are suitable for a waste sewage disposal system and that there is a proven source of potable water available. A hydrogeological assessment is required where the minimum lot size is less than 0.8 hectare (2 acres).

The assessment provided the following findings:

- One (1) test pit was unexcavated in the area of the proposed septic, within the area of the Lot to be sub-divided.
- Overburden soils at the Site comprises of a thin surficial organic deposit (75 mm in thickness), an upper-level fill or disturbed soil layer of silty sand, trace gravel in moist state. The mixed fill or disturbed upper soil layer contained varied amounts a of organics. The mixed fill or disturbed upper soil layer extended to an approximate depth of 0.75 mbgs. A native deposit of silt, some clay, trace sand was identified below the topsoil and mixed fill, extending to the test pit termination depth of 2.8 mbgs. Groundwater was not encountered at the test pit location.
- Based on the MOECP Well Records database, adjacent groundwater wells and local surrounding groundwater wells indicate a thick deposit of upper-level clay and bounder soil material over native sand to sand deposits at depth. Bedrock was identified near a depth of 35 m below ground surface. Groundwater was identified at a depth near 35.0 m – 40.0 m below ground surface with static levels near 3.0 – 4.0 m below ground surface (upward gradient).
- Topographic mapping provided by the Ministry of Natural Resources was available for the completion of this report. Based on the mapping, the area of the Site is generally sloping from north to south, toward McFarlane Lake (+/- 700 m south of Site). The noted elevations range from +/- 240.0 m in the area of the Site toward McFarlane Lake at +/- 227.0 m (+/- 13 m grade change). As such, shallow local groundwater flow in the area of the site is expected to flow (generally) south towards McFarlane Lake
- An overall geometric average K of 2.7 x 10^{-5} cm/sec (2.7 x 10^{-7} m/sec), ML and SM classified soil was calculated for the soils encountered at the Site, indicating low permeability soils. The low permeability soils extended to the test pit excavation depth of 2.8 mbgs. Groundwater ingress was not encountered during test pit excavation. These conditions are generally amenable to hydraulic isolation between surface infrastructure and lower-level aquifers. As such, it is concluded that hydraulic isolation exists between potential on-site sewage system and the existing or potential groundwater supply aquifers. The site is not considered to be a sensitive site.
- The predicted loadings to groundwater indicate that nitrate-nitrogen at the Site boundary for the proposed new lot (north half of 2745 Henri Street) would be approximately 9.5 mg/L, and would be less than the allowable Ontario Drinking Water Objective (ODWO) of 10 mg/L. This result indicates that the soil conditions of the proposed new lot is considered to be suitable for a residential waste sewage disposal system.

The following recommendations are provided:

1. Consult a sewage system expert for the design of the septic system based on anticipated site sewage loading volume.
2. Due to the presence of medium permeable insitu fill materials over to low permeable native silt soils as encountered at the Site (a percolation time of 20 to greater than 50 minutes) raised area beds and associated mantles is recommended.

7. Qualifications of Assessor

Sean O'Mara, P. Geo., is a Professional Geoscientist at EXP with over 25 years of experience in Geo-Environmental assessment. He has conducted numerous geotechnical investigations, construction materials inspection and testing projects, environmental site assessments, site remediation, landfill surface water and groundwater monitoring projects, and hydrogeological studies for residential, commercial, and industrial properties.

Yves Beauparlant, P.Eng. is a Professional Engineer with EXP and has broad experience in a wide range of engineering projects, including numerous Phase I and II ESA's, remediations and abatement projects. Mr. Beauparlant is currently the Manager of Earth and Environmental Services for Northern Ontario.

8. Limitations

The information presented in this report is based on a limited investigation designed to provide baseline information to support an assessment of the hydrogeological conditions and wastewater servicing options within the subject property. The conclusions and recommendations presented in this report reflect Site conditions existing at the time of the investigation. More specific information with respect to the conditions may become apparent during site development operations.

The environmental investigation was carried out to address the intent of applicable provincial and municipal Regulations, Guidelines, Policies, Standards, Protocols and Objectives administered by the Ministry of Environment, the 2020 Provincial Policy Statement under the Planning Act and City of Greater Sudbury Official Plan, Section 12.2.3.1 – Individual Systems. It should also be noted that current Regulations, Guidelines, Policies, Standards, Protocols and Objectives are subject to change, and such changes, when put into effect, could alter the conclusions and recommendations noted throughout this report. Achieving the study objectives stated in this report has required us to arrive at conclusions based upon the best information presently known to us. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgment was exercised in gathering and analyzing the information obtained and in the formulation of the conclusions. Like all professional persons rendering advice we do not act as absolute insurers of the conclusions we reach, but we commit ourselves to care and competence in reaching those conclusions.

Our undertaking at EXP, therefore, is to perform our work within limits prescribed by our clients, with the usual thoroughness and competence of the engineering profession. It is intended that the outcome of this investigation assist in reducing the client's risk associated with environmental impairment. Our work should not be considered 'risk mitigation'. No other warranty or representation, either expressed or implied, is included or intended in this report.

This report was prepared for the exclusive use of the Client and may not be reproduced in whole or in part, without the prior written consent of EXP, or used or relied upon in whole or in part by other parties for any purposes whatsoever. Any use which a third party makes of this report, or any part thereof, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EXP Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

9. Closure

We thank you for the opportunity of working for you on this project. If you have any questions regarding the content of this report or related issues, please contact the undersigned directly.

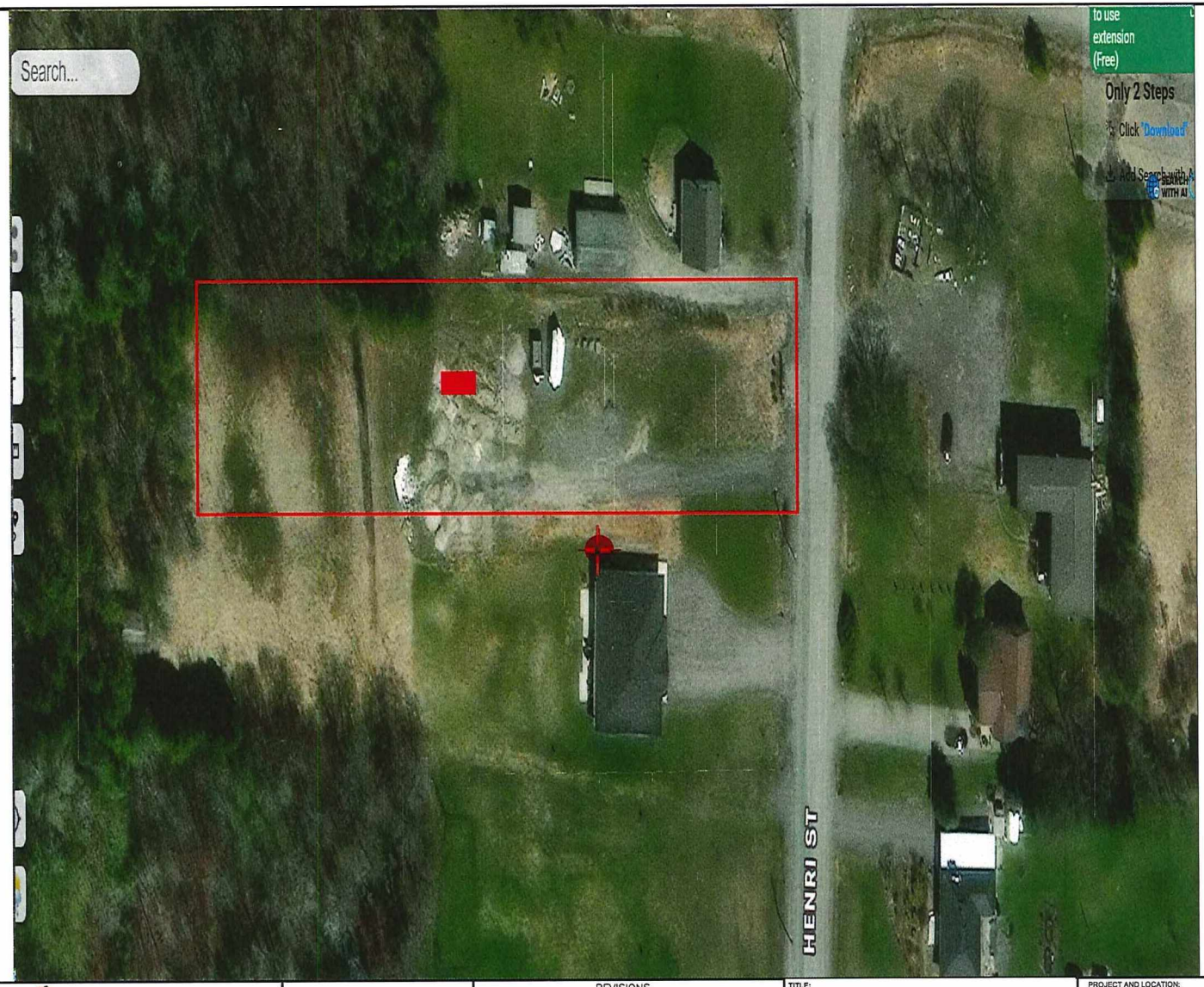
Yours truly,

EXP Services Inc.

Sean O'Mara, P.Geo.
Project Manager, Earth & Environmental
Northeastern Ontario

Yves Beauparlant, P.Eng.
Manager, Earth & Environmental
Northeastern Ontario

Drawings



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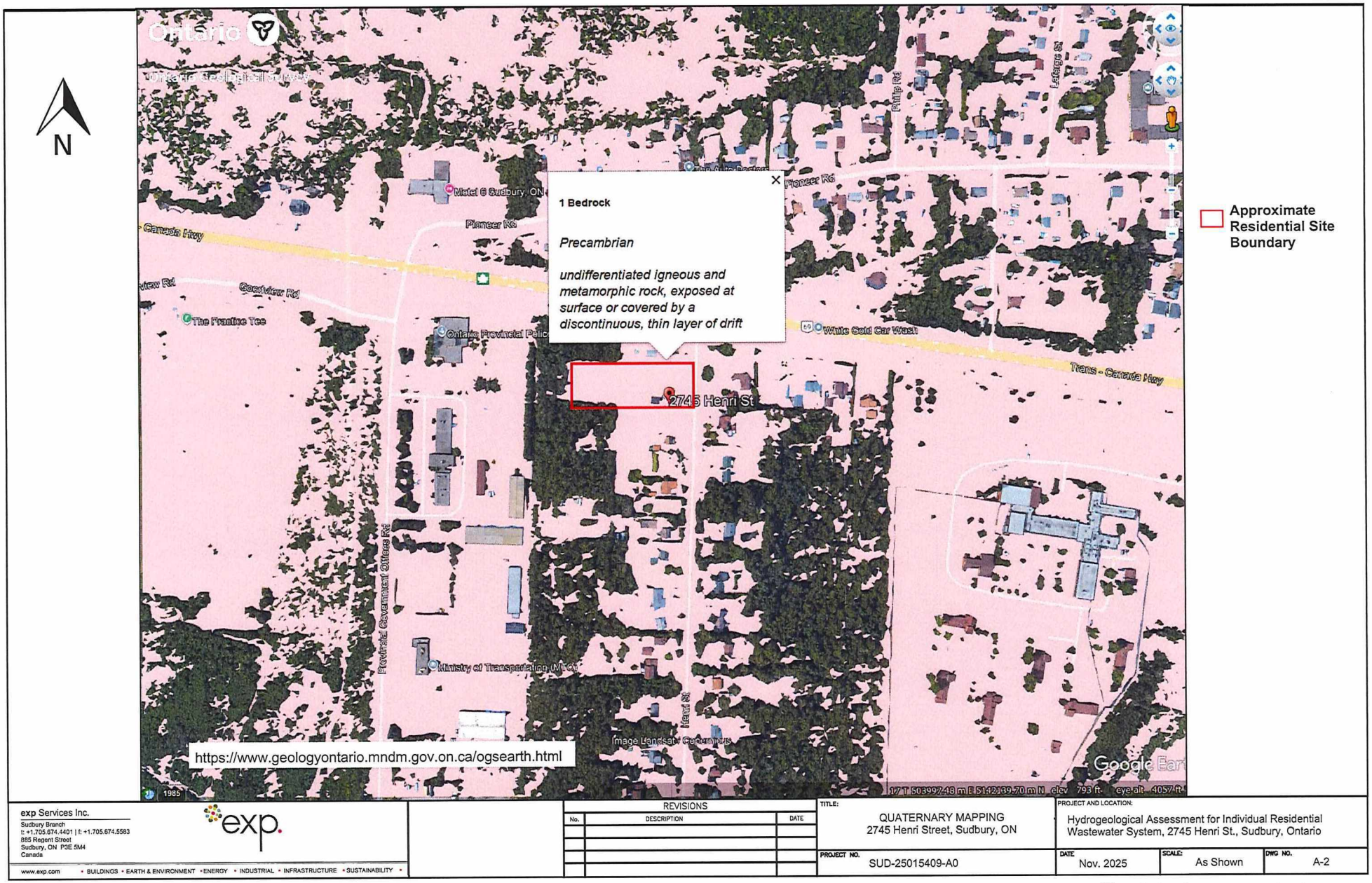
REVISIONS		
No.	DESCRIPTION	DATE

TITLE:	Test Pit Location Plan & Groundwater Flow Plan 2745 Henri St., Sudbury, Ontario
PROJECT AND LOCATION:	Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario
PROJECT NO.	SUD-25015409-A0
DATE:	November 2025
SCALE:	NTS
DWG NO.	A-1

PL-MV-2025-00170
PL-MV-2025-00171



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No.	DESCRIPTION	DATE

TITLE: QUATERNARY MAPPING
2745 Henri Street, Sudbury, ON

PROJECT AND LOCATION: Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario

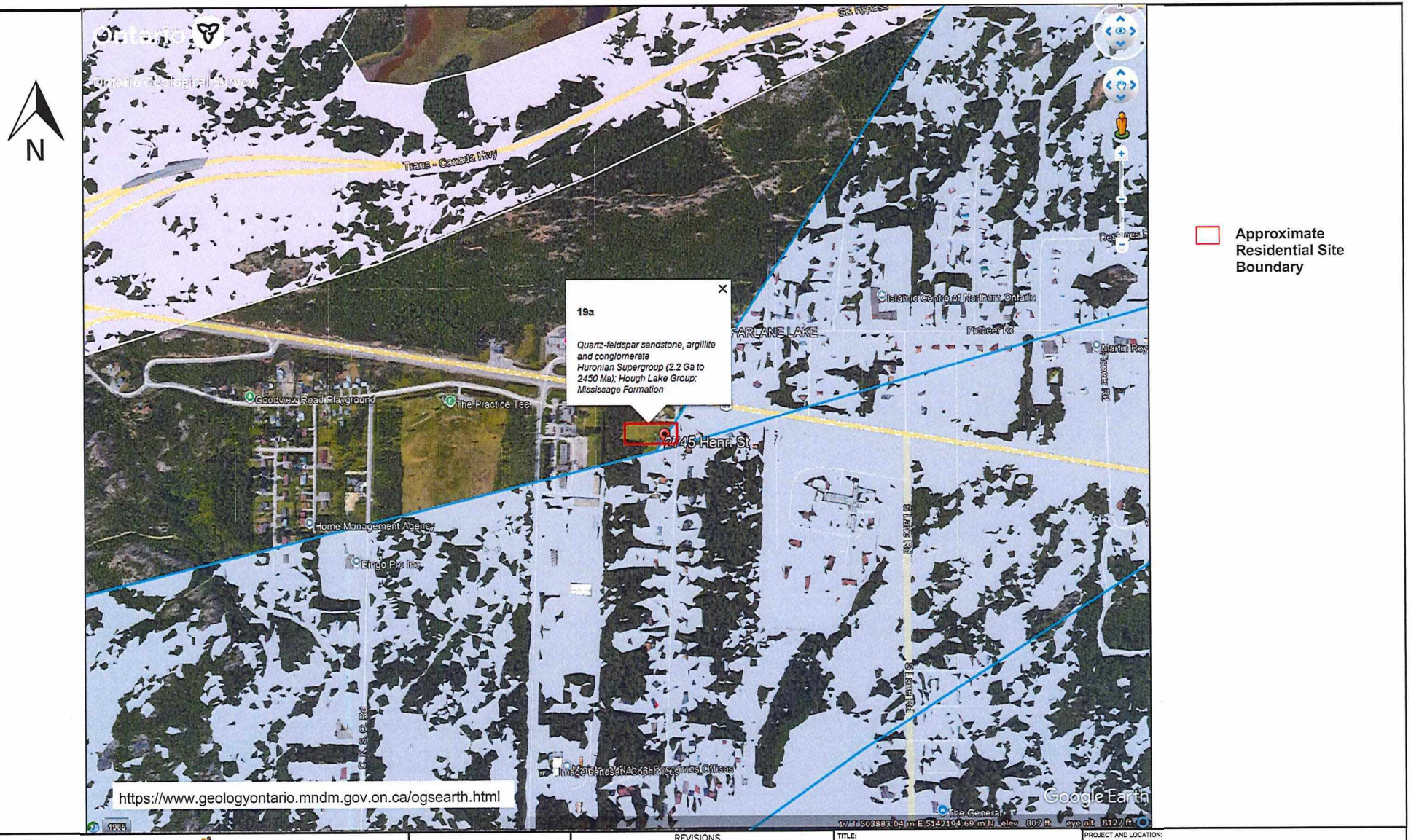
PROJECT NO. SUD-25015409-A0

DATE Nov. 2025

SCALE: As Shown

DWG NO. A-2

PL-MV-2026-00170
PL-MV-2025-00171



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REVISIONS		
No.	DESCRIPTION	DATE

TITLE: BEDROCK GEOLOGY MAPPING
2745 Henri Street, Sudbury, ON

PROJECT AND LOCATION: Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario

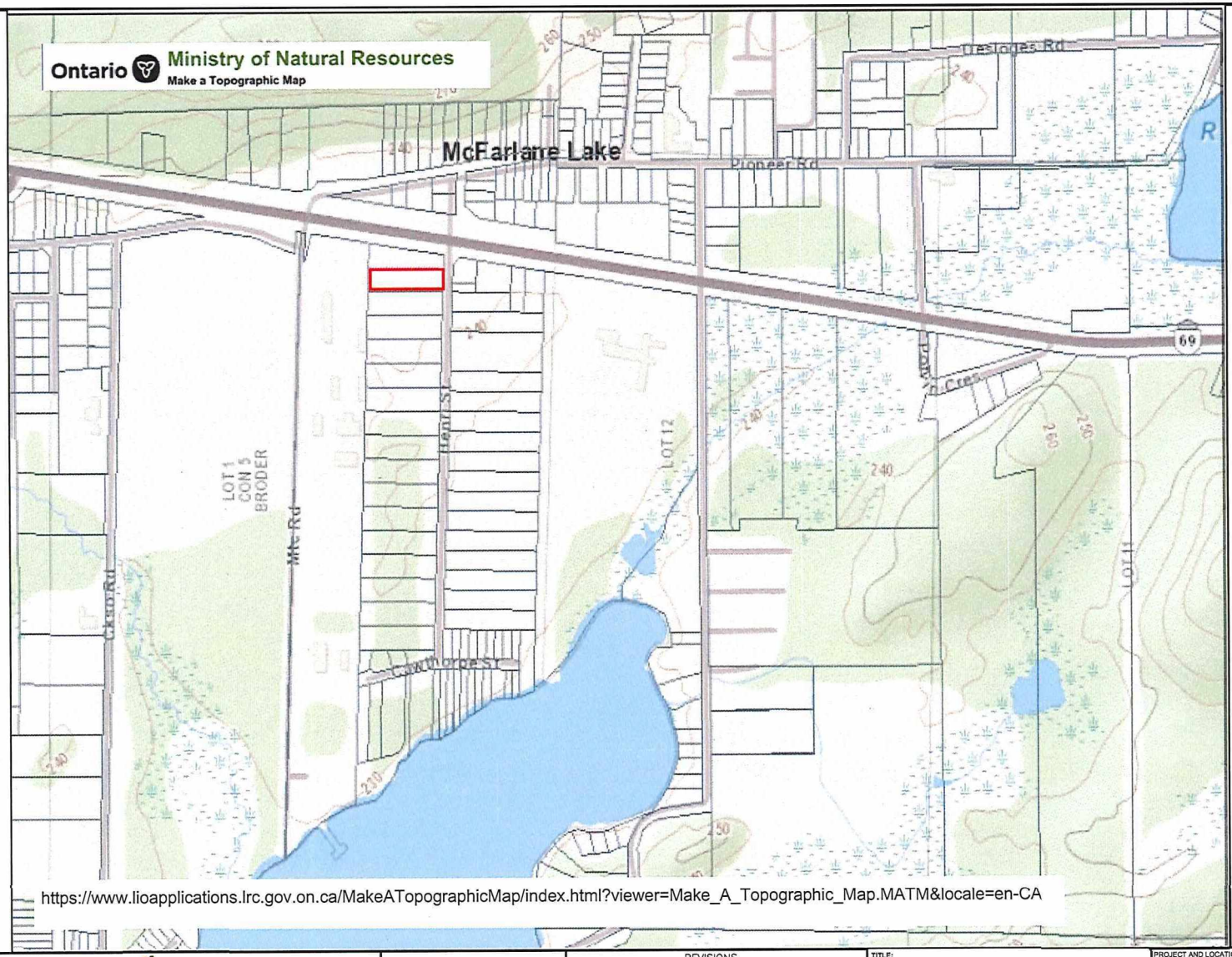
PROJECT NO. SUD-25015409-A0

DATE Nov. 2025

SCALE: As Shown

DWG NO. A-3

PL-MV-2025-00170
PL-MV-2025-00171



N

Approximate Site Boundary

Legend

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REVISIONS		
No.	DESCRIPTION	DATE

TITLE: TOPOGRAPHICAL MAPPING
2745 Henri Street, Sudbury, ON

PROJECT AND LOCATION: Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario

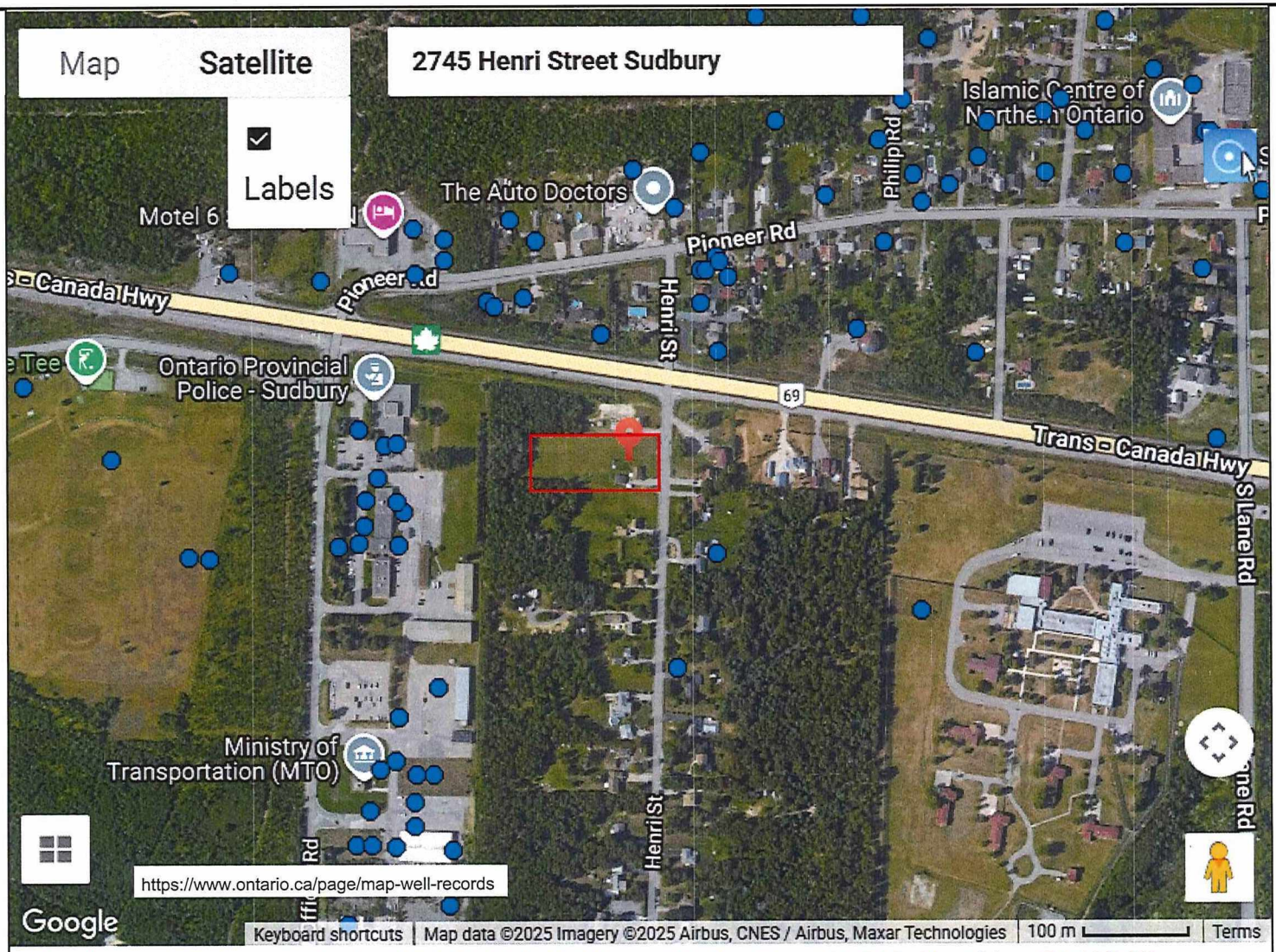
PROJECT NO.: SUD-25015409-A0

DATE: Nov. 2025

SCALE: As Shown

DWG NO.: A-4

PL-MV-2025-00170
PL-MV-2025-00171



exp Services Inc.
Sudbury Branch
t: +1.705.674.4401 | f: +1.705.674.5583
885 Regent Street
Sudbury, ON P3E 5M4
Canada
www.exp.com

exp. BUILDINGS • EARTH & ENVIRONMENT • ENERGY • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

REVISIONS		
No.	DESCRIPTION	DATE

TITLE: MOECP WELL RECORD MAPPING
2745 Henri Street, Sudbury, ON

PROJECT AND LOCATION: Hydrogeological Assessment for Individual Residential Wastewater System, 2745 Henri St., Sudbury, Ontario

PROJECT NO. SUD-25015409-A0

DATE Nov. 2025

SCALE: As Shown

DWG NO. A-5

PL-MV-2025-00170
PL-MV-2025-00171

Appendix A: Test Pit Log & Gradation Analyses

Log of Test Pit TP-1

Project No. SUD-25015409-A0

Figure No. B-2

Project: Hydrogeological Assessment For Wastewater

Sheet No. 1 of 1

Location: 2745 Henri Street, Sudbury, Ontario

503959E;5142161N

Date Excavated: November 6, 2025

Excavator Type: Excavator

Datum: Non-Geodetic

Grab Sample G

Penetrometer ▲

Field Vane Test S

Combustible Vapour Reading □

Natural Moisture ×

Plastic and Liquid Limit |—⊖

Undrained Triaxial at % Strain at Failure ⊕

GWL	SYMBOL	Soil Description	ELEV. m	DEPTH
			99.50	0
		TOPSOIL For 75 mm	99.4	
		FILL Silty Sand, trace gravel, trace organics, brown, moist	98.9	
		TOPSOIL For 150 mm	98.8	
		SILT some clay, trace sand, brown, moist		1
				2
			96.7	
		END OF TESTPIT AT ~ 2.8 m		

N Value: 20 40 60 80

Shear Strength: 50 100 kPa

Combustible Vapour Reading (ppm): 25 50 75

Natural Moisture Content % Atterberg Limits (% Dry Weight): 10 20 30

SAMPLES	Sample Number
G	GS1
G	GS2
G	GS3
G	GS4
G	GS5

TESTPIT (GEO) SUD-25015409 - TP SEPTIC HENRI ST.GPJ NEW.GDT 11/18/25

EXP Services Inc.
885 Regent Street
Sudbury, ON P3E 5M4
CANADA
t: +1.705.674.9681
f: +1.705.674.5583

Test Pit data requires interpretation assistance from EXP before use by others.

See Figures B-1A and B-1B for Notes on Sample Description

Time	Water Level (m)	Depth to Cave (m)
Upon Completion	Dry	N/A

PL-MV-2025-00170
PL-MV-2025-00171

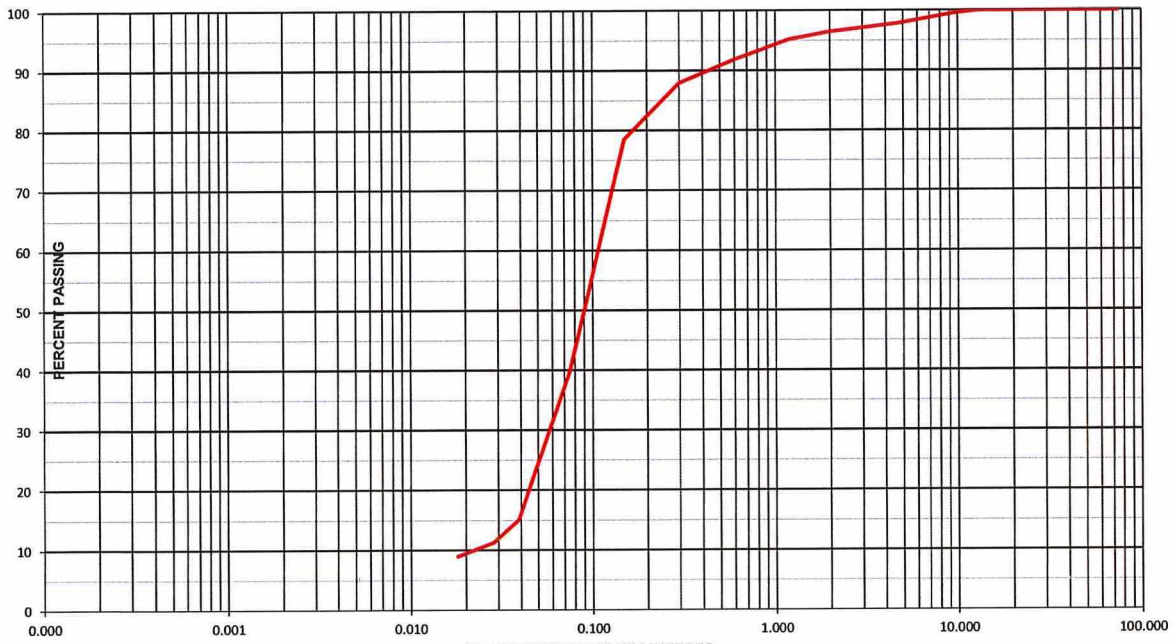
SEPTIC SOIL TESTING

Project # SUD-25015409-A0
Ticket # 21856

Client: Eco Septic Solutions (1754364) Ontario Ltd.
65 Makynen Road
Sudbury, ON, P3E 4N1
[redacted]

RE: TP1 - GS1

GRADATION OF SAMPLE SUBMITTED TO BE USED AS NATIVE MATERIAL FOR CLASS 4 SEWAGE SYSTEM



UNIFIED SOIL CLASSIFICATION		UNIFIED SOIL CLASSIFICATION:	SM
D_{10} =	0.023	Estimated Hyd. Cond. (K) =	5.29E-04 cm/sec
D_{60} =	0.114	Estimated Perc. Time (T) =	15-20 min/cm
C_u =	5.0	Recommended Perc. Time (T) =	**20** min/cm

PL-MV-2025-00170
PL-MV-2025-00171

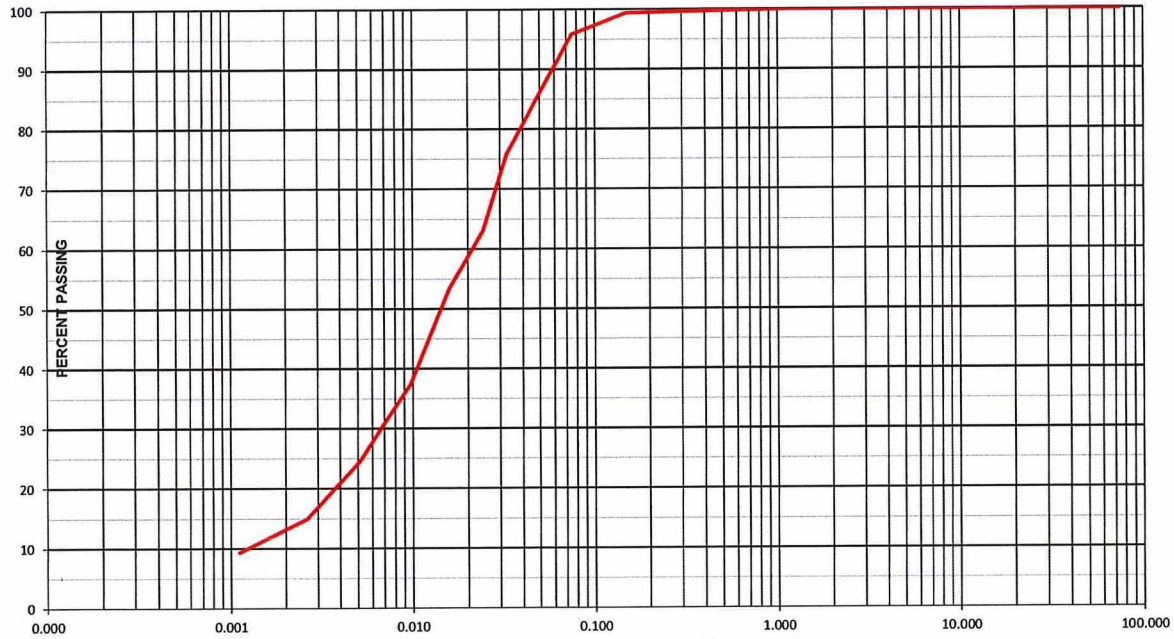
SEPTIC SOIL TESTING

Project # SUD-25015409-A0
Ticket # 21858

Client: Eco Septic Solutions (1754364) Ontario Ltd.
65 Makynen Road
Sudbury, ON, P3E 4N1
[redacted]

RE: TP1 - GS3

GRADATION OF SAMPLE SUBMITTED TO BE USED AS NATIVE MATERIAL FOR CLASS 4 SEWAGE SYSTEM



UNIFIED SOIL CLASSIFICATION		UNIFIED SOIL CLASSIFICATION:	ML
D_{10} =	0.0012	Estimated Hyd. Cond. (K) =	1.44E-06 cm/sec
D_{60} =	0.0217	Estimated Perc. Time (T) =	35-50 min/cm
C_u =	18.1	Recommended Perc. Time (T) =	**50** min/cm

PL-MV-2025-00170
PL-MV-2025-00171

Appendix B: MOECP Well Records

UTM 17 Z 503760 E
9 R 5141880 N
Elev. 9 R 01780
Basin 2K

41I7e

RECEIVED
AUG 22 1949
GEOLOGICAL BRANCH
DEPARTMENT OF MINES

59 No 448

ONTARIO

The Well Drillers Act

Department of Mines, Province of Ontario

Water Well Record

BRODER (& DILL)

[redacted] Con. 5 Lot 1 Pt. Lot

[redacted] Ontario Acres 80

[redacted] $931.17

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	6"	Date	
Length(s) of casing(s)	132' 8"	Developed Capacity	
Length of screen		Duration of Test	
Type of screen		Pumping Rate	
Type of pump		Drawdown	
Capacity of pump		Static level of completed well	110' ?
Depth of pump setting		Is well a gravel-wall type?	

Water Record

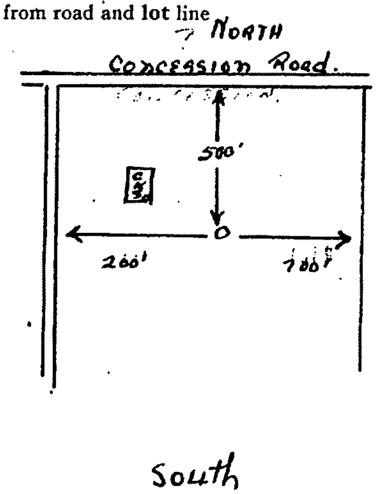
		Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
Kind (fresh or mineral)	Fresh			
Quality (hard, soft, contains iron, sulphur etc.)	Soft	?		?
Appearance (clear, cloudy, coloured)	clear	~~110'~~	good	122'
For what purpose(s) is the water to be used?	DOMESTIC	132		
How far is well from possible source of contamination?				
What is source of contamination?	none			
Enclose a copy of any mineral analysis that has been made of water				

Well Log

Drift and Bedrock Record	From	To
(??)	0 ft.	ft.
Quicksand	1	130'
Coarse-Sand, Gravel	130'	132'

Location of Well

In diagram below show distances of well from road and lot line



Situation: Is well on upland, in valley, or on hillside?

Drilling Firm McRae Well Drilling

Address 204 King Street, Sudbury

Recorded by B. Scagnetti Address

Date July 15, 1949 Licence Number

PL-MV-2025-00170
PL-MV-2025-00171

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

411/7e.

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

(11) 5904282 MUNICIP. 59051 CON. CON 05

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
SUDBURY	BRODER TWP	[illegible]	09

[redacted] Box 89 Site 32 RR#3 Sudbury.

DATE COMPLETED DAY 01 MO. 05 YR. 80

[redacted] 41840 RC. 4 ELEVATION 0775 RC. 5 BASIN CODE 22

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
GREY	CLAY	BOULDERS	HARD CLAY 0-120	0	120'
		DRILLED IN	BOULDERS	120	145'

(31) 01202051373 0145 113

32

41 WATER RECORD	
WATER FOUND AT - FEET	KIND OF WATER
0	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

(51) CASING & OPEN HOLE RECORD INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
02"	1 ☐ STEEL 2 ☒ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	1/16	0	0120
02	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		120	0145
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN	
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD		
DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

(71) PUMPING TEST

PUMPING TEST METHOD 1 ☐ PUMP 2 ☐ BAILER — PUMPING RATE GPM — DURATION OF PUMPING HOURS MINS

STATIC LEVEL — WATER LEVEL END OF PUMPING — WATER LEVELS DURING 1 ☐ PUMPING 2 ☐ RECOVERY — 15 MINUTES — 30 MINUTES — 45 MINUTES — 60 MINUTES (FEET)

IF FLOWING, GIVE RATE GPM — PUMP INTAKE SET AT FEET — WATER AT END OF TEST 1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE ☐ SHALLOW ☐ DEEP — RECOMMENDED PUMP SETTING FEET — RECOMMENDED PUMPING RATE GPM

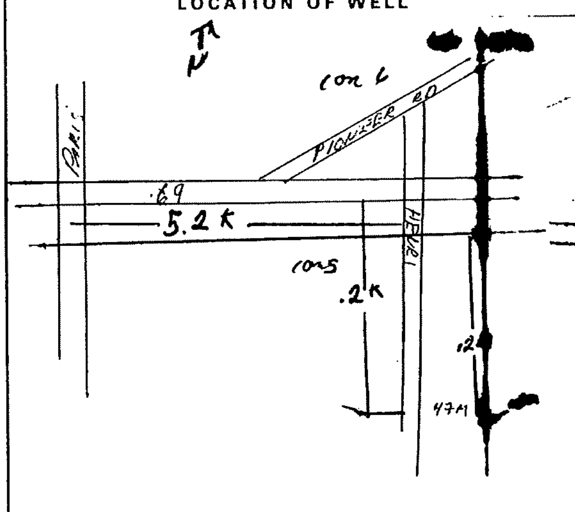
GPM./FT. SPECIFIC CAPACITY

FINAL STATUS OF WELL 5
1 ☐ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☒ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☒ UNFINISHED

WATER USE 01
1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 7
1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☒ DIAMOND 8 ☐ JETTING 9 ☒ DRIVING

LOCATION OF WELL



DRILLERS REMARKS:

CONTRACTOR
NAME OF WELL CONTRACTOR: CHARLES KIRKEY — LICENCE NUMBER 3137
ADDRESS: RR#3 CHELMSFORD ONT. [illegible]
NAME OF DRILLER OR BORER: CHARLES KIRKEY — LICENCE NUMBER 3137
SIGNATURE OF CONTRACTOR: C. Kirkey — SUBMISSION DATE DAY 12 MO. 6 YR. 80

OFFICE USE ONLY
DATA SOURCE 1 — CONTRACTOR 3137 — DATE RECEIVED 180680
DATE OF INSPECTION July 31/80 — INSPECTOR [illegible]
REMARKS: P WI

FORM 7 MOE 07-091

MINISTRY OF THE ENVIRONMENT COPY

PL-MV-2025-00170
PL-MV-2025-00171

Ministry of the Environment

Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 5906078 | MUNICIP. 59051 | CON. 12

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	[redacted] der	A 373 Con 5	35

[redacted] 2694 Henri St. Sudbury

DATE COMPLETED: DAY 16 MO 10 YR 89

ELEVATION | RC. | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
Grey	Clay			0	15
"	Quick Sand			15	131
	SAND + GRAVEL			131	132

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
132	1 ☒ FRESH

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
	1 ☒ STEEL	.188	0	132

SCREEN

SIZE(S) OF OPENING (SLOT NO.) | DIAMETER INCHES | LENGTH FEET | MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER

PUMPING RATE: 4 GPM

DURATION OF PUMPING: 1 HOURS

STATIC LEVEL: 12 FEET

WATER LEVEL END OF PUMPING: FEET

WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY — 15 MINUTES, 30 MINUTES, 45 MINUTES, 60 MINUTES

IF FLOWING, GIVE RATE: GPM

PUMP INTAKE SET AT: FEET

WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

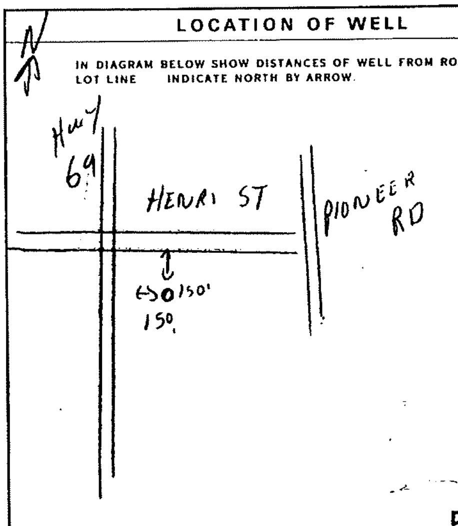
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP

RECOMMENDED PUMP SETTING: 120 FEET

RECOMMENDED PUMPING RATE: 4 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



58788

DRILLERS REMARKS

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY
2 ☐ OBSERVATION WELL
3 ☐ TEST HOLE
4 ☐ RECHARGE WELL
5 ☐ ABANDONED, INSUFFICIENT SUPPLY
6 ☐ ABANDONED POOR QUALITY
7 ☐ UNFINISHED
☐ DEWATERING

WATER USE

1 ☒ DOMESTIC
2 ☐ STOCK
3 ☐ IRRIGATION
4 ☐ INDUSTRIAL
☐ OTHER
5 ☐ COMMERCIAL
6 ☐ MUNICIPAL
7 ☐ PUBLIC SUPPLY
8 ☐ COOLING OR AIR CONDITIONING
9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☐ CABLE TOOL
2 ☐ ROTARY (CONVENTIONAL)
3 ☐ ROTARY (REVERSE)
4 ☐ ROTARY (AIR)
5 ☒ AIR PERCUSSION
6 ☐ BORING
7 ☐ DIAMOND
8 ☐ JETTING
9 ☐ DRIVING
☐ DIGGING
☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: HOULE WELL DRILLING

WELL CONTRACTOR'S LICENCE NUMBER: 2612

ADDRESS: HOULE RD NOELVILLE ONT

NAME OF WELL TECHNICIAN: RICK HOULE

WELL TECHNICIAN'S LICENCE NUMBER: T0200

SIGNATURE OF TECHNICIAN/CONTRACTOR: D Houle

SUBMISSION DATE: DAY 16 MO 10 YR 89

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 2612 | DATE RECEIVED MAY 28 1990

DATE OF INSPECTION: 28/07/93

INSPECTOR: Frank Ostrick

REMARKS: Underground

CSS.ES

FORM NO. 0506 (11/86) FORM 9

MINISTRY OF THE ENVIRONMENT COPY

PL-MV-2025-00170

PL-MV-2025-00171

Ontario Ministry of the Environment

The Ontario Water Resources Act

WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 **5908060** Municipality 59051 Con. CON 06

County or District: Sudbury

Township/Borough/City/Town/Village: BRODER

Con block tract survey, etc.: 6

Lot: 12

[redacted]

Address: 2555 Lafonge Rd Sudbury ont.

Date completed: 19 day 10 month 01 year

21 UTM Northing RC Elevation RC Basin Code

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
SAND	& Clay	Boulders		0'	113'
GREY	Rock	Soft		113'	142'

31

32

41 WATER RECORD

Water found at - feet	Kind of water
120	1 ☑ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 5 ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6 1/4	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	0'	114'
6	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic		114'	142'
	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet	Material and type	Depth at top of screen feet

61 PLUGGING & SEALING RECORD

☐ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)

71 PUMPING TEST

Pumping test method: 1 ☐ Pump 2 ☐ Bailer

Pumping rate: 15 GPM

Duration of pumping: 2 Hours ___ Mins

Static level	Water level end of pumping	Water levels during: 1 ☐ Pumping 2 ☐ Recovery			
10 feet	142 feet	15 minutes: 142 feet	30 minutes: 140 feet	45 minutes: 140 feet	60 minutes: 142 feet

If flowing give rate: ___ GPM

Pump intake set at: ___ feet

Water at end of test: ☐ Clear ☐ Cloudy

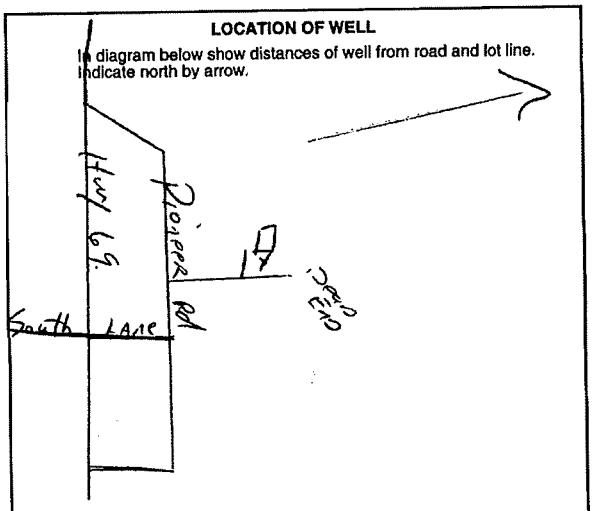
Recommended pump type: ☐ Shallow ☐ Deep

Recommended pump setting: 60' feet

Recommended pump rate: 15 GPM

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



231160

FINAL STATUS OF WELL

54

1 ☐ Water supply
2 ☐ Observation well
3 ☐ Test hole
4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply
6 ☐ Abandoned, poor quality
7 ☐ Abandoned (Other)
8 ☐ Dewatering
9 ☐ Unfinished
10 ☐ Replacement well

WATER USE

55-56

1 ☑ Domestic
2 ☐ Stock
3 ☐ Irrigation
4 ☐ Industrial
5 ☐ Commercial
6 ☐ Municipal
7 ☐ Public supply
8 ☐ Cooling & air conditioning
9 ☐ Not use
10 ☐ Other

METHOD OF CONSTRUCTION

57

1 ☑ Cable tool
2 ☐ Rotary (conventional)
3 ☐ Rotary (reverse)
4 ☐ Rotary (air)
5 ☐ Air percussion
6 ☐ Boring
7 ☐ Diamond
8 ☐ Jetting
9 ☐ Driving
10 ☐ Digging
11 ☐ Other

Name of Well Contractor: Gilles Isabelle Drilling Ltd — Well Contractor's Licence No.: 1462

Address: Sturgeon Falls ont.

Name of Well Technician: Claude Isabelle — Well Technician's Licence No.: 1634

Signature of Technician/Contractor — Submission date: 01 day 11 mo 01 yr

MINISTRY USE ONLY

Data source 56 — Contractor 1462 59-62 — Date received DEC 04 2001 63-68 80

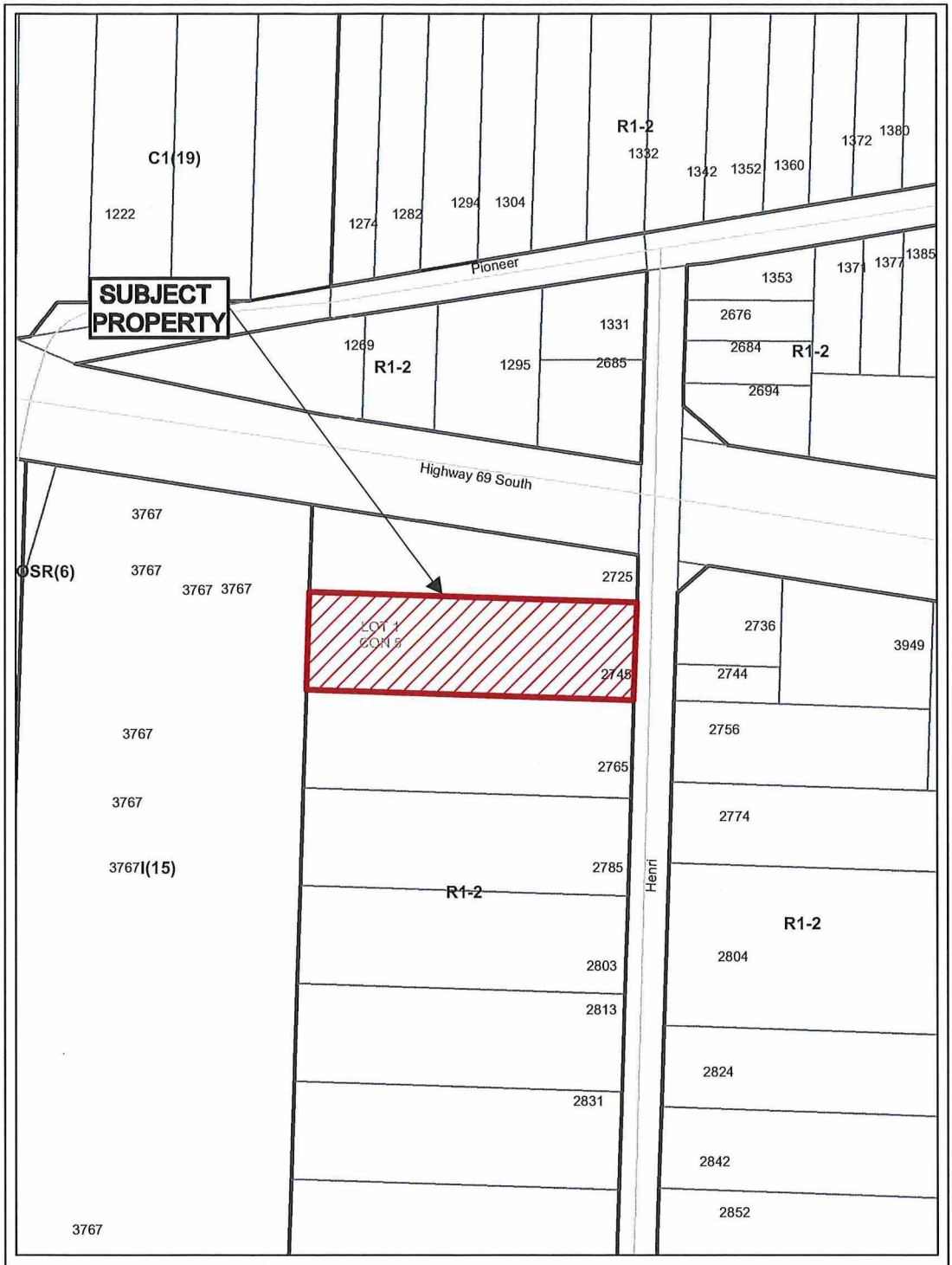
Date of inspection — Inspector

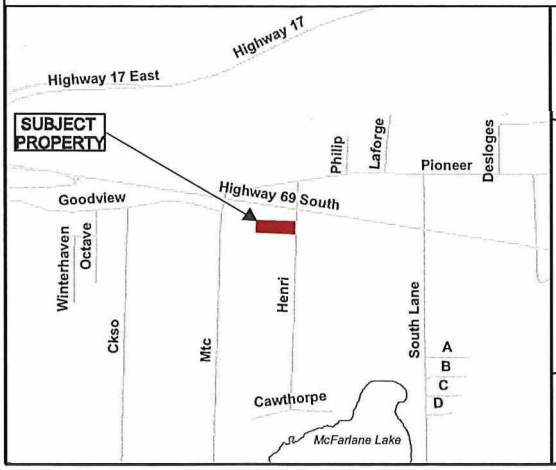
Remarks

0506 (07/00) Front Form 9

2 - MINISTRY OF THE ENVIRONMENT COPY

PL-MV-2025-00170
PL-MV-2025-00171





Application for Minor Variance or Permission

N

Subject Property being PIN 73478-0421,
Parcel 39756 SEC SES,
Lot 20, Plan M-265,
Part Lot 1, Concession 5,
Township of Broder,
2745 Henri Street, Sudbury,
City of Greater Sudbury

Sketch 1, NTS

PL-MV-2025-00170
PL-MV-2025-00171

NDCA

Date: 2025 12 11

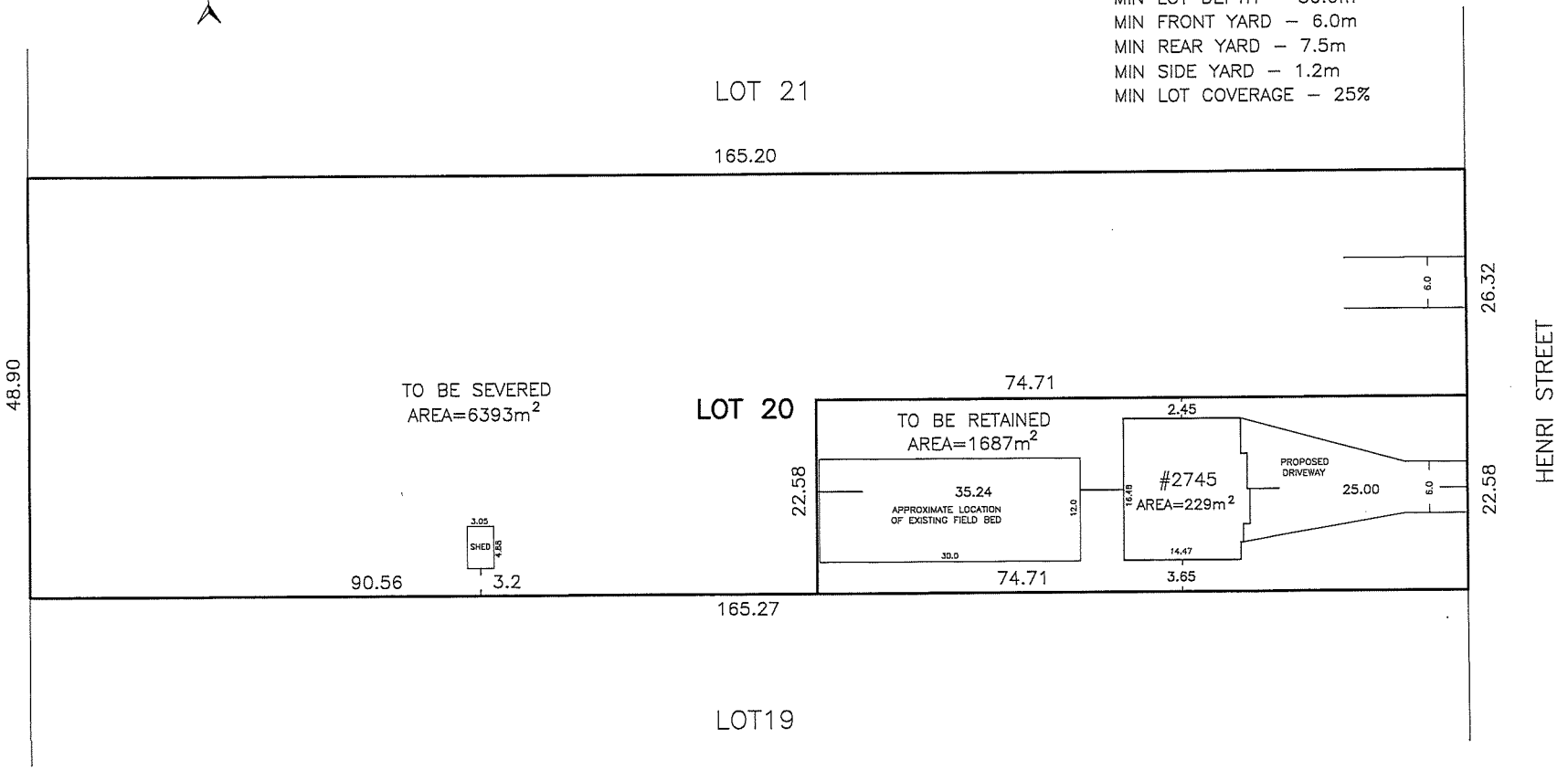
SKETCH SHOWING PROPOSED SEVERENCE

LOT 20
REGISTERED PLAN M-265
2745 HENRI STREET

SCALE: 1 : 500

0 10 20 30 40

ZONING – R1-2
MIN LOT AREA – 1302m²
MIN LOT FRONTAGE – 36.0m
MIN LOT DEPTH – 30.0m
MIN FRONT YARD – 6.0m
MIN REAR YARD – 7.5m
MIN SIDE YARD – 1.2m
MIN LOT COVERAGE – 25%



PL-MV-2025-00171
Sketch 2

Box 5000, Station A
200 Brady Street
Sudbury, Ontario P3A 5P3
(705) 671-2489 ext 4376 or 4346
(705) 673-2200 FAX

Record #: PL-MV-2025-00173

APPLICATION SUMMARY

File Date: 12/19/2025

Application Type: Minor Variance

Address(es): 36 Old Soo Road, Lively P3Y 1C4

Applicant(s): TULLOCH

Owner(s): DEVLA PROPERTIES INC.

PLANNING APPLICATION

Are there multiple properties associated with the application?
No

Please describe the additional properties associated with this application

What is the date the current Owner(s) acquired the property?
2020/09/11

Are you the registered owner or an authorized agent?
Authorized Agent

What is the number of dwelling units on the property?
0

What is the number of proposed new dwelling units on the property?
20

What is the number of proposed new buildings/structures on the property?
5

What is the number of existing buildings/structures on the property?
0

If this application is approved, would any existing dwelling units be legalized?
No

How many dwelling units will be legalized?

Is this property located within an area subject to the Greater Sudbury Source Protection Plan?

No

Provide details on how the property is designated in the Source Protection Plan

Current Official Plan designation
Living Area I

Current Official Plan designation (additional)

Current Zoning By-law designation
R3.D45

Provide a detailed description of what is being proposed
See Cover Letter

Provide a detailed reason why the proposal cannot comply with the Zoning By-law
See Cover Letter

Is there an eave encroachment?
No

Size of eaves

Lot Frontage of the property
45.74

Lot Depth of the property
92.27

Lot Area of the property
6219.2

Total width of the public road giving access to the property
20

List all buildings and structures on the property and their respective date of construction
N/A

Existing use(s) of the subject property and length of time it/they have continued, ex. Residential, Commercial, Institutional, Park, etc.
Vacant
Length unknown

Is the use remaining the same? If no, please provide the proposed new use
No
- 5 Row Dwelling Blocks

Existing uses of neighbouring properties
Northeast and West - Low Density Residential

East - Commercial (Hotel and Restaurant)

South - Institutional (Church)

Has the property ever been subject of a previous application for minor variance/permission?
No

Do you require zoning relief from Section 4.41 (Waterbodies – Water Frontage, Setbacks and Buffers)?

No

Have you consulted with the Strategic and Environmental Planning department regarding this relief?

Have you consulted with Conservation Sudbury regarding this relief?

WATER SUPPLY AND SEWAGE DISPOSAL

Municipally owned and operated piped water system	[X]
Municipally owned and operated sanitary sewage system	[X]
Lake	[ ]
Pit Privy	[ ]
Individual Well	[ ]
Communal Well	[ ]
Individual Septic System	[ ]
Communal Septic System	[ ]
Other	[ ]

Explain Other

PROPERTY ACCESS

Provincial highway	[ ]
Right-of-way	[ ]
Municipal road that is maintained seasonally	[ ]
Municipal road that is maintained year-round	[X]
Water	[ ]

Indicate the parking and docking facilities to be used if via water

Estimate the distance of these facilities from the retained land and nearest public road by water

CONCURRENT APPLICATIONS

Is the property the subject of a current application for Consent?
No

Indicate the application number(s) and status of the application(s)

Is the property the subject of a current application for a Plan of Subdivision?
No

Indicate application number(s) and application status

PROPOSED BUILDING/STRUCTURE

Building Description	Same As Existing	Proposed Ground Floor Area (m2)	Proposed Gross Floor Area (m2)	Proposed Number of Storeys	Proposed Width (m)	Proposed Length (m)	Proposed Height (m)	Proposed Front Yard Setback (m)	Proposed Rear Yard Setback (m)	Proposed Side Yard Setback (m)	Proposed Side Yard Setback Other (m)
Block A	No	439.3	878.7	2	32.11	13.26	7	70.68	6.75	1.8	37.89
Block B	No	448.6	888	2	33.63	13.26	7	70.68	6.78	1.86	36.01
Block C	No	439.3	878.7	2	32.11	13.26	7	36.79	40.67	2.99	47.16
Block D	No	448.6	888	2	33.63	13.26	7	36.76	40.71	1.83	13.37
Block E	No	448.6	888	2	33.63	13.26	7	6	71.47	1.8	10.32

EXISTING BUILDING/STRUCTURE

Building Description	To Be Demolished	Existing Ground Floor Area (m2)	Existing Gross Floor Area (m2)	Existing Number of Storeys	Existing Width (m)	Existing Length (m)	Existing Height (m)	Existing Front Yard Setback (m)	Existing Rear Yard Setback (m)	Existing Side Yard Setback (m)	Existing Side Yard Setback Other (m)

ZONING BY-LAW RELIEF

Variance To	By-law Requirement	Proposed (m)	Difference (m)
Table 6.5	Min. Rear Yard: 7.5m	6.7m	0.8
Table 6.5	6m	0m (for accessory structure - Retaining Wall exceeding 1.0m)	6m
Special Provision 5 to Table 6.5	Min. Privacy Yard Setback: 7.5m	6.1m (Block C)	1.4m
Special Provision 10 (iii) to Table 6.5	Minimum Court Yard between two walls with no windows: 3m	2.4m	0.6m

4.2.5	Permitted Encroachment for accessory Buildings & Structures 2.5m or less in height: 0.6m from side lot line	0.2m from side lot line	0.4m
4.15 e)	Minimum Width of Landscaped Area: 3m	2.8m	0.2m
Table 6.5	6m	3.0m (for accessory structure - Retaining Wall exceeding 1.0m)	3m
Special Provision 5 to Table 6.5	Min. Privacy Yard Setback: 7.5m	6.7m (Blocks A and B)	0.8m

TULLOCH

Planners | Surveyors | Biologists | Engineers

January 5, 2026
File No. 24-0988

Development Approvals – Planning Services
Tom Davies Square – City of Greater Sudbury
200 Brady Street
Sudbury, ON
P3A 5P3

Re: Minor Variance Application – 36 Old Soo Road

Dear Planning Services,

TULLOCH has been retained by the current owner of those lands known municipally as 36 Old Soo Road in Greater Sudbury to facilitate a Minor Variance application to permit the development of five 2-storey Row Dwelling buildings consisting of 20 dwelling units. The reliefs being requested are as follows:

- Relief from Table 6.5 to reduce the minimum rear yard setback from 7.5 metres to 6.7 metres to accommodate the location of Blocks A (Units 1-4) and B (Units 5-8)
- Relief from Table 6.5 to permit the following front yard setbacks, where a minimum of 6 metres is required:
    - A 0-metre front yard setback for a 1.17 metre tall retaining wall along the eastern part of the property line and;
    - A 3-metre front yard setback for a 1.73 metre tall retaining wall along the western part of the property.
- Relief from Special Provision 5 for Table 6.5 to reduce the minimum privacy yard setback from 7.5 metres to:
    - 6.7 metres for Blocks A (Units 1-4) and B (Units 5-8)
    - 6.1 metres for Block C (Units 9-12);
- Relief from Special Provision 10 (iii) for Table 6.5 to reduce the minimum court yard setback between two opposing walls where neither of the walls have windows into

habitable rooms from 3 metres to 2.4 metres. The intent of this relief is to accommodate the mechanical room attached to Unit 5;

- Relief from Section 4.2.5 to permit a 0.2 metre setback for a 1.73 metre tall retaining wall, where 0.6 metres is required;
- Relief from Section 4.15 e) reduce the minimum landscaped area width along Old Soo Road from 3.0 metres to 2.8 metres

The following section seeks to assess the appropriateness of the proposed application in the context of the four tests of a minor variance. It is the author's opinion that the proposed minor variance represents good planning and meets the four tests as outlined under Section 45(1) of the Planning Act. The four tests in the Planning Act and related analysis are provided in Table 1, below:

Table 1: Analysis of the Four Tests

SECTION 45(1) TEST	RESPONSE
Is the application minor in nature?	In general, all of the proposed reliefs will not cause any undue adverse effects on the subject or surrounding properties and are therefore minor in nature. **Rear and Privacy Yards** Adverse impacts related to the reduction in the rear and privacy yards, specifically relating to privacy for those benefitting from the privacy yards and for residents on abutting properties are not expected. The rear/privacy yards for Blocks A and B face an undeveloped portion of institutional land (Waters Mennonite Church), which provides a further buffer between said yards and Municipal Road 55. The privacy yards for Block C are all screened from abutting residential uses by a 1.5 metre tall privacy fence. The provision of patios on the site plan demonstrates that sufficient amenity space can still be provided for the reasonable enjoyment of the benefitting residents, despite the proposed reduction. **Retaining Wall Setback Reliefs** The retaining walls subject will have a 1.5-metre tall privacy fences (reduced to 1 metre within 6 metres of front lot line) to mitigate any privacy concerns. The Site Grading Plan to be submitted for Site Plan Control demonstrates that the height of both walls will gradually increase as they travel away from the front lot line, meaning the tallest point of both walls will be away from existing dwellings on neighbouring properties and away from the front lot line. Any impacts related to shadowing or visual character would therefore be minimal-to-nonexistent.

	Court Yard The 2.4m courtyard variance between units 4 and 5 does not affect the functional amenity space that would be commonly used by residents. The mechanical room being accommodated through this variance has a small footprint and does not span the entire length of Unit 5, meaning a 3 metre space can still be maintained on either side of said room. **Landscaping Buffer** The landscaped area variance would not hinder the planting or maintenance of deciduous trees within the buffer. The landscaped plans prepared for the concurrent Site Plan Control Agreement demonstrate that trees can still be planted at 6 metres on centre.
Is the application desirable for the appropriate development of the subject property?	The proposed minor variance will enable the development rental housing in an appropriate location, as indicated in the Official Plan. In general, the reliefs allow for the best use of the property by accommodating for the site's irregular shape while maintaining site plan standards outlined in the City of Greater Sudbury Site Plan Control Guide. **Rear and Privacy Yards** The reliefs for the above are desirable because they accommodate the location of all buildings, driveways, associated features on a lot that is irregularly shaped in a manner that is logical. **Retaining Wall Setback Reliefs** The accessory structure and front yard setback reliefs proposed are intended to accommodate the proposed retaining walls and drainage swales that were established through the Site Plan Control. Therefore, this variance is desirable to ensure that proper drainage of the site is maintained. **Court Yard** The reduction in the required court yard will enable the mechanical room attached to Unit 5 – a room that is not accessible to the resident of this unit, but essential for the operation of internal utilities within their associated blocks of units. **Landscaped Area** The reduced landscaped area will continue to provide a sufficient buffer of landscaping between the Old Soo Road Right of Way and Units 17 thru 20 inclusive. The reduction in the minimum width of the landscaped area will also ensure that the walkways which lead to said Units are of a sufficient size to accommodate access.

Does the application conform to the general intent of the Zoning By-law (ZBL)?	The proposed development conforms with the general intent and purpose of the by-law. The application requests relief from the by-law but proposes a use that is less intense than what is permitted as of right upon the subject land. The site is currently zoned 'Medium Density Residential (R3.D45)' in the ZBL. The proposed development represents a net density of 32 units per hectare, where maximum density permitted in the 'R3.D45' zone is 45 units per hectare. **Landscaped Area** The intent of the landscape area is to provide an appropriate buffer between street-facing uses and the right of way. Despite the relief from the 3 metre requirement, a reduction in width by 0.14 metres would still allow sufficient area for the planting of trees and other vegetation without hinderance. **Rear and Privacy Yards** The intent of the rear and privacy yards is to provide residents with appropriate private amenity spaces at the rear of all dwelling units, with privacy yards acting in place of a rear yard where the rear of a building faces a lot line that is not the rear lot line. It is the author's opinion that the privacy yards proposed would still be of a suitable size for the reasonable use and enjoyment of the benefitting occupants, while maintaining a reasonable degree of privacy between the proposed units and abutting properties, thereby meeting the intent of the privacy yard requirements. **Western Retaining Wall – Accessory Setback** The intent of the permitted encroachment provisions is to permit certain accessory buildings, structures and features in the required yards while maintaining a suitable setback from abutting properties. The western retaining wall subject of this variance will still be reasonably set back from the lot line that concerns related to shadowing. Privacy concerns from the closer setback are alleviated through the provision of the privacy fence. In addition, the retaining walls function as screening devices within planting strips in conjunction with attached privacy fences, as outlined in Section 4.15.5 of the ZBL. **Both Retaining Walls – Front Yard Setback** The intent of the Front Yard Setback is to ensure that buildings and structures do not crowd the street line in a way that is not in keeping with the character of a given area. Even though both retaining walls will be set back less than 6 metres from the front lot line, their respective heights will be low enough that they will blend in with surrounding landscaping, with their maximum heights being achieved away from the front lot lines. It is the

	author's opinion that the intent of the ZBL with respect to these variances is met because of this, along with the retaining walls being necessary for drainage and slope stability. **Court Yard** The minimum court depth required in the by-law is intended to ensure appropriate spacing between row dwelling blocks. As noted, the relief is intended to accommodate a mechanical room attached to Unit 5. The setback between Units 4 and 5 where the mechanical room does not extend out will be 3 metres. All other court yards will exceed 3 metres to accommodate the private driveway and walkways.
Does the application conform to the general intent of the Official Plan (OP)?	The subject lands are designated Living Area I in the OP. The proposed development is consistent with the City's objectives for development within the Settlement Area within **Section 2.3.2** of the OP. It represents an efficient use of land within a location where development is encouraged, does not require any extension or upgrades to municipal infrastructure. The variances proposed will enable intensification of the site, as encouraged under **Section 2.3.3** of the OP. The proposed development consists of dwelling units that are of height and scale that is compatible with the existing character of the area. This compatibility, in conjunction with the site being serviced by full municipal services, makes this development in conformity with **Section 2.3.3**, along with the general policies for Living Areas under **Section 3.2** and the Living Area I Policies under **Section 3.2.1.** The reliefs related to the retaining walls will enable the provision of retaining walls and associated stormwater swales to be provided on-site, in conformity with the site-specific policies for Stormwater Management under **Section 8.5.3**, and as documented in the Stormwater Management Report submitted for Site Plan Control.

Given the analysis contained herein, the author concludes that the minor variance application is necessary to facilitate the proposed development which is appropriate for the subject lands.

Please find attached the following documents and supporting information in support of a complete application.

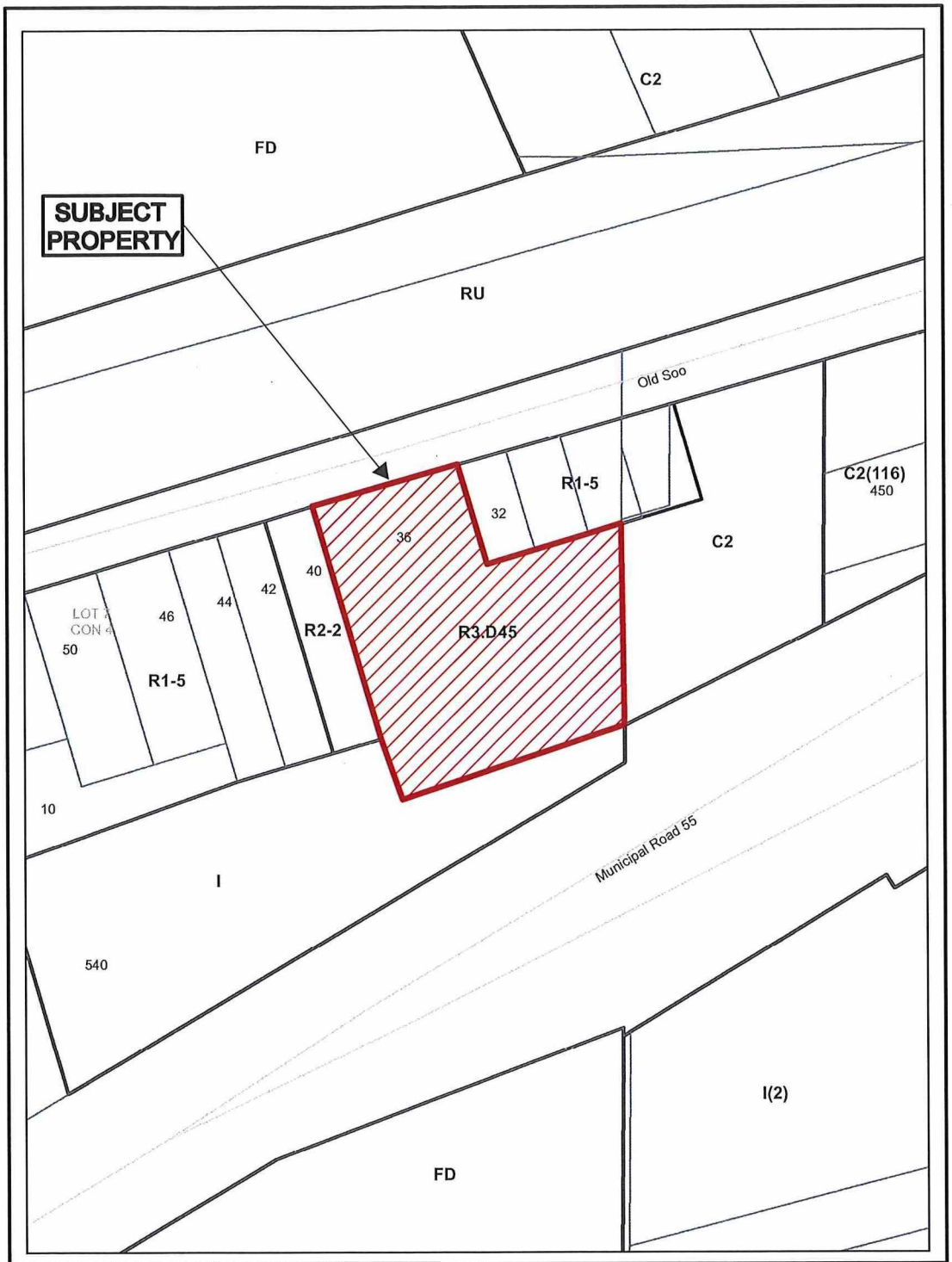
- Site Plan
- Legal Property Description

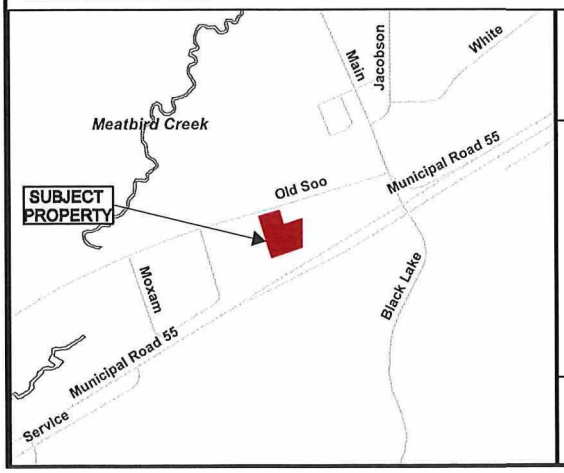
We trust that this submission package will enable the City of Greater Sudbury to issue a Notice of Complete Application with respect to the subject proposal. Should there be any questions with respect to the above, please do not hesitate to contact the undersigned directly.

Respectfully submitted,

Matt Jay, BES
Land Use Planner

Vanessa Smith, M.Pl, RPP
Senior Planner | Project Manager





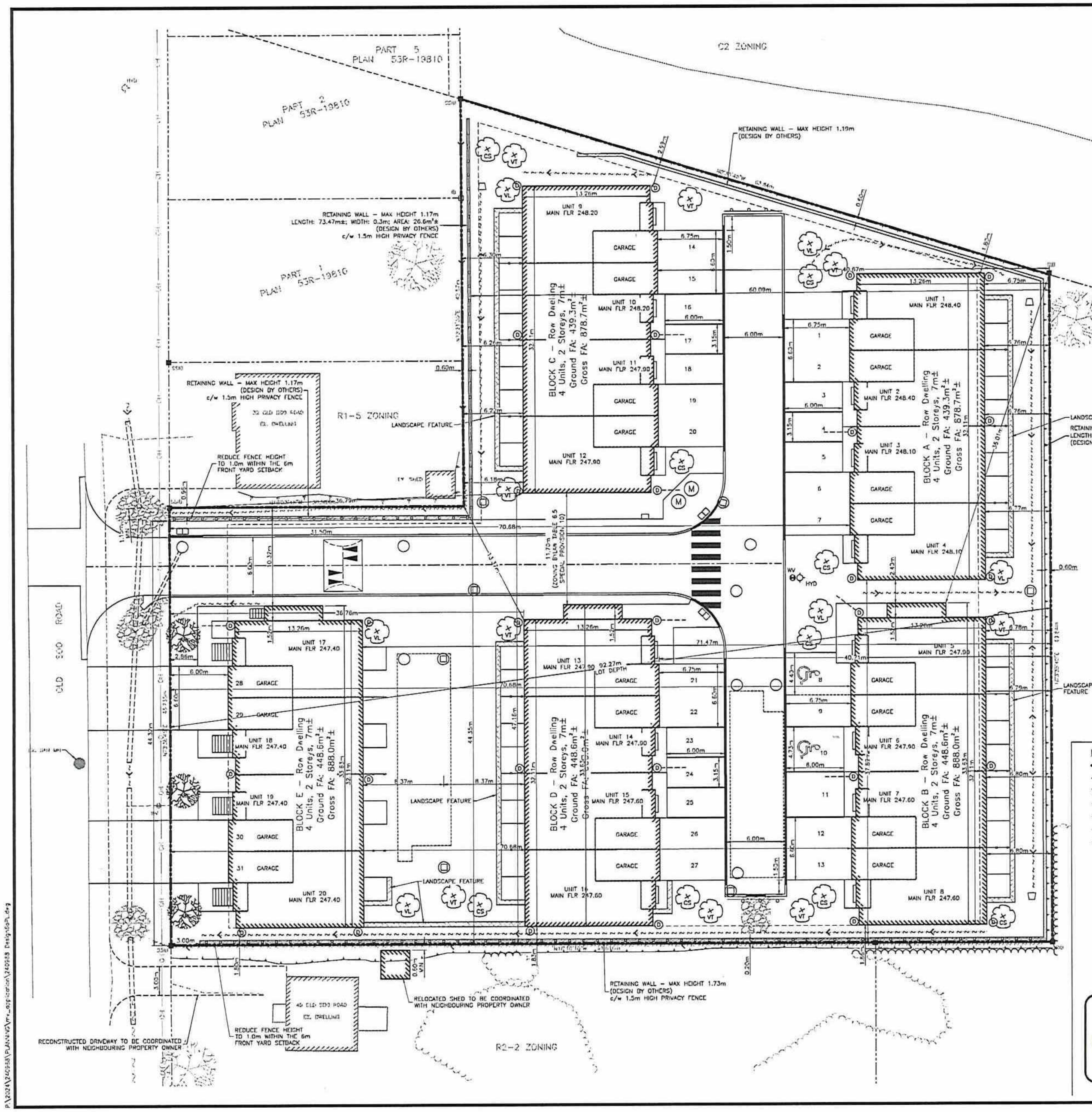
Application for Minor Variance or Permission

N

Subject Property being PIN 73378-0004,
Parcel 10702 SEC SWS,
Part Lot 7, Concession 4 as in LT70852,
Township of Waters,
36 Old Soo Road, Lively,
City of Greater Sudbury

Sketch 1, NTS
NDCA

PL-MV-2025-00173
Date: 2026 01 05



SITE PLAN DATA

ADDRESS: 36 OLD SOO ROAD

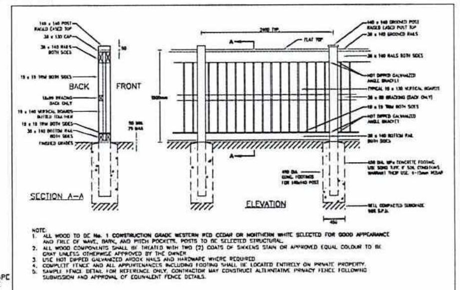
PIN 733780004

LEGAL DESCRIPTION
PCL 10702 S.W.S.
PART LOT 7, CONCESSION 4
GEOGRAPHIC TOWNSHIP OF WATERS
CITY OF GREATER SUDBURY

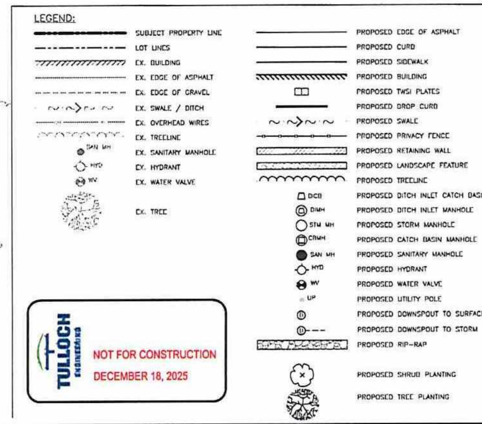
ZONING: R3.D45

USE OF BUILDING: 2 STOREY ROW DWELLINGS - 20

	REQUIRED	PROVIDED
LOT AREA:	0.30ha (150m²/unit)	0.62ha±(6,219.2m²) (311m²/unit±)
LOT FRONTAGE:	18m	45.735m
LOT DEPTH:	30m	92.27±
LOT COVERAGE:	40%	25.85%±
LANDSCAPING:	30%	40.60%±
MAX UNITS/ha	45	32±(20 units/0.62ha)
SETBACKS		
FRONT YARD:	6m	6.0m
INTERIOR YARD:	1.8m	1.8m MIN
REAR YARD:	7.5m	6.75m MIN
COURTYARD:	3m MIN	2.4m MIN
REAR PRIVACY YARD:	7.5m	
UNIT 1:		6.75m
UNIT 2:		6.76m
UNIT 3:		6.76m
UNIT 4:		6.77m
UNIT 5:		6.78m
UNIT 6:		6.79m
UNIT 7:		6.80m
UNIT 8:		6.80m
UNIT 9:		6.30m
UNIT 10:		6.26m
UNIT 11:		6.22m
UNIT 12:		6.18m
UNIT 13:		8.37m
UNIT 14:		8.37m
UNIT 15:		8.37m
UNIT 16:		8.37m
UNIT 17:		8.37m
UNIT 18:		8.37m
UNIT 19:		8.37m
UNIT 20:		8.37m
LANDSCAPING		
LANDSCAPE BUFFER	3.0m	2.86m
PLANTING STRIP:	1.8m	1.8m
PARKING CALCULATIONS:		
PARKING SPACES:	30	31
ACCESSIBLE SPACES:	1	2
SNOW & WASTE:	TO BE REMOVED BY PRIVATE SERVICES.	



OPAQUE PRIVACY FENCE DETAIL
SCALE N.T.S.



NOT FOR CONSTRUCTION
DECEMBER 18, 2025

KEY PLAN

ENGINEER'S SEAL:

DATE	REV.	REVISION	BY	APP'D
25-12-12	3	RE-ISSUED FOR SITE PLAN CONTROL	EJT	PD
25-08-08	2	RE-ISSUED FOR SITE PLAN CONTROL	RD	PD
24-12-12	1	ISSUED FOR SITE PLAN CONTROL	EJT	PD

CLIENT:

Devla Properties Inc.
Unit 1, 1049 Notre Dame Avenue
Greater Sudbury

CONSULTANT:

TULLOCH

PROJECT TITLE:

WALDEN GARDENS RESIDENTIAL DEVELOPMENT 36 OLD SOO ROAD

DRAWING TITLE:

SITE PLAN (FOR MINOR VARIANCE APPLICATION ONLY)

EJT/MDJ	EJT	VS	VS
DRAWN	DESIGNED	CHECKED	APPROVED
1:200		DEC 18, 2024	
SCALE		DATE	
24-0988	-	-	
PROJECT No.	REVISION	DRAWING	

PL-MV-2025-00173
Sketch 2