MUNICIPALITY OF BROCKTON

EASTRIDGE ROAD RESIDENTIAL SUBDIVISION (WALKERTON)

FUNCTIONAL SERVICING REPORT

BMROSS
engineering better communities

MUNICIPALITY OF BROCKTON

EASTRIDGE ROAD RESIDENTIAL SUBDIVISION (WALKERTON)

FUNCTIONAL SERVICING REPORT

December 12, 2025

B. M. Ross and Associates Limited
Engineers and Planners
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File No. 25040

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MUNICIPALITY OF BROCKTON
EASTRIDGE ROAD RESIDENTIAL SUBDIVISION
(WALKERTON)

FUNCTIONAL SERVICING REPORT

1.0 INTRODUCTION

a) Background

BMROSS has been retained by the Municipality of Brockton to provide preliminary civil engineering services for a proposed residential subdivision on Eastridge Road in Walkerton, Ontario, in support of a Draft Plan of Subdivision application. This Functional Servicing Report (FSR) and accompanying drawings are intended to support Brockton's application and planning documentation submissions.

b) Site Description

The existing site is approximately 3.3 ha (8.15 acres) in size located within the East Ridge Business Park on part of Park Lot 48 Registered Plan 162 and part of Lot 32 Concession 1 North of the Durham Road in the geographic Town of Walkerton in the Municipality of Brockton in the County of Bruce and is part of Part 1 Plan 3R-9987. An approximate 0.61 ha (1.5 acre) area was severed off this parcel earlier in 2025 and sold to the County of Bruce for an affordable housing building. See the general location Figure No. 1.

The site is surrounded by existing or future residential development to the south (future subdivision), west (existing apartment) and north (two future apartments), existing recreation uses to the west/southwest (parkland) and to the northeast (soccer park), a future institutional use to the northwest (proposed hospice), and industrial use to the east (ground-level solar panel installations).

c) Proposed Development

The proposed development is for the establishment of a new through roadway, with two entrances connected to the existing Eastridge Road. Municipal servicing (sanitary, storm and water) would be connected to the existing Eastridge Road infrastructure. However, a portion of the property along its southerly boundary would have surface drainage directed to the west/southwest through municipal parkland to an existing

municipal stormwater management (SWM) pond located in the Cunningham Rotary Park and that is planned to be expanded by a proposed Walker Hill subdivision development. The majority of the surface drainage would be directed north/northwest to the existing municipal East Ridge Business Park communal SWM pond.

The following table summarizes the proposed uses of the subject lands:

Land use	Area (ha)	No. of Residential Units
Semi-detached residential (Lots 1 to 16)	0.59	16
Row townhouse residential (Blocks 17,18,22,24-28)	1.49	35
Block 20 (future residential)	0.31	Unknown
Walkways/Utilities (Blocks 19, 21, 23)	0.21	-
Road Allowance	0.70	-
Total	3.30	51 + Block 20

It is anticipated that Block 20 will be 2+ residential units. Therefore, the proposed development will be in excess of 16 residential units/ha. If including the recently severed 0.6ha (1.5acre) County housing parcel (proposed 40 units), the density of the combined developments will be in excess of 23 residential units/ha.

The enclosed Draft Plan depicts the proposed lot fabric for this subdivision.

The enclosed servicing plan depicts the proposed municipal servicing for this subdivision.

The enclosed grading plan depicts the proposed grading and surface drainage concept for this subdivision.

The enclosed Profile and Sections drawing and a Section drawing along the south site boundary provide additional conceptual design information.

The proposed development detailed design will be completed by others and is to be designed in accordance with the most current Municipality of Brockton Municipal Development and Servicing Guidelines (MDSG), including conformance with Brockton's CLI ECAs for their Municipal Sewage Collection System (ECA 081-W601), their Municipal Stormwater Management System (ECA 081-S701), and their Drinking Water Works Permit (DWWP No. 081-203).

BMROSS engineering better communities

Goderich | Kincardine | Mount Forest | Sarnia

Municipality of Brockton (Walkerton)

EASTRIDGE ROAD RESIDENTIAL SUBDIVISION

Key Plan

DATE	PROJECT No.
Dec. 12, 2025	25040
SCALE	**Figure No.**
N.T.S.	1

2.0 SANITARY SERVICING

There is an existing 200mm dia. PVC gravity sanitary sewer on Eastridge Road with an existing 200mm dia. capped sewer lateral at the proposed new westerly street entrance. A new 200mm dia. PVC gravity sanitary sewer will be constructed along the new roadway and connected to that existing sewer lateral. Individual 125mm dia. PVC sanitary services will be provided for each residential unit and connected to the new mainline sanitary sewer. The sanitary sewer system is to be designed in accordance with Brockton's Municipal Sewage Collection System CLI ECA.

Appendix A provides updated sanitary sewer design calculations for the Cunningham Street sanitary sewer outlet catchment, and a catchment figure for the entire business park. The design peak sewage flow for this new subdivision is calculated based on the following:

- 450 Lpcd
- Peaking factor of 4.0
- 2.5 persons per residential unit (this is equal to or exceeds the MDSG)

The proposed sanitary sewer will have a capacity of 20.7 L/s which exceeds the required peak design flow of 3.8 L/s for this new subdivision. The receiving Eastridge Road sanitary sewer has a capacity of 20.7 Ls and the peak downstream flow of that sewer is calculated to be 18.2 L/s with the inclusion of this proposed residential subdivision and other anticipated future developments. Therefore, there is sufficient capacity in the existing and proposed sanitary sewers to service this new subdivision.

The terminal section of the new sanitary sewer will be constructed at a minimum 1% grade to help try and achieve self-cleansing velocities, to minimize maintenance efforts.

3.0 WATER SERVICING

The existing municipal standpipe and associated booster pump is located approximately 275m west of the proposed new subdivision's westerly roadway entrance. There is an existing dead-end 300mm dia. PVC watermain that extends from that standpipe along Eastridge Road and into the existing business park. There is an existing 200mm dia. capped watermain lateral at the proposed new westerly street entrance. There is also an existing 200mm dia. capped watermain lateral at the proposed new easterly street entrance (i.e. at the entrance to a proposed walkway and watermain loop to the adjacent proposed Walker Hill subdivision). A new 200mm dia. looped watermain is proposed to be constructed along the new subdivision street and connected to these laterals. At the time of detailed design, it may be determined that a looped 150mm dia. watermain will be sufficient to provide fire protection to the new residences along the new street. Individual 25mm dia. copper or PEX water services will be provided for each residential unit and connected to the new watermain. The water distribution system is to be designed in accordance with Brockton's Drinking Water Works Permit (DWWP No. 081-203).

Due to the length of the looped watermain, there will be the need for a mid-block mainline valve and fire hydrants (maximum hydrant spacing of 150m).

Based on a design population of 140 (51 units + an assumed 5 units for Block 20, using 2.5 capita per unit), 450 Lpcd, maximum day and peak rate factors of 2.75 and 4.13, respectively (as per MECP Guidelines), the calculated subdivision water demand is:

- Maximum day demand of 2.0 L/s
- Peak rate demand of 3.0 L/s

Based on a BMROSS Design Brief For Watermains, Municipality of Brockton, Community of Walkerton, East Ridge Business Park Expansion, Project No. 12154, July 12, 2022, normal system pressures are >350kPa (the minimum required by MECP) but below 480kPa (the maximum as per MECP), and target fire flows of ≥100L/s (at minimum 140kPa system pressure) are available from the existing 300mm dia. dead-end Eastridge Road watermain. This is considered to be sufficient by Brockton for the proposed residential subdivision which will be comprised of semi-detached and row townhouses.

It is noted that the existing Eastridge Road 300mm dia. watermain is a dead-end watermain servicing the entire existing East Ridge Business Park and services a number of key businesses that cannot have water disruptions. Therefore, it is important that this existing watermain be protected from damage at all times during the development of this new subdivision. It also cannot be lowered at the proposed new street entrances unless special measures are taken to maintain uninterrupted service to the business park and only if approved by Brockton.

4.0 SITE GRADING AND SURFACE DRAINAGE

As much of the site as practical is being graded for surface runoff conveyance to the existing East Ridge Business Park drainage system, as per the original design intent of those existing works. Therefore, the proposed roadway is being graded to provide minor and major runoff conveyance westerly and then northerly towards the new west roadway entrance. Given the significantly lower elevation of the southerly portion of this subdivision, the roadway design has been kept to a minimum grade of 0.5% for urban roadways to help minimize the rear yard grades of those south lots. Surface runoff from that lower area will be intercepted by a rear yard swale/sewer and conveyed westerly to the existing Cunningham Rotary Park SWM pond.

The grading of those southerly lots will accommodate walkout basements. The southerly lot rear yards grades may be up to 12% and/or the southerly rear yard swale (that will be within a municipal drainage Block with a rear yard storm sewer) may have a longer 1.0m deep 3:1 front side slope, in order to match into the adjacent Walker Hill subdivision design grades which includes the construction of a retaining wall along a portion of the north side of that adjacent subdivision (i.e. alongside the south property boundary of the subject subdivision). If the proposed subdivision proceeds ahead of the

Walker Hill subdivision, it will require permission to complete some significant cuts into that adjacent Walker Hill subdivision.

Block 20 is a parcel of land that has a significant grade differential and will be more difficult to develop. It is being reserved for a future undetermined residential development. It will likely require some significant retaining walls to accommodate its development.

Based on Brockton's MDSG, rear yard swales are to have a minimum 1.5% slope and maximum 500mm depth. All other swales are to have a minimum 2% grade. Lawn and driveway grades should generally be 2-6%. These grades can generally be achieved, except for the southerly lots that will have 3:1 side yard slopes for these walkouts and for Block 20 that will also require 3:1 slopes and/or retaining walls (future design by Block 20 Purchaser's engineer).

Any retaining walls that will be necessary are to be designed by others.

The grading and drainage design is to be in general conformance to the enclosed concept drawing prepared by BMROSS.

Reference should be made to the Geotechnical Investigation, Proposed Residential Subdivision, Eastridge Road, Walkerton, Ontario, dated April 4, 2023, and prepared by Chung & Vander Doelen, when completing detailed servicing and grading design for this subdivision. It is anticipated that most buildings will be founded on native soil, but some may require structural/engineered fill. All foundations should be designed based on the recommendations of the geotechnical report.

Temporary and permanent erosion and sediment control (ESC) measures are to be provided and will be detailed in future detailed engineering submissions. It is anticipated that heavy duty wire-backed silt fencing will be installed around the perimeters of the site, a mud mat at the construction exit from the site, and a temporary stilling and sedimentation pond at the southwesterly corner of the site with measures provided to prevent erosion along the conveyance route for that surface runoff to the Cunningham Rotary Park SWM pond. All disturbed site areas should be revegetated after all underground and surface works have been constructed and temporary ESC measures remain in place until all surfaces have stabilized. Regular maintenance of temporary ESC measures shall be completed at regular intervals including the removal of accumulated sediment.

When individual lots are being developed, appropriate ESC measures shall be installed by the Builders to protect municipal storm sewers, drainage conveyance routes, and adjacent properties from sediment discharges. Silt fencing shall be installed around all lot perimeters. Tracked mud and sediment shall be removed from the roadway at the end of each working day.

Each individual lot shall be graded to convey lot runoff to the street, side yard swales and rear yard swales in general conformance to the enclosed conceptual design and in accordance with a future detailed grading design.

5.0 STORM SERVICING

There is an existing 900mm dia. HDPE gravity storm sewer on Eastridge Road with an existing 600mm dia. capped storm sewer lateral at the proposed new westerly street entrance. A new gravity storm sewer will be constructed along the new roadway and connected to that existing sewer lateral. Unless otherwise approved by Brockton, 150mm dia. PVC storm services will be provided for each residential unit and connected to the new mainline storm sewers and be installed to provide 1.2m cover at property line. The storm sewer system is to be designed in accordance with Brockton's Municipal Stormwater Management System CLI ECA.

The existing 600mm dia. capped lateral cannot be used unless the existing watermain is lowered. As previously mentioned, the watermain cannot be lowered unless special permission is granted by Brockton. Therefore, it is assumed that a new 600mm dia. storm connection will be required to the existing Eastridge Road maintenance hole and installed shallower into the subdivision. Where it has less than 1.2m of cover, it is to be insulated unless otherwise approved by Brockton.

Appendix B provides preliminary storm sewer design calculations and a catchment figure. The storm sewer will be designed for the 5-year R.I. using the Mount Forest weather station IDF data. Composite runoff coefficients for these lots have been calculated to be 0.65 for the catchment area that is being conveyed to the existing business park drainage system, and 0.58 for the southerly lot areas/rear yard drainage Block that will be conveyed to the Cunningham Rotary Park SWM facility.

It is noted that the design of the receiving Eastridge Road storm sewer was for the 5-year R.I. design storm based on a 15-minute time of concentration. Using an assumed more current design criteria time of concentration of 10 minutes, the peak discharge rate to the Eastridge Road storm sewer of 404 L/s is greater than the original business park design peak flow of 282 L/s from this subdivision catchment (i.e. an increase of 122 L/s). However, there is surplus capacity in the receiving 900mm dia. storm sewer of 233L/s based on the design criteria used at that time. As well, the spill route/channel to the existing municipal communal pond is less than 35m downgradient of the proposed new subdivision street entrance, so there are no concerns with drainage impacts to other properties.

The storm sewer from the southwesterly corner of the proposed subdivision to the rotary park SWM pond will be designed for the 100-year design storm, to minimize overland flow down the existing steep slope to that pond. Special measures should be considered, if applicable, for restrained pipe joints and pipe erodibility due to the steep grade of that outlet sewer.

As per the MDSG, the maximum number of rear yards contributing to a rear yard swale is four. In addition, due to the anticipated final grading design, there will be the need for some rear yard inlets. Therefore, rear yard storm sewers will be required in several areas. The MDSG requires 4.0m municipal drainage easements where there are rear yard (or side yard) storm sewers.

Stormwater management quantity and quality control is being provided by existing offsite municipal communal SWM facilities that have been designed to accommodate the development of this new subdivision property. The majority of the subdivision's runoff (all of the new roadway areas) will be directed to the north to the East Ridge Business Park SWM pond, and the remaining southerly portion of the lower subdivision areas (some rooftop and all rear lawn areas for those southerly lots) will continue to drain to the existing Cunningham Rotary Park SWM pond. Runoff from the proposed subdivision to the rotary park SWM pond will be "clean" runoff from rooftop and lawn areas and, therefore, no measures in addition to flow across lawns and grass-lined swales is required. Runoff to the business park SWM pond will be treated by a forebay located at that wet pond facility. There is no need for new SWM facilities for the proposed subdivision. Reference can be made to the following documentation:

- Municipality of Brockton (Walkerton), East Ridge Business Park Expansion, Stormwater Management Report, December 21, 2021, prepared by BMROSS. At the time it was assumed that almost all of the proposed site development areas would be draining to the new SWM pond at 75% impervious level, and less than this is actually currently proposed to drain to the business park SWM facility. Therefore, there is adequate capacity at that SWM pond to accommodate the proposed development.
- Final Stormwater Management Report, Walker Hill Development, Municipality of Brockton, February 2023, as prepared by Cobide Engineering Inc. Surface runoff for approximately 0.85ha of the proposed subdivision (CN = 0.58; approximately 50% impervious) will be conveyed to the Cunningham Rotary Park SWM pond whereas the Cobide design for that pond assumed 3.05 ha of the site (which is part of that model's Catchment 201) at 60% impervious would be draining to that pond. Therefore, the current proposed design will have a much lower total area and a much lower total impervious area draining to the rotary park pond. Therefore, there is adequate capacity at that SWM pond to accommodate the proposed development.

It is noted that the recent CLI ECA Municipal Stormwater Management System's Appendix A requires water balance control. However, this proposed subdivision lies within the catchment of the existing business park SWM facility catchment which was approved under a Master Plan completed in 2019. Therefore, Brockton has decided to proceed without any special water balance control measures other than those outlined in the Master Plan.

6.0 TRAFFIC

Access to the proposed new roadway will be from two new entrances connected to an existing dead-end urban street (Eastridge Road) which is connected to Bruce Road 19. The location of the new entrances is such that horizontal and vertical sight distances will be met, and there will be adequate separation of these new street entrances from existing intersections and driveways. Traffic leaving the subdivision will be controlled at the new entrances by stop signs. The proposed development will be for 51 residential units (plus a future 0.31ha Block 20) and, as such, the traffic volume will not be significant. Therefore, the need for a Traffic Impact Study is not required by Brockton.

The proposed 20m wide road section is shown on the enclosed drawings and is based on Brockton's Municipal Development and Servicing Guidelines. It will be an urban section, with an 8.5m paved roadway surface, 600.100 OPSD mountable curb & gutter, sidewalk on one side of the street, and street lighting for proper illumination of vehicular and pedestrian traffic. Street lighting is to conform to the Zoning By-Law to not cause glares on adjacent lots and to be dark sky compliant.

7.0 UTILITIES

Existing utilities within the Eastridge Road Allowance include electrical distribution (Westario), natural gas (Enbridge), and telecommunications/fibre optics (e.g., Wightman; Ehtel). These utilities will be installed (and possibly Eastlink) within the proposed new road allowance to provide service connections to each individual residential unit within the proposed subdivision. Utility companies will be responsible for their own design and located in accordance with Brockton's typical section. A Composite Utility Plan will be submitted to Brockton along with the utility designs for Municipal Consent prior to their installations.

It is expected that there will be a grade cut at the two new street entrances. This may unacceptably impact on the cover depth above existing utilities. Daylighting of utilities should be completed to incorporate the vertical locations of all utilities in the future detailed engineering design. Relocations (e.g. deepening) of utilities (gas; telecommunications; other) may be required. Insulation may be required above existing watermain and sewers.

Recently Westario had replaced its pole line along Eastridge Road. As such, the locations of poles shown on the enclosed drawings may no longer be correct and should be surveyed as applicable prior to completing detailed design including for the electrical distribution.

8.0 SUMMARY

Based on the foregoing information, the proposed Eastridge Road Residential Subdivision (>51 residential units) can be adequately and fully serviced by connections to the existing street, sanitary sewer, storm sewer, watermain and utilities as located on Eastridge Road, as well as by existing offsite receiving SWM facilities.

CLI ECA approval will be required from the Municipality of Brockton for the proposed storm sewer and sanitary sewer

Permission will be necessary for cut/grading work on the adjacent Walker Hill subdivision.

Prepared by:

B. M. ROSS AND ASSOCIATES LIMITED

Per _____
Frank C. Vanderloo, P. Eng.

FCV:es

DRAWINGS

FINAL APPROVED
APPROVED IN ACCORDANCE WITH SECTION 51(58) OF THE PLANNING ACT, RSO, 1990, CHAPTER P.13, AS AMENDED.

THIS _____ DAY OF_____, 2026

_____
SECRETARY–TREASURER
OF THE LAND DIVISION COMMITTEE
COUNTY OF BRUCE

FILE No.

REGISTERED PLAN 3M–

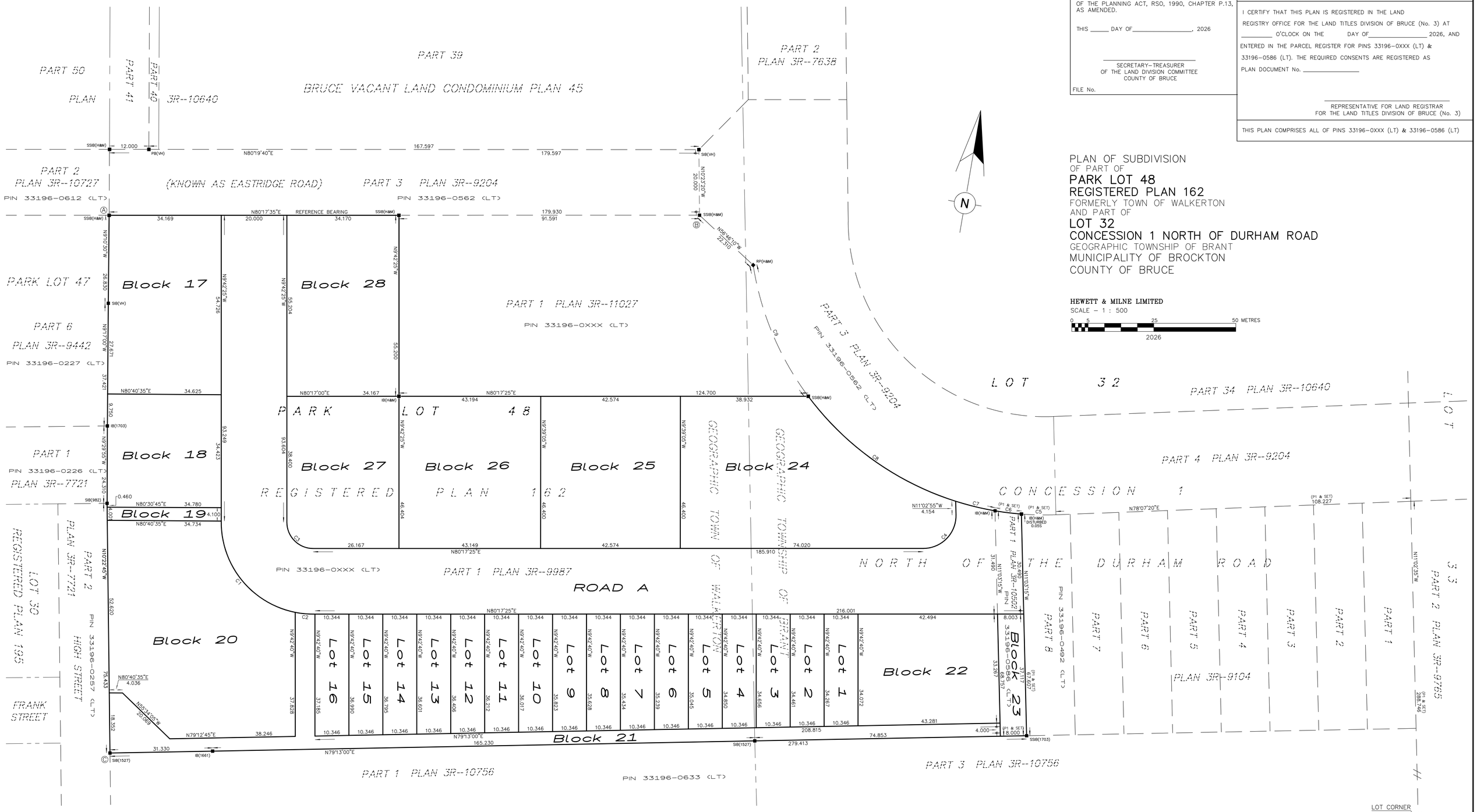
I CERTIFY THAT THIS PLAN IS REGISTERED IN THE LAND REGISTRY OFFICE FOR THE LAND TITLES DIVISION OF BRUCE (No. 3) AT _____ O'CLOCK ON THE DAY OF_____ 2026, AND ENTERED IN THE PARCEL REGISTER FOR PINS 33196–0XXX (LT) & 33196–0586 (LT). THE REQUIRED CONSENTS ARE REGISTERED AS PLAN DOCUMENT No. _____

_____
REPRESENTATIVE FOR LAND REGISTRAR
FOR THE LAND TITLES DIVISION OF BRUCE (No. 3)

THIS PLAN COMPRISES ALL OF PINS 33196–0XXX (LT) & 33196–0586 (LT)

PLAN OF SUBDIVISION
OF PART OF
PARK LOT 48
REGISTERED PLAN 162
FORMERLY TOWN OF WALKERTON
AND PART OF
LOT 32
CONCESSION 1 NORTH OF DURHAM ROAD
GEOGRAPHIC TOWNSHIP OF BRANT
MUNICIPALITY OF BROCKTON
COUNTY OF BRUCE

HEWETT & MILNE LIMITED
SCALE – 1 : 500
0 5 25 50 METRES
2026



METRIC NOTE
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

INTEGRATION DATA

ALL COORDINATES ARE IN METRES, ARE DERIVED FROM GPS RTK OBSERVATIONS USING THE CAN–NET NETWORK AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD83(CSRS)(2010)

COORDINATE VALUES ARE TO A RURAL ACCURACY IN ACCORDANCE WITH SECTION 14(2) OF O.REG 216/10.

POINT ID	NORTHING	EASTING
A	4887322.00	488655.31
B	4887352.33	488832.58
C	4887160.50	488683.20

CAUTION: COORDINATES CANNOT, IN THEMSELVES BE USED TO RE–ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN

INTEGRATION NOTES

BEARINGS ARE UNIVERSAL TRANSVERSE MERCATOR (UTM) GRID, DERIVED FROM NETWORK GPS OBSERVATIONS TRANSFERRED TO MONUMENTS 'A', 'B' AND 'C' SHOWN HEREON. THE UTM GRID BEARING BETWEEN POINTS 'A' AND 'B' IS N80°17'35"E, NAD83(CSRS)(2010), AND IS REFERRED TO THE CENTRAL MERIDIAN OF UTM ZONE 17 (81° WEST LONGITUDE)

DISTANCES SHOWN ON THIS PLAN ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99956

FOR BEARING COMPARISONS, THE FOLLOWING ROTATIONS HAVE BEEN APPLIED

PLAN	ROTATION	DIRECTION
P1	0°00'00"	CLOCKWISE
P2	0°00'55"	CLOCKWISE

CURVE TABLE

NUM	ARC	RADIUS	BEARING	DISTANCE
C1	38.857	28.000	N48°43'35"W	35.813
C2	6.035	28.000	N85°20'35"E	6.023
C3	12.567	8.000	N54°42'30"W	11.314
C4	15.942	10.000	N34°37'15"E	14.306
C5	10.508	90.000	N81°28'10"E	10.502
C6	8.090	90.000	N87°22'20"E	8.087
C7	12.353	90.000	N86°02'45"W	12.344
C8	56.083	90.000	N64°14'35"W	55.180
C9	43.803	90.000	N32°27'05"W	43.372

LEGEND
■ DENOTES SURVEY MONUMENT FOUND
CI DENOTES SURVEY MONUMENT SET
SIB DENOTES STANDARD IRON BAR
SSIB DENOTES SHORT STANDARD IRON BAR
IB DENOTES IRON BAR
PB DENOTES PLASTIC BAR
RP DENOTES ROCK POST
H&M DENOTES HEWETT AND MILNE LTD., O.L.S.
982 DENOTES HARRY R. WHALE, O.L.S.
1527 DENOTES D. CULBERT, O.L.S.
1661 DENOTES RON F. DORE, O.L.S.
1703 DENOTES PAUL COYNE, O.L.S.
VH DENOTES VAN HARTEN SURVEYING INC., O.L.S.
P1 DENOTES PLAN 3R–11027
P2 DENOTES PLAN 3R–10502
NDR DENOTES NORTH OF DURHAM ROAD
SDR DENOTES SOUTH OF DURHAM ROAD

OWNER'S CERTIFICATE
THIS IS TO CERTIFY THAT:

1. LOTS 1 TO 16 ALL INCLUSIVE, BLOCKS 17 TO 28, ALL INCLUSIVE, AND THE STREET, NAMELY ROAD A, HAVE BEEN LAID OUT IN ACCORDANCE WITH MY INSTRUCTIONS.
2. THE STREET IS HEREBY DEDICATED TO THE CORPORATION OF THE MUNICIPALITY OF BROCKTON AS A PUBLIC HIGHWAY.

THE CORPORATION OF THE MUNICIPALITY OF BROCKTON

WALKERTON .....

JANUARY th 2026

I HAVE THE AUTHORITY TO BIND THIS CORPORATION

SURVEYOR'S CERTIFICATE
I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE th DAY OF JANUARY 2026.

JANUARY th 2026 .....
TRISHA SNOW
ONTARIO LAND SURVEYOR

This plan of survey relates to AOLS Plan Submission Form Number _____

HEWETT AND MILNE LIMITED
ONTARIO LAND SURVEYORS
105 SHANE ST, UNIT 3
OWEN SOUND, ONTARIO
N4K 5N7
TEL. 519–376–5528
EMAIL : info@hewettmilne.ca

DRAWN BY	FILE #	FILE LOCATION
TS	25–199	WALKERTON 111

(APARTMENT COMPLEX UNDER CONSTRUCTION)

MAJOR RUNOFF SPILL CHANNEL

EASTRIDGE ROAD

ROAD A

101 EASTRIDGE RD
(APARTMENT COMPLEX)

BLOCK 17

BLOCK 18

BLOCK 19

BLOCK 20

BLOCK 21

BLOCK 22

BLOCK 23

BLOCK 24

BLOCK 25

BLOCK 26

BLOCK 27

BLOCK 28

FUTURE COUNTY OF BRUCE
SUBSIDIZED HOUSING

FUTURE WALKER HILL SUBDIVISION

LANDS OWNED BY BROCKTON
(CUNNINGHAM PARK)

LOOKOUT
LANDS OWNED BY BROCKTON
(CUNNINGHAM PARK)

BRUCE POWER SOCCER COMPLEX

BH 1 ELEV. 293.74m
BH 2 ELEV. 293.54m
BH 3 ELEV. 293.35m
BH 4 ELEV. 293.53m
BH 5 ELEV. 293.55m
BH 6 ELEV. 291.75m
BH 7 ELEV. 293.70m
BH 8 ELEV. 293.70m
BH 9 ELEV. 284.18m
BH 10 ELEV. 294.03m
BH 11 ELEV. 294.54m
BH 12 ELEV. 293.35m
BH 13 ELEV. 293.22m
BH 14 ELEV. 294.69m
BH 15 ELEV. 294.17m
BH 16 ELEV. 295.47m
BH 17 ELEV. 294.92m
BH 18 ELEV. 294.55m

CBMH 20, CB 21, CBMH 22, CB 23, CBMH 24, CBMH 25, CB 26, CB 27, CB 28, CB 30, CBMH 14, CB 16, CBMH 15, CB 18, CBMH 17, CBMH 13, CBMH 12, CBMH 11, CBMH 10, CBMH 9, CBMH 8, CBMH 7, STMH 1, CB 2, CB 3, CB 4, CB 5, CB 6, CB 6A

600mm DIA. STORM SEWER
450mm DIA. STORM SEWER
EX. 900mm DIA. STORM SEWER
EX. 600mm DIA. STORM SEWER
EX. 450mm DIA. STORM SEWER
EX. 750mm DIA. STORM SEWER
EX. 100mm DIA. SANITARY SEWER
EX. 200mm DIA. SANITARY SEWER
600mm DIA. SANITARY SEWER
200mm DIA. SANITARY SEWER
EX. 300mm DIA. WATERMAIN
200mm DIA. WATERMAIN
EX. 375mm DIA. STORM SEWER
EX. 300mm DIA. SANITARY SEWER
300mm DIA. SANITARY SEWER
200mm DIA. SANITARY SEWER
375mm DIA. STORM SEWER
450mm DIA. STORM SEWER
300mm DIA. STORM SEWER
200mm DIA. SANITARY SEWER (COUNTY SERVICE LINE)

6.0m ACCESS BLOCK (PART OF BLOCK 21)
8.0m WATERMAIN AND WALKWAY BLOCK

NOTE: Includes material (2020 Aerial Photography) of the King's Printer for Ontario. All rights reserved.

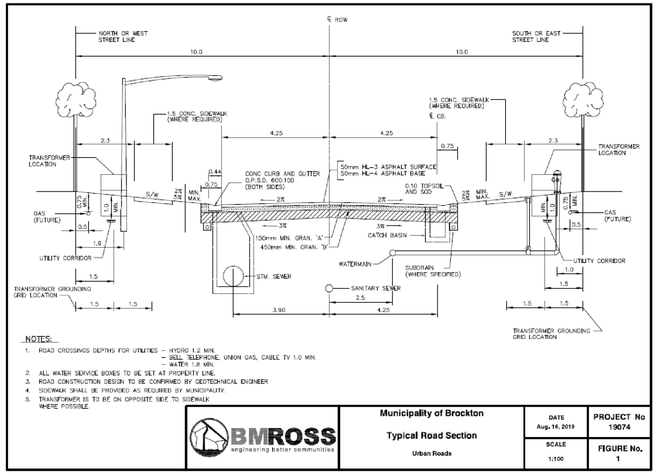
KEY PLAN 1: GENERAL SITE LOCATION

N.T.S.

DRAWING NOTES:

1. SEE THE DRAFT PLAN FOR PROPERTY DIMENSIONAL INFORMATION.
2. SEE THE SECTIONS AND PROFILE DRAWING FOR THE PROPOSED SEWER AND WATERMAIN PROFILE ALONG ROAD A.
3. INSULATE STORM SEWER WHERE <1.2m OF COVER UNLESS OTHERWISE APPROVED BY BROCKTON.

THE DESIGN ON THIS DRAWING IS ONLY CONCEPTUAL. WHERE BUILDINGS AND BUILDING DIMENSIONS ARE SHOWN, THAT IS FOR ILLUSTRATIVE PURPOSES ONLY AND ACTUAL CONFIGURATION OF BUILDINGS WILL BE DETERMINED BY THE BUILDERS OR OTHERS. FUTURE DETAILED DESIGN WILL BE COMPLETED BY THE DEVELOPER'S ENGINEER.



NOTES:
1. ROAD CROSSINGS DEPTHS FOR UTILITIES – HYDRO 1.2 MIN.
   – BELL TELEPHONE, UNION GAS, CABLE TV 1.0 MIN.
   – WATER 1.8 MIN.
2. ALL WATER SERVICE BOXES TO BE SET AT PROPERTY LINE.
3. ROAD CONSTRUCTION DESIGN TO BE CONFIRMED BY GEOTECHNICAL ENGINEER
4. SIDEWALK SHALL BE PROVIDED AS REQUIRED BY MUNICIPALITY.
5. TRANSFORMER IS TO BE ON OPPOSITE SIDE TO SIDEWALK WHERE POSSIBLE.

BMROSS engineering better communities	Municipality of Brockton Typical Road Section Urban Roads	DATE Aug. 16, 2019	PROJECT No 19074
		SCALE 1:100	FIGURE No. 1

LEGEND

- SAN. or STM. — EXISTING SEWERS, SANITARY or STORM
- MH, CB — MANHOLE and CATCHBASIN
- W — WATERMAIN, FIRE HYDRANT
- G — GASMAIN
- T — UNDERGROUND TELEPHONE
- H — UNDERGROUND HYDRO
- TV — UNDERGROUND T.V. CABLE
- H, B, T, TV, G, LP — UTILITY POLES
- BH 17 ELEV. 294.92m — BOREHOLE LOCATION FROM CHUNG & VANDER DOELEN (FILE No. G22556)
- BH 2 ELEV. 293.54m — MONITORING WELL LOCATION FROM CHUNG & VANDER DOELEN (FILE No. G22556)
- PROPOSED SANITARY STRUCTURE & SEWER
- PROPOSED STORM STRUCTURES & SEWER
- W.V., FH — PROPOSED WATERMAIN, VALVES, HYDRANT
- 4.0m WIDE DRAINAGE EASEMENT
- SANITARY EASEMENT

1:500 — 10m 0 10m 20m

NOTE

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BENCHMARK INFORMATION

B.M. Elev. 294.828
Nail and flag in east face of HP at the north-east corner of water tower property

Design By: WAH Checked By: FCV

LICENSED PROFESSIONAL ENGINEER — F. C. VANDERLOO — PROVINCE OF ONTARIO — Dec-17/25

No.	DATE	REVISION
1.	Dec. 12, 2025	Issued for Draft Plan Application

BMROSS engineering better communities

Goderich | Kincardine | Mount Forest | Sarnia

Brockton — Come home to community

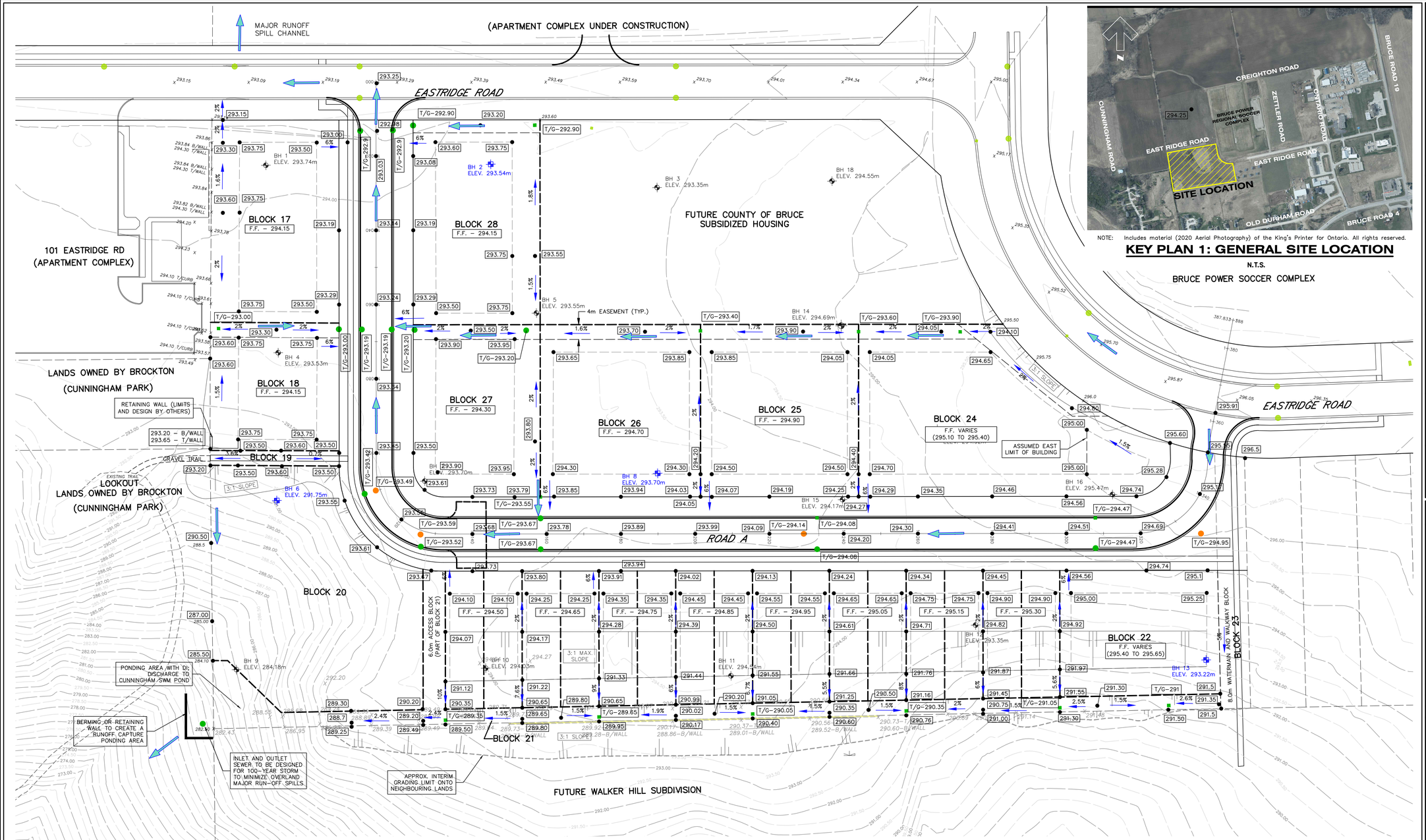
Municipality of Brockton
(Walkerton)
EASTRIDGE ROAD RESIDENTIAL SUBDIVISION
Conceptual Servicing Plan

Project No. 25040

Scale (24x36)
Horizontal : 1:500

Drawing No. SP 1

Z:\25040- Brock-Eastridge_Res_Subd\Project\Civil_Drawings\Production\25040-2025-12-11.dwg-Servicing Plan



NOTE: Includes material (2020 Aerial Photography) of the King's Printer for Ontario. All rights reserved.

KEY PLAN 1: GENERAL SITE LOCATION

N.T.S.

BRUCE POWER SOCCER COMPLEX

LEGEND

- 293.57 — EXISTING SPOT ELEVATION
- 293.25 — PROPOSED ELEVATION
- MAJOR RUNOFF FLOW PATH
- 2% — GENERAL OVERLAND FLOW DIRECTION
- PROPOSED SANITARY STRUCTURE
- PROPOSED STORM STRUCTURE
- 296 — EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- BH 17 ELEV. 294.92m — BOREHOLE LOCATION FROM CHUNG & VANDER DOELEN (FILE No. G025599)
- BH 2 ELEV. 293.54m — MONITORING WELL LOCATION FROM CHUNG & VANDER DOELEN (FILE No. G025599)

1:500 (10m 0 10m 20m)

NOTE

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BENCHMARK INFORMATION

B.M. Elev. 294.828
Nail and flag in east face of HP at the north-east corner of water tower property

NOTES:
1. ELEVATION INFORMATION HAS BEEN PARTIALLY COMPILED BASED ON INFORMATION PROVIDED BY OTHERS, INCLUDING, BUT NOT LIMITED TO:
   - 1.1. GSS ENGINEERING – PROJECT No. 21–090
   - 1.2. COBIDE ENGINEERING INC. – PROJECT No. 01864, DATED SEPTEMBER 13, 2024
   - 1.3. COBIDE ENGINEERING INC. – PROJECT No. 03709, DATED MARCH 23, 2023

Design By: WAH Checked By: FCV

LICENSED PROFESSIONAL ENGINEER — F. C. VANDERLOO — PROVINCE OF ONTARIO — Dec-17/25

No.	DATE	REVISION
1.	Dec. 12, 2025	Issued for Draft Plan Application

BM ROSS engineering better communities

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Brockton — Come home to community

DRAWING NOTES:

1. SEE THE DRAFT PLAN FOR PROPERTY DIMENSIONAL INFORMATION.
2. FUTURE RETAINING WALL ALONG SOUTH LIMIT OF BLOCK 21 DESIGN AND EXTENTS TO BE DETERMINED BY OTHERS.
3. GRADING ENCROACHMENT INTO FUTURE WALKER HILL SUBDIVISION WILL BE REQUIRED TO ATTAIN PERIMETER GRADES AS SHOWN. AGREEMENT OF UNDERSTANDING WILL BE REQUIRED PRIOR TO DEVELOPMENT.

THE DESIGN ON THIS DRAWING IS ONLY CONCEPTUAL. WHERE BUILDINGS AND BUILDING DIMENSIONS ARE SHOWN, THAT IS FOR ILLUSTRATIVE PURPOSES ONLY AND ACTUAL CONFIGURATION OF BUILDINGS WILL BE DETERMINED BY THE BUILDERS OR OTHERS. FUTURE DETAILED DESIGN WILL BE COMPLETED BY THE DEVELOPER'S ENGINEER.

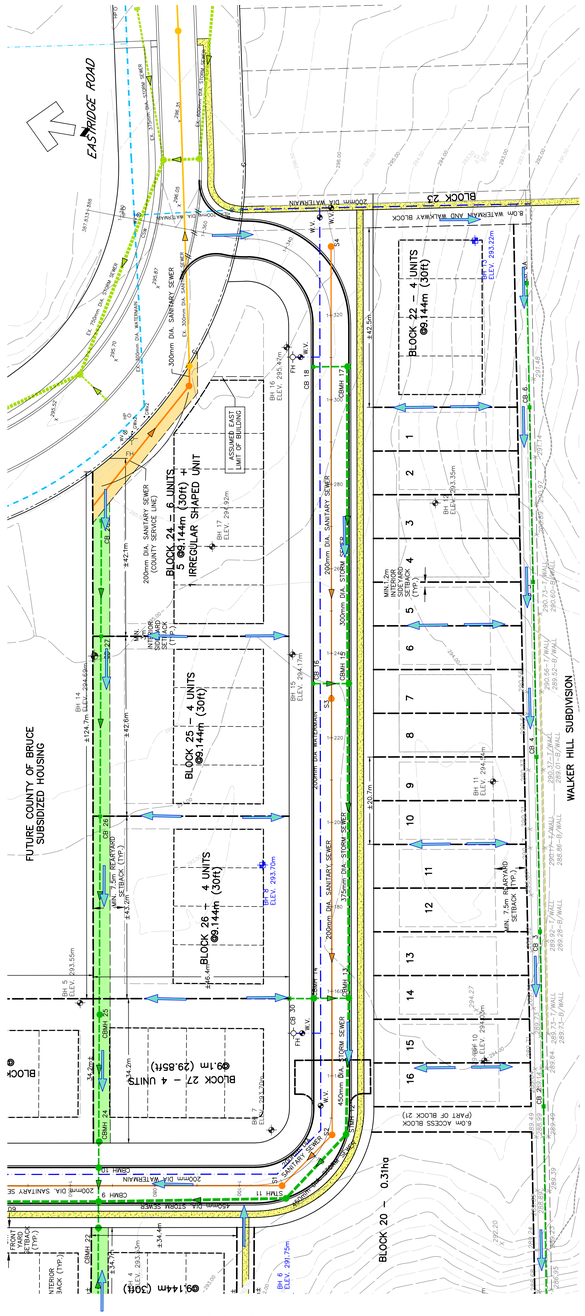
Municipality of Brockton
(Walkerton)
EASTRIDGE ROAD RESIDENTIAL SUBDIVISION
Conceptual Grading Plan

Project No. 25040

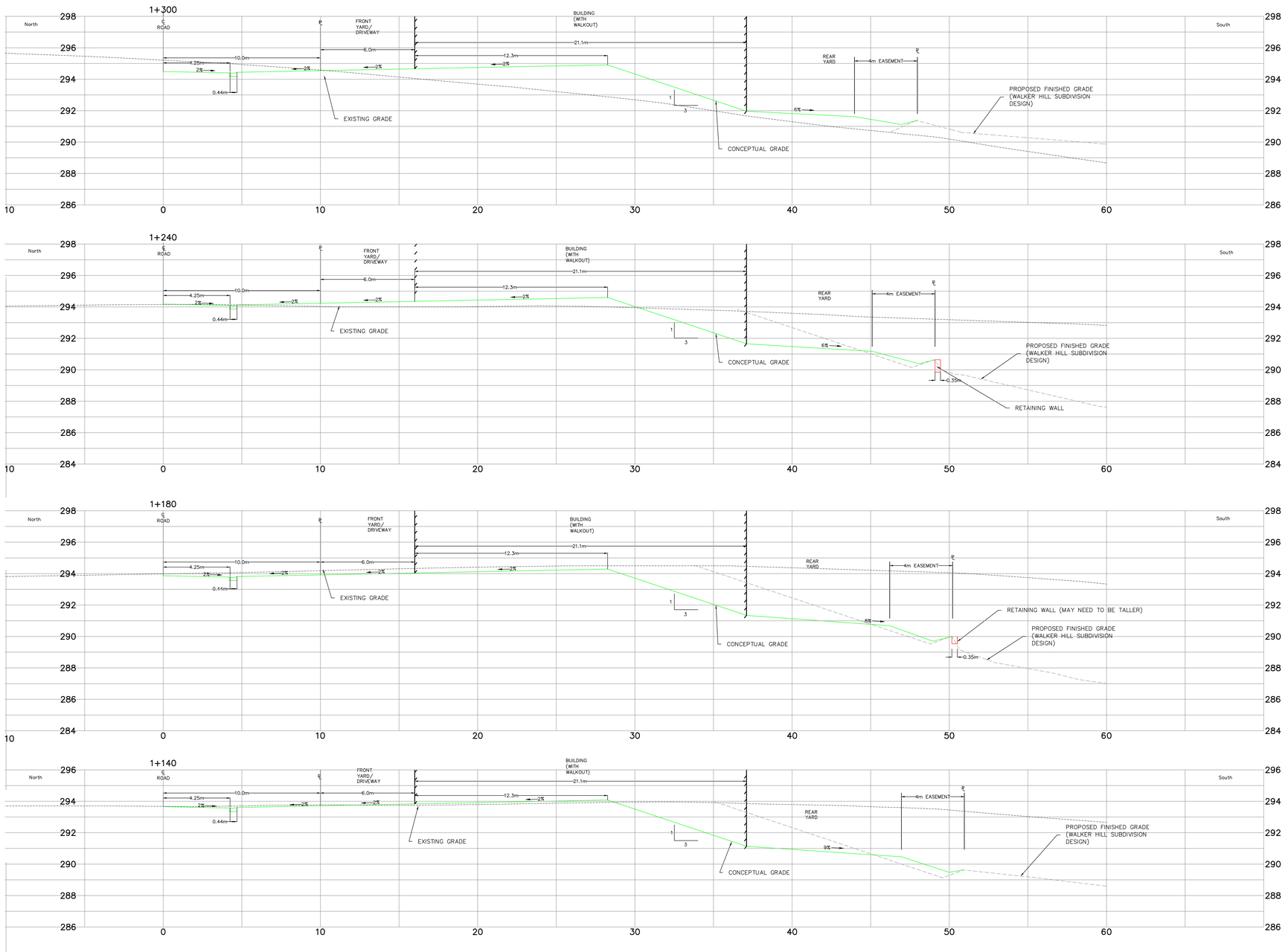
Scale (24x36)
Horizontal : 1:500

Drawing No. GP 1

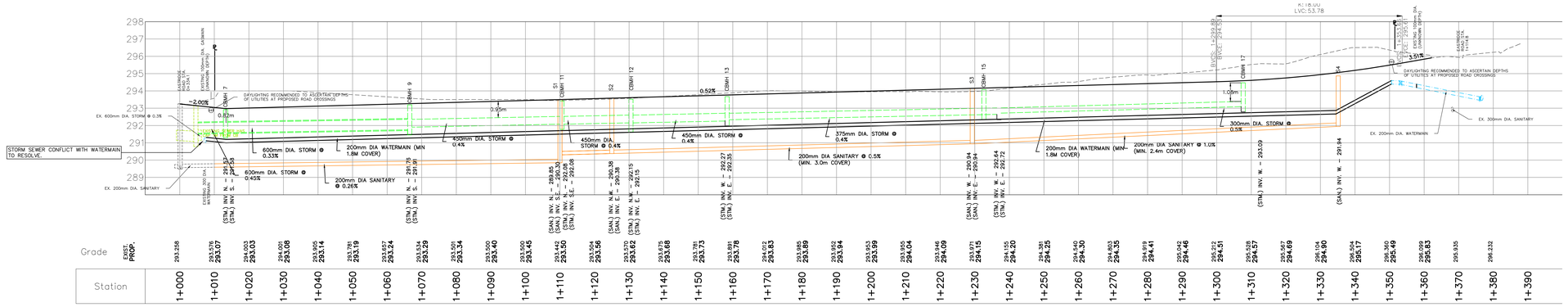
Z:\25040- Brock-Eastridge_Res_Subd\Project\Civil_Drawings\Production\25040-2025-12-11.dwg- Grading Plan



Partial Plan View
Scale 1:500



Partial Sections
Scale 1:100 H and V



Profile View
Scale 1:500 H and 1:100 V

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BMROSS engineering better communities

Goderich | Kincardine | Mount Forest | Sarnia

Brockton
Come home to community

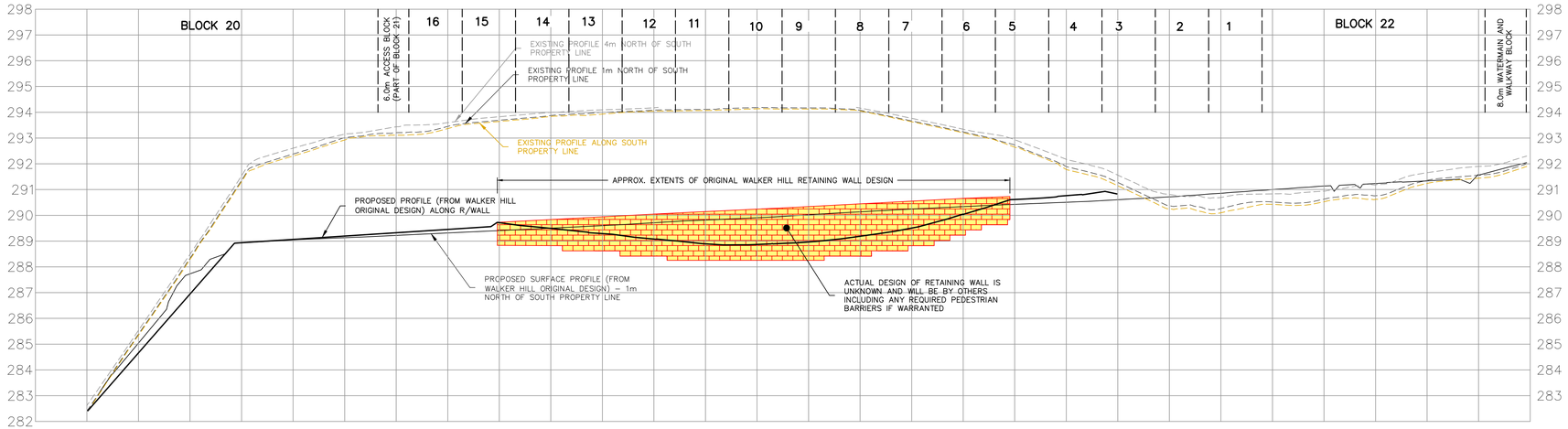
Municipality of Brockton
(Walkerton)
EASTRIDGE ROAD
RESIDENTIAL SUBDIVISION
Conceptual Profile and Sections

Project No.	Drawing No.
25040	DET 1

LICENSED PROFESSIONAL ENGINEER
F. C. VANDERLOO
PROVINCE OF ONTARIO

1:500
1:100

Z:\25040-Brock-Eastridge_Res_Sub\Projects\Dwg_Drawings\Production\25040-2023-12-11.dwg - Section2 - 2023-12-11



DRAWING NOTES:

1. INFORMATION AS SHOWN IS APPROXIMATE, BASED ON INFORMATION PROVIDED BY OTHERS FOR THE WALKER HILL SUBDIVISION, AND IS BEING PROVIDED FOR GENERAL INFORMATION PURPOSES ONLY.

THE DESIGN ON THIS DRAWING IS ONLY CONCEPTUAL. WHERE BUILDINGS AND BUILDING DIMENSIONS ARE SHOWN, THAT IS FOR ILLUSTRATIVE PURPOSES ONLY AND ACTUAL CONFIGURATION OF BUILDINGS WILL BE DETERMINED BY THE BUILDERS OR OTHERS. FUTURE DETAILED DESIGN WILL BE COMPLETED BY THE DEVELOPER'S ENGINEER.

LEGEND

1:500 10m 0 10m 20m

1:100 1m 0 1m 2m 3m 4m 5m

NOTE

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BENCHMARK INFORMATION

B.M. Elev. 294.828
Nail and flag in east face of HP at the north-east corner of water tower property

Design By: WAH Checked By: FCV

LICENSED PROFESSIONAL ENGINEER
F. C. VANDERLOO
PROVINCE OF ONTARIO
Dec-17/25

No.	DATE	REVISION
1.	Dec. 12, 2025	Issued for Draft Plan Application

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Brockton
Come home to community

Municipality of Brockton
(Walkerton)
EASTRIDGE ROAD RESIDENTIAL SUBDIVISION
Conceptual Section Along Southerly Boundary

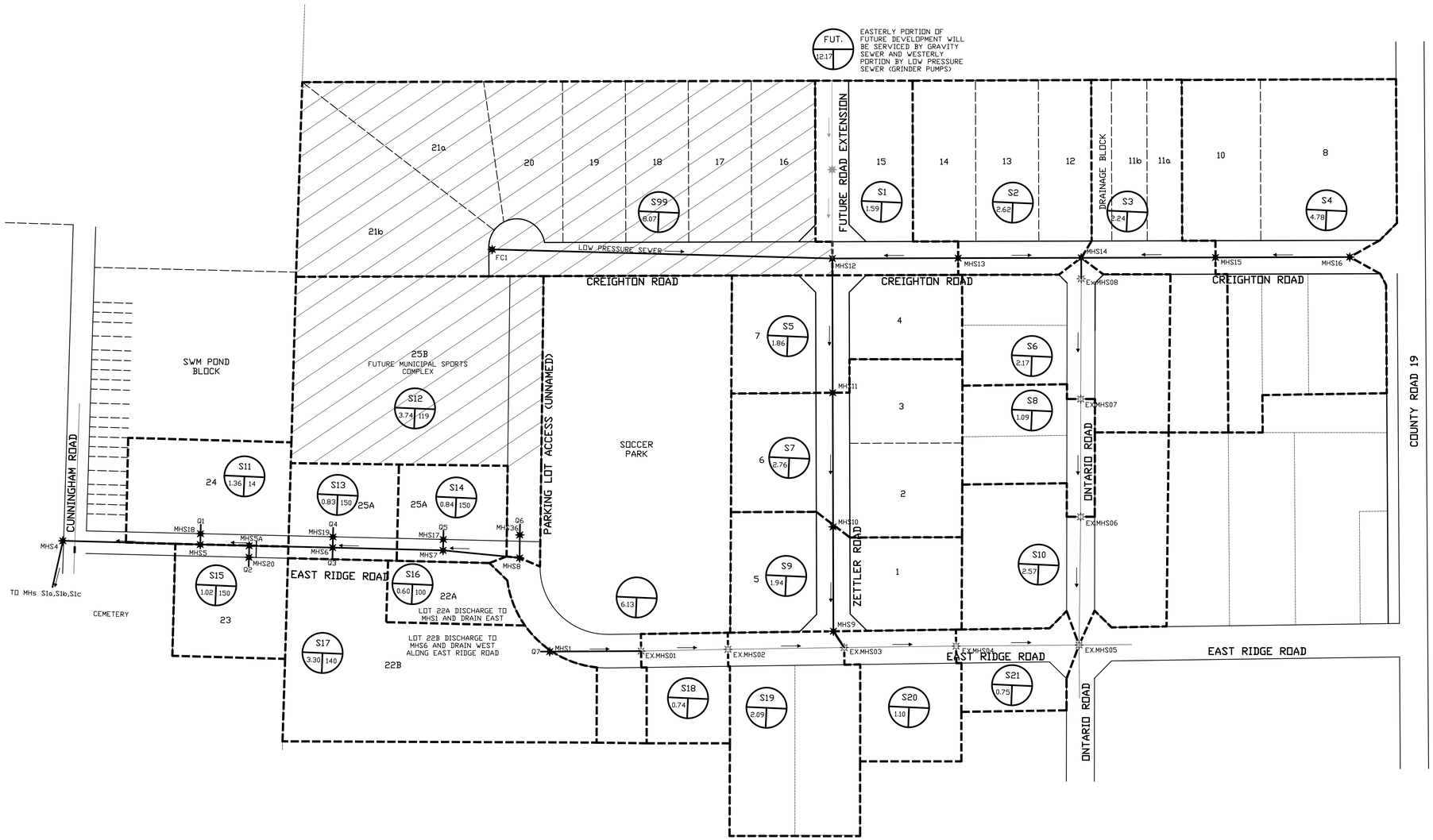
Project No. 25040

Scale (24x36)
Horizontal : 1:500
Vertical : 1:100

Drawing No. Section 1

APPENDIX A

SANITARY SEWER DESIGN CALCULATIONS



SANITARY SEWAGE FLOWS

LOT NO.	UNIT FLOW RATE	NO. UNITS	PEAKING FACTOR	EQUIVALENT POPULATION
22A	1125 L/DAY/UNIT	40 UNITS	H.P.F.	100 PERSONS
22B	1125 L/DAY/UNIT	56 UNITS	H.P.F.	140 PERSONS
23	1125 L/DAY/UNIT	60 UNITS	H.P.F.	150 PERSONS
24	1800 L/DAY/BED	7 BEDS	INSTITUTIONAL	14 PERSONS
25A	1125 L/DAY/UNIT	120 UNITS	H.P.F.	300 PERSONS
25B	0.33 L/S/HA.	3.74 HECTARES	INSTITUTIONAL	119 PERSONS
CEMETERY	N/A	N/A	N/A	N/A

1. LOT NUMBER AS PER LOT FABRIC AND EASEMENT SKETCH, BMR PROJECT NO. 12154 DATED SEPTEMBER 12, 2023 REVISION NO. 7.
2. UNIT FLOW RATE AS PER MECP GUIDELINES:
   - 2.1. RESIDENTIAL AVERAGE DAY FLOW OF 450 LPCD, AND 2.5 CAPITA/UNIT, FOR LOTS 22, 23, AND 25A.
   - 2.2. HOSPICE AVERAGE DAY FLOW OF 1800 L/DAY/BED FOR LOT 24.
   - 2.3. INSTITUTIONAL AVERAGE DAY FLOW OF 0.33 L/S/HA. FOR LOT 25B.
3. PEAKING FACTOR AS PER MECP GUIDELINES:
   - 3.1. HARMON PEAKING FACTOR FOR RESIDENTIAL FLOW AND EQUIVALENT POPULATION.
   - 3.2. PEAKING FACTOR OF 2.0 FOR INSTITUTIONAL FLOW.
4. EQUIVALENT POPULATION CALCULATED AS FOLLOWS:
   - 4.1. 2.5 PERSONS PER HOUSING UNIT FOR RESIDENTIAL LOTS.
   - 4.2. BACK-CALCULATED FOR INSTITUTIONAL AND INDUSTRIAL LOTS USING AN EQUIVALENT POPULATION A.D.F. OF 450 LPCD, AND A H.P.F. OF 4.0, AND THE APPLICABLE PEAKING FACTOR AND A.D.F. OF THE INSTITUTIONAL OR INDUSTRIAL LOT.
5. THE CLI ECA AND DESIGN CRITERIA WERE REVIEWED IN THE SELECTION OF THE UNIT FLOW RATES AND PEAKING FACTORS.
6. INFILTRATION AND INFLOW ALLOWANCE OF 0.28 L/S/HA. AS PER MUNICIPAL SERVICING STANDARD.

ONTARIO ROAD SANITARY SEWER OUTLET

1. REFER TO EAST RIDGE BUSINESS PARK EXPANSION SANITARY SEWER DESIGN UNDER BMR PROJECT NO. 12154.
2. REFER TO PROJECT NO. 23111 FOR EAST RIDGE BUSINESS PARK EXPANSION TO THE NORTH (FUTURE).

CUNNINGHAM ROAD SANITARY SEWER OUTLET

1. POPULATION FROM RESIDENTIAL USE OF LOT 22A AS PER BMR PROJECT NO. 25040. PROPOSED COUNTY APARTMENT WITH 40 UNITS TO DRAIN TO THE EAST ALONG EAST RIDGE ROAD TOWARDS ONTARIO ROAD. REFER TO LOT 22 CONCEPT PLAN REVISION NO. 2 DATED AUGUST 29, 2025.
2. POPULATION FROM RESIDENTIAL USE OF LOT 22B AS PER BMR PROJECT NO. 25040. PROPSOED 35 TOWNHOUSES, 16 SEMI-DETACHED UNITS, AND AN ALLOWANCE FOR 5 ADDITIONAL UNITS TO BE SITUATED WITHIN BLOCK 1 AS PER LOT 22 CONCEPT PLAN.
3. POPULATION FROM RESIDENTIAL USE OF LOT 23 AS PER BMR PROJECT NO. 22078 (60 APARTMENT UNITS)
4. EQUIVALENT POPULATION FROM INSTITUTIONAL USE OF LOT 24 AS PER BMR PROJECT NO. 25227 (7 PATIENT ROOMS; FLOW RATE PER BED INCLUDES STAFF AND VISITORS).
5. POPULATION FROM RESIDENTIAL USE OF LOT 25A AS PER BMR PROJECT NO. 22079 (TWO APARTMENT BUILDINGS, 60 UNITS EACH).
6. EQUIVALENT POPULATION FOR LOT 25B AS PER INSTITUTIONAL FLOW RATE. THE PRESSURE SEWER SERVICE (E.G. GRINDER PUMP) WILL SERVICE A FUTURE MUNICIPAL SPORTS COMPLEX WHICH MAY INCLUDE A PUBLIC POOL.
7. REFER TO BMR PROJECT NO. 12154 FOR SANITARY SEWER DESIGN, AND CONTRACT NO. 2 FOR A.R. DRAWINGS.

LEGEND

- SAN. — EXISTING SANITARY SEWER
- EX.MH — EXISTING SANITARY MANHOLE
- PROPOSED SANITARY SEWER
- MH / FC — PROPOSED SANITARY MANHOLE / PROPOSED FLUSHING CONNECTION
- PROPOSED SANITARY SEWER CATCHMENT AREA
- FUTURE SANITARY SEWER
- FUTURE SANITARY MANHOLE
- 1 — LOT NUMBER, AS PER FLOW TABLE NOTE 1
- ID / HA. / POP. — SANITARY SEWER CATCHMENT SUMMARY MARKER (ID = CATCHMENT IDENTIFICATION LABEL, HA. = AREA IN HECTARES, POP. = EQUIVALENT POPULATION)
- AREA TO BE SERVICED BY PRESSURE SEWER (GRINDER PUMPS, L.P.S.)

NOTES:

1:2000

20m 0 20m 40m 60m 80m 100m

Construction North

Design By: J.A.V. Checked By: F.C.V.

No.	DATE	REVISION
1	Nov. 17, 2021	Issued for ECA Approval
2	Mar. 21, 2023	Issued for As-Recorded
3	Nov. 21, 2025	Issued for Draft Plan Application

BMROSS engineering better communities

Goderich | Kincardine | Mount Forest | Sarnia

Municipality of Brockton (Walkerton)

Cunningham Street Sanitary Sewer Design Revision

SANITARY SEWER CATCHMENT PLAN

Project No. 12154 - 2	Project No. 24050
Scale (24x36) 1:2000	Drawing No. SAN1

Z:\25040-Brock-Eastridge_Res_Subd\Projects\Sanitary

q = avg. daily per capita flow 450 L/cap. d

I = peak extraneous flow 0.28 L/ha. s

P = population in 1000's

Q (p) = peak population flow L/s

$$Q(p) = \frac{PqM}{86.4}$$

Q (i) = peak extraneous flow L/s $Q(i) = IA$

Q (d) = peak design flow $Q(d) = Q(p) + Q(i)$

$$M = 1 + \frac{14}{4 + P^{0.5}}$$

SANITARY SEWER DESIGN SHEET

DATE 21-Nov-25

FILE No. 25040

SEWER DATA

LOCATION			INDIVIDUAL		CUMULATIVE		Peak Factor M	Pop. Flow Q(p) L/s	Peak Extran. Q(i) L/s	Peak Design Q(d) L/s	PROPOSED SEWER								
STREET	FROM	TO	Pop.	Area (ha)	Pop.	Area (ha)					Type of Pipe	Pipe Size (mm)	Grade (%)	Length (m)	Capacity (L/s) n=0.013	Full Flow Velocity (m/s)	Actual Velocity at Q(d)	Sewer Invert Elevation Upper	Sewer Invert Elevation Lower
Eastridge Road	Q6	36	119	3.74	119	3.74	4.00	2.5	1.0	3.5		200	0.40		20.7	0.7			
Eastridge Road	36	8	0	0.00	119	3.74	4.00	2.5	1.0	3.5		200	0.40		20.7	0.7			
Eastridge Road	8	7	0	0.00	119	3.74	4.00	2.5	1.0	3.5		200	0.40		20.7	0.7			
Eastridge Road	Q5	17	150	0.84	150	0.84	4.00	3.1	0.2	3.4		200	0.40		20.7	0.7			
Eastridge Road	17	7	0	0.00	150	0.84	4.00	3.1	0.2	3.4		200	0.40		20.7	0.7			
Eastridge Road	7	6	0	0.00	269	4.58	4.00	5.6	1.3	6.9		200	0.40		20.7	0.7			
Eastridge Road	Q3	6	140	3.30	140	3.30	4.00	2.9	0.9	3.8		200	0.40		20.7	0.7			
Eastridge Road	Q4	19	150	0.83	150	0.83	4.00	3.1	0.2	3.4		200	0.40		20.7	0.7			
Eastridge Road	19	6	0	0.00	150	0.83	4.00	3.1	0.2	3.4		200	0.40		20.7	0.7			
Eastridge Road	6	5A	0	0.00	559	8.71	4.00	11.6	2.4	14.1		200	0.40		20.7	0.7			
Eastridge Road	Q2	20	150	1.02	150	1.02	4.00	3.1	0.3	3.4		200	0.40		20.7	0.7			
Eastridge Road	20	5A	0	0.00	150	1.02	4.00	3.1	0.3	3.4		200	0.40		20.7	0.7			
Eastridge Road	5A	5	0	0.00	709	9.73	4.00	14.8	2.7	17.5		200	0.40		20.7	0.7			
Eastridge Road	Q1	18	14	1.36	14	1.36	4.00	0.3	0.4	0.7		200	0.40		20.7	0.7			
Eastridge Road	18	5	0	0.00	14	1.36	4.00	0.3	0.4	0.7		200	0.40		20.7	0.7			
Eastridge Road	5	4	0	0.00	723	11.09	4.00	15.1	3.1	18.2		200	0.40		20.7	0.7			

BMROSS engineering better communities

REMARKS:

Sanitary MH numbering as per sanitary sewer catchment plan

PROJECT:

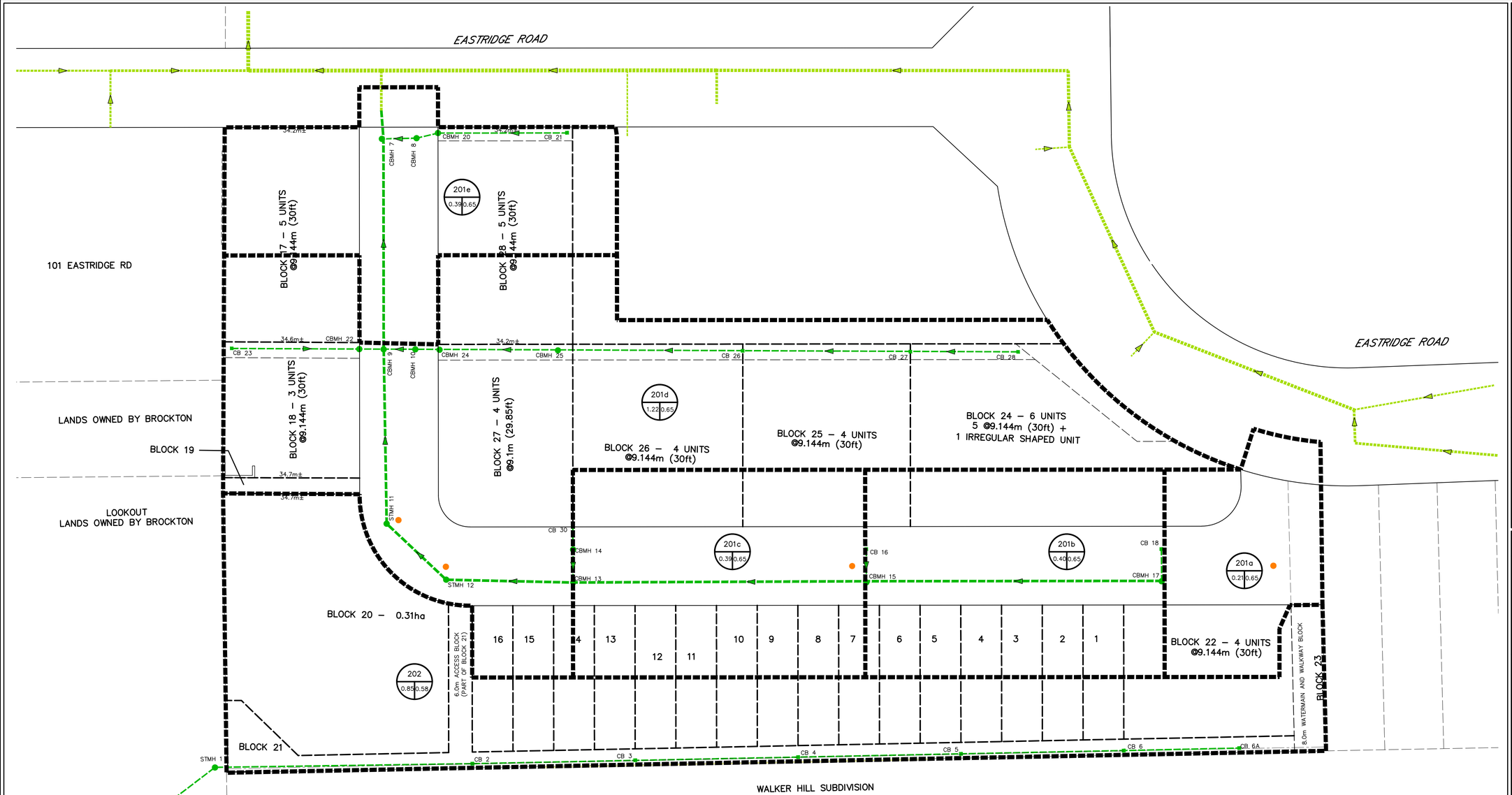
East Ridge Road Sanitary Sewer

Draining to Cunningham Road

SHEET No	1
DESIGN	JAV
CHECKED	FCV

APPENDIX B

STORM SEWER DESIGN CALCULATIONS



CATCHMENT 201 – OVERALL AREA 26,140m2		
	AREA (m2)	COEFFICIENT USED
ROADWAY	3506	0.95
SIDEWALK	580	0.95
DRIVEWAYS	2140	0.95
BUILDING	8816	0.95
LAWN	11086	0.25
COMPOSITE AREA COEFFICIENT		0.65

CATCHMENT 202 – OVERALL AREA 8,490m2		
	AREA (m2)	COEFFICIENT USED
BUILDING	1682	0.95
SIDEWALK	56	0.95
BLOCK 20 IMPERVIOUS*	2325	0.95
LAWN	4427	0.25
COMPOSITE AREA COEFFICIENT		0.58

*ASSUMING 75% IMPERVIOUS

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LEGEND

201 / 2.59 / R — CATCHMENT SUMMARY MARKER
ID = IDENTIFICATION LABEL
HA. = AREA IN HECTARES
R = RUNOFF COEFFICIENT

EXISTING STORM SEWER

PROPOSED STORM SEWER

1:500 (10m 0 10m 20m)

NOTE

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BENCHMARK INFORMATION

B.M. Elev. 294.828
Nail and flag in east face of HP at the north-east corner of water tower property

Design By: WAH Checked By: FCV

No.	DATE	REVISION
1.	Dec. 12, 2025	Issued for Draft Plan Application

BMROSS engineering better communities

Goderich | Kincardine | Mount Forest | Sarnia

Brockton
Come home to community

Municipality of Brockton
(Walkerton)
EASTRIDGE ROAD RESIDENTIAL SUBDIVISION
Storm Catchment Plan

Project No. 25040

Scale (24x36)
Horizontal : 1:500

Exhibit No. STM1

STORM SEWER DESIGN SHEET

IDF Curve City **Mount Forest**
Storm Frequency **5** year
Time of Concentration (Tc) Bransby-Williams

Q = 2.78 A I R, where A = Area (ha), I = rainfall intensity (mm/hr), R = Runoff coefficient

Date: 12/12/2025
Project No.: 25040
Contract No.:

DRAINAGE AREA			RUN - OFF DATA							SEWER DATA											
STREET	From	To	TIME OF CONC.	RAINFALL INTENSITY mm/h	AREA (ha)	R	INDLV 2.78 AR	ACCUM. 2.78 AR	PEAK FLOW Q(L/s)	TYPE OF PIPE	INN. DIA. (mm)	RUN. SLOPE %	C/C LENGTH (m)	CAPACITY (L/s) n=0.013	Q/Q_{cap}	FULL FLOW VELOCITY (m/s)	TIME OF FLOW (sec.)	SEWER INVERT ELEVATION UPPER	SEWER INVERT ELEVATION LOWER	GROUND ELEVATION UPPER	GROUND ELEVATION LOWER
201a	17	15	10.00	94.91	0.21	0.65	0.379	0.379	36	HDPE	300	0.50	29.9	68	52.7%	0.97	30.8				
201b	15	13	10.51	91.77	0.40	0.65	0.723	1.102	101	HDPE	375	0.40	25.7	111	91.2%	1.00	25.7				
201c	13	9	10.94	89.33	0.39	0.65	0.705	1.807	161	HDPE	450	0.40	25.7	180	89.5%	1.13	22.7				
201d	9	7	11.32	87.31	1.22	0.65	2.205	4.012	350	HDPE	600	0.33	25.7	353	99.3%	1.25	20.6				
201e	7	Ex	11.66	85.57	0.39	0.65	0.705	4.716	404	HDPE	600	0.45	25.7	412	98.0%	1.46	17.6				
					2.61																
Rear storm sewer & outlet to Cunningham Rotary Park pond																					
	6	5	10.00	94.91	0.12	0.58	0.193	0.193	18	HDPE	300	0.50	29.9	68	26.9%	0.97	30.8				
	5	4	10.51	91.77	0.08	0.58	0.129	0.322	30	HDPE	300	0.50	25.7	68	43.3%	0.97	26.5				
	4	3	10.96	89.26	0.09	0.58	0.145	0.468	42	HDPE	300	0.50	25.7	68	61.0%	0.97	26.5				
	3	2	11.40	86.92	0.09	0.58	0.145	0.613	53	HDPE	300	0.50	25.7	68	77.9%	0.97	26.5				
	2	1	11.84	84.72	0.09	0.58	0.145	0.758	64	HDPE	300	0.50	25.7	68	93.9%	0.97	26.5				
	1	pond	12.28	82.66	0.38	0.58	0.613	1.371	113	HDPE	375	0.50	25.7	124	91.4%	1.12	22.9				
					0.85																
For 100-year, approximately,outlet to Cunningham Rotary Park Pond, approximately:																					
	1	pond	12.28	125.00				1.371	171	HDPE	375	1.00	25.7	175	97.7%	1.59	16.2				

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NOTES:

This spreadsheet uses Environment Canada IDF curves

PROJECT
Municipality of Brockton
Eastridge Road Residential Development
Minor System

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DESIGN FCV

CHECKED