Functional Servicing Report
1400 Everton Road Severances

Mr. Michael Heintz

P/N 24–3651 | September 11, 2025

1400 Everton Road
Town of Midland
County of Simcoe

Skelton Brumwell & Associates Inc.
ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS

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June 5, 2025

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Functional Servicing Report
1400 Everton Road Severances
Town of Midland

P/N 24–3690 September 11, 2025

1.0 Introduction

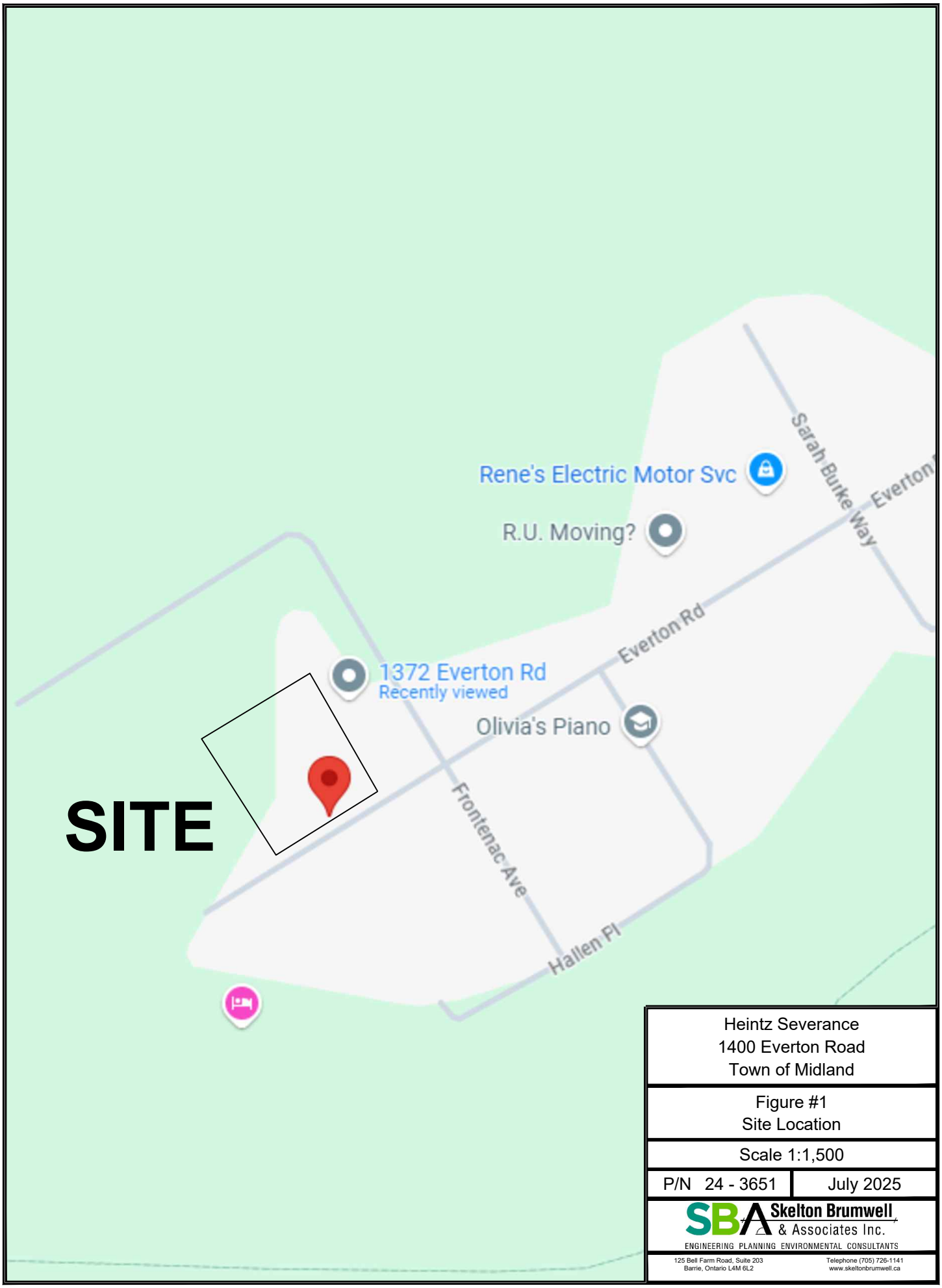
Mr. Michael Heintz is proposing to subdivide his property located at 1400 Everton Road South in the Town of Midland. The intention is to create a total of four (4) residential lots – three (3) lots would be created by severance, and one (1) lot would be retained. The property is located on the north side of Everton Road, west of the intersection of Everton Road and Frontenac Avenue.

The property is legally described as Part of Lot 111, Concession 1 East of Penetanguishene Road, Geographic Township of Tay, and are further described as Lot 23, Plan 87, Geographic Township of Tay, now in the Town of Midland, County of Simcoe. The property is approximately rectangular shaped, with an area of about 2.03 ha (5.01 acres).

The property currently includes a private residence located near the southeast corner of the property. The remainder of the property is primarily forested lands. The adjacent lands to the east, as well as the lands to the south (across Everton Road) are occupied by private residences. The lands to the north are occupied by a municipal water tower. The lands to the west are forested.

It is understood that that the three (3) proposed lots would be approximately equally sized, with each having about 27 m frontage on Everton Road, and depths of about 150 m. The retained lot would have about 54 m of frontage, and a depth of 150 m. The total area of each severed lot would be about 0.41 ha (1.00 acres) and the retained lot would have an area of about 0.81 ha (2.00 acres). No further details are currently available regarding the future homes to be constructed on those lots if the severance is approved.

Skelton, Brumwell & Associates Inc. (SBA) has been retained to provide consulting engineering and planning services in support of the proposed severance. As part of the consent severance review and approval process as outlined by the Town of Midland pre–consultation comments of May 9, 2025, a preliminary Functional Servicing Report has been prepared to review and outline the servicing requirements for the proposed lots.



Heintz Severance 1400 Everton Road Town of Midland
Figure #1 Site Location
Scale 1:1,500
P/N 24 - 3651 | July 2025

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Heintz Severance
Midland, Ontario

Proposed Consent

Scale 1:1500

P/N 24-3651 | April 2025

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2.0 Existing Site Conditions

The existing site is primarily forested areas, and includes an existing private residence near the southeast corner of the property. There are no wetlands or streams noted on the property or on the adjacent lands. Based on contour information available from the County of Simcoe Geographic Information System (GIS), topographic relief on the property is in the order of 14 m, sloping from about 236 m at the northwest property corner to 222 m at the southeast property corner.

Access to the existing property is via a paved driveway for the existing residence near the southeast property corner, fronting onto Everton Road. Each of the proposed lots would also have driveways connected to Everton Road.

No detailed geotechnical investigation of the site has been undertaken at this time; however, based on a review of available soils information mapped through VUMAP First Base Solutions, as well as from the historic Soil Survey of Simcoe County (1962), onsite soils are a mixture of Tioga Sandy Loam (Tisl) and Vasey Sandy Loam–Stony Phase (Vasl–b). These soils each have smooth, gentle to steep slopes, and both have good drainage characteristics.

3.0 Sanitary Sewage System

3.1 Existing Conditions

There is currently no municipal sanitary infrastructure servicing Everton Road, and as such, no existing sanitary information was available for review. It is understood that the existing residence on the property is serviced by a private sewage disposal system, which would not be impacted by the proposed severances.

3.2 Sanitary Sewage Design Flow

As no design plans are currently in place for the future homes to be built on the severed lots, it is not possible to determine a design sewage flow. Flows for each individual home will be determined as part of the detailed design of each lot, to be undertaken as part of the Building Permit process.

3.3 Sewage System Requirements

As noted previously, no municipal sanitary infrastructure currently exists on Everton Road. Based on this, any future homes constructed on the proposed severed lots will each require individual private sewage disposal systems. The sewage disposal systems would be designed as part of the Building Permit process in accordance with the requirements of the Ontario Building Code (O.B.C.).

The systems will at minimum consist of a septic tank and leaching bed, and may include a pump chamber depending on the final location of the septic tank and leaching bed. Any tanks to be utilized as part of the sewage disposal system will be required to be located at least 1.5 m from the future house, at least 3.0 m from any property lines, and at least 15 m from any waterbody including any drilled wells.

Investigation of the onsite soils will be required to be undertaken in order to confirm the percolation rate ("T" time) of the onsite soils, which in turn would be utilized to design the required sewage disposal bed. The use of a tertiary sewage treatment system may be necessary in order to reduce the required bed footprint by constructing the bed as a Type "A" Dispersal Bed, which is permissible when a tertiary treatment system is utilized. The determination on the type and configuration of any onsite sewage disposal systems will be made at the Building Permit stage.

A conceptual private sewage disposal system for each of the proposed lots is shown on drawing 3651–SSP, included with this report.

3.4 Future Municipal Sanitary Services

It is unknown at this time if there are any intentions by the Town of Midland to extend municipal sanitary services to Everton Road. There may be a future requirement for residences in this area to connect to municipal services if they become available. The design of any future sanitary mains and sanitary service connections is outside the scope of this study, and would be undertaken in the future when/if servicing becomes available.

4.0 Water Supply and Distribution

4.1 Existing Conditions

It is understood from the pre–consultation comments from the Town of Midland that the existing home at 1400 Everton Road is currently serviced via a 50 mm diameter watermain, located along the north side of Everton Road. There is also a fire hydrant located at the northeast corner of the intersection of Everton Road and Frontenac Avenue.

A request for available drawings was made to the Town of Midland, and we understand from correspondence received from Town staff on June 26, 2025 that no plan and profile drawings exist; as such, the exact location of the watermain is unknown, and would need to be determined in the field prior to any future construction, including water service connections, occurring.

4.2 Hydrant Pressure Test

A hydrant pressure test was undertaken by Vipond on June 5, 2025. The test was completed in accordance with the National Fire Protection Association (NFPA) guidelines. The test was completed on the existing fire hydrant noted previously at the northeast corner of the intersection of Everton Road and Frontenac Avenue. The residual hydrant is also on the north side of Everton Road, at the intersection of Everton Road and Sarah Burke Way.

The purpose of the hydrant test was to determine the available water supply flow rate and pressure. The results are summarized as follows:

Test	Nozzle Diameter (inches)	Static Pressure (PSI)	Residual Pressure (PSI)	Pitot Pressure (PSI)	Discharge (USGPM)	Discharge (L/s)
1	1.125	58	40	44	248	15.6
2	1.75	58	40	36	534	33.7
3	2.5	58	38	22	791	49.9
4	2.5	58	36	18	1,432	90.3

The complete results of the hydrant test are included as Appendix #1 to this report.

4.3 Water Demand

The water demand for the proposed severed lots was calculated based on the proposed residential use of the lots. The Town of Midland Engineering Development Design Standards note that watermains are to be designed to carry the maximum day demand plus fire flows based on the most recent publication of the Public Fire Protection Survey, or peak hourly flows, whichever is greater. The maximum day and peak hour factors shall be determined based on the current Ministry of the Environment, Conservation and Parks (MECP) design guidelines, with minimum factors of 2.0 (maximum daily demand) and 4.5 (peak hourly demand) being utilized.

The average daily demand is noted to be 450 litres/capita/day, and occupancy is to be taken as 3.0 persons per single family dwelling. As such, the average daily demand for the three (3) severed lots is:

Q = 450 litres/capita/day x 3.0 persons/dwelling x 3 dwellings = 4,050 L/day = 0.047 L/s

Utilizing the factors noted previously, the maximum daily demand and peak hourly demand for the severed lots is:

Max Day = 0.047 L/s x 2.0 = 0.094 L/s

Peak Hour = 0.047 L/s x 4.5 = 0.21 L/s

4.4 Fire Flow

The Town of Midland Engineering Development Design Standards require fire flows be determined based on the most recent version of the Public Fire Protection Survey.

In accordance with the most recent version of the Fire Underwriters Survey (FUS), the required fire fighting flow for each house would be:

$$RFFF = 220 \times C \times A^{0.5}$$

where RFF is the required fire flow in litres per minute
C is the coefficient related to the type of construction
A is the total floor area in m^2

As no information is currently available regarding the method of construction of the future homes, it is assumed that they would be classed as "ordinary construction". In addition, no information is available regarding the footprint of each house. The existing house at 1400 Everton Road has a footprint of approximately 1,900 ft^2 (177 m^2). For the purposes of this analysis, it is assumed that the three (3) new homes would have a footprint of at least 2,000 ft^2 (186 m^2).

Based on these assumptions, the required fire fighting flow required for each house would be:

$$RFF = 220 \times 1.0 \times (186\ m^2)^{0.5} = 3{,}000\ L/min = 50\ L/s$$

The FUS provides for an "Occupancy and Contents Adjustment Factor" based on the combustibility of the contents of buildings. As the development will consist of individual houses, the use would be classed as "residential occupancy", which is considered to have limited combustible contents. As such, the fire fighting flow for each house can be reduced by 15% to:

$$RFF = 3{,}000\ L/min - (3{,}000\ L/min \times 0.15) = 2{,}550\ L/min = 42.5\ L/s$$

It is assumed for the purpose of this analysis that the homes would not be sprinklered, and as such, no further reduction of the required fire fighting flow for each house would be made.

The FUS requires a percentage of water be added to the fire fighting flow based on the separation from adjacent buildings. No information is available for the separations of each of the three (3) future homes as they have not been designed or located on the proposed lots. For the purposes of this analysis, it is assumed that each house would span the entire permitted width of the proposed lots, which would be 21 m based on a 27 m lot width less a 3 m setback for each side yard. It is also assumed that the houses would be setback a similar distance to the south property line as the existing house at 1400 Everton Road is, which is approximately 27 m.

Given those assumptions, the center of the proposed three (3) severed lots would represent the worst–case scenario for building separations, as it could have houses in close proximity to it on both its east and west sides. Based the assumptions noted previously, this house would be separated by adjacent houses to the east and west by 6.0 m each. The nearest building to the south, across Everton Road, is about 57 m away. The nearest building to the north would be the municipal water tower, located at least 175 m to the north. These separations require an increase in the fire fighting flow of 20%, 20%, 0%, and 0%, respectively, for a total increase of 40%. As such, the required fire fighting flow for each house would be:

RFF = 2,550 L/min + (2,550 L/min x 0.40) = 3,570 L/min = 59.5 L/s

As noted, no design information is presently available for the future homes, including the proposed footprint, or where on the lots the houses would be located. The RFF could be adjusted depending on those factors, but that cannot be determined until house designs are finalized.

4.5 Watermain Sizing

Given the requirements of the Town of Midland Engineering Development Design Standards, the watermain is required to be sized to accommodate the maximum daily demand plus fire flow condition, which would be:

Q = 0.094 L/s + 59.5 L/s = 59.6 L/s

The Town of Midland standards also indicate that the minimum pressure in the watermain system under the maximum day demand plus fire flow condition is 140 kPa (20 PSI). Based on the hydrant flow test undertaken by Vipond, the watermain flow rate at 20 PSI is in the order of 1,923 USGPM, or 121.4 L/s, which exceeds the maximum daily demand plus fire flow design flow rate of 59.6 L/s.

Based on this information, it appears that the existing 50 mm diameter municipal watermain is sufficiently sized to accommodate the proposed three (3) lots.

4.6 Water Service Sizing

Individual water services will be required for each of the proposed lots. Each service shall be 25 mm in diameter, complete with a curb stop at the property line. The services shall be buried to at least 1.8 m depth below final grade of the lots, and all connections to the watermain will be tapped complete with a saddle.

The conceptual water servicing required for the proposed lots is shown on drawing 3651–SSP, included with this report.

5.0 Stormwater Management

5.1 Stormwater Management Targets

The aim of stormwater management measures for these lots will be to minimize or prevent adverse impacts on existing municipal infrastructure, which primarily consist of existing road side ditches.

5.2 Lot Grading and Flow Conveyance

The development area currently slopes from northwest to southeast, towards Everton Road. It is proposed to maintain this general drainage pattern through lot development, including provisions for lot line swales to be established for each lot. The swales would collect and convey lot runoff from north to south towards the existing road side ditches.

The elevation of any future houses, including garages, must be set such that lot and driveway drainage can be adequately routed around the structure and to the side lot lines. As noted previously, it is anticipated that the sewage disposal beds for each lot will be located at the rear (i.e., north) of each house, and the lot grading must be designed to direct drainage to spill to the side lot lines around the beds.

5.3 Driveway Culverts

There is an existing ditch on the north side of Everton Road across the frontage of the property. In order to ensure conveyance of roadway drainage continues, each future driveway will be required to have a culvert sized meeting the Town of Midland standards. The area of the development is located at a local high point in the road alignment, and as such, there is minimal upstream roadway drainage that would require conveyance via the road side ditch.

It is noted that the Town of Midland Engineering Development Design Standards require a minimum 450 mm diameter culvert be utilized for driveways, “unless warranted by specific

conditions". It is expected that the minimum 450 mm diameter culvert will be sufficient to convey flow through the road side ditch.

5.4 Stormwater Quantity Control

There is expected to be some increase in net peak flows from the lot development as the future building roofs and driveways will add impervious surface, which will in turn result in a moderate increase in runoff volume and rate. It is proposed to mitigate this by directing this hard surface drainage to grade and then side lot line swales. These swales will serve to slow the velocity of flow and convey it to the road side ditch at Everton Road. This conveyance will also maximize the opportunity for evapotranspiration and infiltration into the shallow surface soils.

5.5 Stormwater Quality Control

The proposed development of three (3) residential lots will have minimal impact on stormwater quality. The largest increase in impervious area will be from the future house roof areas, and possible rear lot hardscaping (via decks, patios, etc.), and this runoff is considered to be clean. The remaining impervious area will consist primarily of the future driveways, which will be located at the front of the lots and drainage will be conveyed to the road side ditch, which will allow for filtration of driveway runoff to occur.

6.0 Utilities

Based on a review of available mapping, it is understood that electrical service is provided by Hydro One via overhead lines, and telecommunications services is provided by Bell Canada. Circulation to each of these utilities will be required as part of the Building Permit process.

7.0 Conclusions and Recommendations

Based on the preceding analysis, it is our opinion that the proposed severances can be undertaken to establish three (3) new residential lots in the Town of Midland. Each lot will be serviced by a private sewage disposal system, which will be designed as part of the Building Permit phase of development. The existing watermain, while small, appears to have sufficient pressure to accommodate the proposed lots while satisfying the minimum requirements for maximum daily demand plus fire flow conditions.

The owners of individual lots may be required to connect to municipal sanitary infrastructure if/when it becomes available.

Any future landowners/buildings will need to circulate design plans to Hydro One, Enbridge Gas, and Bell Canada to allow sufficient time for service connections to be designed and constructed.

8.0 Disclaimer of Responsibilities to Third Parties

This report was prepared by Skelton, Brumwell & Associates Inc. for the account of Mr. Michael Heintz.

The material in it reflects Skelton, Brumwell & Associates Inc.'s best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

Skelton, Brumwell & Associates Inc. accepts no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions based on this report.

All of which is respectfully submitted,

SKELTON, BRUMWELL & ASSOCIATES INC.

Per:

Matt Bertram, P. Eng.

Senior Project Engineer

Appendix #1

Vipond Hydrant Test

June 5, 2025

FLOW TEST RESULTS

FIRST FOR FIRE, LIFE SAFETY & SECURITY
VIPOND INC
est. 1945

DATE : JUNE 5, 2025

LOCATION : 1400 EUERTON ROAD
MIDLAND
ONTARIO

TEST BY : LEN K. – T.H.

STATIC PRESSURE : 58 PSI

TEST NO.	NO. OF NOZZLES	NOZZLE DIAMETER (INCHES)	DISCHARGE CO–EFFICIENT	RESIDUAL PRESSURE (PSI)	PITOT PRESSURE (PSI)	DISCHARGE (U.S.GPM)
1	1	1–1/8	0.97	40	44	248
2	1	1–3/4	0.97	40	36	534
3	1	2–1/2	0.90	38	22	791
4	2	2–1/2	0.90	36	18	1432

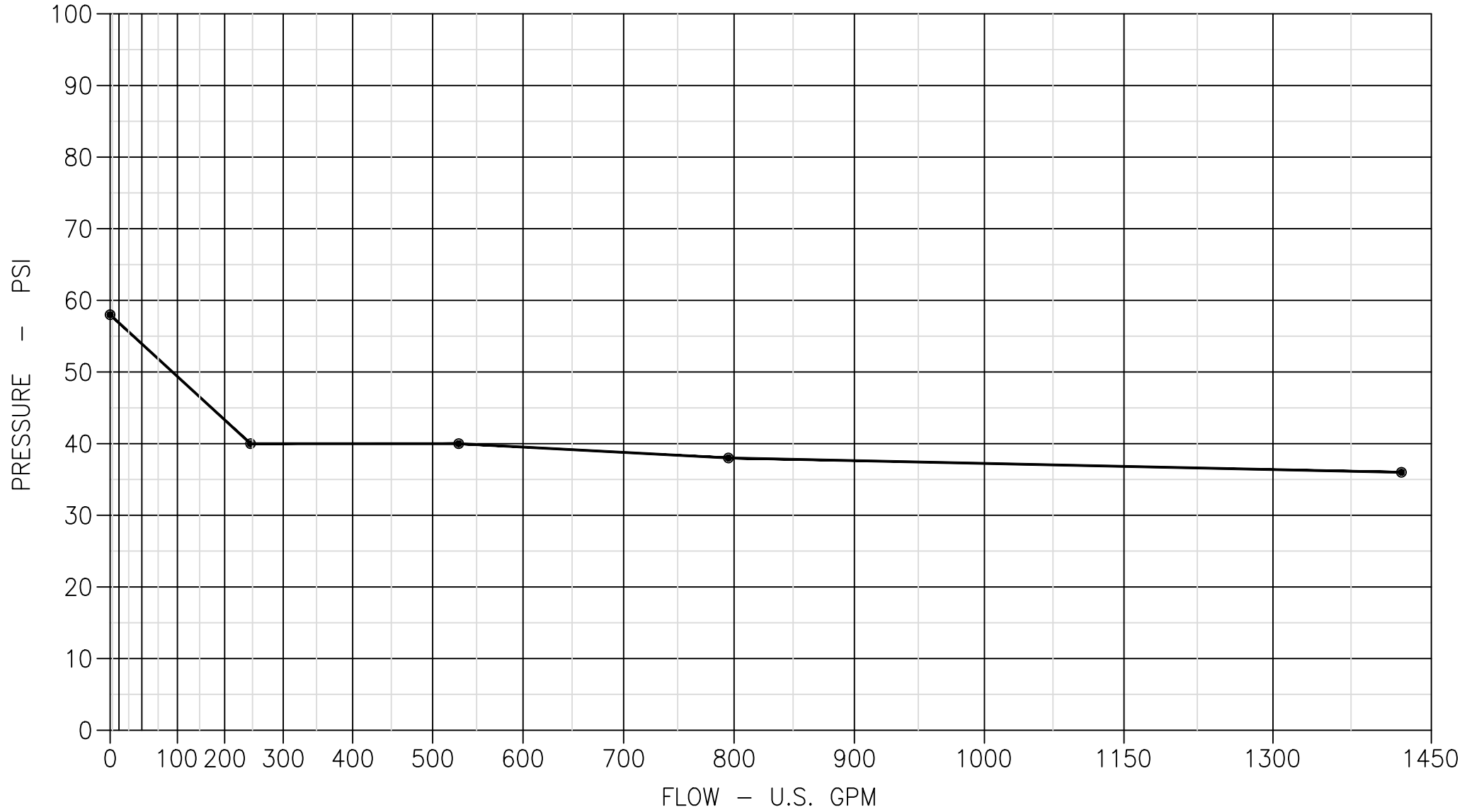
PREDICTED FIRE FLOW AT 20psi RESIDUAL PRESSURE = 1923.614 usgpm

FIRST FOR FIRE, LIFE SAFETY & SECURITY

VIPOND INC est. 1945

1400 EUERTON ROAD	BY : LEN K. – T.H.
MIDLAND	OFFICE : BARRIE
ONTARIO	TEST BY : VIPOND & PUC
	DATE : JUNE 5, 2025

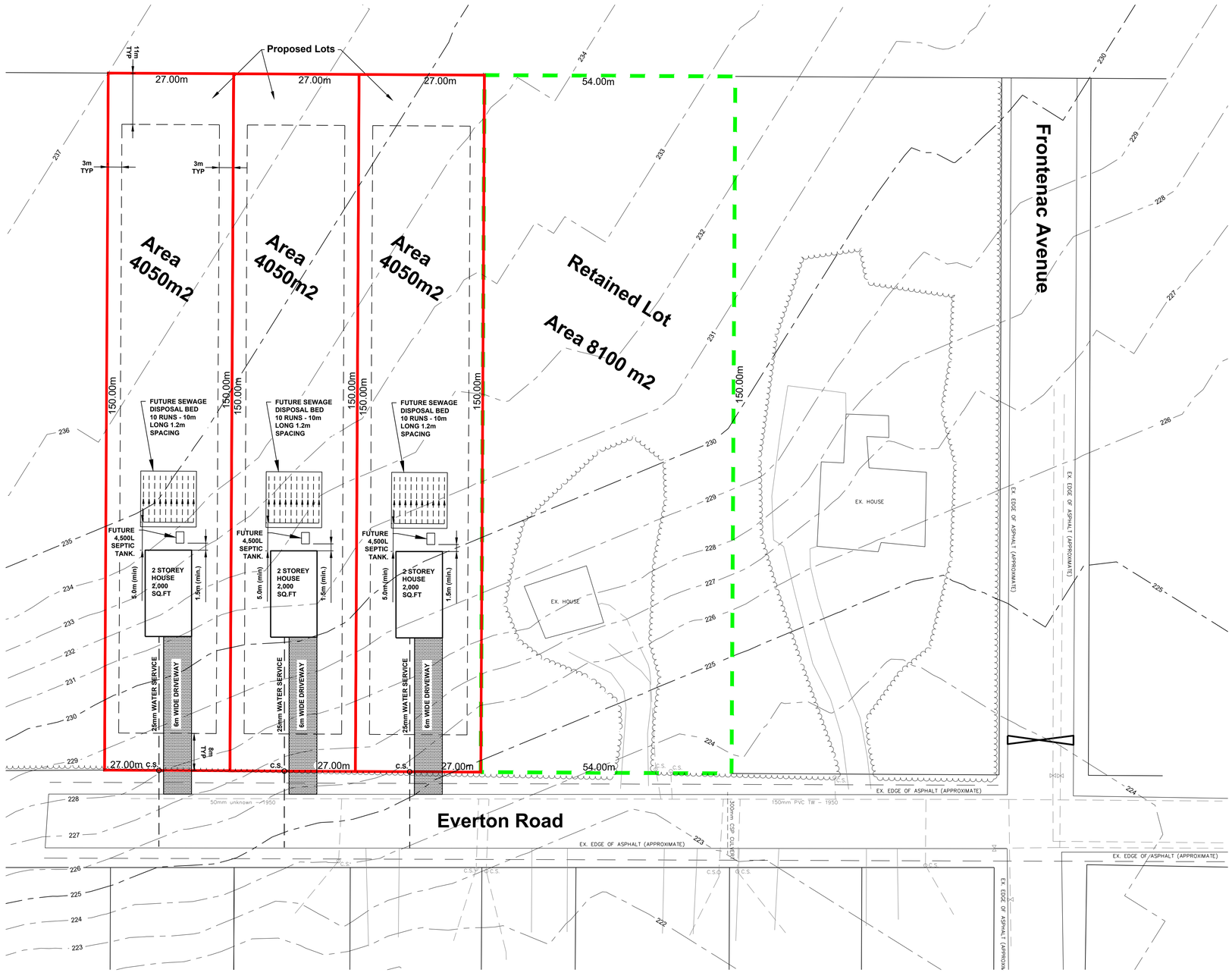
STATIC:	RESIDUAL:		FLOW:
58 PSI	TEST#1	40 PSI @	248 GPM
	TEST#2	40 PSI @	534 GPM
	TEST#3	38 PSI @	791 GPM
	TEST#4	36 PSI @	1432 GPM

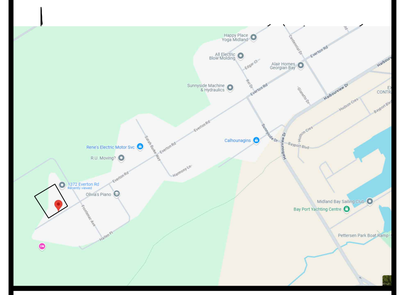


3651 - SSP

PART OF LOT 111, CONCESSION 1
EAST OF PENETANGUISHENE ROAD
GEOGRAPHIC TOWNSHIP OF TAY
LOT 23, PART 87
TOWN OD MIDLAND
COUNTY OF SIMCOE

10 0 10 20 30 metres
SCALE 1:500





KEY MAP
N.T.S.

LEGEND

- RETAINED PROPERTY BOUNDARY
- PROPOSED SEVERED LOTS
- PROPOSED BUILDING ENVELOPE
- EXISTING WATERMAIN
- EXISTING WATER SERVICE
- EXISTING WATER VALVE
- EXISTING CURBSTOP
- PROPOSED WATER SERVICE
- PROPOSED CURBSTOP
- PROPOSED DRIVEWAY
- EXISTING 1m CONTOUR
- EXISTING 5m CONTOUR
- GATE
- EXISTING TREELINE
- EXISTING OVERHEAD HYDRO

NOTE:
1) CONTOURS OBTAINED FROM GOOGLE SATELLITE IMAGERY, ACCESSED JUNE 20, 2025.
2) LOCATION OF EXISTING UTILITIES, AS SHOWN, IS APPROXIMATE ONLY, AND SHALL BE FIELD VERIFIED AS PART OF FUTURE BUILDING PERMIT PLANS.
3) WATER MAIN AND WATER SERVICE LOCATIONS ARE APPROXIMATE AND ARE PROVIDED BY THE TOWN OF MIDLANDS GIS DATA, AS OF JUNE 26, 2025. LOCATIONS TO BE FIELD VERIFIED.

SCHEDULE OF REVISIONS

NO.	DATE	DESCRIPTION	CHECKED

LICENSED PROFESSIONAL ENGINEER
M. J. BERTRAM
100159403
September 11, 2025
PROVINCE OF ONTARIO

HEINTZ SEVERENCE
1400 EVERTON ROAD

TOWN OF MIDLAND

SITE SERVICING PLAN

PROJECT NO.	3651	DRWG NO.	3651-SSP
DATE:	JUNE 2025	SCALE:	1:500
DRAWN: NDK	CHECKED:	APPROVED:	

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