Smithville Phase 3A
Block Plan Area 9
Phase 1 Draft Plan
Smithville, Ontario
Functional Servicing Report

Stantec

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Sign-off Sheet

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Kevin Brousseau, L.E.T., C.E.T.
Principal, Practice Leader - Community Development

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1.0 Introduction

The purpose of this Report is to outline how Phase 1 Draft Plan of the Subject Lands and Block Plan for Phase 3A can be developed with full municipal services, including grading, sanitary, storm drainage, domestic water and utility services. This Report is in support of the proposed Block Plan and Draft Plan of Subdivision Approval.

Stantec Consulting Ltd. (Stantec) was retained by Lockbridge Development (the "Client") to complete a Functional Servicing Report (FSR) in support of Draft Plan for Phase 1 and Block Plan Area 9 Approvals located in Smithville (Town), Township of West Lincoln (Township), Region of Niagara (Region). Block Plan Area 9 is bounded by Port Davidson Road to the west, Townline Road to the North, agricultural/non-urban lands to the south and existing residential and agricultural lands to the east.

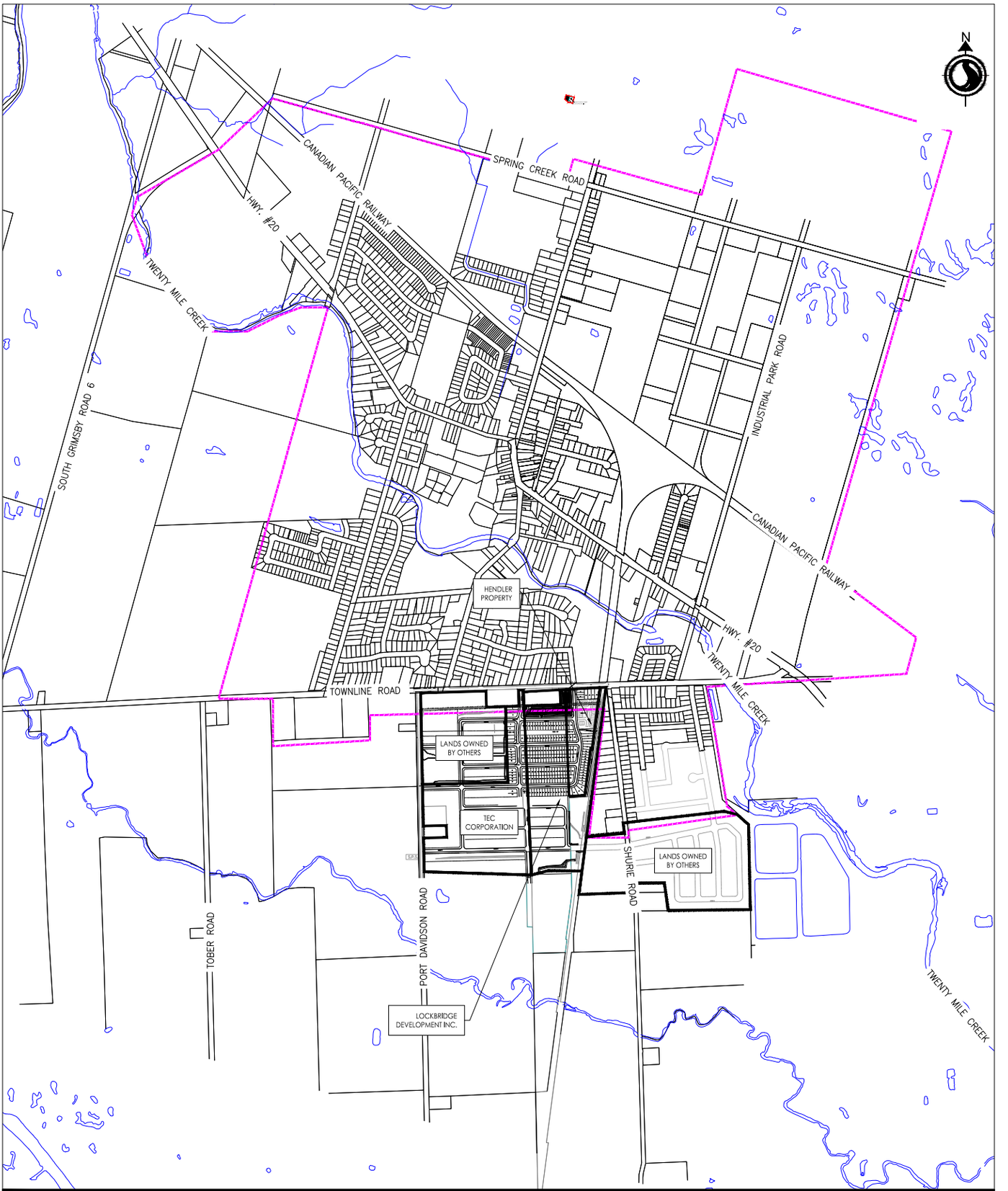
Smithville has expanded their Urban Boundary, and the subject lands are within the Phase 3A Urban Expansion. As noted in preconsultation for both the Block Plan and Draft Plan, the Block Plan has been developed in conjunction with three (3) Owners/Developers, Lockbridge Development, Hendler Properties and TEC Corporation, who combined make approximately 33.2 hectares (ha). Figure 1 illustrates the Block Plan Area 9 site location. Property fronting Townline Road and/or Port Davidson Road to the northwest and east of abandoned rail corridor/Shurie Road to the east, have not been studied or included in this Block Plan Submission. These lands have been conceptually incorporated in the preliminary design and will be completed by others. Through this report, the aforementioned lands will be mentioned as *Ultimate Block Plan* and will be discussed in sections outlining municipal servicing strategies.

The Entire Total Area of Block Plan Area 9 which is part of Phase 3A is 63.5 ha and it consists of other multiple owners/developers.

1.1 BACKGROUND/OVERVIEW

The Township of West Lincoln has completed an Urban Boundary Expansion in 2023. As part of this Expansion, Block Plan Area 9 is one of fourteen Block Plan Areas that was successfully brought into the Smithville Urban Boundary under Official Plan Amendment (OPA) 63. Various studies were completed in support of OPA 63 including the Draft Smithville Master Community Plan (MCP) – Water and Wastewater Master Servicing Plan (listed below).

The purpose of this FSR is to demonstrate how Block Plan Area 9 can be developed with municipal services including sanitary, domestic water, storm drainage, stormwater management (SWM) and utilities in accordance with applicable Municipal Standards and related requirements of the various approval agencies/authorities.



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BLOCK PLAN AREA 9
SMITHVILLE 3A

Project No.
161414473

Title
SITE LOCATION

Revision

Date
2025.07.17

Reference Sheet

Figure No.
1.0

Introduction
October 2025

The servicing strategies presented in this Report are conceptual in nature; detailed engineering drawings and a final SWM Report will be prepared as part of the detailed design process once the Block and Draft Plans have been approved. The proposed Block Plan and the conclusions of the Smithville MCP studies form the basis of the preliminary engineering strategies for the site.

This report is to be read in conjunction with the following reports which provide the basis for servicing and stormwater management strategies for the complete development build-out:

- Smithville Master Community Plan – Integrated Municipal Class Environmental Assessment Master Plan Report, prepared by AECOM, dated January 2023
- 2021 Water and Wastewater Master Servicing Plan Update, Niagara Region, prepared by GM Blue Plan Engineering, dated December 2023
- Geotechnical Investigation, Smithville 3A/Block Plan Area 9 – Smithville, ON, prepared by Stantec Consulting Ltd., dated July 2, 2024
- Proposed Residential Development – Smithville Phase 3A/Block Plan Area 9 Submission, Smithville, Ontario - Noise Impact Study, prepared by Stantec Consulting Ltd., dated August 2024
- Geotechnical Investigation, Smithville 3A/Block Plan Area 9 - Smithville, ON, prepared by Stantec Consulting Ltd., dated July 2, 2024
- Karst Assessment, Stage 3A, Lockbridge Developments, Smithville ON, prepared by Terra-Dynamics Consulting Inc., dated July 25, 2024
- Traffic Impact Study, Smithville 3A Block Plan Area 9 Development, in West Lincoln, Ontario, prepared by Stantec Consulting Ltd., dated September 2025
- Smithville 3A, Block Plan Area 9 Phase 1 Draft Plan Hydrogeological Assessment – Smithville, ON, prepared by Stantec Consulting Ltd., dated September 2025

2.0 Existing Conditions

2.1 LAND USE AND TOPOGRAPHY

The existing predevelopment site conditions for the Block Plan Area 9 are illustrated on Drawings C-050 and C-051 provided in Appendix A.

The subject lands are currently undeveloped agricultural lands. The existing topographic information was obtained from Metropolitan Consulting Inc, May 2022 via Landsmith Engineering and Legal Boundary Information was provided by J.D Barnes Limited. Additional topographical information was completed in 2025 by Stantec to identify the existing trees along the northwest limits of the Draft Plan.

There are two (2) existing culverts in the north along Townline Road, a 600 mm dia. and a 900 mm dia., a karst feature located in the northern portion of the site and surface drainage features within the Block Plan site. The 600 mm dia. discharges surface flows from the existing swale (from the abandoned rail corridor) to the storm sewer system along Townline Road with the remaining northern lands directed to the existing 900 mm dia. culvert crossing Townline Road.

The topography of the Block Plan site ranges from ±184.5 m asl to ±191 m. The site is generally split by a central high point. Generally, the northeastern portion of the site flows northeast to aforementioned existing culvert discharging under Townline Road. The southern portion drains to an existing water feature, and western lands fronting Port Davidson drain to existing 600 mm dia, culvert crossing underneath under Port Davidson Road or directed further south.

2.2 GEOTECHNICAL INFROMATION

A Geotechnical Investigation was completed on the Block Plan Area 9 (Stantec, July 2024), for the lands owned by Lockbridge Developments, Hendler Properties and TEC Corporation. A Desktop Study was also completed for the balance of lands within the Northwest portion of the Block Plan, contiguous to the Draft Plan.

A total of twenty-seven (27) boreholes were installed and were advanced to depths of 2.3 m to 11.4 m below ground below ground surface (BGS), terminating at inferred bedrock in some locations and/or at various depth within the bedrock. The subsurface conditions encountered in boreholes were found to be approximately 460 mm thick topsoil, underlain by clay and dolostone bedrock.

Nine (9) additional boreholes equipped with single monitoring wells and three (3) multi-level monitoring wells were installed within the site. Water level monitoring readings during installation from

February 27, 2024 to March 5, 2024 were found to range from approximately 1.0 m to 2.5 m above the bedrock and 1.0 m to 7.0 m BGS at the monitoring wells.

For further details on the geotechnical characteristics of the site, please refer to the Reports referenced in Section 1.1.

2.3 HYDROGEOLOGICAL INFORMATION

A preliminary hydrogeological investigation of the site was completed by Stantec (Stantec, 2025). This section outlines some of the key findings and recommendations based on the preliminary investigation as it relates to site servicing strategies.

The site was found to be situated above the Niagara Escarpment and within the Haldimand Clay Plain. The Haldimand Clay deposits are mainly comprised generally of comprised of lacustrine clay and silt, with minor sand near ground surface and extending to the top of bedrock. respectively. Bedrock ranges from 181.1 m ASML to 186.2 m ASML.

Based on the continuous groundwater monitoring work between March 2024 and April 2025, groundwater levels recorded ranged from 181.85 m AMSL to 188.00 m AMSL within the overburden and within the bedrock, groundwater levels ranged from 181.84 m AMSL to 186.70 m AMSL. The groundwater table throughout the Site was found to be at its highest positioning during the spring during the monitoring period. It was recommended that servicing depths and groundwater levels be further reviewed during detailed design, and anti-seepage collars be implemented where necessary for areas where less permeable materials are encountered. As some municipal services are likely to be installed below the high groundwater table, dewatering may be required during construction. It was recommended that the need for dewatering be reviewed during detailed design to inform any required permitting, and possible need for localized monitoring at the nearby private wells.

The preliminary hydrogeological investigation also reviewed the anticipated pre-and post-development water balance on the site. We estimated that 23,720m³ of annual infiltration occur under pre-development conditions within the Site. Approximately 59% of the Site will be converted to impervious surfaces, reducing the annual infiltration to 10,235 m³/year resulting in an annual infliction deficit of approximately 13,485m³/year. Through use of infiltration strategies where possible, the infiltration deficit onsite can be mitigated, but Infiltration locations will not be proposed within the block site.

For further details on the HydroGeological characteristics of the site, please refer to the reports referenced in Section 1.1.

2.4 KARST INFORMATION

One karst hazard has been identified in the vicinity of the site (see the Karst Assessment prepared by Terra-Dynamics Consulting Inc for more details). This karst hazard (i.e., sinkhole) has been identified and is located within the northern portion of the site. The sinkhole's water travels under Townline Road via the 900 mm dia. culvert and eventually joins the existing Rock St. Spring.

In support of Block Plan Approval, Terra-Dynamics Consulting Inc. completed a Karst Assessment for the site (July 2024). It is stated in the Report that there should be no ecological risk to the Twenty Mile Creek or downstream channel through Rock Street Park and is subject to a permit process close-out or remediation.

For further details on the Karst characteristics of the site, please refer to the reports referenced in Section 1.1.

A Karst Removal Permit has been completed and provided to Niagara Peninsula Conservation Authority on July 9, 2025 such to proceed with remediation of the sinkhole to support development.

3.0 Concept Plan

3.1 PHASE 1 DRAFT PLAN

The Phase 1 Draft Plan is provided in Appendix B as prepared by Arcadis Canada Inc. The Draft Plan has two main entrances off Townline Road, and consists of a combination of single-detached, semi-detached homes, one multi-family block, Pipeline Easement, Park Trails and a Stormwater Management Facility (SWMF) Block. Lockbridge Development consists of 106 single-detached homes and Hendler Property consist of 33 single-detached, 12 semi-detached, and estimated 31 townhouses within a multi-family Block. TEC Corporation owns the lands west of new Street B comprising of 38 single-family lots and 2 semi-detached units for totaling of 222 residential units. The total area of the Phase 1 Draft Plan lands is 13.43 ha.

3.2 BLOCK PLAN AREA 9

The Block Plan for the subject site is provided in Appendix B and was also prepared by Arcadis Inc. This plan incorporates the Phase 1 Draft Plan (as mentioned above) and shows an additional three entrances at Port Davidson Road and 2 entrances in the southeast at Shurie Road and Alma Drive that will connect to the existing subdivision. Within the Block Plan, there are Commercial, Medium Density and Low-Density Residential areas, neighbourhood Parks #4 and #5, as well as additional Stormwater Management Facilities # 2 and 3 along the south.

4.0 Grading

Preliminary Grading Plans are provided in Appendix C, Drawings C-400, C-401 and C-402. The Concept Plans (as referenced in Section 3.0) were used as a base plan for the preliminary grading design. In addition, the associated roads profiles are also included in Appendix C, Drawings C-200, C-201, C-202, C-203 and C-204 to show how the Municipal Road Design Standards have been followed (within the Block Plan).

Based on the Smithville MCP, 20 m wide local road cross-section was utilized for the subject Draft Plan and is shown on Figure 2.1. A 22 m wide collector road cross-section was utilized for the east-west collector road proposed on Street M as shown on Figure 2.2.

The road grades within the proposed concept plans generally range from a minimum of 0.5% to a maximum of 6.0% to match the perimeter grades, maintain existing topography, cover over the existing pipeline easement, and overland flow to the proposed stormwater management facilities, as well as maintain minimum cover for local utilities (hydro, gas and communications).

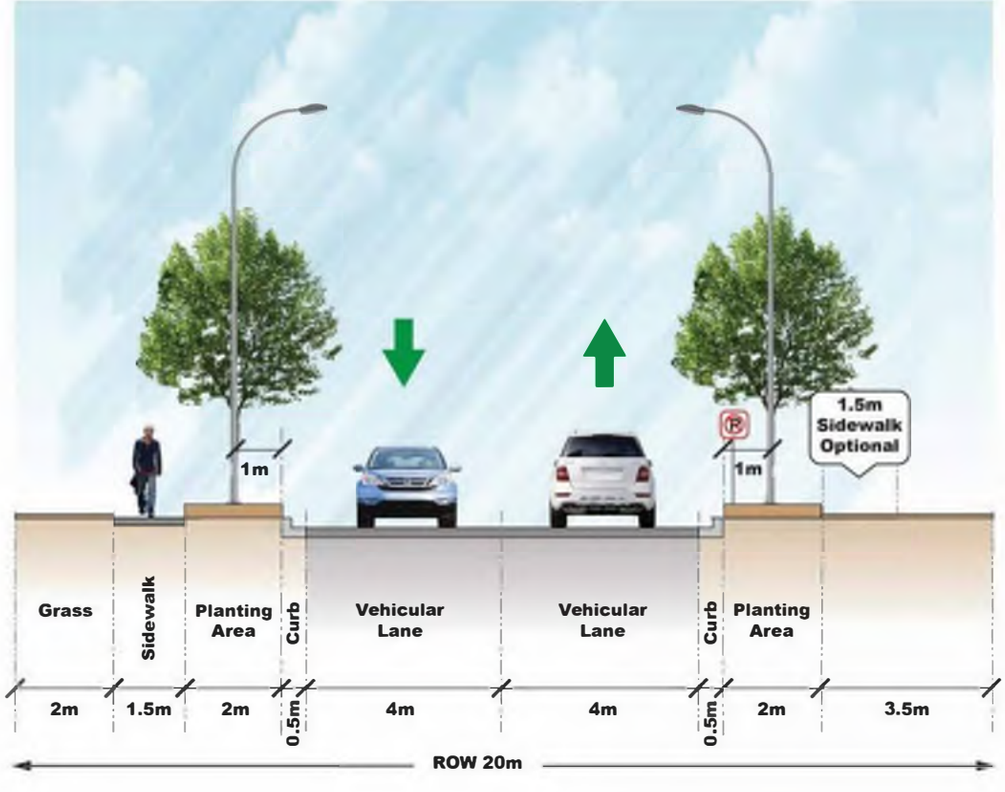
The proposed lot grading within the site ranges from a minimum grade of 2% to a maximum of 6.0%; however, 3:1 (horizontal and vertical) transitions slopes are utilized to accommodate the various grades changes within the subdivision. Combinations of ‘A’ Type (back to front), ‘B’ type (rear walkouts), and ‘D’ type (split drainage) lots are planned for the design of this development, as shown on Drawings C-400, C-401 and C-402.

With the single-detached homes and semi-detached homes backing onto to Block 187 (the abandoned existing Rail Corridor), the backyards will sheet drain onto Block 187. A swale parallel to the trail will direct drainage to rear yard catchbasins within the Block 187 that will direct the water via storms sewers under the proposed trail to the east existing swale, before it discharges north to the existing 600 mm dia. culvert at Townline Road. Through the comments received from the Township, an existing resident adjacent to the old rail corridor has identified that the swale within the rail corridor has low points that direct drainage to their rear yard property. Through our design we have identified areas of the existing swale to be regraded to help mitigate drainage concerns and ensure the swale drains to the north.

Preliminary earthworks calculations have been performed based on the preliminary road profile and Lot Grading Plans. Surplus topsoil is to be reused onsite as fill where feasible, to minimize the export of surplus topsoil materials and import of fill to address the fill shortage. The Conceptual Cut/Fill Plan and earth quantities are provided on Drawings C-900, C-901 and C-902 in Appendix C.

Streetscape Cross Section – Local Road

Local Road



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Notes

Client/Project
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BLOCK AREA 9
SMITHVILLE 3A

Project No.
161414473

Title
TYPICAL ROAD CROSS-SECTION, 20.0M

Revision

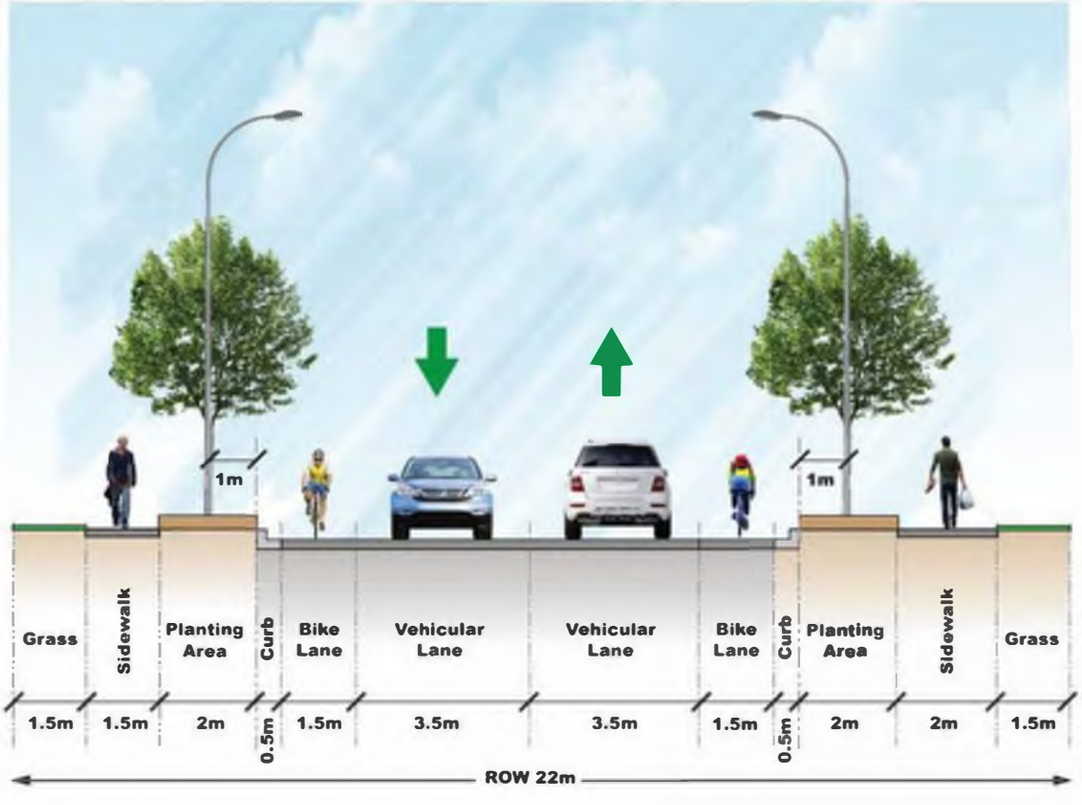
Date
2024-07-10

Reference Sheet

Figure No.
2.1

Streetscape Cross Section – Collector Road

Collector Road



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BLOCK AREA 9
SMITHVILLE 3A

Project No.
161414473

Title
TYPICAL ROAD CROSS-SECTION, 22.0M

Revision

Date
2024-07-09

Reference Sheet

Figure No.
2.2

Grading
October 2025

It should be noted that grades follow existing drainage patterns where possible. The current/existing high point in the site remains generally unchanged – the drainage patterns proposed are generally in keeping with existing conditions.

In addition to matching existing grades around the perimeter of the site, the grading design also accounts for AODA accessible pedestrian access to the parklands, trails and walkways.

Other Grading design constraints include:

- Maintain cover around and above Westover Express pipeline corridor
- 5.0% maximum grade (standard for Park Blocks)
- Match existing grades, where possible, to minimize grading and cut/fill quantities and minimize changes to the surface hydrology of the site
- Provide major overland flow conveyance from the site through to the proposed stormwater management facilities
- Satisfy the Township of West Lincoln's requirements for minimum and maximum road grades
- Maintain adequate cover over storm and sanitary sewers, and watermains

5.0 Watermain Servicing

5.1 EXISTING WATERMAIN SYSTEM

Smithville is currently serviced by the Grimsby Water Treatment Plant that supplies the domestic water to local municipalities through a series of watermain networks, pumping stations and reservoirs. The Grimsby Water Plant provides treatment and pumps water to service Smithville. Smithville does have its own elevated water tank, pumping station and reservoirs.

From the 2021 Niagara Region Master Servicing Plan Update (2021 MSP), an overview of the existing water system for the Grimsby Water Treatment Plant can be found in Appendix D, Figure 3.A.1.

The 2021 MSP outlines the existing water usage data and the capacities of the existing water infrastructure within Smithville. Using the information presented in the 2021 MSP Report, Smithville can design and size the watermains to service the expansion of the Urban Boundary and balance of the subject lands to the south within Block Plan Area 9.

5.2 PHASE 1 DRAFT PLAN

The proposed site will connect to the existing watermain along Townline Road at the proposed intersections at Streets A and Street B. The existing watermain on Townline Road is a 150 mm dia. PVC pipe as shown in Appendix C, Preliminary Servicing Plans, Drawing C-100.

The following sections outline the domestic water demand and fire flow requirements for the proposed development.

5.2.1 Domestic Use

Based on the domestic water demand calculations completed for the proposed development included in Appendix D, full occupancy of the proposed development is expected to have an average day demand of approximately 196.2 m^3/day (2.27 L/s), a maximum day demand of approximately 392.4 m^3/day (4.54 L/s), and a peak hour demand of approximately 784.8 m^3/day (9.08 L/s).

The projected domestic water demand was calculated based on the following criteria for the proposed development:

- Population density (ppu) for each housing type based on the 2024 Development Charges Background Study for Township of West Lincoln as noted below:
  - Single-Detached Units: 3.07 ppu
  - Semi-Detached Units: 3.07 ppu
  - Townhouse Units: 2.16 ppu
- A residential water usage rate of 300 L/c/d based on the 2016 Master Servicing Plan Update for the Region of Niagara
- A maximum day demand factor of 2.0, and a peak hour factor of 4.0 based on the 2016 Master Servicing Plan Update for the Region of Niagara

5.2.2 Fire Flow Requirements

According to the Region of Niagara design criteria, the fire flow requirements for any development shall be determined in accordance with the current issue of the Water Supply for Public Fire Protection, Fire Underwriter's Survey (FUS). The FUS manual outlines the following criteria for the fire flow requirements:

- Modern semi and detached homes >3 m separation – 4,000 L/min (67 L/S)
- Modern semi and detached homes <3 m separation – 6,000 L/min (100 L/S)
- High density, contiguous multi-block homes – 8,000 L/min (133 L/S)

Assuming a worst-case scenario where the majority of the proposed residences may be within a 3 m separation of each other, the larger 100 L/S fire flow is generally used in the water modeling of semi and single-detached residential areas. The multi-residential blocks (i.e., townhouses) are generally modeled using the 133 L/S fire flow demand.

5.2.3 Water Servicing Strategy

The subdivision's domestic water and fire flow servicing will be provided via connections to the Townline Road watermain. A Water Distribution Analysis will be completed by the Township to identify the appropriate sizes of the proposed watermains within the development to adequately distribute the above-noted projected water demands including fire flow demands and to confirm that the required fire flows can be achieved through the proposed fire hydrants onsite under various domestics and fire demand scenarios within the subdivision.

5.3 BLOCK PLAN AREA 9

To service the remainder of Block Plan Area 9 (not including the Phase 1 Draft Plan), a new 400 mm trunk watermain will need to be installed along Townline road, as outlined in the 2023 Smithville Water and Wastewater Master Servicing Plan Prepared by AECOM as part of a Townships Capital Project #W-TM-003 (Region Capital Project #W-M-018).

Based on the Smithville MCP, capital project #W-TM-003 has been identified in the May 13, 2024 Development Charges Background Study.

To Service the remainder of Block Plan Area 9 (not including the Phase 1 Draft Plan), it will require the design and construction of the distribution watermain. This includes new watermains throughout Phases 3A and 3B and Phase 4 lands, and upgrades along Townline Road and Port Davidson Road that are outlined in Smithville's 2023 Master Community Plan – Integrated Municipal Class Environmental Assessment Master Plan Report prepared by AECOM.

To illustrate the preferred water servicing strategy for Phase 3A refer to Drawing C-130 included in Appendix D.

Further review of these required upgrades should commence immediately by the Region and Township such to allow additional lands to be brought on stream. It is our understanding that these upgrades are needed for any portion of the Block Plan to be developed beyond the current proposed Phase presented in this Report.

The Township has advised that the only connections that will be allowed directly to the Regional 400 mm trunk watermain will be those local distribution mains and water service laterals will only be allowed to connect to the local main.

6.0 Sanitary Servicing

6.1 EXISTING SANITARY SYSTEM

Within Smithville, there are two Regional operated Sanitary Pumping Stations (SPS), Streamside SPS and Smithville SPS. Streamside SPS collects sanitary flows from Streamside Subdivision located on the east side of Smithville and pumps it to the sanitary gravity collection system of Smithville SPS. Smithville SPS collects sanitary flows from the Streamside SPS and the rest of the serviced area of Smithville and pumps it to Grimsby's sanitary drainage system ultimately discharging to Baker Road Wastewater Treatment Plant located in Grimsby.

Based on the 2021 Niagara Region Master Servicing Plan (2021 MSP), Streamside SPS has an operational firm capacity of 16 L/s and the Smithville SPS has an operational firm capacity of 104L/s.

An overview of the existing wastewater system for the Baker Road Wastewater Treatment Plant serving Smithville and other areas as presented in the 2021 MSP can be found in Appendix E-1, Figure 4.A.1.

6.2 PHASE 1 DRAFT PLAN

The Phase 1 Draft Plan is within the northeastern portion of Block Plan Area 9. From Smithville's MCP, it indicates that a portion of the northern half of Block Plan 9 can discharge by gravity to the existing Smithville SPS via existing creek crossing under Twenty Mile Creek via existing sewers along Anderson Crescent and Townline Road. The MCP also identifies that the existing downstream sanitary sewers and Smithville SPS will need to be upgraded as the existing peak wet weather flows exceed the infrastructure capacity.

The proposed sanitary sewer design for the subject site includes a network of 200 mm dia. sewers that discharge sanitary flows to the existing 200 mm dia. sewer along Townline Road at the proposed intersection at Street A as shown on Drawing C-100 included in Appendix C. Throughout the Draft Plan, the proposed depth of cover over the sanitary sewer ranges from 2.8 m to 5.0 m

The estimated dry weather flow from the proposed development is 6.45 L/s. The estimated wet weather flow from the proposed development with a maximum infiltration allowance of 0.286 L/ha/s is 10.48L/s. A copy of the Sanitary Drainage Plan C-110 and Sanitary Sewer Design Sheets for Phase 1 Draft Plan including external areas can be found in Appendix E-2.

The proposed sanitary flow discharging from Phase 1 of the Draft Plan is estimated at 10.48 L/s resulting in the proposed sanitary flow crossing under the creek of 38.57/s. With the additional flow from Phase 1 of the Subject Draft Plan discharging to Townline Road, Anderson Crescent and the pipe under the creek

crossing, the theoretical flow within at the creek crossing has exceeded the theoretical capacity of this sanitary sewer.

Based on this capacity constraint, per the Smithville MCP a capital project #WW-SL-004B has been identified in the Addendum #1 to the May 13, 2024 Development Charges Background Study to install a new 250 mm diameter gravity sanitary sewer from the Stage 3A area to Townline Road and replace the existing 250 mm sewer on Townline Rd., Anderson Crescent to the creek crossing, to a 300 mm diameter sewer. This capital project is identified to be completed in 2025-2027.

As mentioned above, the Operational firm's capacity of the Smithville SPS is 104L/s. The Township of West Lincoln has undertaken a report, *"Interim Wastewater Capacity Management Strategy, Smithville Capacity Management Strategy Report, dated June 8, 2025 by Agile Infrastructure*", that provides guidance and a plan to increase the wastewater capacity of the Smithville SPS. Within the report, Table E-5, outlines that by the end 2025 following three specific remedial actions to improve the stations capacity, there will be a net growth of 1,500 units available to the system, by the end of 2027, an additional 500 units will be available supporting 2,000 units and by the end of 2028, up to 500 units will be made available supporting approximately 2,500 units. For more detailed information regarding the remedial actions scheduled to increase the Smithville SPS capacity, the aforementioned report can be found in Appendix E-3.

Phase 1 of the proposed Draft Plan totals 222 units (as mentioned in Section 3.0) and with these Remedial Actions completed to the Smithville SPS, there will be sufficient capacity at the station to support the Phase 1 Draft Plan.

The proposed sanitary strategy for the Phase 1 Draft Plan incorporates the improvements identified in the MCP strategy and Agile Infrastructure Report.

6.3 BLOCK PLAN AREA 9

To service the remainder of Block Plan Area 9 (not including the Phase 1 Draft Plan), a new sanitary pumping station identified as Capital Project #WW-PS-003, will be required, and located along Port Davidson Road, as outlined in the 2023 Smithville Water and Wastewater Master Servicing Plan prepared by AECOM.

The exact location of the pumping station has not been determined, as discussions have occurred that the suggested location per the AECOM report may not be feasible due to landowner participation.

Through discussions, the Ownership Group have offered to locate the future SPS on lands within Block Area 9 fronting onto Port Davidson, should that prove to be more feasible when required. All remaining portions of the Block Plan Area 9 will discharge to the proposed pumping station and pumped by forcemain to Townline Road, and eventually to the Smithville SPS as outlined in Smithville's MCP.

To illustrate the preferred wastewater servicing strategy for Phase 3A, and respective Capital Projects, refer to Drawing C-115 included in Appendix E-4.

In order to service the Block Plan lands east of Shurie Road by gravity, the sanitary sewer along Street M will be ranging from 2.8 m to 10.2 m deep. This depth is solely due to the length of the service required to allow the aforementioned lands known as the “Almas Lands” to drain by gravity. The subject proposed sanitary sewer will be within the groundwater and bedrock.

7.0 Storm Servicing

7.1 PHASE 1 DRAFT PLAN

As shown on the Preliminary Servicing Plan, Drawing No. C-100, included in Appendix C, the design includes a storm sewer that ranges from 300 mm to 1200 mm dia. which discharges to the proposed North SWMF.

The site's minor flows are piped and designed to the 5-year storm event. The minor flows will discharge to the proposed north SWM Block via storm sewers and major flows are conveyed over land and follow a similar route as the minor piped flows.

The flow from the proposed North SWMF will outlet to the existing 900 mm dia. culvert under Townline Road and ultimately to Twenty Mile Creek. As well as the drainage discharging to the Blocks 187 & 188 (old rail corridor) will outlet to the existing 600 mm culvert located at the Northeast part of the Site. The drainage from the Blocks 187 & 188 will not discharge to the Proposed North SWMF.

Storm services will not be provided to the residential units. The foundation weeping tiles will not drain by gravity and will be pumped via sump pumps to grade.

Storm sewers are proposed to be installed with a minimum cover of 1.5 m at slopes between 0.5% to 1.0%.

For more information regarding the preliminary Phase 1 Draft Plan SWM strategy, please refer to Appendix F.

7.2 BLOCK PLAN AREA 9

To service the remainder of contiguous Block Plan Area 9, as shown as shown on the Preliminary Servicing Plan, Drawing No. C-101 and C-102, included in Appendix C, the proposed storm sewers will discharge to a SWMF in the south of the Block Plan.

The proposed storm sewer will range from 300 mm to 1200 mm in dia. and is designed for the 5-year storm event. Minor flows will discharge to the proposed south SWM Block and the major flows are conveyed over land and follow a similar route as the minor piped flows.

The south SWMF will outlet to an existing watercourse that is defined by the NPCA at the south. For more information regarding the preliminary Block Plan Area 9 South SWM strategy, please refer to Appendix F.

It is expected that a further SWMF will be required for the Block Plan lands east of Shurie Road as outlined in the Smithville MCP, in conjunction with the development of the Almas lands. This is shown conceptually on the Block Plan and will be subject to clarification through preliminary design of these lands by others.

8.0 Erosion and Sediment Control

The erosion and sediment control strategy has been developed and is to be implemented during the construction process, in order to minimize the potential for offsite discharge of sediment and the resultant negative environmental impacts. This plan will focus on the protection of the downstream areas.

8.1 EROSION POTENTIAL

The *Toronto and Region Conservation Authority's Erosion and Sediment Control Guide for Urban Construction (2019)* was used to determine the erosion potential of the Site. The erosion potential is based on slope gradient, slope length, and soil texture and is then used to determine the appropriate erosion control methods, as follows:

- Site Slopes: Generally gentle (< 2%) to moderate (2-10%) – average slope is approximately 2%.
- Slope Lengths: Long (generally greater than 30 m).
- Erodibility Classification: High erodibility rate for silty sand and low erodibility rate for sandy soils.

Therefore, based on this classification the Site has moderate to high erosion potential, depending on the specific location within the Site.

8.2 PRELIMINARY EROSION AND SEDIMENTATION CONTROL PLAN

The following approach to erosion and sediment control onsite has been prepared to minimize the potential impacts associated with onsite erosion and/or offsite transport of sediment to downstream areas.

Prior to any grading or servicing works commencing onsite, erosion and sedimentation control measures shall be implemented as detailed on the Pre-grading, Erosion and Sedimentation Control Plans (prepared during detail design). The erosion and sedimentation controls will include the following items:

- Steep slopes (>3:1) shall have erosion blankets.
- Light and/or heavy-duty silt fencing will be erected on all site boundaries where there is potential for runoff to be discharged offsite, to protect adjacent downstream lands from migration of sediment in overland flow. The location of this fencing will be adjacent to the limit of grading. Silt fence attached to paige wire fencing will be installed periodically throughout the Site adjacent to sensitive areas. Silt fencing should be erected before grading begins to protect adjacent and downstream areas from migration of sediment in overland flow.

- Storm service outlets will be installed during servicing and roadworks construction to provide lot level dead and live storage where appropriate.
- Erosion control berms/swales will be located in appropriate (critical) areas to divert flows to temporary sediment basins.
- A construction entrance feature ("mud-mat") will be provided at all site entrances to minimize the offsite transport of sediment via construction vehicles.
- Runoff will be directed to a temporary sedimentation facility via swales to minimize untreated runoff discharged from the Site.
- The temporary sedimentation facility should not be sited in the location of the proposed permanent SWMF as it may inhibit the function of the final SWMF as an infiltration basin.
- Swales constructed onsite will have temporary rock check dams to help attenuate flows and encourage deposition of suspended sediment where appropriate.
- All disturbed areas where construction is not expected for 30 days shall be re-vegetated with 50 mm of topsoil and hydro-seeding according to OPSS 572.
- During construction, all catchbasins are to be sealed until roads are paved to prevent sediment deposition in the catchbasins' sumps and conveyance of silt to the SWMF.
- An Erosion Control Implementation Schedule will be included with the Detailed Erosion and Sedimentation Control Plan, prepared in conjunction with the pre-grading application and/or final engineering design.
- Following completion of construction and site stabilization, all erosion and sediment control measures and accumulated sediment are to be removed.

The erosion control measures shall be maintained in good repair during the entire construction period and shall only be removed as contributing drainage areas are restored and stabilized. In addition, the condition of erosion control works, their overall performance, and any repairs, replacement, or modifications to the installed item shall be noted in the Monitoring Reports submitted to the NPCA and the Township. The Monitoring Reports should be submitted bi-monthly (quarterly during periods of inactivity or house construction) and should be based on inspection completed bi-weekly or after any significant rainfall events (>13 mm), whichever is more frequent.

8.3 MONITORING, MAINTENANCE AND MITIGATION

Monitoring and maintenance activities are an important part of a SWM Plan to ensure that the designed features continue to operate as intended. A Monitoring Program should be established in consultation with the Region of Niagara, Township of West Lincoln, and the Ministry of Environment, Conservation and Parks and incorporated into the Final Stormwater Management Plan at the detailed design stage.

9.0 Utilities

9.1 NIAGARA PENINSULA ENERGY INC

NPEI advises that they can supply power to the proposed site and that there are no capacity issues. These services will be extended to service the subject lands, there, no constraints for providing hydro services to the proposed development.

9.2 NATURAL GAS

Enbridge advises that the site can likely be accommodated if immediate application is made. There is an existing main on the North side of Townline Road. These services will be extended to service the subject lands. There are no constraints for providing natural gas services to the proposed development.

9.3 BELL

Bell has advised that they can have the infrastructure in place in the area to service the site. These services will be extended to service the subject lands. There are no constraints for providing telecommunication services to the proposed development.

9.4 COGECO

Cogeco advises that they are able to service the site and have infrastructure in the area. These services will be extended to service the subject lands. There are no constraints for providing hydro services to the proposed development.

9.5 WESTOVER EXPRESSS PIPELINE EASEMENT

The existing pipelines have been daylighted at the locations where the roadways cross the pipeline easement to confirm the infrastructure elevations to ensure the required sewer clearances are achieved as well as pipe cover to support the proposed municipal road. The ground surface within the easement will be regraded and fill will be added around and over the existing pipelines to support positive drainage.

9.6 UTILITY SUMMARY

Internal hydro services, Bell and Cogeco cable lines and gas mains for the development can be designed and constructed within a joint trench within the Subject Plan.

10.0 Conclusions and Recommendations

10.1 CONCLUSIONS

Based on the findings of this Report, it is concluded that:

- Following completion of the Township and Region improvements/capital projects rated to the Smithville SPS and Townline Rd Sanitary sewer, the proposed Phase 1 Draft Plan within Block Plan Area 9 can be adequately serviced by municipal sewage, storm drainage, water services and utilities.
- The proposed North SWMF features provides water quantity and water quality control for the proposed Phase 1 Draft Plan development.
- The proposed SWMF provides sufficient storage to attenuate post-development discharge to maintain existing target flow rates.
- SWM measures can be provided in accordance with various agency guidelines

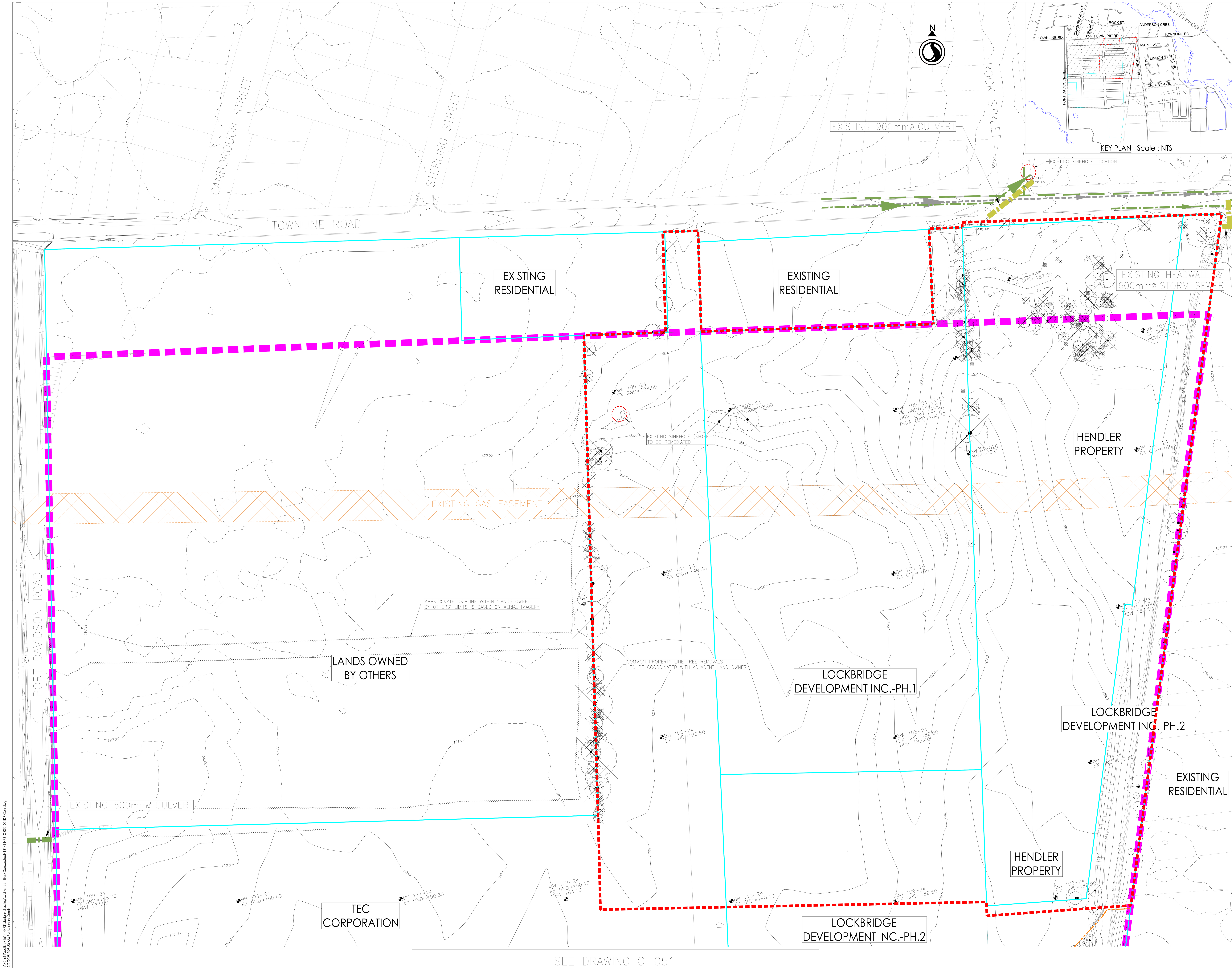
10.2 RECOMMENDATIONS

This Report be circulated to the Municipalities and various approval agencies in support of Draft Plan of Subdivision and Block Plan Approval.

Detailed grading and servicing design drawings will be prepared as well as a Final Stormwater Management Report and Erosion Settlement Control Plan will be completed once the Draft Plan of Development for has been conditionally approved to support construction and clearances for Registration.

APPENDIX A
Existing Conditions

Existing Conditions & Removals Plan, C-050
Existing Conditions & Removals Plan, C-051



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Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

Notes

1. ELEV'S ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928:1978)
BM1: CONCRETE CULVERT ALONG REGIONAL ROAD 65, 3.1 km WEST OF BISMARK, 80m EAST OF DWELLING AT 6250 REG. ROAD 65, TABLET ON TOP OF CULVERT 7.3m SW OF ROAD CENTRELINE. ELEV: 182.679
BM2: TOP OF HEADWALL AT NE OF INTERSECTION OF TOWNLINE ROAD AND ROCK STREET ELEV: 185.740
2. BLOCK PLAN PREPARED BY ARCADIS, DATED AUGUST 2024.
3. DRAFT PLAN PREPARED BY ARCADIS, DATED AUGUST 2024.
4. TOPOGRAPHICAL SURVEY PREPARED BY METROPOLITAN CONSULTING INC., DATED MAY 2022. CONTOURS OUTSIDE OF THE PROPERTY LINE, HAVE BEEN OBTAINED FROM S.W.O.O.P. TOPOGRAPHIC INFORMATION (2010).
5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Legend

PROPERTY LINE
BLOCK PLAN AREA 9 LIMIT
STAGE 1 DRAFT PLAN LIMITS
EXISTING ENBRIDGE GAS EASEMENT (APPROXIMATE LOCATION)
EXISTING DRIPLINE
EXISTING STORM SEWER
EXISTING SANITARY SEWER
EXISTING WATERMAIN (200mm UNLESS NOTED)
185.00 EXISTING CONTOUR
185.00 EXISTING CONTOUR (FROM S.W.O.O.P. 2010)
PROPOSED SLOPE (3:1 UNLESS NOTED OTHERWISE)
EXSITING TREE
IDENTIFICATION NUMBER / INSTALL YEAR
BH/MW 101-24 EX GND=187.80 HGW 291.69 BOREHOLE/MONITORING WELL (WITH GROUND ELEVATION, AND HIGH GROUND WATER ELEVATION
EXISTING SINKHOLE - (SH)SE-1 TERRA-DYNAMICS MAY 2024
REMOVALS

2.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
1.	REVISED DRAFT PLAN LIMITS AND TREE INVENTORY	SJM	KRB	2025.04.08
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KLB	2024.08.15
Revision		By	Appd	YYYY.MM.DD

File Name: 161414473_C-050_051DP-Con	WJE	WJE	SAK	2025.08.12
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

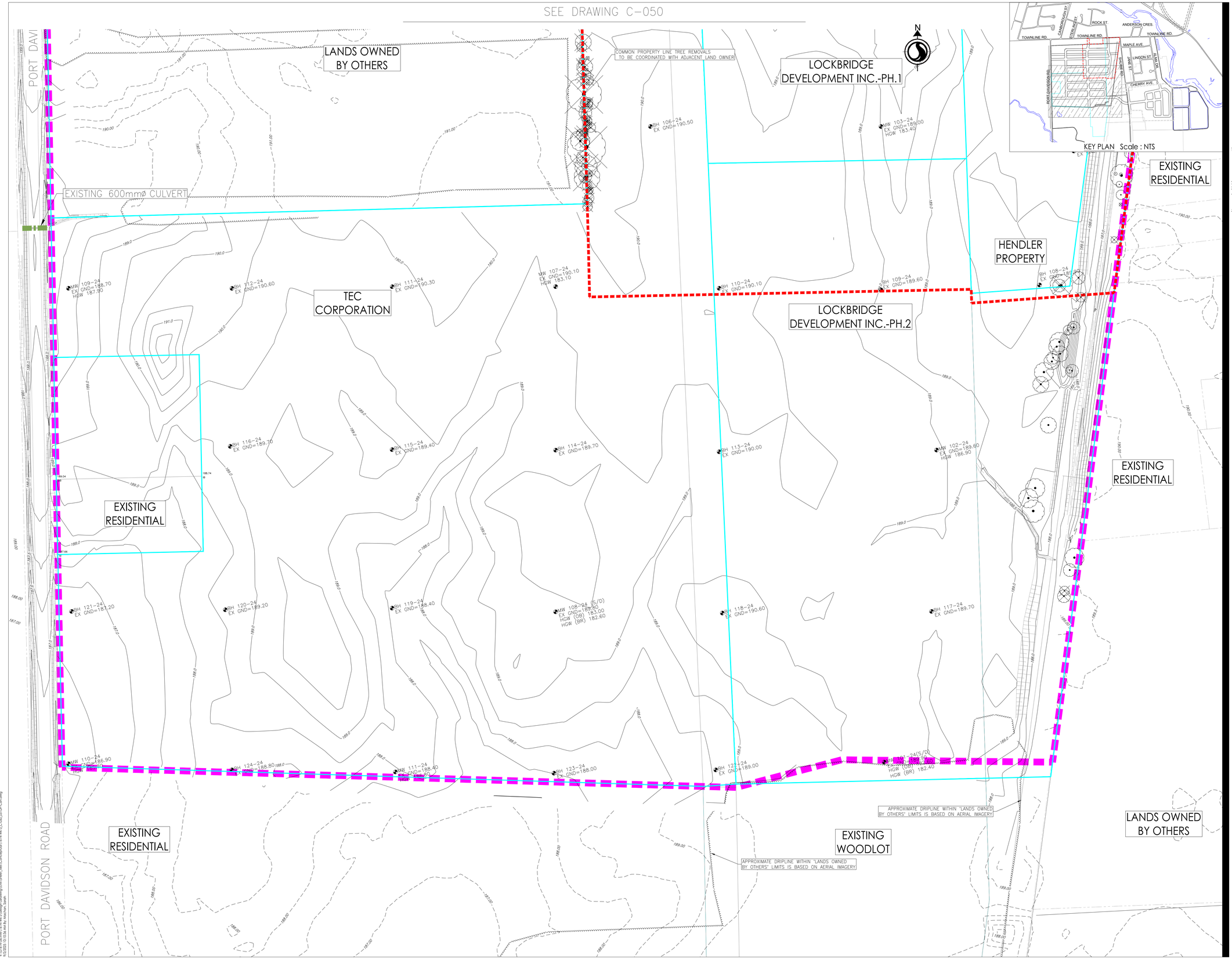
Title
EXISTING CONDITIONS & REMOVALS PLAN

Project No. 161414473
Scale 1:1000 0 10 30 50m

Revision 2

Drawing No. C-050

SEE DRAWING C-050



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5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Legend

- PROPERTY LINE
- BLOCK PLAN AREA 9 LIMIT
- STAGE 1 DRAFT PLAN LIMITS
- EXISTING ENBRIDGE GAS EASEMENT (APPROXIMATE LOCATION)
- EXISTING DRIPLINE
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN (200mm UNLESS NOTED)
- 185.00 EXISTING CONTOUR
- 185.00 EXISTING CONTOUR (FROM S.W.O.O.P. 2010)
- PROPOSED SLOPE (3:1 UNLESS NOTED OTHERWISE)
- EXISTING TREE
- BH/MW 101-24 (IDENTIFICATION NUMBER / INSTALL YEAR) EX GND=187.80 HGW 291.59 — BOREHOLE/MONITORING WELL (WITH GROUND ELEVATION, AND HIGH GROUND WATER ELEVATION)
- EXISTING SINKHOLE - (SH)SE-1 TERRA-DYNAMICS MAY 2024
- REMOVALS

Revision	By	Appd	YYYY.MM.DD
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1. REVISED DRAFT PLAN LIMITS AND TREE INVENTORY	SJM	KRB	2025.04.08
0. STAGE 1 DRAFT PLAN SUBMISSION	JH	KLB	2024.08.15
File Name: 161414473_C-050_051DP-Con	Dwn. WJE	Dsgn. WJE	Chkd. SAK	YYYY.MM.DD 2025.08.12

Permit-Seal

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
EXISTING CONDITIONS & REMOVALS PLAN

Project No. 161414473

Scale 1:1000 (0, 10, 30, 50m)

Revision 2

Drawing No. **C-051**

ORIGINAL SHEET - ARCH D

APPENDIX B
Concept Plans

Phase 1 Draft Plan of Subdivision
Southeast Smithville Block Plan Area 9

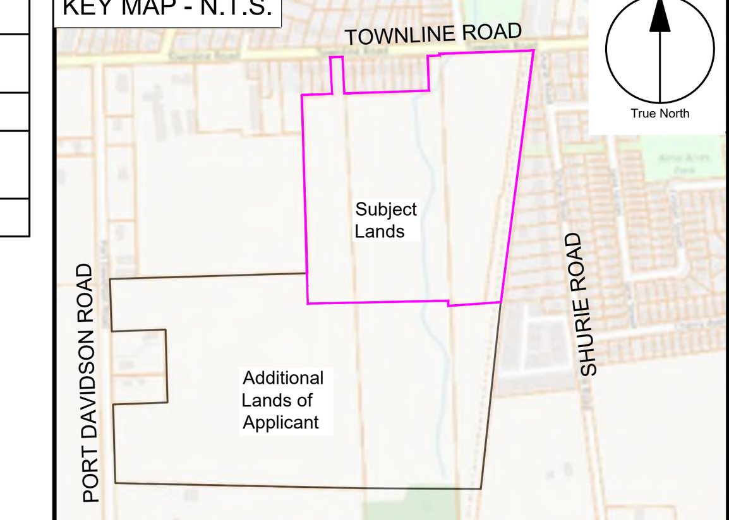
LAND USE SCHEDULE				
BLOCKS/LOTS	DESCRIPTION	AREA (ha)	AREA (Acres)	# UNITS
1 - 3, 5 - 60, 64 - 67, 70 - 146, 148 - 184	SINGLE DETACHED DWELLINGS	6.000	14.825	177
4, 61 - 63, 68, 69, 147	SEMI DETACHED DWELLINGS	0.471	1.164	14
185	TOWNHOUSE DWELLINGS	0.816	2.016	31
186	OPEN SPACE WALKWAY	0.055	0.136	
187, 188	LINKAGE	1.060	2.619	
189 - 191	STORMWATER MANAGEMENT	1.067	2.637	
192 - 196	OPEN SPACE [GAS EASEMENT]	0.585	1.446	
197	NEIGHBOURHOOD TRAIL	0.016	0.040	
198, 199	0.3m RESERVE	0.002	0.005	
200	ROAD WIDENING	0.046	0.114	
STREETS "A", "B", "C", "D", & "E"	PUBLIC R.O.W.	3.333	8.236	
TOTAL		13.451	33.238	222

NOTE:
THE FOLLOWING LOTS AND OR BLOCKS ARE JOINTLY OWNED BY LOCKBRIDGE DEVELOPMENT INC. AND TEK CORPORATION:
LOTS 87, 90, 127, 130, 164, 165, 168 AND BLOCK 189 (SWM)

DRAFT PLAN OF SUBDIVISION SMITHVILLE BLOCK 9

PART OF LOTS 31 & 32, CONCESSION 6 AND PART OF THE ROAD ALLOWANCE BETWEEN LOTS 31 & 32, GEOGRAPHIC TOWNSHIP OF GAINSBOROUGH, TOWNSHIP OF WEST LINCOLN, REGIONAL MUNICIPALITY OF NIAGARA

KEY MAP - N.T.S.



INFORMATION REQUIRED

UNDER SECTION 51 (17) OF THE PLANNING ACT, R.S.O. 1990. c.P.13 AS AMENDED
(a) - AS SHOWN
(b) - AS SHOWN
(c) - AS SHOWN
(d) - AS LISTED IN THE LAND USE SCHEDULE
(e) - AS SHOWN
(f) - AS SHOWN
(f.1) - AS SHOWN
(g) - AS SHOWN
(h) - MUNICIPAL WATER
(i) - LACUSTRINE SILTY/HEAVY CLAY
(j) - AS SHOWN
(k) - MUNICIPAL SANITARY AND STORM SEWERS
(l) - GAS EASEMENT

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

SIGNED [signature]
ROY S. KIRKUP, ONTARIO LAND SURVEYOR
J.D. BARNES LIMITED
DATE Aug 14, 2024

OWNER'S CERTIFICATE

I HEREBY CONSENT TO THE FILING OF THIS PLAN BY ARCADIS, IN DRAFT FORM.

SIGNED [signature]
DON MANSON
LOCKBRIDGE DEVELOPMENT INC.
DATE Aug 12 2024
SIGNED [signature]
JUDY HENDLER
DATE Aug 12 2024

No.	DESCRIPTION	DATE
02	2nd DPS SUBMISSION	2025-07-14
01	1st DPS SUBMISSION	2024-08-13

DRAWING ISSUE RECORD

APPROVALS

ARCADIS
360 James Street North - Suite 200
Hamilton ON L8L 1H5 Canada
tel 905 546 1010
www.arcadis.com

SCALE 15 0 10 20 40
1:1000 (m)

PROJECT NO: 144262
DRAWN BY: M. ROJAS
CHECKED BY: J. MARCUS
PROJECT MGR: J. MARCUS
APPROVED BY: C. JANDU
SHEET TITLE: DRAFT PLAN OF SUBDIVISION
SHEET NUMBER: DPS1.0
ISSUE: 02

File Location: J:\144262_Block_Plan_A\7.0_Production\7.03_Design\17_Planning\Sheets\144262DP Concept 1-C-2025-07-07.dwg Last Saved: July 14, 2025, by marcusj8708 Plotted: July 14, 2025 3:48:29 PM by Marcus, Jared

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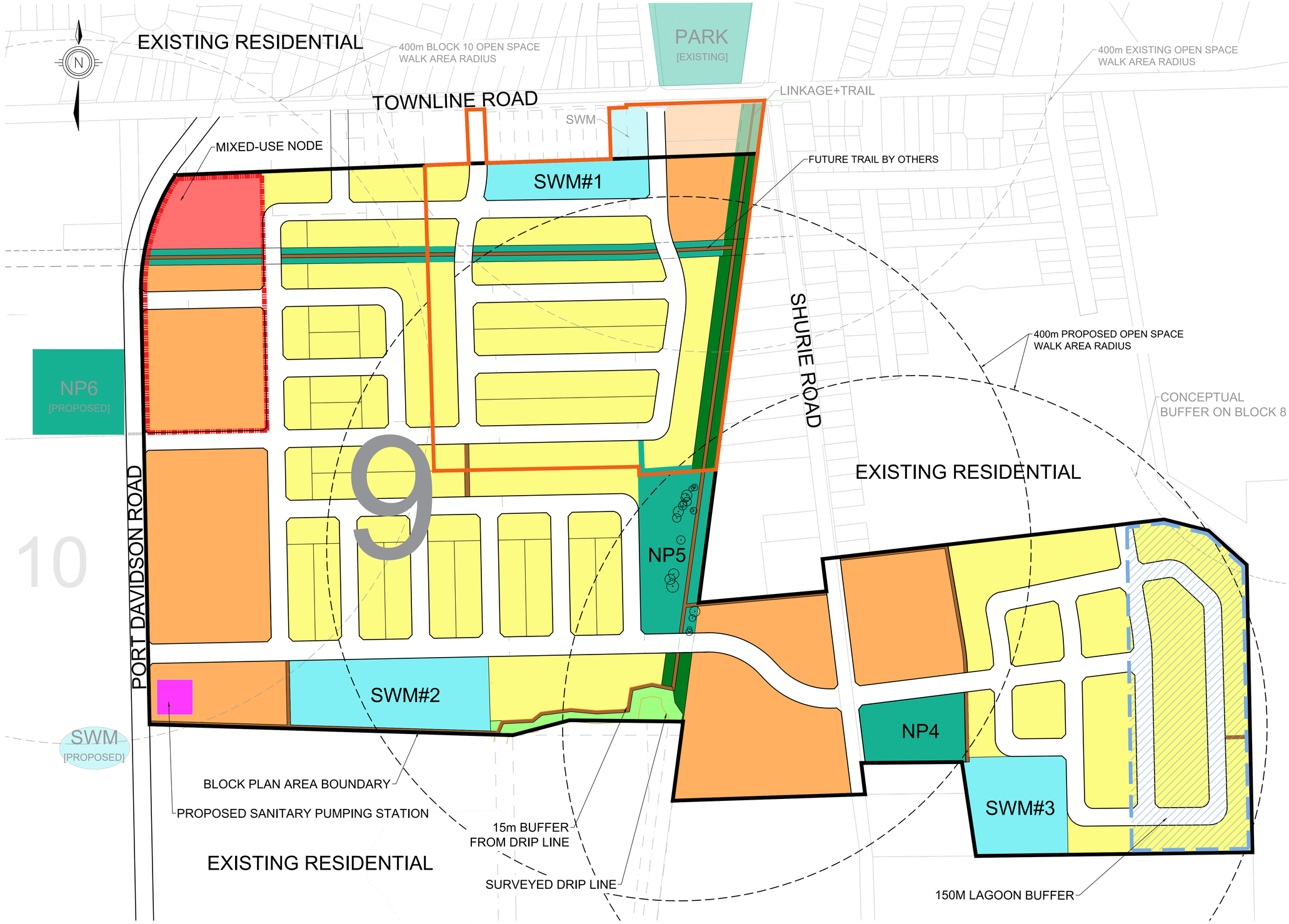

DEVELOPMENT DETAILS		
LAND USE	AREA	PERCENTAGE
LOW DENSITY RESIDENTIAL (LDR)	±23.97ha (59.23 acres)	±56.03%
MEDIUM DENSITY RESIDENTIAL (MDR)	±12.45ha (30.76 acres)	±29.10%
COMMERCIAL	±1.02ha (2.52 acres)	±2.38%
LINKAGE	±1.10ha (2.72 acres)	±2.57%
NATURAL FEATURES AND 15M BUFFER	±0.45 ha (1.11 acres)	±1.05%
OPEN SPACE PARKLANDS	±3.37ha (8.33 acres)	±7.87%
FUTURE ACTIVE TRANSPORTATION/TRAILS OUTSIDE OF LINKAGE AREAS, PARK, AND GAS EASEMENT	0.42ha (1.04 acres)	±0.98%
NET DEVELOPABLE AREA TOTAL	±42.78ha (105.71 acres)	±100%
SWM	±3.86ha (9.54 acres)	
R.O.W	±14.25ha (35.21 acres)	
TOTAL LAND AREA	±60.89ha (150.46 acres)	

NET LAND USE DENSITIES	UNITS
±59.23 acres of LDR @ 8 upa	474 units
±30.76 acres of MDR @ 15 upa	461 units
TOTAL UNITS	935 units
POPULATION 935 units @ 2.7ppu	2,524 persons

DEVELOPMENT DETAILS - PHASE 1		
LAND USE	AREA	PERCENTAGE
LOW DENSITY RESIDENTIAL (LDR)	±6.12ha (15.12 acres)	68.30%
MEDIUM DENSITY RESIDENTIAL (MDR)	±1.15ha (2.84 acres)	12.83%
PARKS AND OPEN SPACE	±0.59ha (1.46 acres)	6.58%
LINKAGE	±1.09ha (2.69 acres)	12.16%
FUTURE ACTIVE TRANSPORTATION/TRAILS OUTSIDE OF LINKAGE AREAS, PARK, AND GAS EASEMENT	±0.016ha (0.04 acres)	0.18%
NET DEVELOPABLE AREA	±8.96ha (22.14 acres)	100%
SWM	±1.07ha (2.64 acres)	
R.O.W	±3.39ha (8.38 acres)	
TOTAL LAND AREA	±13.43ha (33.18 acres)	

NET LAND USE DENSITIES - PHASE 1	UNITS
±15.12 acres of LDR @ 8 upa	121 units
±2.84 acres of MDR @ 15 upa	42 units
TOTAL UNITS	163 units
POPULATION 163 units @ 2.7ppu	440 persons

LEGEND

- BLOCK PLAN AREA 9
- LOW DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- COMMERCIAL
- PARKLAND / OPEN SPACE/ NP4 . NP5
- LINKAGE - PARKLAND / TRAILS
- NATURAL FEATURES AND 15M DRIPLINE [WOODLOT]
- PROPOSED S.W.M. FACILITY
- LAGOON BUFFER
- FUTURE ACTIVE TRANSPORTATION/TRAILS 4M WIDE
- MIXED-USE NODE
- 400M RADIUS PROPOSED OPEN SPACE WALK AREA
- 400M RADIUS (OUTSIDE OF BLOCK 9 AREA) OPEN SPACE WALK AREA
- DRAFT PLAN AREA - PHASE 1

ARCADIS
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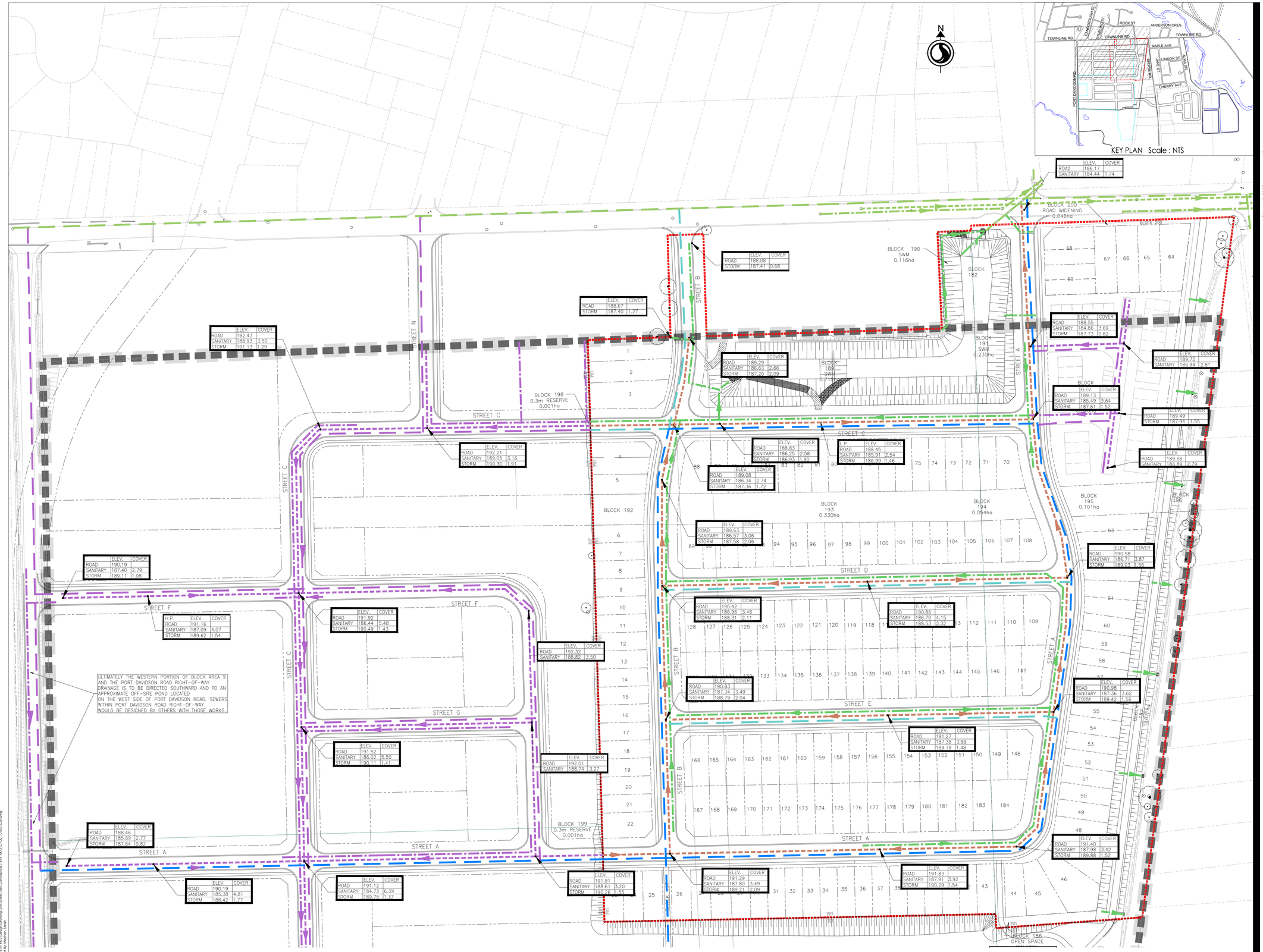
SOUTHEAST SMITHVILLE
BLOCK PLAN AREA 9
(SCHEDULE "E-10" SMITHVILLE MCP, AS REVISED)

SCALE	1:2000
DATE	August 22, 2025
PROJECT No.	144262

APPENDIX C
Engineering Drawings

Preliminary Servicing Plan, C-100
Preliminary Servicing Plan, C-101
Preliminary Servicing Plan, C-102
Conceptual Road Profiles - Streets A & B, C-200
Conceptual Road Profiles - Streets C, D, E & N, C-201
Conceptual Road Profiles - Streets F, G, H, I & J, C-202
Conceptual Road Profiles - Streets K, L & M, C-203
Conceptual Road Profiles - Streets W, X & Z, C-204
Conceptual Grading Plan, C-400
Conceptual Grading Plan, C-401
Conceptual Grading Plan, C-402
Conceptual Cut/Fill Plan, C-900
Conceptual Cut/Fill Plan, C-901
Conceptual Cut/Fill Plan, C-902



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Notes

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5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Legend

- PROPERTY LINE
- EXISTING URBAN BOUNDARY
- BLOCK 3A LIMIT
- BLOCK PLAN AREA 9 LIMIT
- STAGE 1 DRAFT PLAN LIMITS
- EXISTING ENBRIDGE GAS EASEMENT (APPROXIMATE LOCATION)
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- FUTURE STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY SEWER TRUNK
- FUTURE SANITARY SEWER
- EXISTING WATERMAIN (200mm UNLESS NOTED)
- PROPOSED WATERMAIN (200mm UNLESS NOTED)
- PROPOSED 300mm WATERMAIN
- FUTURE WATERMAIN (200mm UNLESS NOTED)
- PROPOSED SLOPE (3:1 UNLESS NOTED OTHERWISE)

LP	ELEV.	COVER
ROAD	300.82	
STORM	297.88	2.8
SANITARY	297.11	3.4

ROAD STATUS (LP = LOW POINT, HP = HIGH POINT)
ROAD ELEVATION
COVER OVER SEWER (TO OBVERT)
SEWER OBVERT ELEVATION

1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD

File Name: 161414473_C-100_101UG-Con	WJE	WJE	SAK	2025.08.28
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

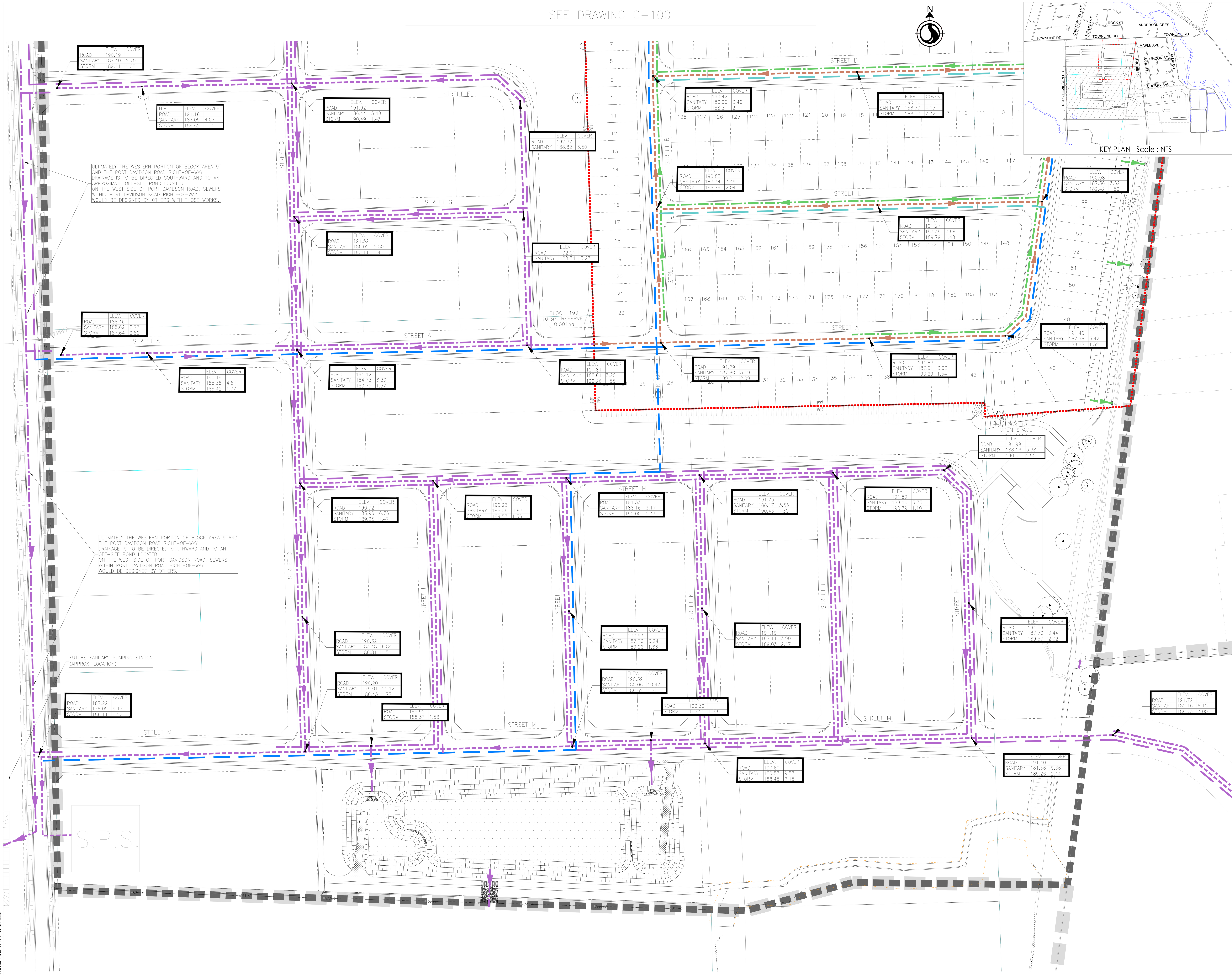
Title
PRELIMINARY SERVICING PLAN

Project No. 161414473

Scale 1:1000 (0 10 30 50m)

Revision 1

Drawing No. **C-100**



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9/16/2025 11:53:57 AM By: Machan, Sarah

ORIGINAL SHEET - ARCH D

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

Notes

1. ELEV'S ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928:1978)
   BM1: CONCRETE CULVERT ALONG REGIONAL ROAD 65, 3.1 km WEST OF BISMARK, 80m EAST OF DWELLING AT 6250 REG. ROAD 65, TABLET ON TOP OF CULVERT 7.3m SW OF ROAD CENTRELINE. ELEV: 182.679
   BM2: TOP OF HEADWALL AT NE OF INTERSECTION OF TOWNLINE ROAD AND ROCK STREET ELEV: 185.740
2. BLOCK PLAN PREPARED BY ARCADIS, DATED AUGUST 2024.
3. DRAFT PLAN PREPARED BY ARCADIS, DATED AUGUST 2024.
4. TOPOGRAPHICAL SURVEY PREPARED BY METROPOLITAN CONSULTING INC., DATED MAY 2022. CONTOURS OUTSIDE OF THE PROPERTY LINE, HAVE BEEN OBTAINED FROM S.W.O.O.P. TOPOGRAPHIC INFORMATION (2010).
5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Legend

- PROPERTY LINE
- EXISTING URBAN BOUNDARY
- BLOCK 3A LIMIT
- BLOCK PLAN AREA 9 LIMIT
- STAGE 1 DRAFT PLAN LIMITS
- EXISTING ENBRIDGE GAS EASEMENT (APPROXIMATE LOCATION)
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- FUTURE STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY SEWER TRUNK
- FUTURE SANITARY SEWER
- EXISTING WATERMAIN (200mm UNLESS NOTED)
- PROPOSED WATERMAIN (200mm UNLESS NOTED)
- PROPOSED 300mm WATERMAIN
- FUTURE WATERMAIN (200mm UNLESS NOTED)
- PROPOSED SLOPE (3:1 UNLESS NOTED OTHERWISE)

LP	ELEV.	COVER
ROAD	300.82	
STORM	297.88	2.8
SANITARY	297.11	3.4

ROAD STATUS (LP = LOW POINT HP = HIGH POINT)
ROAD ELEVATION
COVER OVER SEWER (TO OBVERT)
SEWER OBVERT ELEVATION

		By	Appd	YYYY.MM.DD
1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15

Revision

File Name: 161414473_C-100_101UG-Con	WJE	WJE	SAK	2025.08.28
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
PRELIMINARY SERVICING PLAN

Project No.
161414473

Scale
1:1000 0 10 30 50m

Revision
1

Drawing No.
C-101

SEE DRAWING C-101

	ELEV.	COVER
ROAD	191.40	
SANITARY	187.98	3.42
STORM	189.88	1.52

	ELEV.	COVER
ROAD	191.59	
SANITARY	187.70	3.44
STORM	189.67	2.02

	ELEV.	COVER
ROAD	191.72	
SANITARY	182.16	8.15
STORM	188.73	3.00

	ELEV.	COVER
ROAD	191.40	
SANITARY	181.56	9.36
STORM	189.26	2.14

	ELEV.	COVER
ROAD	190.12	
SANITARY	183.24	6.18
STORM	187.87	2.24

	ELEV.	COVER
ROAD	189.08	
SANITARY	185.26	3.82
STORM	187.54	1.55

	ELEV.	COVER
ROAD	188.53	
SANITARY	184.59	3.94
STORM	186.89	1.64

	ELEV.	COVER
ROAD	188.17	
SANITARY	185.01	3.16
STORM	186.64	1.53

	ELEV.	COVER
ROAD	189.96	
SANITARY	186.51	3.45
STORM	188.34	1.62

	ELEV.	COVER
ROAD	189.16	
SANITARY	185.95	3.21
STORM	187.65	1.51

	ELEV.	COVER
ROAD	189.34	
SANITARY	185.97	3.37
STORM	187.72	1.62

	ELEV.	COVER
ROAD	188.50	
SANITARY	185.72	2.78
STORM	187.00	1.50

	ELEV.	COVER
ROAD	190.35	
SANITARY	187.28	3.07
STORM	188.82	1.53

H.P.	ELEV.	COVER
ROAD	191.24	
SANITARY	188.48	2.76

	ELEV.	COVER
ROAD	190.23	
SANITARY	187.41	2.82
STORM	188.69	1.54

FUTURE SWM FACILTIY

STREET Z

STREET M

STREET X

STREET W

STREET Y

KEY PLAN Scale : NTS

Notes

1. ELEV'S ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928:1978)
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   BM2: TOP OF HEADWALL AT NE OF INTERSECTION OF TOWNLINE ROAD AND ROCK STREET ELEV: 185.740
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5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Legend

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- BLOCK PLAN AREA 9 LIMIT
- STAGE 1 DRAFT PLAN LIMITS
- EXISTING ENBRIDGE GAS EASEMENT (APPROXIMATE LOCATION)
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- FUTURE STORM SEWER
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- PROPOSED SANITARY SEWER TRUNK
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ROAD	300.82	
STORM	297.88	2.8
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ROAD ELEVATION
COVER OVER SEWER (TO OBVERT)
SEWER OBVERT ELEVATION

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Tel: (519) 579-4410
www.stantec.com

1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD

File Name: 161414473_C-100_101UG-Con	WJE	WJE	SAK	2025.08.28
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

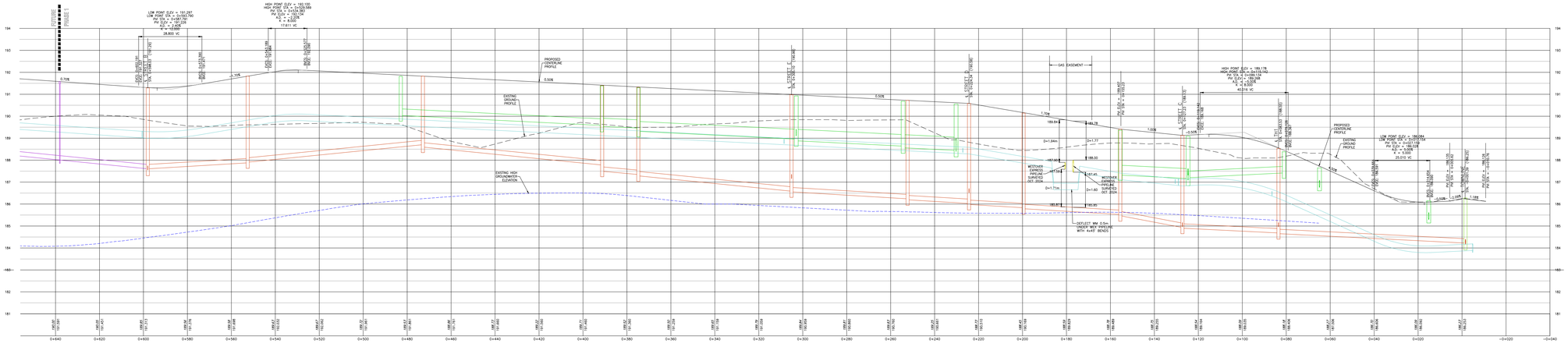
Title
PRELIMINARY SERVICING PLAN

Project No.
161414473

Scale
1:1000 (0, 10, 30, 50m)

Revision
1

Drawing No.
C-102



STREET A

STREET B

Stantec

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Notes

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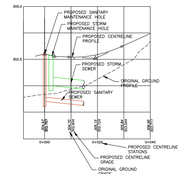
5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.



1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD

File Name: 161414473_C-200ST-Con	WJE	WJE	SAK	2025.09.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

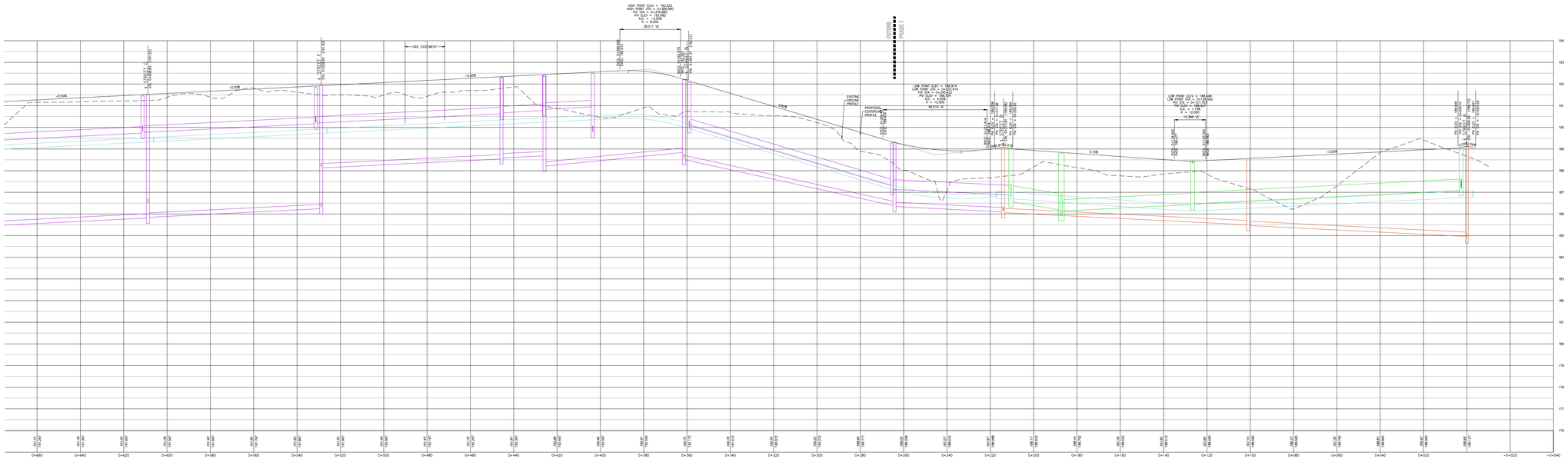
Title
CONCEPTUAL ROAD PROFILES
STREETS A & B

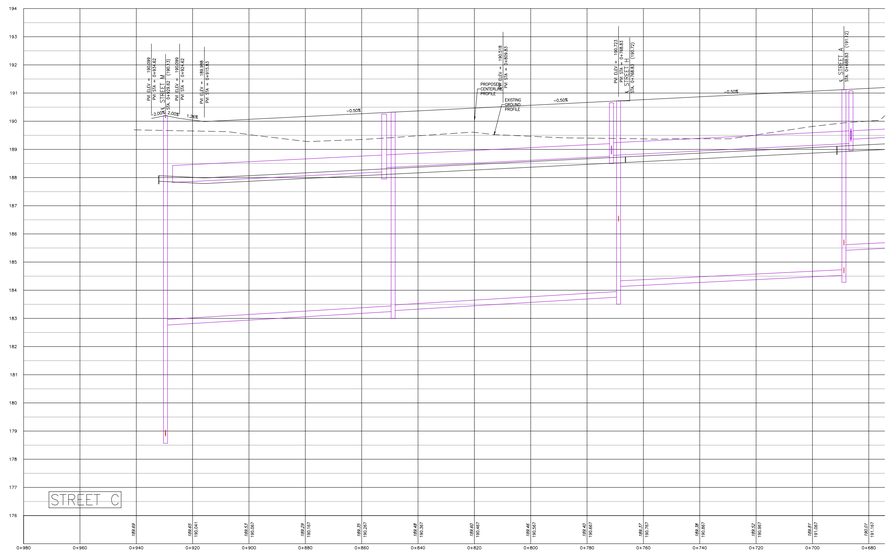
Project No.
161414473

Scale
1:1000H 0 10 30 50m
1:100V 0 1 3 5m

Revision
1

Drawing No.
C-200





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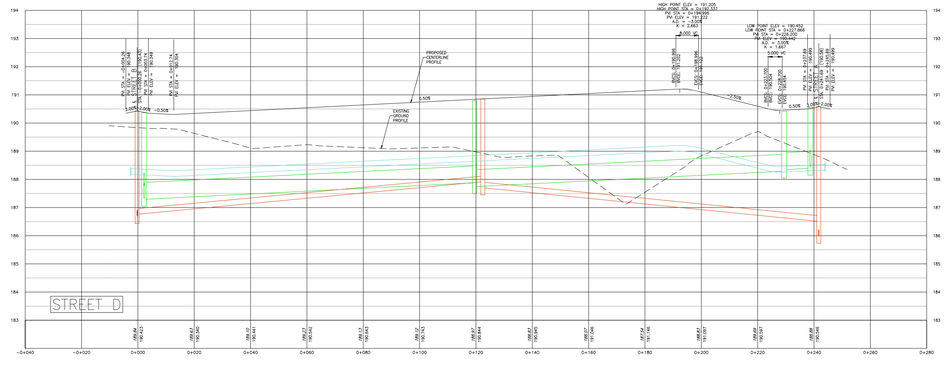

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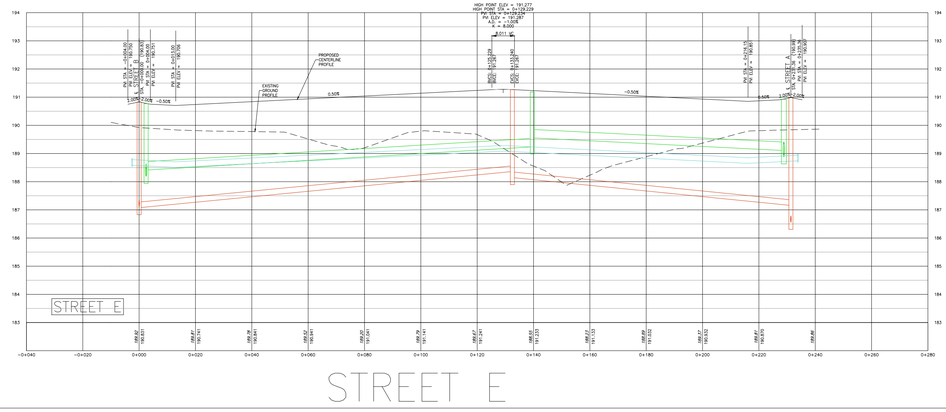

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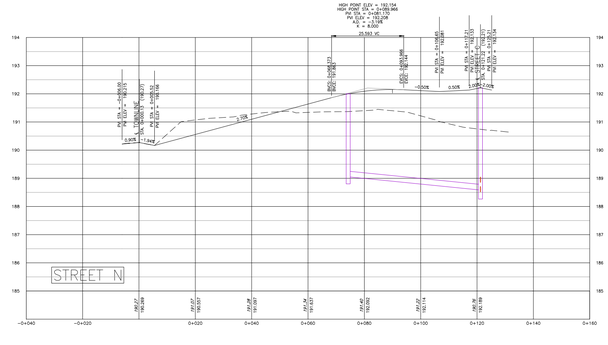

STREET N

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ORIGINAL SHEET - ARCH D

Stantec

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Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

Notes

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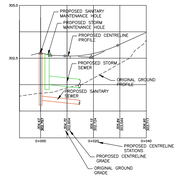
5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.



1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD
File Name: 161414473_C-201ST-Con		WJE	WJE	SAK 2025.06.24
		Dwn.	Dsgn.	Chkd. YYYY.MM.DD

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

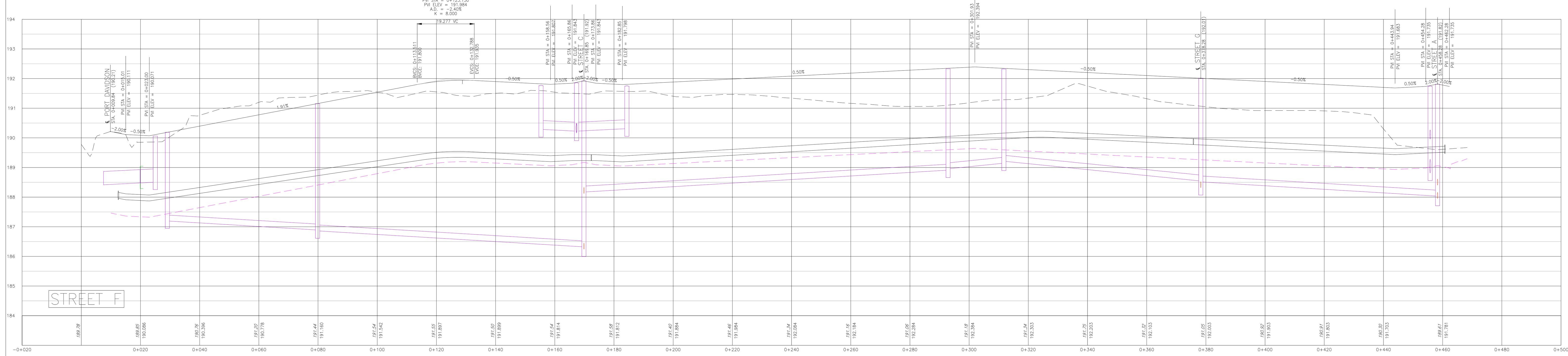
Title
CONCEPTUAL ROAD PROFILES
STREET C, D, E & N

Project No.
161414473

Scale
1:1000H 0 10 30 50m
1:100V 0 1 3 5m

Revision
1

Drawing No.
C-201



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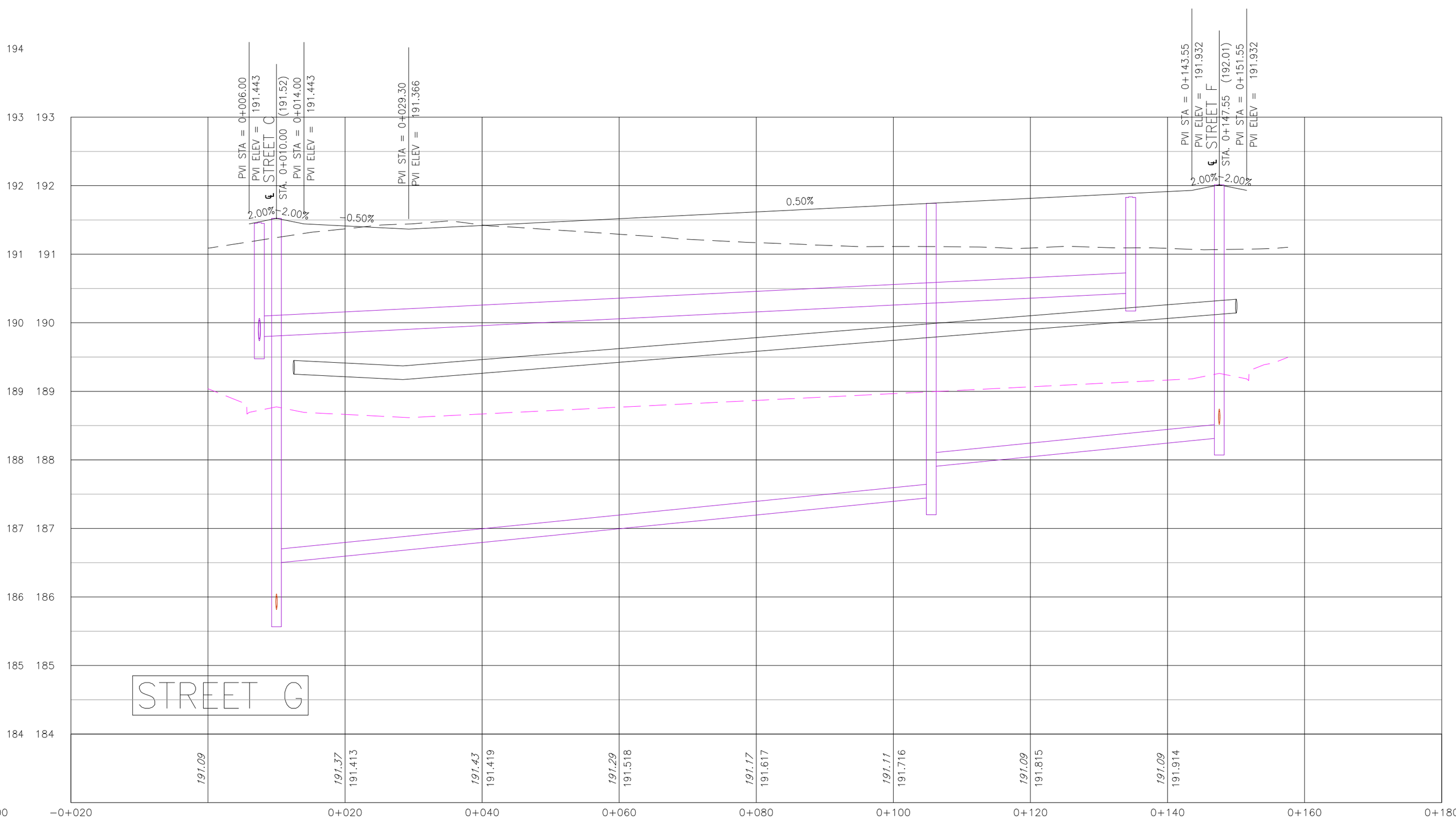
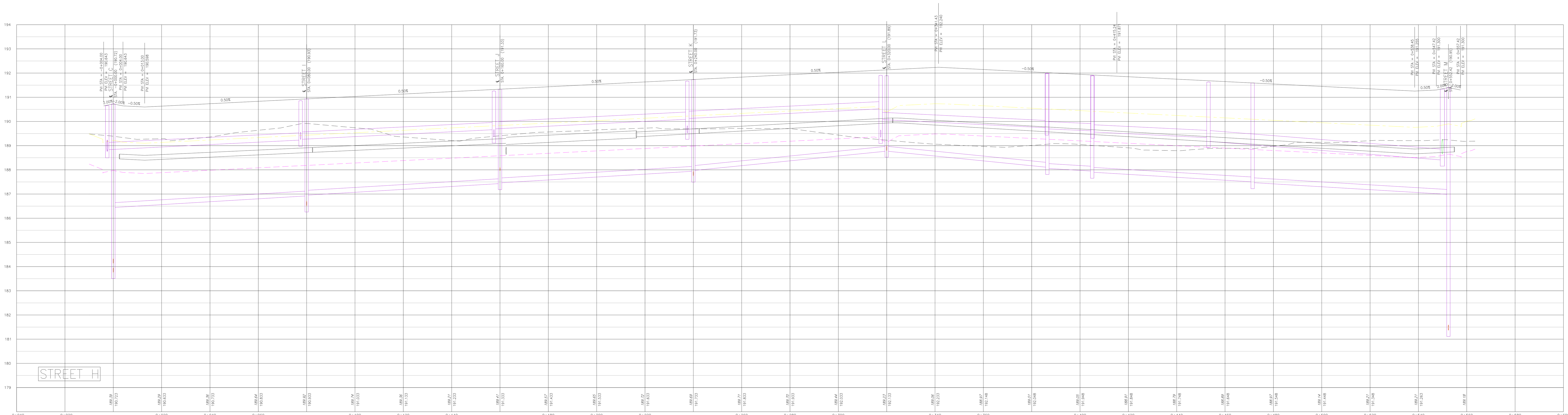
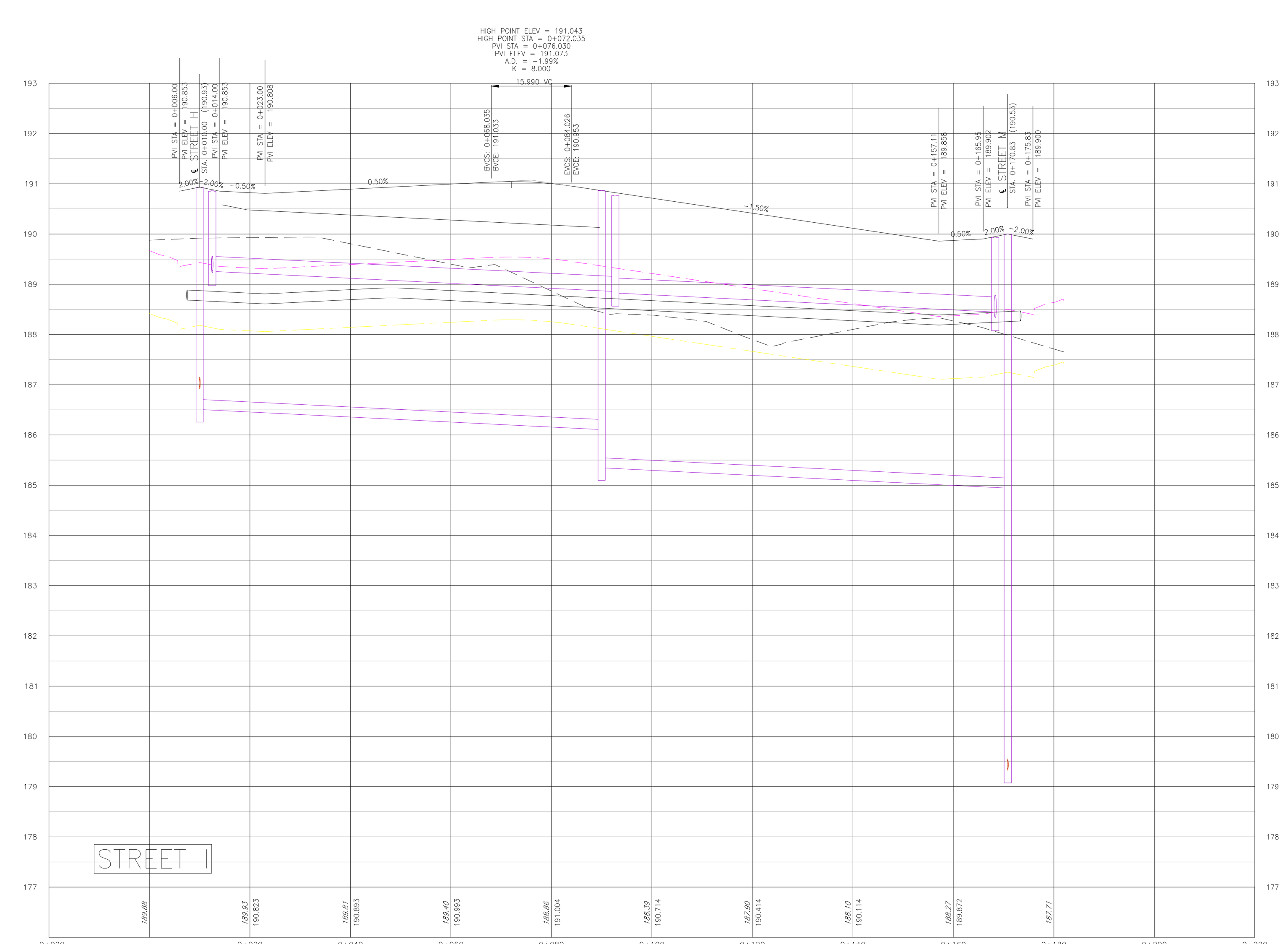


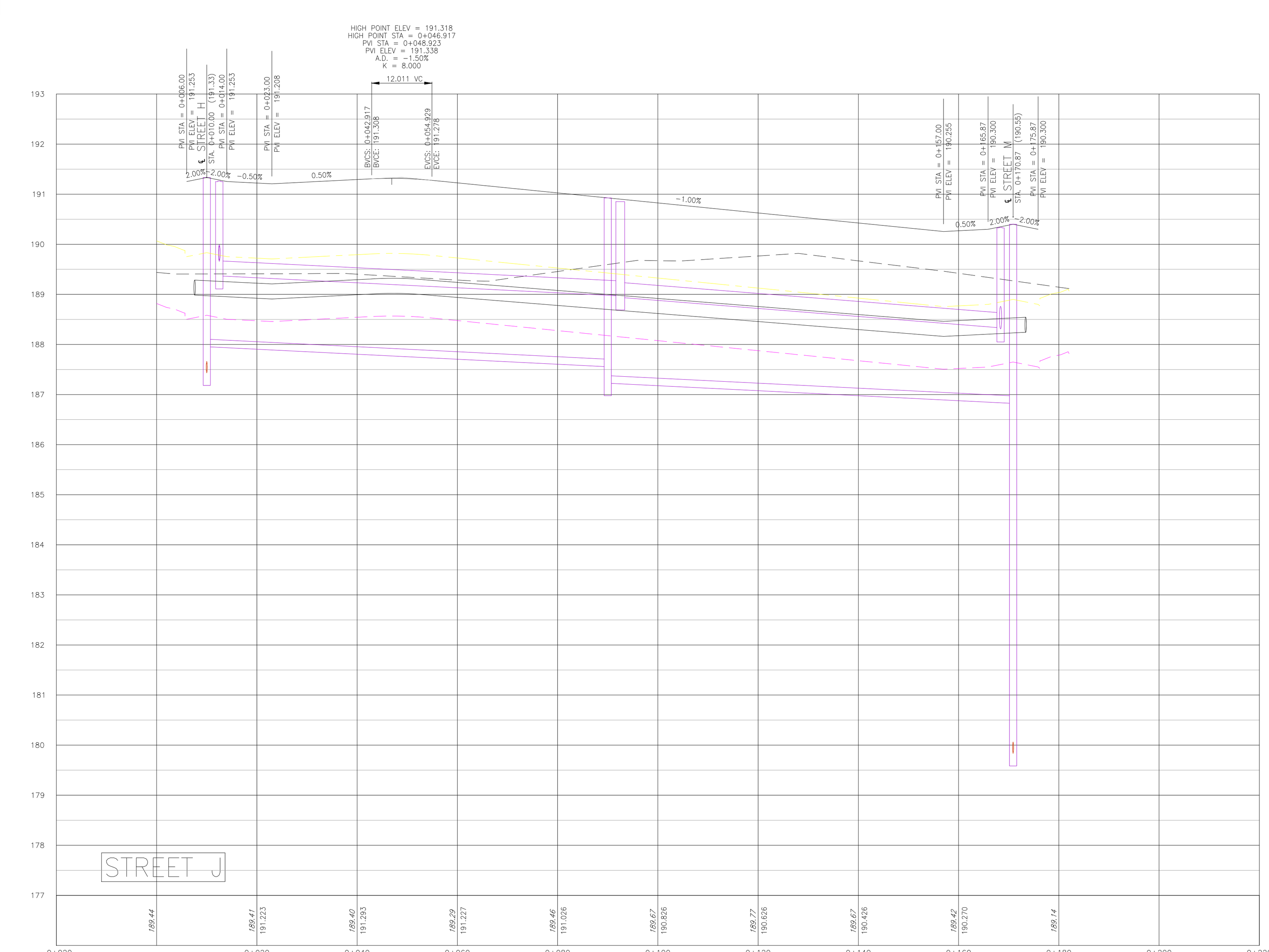
STREET G



STREET H



STREET I



STREET J

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

Notes

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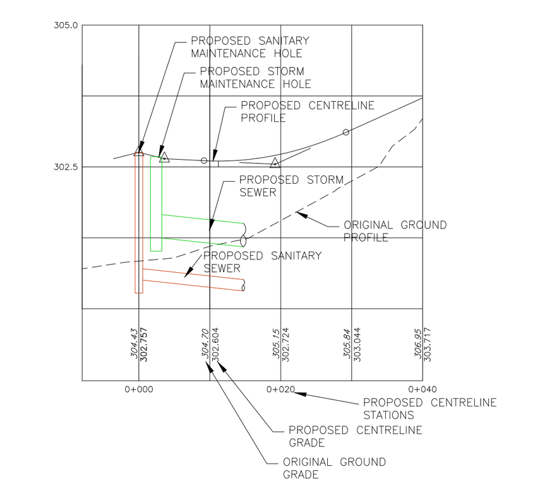
5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.



1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD

File Name: 161414473_C-202ST-Con	WJE	WJE	SAK	2025.07.10
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

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PRELIMINARY
NOT FOR
CONSTRUCTION

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

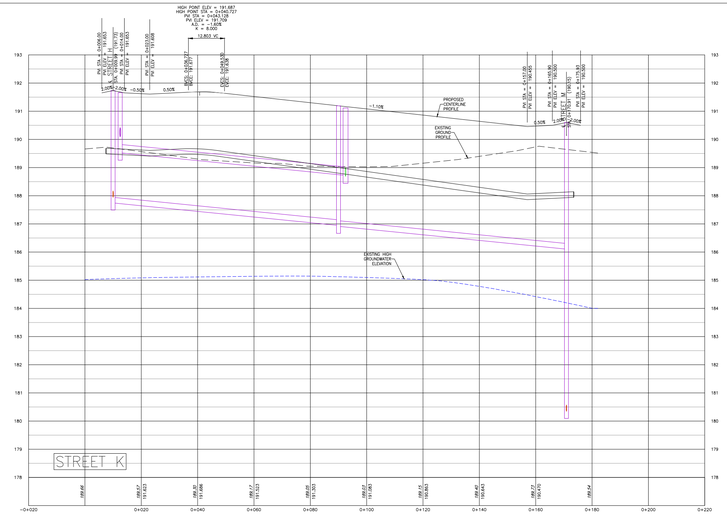
Title
CONCEPTUAL ROAD PROFILES
STREETS F, G, H, I & J

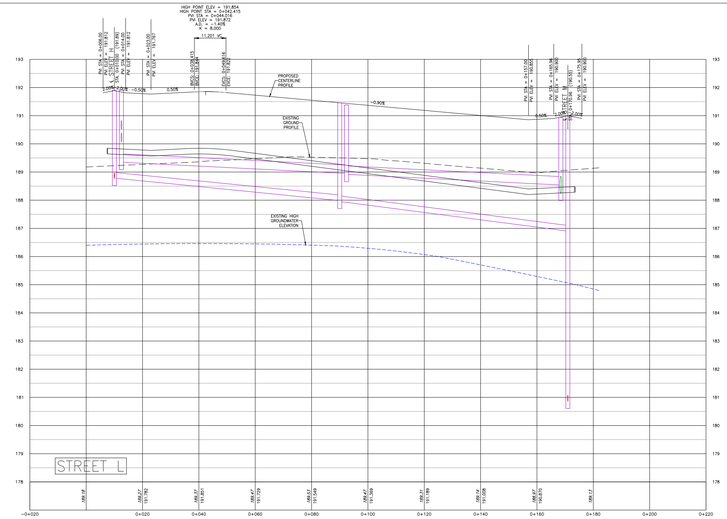
Project No.
161414473

Scale
1:1000H 0 10 30 50m
1:100V 0 1 3 5m

Revision
1

Drawing No.
C-202





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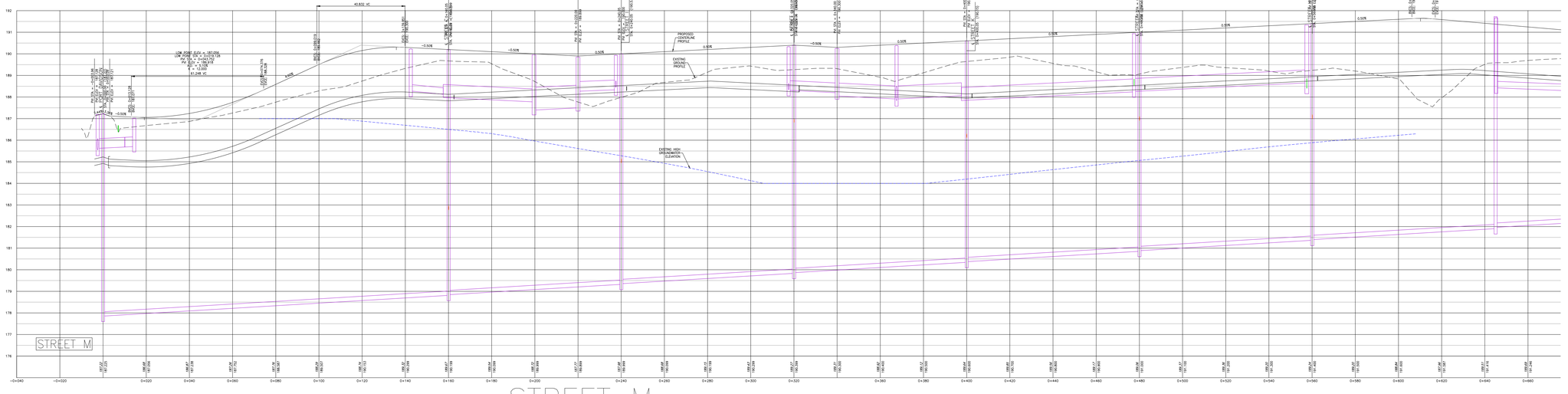
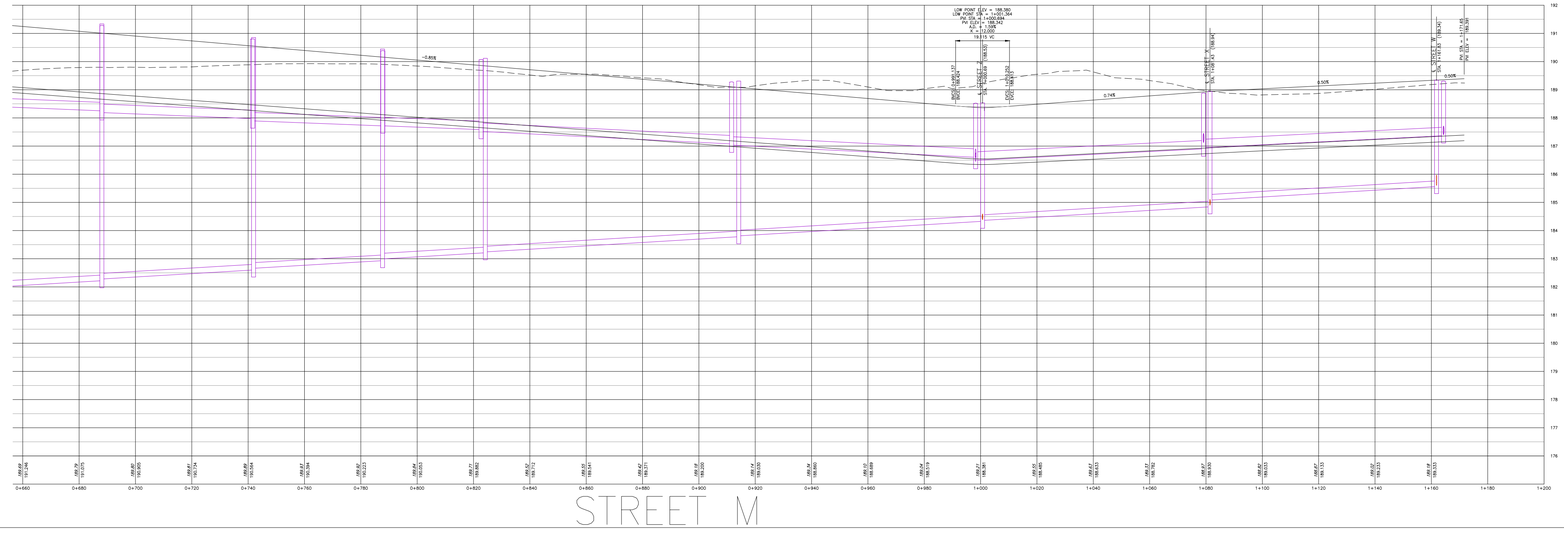
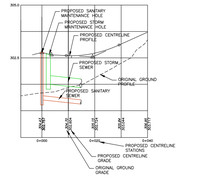


STREET L

STREET M





Stantec

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Tel: (519) 579-4410
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Notes

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5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Revision	By	Appd	YYYY.MM.DD
1. REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0. STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15

File Name: 161414473_C-203ST-Con	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	WJE	WJE	SAK	2025.08.15

Permit-Seal

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

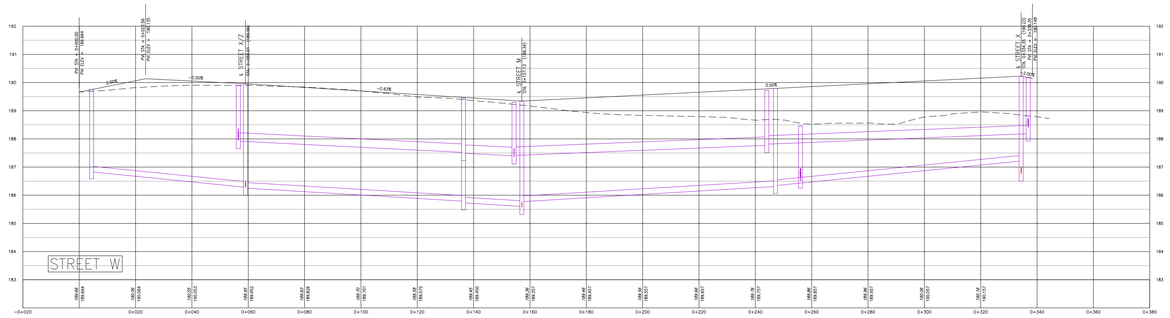
Title
CONCEPTUAL ROAD PROFILES
STREETS K, L & M

Project No. 161414473

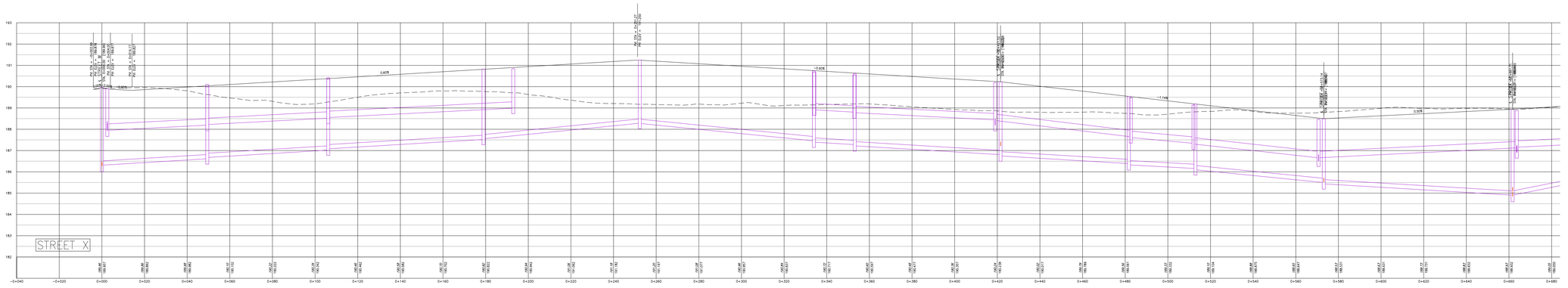
Scale 1:1000H, 1:100V

Revision 1

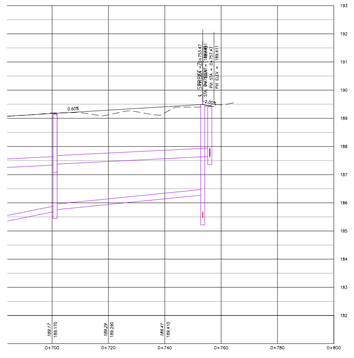
Drawing No. **C-203**



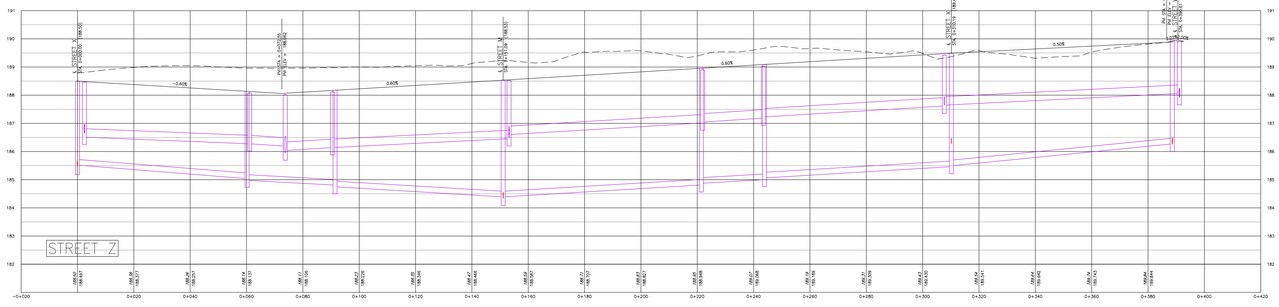
STREET W



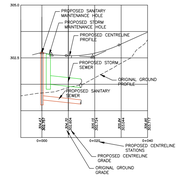
STREET X



STREET X



STREET Z



Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

Notes

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   BM1: CONCRETE CULVERT ALONG REGIONAL ROAD 65, 3.1 km WEST OF BISMARK, 80m EAST OF DWELLING AT 6250 REG. ROAD 65, TABLET ON TOP OF CULVERT 7.3m SW OF ROAD CENTRELINE. ELEV: 182.679
   BM2: TOP OF HEADWALL AT NE OF INTERSECTION OF TOWNLINE ROAD AND ROCK STREET ELEV: 185.740
2. BLOCK PLAN PREPARED BY ARCADIS, DATED AUGUST 2024.
3. DRAFT PLAN PREPARED BY ARCADIS, DATED AUGUST 2024.
4. TOPOGRAPHICAL SURVEY PREPARED BY METROPOLITAN CONSULTING INC., DATED MAY 2022. CONTOURS OUTSIDE OF THE PROPERTY LINE, HAVE BEEN OBTAINED FROM S.W.O.O.P. TOPOGRAPHIC INFORMATION (2010).
5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD

File Name: 161414473_C-204ST-Con	WJE	WJE	SAK	2025.07.18
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
CONCEPTUAL ROAD PROFILES
STREETS W, X & Z

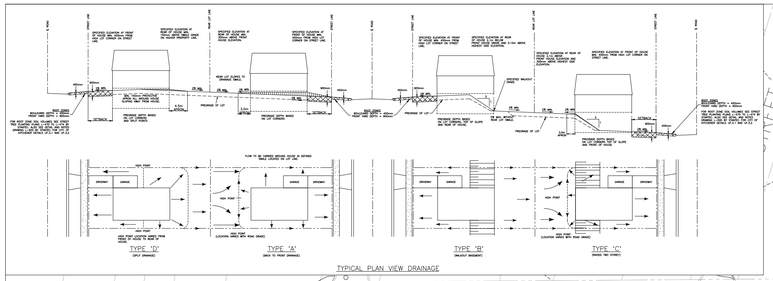
Project No.
161414473

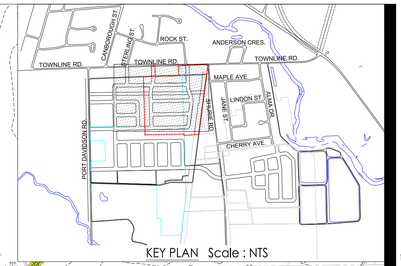
Scale
1:1000H 0 10 30 50m
1:100V 0 1 3 5m

Revision
1

Drawing No.
C-204

ORIGINAL SHEET - ARCH D





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5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Legend

- PROPERTY LINE
- EXISTING URBAN BOUNDARY
- BLOCK 3A LIMIT
- BLOCK AREA 9 LIMIT
- STAGE 1 DRAFT PLAN LIMITS
- RESTORATION AREA
- EXISTING ENBRIDGE GAS EASEMENT (APPROXIMATE LOCATION)
- EXISTING DRIPLINE (SURVEYED BY STANTEC AND REVIEWED BY CITY/REGION JULY 6, 2022)
- STANTEC 5.0m DRIPLINE SETBACK
- 180.75 (EX) — EXISTING ELEVATION
- 181.25 — PROPOSED ELEVATION
- 2.0% 2.0% — FLOW DIRECTION AND GRADE
- 185.00 — EXISTING CONTOUR
- 185.00 — EXISTING CONTOUR (FROM S.W.O.O.P. 2010)
- PROPOSED SLOPE (3:1 UNLESS NOTED OTHERWISE)
- OVERLAND FLOW DIRECTION
- EXISTING OVERLAND FLOW DIRECTION
- FUT. OVERLAND FLOW DIRECTION
- EXISTING TREE
- (HP)/(LP) — HIGH POINT/LOW POINT LOCATION (IDENTIFICATION NUMBER — INSTALL YEAR)
- BH/MW 101-21 — BOREHOLE/MONITORING WELL (WITH GROUND ELEVATION, AND HIGH GROUND WATER ELEVATION)
- A/D/WO — PROPOSED UNIT TYPE (BACK TO FRONT/SPLIT/WALKOUT)

1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD
File Name: 161414473_C-400GP		WJE	WJE	SAK 2025.08.15
		Dwn.	Dsgn.	Chkd. YYYY.MM.DD

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
CONCEPTUAL GRADING PLAN

Project No. 161414473

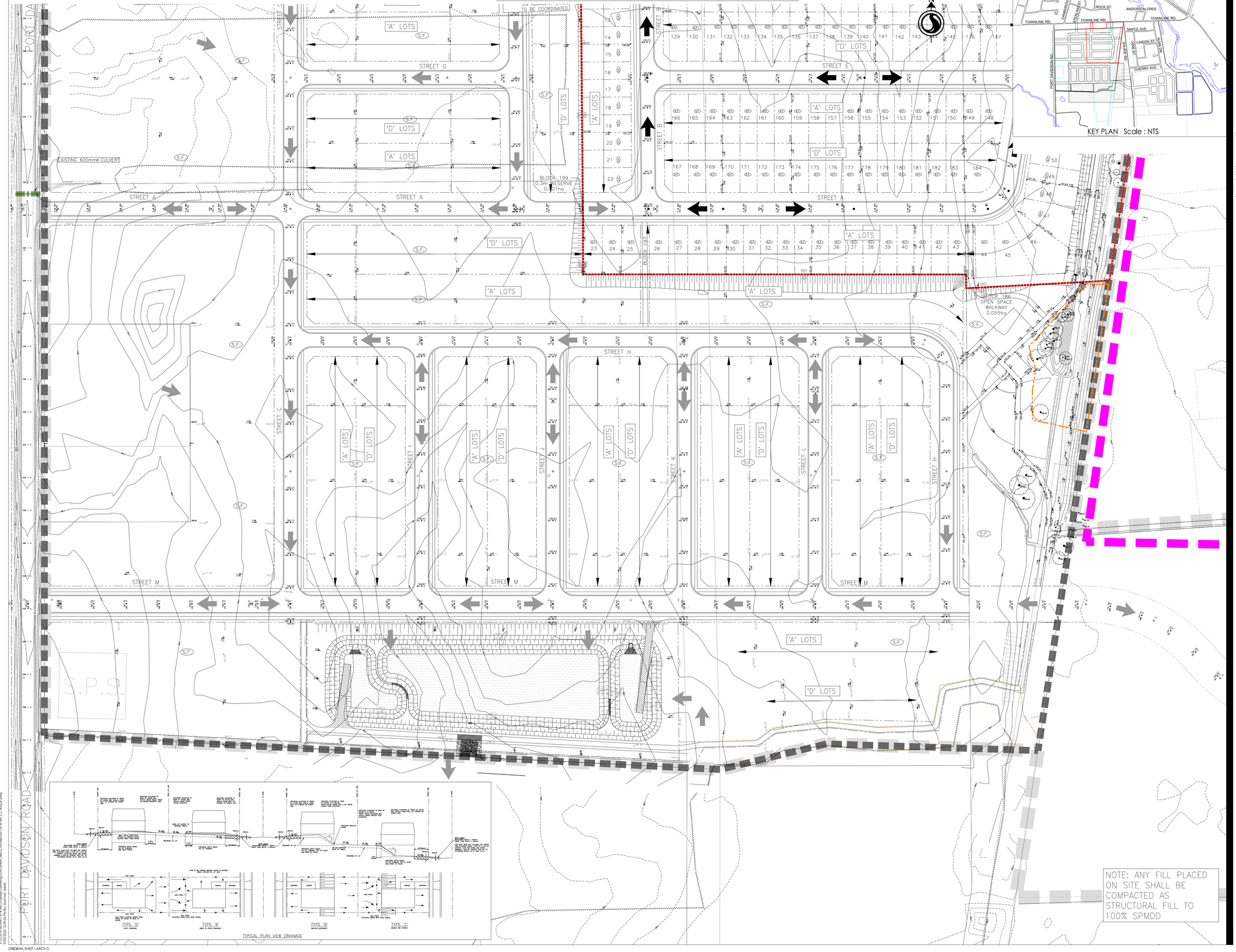
Scale 1:1000 (0, 10, 30, 50m)

Revision 1

Drawing No. **C-400**

ORIGINAL SHEET - ARCH D

SEE DRAWING C-400



KEY PLAN Scale : NTS

TYPICAL PLAN VIEW DRAINAGE

Notes

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Legend

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- EXISTING TREE
- (HP)/(LP) — HIGH POINT/LOW POINT LOCATION
- BH/MW 101-24 (IDENTIFICATION NUMBER / INSTALL YEAR) — BOREHOLE/MONITORING WELL (WITH GROUND ELEVATION, AND HIGH GROUND WATER ELEVATION)
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No.	Revision	By	Appd	YYYY.MM.DD
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0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15

File Name: 161414473_C-400GP	WJE	WJE	SAK	2025.08.15
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
CONCEPTUAL GRADING PLAN

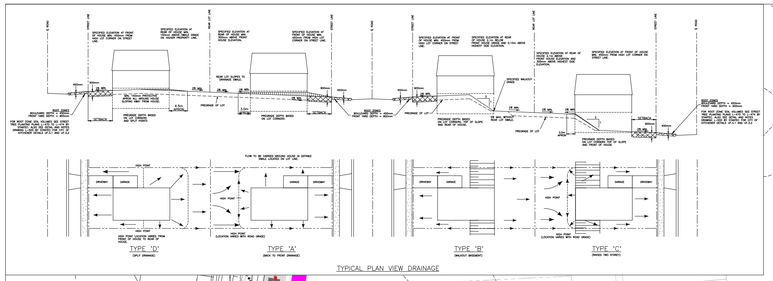
Project No.
161414473

Scale 1:1000 (0 10 30 50m)

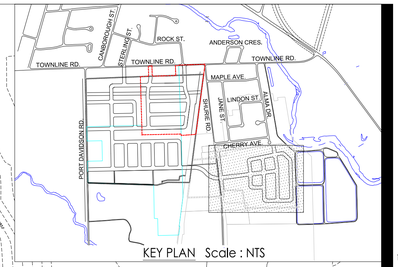
Revision
1

Drawing No.
C-401

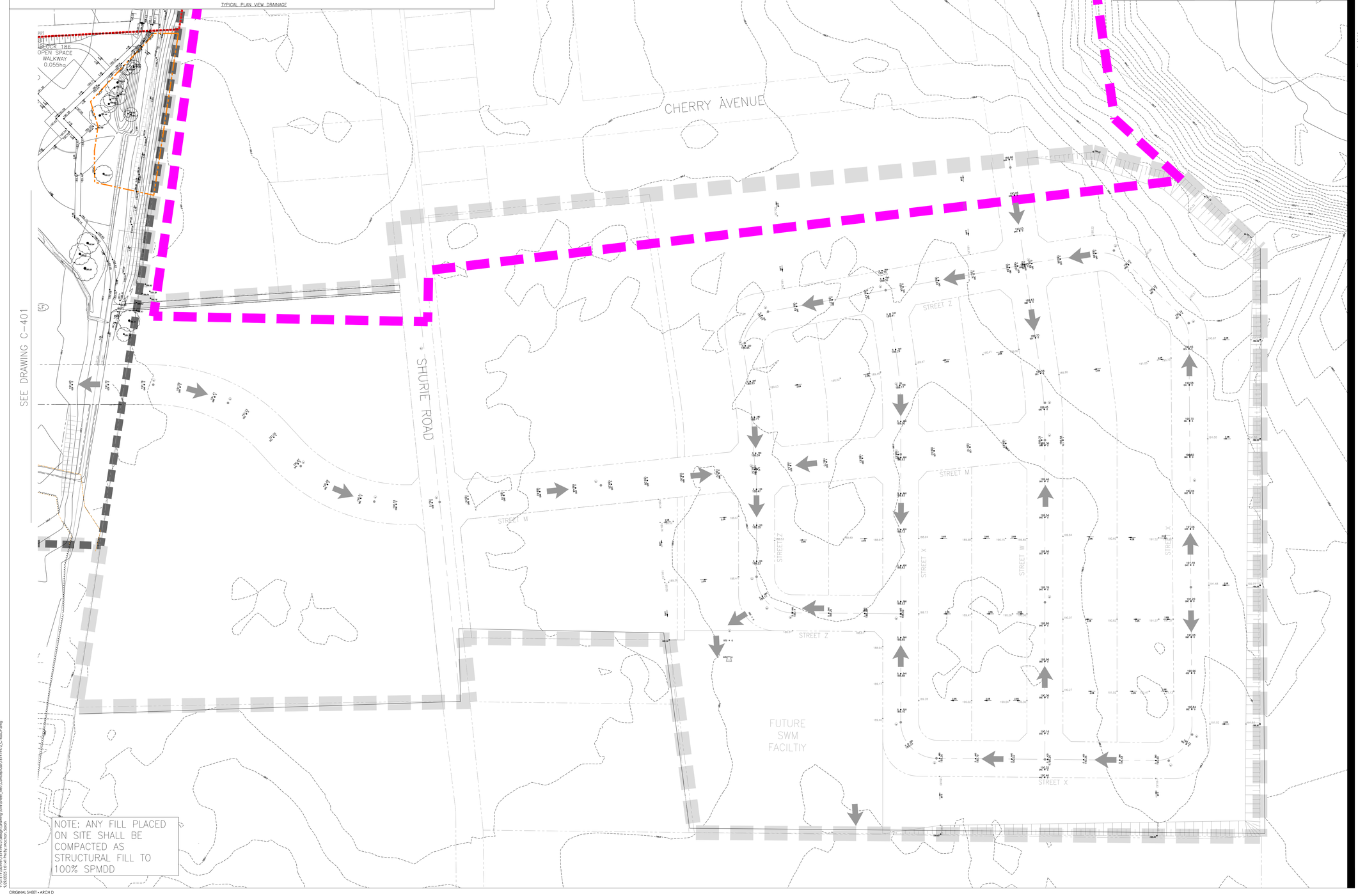
ORIGINAL SHEET - ARCH D



TYPICAL PLAN VIEW DRAINAGE



KEY PLAN Scale : NTS



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0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD
File Name:	161414473_C-400GP	WJE	WJE	SAK 2025.08.15
		Dwn.	Dsgn.	Chkd. YYYY.MM.DD

Permit-Seal

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
CONCEPTUAL GRADING PLAN

Project No. 161414473

Scale 1:1000 (0, 10, 30, 50m)

Revision 1

Drawing No. **C-402**

ORIGINAL SHEET - ARCH D

EARTHWORKS

Smithville 3A Subdivision

NOTES

1 Results from modelling dated July 25, 2025
2 Negative number indicates shortage of material.
3 Lockbridge/Ph1&Ph2, LOBO = Lands Owned By Others, EXT_SB=External Lands to the Southeast
4 Geotech Report (Stantec) to across site =0-66% bump to 0.50m, assumed PG 0.7m & 0.9m

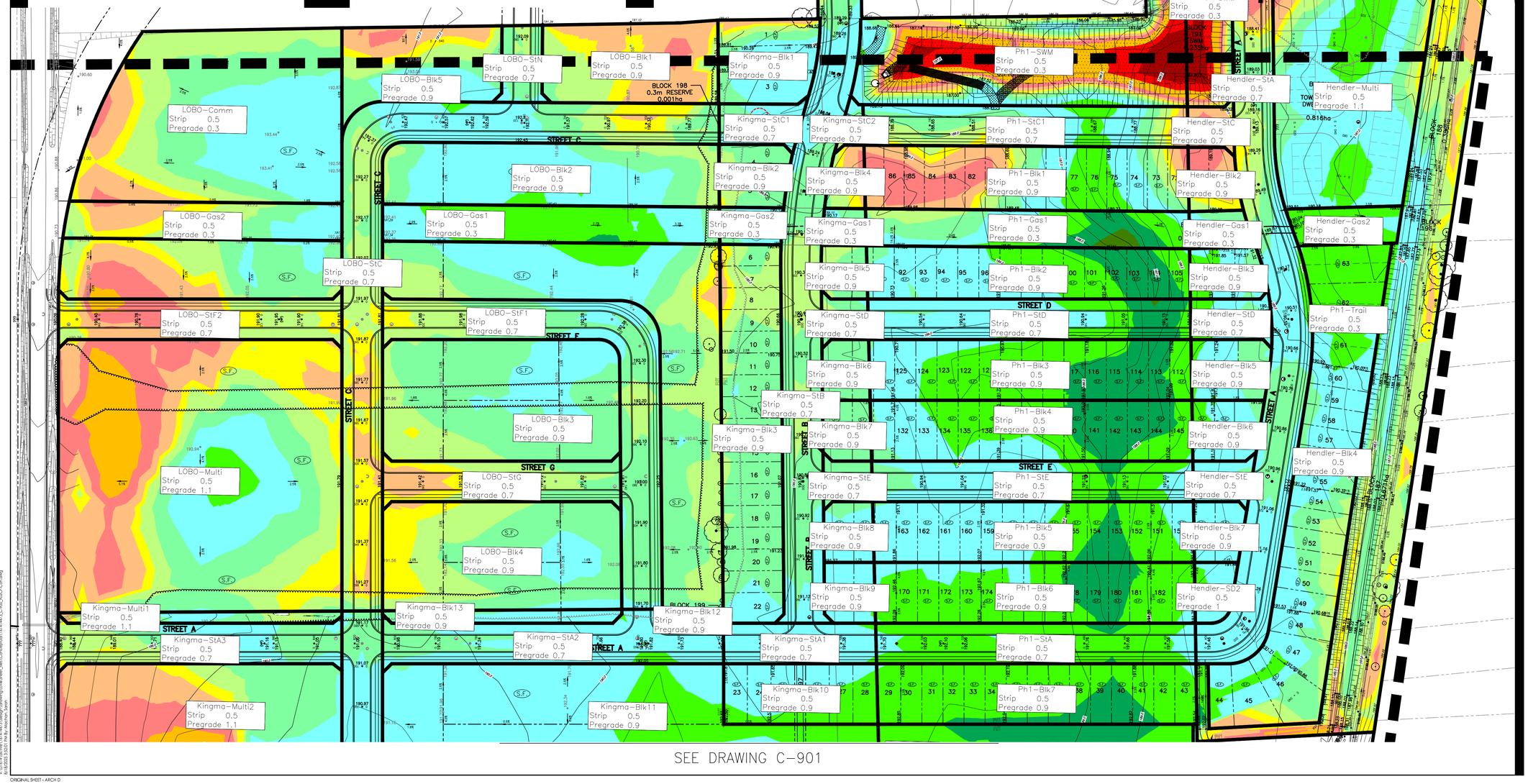
Allowance for Shrinkage on Compaction **10%**

Area ID	Area	Depth	TOPSOIL Stripping	Restoration	Balance	Prograde Depth	EARTHWORKS Cut	Fill	Balance
								Earth	Topsoil
	m2	m	m3	m3	m3	m	m3	m3	m3
Ph1-Blk1	3,049	0.50	2,032	908	1,814	0.90	95	4,259	(3,278)
Ph1-Blk2	4,075	0.50	2,037	733	1,304	0.90	0	9,296	(9,296)
Ph1-Blk3	4,767	0.50	2,383	858	1,525	0.90	0	13,136	(13,136)
Ph1-Blk4	4,755	0.50	2,378	857	1,523	0.90	0	12,416	(12,416)
Ph1-Blk5	4,737	0.50	2,369	853	1,516	0.90	0	12,580	(12,580)
Ph1-Blk6	4,737	0.50	2,369	854	1,516	0.90	0	12,580	(12,580)
Ph1-Blk7	4,702	0.50	2,351	846	1,505	0.90	0	13,751	(13,751)
Ph1-Gas1	1,918	0.50	1,459	875	584	0.30	0	6,269	(6,269) (0)
Ph1-StA	3,154	0.50	1,577	284	1,293	0.70	0	7,956	(7,956)
Ph1-StC1	3,295	0.50	1,560	288	1,312	0.70	49	3,163	(3,114)
Ph1-StD	3,162	0.50	1,581	286	1,305	0.70	0	6,814	(6,814)
Ph1-StE	3,168	0.50	1,584	285	1,299	0.70	0	6,165	(6,165)
Ph1-SWM	8,300	0.50	4,150	2,490	1,660	0.30	8,833	2,761	2,761 8,833
Ph1-Trail	11,690	0.50	5,845	5,564	2,276	0.30	181	5,762	5,762 681
Ph2-Blk1	6,780	0.50	2,380	857	1,523	0.90	0	14,191	(14,191)
Ph2-Blk2	7,334	0.50	3,667	1,320	2,347	0.90	0	15,138	(15,138)
Ph2-Blk3	8,348	0.50	4,174	1,503	2,671	0.90	0	19,239	(19,239)
Ph2-Multi	3,253	0.50	1,627	586	1,041	0.90	2,878	3,719	(841)
Ph2-Open	1,240	0.50	1,117	558	1,117	0.30	0	0	0 0
Ph2-StA	7,262	0.50	2,923	653	2,187	0.70	0	15,841	(15,841)
Ph2-StL	2,841	0.50	1,420	256	1,165	0.70	0	5,404	(5,404)
Ph2-SWM	4,626	0.50	2,313	416	1,894	0.30	0	6,466	(6,466)
Hendler-Blk1	2,191	0.50	657	394	263	0.90	1,426	17	1,389
Hendler-Blk2	790	0.50	375	135	240	0.90	244	17	227
Hendler-Blk3	910	0.50	455	164	291	0.90	0	1,636	(1,636)
Hendler-Blk4	8,582	0.50	4,291	1,545	2,746	0.90	69	12,792	(12,726)
Hendler-Blk5	1,139	0.50	569	205	364	0.90	0	1,650	(1,650)
Hendler-Blk6	966	0.50	483	177	315	0.90	0	1,637	(1,637)
Hendler-Blk7	719	0.50	360	129	230	0.90	0	1,187	(1,187)
Hendler-Gas1	541	0.50	270	162	108	0.30	0	719	719 0
Hendler-Gas2	974	0.50	487	292	195	0.30	0	3,588	2,068 (1,520)
Hendler-SD1	1,104	0.50	552	119	434	1.00	0	0	0 0
Hendler-SD2	1,506	0.50	753	158	595	1.00	857	1,060	(203)
Hendler-Multi	8,167	0.50	4,084	4,079	979	3.100	1,193	149	12,526 (12,377)
Hendler-StA	7,966	0.50	3,983	717	3,266	0.70	522	7,795	(7,273)
Hendler-StC	877	0.50	439	43	196	0.70	213	3	209
Hendler-StD	815	0.50	407	73	334	0.70	0	1,287	(1,287)
Hendler-StE	595	0.50	298	54	244	0.70	0	758	(758)
Hendler-SWM	2,348	0.50	1,174	704	470	0.30	4,013	364	364 4,013
Kingma-Blk1	1,904	0.50	965	358	637	0.90	28	2,169	(2,141)
Kingma-Blk2	1,051	0.50	526	189	336	0.90	0	657	(657)
Kingma-Blk3	5,566	0.50	2,783	1,008	1,775	0.90	15	4,048	(4,033)
Kingma-Blk4	533	0.50	266	96	170	0.90	80	61	19
Kingma-Blk5	586	0.50	293	105	187	0.90	0	389	(389)
Kingma-Blk6	689	0.50	344	124	220	0.90	0	585	(585)
Kingma-Blk7	702	0.50	351	126	224	0.90	0	1,027	(649)
Kingma-Blk8	758	0.50	379	137	242	0.90	0	927	(927)
Kingma-Blk9	737	0.50	369	133	236	0.90	0	1,258	(1,258)
Kingma-Blk10	2,264	0.50	1,132	407	724	0.90	0	4,710	(4,710)
Kingma-Gas1	389	0.50	195	117	78	0.30	0	398	398 0
Kingma-Gas2	563	0.50	282	169	113	0.30	0	658	658 (0)
Kingma-StA1	1,506	0.50	753	136	617	0.70	0	2,361	(2,361)
Kingma-StB	7,332	0.50	3,666	660	3,006	0.70	174	5,612	(5,438)
Kingma-StC1	824	0.50	412	74	338	0.70	0	1,028	(1,028)
Kingma-StC2	228	0.50	114	21	94	0.70	2	125	(123)
Kingma-StD	479	0.50	239	43	196	0.70	0	322	(322)
Kingma-StE	502	0.50	251	45	206	0.70	0	436	(436)
Kingma-Stx	2,389	0.50	8,196	2,230	3,965	0.90	0	22,755	(22,755)
Kingma-Blk12	201	0.50	100	36	64	0.90	0	295	(295)
Kingma-Blk13	743	0.50	372	134	238	0.90	0	924	(924)
Kingma-Blk14	5,360	0.50	4,180	1,505	2,675	0.90	0	15,668	(15,668)
Kingma-Blk15	5,360	0.50	4,180	1,505	2,675	0.90	0	17,254	(17,254)
Kingma-Blk16	5,360	0.50	4,180	1,505	2,675	0.90	0	15,696	(15,696)
Kingma-Blk17	1,025	0.50	513	185	328	0.90	0	1,592	(1,592)
Kingma-Multi1	760	0.50	380	91	289	1.10	0	536	(536)
Kingma-Multi2	20,064	0.50	10,032	2,408	7,624	1.10	4,605	11,362	(6,757)
Kingma-Multi3	10,707	0.50	5,354	1,285	4,069	1.10	8,307	1	8,307
Kingma-Multi4	10,751	0.50	5,376	1,290	4,086	1.10	813	4,932	(4,186)
Kingma-StA2	3,544	0.50	1,772	319	1,453	0.70	0	5,247	(5,247)
Kingma-StA3	2,836	0.50	1,418	255	1,163	0.70	1	2,402	(2,402)
Kingma-StC	4,941	0.50	2,471	444	2,027	0.70	0	6,923	(4,909)
Kingma-StF1	5,040	0.50	2,520	453	2,067	0.70	0	5,040	(2,973)
Kingma-StF	2,841	0.50	1,420	256	1,165	0.70	0	5,747	(5,747)
Kingma-SU	2,841	0.50	1,420	256	1,165	0.70	0	5,247	(3,965)
Kingma-StK	2,841	0.50	1,420	256	1,165	0.70	0	4,813	(4,813)
Kingma-StM	9,039	0.50	4,517	813	3,704	0.70	0	9,956	(9,800)
Kingma-SWM	19,600	0.50	9,800	5,880	3,920	0.30	32,990	2,205	2,205 32,990
LOBO-Blk1	3,402	0.50	1,701	612	1,089	0.90	102	374	196
LOBO-Blk2	5,097	0.50	2,548	917	1,631	0.90	0	7,327	(7,327)
LOBO-Blk3	9,346	0.50	4,674	1,683	2,991	0.90	21	9,249	(9,228)
LOBO-Blk4	9,291	0.50	3,145	1,132	2,013	0.90	30	4,170	(4,141)
LOBO-Blk5	2,999	0.50	1,498	539	959	0.90	242	2,044	(1,803)
LOBO-Comm	10,180	0.50	5,090	1,222	3,868	0.30	954	8,440	(8,086)
LOBO-Gas1	1,941	0.50	1,535	767	639	0.30	0	7,158	7,158 0
LOBO-Gas2	2,911	0.50	1,346	712	466	0.30	162	5,136	1,139 3,997
LOBO-StB	5,681	0.50	2,840	511	2,329	0.70	0	4,713	(4,370)
LOBO-StC	5,297	0.50	4,144	746	3,398	0.70	132	4,937	(4,578)
LOBO-StF1	5,297	0.50	2,649	477	2,172	0.70	1	4,054	(4,053)
LOBO-StF2	2,838	0.50	1,419	255	1,163	0.70	729	306	421
LOBO-StG	2,391	0.50	1,196	215	981	0.70	99	765	(667)
LOBO-StN	780	0.50	390	70	320	0.70	0	959	(959)
EXT_SE-Blk1	13,217	0.50	6,659	2,397	4,261	0.90	4,680	273	4,406
EXT_SE-Blk2	20,669	0.50	10,332	3,720	6,613	0.90	1,014	15,562	(14,548)
EXT_SE-Blk3	4,057	0.50	2,028	730	1,298	0.90	2,482	0	2,482
EXT_SE-Blk4	4,184	0.50	2,092	753	1,339	0.90	25	893	(868)
EXT_SE-Blk5	13,572	0.50	7,786	2,803	4,983	0.90	203	14,385	(14,181)
EXT_SE-Blk6	3,728	0.50	1,864	671	1,193	0.90	3,125	0	3,125
EXT_SE-Blk7	9,072	0.50	4,536	1,633	2,903	0.90	111	6,544	(6,433)
EXT_SE-Multi1	8,812	0.50	4,406	1,586	2,820	0.90	4,459	0	4,459
EXT_SE-Multi2	12,628	0.50	5,014	1,805	3,209	0.90	4,469	28	4,441
EXT_SE-Multi3	24,951	0.50	12,476	2,994	9,481	1.10	16,005	87	15,918
EXT_SE-Multi4	18,634	0.50	9,317	2,236	7,081	1.10	11,244	0	11,244
EXT_SE-Multi5	7,912	0.50	3,956	949	3,006	1.10	3,498	63	3,435
EXT_SE-SW	11,557	0.50	5,754	1,036	4,718	0.70	4,316	835	3,480
EXT_SE-Shore1	2,976	0.50	1,488	268	1,220	0.70	788	0	788
EXT_SE-Shore2	1,872	0.50	936	169	768	1.10	1,122	0	1,122
EXT_SE-SW	9,510	0.50	3,255	586	2,669	0.70	318	3,151	(2,833)
EXT_SE-SW1	1,444	0.50	722	130	592	0.70	165	0	165
EXT_SE-SW2	13,070	0.50	6,535	1,176	5,359	0.70	934	11,901	(10,973)
EXT_SE-SW3	4,759	0.50	2,379	428	1,951	0.70	3,038	518	2,520
EXT_SE-SW4	2,746	0.50	1,373	247	1,126	0.70	2,379	0	2,379
EXT_SE-SWM	12,903	0.50	6,261	3,761	2,865	0.30	28	6,732	6,732 0
Total	**991,716**		**295,420**	**92,347**	**203,073**		**134,676**	**521,794**	**485,052** 36,742 (350,376)

Sub-Total Summary										
PHASE 1	98,630		34,315	13,982	20,333		10,323	114,680	14,822	(89,344)
PHASE 2	47,750		23,351	9,371	14,980		3,478	79,456	0	(76,978)
HENDLER	36,897		15,095	6,035	12,970		7,586	46,081	3,671	(34,834)
KINGMA-Ph1	26,696		13,343	3,939	9,414		399	26,291	1,506	(24,936)
KINGMA-Ph2	105,127		67,564	21,095	46,468		46,322	137,853	2,205	(89,327)
LOBO	91,231		40,616	11,764	28,852		7,002	56,078	8,256	(42,819)
EXT_SE	191,356		96,845	29,540	66,145		64,867	61,296	3,782	9,003
Sub-Total	991,716		295,420	92,347	203,073		134,676	521,794	36,742	(350,376)
					102,656			485,052		

Community Development, Waterloo
Stantec Consulting Ltd. 1 11:21 AM, 7/25/2025, wsr_2025-07-25_xqk-161414473.xlsx

Community Development, Waterloo
Stantec Consulting Ltd. 2 11:22 AM, 7/25/2025, wsr_2025-07-25_xqk-161414473.xlsx



KEY PLAN Scale : NTS

SEE DRAWING C–901

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

Notes

1. ELEV'S ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928:1978) BM1: CONCRETE CULVERT ALONG REGIONAL ROAD 65, 3.1 km WEST OF BISMARK, 80m EAST OF DWELLING # 4250 REG. ROAD 65, TABLET ON TOP OF CULVERT 7.3m S/W OF ROAD CENTRELINE. ELEV: 182.679
   BM2: TOP OF HEADWALL AT NE OF INTERSECTION OF TOWNLINE ROAD AND ROCK STREET ELEV: 185.740
2. BLOCK PLAN PREPARED BY ARCADIS. DATED AUGUST 2024.
3. DRAFT PLAN PREPARED BY ARCADIS. DATED AUGUST 2024.
4. TOPOGRAPHICAL SURVEY PREPARED BY METROPOLITAN CONSULTING INC., DATED MAY 2022. CONTOURS OUTSIDE OF THE PROPERTY LINE, HAVE BEEN OBTAINED FROM S.W.O.O.P. TOPOGRAPHIC INFORMATION (2010).
5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Legend

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	–4.255	–3.000	
2	–3.000	–2.000	
3	–2.000	–1.000	
4	–1.000	–0.500	
5	–0.500	–0.100	
6	–0.100	0.100	
7	0.100	0.500	
8	0.500	1.000	
9	1.000	2.000	
10	2.000	3.000	
11	3.000	4.000	
12	4.000	5.000	
13	5.000	10.000	

1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd	YYYY.MM.DD
File Name:	161414473_C-900_902CF-Con	WJE Dwn.	WJE Dsgn.	SAK Chkd. 2025.07.25 YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
CONCEPTUAL CUT/FILL PLAN

Project No. 161414473
Scale 1:1000 (0 10 30 50m)
Revision 1
Drawing No. **C-900**

V:\161414\ca\civil\161414473-design\drawing\cad\Latest_Rev\Concept\xqk161414473_C-900_902CF-Con.dwg
8:18:2025 3:32:01 PM By: Mochon, Sarah

ORIGINAL SHEET - ARCH D

EARTHWORKS

Smithville 3A Subdivision

NOTES

1 Results from modeling dated July 25, 2025
2 Negative number indicates shortage of material.
3 Lockbridge-Ph1&Ph2, LOBO = Lands Owned By Others, EXT_SE=External Lands to the Southeast
4 Geotech Report (Stantec) is across site ~0.46m, bump to 0.50m, assumed PG 0.7m & 0.9m

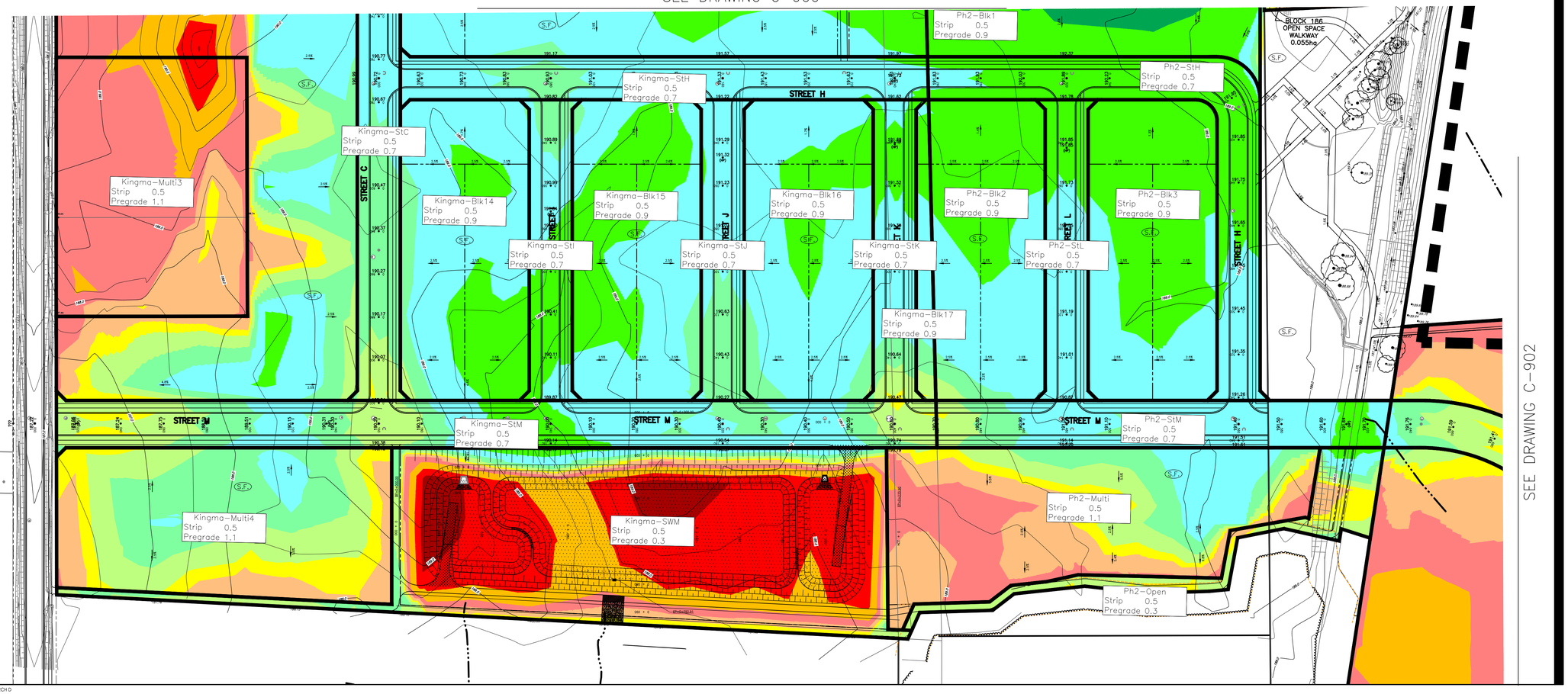
Allowance for Shrinkage on Compaction **10%**

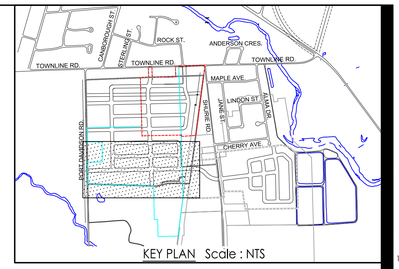
Area ID	Area	TOPSOIL Depth	Stripping	Restoration	Balance	Pregrade Depth	EARTHWORKS Cut	Fill	Balance	Topsoil
	m2	m	m3	m3	m3	m	Earth m3	m3	m3	
Ph1-Blk1	5,044	0.50	2,522	908	1,614	0.90	961	4,239	(3,278)	
Ph1-Blk2	4,075	0.50	2,037	733	1,304	0.90	0	9,296	(9,296)	
Ph1-Blk3	4,767	0.50	2,383	858	1,525	0.90	0	13,126	(13,126)	
Ph1-Blk4	4,759	0.50	2,379	857	1,523	0.90	0	12,416	(12,416)	
Ph1-Blk5	4,745	0.50	2,373	854	1,519	0.90	0	10,422	(10,422)	
Ph1-Blk6	4,737	0.50	2,369	853	1,516	0.90	0	12,580	(12,580)	
Ph1-Blk7	4,702	0.50	2,351	846	1,505	0.90	0	13,751	(13,751)	
Ph1-Gas1	2,918	0.50	1,459	875	584	0.30	0	8,269	6,269	(0)
Ph1-StA	3,154	0.50	1,577	284	1,293	0.70	0	7,956		(7,956)
Ph1-StC1	3,200	0.50	1,600	288	1,312	0.70	49	3,163		(3,114)
Ph1-StD	3,182	0.50	1,591	286	1,305	0.70	0	6,814		(6,814)
Ph1-StE	3,168	0.50	1,584	285	1,299	0.70	0	6,105		(6,105)
Ph1-SWM	8,300	0.50	4,150	2,490	1,660	0.30	8,833	2,761	2,761	8,833
Ph1-Trail	11,880	0.50	5,940	3,564	2,376	0.30	681	5,792	5,792	681
Ph2-Blk1	3,792	0.50	1,896	1,137	1,516	0.90	0	15,151		(15,151)
Ph2-Blk2	7,334	0.50	3,667	1,320	2,347	0.90	0	15,147		(15,147)
Ph2-Blk3	8,348	0.50	4,174	1,503	2,671	0.90	0	19,238		(19,238)
Ph2-Multi	11,795	0.50	5,897	1,411	4,487	1.10	2,878	3,733		(855)
Ph2-Open	2,283	0.50	1,141	685	457	0.30	0	476		(476)
Ph2-Stl	5,845	0.50	2,923	526	2,397	0.70	0	13,841		(13,841)
Ph2-Sts	2,841	0.50	1,420	256	1,165	0.70	0	5,404		(5,404)
Ph2-StM	4,820	0.50	2,410	416	1,994	0.70	0	8,466		(8,466)
Hender-Blk1	2,191	0.30	657	394	263	0.90	1,406	17		1,389
Hender-Blk2	750	0.30	375	135	240	0.90	244	17		227
Hender-Blk3	910	0.50	455	164	291	0.90	0	1,636		(1,636)
Hender-Blk4	8,582	0.50	4,291	1,545	2,746	0.90	69	12,797		(12,728)
Hender-Blk5	1,139	0.50	569	205	364	0.90	0	1,650		(1,650)
Hender-Blk6	986	0.50	493	177	315	0.90	0	1,637		(1,637)
Hender-Blk7	719	0.50	360	129	230	0.90	0	1,197		(1,197)
Hender-Gas1	541	0.50	270	162	186	0.30	0	719	719	0
Hender-Gas2	974	0.50	487	292	195	0.30	0	2,588	2,588	(0)
Hender-SD1	1,184	0.50	592	178	414	1.00	970	0		970
Hender-SD2	553	0.50	276	83	193	1.00	0	1,060		(1,060)
Hender-Multi	8,157	0.50	4,079	979	3,100	1.10	149	12,526		(12,377)
Hender-StA	7,966	0.50	3,983	717	3,266	0.70	522	7,795		(7,273)
Hender-StC	477	0.50	239	43	196	0.70	213	3		209
Hender-StD	815	0.50	407	73	334	0.70	0	1,287		(1,287)
Hender-StE	595	0.50	298	54	244	0.70	0	798		(798)
Hender-SWM	2,348	0.50	1,174	704	470	0.30	4,013	364	364	4,013
Kingma-Blk1	1,990	0.50	995	358	637	0.90	28	2,169		(2,141)
Kingma-Blk2	1,051	0.50	526	189	336	0.90	0	657		(657)
Kingma-Blk3	5,586	0.50	2,793	1,006	1,788	0.90	15	4,648		(4,633)
Kingma-Blk4	533	0.50	266	96	170	0.90	82	61		19
Kingma-Blk5	586	0.50	293	105	187	0.90	0	389		(389)
Kingma-Blk6	689	0.50	344	124	220	0.90	0	585		(585)
Kingma-Blk7	702	0.50	351	126	225	0.90	0	549		(549)
Kingma-Blk8	724	0.50	362	130	232	0.90	0	927		(927)
Kingma-Blk9	737	0.50	369	133	236	0.90	0	1,256		(1,256)
Kingma-Blk10	2,264	0.50	1,132	407	724	0.90	0	4,710		(4,710)
Kingma-Gas1	389	0.50	195	117	78	0.30	0	398	398	0
Kingma-Gas2	563	0.50	282	169	113	0.30	0	658	658	(0)
Kingma-StA1	1,506	0.50	753	136	617	0.70	0	2,361		(2,361)
Kingma-StB	7,332	0.50	3,666	660	3,006	0.70	174	5,612		(5,438)
Kingma-StC1	824	0.50	412	74	338	0.70	0	1,628		(1,028)
Kingma-StC2	228	0.50	114	21	94	0.70	2	125		(123)
Kingma-StD	479	0.50	239	43	196	0.70	0	322		(322)
Kingma-StE	502	0.50	251	45	296	0.70	0	436		(436)

Kingma-Blk11	12,389	0.50	6,195	2,230	3,965	0.90	0	22,755		(22,755)
Kingma-Blk12	201	0.50	100	36	64	0.90	0	295		(295)
Kingma-Blk13	743	0.50	372	134	238	0.90	0	924		(924)
Kingma-Blk14	8,360	0.50	4,180	1,505	2,675	0.90	0	15,668		(15,668)
Kingma-Blk15	8,360	0.50	4,180	1,505	2,675	0.90	0	17,254		(17,254)
Kingma-Blk16	8,360	0.50	4,180	1,505	2,675	0.90	0	15,696		(15,696)
Kingma-Blk17	1,025	0.50	513	185	328	0.90	0	1,592		(1,592)
Kingma-Multi1	760	0.50	380	91	289	1.10	6	536		(530)
Kingma-Multi2	20,064	0.50	10,032	2,408	7,624	1.10	4,605	11,362		(6,757)
Kingma-Multi3	10,707	0.50	5,354	1,285	4,069	1.10	8,307	1		8,307
Kingma-Multi4	13,751	0.50	6,876	1,650	5,226	1.10	413	4,602		(4,189)
Kingma-StA2	3,544	0.50	1,772	319	1,453	0.70	0	5,247		(5,247)
Kingma-StA3	2,636	0.50	1,318	255	1,163	0.70	1	2,402		(2,402)
Kingma-StC	4,941	0.50	2,471	445	2,026	0.70	0	4,903		(4,903)
Kingma-StH	4,930	0.50	2,465	444	2,021	0.70	0	8,822		(8,022)
Kingma-StI	2,841	0.50	1,420	256	1,165	0.70	0	5,747		(5,747)
Kingma-StJ	2,841	0.50	1,420	256	1,165	0.70	0	3,965		(3,965)
Kingma-StK	2,841	0.50	1,420	256	1,165	0.70	0	4,813		(4,813)
Kingma-StM	9,035	0.50	4,517	813	3,304	0.70	0	9,866		(9,865)
Kingma-SWM	19,600	0.50	9,800	5,880	3,920	0.30	32,990	2,205	2,205	32,990
LOBO-Blk1	3,402	0.50	1,701	612	1,089	0.90	536	374		156
LOBO-Blk2	5,097	0.50	2,548	917	1,631	0.90	0	7,027		(7,027)
LOBO-Blk3	5,348	0.50	2,674	963	1,711	0.90	21	8,249		(8,228)
LOBO-Blk4	6,291	0.50	3,145	1,132	2,013	0.90	30	4,170		(4,141)
LOBO-Blk5	2,995	0.50	1,498	539	958	0.90	242	2,644		(1,903)
LOBO-Comm	13,180	0.50	5,090	1,222	3,668	0.30	354	8,440		(8,086)
LOBO-Gas1	3,041	0.50	1,520	912	608	0.30	0	7,118	7,118	0
LOBO-Gas2	2,491	0.50	1,246	747	498	0.30	153	1,138	1,138	153
LOBO-Multi	19,793	0.50	9,396	2,255	7,141	1.10	4,713	9,083		(4,370)
LOBO-StC	8,287	0.50	4,144	746	3,398	0.70	132	4,707		(4,575)
LOBO-StF1	5,297	0.50	2,649	477	2,172	0.70	1	4,054		(4,053)
LOBO-StF2	2,838	0.50	1,419	255	1,163	0.70	729	308		421
LOBO-StG	2,391	0.50	1,196	215	981	0.70	99	755		(667)
LOBO-StN	780	0.50	390	70	320	0.70	0	599		(599)
EXT_SE-Blk1	13,317	0.50	6,659	2,397	4,261	0.90	4,680	273		4,408
EXT_SE-Blk2	29,665	0.50	10,332	3,720	6,613	0.90	1,014	15,667		(14,654)
EXT_SE-Blk3	4,057	0.50	2,028	730	1,298	0.90	2,482	0		2,482
EXT_SE-Blk4	4,184	0.50	2,092	753	1,339	0.90	25	893		(868)
EXT_SE-Blk5	15,572	0.50	7,786	2,803	4,583	0.90	203	14,385		(14,181)
EXT_SE-Blk6	3,728	0.50	1,864	671	1,193	0.90	3,125	0		3,125
EXT_SE-Blk7	9,072	0.50	4,536	1,633	2,903	0.90	111	6,644		(5,933)
EXT_SE-Blk8	3,263	0.50	1,632	587	1,044	0.90	1,141	74		1,068
EXT_SE-Multi1	13,628	0.50	5,314	1,275	4,039	1.10	4,469	28		4,441
EXT_SE-Multi2	24,951	0.50	12,476	2,994	9,481	1.10	16,005	87		15,918
EXT_SE-Multi3	11,634	0.50	9,317	2,236	7,081	1.10	11,244	3		11,244
EXT_SE-Multi4	7,912	0.50	3,956	949	3,006	1.10	3,498	63		3,435
EXT_SE-StM	11,507	0.50	5,754	1,036	4,718	0.70	4,318	835		3,484
EXT_SE-Sturie1	2,976	0.50	1,488	268	1,220	0.70	766	3		766
EXT_SE-Sturie2	1,872	0.50	936	169	768	1.10	1,122	205		1,122
EXT_SE-StW	6,510	0.50	3,255	586	2,669	0.70	318	3,151		(2,833)
EXT_SE-StX1	1,444	0.50	722	130	592	0.70	165	39		126
EXT_SE-StX2	13,070	0.50	6,535	1,176	5,359	0.70	934	11,907		(10,973)
EXT_SE-StZ1	4,759	0.50	2,379	428	1,951	0.70	2,038	118		1,920
EXT_SE-StZ2	2,746	0.50	1,373	247	1,126	0.70	2,379	3		2,379
EXT_SE-SWM	12,503	0.50	6,251	3,751	2,501	0.30	28	6,732	6,732	28
Total	**591,716**		**295,420**	**92,347**	**203,073**			521,794	36,742	
					162,656		**134,676**	**485,052**	**36,742**	**(350,376)**

Sub-Total Summary

PHASE 1	88,630		34,315	13,982	25,333		10,523	114,689	14,822	(89,344)
PHASE 2	47,795		23,893	6,973	16,920		2,878	76,496	6	(75,618)
HENDLER	36,847		18,005	5,035	12,970		7,566	46,091	3,671	(34,834)
KINGMA-Ph1	25,686		13,343	3,939	9,404		299	26,291	1,056	(24,936)
KINGMA-Ph2	135,127		67,564	21,095	46,468		46,322	137,853	2,205	(89,327)
LOBO	81,231		40,616	11,784	28,832		7,002	58,078	8,256	(42,819)
EXT_SE	193,369		96,685	29,540	66,145		69,067	60,296	6,732	6,503
Sub-Total	**591,716**		**295,420**	**92,347**	**203,073**		**134,676**	**521,794**	**36,742**	**(350,376)**
					162,656			**485,052**	**36,742**	





Stantec Consulting Ltd.
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Notes

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   BM1: CONCRETE CULVERT ALONG REGIONAL ROAD 65, 3.1 km WEST OF BISMARK, 80m EAST OF DWELLING AT 4250 REG. ROAD 65, TABLET ON TOP OF CULVERT 7.3m SW OF ROAD CENTRELINE. ELEV: 182.679
   BM2: TOP OF HEADWALL AT NE OF INTERSECTION OF TOWNLINE ROAD AND ROCK STREET ELEV: 185.740
2. BLOCK PLAN PREPARED BY ARCADIS, DATED AUGUST 2024.
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5. TREES SURVEYED BY STANTEC CONSULTING LTD. DATED APRIL 2025.

Legend

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
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1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15
Revision		By	Appd.	YYYY.MM.DD
File Name: 161414473_C-900_902CF-Con		WJE	WJE	SAK 2025.07.25
		Dwn.	Dsgn.	Chkd. YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
CONCEPTUAL CUT/FILL PLAN

Project No. 161414473
Scale 1:1000 (0 10 30 50m)
Revision 1
Drawing No. **C-901**

ORIGINAL SHEET - ARCH D

EARTHWORKS

Smithville 3A Subdivision

NOTES

1 Results from modeling dated July 25, 2025
2 Negative number indicates shortage of material.
3 Lockbridge+PH1&PH2, LOBO = Lands Owned By Others, EXT_SE=External Lands to the Southeast
4 Geotech Report (Stantec) to across site ~0.4Mm, bump to 0.50m, assumed PG 0.7m & 0.9m

Allowance for Shrinkage on Compaction **10%**

Area ID	Area	TOPSOIL Depth	TOPSOIL Stripping	TOPSOIL Restoration	TOPSOIL Balance	Pregrade Depth	EARTHWORKS Cut	EARTHWORKS Fill	EARTHWORKS Balance
	m2	m	m3	m3	m3	m	m3	Earth m3 / Topsoil m3	m3
PH1-Blk1	5,044	0.50	2,522	958	1,614	0.90	963	4,206	(3,278)
PH1-Blk2	4,073	0.50	2,037	733	1,304	0.90	0	9,286	(9,286)
PH1-Blk3	4,767	0.50	2,383	858	1,525	0.90	0	13,126	(13,126)
PH1-Blk4	4,739	0.50	2,370	854	1,523	0.90	0	12,416	(12,416)
PH1-Blk5	4,781	0.50	2,389	861	1,528	0.90	0	10,420	(10,420)
PH1-Blk6	4,737	0.50	2,368	853	1,515	0.90	0	12,580	(12,580)
PH1-Blk7	2,870	0.50	1,435	517	918	0.90	0	13,751	(13,751)
PH1-Gas1	2,554	0.50	2,277	679	584	0.70	0	6,269	6,269 (3,692)
PH1-Sta	3,154	0.50	1,577	284	1,293	0.70	0	11,256	(7,956)
PH1-StC1	3,200	0.50	1,600	288	1,312	0.70	49	5,163	(3,514)
PH1-StD	3,182	0.50	1,591	286	1,305	0.70	0	8,614	(8,614)
PH1-StE	3,164	0.50	1,582	285	1,298	0.70	0	8,105	(8,105)
PH1-SWM	8,350	0.50	4,150	2,480	1,660	0.30	8,833	2,761	2,761 (8,833)
PH1-Trail	3,958	0.50	1,979	1,581	378	0.50	681	5,792	5,792 681
PH2-Sta	4,980	0.50	2,490	1,323	0.90	0	14,781		(14,781)
PH2-Blk1	5,667	0.50	2,833	1,520	3,947	0.90	0	15,147	(15,147)
PH2-Blk3	9,348	0.50	4,674	1,503	2,671	0.90	0	19,238	(19,238)
PH2-Mult	11,705	0.50	5,853	1,411	4,467	0.90	2,678	3,733	(955)
PH2-Open	2,252	0.50	1,141	685	457	0.90	0	476	(476)
PH2-Str	5,256	0.50	2,628	1,523	526	0.90	0	13,841	(12,841)
PH2-Str	2,841	0.50	1,420	256	1,165	0.70	0	5,404	(5,404)
PH2-SWM	8,420	0.50	4,210	2,530	1,684	0.30	0	8,085	(8,085)
Hender-Blk1	2,191	0.30	657	394	263	0.90	1,406	17	1,389
Hender-Blk2	750	0.30	225	135	240	0.90	244	17	227
Hender-Blk3	910	0.30	455	164	291	0.90	0	1,636	(1,636)
Hender-Blk4	8,582	0.50	4,291	1,545	2,746	0.90	69	12,767	(12,728)
Hender-Blk5	1,139	0.50	569	205	364	0.90	0	1,650	(1,650)
Hender-Blk6	966	0.50	483	174	315	0.90	0	1,637	(1,637)
Hender-Blk7	719	0.50	360	129	230	0.90	0	1,197	(1,197)
Hender-Gas1	541	0.50	270	162	108	0.30	0	718	719 0
Hender-Gas2	974	0.50	487	292	195	0.30	0	2,588	2,588 (0)
Hender-SC1	1,184	0.50	592	178	414	1.00	870	0	0 870
Hender-SD2	553	0.50	276	83	193	1.00	0	1,060	(1,060)
Hender-MultB	8,157	0.50	4,079	979	3,100	1.10	149	12,526	(12,377)
Hender-StA	7,968	0.50	3,983	717	3,266	0.70	522	7,795	(7,273)
Hender-StC	477	0.50	239	43	196	0.70	213	3	209
Hender-StD	815	0.50	407	73	334	0.70	0	1,287	(1,287)
Hender-StE	595	0.50	298	54	244	0.70	0	798	(798)
Hender-SWM	2,348	0.50	1,174	704	470	0.30	4,013	364	364 4,013
Kingma-Blk1	1,990	0.50	995	358	637	0.90	28	2,169	(2,141)
Kingma-Blk2	1,051	0.50	526	189	336	0.90	0	657	(657)
Kingma-Blk3	5,588	0.50	2,793	1,006	1,788	0.90	15	4,048	(4,033)
Kingma-Blk4	533	0.50	266	96	170	0.90	80	61	19
Kingma-Blk5	586	0.50	293	105	187	0.90	0	399	(399)
Kingma-Blk6	689	0.50	344	124	220	0.90	0	585	(585)
Kingma-Blk7	702	0.50	351	126	225	0.90	0	549	(549)
Kingma-Blk8	724	0.50	362	130	232	0.90	0	927	(927)
Kingma-Blk9	737	0.50	369	133	236	0.90	0	1,258	(1,258)
Kingma-Blk10	2,264	0.50	1,132	407	724	0.90	0	4,710	(4,710)
Kingma-Gas1	389	0.50	195	117	78	0.30	0	398	398 0
Kingma-Gas2	563	0.50	282	169	113	0.30	0	658	658 (0)
Kingma-StA1	1,506	0.50	753	136	617	0.70	0	2,361	(2,361)
Kingma-StB	7,332	0.50	3,666	660	3,006	0.70	174	5,612	(5,438)
Kingma-StC1	824	0.50	412	74	338	0.70	0	1,028	(1,028)
Kingma-StC2	228	0.50	114	21	94	0.70	2	125	(123)
Kingma-StD	479	0.50	239	43	196	0.70	0	322	(322)
Kingma-StE	502	0.50	251	45	206	0.70	0	436	(436)

Kingma-BA11	12,380	0.50	6,195	2,230	3,965	0.90	0	22,755		(22,755)	
Kingma-BA12	201	0.50	100	36	64	0.90	0	256		(256)	
Kingma-BA13	743	0.50	372	134	238	0.90	0	924		(924)	
Kingma-BA14	8,360	0.50	4,180	1,505	2,675	0.90	0	15,668		(15,668)	
Kingma-BA15	8,360	0.50	4,180	1,505	2,675	0.90	0	17,254		(17,254)	
Kingma-BA16	8,360	0.50	4,180	1,505	2,675	0.90	0	15,696		(15,696)	
Kingma-BA17	1,025	0.50	513	185	328	0.90	0	1,092		(1,092)	
Kingma-MultI1	760	0.50	380	91	289	1.10	0	536		(630)	
Kingma-MultI2	20,064	0.50	10,032	2,408	7,624	1.10	4,605	11,362		(6,757)	
Kingma-MultI3	10,708	0.50	5,354	1,285	4,069	1.10	8,307	0		8,307	
Kingma-MultI4	10,750	0.50	5,375	1,290	4,086	1.10	413	4,602		(4,189)	
Kingma-StA2	3,544	0.50	1,772	319	1,453	0.70	0	5,247		(5,247)	
Kingma-StA3	2,836	0.50	1,418	255	1,163	0.70	1	2,402		(2,402)	
Kingma-StC	4,941	0.50	2,471	445	2,026	0.70	0	4,903		(4,903)	
Kingma-StH	4,930	0.50	2,465	444	2,021	0.70	0	8,022		(8,022)	
Kingma-StI	2,841	0.50	1,420	256	1,165	0.70	0	5,747		(5,747)	
Kingma-StJ	2,841	0.50	1,420	256	1,165	0.70	0	3,965		(3,965)	
Kingma-StK	2,841	0.50	1,420	256	1,165	0.70	0	4,813		(4,813)	
Kingma-StM	9,035	0.50	4,517	813	3,704	0.70	0	9,866		(9,865)	
Kingma-SWM	19,600	0.50	9,800	5,880	3,920	0.30	32,990	2,205	2,205	32,990	
LOBO-Blk1	3,402	0.50	1,701	612	1,089	0.90	530	374		156	
LOBO-Blk2	5,097	0.50	2,548	917	1,631	0.90	0	7,027		(7,027)	
LOBO-Blk3	5,348	0.50	2,674	1,663	2,991	0.90	21	8,249		(8,228)	
LOBO-Blk4	6,291	0.50	3,145	1,132	2,013	0.90	30	4,170		(4,141)	
LOBO-Blk5	2,995	0.50	1,498	539	959	0.90	242	2,044		(1,803)	
LOBO-Comm	10,180	0.50	5,090	1,222	3,868	0.30	354	8,440		(8,086)	
LOBO-Gas1	3,641	0.50	1,820	912	908	0.30	0	7,118	7,118	0	
LOBO-Gas2	2,497	0.50	1,248	747	498	0.30	163	1,136	1,136	153	
LOBO-MultI	15,790	0.50	9,366	2,258	7,141	1.10	4,713	9,083		(4,370)	
LOBO-StC	8,297	0.50	4,144	746	3,398	0.70	132	4,707		(4,575)	
LOBO-StF1	5,297	0.50	2,649	477	2,172	0.70	1	4,054		(4,053)	
LOBO-StF2	2,838	0.50	1,419	255	1,163	0.70	729	366		421	
LOBO-StG	2,381	0.50	1,190	215	981	0.70	99	766		(867)	
LOBO-StN	783	0.50	392	71	321	0.70	1	391		(390)	
EXT_SE-Blk1	13,317	0.50	6,659	2,397	4,261	0.90	4,680	273		4,408	
EXT_SE-Blk2	20,605	0.50	10,332	3,720	6,613	0.90	1,014	15,667		(14,654)	
EXT_SE-Blk3	4,057	0.50	2,028	730	1,298	0.90	2,462	0		2,462	
EXT_SE-Blk4	4,184	0.50	2,092	753	1,339	0.90	25	891		(866)	
EXT_SE-Blk5	15,572	0.50	7,786	2,803	4,983	0.90	203	14,385		(14,181)	
EXT_SE-Blk6	3,729	0.50	1,864	671	1,193	0.90	3,125	0		3,125	
EXT_SE-Blk7	3,012	0.50	1,506	1,633	1,044	0.90	0	6,044		(6,933)	
EXT_SE-Blk8	1,081	0.50	539	194	692	0.90	1,141	74		1,068	
EXT_SE-Mult1	12,825	0.50	5,512	1,275	4,039	1.10	4,449	24		4,425	
EXT_SE-Mult2	24,929	0.50	12,465	2,894	8,483	1.10	16,008	87		15,919	
EXT_SE-Mult3	14,634	0.50	7,317	2,256	7,081	1.10	7,044	0		11,254	
EXT_SE-Mult4	7,913	0.50	3,956	949	3,006	1.10	3,466	53		3,428	
EXT_SE-SW	11,50F	0.50	5,754	1,036	4,718	0.70	915	835		3,454	
EXT_SE-Shurie1	2,976	0.50	1,488	358	1,230	0.70	992	0		986	
EXT_SE-Shurie2	1,872	0.50	936	169	766	1.10	1,122	0		1,122	
EXT_SE-SW	6,510	0.50	3,255	586	2,669	0.70	113	3,151		(2,833)	
EXT_SE-StX1	1,444	0.50	722	130	592	0.70	165	39		126	
EXT_SE-StX2	13,073	0.50	6,536	1,176	5,359	0.70	314	11,007		(10,373)	
EXT_SE-StZ1	4,759	0.50	2,379	428	1,951	0.70	2,038	116		1,820	
EXT_SE-StZ2	2,749	0.50	1,373	247	1,126	0.70	2,379	0		2,379	
EXT_SE-SWM	12,503	0.50	6,251	3,751	2,501	0.30	28	6,732	6,732	28	
Total	**591,716**		**295,420**	**92,347**	**203,073**		**134,676**	**521,794**	**36,742**		
					182,656			**485,052**	**36,742**	**(350,376)**	

Sub-Total Summary

PHASE 1	68,630		34,315	13,982	20,333		10,523	114,689	14,802	(89,344)
PHASE 2	61,298		30,649	5,383	25,266		2,570	31,596		(29,026)
HENDLER	38,687		19,000	6,035	12,870		7,588	46,291	3,871	(34,834)
KINGMA-Ph1	26,690		13,343	3,539	9,404		299	26,291	1,056	(24,934)
KINGMA-Ph2	135,127		67,564	23,995	48,468		46,322	91,893	2,205	(47,572)
LOBO	81,231		40,616	11,784	28,832		7,502	37,019	2,205	(32,822)
EXT_SE	181,360		90,680	28,540	59,145		157,967	50,296	6,732	6,803
Sub-Total	**591,716**		**295,420**	**92,347**	**203,073**		**134,676**	**521,794**	**36,742**	**(350,376)**
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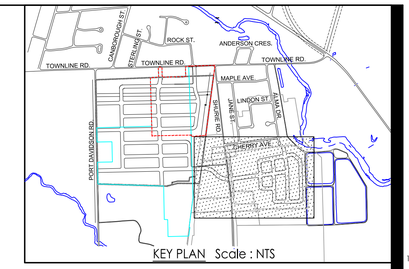

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8	0.500	1.000	
9	1.000	2.000	
10	2.000	3.000	
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12	4.000	5.000	
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Revision		By	Appd	YYYY.MM.DD
1.	REVISED BLOCK PLAN	SJM	SAK	2025.08.22
0.	STAGE 1 DRAFT PLAN SUBMISSION	JH	KBL	2024.08.15

File Name: 161414473_C-900_902CF-Con	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	WJE	WJE	SAK	2025.07.25

Permit-Seal

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Client/Project
LOCKBRIDGE DEVELOPMENT INC.

SMITHVILLE PHASE 3A

Smithville, ON

Title
CONCEPTUAL CUT/FILL PLAN

Project No. 161414473
Scale 1:1000 (0 10 30 50m)
Revision 1
Drawing No. **C-902**

ORIGINAL SHEET - ARCH D