

**re: Geotechnical Design Summary Details**  
**Proposed Residential Development**  
**5331 Fernbank Road – Ottawa, Ontario**

**to:** Claridge Homes – **Marc St. Pierre** – [marc.stpierre@claridgehomes.com](mailto:marc.stpierre@claridgehomes.com)

**date:** November 18, 2025

**file:** PG5683-MEMO.02 Revision 4

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Further to your request and authorization, Paterson Group (Paterson) prepared the current memorandum to provide a grading, servicing and landscape review for the proposed residential development. The following memorandum should be read in conjunction with the Geotechnical Investigation Report (Paterson Report PG5683-1 Revision 1, dated November 13, 2025).

## **1.0 Grading Review**

Paterson reviewed the following drawings prepared by Novatech for the aforementioned development:

- ☐ Grading Plan – Project No. 121011-00 - Drawing No. 121011-GR1 - Revision 6 dated November 14, 2025.
- ☐ Grading Plan – Project No. 121011-00 - Drawing No. 121011-GR2 - Revision 6 dated November 14, 2025.

### **1.1 Residential Grading**

Based on the grading plans provided, the proposed grading for the majority of the residential lots/blocks within the subject site are considered acceptable and in compliance with our permissible grade raise recommendations. Minor exceedances were observed at within a small number of blocks where the front grades have marginally exceeded our permissible grade raise recommendations. The minor exceedances are not significant enough to require lightweight fill (LWF) along the building perimeters. However, one unit will require LWF beneath the front porch. Table 1, attached to the current memorandum, provides a grading summary and engineered fill required below the proposed USF levels across the subject site.

### **1.2 Right-of-Way Grading**

Based on the grading plans provided, the proposed grading for the entirety of the rights-of-way (ROWs) and parking areas within the subject site are considered acceptable and in compliance with our permissible grade raise recommendations.



## 2.0 Servicing Review

Paterson reviewed the following drawings prepared by Novatech for the aforementioned development:

- ☐ General Plan of Services – Project No. 121011-00 - Drawing No. 121011-GP1 – Revision 6 dated November 14, 2025.
- ☐ General Plan of Services – Project No. 121011-00 - Drawing No. 121011-GP2 – Revision 6 dated November 14, 2025.

### 2.1 Lateral Support

Based on the above-noted site servicing plan, the site servicing layout does not impede the lateral support zones of any adjacent buildings/structures and is in conformance with our recommendations.

### 2.2 Frost Protection

From our review of the above-noted site servicing plan, a number of servicing pipe sections are not provided with sufficient soil cover of 2.1 m for adequate frost protection (measured from the proposed ground surface to the pipe obvert). Reference should be made to the marked-up servicing plans which show the areas with insufficient soil cover, attached to the current report.

For services with less than 2.1 m soil cover, a combination of soil cover and rigid insulation should be used, as detailed in Table 1 below.

Table 1 – Rigid Insulation Recommendations for Pipes with Reduced Soil Cover			
Thermal Condition	Soil Cover Provided (mm)	Insulation Dimensions	
		Thickness (mm)	Extension (mm)
Unheated	1800-2000	25	Extend 600 mm horizontally beyond edge of the pipe
	1500-1800	50	Extend 900 mm horizontally beyond edge of the pipe
	1200-1500	75	Extend 1200 mm horizontally beyond edge of the pipe

Alternatively, instead of extending the rigid insulation 600 to 1200 mm beyond the edge of the pipe, the rigid insulation can be “boxed” around the pipe by transitioning from horizontal to vertical placement of the rigid insulation and extending to the invert pipe elevation, effectively forming a box of rigid insulation around the pipe. In this case, the rigid insulation should still be extended far enough to provide adequate spring-line and cover backfill material around the pipe.



It should be noted that the elevations of the watermain profiles are not available at the current time. Based on the pipe crossing obvert elevations, it is anticipated that all watermains will be provided with sufficient soil cover for frost protection (without insulation). Paterson should review the watermain elevations for verification, once available.

## **3.0 Landscaping Considerations**

### **3.1 Tree Planting Restrictions**

Paterson completed a soils review of the site to determine applicable tree planting setbacks, in accordance with the City of Ottawa Tree Planting in Sensitive Marine Clay Soils (2017 Guidelines) for trees planted within a public right-of-way (ROW). Atterberg limits testing was completed for recovered silty clay samples at selected locations throughout the subject site

Grain size distribution and hydrometer testing was also completed on selected soil samples. The above-noted test results were completed on samples taken at depths between the anticipated underside of footing elevation and a 3.5 m depth below finished grade. The results of our testing are presented in Paterson Report PG5683-1, dated March 5, 2021.

Based on the results of the Atterberg limit testing mentioned above, the plasticity index was found to be less than 40% in all the tested clay samples. In addition, based on the clay content found in the clay samples from the grain size distribution test results, moisture levels and consistency, the silty clay across the subject site is considered low to medium sensitivity clay and should not be designated as sensitive marine clays.

#### **Low to Medium Sensitivity Clays**

A low to medium sensitivity clay soil was encountered between the anticipated design underside of footing elevations and 3.5 m below finished grade as per City Guidelines for the entire site. Based on our Atterberg limits test results, the modified plasticity index does not exceed 40% across the site. The following tree planting setback is recommended for the entire subject site due to the presence of low to medium sensitivity clays. Large trees (mature height over 14 m) can be planted within these areas provided a tree to foundation setback equal to the full mature height of the tree can be provided (e.g. in a park or other green space). Tree planting setback limits may be reduced to 4.5 m for small (mature height up to 7.5 m) and medium size trees (mature tree height 7.5 to 14 m), provided that the conditions noted below are met.

- ☐ The underside of footing (USF) is 2.1 m or greater below the lowest finished grade must be satisfied for footings within 10 m from the tree, as measured from the centre of the tree trunk and verified by means of the Grading Plan as indicated procedural changes below.



- ☐ A small tree must be provided with a minimum of 25 m<sup>3</sup> of available soil volume while a medium tree must be provided with a minimum of 30 m<sup>3</sup> of available soil volume, as determined by the Landscape Architect. The developer is to ensure that the soil is generally uncompacted when backfilling in street tree planting locations.
- ☐ The tree species must be small (mature tree height up to 7.5 m) to medium size (mature tree height 7.5 m to 14 m) as confirmed by the Landscape Architect
- ☐ The foundation walls are to be reinforced at least nominally (minimum of two upper and two lower 15M bars in the foundation wall).
- ☐ Grading surrounding the tree must promote drainage to the tree root zone (in such a manner as not to be detrimental to the tree).

It is well documented in the literature, and it is our experience, that fast-growing trees located near buildings founded on cohesive soils that shrink on drying can result in long-term differential settlements of the structures. Tree varieties that have the most pronounced effect on foundations are seen to consist of poplars, willows and some maples (i.e., Manitoba Maples) and, as such, they should not be considered in the landscaping design.

### **3.2 Aboveground Swimming Pools, Hot Tubs, Decks and Additions**

The in-situ soils are considered to be acceptable for in-ground swimming pools. Above ground swimming pools must be placed at least 5 m away from the residence foundation and neighboring foundations. Otherwise, pool construction is considered routine and can be constructed in accordance with the manufacturer's requirements.

Additional grading around the hot tub should not exceed permissible grade raises. Otherwise, hot tub construction is considered routine and can be constructed in accordance with the manufacturer's specifications.

Additional grading around proposed deck or addition should not exceed permissible grade raises. Otherwise, standard construction practices are considered acceptable.

### **3.3 Landscaping Review**

Paterson reviewed the following drawings prepared by James B. Lennox & Associates (JBLA) for the aforementioned development:

- ☐ Landscape Plan (North-West) – Project No. 21-CLG-2163 - Drawing No. L.1 – Revision 1 dated November 18, 2025.
- ☐ Landscape Plan (South-East) – Project No. 21-CLG-2163 - Drawing No. L.2 – Revision 5 dated November 18, 2025.



Based on the above-noted drawing, a minimum setback of 4.5 m from the nearest building foundation is provided for the majority of the proposed trees at the subject site. However, a small number of trees are not provided with the required 4.5 m setback. Reference should be made to the marked-up landscaping plans which show the trees with an insufficient setback, attached to the current memorandum.

Per discussion with JBLA, the proposed trees will consist of Japanese Lilac trees with a shallow, non-aggressive root system. Furthermore, it is understood that the remainder of the conditions noted in Subsection 3.1 of the current report will be incorporated into the design of the proposed development.

Accordingly, the proposed landscaping design is acceptable from a geotechnical perspective and is in conformance with Paterson's recommendations provided in the aforementioned geotechnical investigation report.

We trust that the current submission meets your immediate requirements.

Best Regards,

**Paterson Group Inc.**

Owen R. Canton, B.Eng.



Scott S. Dennis, P.Eng.

**Attachments:**

- ☐ Table 1 – Summary of Lot Grading
- ☐ Drawing PG5683-3 – Unit Numbering Plan
- ☐ Marked Up Servicing Plans
- ☐ Marked Up Landscaping Plans



PG5683 - Table 1 - Summary of Design Details  
Claridge Homes - 5331 Fernbank Road

Building Number	Unit Number	Original GS Front	Proposed GS Front	Original GS Side	Proposed GS Side	Original GS Rear	Proposed GS Rear	Underside of Footing Elevation	Bearing Resistance Value at SLS	Seismic Site Class	Engineered Fill Thickness (Above Original GS)	Engineered Fill Thickness Side (Original GS)	Engineered Fill Thickness Rear (Original GS)	Permissible Grade Raise	Above Permissible Grade Raise Front	Above Permissible Grade Raise Side	Above Permissible Grade Raise Rear	Minimum Thickness LWF in Front Porches (If Applicable)	Minimum Thickness LWF and Extents
		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(kPa)		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	
BLDG A	1	96.30	97.65	96.30	97.35	96.45	97.35	95.38	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.21	97.65	N/A	N/A	96.40	97.35	95.38	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.21	97.65	N/A	N/A	96.50	97.35	95.38	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.80	97.65	97.50	97.35	96.90	97.35	95.38	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG B	1	97.17	97.67	97.25	97.38	97.18	97.38	95.40	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.36	97.67	N/A	N/A	96.45	97.38	95.40	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.70	97.67	N/A	N/A	96.50	97.38	95.40	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.60	97.67	96.55	97.38	96.55	97.38	95.40	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG C	1	96.45	97.71	96.45	97.40	96.45	97.40	95.45	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.42	97.71	N/A	N/A	96.36	97.40	95.45	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.42	97.71	N/A	N/A	96.36	97.40	95.45	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	97.03	97.71	97.25	97.40	97.03	97.40	95.45	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG D	1	97.15	97.81	97.28	97.55	97.10	97.55	95.54	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.55	97.81	N/A	N/A	96.43	97.55	95.54	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.50	97.81	N/A	N/A	96.45	97.55	95.54	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.45	97.81	96.45	97.55	96.45	97.55	95.54	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG E	1	96.55	97.87	96.55	97.57	96.60	97.57	95.61	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.39	97.87	N/A	N/A	96.39	97.57	95.61	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.39	97.88	N/A	N/A	96.39	97.57	95.61	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	97.05	97.88	97.14	97.57	97.11	97.57	95.61	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG F	1	97.10	98.00	97.50	97.74	97.10	97.74	95.73	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.47	98.00	N/A	N/A	96.46	97.74	95.73	120	E	n/a	n/a	n/a	1.50	0.03	n/a	n/a	n/a	n/a
	3	96.50	98.00	N/A	N/A	96.70	97.74	95.73	120	E	n/a	n/a	n/a	1.50	0.00	n/a	n/a	n/a	n/a
	4	96.60	98.00	96.60	97.74	96.65	97.74	95.73	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG G	1	96.66	98.09	96.66	97.79	96.66	97.79	95.84	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.67	98.09	N/A	N/A	96.68	97.79	95.84	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.80	98.10	N/A	N/A	96.98	97.79	95.84	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	97.05	98.10	97.36	97.79	97.11	97.79	95.84	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG H	1	97.00	98.17	97.15	97.90	96.95	97.90	95.91	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.60	98.17	N/A	N/A	96.80	97.90	95.91	120	E	n/a	n/a	n/a	1.50	0.07	n/a	n/a	1.0	n/a
	3	96.60	98.17	N/A	N/A	96.70	97.90	95.91	120	E	n/a	n/a	n/a	1.50	0.07	n/a	n/a	1.0	n/a
	4	96.60	98.17	96.60	97.90	96.60	97.90	95.91	120	E	n/a	n/a	n/a	1.50	0.07	n/a	n/a	1.0	n/a
BLDG J	1	96.60	98.23	96.60	97.94	96.60	97.94	95.97	120	E	n/a	n/a	n/a	1.50	0.13	n/a	n/a	1.0	n/a
	2	96.65	98.23	N/A	N/A	96.65	97.94	95.97	120	E	n/a	n/a	n/a	1.50	0.08	n/a	n/a	1.0	n/a
	3	96.90	98.23	N/A	N/A	96.80	97.94	95.97	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	97.05	98.23	97.20	97.94	96.90	97.94	95.97	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG K	1	96.90	97.99	96.90	97.99	97.15	97.99	95.73	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.85	97.99	N/A	N/A	97.15	97.99	95.73	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.52	97.99	N/A	N/A	97.20	97.99	95.73	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.90	97.99	96.95	97.90	97.40	97.99	95.73	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG L	1	96.60	98.04	96.50	97.95	96.50	98.04	95.78	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.60	98.04	N/A	N/A	96.55	98.04	95.78	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.60	98.04	N/A	N/A	96.55	98.04	95.78	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.60	98.04	96.60	98.04	96.55	98.04	95.78	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG M	1	96.60	97.88	96.60	97.50	96.65	97.60	95.61	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.65	97.88	N/A	N/A	96.68	97.60	95.61	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.65	97.87	N/A	N/A	96.68	97.60	95.61	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.65	97.87	96.65	97.60	96.65	97.60	95.61	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG N	1	96.60	97.75	96.60	97.45	96.60	97.45	95.48	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.55	97.75	N/A	N/A	96.55	97.45	95.48	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.55	97.75	N/A	N/A	96.55	97.45	95.48	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.50	97.75	96.45	97.35	96.45	97.45	95.48	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG P	1	96.50	97.71	96.45	97.40	96.45	97.40	95.44	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.53	97.71	N/A	N/A	96.45	97.40	95.44	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.53	97.71	N/A	N/A	96.50	97.40	95.44	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.53	97.71	96.53	97.40	96.55	97.40	95.44	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG Q	1	96.52	97.69	96.52	97.40	96.55	97.40	95.42	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.50	97.69	N/A	N/A	96.52	97.40	95.42	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.45	97.69	N/A	N/A	96.50	97.40	95.42	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.40	97.69	96.40	97.40	96.40	97.40	95.42	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
BLDG R	1	96.55	97.98	96.55	97.70	96.70	97.70	95.71	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	2	96.58	97.98	N/A	N/A	96.70	97.70	95.71	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	3	96.58	97.98	N/A	N/A	96.70	97.70	95.71	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a
	4	96.60	97.98	96.60	97.60	96.70	97.70	95.71	120	E	n/a	n/a	n/a	1.50	n/a	n/a	n/a	n/a	n/a

The following grading plans were reviewed as part of our submission:

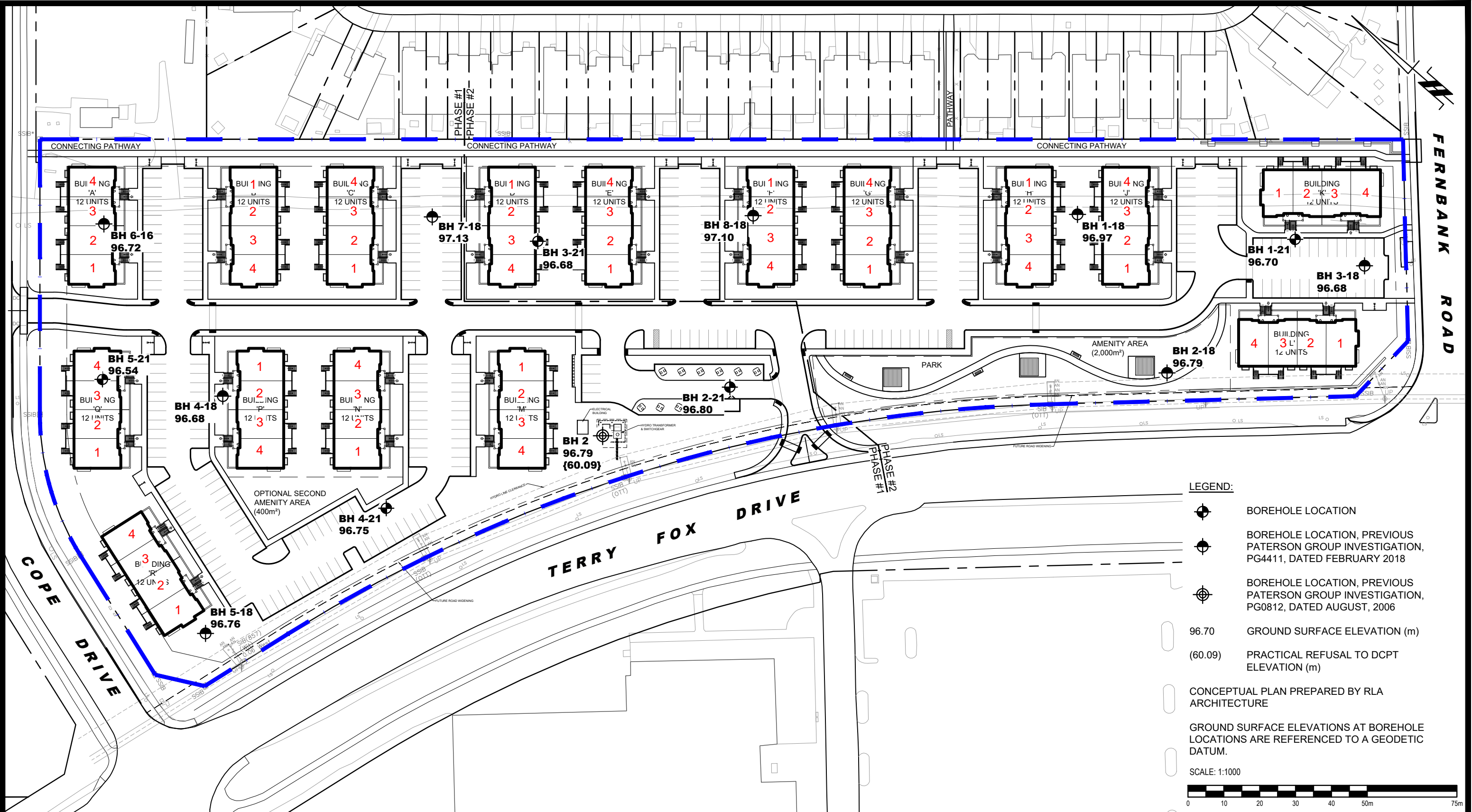
- Grading Plan - Project No. 121011-00 -Drawing No. 121011-GR1 - Revision 6 dated November 14, 2025.

- Grading Plan - Project No. 121011-00 -Drawing No. 121011-GR2 - Revision 6 dated November 14, 2025.

Note:

- Units are numbered left to right from a parking lot view perspective. Reference should be made to Drawing PG5683-3 for the unit numbering plan, attached to the current memorandum





9 AURIGA DRIVE  
OTTAWA, ON  
K2E 7T9  
TEL: (613) 226-7381

NO.	REVISIONS	DD/MM/YYYY	INITIAL
1	REVISED WITH UPDATED CONCEPTUAL PLAN	22/10/2025	OC

OTTAWA,  
Title:

CLARIDGE HOMES  
GEOTECHNICAL INVESTIGATION  
PROPOSED RESIDENTIAL DEVELOPMENT  
5331 FERNBANK ROAD

ONTARIO

UNIT NUMBERING PLAN

Scale:	1:1000	Date:	02/2021
Drawn by:	NFRV	Report No.:	PG5683-1
Checked by:	VD	Dwg. No.:	PG5683-3
Approved by:	DJG	Revision No.:	1





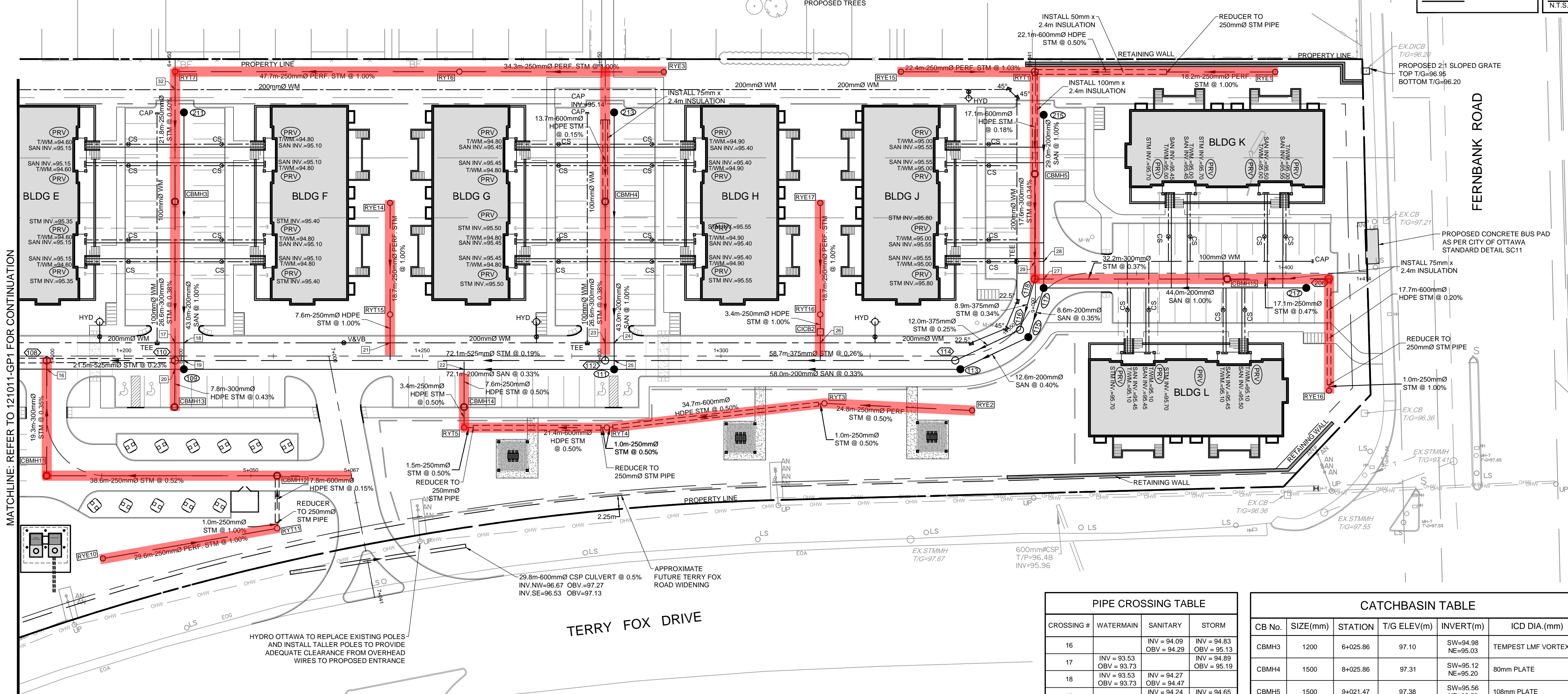
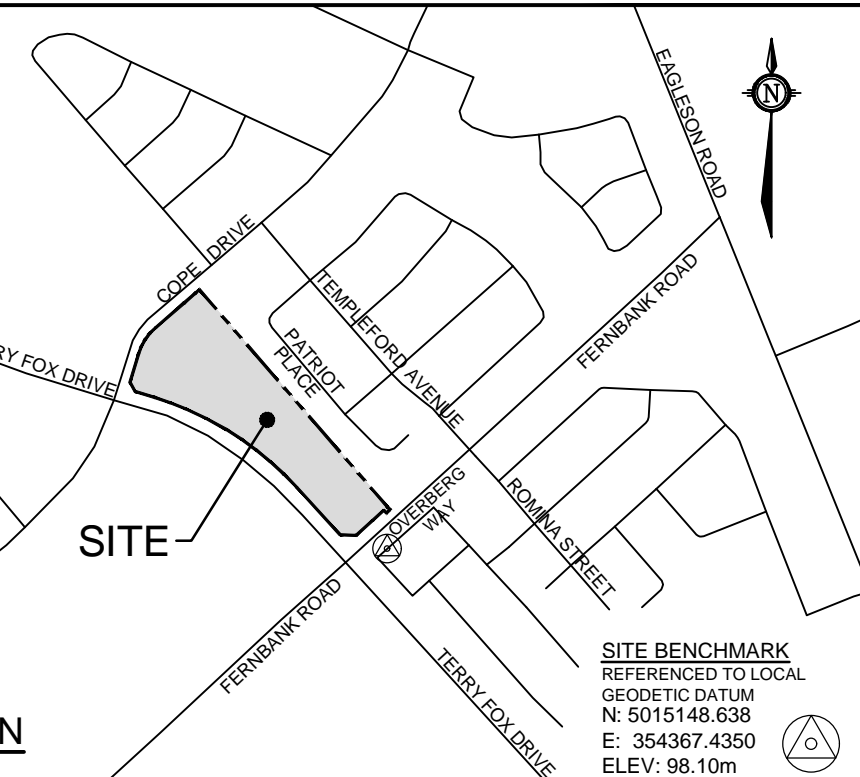


# LEGEND

	SITE BOUNDARY		PROPOSED HYDRO METER LOCATION		EXISTING VALVE AND VALVE BOX
	PROPOSED STORM MANHOLE & SEWER		PROPOSED HYDRO STEP DOWN TRANSFORMER LOCATION		EXISTING FIRE HYDRANT
	PROPOSED SANITARY MANHOLE & SEWER		PROPOSED WATER METER LOCATION		EXISTING CATCHBASIN
	PROPOSED WATERMAIN		PROPOSED REMOTE WATER METER LOCATION		EXISTING TOP OF GRATE
	PROPOSED VALVE & VALVE BOX		PROPOSED GAS METER LOCATION		EXISTING HYDRAULIC GRADE LINE
	PROPOSED CURB STOP LOCATION		PROPOSED PRESSURE REDUCING VALVE		EXISTING UTILITY POLE C/W GUY WIRES
	PROPOSED DISTRICT METERING AREA (DMA) CHAMBER (AS PER CITY OF OTTAWA DETAIL W3.3)		PROPOSED RETAINING WALL		EXISTING STREETLIGHT
	PROPOSED HYDRANT C/W VALVE & VALVE BOX		EXISTING STORM MANHOLE AND SEWER		
	PROPOSED CATCHBASIN		EXISTING SANITARY MANHOLE AND SEWER		
	PROPOSED CATCHBASIN MANHOLE		EXISTING WATERMAIN		
	PROPOSED REAR YARD ELBOW		EXISTING UNDERGROUND GAS		
	PROPOSED REAR YARD TEE				
	PROPOSED TWSI AS PER CITY OF OTTAWA DETAIL SGT.2				
	PROPOSED TREES				

NORTH

KEY PLAN  
N.T.S.



SAN MANHOLE TABLE				
MANHOLE ID	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)
109	1200	1+210.01	97.35	SE=94.20 NW=94.17 NE=94.23
111	1200	1+282.11	97.43	SE=94.47 NW=94.44 NE=94.50
113	1200	1+340.05	97.54	NW=94.66 SE=94.69
115	1200	1+351.12	97.60	NE=94.77 NW=94.74
117	1200	1+359.04	97.67	SW=94.80 SE=94.86 NE=94.83
211	1200	6+040.80	97.33	SW=94.66
213	1200	8+040.80	97.50	SW=94.93
215	1200	9+031.37	97.51	SW=95.12
217	1200	1+403.45	97.70	NW=95.30

STM MANHOLE TABLE				
MANHOLE ID	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)
108	1200	1+187.05	97.28	SE=94.60 SW=94.83 NW=94.53
110	1200	1+208.53	97.36	SE=94.65 NE=94.88 NW=94.65 SW=94.88
112	1200	1+280.61	97.47	SE=94.94 NE=95.02 NW=94.79
114	1200	1+339.26	97.55	NW=95.09 SE=95.09
116	1200	1+351.13	97.61	NE=95.12 NW=95.12
118	1200	1+358.97	97.67	SE=95.50 NE=95.50 SW=95.15
206	1200	1+407.25	97.76	NW=95.75 SW=95.75

REAR YARD CATCHBASIN TABLE			
CB No.	SIZE(mm)	T/G ELEV(m)	INVERT(m)
RYE1	300	97.47	NW=95.88
RYE2	300	97.50	NW=95.51
RYE3	300	97.40	NW=95.96
RYE10	300	97.37	SE=95.47
RYE14	300	97.50	SW=96.10
RYE15	300	97.29	SE=95.82
RYE16	300	97.58	NE=95.79
RYE17	300	97.66	SW=96.26
RYT1	1200	97.35	SW=95.59 SE=95.59 NW=95.59
RYT3	300	97.44	SE=95.39 NW=95.41
RYT4	300	97.26	SE=95.23 NW=95.23
RYT5	300	97.23	NE=95.11 SE=95.11
RYT6	300	97.18	NW=95.62 SE=95.62
RYT7	300	97.15	SW=95.14 SE=95.14
RYT11	300	97.58	NW=95.17 NE=95.17
RYT15	300	97.48	NE=95.91 SW=95.91
RYT16	300	97.64	SW=96.07 NE=96.07

PIPE CROSSING TABLE			
CROSSING #	WATERMAIN	SANITARY	STORM
16	INV = 93.53 OBV = 93.73	INV = 94.09 OBV = 94.29	INV = 94.83 OBV = 95.13
17	INV = 93.53 OBV = 93.73	INV = 94.27 OBV = 94.47	INV = 94.65 OBV = 95.15
18	INV = 93.53 OBV = 93.73	INV = 94.17 OBV = 94.37	INV = 94.89 OBV = 95.19
19	INV = 94.78 OBV = 94.98	INV = 94.36 OBV = 94.56	INV = 95.87 OBV = 96.12
20	INV = 93.80 OBV = 94.00	INV = 94.54 OBV = 94.74	INV = 95.06 OBV = 95.31
21	INV = 93.80 OBV = 94.00	INV = 94.51 OBV = 94.71	INV = 95.03 OBV = 95.33
22	INV = 94.87 OBV = 95.07	INV = 94.84 OBV = 95.04	INV = 95.87 OBV = 96.12
23	INV = 94.25 OBV = 94.35	INV = 94.87 OBV = 95.07	INV = 95.56 OBV = 95.86
24	INV = 94.25 OBV = 94.35	INV = 94.87 OBV = 95.07	INV = 95.56 OBV = 95.86
25	INV = 94.40 OBV = 94.60		INV = 95.13 OBV = 95.38

CATCHBASIN TABLE					
CB No.	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)	ICD DIA.(mm)
CBMH3	1200	6+025.86	97.10	SW=94.98 NE=95.03	TEMPEST LMF VORTEX 101
CBMH4	1500	8+025.86	97.31	SW=95.12 NE=95.20	80mm PLATE
CBMH5	1500	9+021.47	97.38	SW=95.56 NE=95.56	108mm PLATE
CBMH11	1800	5+017.92	97.08	NE=94.90 SE=94.95	
CBMH12	1200	5+054.40	97.55	NW=95.15 SW=95.15	
CBMH13	1200	1+208.45	97.23	NE=94.91	
CBMH14	1200	1+256.96	97.23	NE=95.09 SW=95.09	
CBMH15	1200	1+390.18	97.50	SE=95.67 NW=95.62	
CICB2	600x800	1+316.65	97.59	NE=96.04 SW=96.04	

SANITARY MANHOLES THAT REQUIRE WATERTIGHT LIDS AS PER CITY SPEC MS-22.15	
MH ID	
109	
211	
213	
215	
217	

STORM MANHOLES THAT REQUIRE WATERTIGHT LIDS AS PER CITY SPEC MS-22.15	
MH ID	
108	
110	
114	

- Pipes with insufficient soil cover

NOTE:  
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

No.	REVISION	DATE	BY
6.	REVISED SITE PLAN SUBMISSION	NOV 14/25	DOB
5.	RE-ISSUED FOR TENDER	JAN 18/24	DOB
4.	ISSUED FOR TENDER	MAY 20/22	DOB
3.	REVISED PER CITY COMMENTS	FEB 17/22	DOB
2.	REVISED PER CITY COMMENTS	NOV 5/21	DOB
1.	ISSUED FOR CITY OF OTTAWA REVIEW	JUN 2/21	DOB

SCALE	DESIGN
1:400	BM
	CHECKED
	DOB
	DRAWN
	ATE
	CHECKED
	BM
	APPROVED
	DOB

FOR REVIEW ONLY



**NOVATECH**  
Engineers, Planners & Landscape Architects  
Suite 200, 240 Michael Cowpland Drive  
Ottawa, Ontario, Canada K2M 1P6  
Telephone: (613) 254-9643  
Facsimile: (613) 254-5867  
Website: www.novatech-eng.com

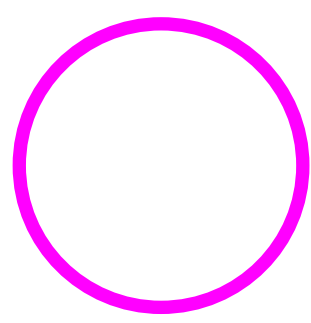
CITY OF OTTAWA 5331 FERNBANK ROAD IRON VALLEY 2		PROJECT No. 121011-00	
DRAWING NAME GENERAL PLAN OF SERVICES		REV # 6	
		DRAWING No. 121011-GP2	





CONTINUED ON DRAWING L.2

1 LANDSCAPE PLAN  
L.2 SCALE 1:400



- Indicates the minimum 4.5 m setback from building foundation is not provided.

- GENERAL NOTES:**
1. It is the responsibility of the appropriate contractor or official to report any errors, omissions or discrepancies on this plan with actual site conditions to the Landscape Architect before proceeding with construction.
  2. The contractor is to notify all utility companies and authorities prior to any excavation and ascertain locations of underground services.
  3. The contractor is to reinstate all areas and items damaged as a result of construction activity.
  4. The contractor is to comply with all pertinent codes and by-laws.
  5. The contractor is to maintain a positive surface run-off throughout the entire construction period.
  6. The Landscape Architect is not responsible for subsurface conditions.
  7. The contractor is to identify all existing trees to remain on site with the Landscape Architect prior to construction.
  8. The contractor is to stake the proposed location of all plant material in conjunction with the Landscape Architect prior to excavation.
  9. Minimum distances for selected deciduous trees are as follows:
    - Sidewalks 1m
    - Underground Infrastructure 1.5m
    - Fire Hydrant 2.5m
    - Street Light 2.5m for Small Trees, 5m for Large/Medium Trees
  10. All trees within 1m of underground utility trenches are to be excavated by hand.
  11. Remove all protective wrapping from tree trunks after installation.
  12. Staking of trees shall only be performed if necessary.
  13. Ensure that mulch is pulled back a min. distance of 75mm from base of tree trunk.

**LEGAL DESCRIPTION**  
**TOPOGRAPHICAL PLAN OF**  
PART OF LOT 30 CONCESSION 10, GOULBOURN,  
PART 1 PLAN 4R17373, EXCEPT PART 4, PLAN 4R20112;  
OTTAWA.  
SUBJECT TO AN EASEMENT IN FAVOUR OF HYDRO OTTAWA  
LIMITED OVER PARTS 5, 6, 7, 8 AND 9 PLAN 4R20112 AS IN  
OC455206.  
  
ROAD ALLOWANCE BETWEEN LOTS 30 AND 31 CONCESSION 10,  
GOULBOURN  
LYING BETWEEN PARTS 3 AND 4 ON 4R17373 AND PART 2 ON  
PLAN 4R20112, AS CLOSED BY N599928;  
OTTAWA  
  
PART OF LOT 31, CONCESSION 10, GOULBOURN,  
PART 1 ON PLAN 4R19334  
CITY OF OTTAWA  
  
Prepared by Annis, O'Sullivan, Vollebakk Ltd.  
Field Work Completed December 14, 2020

<b>40 YEAR CANOPY CALCULATION:</b>	
- 36,789m <sup>2</sup> Site Limit of Work	
- (24) Large Deciduous Trees Proposed (154m <sup>2</sup> ea.)	
- (38) Coniferous Trees Proposed (79m <sup>2</sup> ea.)	
- (30) Medium Deciduous Trees Proposed (79m <sup>2</sup> ea.)	
- (113) Small Deciduous Trees Proposed (7m <sup>2</sup> ea.)	
= 9,859m <sup>2</sup> canopy cover = 26.8% canopy cover	
*Large deciduous tree calculated at 14m spread, Large coniferous trees at 10m spread, Medium deciduous tree calculated at 10m spread, Small deciduous tree calculated at 3m spread	



KEY MAP

CLIENT

CONSULTANTS

ARCHITECTS:

RLA ARCHITECTURE  
RODERICK LAHEY ARCHITECT INC.  
66 BEECH STREET, OTTAWA, ONTARIO K1S 3J5  
Tel: (613) 724-9822

CIVIL ENGINEERS:

NOVATECH  
ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS  
SUITE 200, 340 MICHAEL COWPLAND DRIVE,  
OTTAWA, ONTARIO K2M 1W1  
Tel: (613) 254-8643

SURVEYOR:

Annis O'Sullivan Vollebakk Ltd.  
Ontario Land Surveyors  
14 Concourse Gate, Suite 500,  
Nepean, Ontario K2E 7S8  
Tel: (613) 727-0850

LEGEND

- PROPOSED DECIDUOUS TREE
- REQUIRED SOIL VOLUME AT A 1.5m DEPTH
- PROPOSED CONIFEROUS TREE
- REQUIRED SOIL VOLUME AT A 1.5m DEPTH
- PROPOSED SHRUBS
- PROPOSED SOD

1	ISSUED FOR SITE PLAN APPROVAL	11/18/2025	LC	JL
No.	Issue	Date	mm/dd/yyyy	DR CK

**JAMES B. LENNOX & ASSOCIATES INC.**  
**LANDSCAPE ARCHITECTS**  
3332 CARLING AVE. OTTAWA, ONTARIO K2H 5A8  
Tel: (613) 722-5168 Fax: (866) 343-3942

PROJECT

**IRON VALLEY 2 TERRACE HOMES**  
5331 FERNBANK ROAD  
OTTAWA, ONTARIO

DRAWING

LANDSCAPE PLAN

STAMP

SCALE

AS SHOWN

START DATE

JUNE, 2021

PROJECT NO.

21-CLG-2163

DRAWING NO.

**L.1**

PLOT SIZE ARCH-D

PROJECT NORTH





**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. USE TREE SPECIES TOLERANT TO POORLY DRAINED SOIL CONDITIONS.

REMOVE DAMAGED OR OBJECTIONABLE BRANCHES. FOLLOW PROPER HORTICULTURAL PRACTICE. DO NOT PRUNE LEADER.

TREE WRAP APPLIED SPIRALLY FROM GROUND UP TO HEIGHT OF SECOND BRANCHES.

2 STAKES MIN 2400mm LONG WITH NO. 12 GALVANIZED WIRE ENCASED IN 12mm DIAMETER RUBBER HOSE ALLOWING SLACK IN GALVANIZED WIRE. REMOVE STAKES AFTER ONE YEAR. STAKE BEYOND EDGE OF ROOTBALL.

CONSTRUCT 100mm SAUCER AROUND TREE BASE. FILL WITH 75mm WOODCHIP MULCH. PULL BACK MULCH FROM BASE OF TREE. ENSURE THAT MULCH COVERS ALL EXPOSED SOIL.

ROOT COLLAR TO BE SET 100mm ABOVE FINISHED GRADE.

TAPER TO BLEND NATURALLY WITH FINISH GRADE

TOPSOIL MIXTURE (SEE SPECIFICATIONS)

PLACE 1/3 OF ROOT BALL ABOVE GRADE. CUT AND REMOVE BURLAP AND WIRE BASKET FROM TOP 1/3 OF ROOTBALL WITHOUT DISTURBING ROOTS.

COMPACTED ROOTBALL SUPPORT PAD

REMOVE DAMAGED OR OBJECTIONABLE BRANCHES. FOLLOW PROPER HORTICULTURAL PRACTICE. DO NOT PRUNE LEADER.

600mm WOODEN STAKE TO EXTEND INTO UNDISTURBED SOIL.

CONSTRUCT 100mm SAUCER AROUND TREE BASE. FILL WITH 75mm WOODCHIP MULCH. PULL BACK MULCH FROM BASE OF TREE. ENSURE THAT MULCH COVERS ALL EXPOSED SOIL.

ROOT COLLAR TO BE SET 100mm ABOVE FINISHED GRADE.

TAPER TO BLEND NATURALLY WITH FINISHED GRADE

TOPSOIL MIXTURE AS PER SPECIFICATIONS

PLACE 1/3 OF ROOT BALL ABOVE GRADE. CUT AND REMOVE BURLAP AND WIRE BASKET FROM TOP 1/3 OF ROOTBALL WITHOUT DISTURBING ROOTS.

COMPACTED ROOTBALL SUPPORT PAD

REMOVE DAMAGED OR OBJECTIONABLE BRANCHES. FOLLOW PROPER HORTICULTURAL PRACTICE.

REMOVE POTS COMPLETELY FROM POTTED STOCK OR CUT AND REMOVE BURLAP AND WIRE FROM TOP 1/3 OF ROOTBALL.

PLANTING BED AROUND SHRUBS. COVER ENTIRE BED WITH 75mm DEPTH WOODCHIP MULCH. PULL BACK MULCH FROM BASE OF SHRUBS. ENSURE THAT MULCH COVERS ALL EXPOSED SOIL.

TAPER TO BLEND NATURALLY WITH FINISHED GRADE.

TOPSOIL MIXTURE AS PER SPECIFICATIONS