FUNCTIONAL SERVICING & STORMWATER MANAGEMENT REPORT

PEOPLECARE – THE TOWN OF THE BLUE MOUNTAINS LONG-TERM CARE FACILITY

Project No.: 2026-0316-10

ISSUED FOR ZONING BY-LAW AMENDMENT

May 19, 2026

WALTERFEDY

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ISSUANCE AND REVISION RECORD					
REV	**DATE**	**WRITTEN BY**	**QA BY**	**SEALED BY**	**ISSUED FOR**
1	May 19, 2026	T Keller	J Zehr	T Keller	Zoning By-Law Amendment

Tyler Keller, P.Eng.
Civil Project Manager
Associate

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PEOPLECARE – THE TOWN OF THE BLUE MOUNTAINS

SERVICING & STORMWATER MANAGEMENT REPORT

Table of Contents

1.0 INTRODUCTION

WalterFedy was retained by peopleCare Inc. to complete a Functional Servicing and Stormwater Management Report in support of a Zoning By-law Amendment (ZBA) for their proposed long-term care facility within the Town of The Blue Mountains. The development will be 3-storeys and will include 192 long-term care beds, along with associated surface parking and amenity space. The rear of the building is proposed to include a walk-out condition to suit the existing natural grade on site.

The purpose of this Functional Servicing and Stormwater Management Report is to identify how the development will be serviced, including water, storm, and sanitary connections to the existing municipal infrastructure. C.F. Crozier & Associates Inc. (Crozier) has completed a Servicing and Stormwater Management report for the proposed townhouse development east of peopleCare's site and a Stormwater Management Updated Memorandum for the surrounding Home Farm subdivision, which are both owned by MacPherson Builders.

The report completed for MacPherson's townhouse development also accounts for peopleCare's long-term care facility. WalterFedy has coordinated closely with Crozier to provide required site statistics and anticipated water and wastewater demands. Storm and sanitary connections from this long-term care development will be conveyed to the stormwater management facility and sanitary pump station that was installed for the Home Farm subdivision, via a municipal easement that runs through MacPherson's site.

1.1 Background

The proposed development will be on land that is currently owned by the Town of the Blue Mountains, known as "Future Town Development Lands". This land will be purchased by peopleCare prior to development. The Town's new fire hall is currently being constructed south of the subject site. MacPherson's townhouse development is proposed east and southeast of the site. The Home Farm subdivision is approximately 150m south of the site. The site is also bound by residential homes to the west, that front onto Grey Road 19. Another proposed residential subdivision, referred to as "Parkbridge Craigleith" is north of the site.

The site is currently zoned Development (D). The proposed zoning is Institutional (I).

A new municipal right-of-way will be extended from the Home Farm subdivision to the proposed development in order to provide access to the site and frontage to a municipal road. A municipally owned watermain is also proposed within the new roadway, which will service the long-term care facility.

The proposed property area is approximately 1.29 ha. The final property boundaries will be coordinated with the Town of The Blue Mountains as part of the land purchase agreement. The site currently exists as an open field.

A portion of the northwest corner and northeast corner of the site are within a Grey Sauble Conservation Authority regulated area.

1.2 Reference Reports and Drawings

In preparation of this report, the following background information was referenced:

1. *Home Farm - Town of The Blue Mountains – General Servicing Plan*, C.F. Crozier & Associates Inc., June 4, 2025. Prepared for The Town of The Blue Mountains.
2. *Parkbridge Craighleith – Town of The Blue Mountains – Overall Site Grading Plan (West)*, C.F. Crozier & Associates Inc., December 12, 2023. Prepared for The Town of The Blue Mountains.
3. *Town of The Blue Mountains, Fire Station 2 – Issued for Tender Drawings*, J.L.Richards, *April 16, 2025*. Prepared for The Town of The Blue Mountains.

4. *Stormwater Management Update Memorandum – Home Farm Residential Development*, C.F. Crozier & Associates Inc., March 12, 2024.
5. *Geotechnical Investigation – Proposed Home Farm Residential Development, Town of the Blue Mountains, Ontario,* by Terraprobe Inc., Dated July 4, 2011.

The following guidance documents were also referenced in preparation of this report:

1. *Design Guidelines for Sewage Works*, Ministry of the Environment, Conservation and Parks, March 2019
2. *Design Guidelines for Drinking Water Systems,* Ministry of the Environment, Conservation and Parks, May 2019
3. *Town of The Blue Mountains Municipal Master Plan for Town-Wide Water Distribution System*, J.L.Richards, October 2019
4. *Engineering Standards*, Town of The Blue Mountains, May 2023

2.0 EXISTING INFORMATION

2.1 Existing Topography

A topographic survey of the site was completed by WalterFedy in April 2026. Legal plans for the site will be created as part of the land purchasing agreements with the Town. The site is currently undeveloped and consists primarily of an open field. A wooded area exists to the northeast corner of the site.

The site naturally drains from southwest towards the northeast, with elevations ranging from 220.00 m at the northwestern corner, to 213.00 m at the northeastern corner. Elevations along the western property line fall to 217.25 m at the northwest corner. The eastern property line currently falls from an elevation of 216.00 m at the southeastern corner to 213.00. However, the proposed townhouse development is proposing grades of approximately 218.00 along the boundary with the subject site.

2.2 Geotechnical Investigation

A site-specific geotechnical investigation will be completed for the site prior to detailed design.

A geotechnical investigation for the Home Farm subdivision was completed by Terraprobe in June 2011, with the report being finalized in July 2011. One borehole (BH1) was advanced within the subject site area, with a monitoring well being installed to measure groundwater levels. The surface elevation of the borehole was 216.60 m. At the time of the investigation, this area consisted of 125mm of silty topsoil, underlain with sandy silt to a depth of 3.7 m below the surface. The borehole was withdrawn at this depth due to the auger grinding on what was assumed to be boulders. The borehole remained dry and open upon completion of drilling.

The groundwater was measured to be 0.2m above the surface in both June and July of 2011. It should be noted that groundwater levels are expected to fluctuate seasonally and in response to weather events.

2.3 Existing Servicing and Utilities

Services surrounding the site were documented by Crozier in their General Servicing Plans prepared for the Home Farm subdivision. No municipal services currently exist within the immediate vicinity of the subject site.

As part of the Home Farm Subdivision, servicing stubs were provided to account for future developments to the north. This includes a 200-mm-diameter sanitary stub sloped at 0.5%, a 200-mm-diameter water main, a 450-mm-diameter storm stub sloped at 2.0%, and a knockout within a double catchbasin manhole with a downstream

825-mm-diameter storm sewer. The 450-mm-diameter storm sewer also connects to the 825-mm-diameter storm sewer. A stormwater management facility exists immediately south of the 825-mm-diameter storm sewer.

The sanitary stub connects to a 200-mm-diameter sanitary sewer, which conveys flows towards a pumping station. The pump station then conveys flows towards the municipal gravity sanitary sewer system on Grey Road 19 via forcemain.

A 200-mm-diameter watermain loops throughout the Home Farm subdivision and connects to the existing 350-mm-diameter municipal watermain on Grey Road 19.

Other utilities, such as hydro, gas, and telecommunications services can be provided to the site from the Home Farm subdivision.

3.0 REVIEW AGENCIES

3.1 Town of The Blue Mountains

The Town of the Blue Mountains will be responsible for the review and approval of the Zoning By-Law Amendment application, as well as the site grading, servicing, and stormwater management design for the overall development.

3.2 Grey Sauble Conservation Authority

As a portion of the site is within a Grey Sauble Conservation Authority (GSCA) regulated limited, the GSCA will be required to review and approve the proposed grading and stormwater management design.

3.3 Other Agencies

The development will require review by other utility providers having jurisdiction, including but not limited to, telecommunications, gas and hydro.

4.0 SANITARY SERVICING

The proposed development is to include a 192-bed long-term care facility. The Ontario Building Code (OBC) states that long-term care facilities generate an average sanitary demand of 450 L/bed/day. The sanitary demand for the site was peaked using the Harmon Formula, with the number of beds being used as the population. The Town of The Blue Mountains also stipulates an extraneous flow rate of 0.28 L/s/ha. Table I represents the anticipated sanitary demand from the proposed development.

Table I: Proposed Sanitary Flow from Proposed Development

Long-Term Care Beds	192
Average Daily Flow (Town of The Blue Mountains)	450 L/bed/day
Peaking Factor (Harmon)	4.154
Peaked Long-Term Care Demand	**4.154 L/s**
Site Area	1.29 ha
Extraneous Flow Allowance	0.28 L/s/ha
Total Extraneous Flow	**0.361 L/s**
Total Sanitary Flow	**4.515 L/s**

For a developed site with a design population of 192 (number of proposed long-term care beds), and an area of 1.29 ha, the anticipated peaked sanitary demand is 4.52 L/s. Refer to Appendix A for the sanitary demand

calculations. It should be noted that this flow rate will be combined with the sanitary flows from the proposed townhouse development to the east.

Crozier will be responsible for designing a municipal sanitary sewer through MacPherson's townhouse development within a municipal easement. This sewer will accept the sanitary flows from the long-term care development and convey them towards the pump station. Refer to the Functional Servicing and Stormwater Management Report by Crozier for MacPherson's townhouse development, which includes sanitary flows from this subject development, for the pumping station capacity analysis.

5.0 WATER SERVICING

5.1 Design Criteria

The Town of The Blue Mountains Engineering Standards recommend a pressure range within their watermains of 350 kPa (50 psi) to 550 kPa (80 psi) under average and maximum day conditions, and 275 kPa (40 psi) to 700 kPa (100 psi) under peak hour conditions. Under fire flow conditions, the minimum allowable pressure is 140 kPa (20 psi). The guidelines also state that the maximum velocity within a watermain should not exceed 5.0 m/s.

5.2 Domestic Water Demand

The OBC sanitary demand of 450 L/cap/day was also used for the domestic water demand calculations for the development. The domestic demand was peaked using Table 3-3 in the MECP guidelines for drinking water systems serving fewer than 500 people, with a maximum day factor of 4.54 and a peak hour factor of 6.84, for a population of 192 people. The values provided in the MECP table were interpolated between 150 and 300 people. The same design populations used in the sanitary demand calculations were also used for the water demand calculations. Table II below summarizes the overall proposed domestic water demand for the development.

Table II: Proposed Domestic Water Demand

Long-Term Care Beds	192
Average Demand (OBC)	450 L/bed/day
Peaking Factors (MECP)	
Max Day	4.54
Max Hour	6.84
Total Max Day Demand	**4.54 L/s**
Total Max Hour Demand	**6.84 L/s**

The anticipated maximum day demand is 4.54 L/s, and the maximum hour demand is 6.84 L/s. Refer to Appendix B for the domestic water demand calculations.

5.3 Fire Flow Demand

Fire flow requirements were calculated using the current issue of *Water Supply for Public Fire Protection* published by the Fire Underwriters Survey (FUS). To facilitate calculations, it is necessary to determine whether buildings are to be protected by a sprinkler system, as the resulting requirement for fire flow is calculated differently for buildings with or without sprinkler systems. Based on the Building Code Analysis, it is noted that the proposed building will be fitted with a sprinkler system. As such, the fire flow for the site will need to be designed per NFPA 13 *Standard for Installation of Sprinkler Systems* (2013), which stipulates the criteria used for determining fire flow for buildings with sprinklers.

Table III summarizes the proposed fire demand for the long-term care parcel. The fire demand calculations can also be found in Appendix B.

Table III: Fire Flow Demand

Type of Construction	Non-Combustible Construction (C=0.8)
Effective Floor Space	7,627.50 m^2
Occupancy Charge	Limited-Combustible Contents (-15%)
Automated Sprinkler Protection	Yes
Designed to NFPA 13 Standard	Yes (-30%)
Standard Water Supply to Sprinklers and Standpipes	Yes (-10%)
Fully Supervised System	Yes (-10%)
Exposure Charges	+15%
Fire Flow Demand	**150 L/s (2378 usgpm)**

The proposed fire demand for the long-term care development is 150 L/s. A private hydrant will be required on site to provide adequate fire protection.

5.4 Service Design

The water service shall be sized to convey the combination of the Maximum Day Demand and the Fire Demand, within the pressure and velocity ranges as specified. This combined flow rate is 154.54 L/s, which can be serviced via a 200-mm-diameter water service.

A new municipal watermain will be designed within the proposed right-of-way extension concurrently with the detailed design of the long-term care facility. This new watermain will provide domestic and fire demand to the site.

6.0 STORM SERVICING AND STORMWATER MANAGEMENT

6.1 Stormwater Management Objectives and Design Criteria

The Town of the Blue Mountains Engineering Standards are to be used for this development. The following stormwater management criteria are expected to be applicable:

- 'Enhanced' water quality control with 80% long-term average-annual total suspended solids (TSS) removal; and
- Post-to-pre-development peak flow control for the 2-year through the 100-year return period design storms.
- Limit surface ponding around buildings to be a minimum of 0.30 m below the surrounding finished floor elevation and limit flooding across the site to a maximum depth of 0.45 m for the 100-year storm event.

6.2 Existing Stormwater Management Facility

The northern stormwater management facility within the Home Farm subdivision will accept runoff from the majority of the site. The top of pond elevation is 215.30 and was designed to have a ponding elevation of 214.90 m during the 100-year storm event. The pond has a total volume of 5,870 m^3 and was designed to control an overall catchment of 10.72 ha. The volume in the pond during the regional storm event is expected to be 5,154 m^3, corresponding to an elevation of 215.02.

The pond was designed to provide quantity and quality control for the subject site area. For the design of the pond, the subject site was originally considered in an overall catchment with an area of 5.37 ha, and an imperviousness of 55.5%. This catchment also includes the fire hall site and the townhouse development. This catchment area has increased in size to accommodate the proposed developments.

6.3 Stormwater Management Design

Crozier will be responsible for designing a municipal storm sewer through MacPherson's townhouse development within an easement. This sewer will accept the stormwater runoff from the long-term care development's building roof and parking lot, and convey the flows towards the stormwater management facility. Internal catchbasins and storm sewers will be required within the site.

Refer to the Functional Servicing and Stormwater Management Report by Crozier for MacPherson's townhouse development, which includes this subject site area, for the new catchment parameters and the corresponding performance of the pond. If required, the long-term care facility can be designed with flow control roof drains to limit the flow rate leaving site.

The rear portion of the site behind the proposed building will be at a lower level than the surrounding parking lot, and as a result, will not be able to drain to the stormwater management facility. This area is proposed to only consist of landscaping features, and no stormwater quantity or quality control will be required.

7.0 SITE GRADING

The grading of the site will respect the existing grades along the western and northeastern property lines, and match into proposed grading of the fire hall to the south, the proposed grades of the Parkbridge Craigleith development to the north, and the proposed grades of the townhouse development to the east and southeast. The site will also be graded to comply with the Town of The Blue Mountains standards, as well as the Accessibility for Ontarians with Disabilities Act (AODA).

Major overland flow from the parking area will be directed towards MacPherson's townhouse development to the east. Retaining walls will be required to facilitate the walk out condition at the rear of the building.

7.1 Compliance with On-Site and Excess Soil Management Provincial Regulations

The MECP regulation O.Reg. 406/19 "On-Site and Excess Soil Management" under the Environmental Protection Act states that the excavation of excess material, and subsequent off-site disposal of excess soils from this site, will require testing and reporting in the MECP's Environmental Activity and Sector Registry (EASR). The Owner and Contractor will be responsible for complying with all of the noted requirements.

8.0 EROSION AND SEDIMENT CONTROL

Any sediment tracked onto the roadway during the course of construction will be cleaned by the Contractor. To help minimize the amount of mud being tracked onto the roadway, a mud mat will be installed at the primary construction access. Additionally, silt fence will be installed around the development limits to eliminate any sediment from leaving the site and will remain in place and be maintained until landscaping has been completed and soil has been vegetated. Silt fence will also be installed around any stockpiles on site, with the stockpiles kept a minimum 2.5 m from the property boundary.

Silt sacs in catchbasins will be installed to prevent silt or sediment-laden water from entering inlets. These will be inspected to ensure that they have been properly installed and function as designed throughout construction.

The controls will be maintained, and accumulated sediments removed once their capture capacity has been decreased by one third. It is proposed that, during construction activities, visual monitoring will be conducted bi-weekly and within 24 hours of any rainfall event of 25 mm or greater. During the construction period, monitoring will consist of visual observation for the effectiveness of the sediment and erosion controls and sediment migration off site. Construction inspections will be conducted until such time as the construction activities are complete, the site has been stabilized, and all vegetation has achieved a minimum 70% density.

9.0 CONCLUSIONS

Based on the analysis presented in this report it is concluded that:

- The proposed long-term care development will be serviced via a 200-mm-diameter sanitary sewer that will run through the neighbouring MacPherson townhouse development via a municipal easement. This sewer will convey the flows towards the pump station.
- The site will be serviced via a new 200-mm-diameter watermain that will be installed within the right-of-way extension.
- The northern stormwater management facility constructed for the Home Farm subdivision is expected to provide quantity and quality control for the proposed development.
- Stormwater runoff from the site will be conveyed to the stormwater management facility via storm sewers within a municipal easement through MacPherson's townhouse site. Major overland flow from the parking lot will also run through MacPherson's townhouse site.
- Site grading will match into existing grades at property lines, or the proposed grading plans of neighbouring developments as appropriate.
- Perimeter silt fence, silt fence at the base of all stockpiles, silt sacs in catchbasins, and construction entrance mud mats can provide erosion and sediment control. These will be included in detailed design in coordination with the proposed construction staging plan.

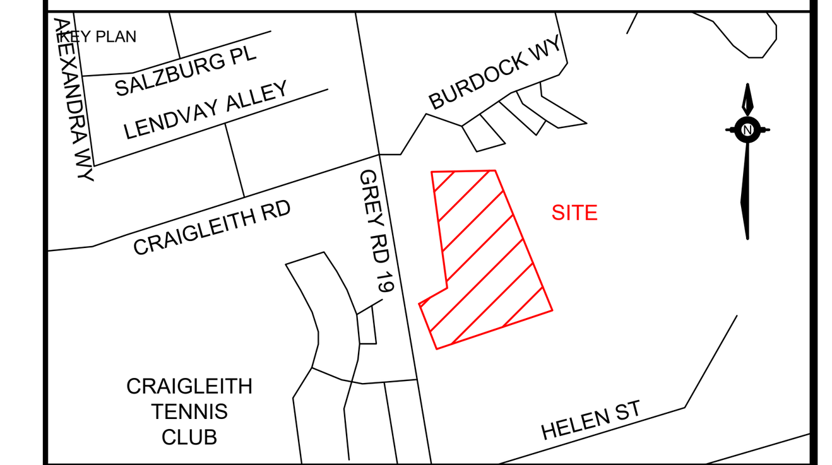
All of which is respectfully submitted,

WALTERFEDY

DRAWINGS

C200 – FUNCTIONAL GRADING
C300 – FUNCTIONAL SERVICING

KEY PLAN



PROJECT NORTH　TRUE NORTH

DATE	ISSUANCE	NO.
2026.05.19	ISSUED FOR ZONING BY-LAW AMENDMENT	

LEGEND

- [123.45] PROPOSED GRADE
- [123.45]EX EXISTING GRADE
- 2.0% PROPOSED DRAINAGE ARROW/SLOPE
- PROPOSED SWALE
- PROPOSED OVERLAND FLOW ROUTE
- PROPOSED EMBANKMENT (3:1 MAX UNLESS OTHERWISE NOTED)
- PROPOSED CHAINLINK FENCE
- 325.0 EXISTING CONTOUR
- 325.0 EXISTING LIDAR CONTOUR
- PROPOSED CONCRETE SURFACE
- PROPOSED GRAVEL SURFACE
- PROPOSED RIPRAP
- PROPOSED LIGHT DUTY ASPHALT SURFACE
- PROPOSED HEAVY DUTY ASPHALT SURFACE

1:250 0 2.5 5.0 12.50

CLIENT
PEOPLECARE INC.

PROJECT
TOWN OF THE BLUE MOUNTAINS - LTC

TITLE
FUNCTIONAL GRADING PLAN

WALTERFEDY
TORONTO | CALGARY | **KITCHENER** | HAMILTON
800.685.1378 **walterfedy.com**

LICENSED PROFESSIONAL ENGINEER
T. B. KELLER
100529026
2026.05.19
PROVINCE OF ONTARIO

SCALE:	1:250
DATE:	2026-05-19
PROJECT NO.:	2026-0316-10
DRAWN BY:	CC
CHECKED BY:	TK

SHEET NO.: **C200**

KEY PLAN

PROJECT NORTH | TRUE NORTH

DATE	ISSUANCE	NO.
2026.05.19	ISSUED FOR ZONING BY-LAW AMENDMENT	

LEGEND

CB / DCB	PROPOSED CATCHBASIN / DOUBLE CATCHBASIN
DICB/DDICB	PROPOSED DITCH INLET CATCHBASINS/DOUBLE CATCHBASIN
CBMH / DCBMH	PROPOSED CATCHBASIN MANHOLE / DOUBLE CATCHBASIN MANHOLE
DICBMH(A)/(B)	PROPOSED DITCH INLET CATCHBASIN MANHOLE (TYPE A) / (TYPLE B)
MH	PROPOSED STORM MANHOLE
MH	PROPOSED SANITARY MANHOLE
HYD	PROPOSED FIRE HYDRANT
WV	PROPOSED WATERMAIN VALVE
CS	PROPOSED CURB STOP
REDUCER	PROPOSED REDUCER
	PROPOSED FIRE DEPARTMENT CONNECTION
EX CB / DCB	EXISTING CATCHBASIN / DOUBLE CATCHBASIN
EX DI	EXISTING DITCH INLET CATCHBASIN
EX MH	EXISTING STORM MANHOLE
EX CBMH / DCBMH	EXISTING CATCHBASIN MANHOLE / DOUBLE CATCHBASIN MANHOLE
EX SAN MH	EXISTING SANITARY MANHOLE
EX HYD	EXISTING FIRE HYDRANT
EX WV	EXISTING WATERMAIN VALVE
EX CS	EXISTING CURB STOP
	EXISTING FIRE DEPARTMENT CONNECTION
EX WELL	EXISTING WELL
	PROPOSED SANITARY SEWER/SERVICE
	PROPOSED STORM SEWER/SERVICE
	PROPOSED WATERMAIN/SERVICE
	EXISTING SANITARY SERVICE
	EXISTING STORM SERVICE
	EXISTING WATERMAIN
	PROPOSED SUBDRAIN
	PROPOSED LAMP STANDARD
UP / HP	PROPOSED UTILITY / HYDRO POLE
SIGN	PROPOSED SIGN
PR HYDRO TRANSFORMER	PROPOSED HYDRO TRANSFORMER

1:250 — 0 — 2.5 — 5.0 — 12.50

CLIENT
PEOPLECARE INC.

PROJECT
TOWN OF THE BLUE MOUNTAINS - LTC

TITLE
FUNCTIONAL SERVICING PLAN

WALTERFEDY
TORONTO | CALGARY | **KITCHENER** | HAMILTON
800.685.1378 **walterfedy.com**

LICENSED PROFESSIONAL ENGINEER
T. B. KELLER
100529026
2026.05.19
PROVINCE OF ONTARIO

SCALE:	1:250	SHEET NO.: C300
DATE:	2026-05-19	
PROJECT NO.:	2026-0316-10	
DRAWN BY:	CC	
CHECKED BY:	TK	

APPENDIX A

Sanitary Design Calculations

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SANITARY SEWER DESIGN CALCULATIONS

Project:	peopleCare - Blue Mountains		
Project No:	2024-1065-10		
Date:	2026-05-15		
Designed By:	TK	Checked By:	

Design Data		
Min. Velocity	0.6	m/s
Max. Velocity	3.0	m/s
Manning's 'n'	0.013	
Infiltration	0.28	l/s/ha

Residential			Long Term Care		
Peaking Factor	Harmon		Peaking Factor	Harmon	
Avg. Daily Flow	350	L/d/c	Avg. Daily Flow	450	L/bed/d

	Residential				Long Term Care		Cummulative		Infiltration		Total Flow	Design Data			
	Area	Units/Beds	Density	Population	Area	Beds	Equivalent Population	Peak Factor	Area	Total Area		Diameter	Slope	Q_{FULL}	V_{FULL}
Peaked Demand - OBC LTC	*(ha)*		*(ppu)*	*(people)*	*(ha)*				*(ha)*	*(ha)*	*(L/s)*	*(mm)*	*(%)*	*(L/s)*	*(m/s)*
Proposed Long Term Care Facility - 192 Beds	-	-	-	-	1.29	192	192	**4.154**	1.29	1.29	**4.516**	200	0.50	23.19	0.74
Average Demand - OBC LTC															
Proposed Long Term Care Facility - 192 Beds	-	-	-	-	1.29	192	192	**1.00**	1.29	1.29	**1.36**	200	0.50	23.19	0.74

APPENDIX B

Domestic Water Demand
FUS Fire Demand

REQUIRED DOMESTIC FLOW

ONTARIO BUILDING CODE / MECP / TOWN OF THE BLUE MOUNTAINS GUIDELINES

WALTERFEDY

Project	peopleCare - Blue Mountains
Project #	2026-0316-10
Designer	TK
Address	peopleCare - Town of The Blue Mountains
Description	Domestic Water Demand

OBC DEMAND FOR LTC

Building Description (Proposed Conditions)	Area (ha)	Units	Persons/Unit	Population	Beds	Demand	Max Daily Peak Factor	Max Hourly Peak Factor	**Average Demand (L/s)**	**Max Daily Demand (L/s)**	**Max Hourly Demand (L/s)**
Proposed Long Term Care Facility - 192 Beds	N/A	N/A	N/A	N/A	192	450 L/bed/day	4.54	6.84	**1.00**	**4.54**	**6.84**

REQUIRED FIRE FLOW

Water Supply for Public Fire Protection (FUS 2020)

WALTERFEDY

Project	peopleCare - Blue Mountains
Project #	2026-0316-10
Designer	TK
Address	Town of The Blue Mountains
Description	Proposed Fire Demand - LTC

$$F = 220 \times C \times \sqrt{A}$$

F = Required fire flow (LPM)
C = Coefficient related to type of construction
A = Total floor area (including all storeys but excluding any basement levels at least 50% below grade)

Type of Construction	Non-Combustible Construction	**C =**	0.8
Description	**Unprotected Metal Structural Components, Masonry or Metal Walls. All Structural Members are Non-Combustible but does not qualify as Fire-Resisitive**		

Total Floor Area	3761	m^2
# Storeys	3	
Fire Resistant Building?	NO	

Vertical Openings and Exterior Vertical Communications protected with minimum one (1) hr rating? NO

Area	7627.5	m^2
Description	Area of two largest floors + 50% of each of the floors above it	
First Floor = 3127. Floors 2-3 = 3127		
Required Fire Flow	15000	L/min

Occupancy Charge	Limited-Combustible Contents			
Fire Flow Reduction	-15%	**OR**	-2250	L/min
Required Fire Flow	12750	L/min		

Automated Sprinker Protection	YES		
Designed to NFPA 13 Standard	YES	-30%	
Standard Water Supply to Sprinklers and Standpipes	YES	-10%	
Fully Supervised System	YES	-10%	
Fire Flow Adjustment		-6375	L/min

Exposure 1 (North)	**Distance**	24	m	**Charge**	10%
Description					
Exposure 2 (South)	**Distance**	0	m	**Charge**	0%
Description					
Exposure 3 (East)	**Distance**	22	m	**Charge**	10%
Description	Proposed rental development east from the southeastern edge of the ltc.				
Exposure 4 (West)	**Distance**	0	m	**Charge**	0%
Description					

Total Exposure Charge	20%	
Fire Flow Adjustment	2550	L/min

Total Required Fire Flow	9000	L/min
Total Required Fire Flow	2378	U.S. GPM
Total Required Fire Flow	150	L/s