

GEORGIAN VILLAS INC.

COBBLE BEACH DEVELOPMENT: THE DELL FUNCTIONAL SERVICING REPORT

JANUARY 26, 2023





COBBLE BEACH DEVELOPMENT: THE DELL FUNCTIONAL SERVICING REPORT

GEORGIAN VILLAS INC.

PROJECT NO.: 19M-00180.
DATE: JANUARY 26, 2023

WSP
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THORNHILL, ON
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1 INTRODUCTION

WSP has been retained by Georgian Villas Inc. to prepare this Functional Servicing Report in support of a proposed subdivision located within the Cobble Beach Resort in Township of Georgian Bluffs (Township), Ontario. This report provides the conceptual framework for water distribution, sanitary sewage, and storm drainage for the Site, prior to detailed design being undertaken. The proposed plan involves the development of a greenfield residential subdivision.

This Report has been prepared to accompany the submission for Draft Plan approval of a Plan of Subdivision, known as The Dell (refer to Appendix A). In preparing this Report we have consulted with the requirements of the 2007 Master Servicing Plan by Pryde Schropp McComb Inc. (now WSP), the requirements of the Township, and the MOE Design Guidelines for Sewage Works. This Report is intended to provide the functional design framework for the proposed development. All required approvals from the Township, Grey County, MOE, Grey Sauble Conservation Authority (GSCA) and all other governing bodies shall be obtained as part of the registration of the subdivision.

1.1 SITE DESCRIPTION

The subject property is part of Draft Plan 42-T-2C, Concession 3 located in the Township of Georgian Bluffs of Grey County. The general location of the Site is shown on Figure 1. The property is southeast of Lindenwood Road and Grey County Road 1, bounded by Georgian Bay to the east and the golf course to the south. The subject property is currently a grassed field with open space. It is situated at the north end of McLeese Drive (to be expanded). Refer to Figure 2 for the Pre-Development Plan.

1.2 DEVELOPMENT PROPOSAL

The Draft Plan of Subdivision has an area of 11 ha which is comprised of low density residential, community parkland, and open space. The Proposed Development Plan is shown on Figure 3:

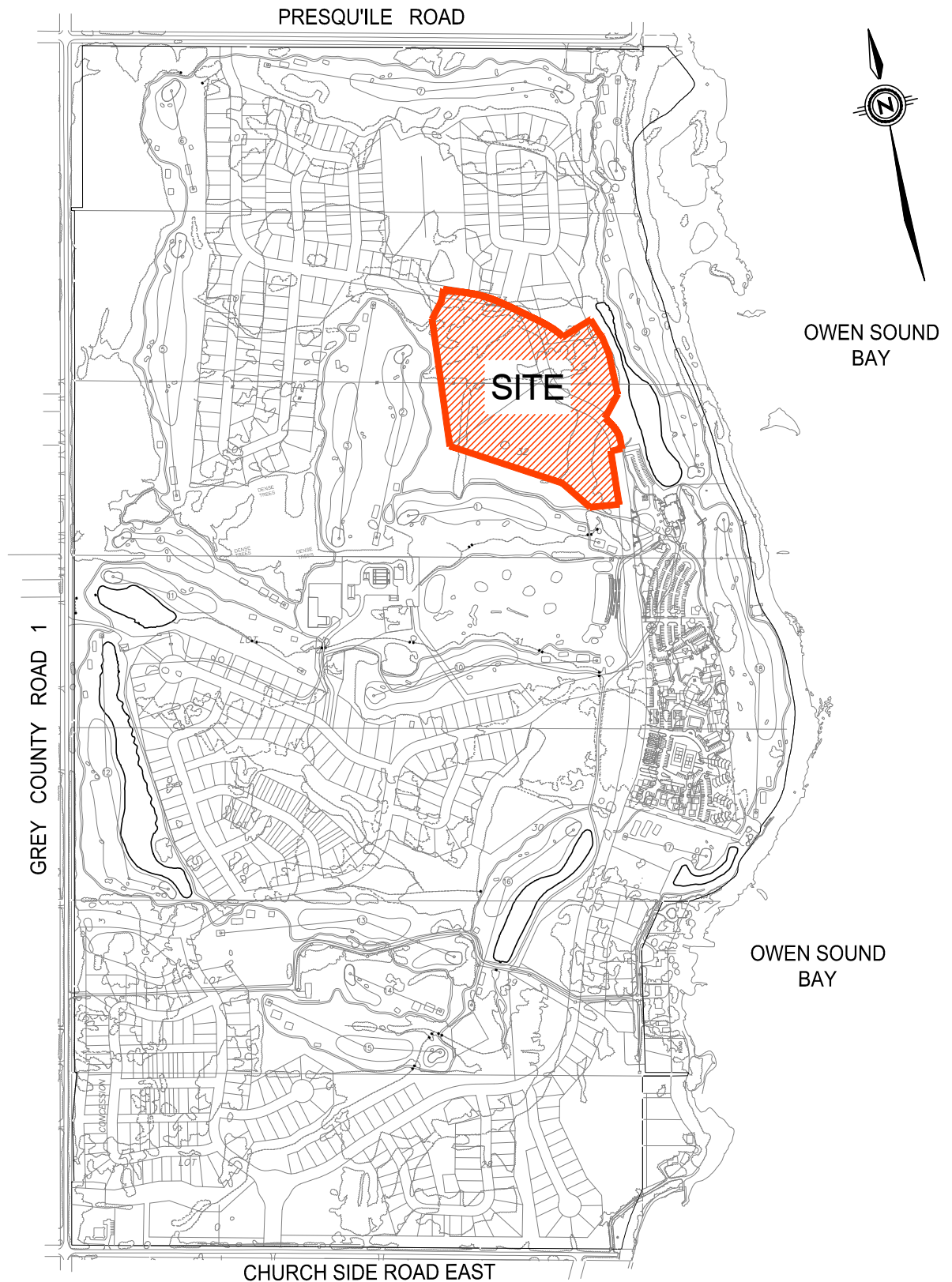
- Single Detached Units – 65 units;
- Rights-of-way widths of 18.0m, and 20.0m; and
- Open Space Blocks & Memorial Block.

The proposed phase is part of a multi-phase development. A total of 400 equivalent residential units (ERU's) have been allocated to the Cobble Beach development. To date, Cobble Beach has utilized 266 ERU's to complete its previous phases. This phase will utilize an additional 65 units, which yields a total of 331 ERU's. The table below summarizes the number of ERU's for the previous phases and for this phase.

Previous Phases	ERU's Utilized
Phase 1	75
Blue Bay Villas & Hollow	79
Grey Standard Condo 92	26
Phase 2	67
CBGL Clubhouse & Cottages	19
Total	266

Proposed Phase	ERU's Utilized
Phase 3: The Dell	65
Total Allocated to Date	331

FILENAME: C:\Users\camd076046\ACCDocs\WSP Canada projects (AMER)\Land Development Ontario\Project Files\19M-00180 Cobble Beach\MUNI\The Dell\FSR\19M-00180-Dell_Fig_1.dwg
PLOTDATE: Jan 19, 2023 - 9:57am, CAMD076046



CLIENT

GEORGIAN VILLAS INC.

TITLE

COBBLE BEACH
THE DELL

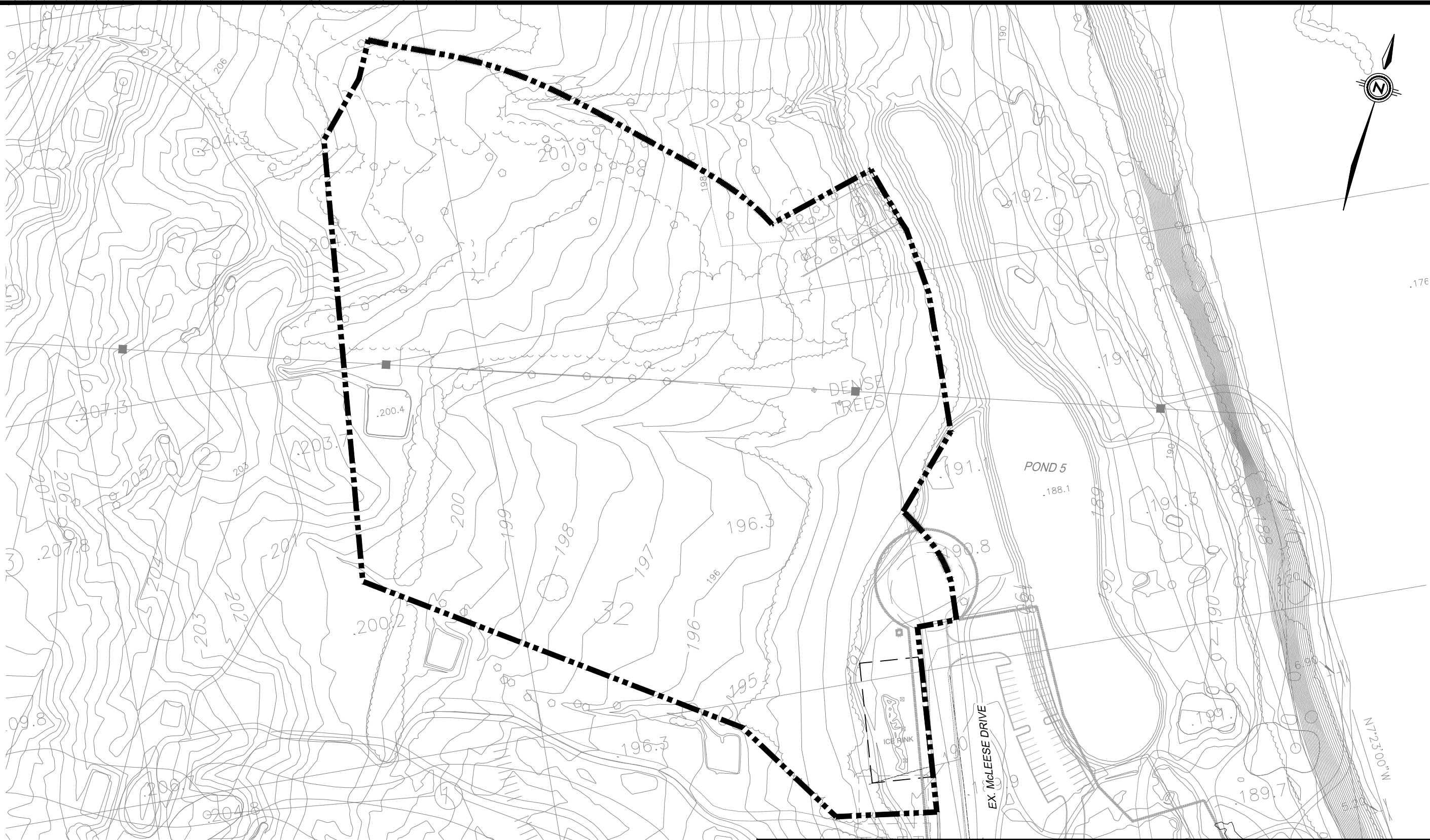
LOCATION PLAN



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Scale	NTS	Figure No.	1

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LEGEND

--- LIMIT OF PLAN

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THE DELL

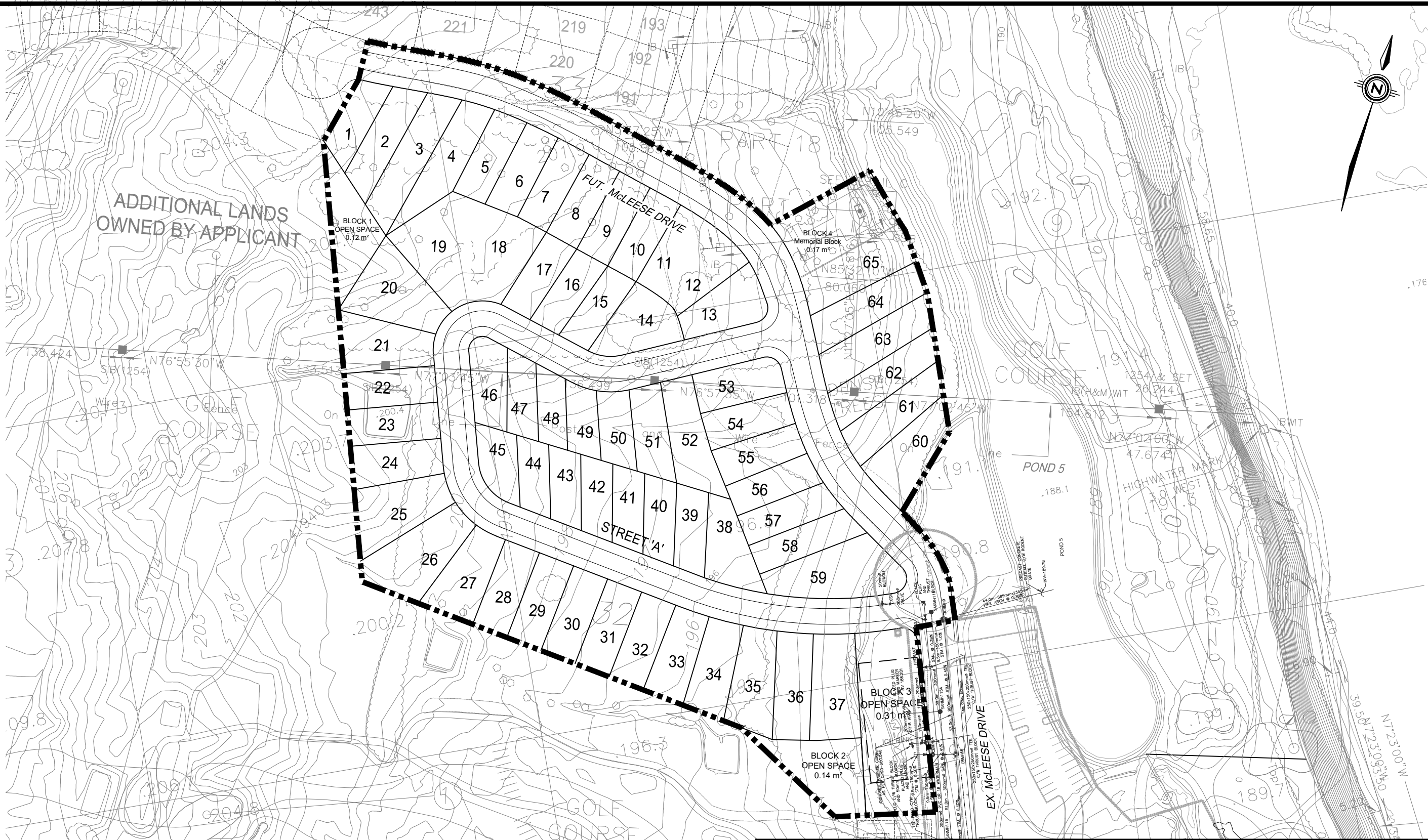
PRE- DEVELOPMENT PLAN



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Scale	1: 1500	Figure No.	2

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--- LIMIT OF PLAN

CLIENT
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PROPOSED DEVELOPMENT PLAN



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Scale	1: 1500	Figure No.	3

2 STORM DRAINAGE

2.1 BACKGROUND

The proposed development is located on the western shore of Georgian Bay. Drainage for the subject lands was described in a study completed by PSMI (now WSP) titled “Cobble Beach – Stormwater Management Report” (SWM Report 2007). The Report which was completed for the Township in 2007 outlines both existing drainage conditions for the Site and the proposed approach for post development drainage.

The MSP and the SWM 2007 were used extensively as a reference in this FSR. Additionally, detail has been expanded from a Master Servicing level down to the Site-specific level as required to support the proposed Draft Plan of Subdivision for the subject Site.

2.2 EXISTING DRAINAGE

The existing Site generally drains from west to east and ultimately to Georgian Bay. The Site consists of mainly grassed fields and the average slope across the Site is approximately 4%. Most of the Site sheet flows into the adjacent SWM pond to the east (pond 5), which then discharges to Georgian Bay.

There are existing storm sewers along McLeese Drive, south of the Site. The sewers were constructed in 2007, to service the development immediately to the south as well as the Subject Site and future developments along the future McLeese Drive to the north. These storm sewers provide an outlet to pond 5, which discharges to Georgian Bay.

There is an existing golf course to the south and west of the subject Site. Runoff from these areas is also directed to pond 5 and ultimately to Georgian Bay via the existing storm sewers and overland flow route.

2.3 PROPOSED DRAINAGE

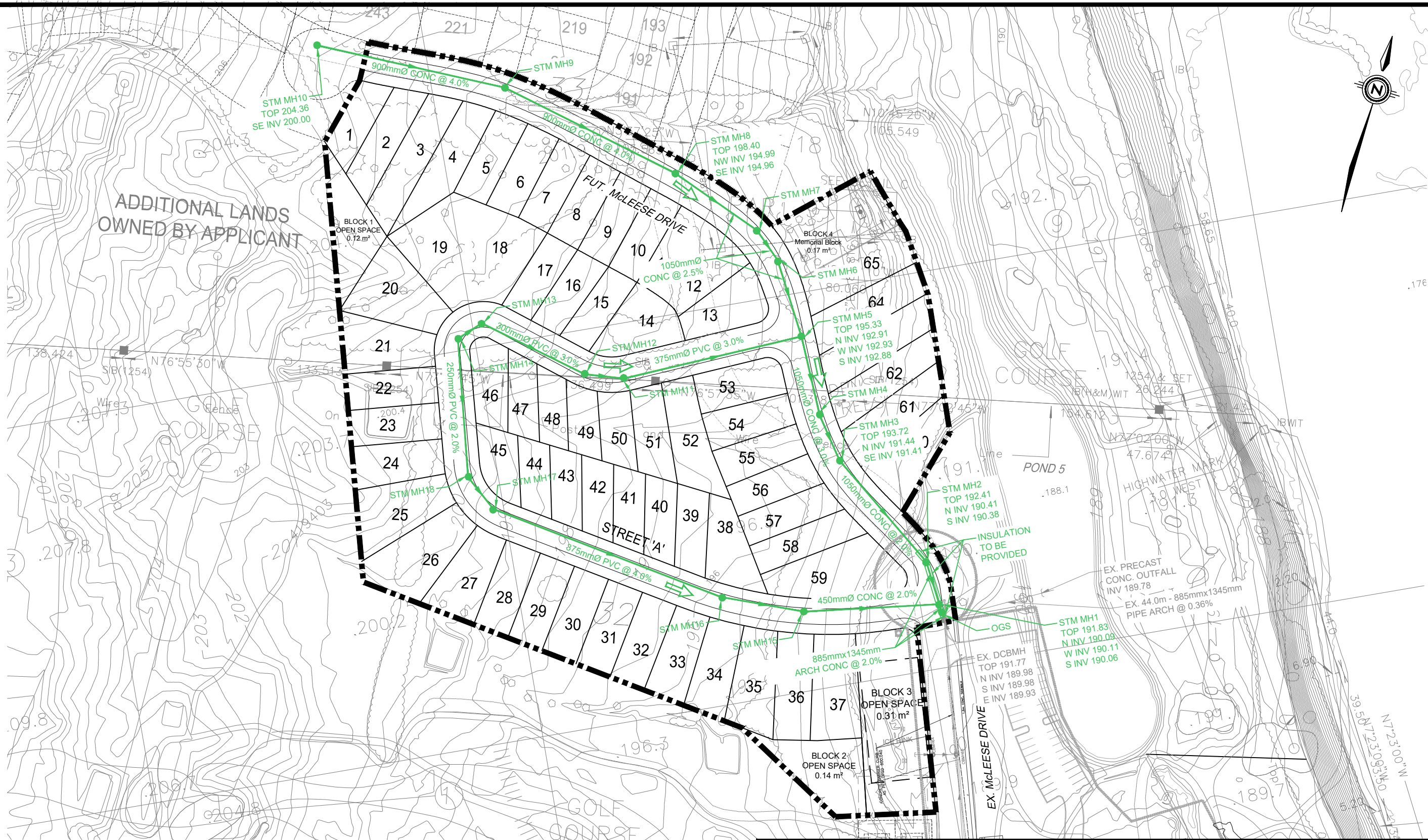
All road flows will be captured by catchbasins and discharged into storm sewers within the right-of-way. The storm sewers will be designed for 5-year storm event, and major storm drainage will be designed for 100-year storm event. The storm network layout is as shown on Figure 4. The storm drainage area plan and storm sewer design sheet can be found in Appendix B.

The SWM Report by PSMI (2007) has analyzed the right-of-way capacity with the assumption that all catchbasins are fully blocked and concluded that all proposed rights-of-way have sufficient capacity for overland flow conveyance. The major system flow route will use the local roads throughout the Site. Where the flow route is directed from the roadway to the pond, the road profile has been designed as a sag and the surface drainage will overtop the curbs and drain into the ditch. A reverse boulevard has been implemented in the vicinity to minimize ponding depth.

An OGS will be proposed on McLeese Drive to provide quality treatment for the site. Quantity control is not required as per the SWM report by PSMI (2007), due to the proximity to Georgian Bay.

Each house is to be equipped with a sump pump to storm sewer for foundation drainage.

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LEGEND

- LIMIT OF PLAN
- EX. STORM SEWER
- PROP. STORM CONNECTION

CLIENT

GEORGIAN VILLAS INC.

TITLE

COBBLE BEACH
THE DELL

STORM SERVICING PLAN



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Scale	1: 1500	Figure No.	4

Street A is proposed to drain eastward toward McLeese Drive, minor flows will be conveyed by the proposed storm sewers while major flows will be conveyed along the right-of-way. McLeese Drive is proposed to drain towards the south. Minor flows will be conveyed to the existing storm sewers which drain into pond 5. The major storm runoff will also drain south along McLeese Drive and discharge into pond 5 along the existing overland flow route.

3 ROADS AND GRADING

3.1 EXISTING CONDITIONS

The Site topography generally slopes from west to east towards Georgian Bay. The existing elevations vary between 191m to 204m with an average gradient of 4%.

3.2 ROAD LAYOUT

As shown on Figure 3, the proposed development is serviced by local residential roads. Access to the subdivision from arterial roads is via intersections along Grey County Road 1, and Church Side Road East. The proposed roads consist of 18m and 20m Right-of-Way, namely McLeese Drive and Street A. The typical cross-sections are provided in Appendix A.

3.3 PAVEMENT STRUCTURE

The pavement structure for the proposed subdivision will be in accordance with the Geotechnical Consultant’s recommendations. Specifically, the minimum preliminary pavement structure requirements are:

Road Type	Course	Thickness (mm)
Local Residential Roads	Asphalt Surface (HL3)	50
	Asphalt Binder (HL4)	50
	Granular Base (Granular ‘A’)	150
	Granular Sub-Base (Granular ‘B’)	400

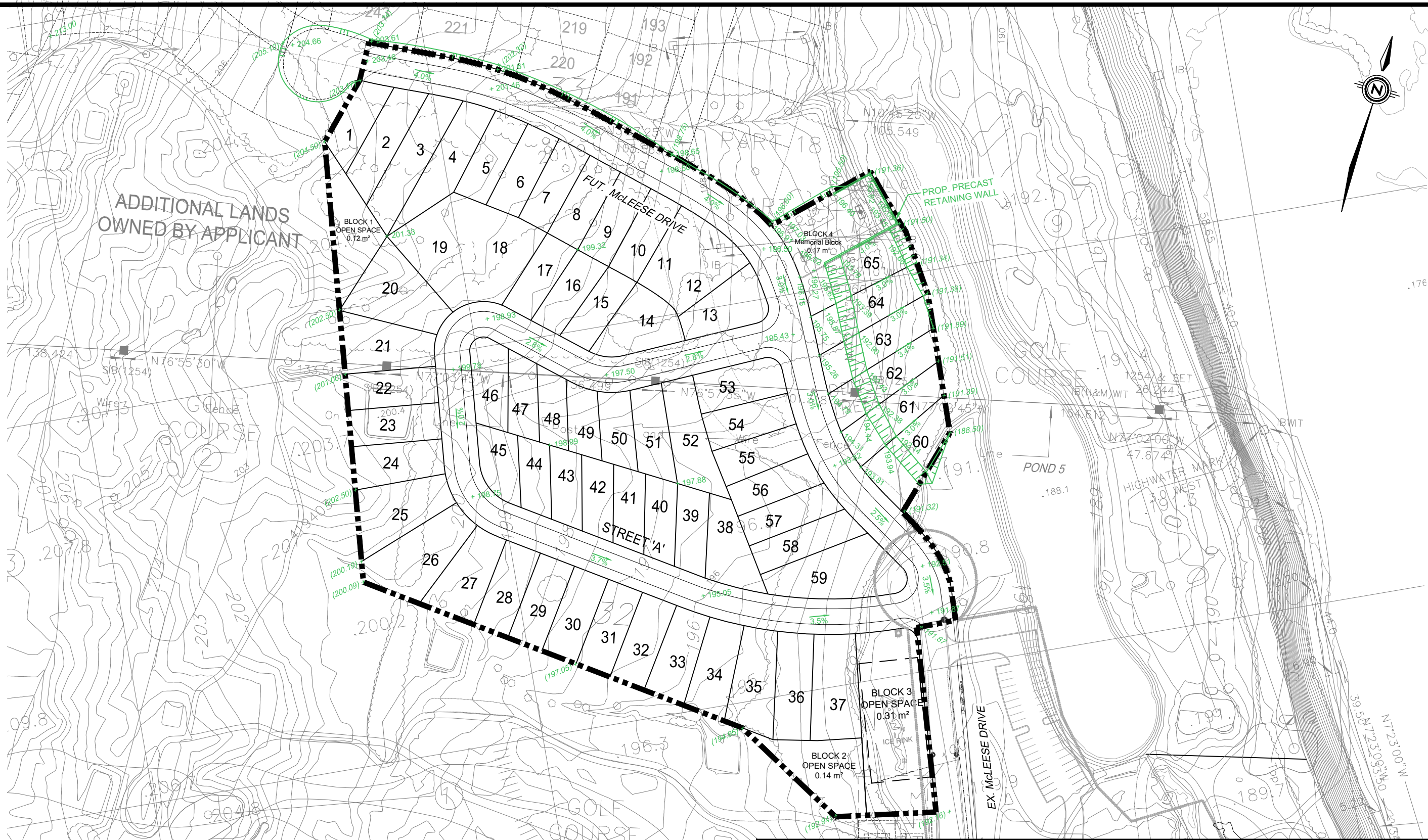
3.4 ROADS AND LOT GRADING

Along the perimeter of the property, the existing grades will be maintained. The proposed preliminary elevations, shown in figure 5, are designed to minimize the earthmoving (cutting and filling) required for road and lot construction, provide adequate cover for underground services, and comply with Town’s requirements.

Lot grading will be designed to convey positive drainage. Road grades will match into the existing elevations on McLeese Drive. At the internal of the Site, finished grades will match existing ground, with the use of 3:1 sloping and retaining walls where required.

Road elevations will be set to direct the major storm to the proposed discharge locations. Roads will be designed with a minimum longitudinal grade of 0.5% and a maximum grade of 6.0%. Lot grades will be designed to be between 2% and 6%.

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LEGEND

	LIMIT OF PLAN
	PROP. GRADES
	EX. GRADES

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GEORGIAN VILLAS INC.

TITLE

COBBLE BEACH
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PRELIMINARY GRADING PLAN



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Scale	1: 1500	Figure No.	5

4 WATER SERVICING

The municipal water supply and distribution are under the jurisdiction of the Township.

4.1 EXISTING WATER SUPPLY

There is an existing 250mm watermain on McLeese Drive, which was constructed in 2007. The East Linton Water Treatment Plant is located 4 km south of Cobble Beach on Grey County Road 1, and it has been upgraded in 2008 to service part of the Cobble Beach Development which includes the proposed development. As per the Design Report for the First Expansion of East Linton Water Treatment Plant and Storage Facilities (2006), the current treatment plant can service up to 817 equivalent residential units, 557 more units in comparison to the number of units it serviced prior to the upgrade. Of the 557 additional units, 400 units are allocated to Georgian Villas Inc. The plant's current rated capacity is 2,069m³/day.

4.2 PROPOSED WATER DISTRIBUTION

A network of watermains with diameters of 200mm and 250mm will generally follow the road network to provide a looped system to all areas of the proposed development. The location of the proposed internal watermains is shown on Figure 6. All watermains will be designed per Township's requirements, Master Servicing Plan's recommendations and MOE Design Guidelines. The minimum pipe size used in the proposed residential areas will be 200mm. All watermains will be installed with a minimum cover of 1.80m. Valves will be spaced at a maximum of 240m. MOE standards also require valves be placed at the limits of every intersection with two (2) valves at tee intersections and three (3) valves at cross intersections. The proposed water distribution system shall provide fully looped services to the entire development. Where cul-de-sacs exist, watermain looping will be provided.

The proposed development is in a high-pressure zone, and a pressure-reducing valve will be required on McLeese Drive, west of the Site, as part of future developments as per the Master Servicing Plan. All watermains will be DR-18 PVC, and all water services will be a minimum of 19mm for single family homes.

4.3 ESTIMATED DEMAND

Modelling of the internal Cobble Beach water distribution was completed as part of the Henderson Paddon Report in 2006 and shown on the MSP 2007. The layout and sizing of all the watermains were determined at the time and have considered the domestic and fire demand. The general layout and size of the watermains will follow Henderson Paddon's recommendation.

The estimated domestic water demands for the development have been calculated based on the design criteria and is summarized below:

Equivalent Population Density – Single-Family	2.5 persons/unit
Number of Units	65
Single-Family Population	163 persons
Residential Domestic Demand Rate	450 liters/person/day
Average Domestic Demand	0.85 L/s






Maximum Hourly Demand Factor - Residential	5.4 (per MOE)
Maximum Hourly Demand	4.58 L/s
Maximum Daily Demand Factor	3.6 (per MOE)
Maximum Daily Demand	3.06 L/s
Fire Flow	83 L/s
Maximum Day + Fire Flow	87 L/s

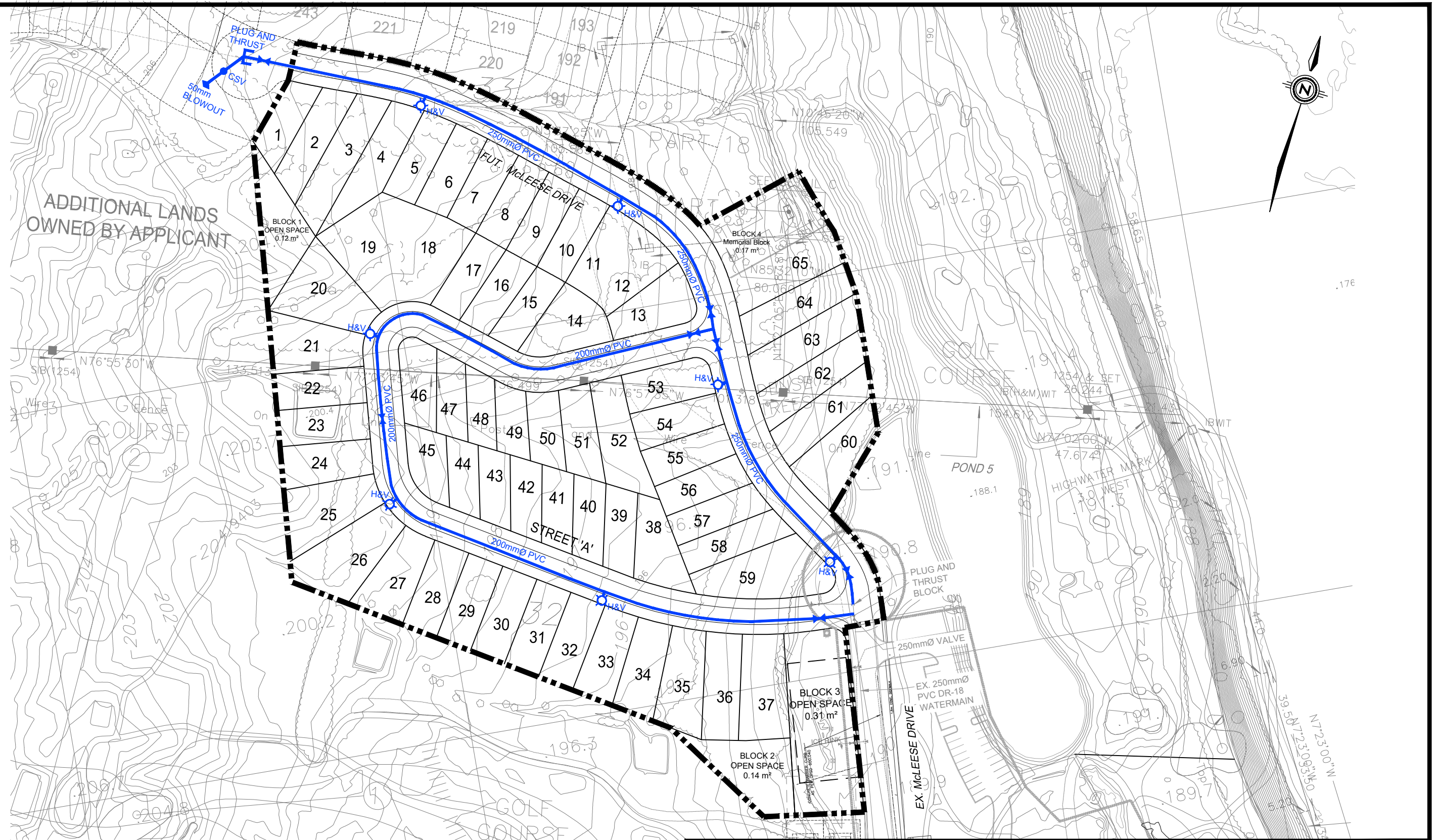
The estimated fire flow has been calculated using the recommendations of the Fire Underwriters Survey. The calculation indicates that the recommended fire flow for this proposed development is 83 L/s, and the total water demand is 87 L/s. The results of these calculations are included in Appendix C. A hydrant flow test will be carried out in Spring 2023 to confirm there is sufficient pressure to service the site.

Fire protection for the single-family homes will be provided by the fire hydrants, and it will be spaced at a maximum distance of 150m in residential areas in accordance with the MSP. The water distribution system figure excerpted from the Cobble beach Master servicing Study by PSMI (2007) can be found in Appendix C.

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LEGEND

-  LIMIT OF PLAN
-  EX. WATERMAIN
-  PROP. W/M CONNECTION
-  PROP. VALVE & CHAMBER
-  PROP. VALVE & BOX



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TITLE
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THE DELL
WATER SERVICING PLAN



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Scale	1: 1500	Figure No.	6

5 SANITARY SERVICING

5.1 EXISTING SANITARY SEWAGE SYSTEM

Sanitary treatment for the entire Cobble Beach Development is provided by the existing Wastewater Treatment Plant (WWTP) situated north of Algonquin Heights which is privately owned and maintained. All sanitary flows to the existing pumping station by Georgian Bay shore where they are pumped to the WWTP through the forcemain. The existing WWTP, pumping station, and downstream forcemains and sewers have been designed to accept sanitary flows from the proposed development. The WWTP and sewage pumping station was constructed in 2007 to service Cobble Beach Development. The sewage pumping station was built to handle the flows in the ultimate scenario where Cobble Beach is fully developed, except for the submersible pumps which would be staged. There is an existing 300mm sanitary sewer on McLeese Drive on the southern limit of the site which will service the development. Proposed sanitary sewers shall be connected to the existing sanitary maintenance hole on McLeese Drive.

5.2 ESTIMATED FLOW FROM THE DEVELOPMENT

An estimate of the post-development sanitary sewage flows from the Site has been calculated. To calculate the approximate peak sanitary flows, the following parameters adapted from the Master Servicing Plan (2007) have been utilized:

- Proposed Equivalent Population Density for Detached Units – 3.5 persons/unit (per MSP)
- Proposed Design Flow for Detached Units- 450 L/cap/day
- Infiltration Allowance - 0.28 L/s/ha
- Peaking Factor for Residential Areas - Harmon Formula

Equivalent Population Density - Single Family	3.5 persons/unit
Number of Units	65
Total Population	228 persons
Average Daily Flow per Capita	450 liters/person/day
Harmon Peaking Factor	4.1
Sanitary Peak Flow	4.86 L/s
Total Area	5 ha
Infiltration Rate	0.28 L/ha/s
Infiltration Flow	1.4 L/s
Total Sanitary Flow (Infiltration + Population)	6.26 L/s

The estimated sanitary flows generated from the proposed development is 6.26 L/s.

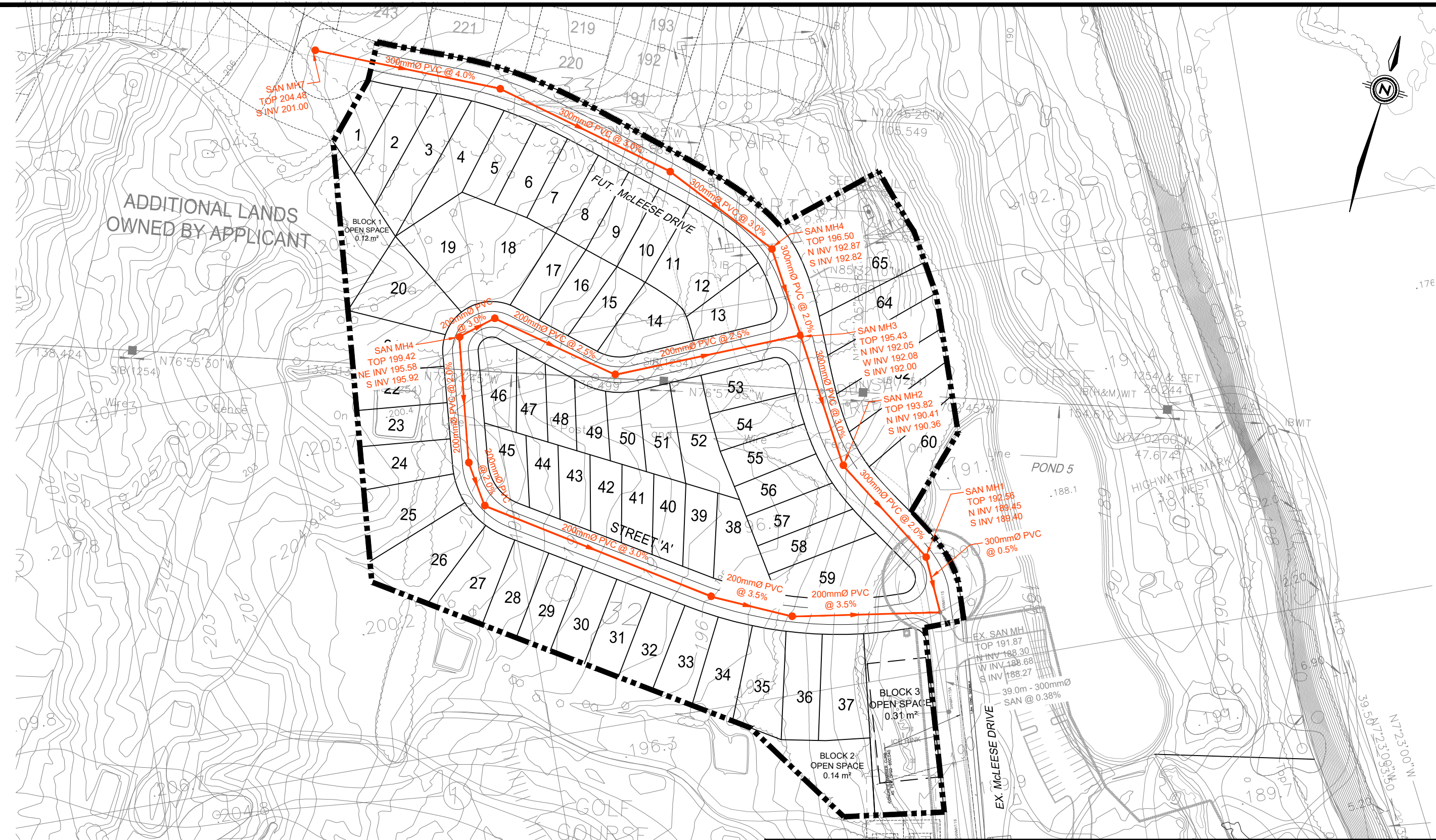
5.3 PROPOSED LOCAL SANITARY SEWER SYSTEM

It is proposed to provide sanitary service connections to the development via internal sanitary sewers within the municipal rights-of-way. All local sanitary sewers will be designed per the MOE Design Guidelines and

the Township's requirements. The minimum pipe size used in residential areas will be 200mm and at a minimum slope of 0.5%. All sanitary sewers shall be installed at a minimum depth of 2.75m below the centreline of the road.

A preliminary design and location of the proposed sanitary sewers through the development can be found on Figure 7. The sanitary drainage plan can be found in Appendix D.

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LEGEND

- LIMIT OF PLAN
- EX. SANITARY SEWER
- PROP. SAN CONNECTION

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SANITARY SERVICING PLAN



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Scale	1: 1500	Figure No.	7

6 CONCLUSIONS

The subdivision will consist of 18m and 20m ROW serving single-family homes at the southern portion of the Cobble Beach Development.

Storm sewers will be designed for the 5-year storm event. Major overland flow will be conveyed via roads and ditches, which will flow to Georgian Bay. The Site is not subject to quantity control due to being adjacent to Georgian Bay. The storm sewer conveys the minor storm flows for the Site to the pond. The overland flow from the development along McLeese Drive, will be directed south of the Site and to the east via the existing overland flow route to pond 5. An OGS will be provided for quality treatment. Each house is to be equipped with a sump pump to storm sewer for foundation drainage.

The layout and size of the watermain shall be designed as per the recommendations provided in the MSP. As most of the proposed development is situated within the de-pressurized zone, a pressure reducing valve shall be proposed as part of a future development, further west on McLeese Drive. The watermains will follow the road alignment, and individual service connections of minimum 19mm diameter Type K copper are provided for each house.

The downstream sanitary sewer system has been designed to accommodate the flows from the proposed development, and no downstream upgrades are required to service the proposed development. The proposed sanitary sewer will be minimum 200mm diameter, and the slope will be a minimum 0.5%.

Yours truly,

WSP CANADA INC

PREPARED BY



Mark Anthony Del Gobbo, EIT
Designer

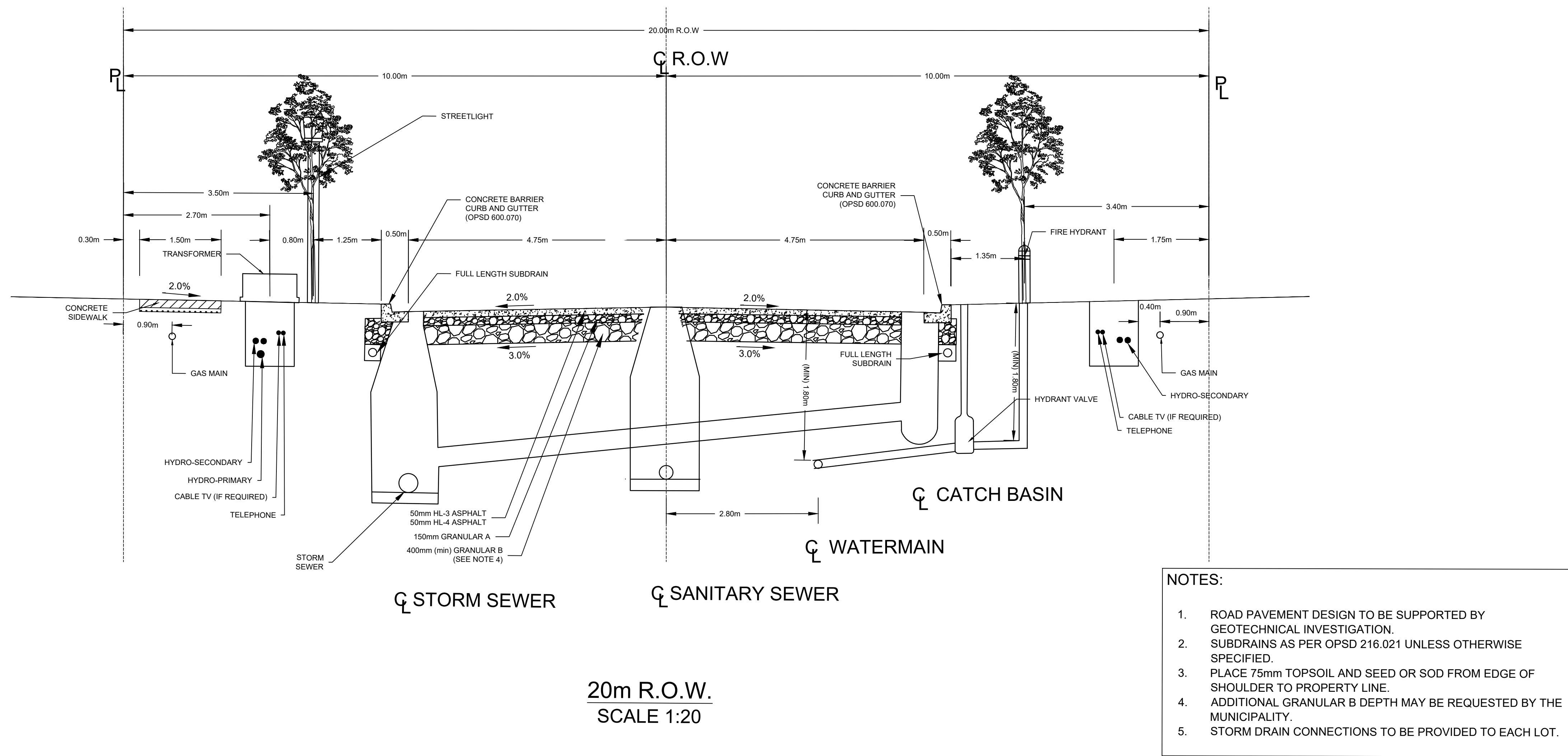
REVIEWED BY

Michael E. Oldham, P.Eng.
Senior Director

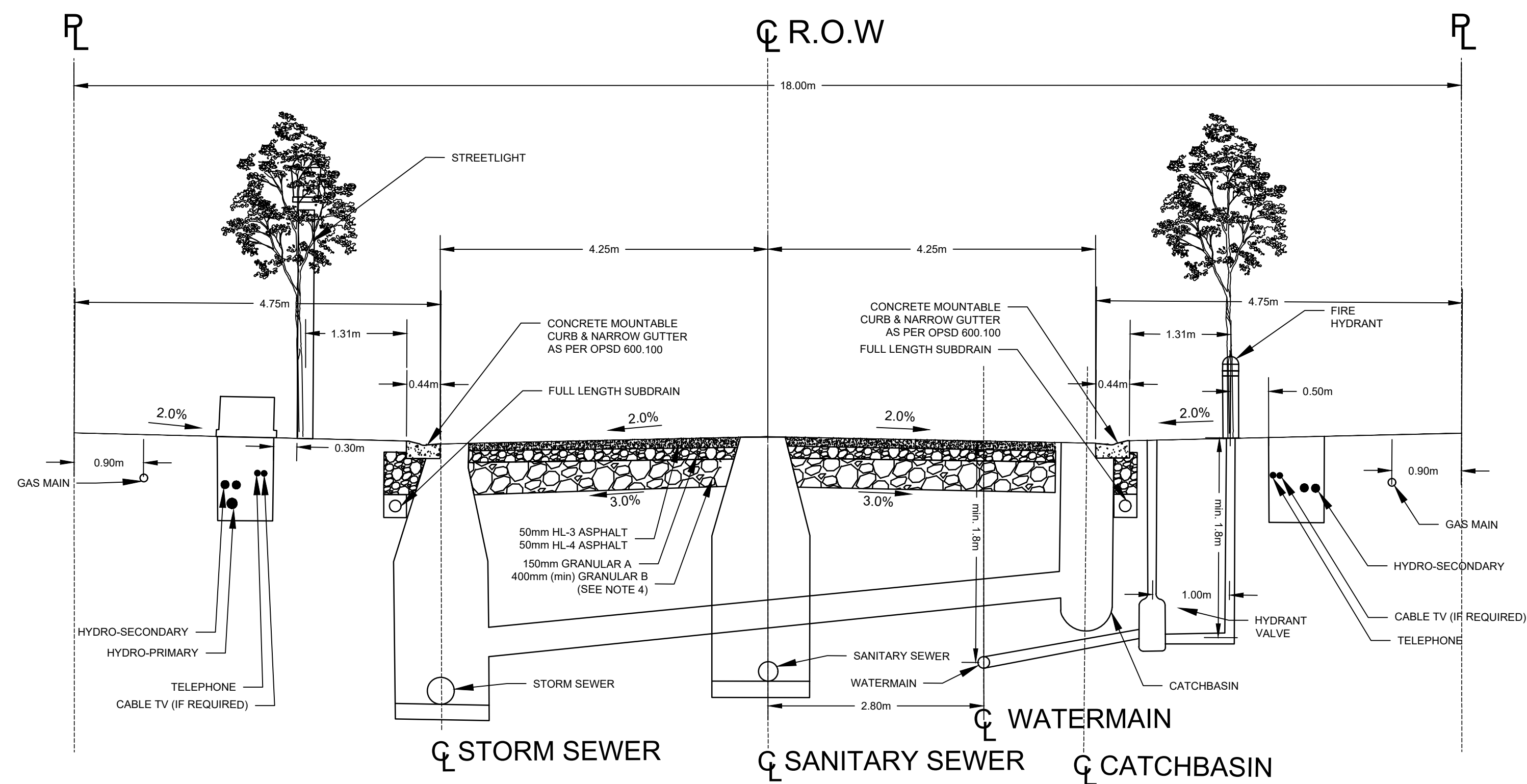
APPENDIX

A

RIGHT-OF-WAY
TYPICAL
CROSS-
SECTIONS



20m R.O.W.
SCALE 1:20



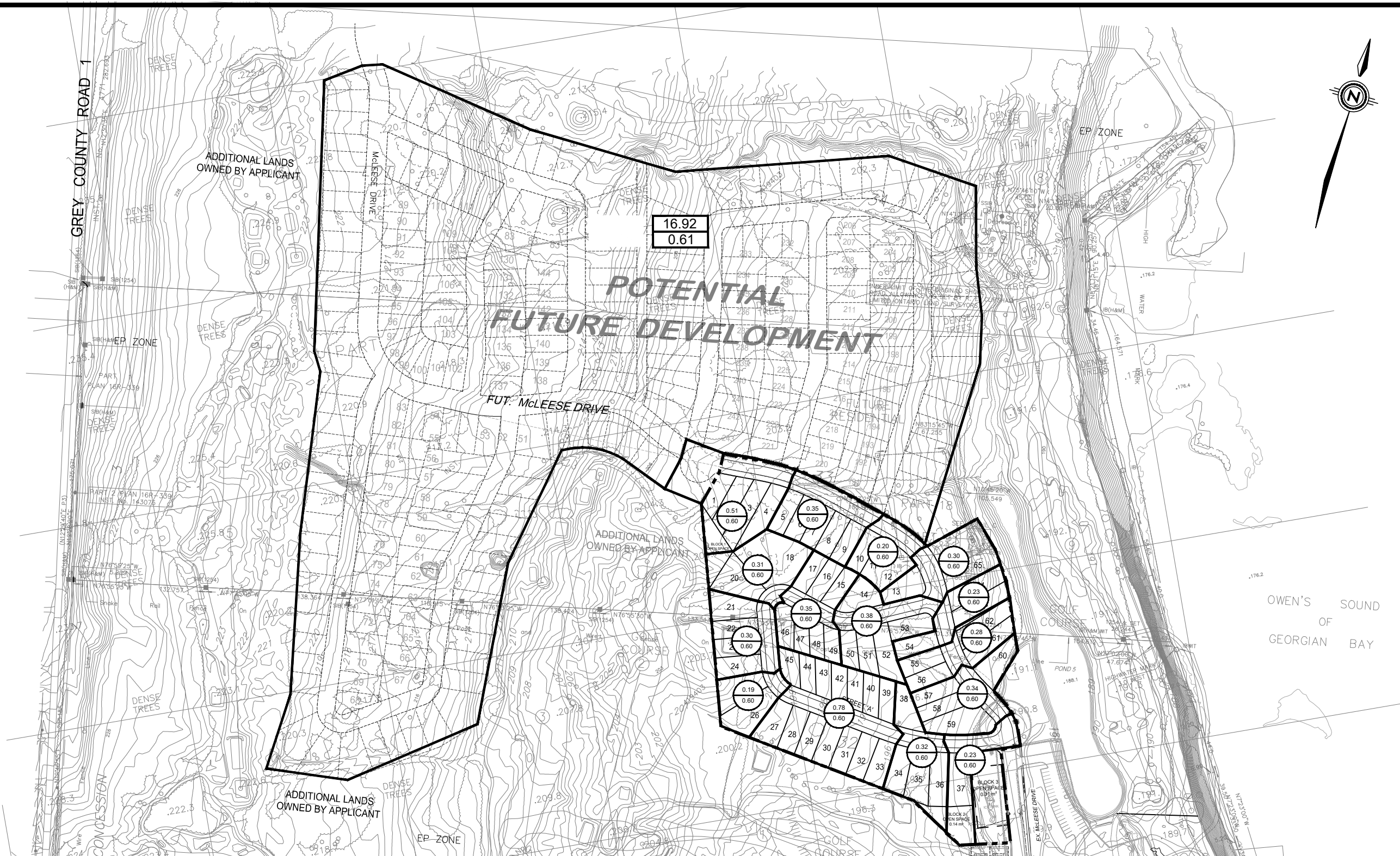
18m R.O.W.
SCALE 1:20

APPENDIX

B

STORM
DRAINAGE

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LEGEND



LIMIT OF PLAN

DRAINAGE BOUNDARY

16.92 — AREA IN HECTARES
0.61 — RUNOFF COEFFICIENT

EXTERNAL DRAINAGE AREA

0.23 — AREA IN HECTARES
0.60 — RUNOFF COEFFICIENT

INTERNAL DRAINAGE AREA

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STORM DRAINAGE AREA PLAN



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Scale	1:3000	Figure No.	B1

TOWNSHIP OF GEORGIAN BLUFFS
PROPOSED 5-YEAR STORM DESIGN SHEET

Project: Cobble Beach
Job No.: 19M-00180
Prepared by: A.L.
Date: 19-Jan-23

n = 0.013

NOTE	UPSTREAM MH	DOWNSTREAM MH	Location	Increment				Cumulative				Inlet Time	Time in Pipe	Length	Slope	Pipe Size	Pipe Full Flow (QF)	Pipe Full Velocity	Available Capacity	Capacity	Comments
				Tributary Area ⁽³⁾	C	A°C ⁽¹⁾	Controlled Flow ⁽⁴⁾	A°C ⁽¹⁾	5 yr Rainfall Intensity	Controlled Flow	5 yr Storm Flow ⁽²⁾										
				(ha)			(l/s)		(mm/hr)	(l/s)	(L/s)										
			Next Phase	16.92	0.61	10.32															
	10	9	Mc Leese Dr.	0.50	0.60	0.30		10.62	94.525	0.00	2791.03	10.00	0.22	74.0	4.00%	900	3620.6	5.69	3609.80	77.1%	
	9	8	Mc Leese Dr.	0.35	0.60	0.21		10.83	93.554	0.00	2816.97	10.22	0.22	74.3	4.00%	900	3620.6	5.69	3609.80	77.8%	
	8	7	Mc Leese Dr.	0.20	0.60	0.12		10.95	92.601	0.00	2819.18	10.43	0.13	39.0	2.50%	1050	4317.7	4.99	4306.90	65.3%	
	7	6	Mc Leese Dr.	0.00	0.00	0.00		10.95	92.042	0.00	2802.15	10.56	0.05	14.4	2.50%	1050	4317.7	4.99	4306.90	64.9%	
	6	5	Mc Leese Dr.	0.30	0.60	0.18		11.01	92.601	0.00	2834.63	10.43	0.10	30.2	2.50%	1050	4317.7	4.99	4306.90	65.7%	
	14	13	Street A-N	0.31	0.60	0.19		0.19	94.525	0.00	48.88	10.00	0.08	10.0	3.00%	250	103	2.10	92.20	47.5%	
	13	12	Street A-N	0.35	0.60	0.21		0.37	94.166	0.00	97.38	10.08	0.31	44.5	3.00%	300	167.5	2.37	156.70	58.1%	
	12	11	Street A-N	0.38	0.60	0.23		0.58	92.783	0.00	150.12	10.39	0.11	15.0	3.00%	300	167.5	2.37	156.70	89.6%	
	11	5	Street A-N	0.00	0.00	0.00		0.81	92.327	0.00	207.90	10.50	0.43	71.0	3.00%	375	303.7	2.75	292.90	68.5%	
	5	4	Mc Leese Dr.	0.23	0.60	0.14		11.96	90.522	0.00	3009.55	10.93	0.24	77.7	3.00%	1050	4729.8	5.46	4719.00	63.6%	
	4	3	Mc Leese Dr.	0.26	0.60	0.16		12.12	89.563	0.00	3016.49	11.17	0.24	77.7	3.00%	1050	4729.8	5.46	4719.00	63.8%	
	3	2	Mc Leese Dr.	0.34	0.60	0.20		12.32	88.627	0.00	3035.23	11.40	0.29	77.7	2.00%	1050	3861.8	4.46	3851.00	78.6%	
	2	1	Mc Leese Dr.	0.07	0.90	0.06		12.38	87.511	0.00	3012.36	11.69	0.18	48.2	2.00%	885x1345	3861.8	4.46	3851.00	78.0%	
	14	18	Street A-S	0.30	0.60	0.18		0.18	94.525	0.00	47.30	10.00	0.53	54.0	2.00%	250	84.1	1.71	36.80	56.2%	
	18	17	Street A-S	0.19	0.60	0.11		0.29	92.210	0.00	75.37	10.53	0.11	15.4	3.00%	300	167.5	2.37	92.13	45.0%	
	17	16	Street A-S	0.78	0.60	0.47		0.76	91.749	0.00	194.36	10.63	0.50	95.3	4.00%	375	350.7	3.17	156.34	55.4%	
	16	15	Street A-S	0.32	0.60	0.19		0.95	89.689	0.00	237.87	11.13	0.19	31.3	3.00%	375	303.7	2.75	65.83	78.3%	
	15	1	Street A-S	0.23	0.60	0.14		1.09	88.935	0.00	269.99	11.32	0.35	53.0	2.00%	450	403.2	2.54	133.21	67.0%	
	1	OGS	Mc Leese Dr.	0.00	0.00	0.00		13.47	86.836	0.00	3252.72	11.87	0.00	1.2	2.00%	885x1345	3861.8	4.46	609.08	84.2%	
	OGS	EXISTING	Mc Leese Dr.	0.00	0.00	0.00		13.47	86.819	0.00	3252.10	11.88	0.00	1.0	2.00%	885x1345	3861.8	4.46	609.70	84.2%	
Notes:																					

(1) Runoff Coefficient as per Owen Sound Municipal Engineering Design Standards, pg 46
(2) Calculated using Rational Method where Q=2.78*A*I*R (Owen Sound Municipal Engineering Design Standards, pg 44)
(3) Tributary Area from Storm Drainage Plan

APPENDIX

C

WATER
SERVICING

Calculation of FUS Fire Flow for Residential Development at Cobble Beach: The Dell

Step 1 For fire-resistive construction the FUS calculation to consider:
Area = largest GFA plus 25% of GFA for two immediately adjoining floors (floor below and above)

$$\begin{aligned} \text{Area} &= 1680\text{m}^2 \\ C &= \frac{1680}{0.60} \text{ m}^2 \quad \text{-assume that first 3 floors have same area} \\ &\quad \text{For fire-resistive construction} \\ F &= 220 \times C \times A^{0.5} \\ &= 220 \times 0.60 \times 1680^{0.5} \\ &= 5000 \text{ litres/min} \quad \text{(Required fire flow to nearest 1000 L/min)} \end{aligned}$$

Step 2 Decrease due to non-combustible Occupance of 25%

$$\begin{aligned} F &= 5000 \text{ litres/min (from Step 1)} \\ &- 1250 \text{ litres/min} \\ &= 3750 \text{ litres/min} \end{aligned}$$

Step 3 Decrease due to Sprinkler System

The sprinkler system will be installed in every unit, 30% discount is applied.

$$\begin{aligned} F &= 3750 \text{ litres/min (from Step 2)} \\ &- 1125 \text{ litres/min (30\% decrease)} \end{aligned}$$

Step 4 Separations

F.U.S. Standards

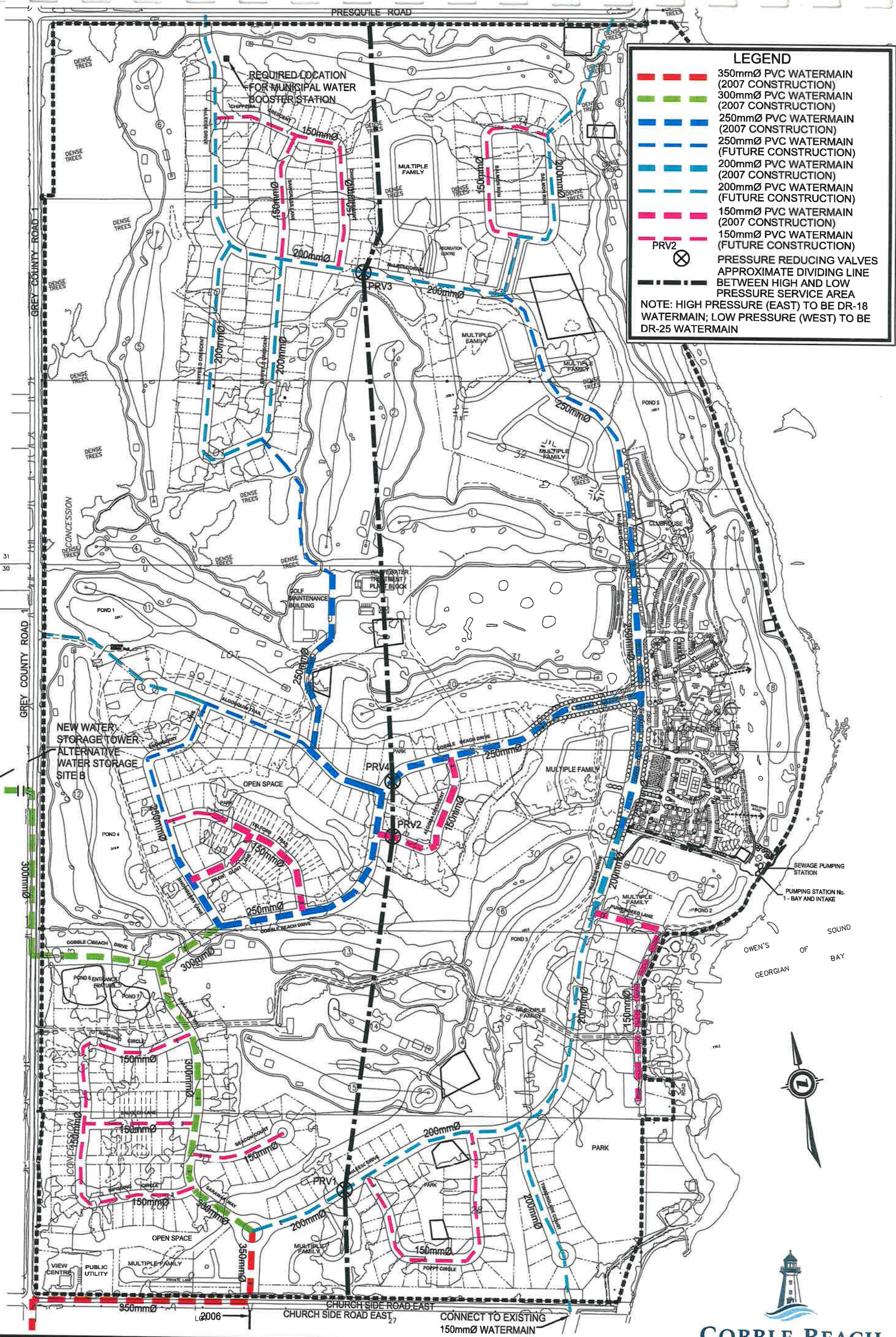
North - 0-3m - 25%	0-3m	~25%
East - 20-30m - 10%	3-10m	~20%
South - 0-3m - 25%	10-20m	~15%
West - 10-20m - 15%	20-30m	~10%
Total Exposures - 75%	30- 45m	~ 5%

*max exposure percent 75%

$$\begin{aligned} F &= 3750 \text{ litres/min (from Step 2)} \\ &+ 2813 \text{ litres/min (75\% increase)} \end{aligned}$$

FUS Fire Flow

$$\begin{aligned} F &= \text{Step 2-Step 3 + Step 4} \\ &= 3750 - 1125 + 2813 = 5438 \text{ L/min} \\ &\quad \text{Rounded off} \quad 5000 \text{ L/min} \\ &\quad \quad \quad 83 \text{ L/s} \\ &\quad \quad \quad 1321 \text{ USGPM} \end{aligned}$$



LEGEND

- 350mmØ PVC WATERMAIN (2007 CONSTRUCTION)
- 300mmØ PVC WATERMAIN (2007 CONSTRUCTION)
- 250mmØ PVC WATERMAIN (2007 CONSTRUCTION)
- 250mmØ PVC WATERMAIN (FUTURE CONSTRUCTION)
- 200mmØ PVC WATERMAIN (2007 CONSTRUCTION)
- 200mmØ PVC WATERMAIN (FUTURE CONSTRUCTION)
- 150mmØ PVC WATERMAIN (2007 CONSTRUCTION)
- 150mmØ PVC WATERMAIN (FUTURE CONSTRUCTION)
- PRV2
- ⊗ PRESSURE REDUCING VALVES
- APPROXIMATE DIVIDING LINE BETWEEN HIGH AND LOW PRESSURE SERVICE AREA

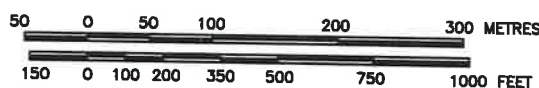
NOTE: HIGH PRESSURE (EAST) TO BE DR-18 WATERMAIN; LOW PRESSURE (WEST) TO BE DR-25 WATERMAIN



PRYDE SCHROPP McCOMB INC.
CONSULTING ENGINEERS

ORIGINAL SHEET - 11 x 17
T:\Municipal-Private\Georgian Villages\2022-Planning Approvals\dwg\Master Servicing Study\2022 Fig 4-5 - Rev May 1-07.dwg
2007 May 01, 9:35 a.m.

SCALE 1:6000



Client/Project

COBBLE BEACH
MASTER SERVING STUDY

Figure No.

5

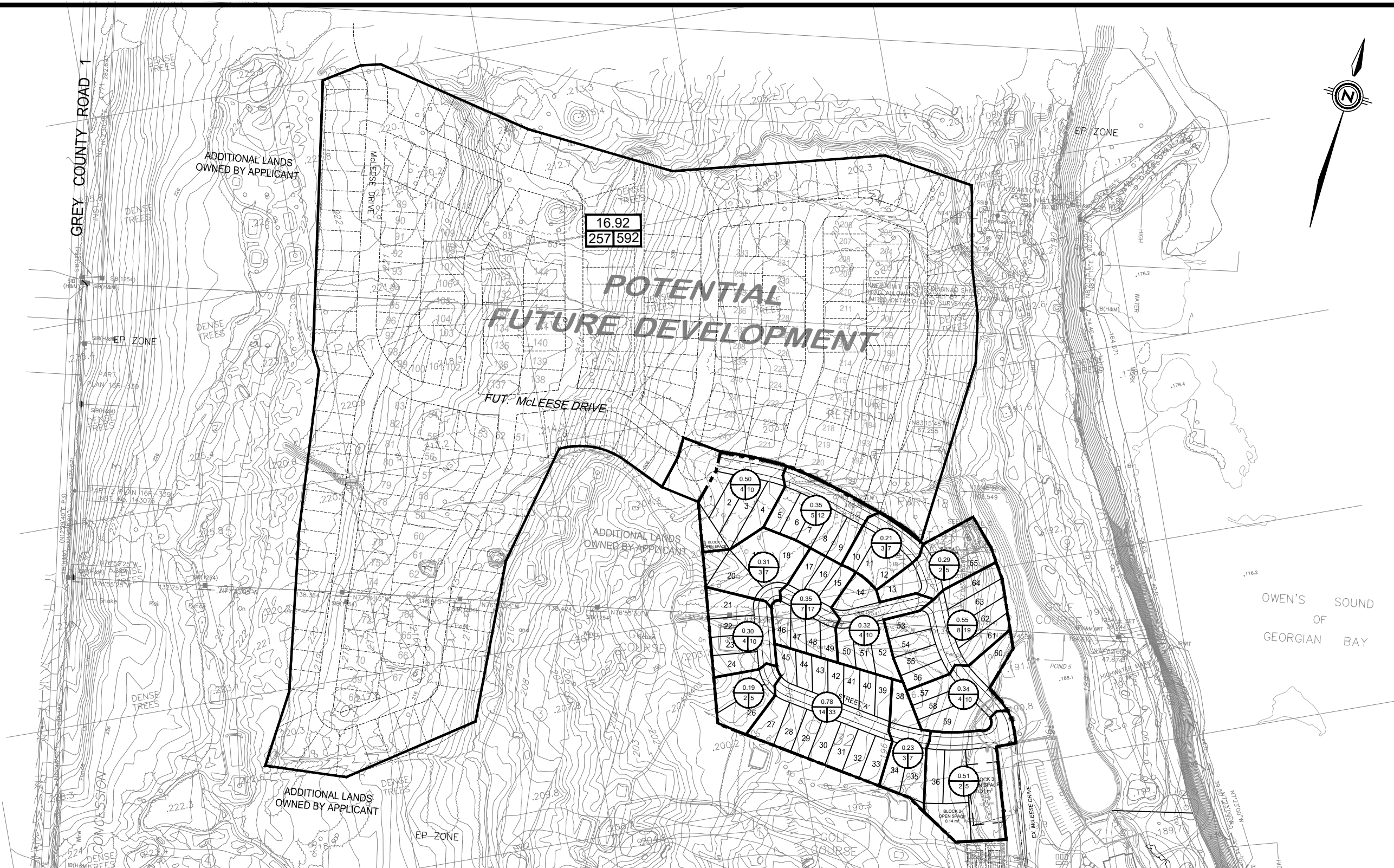
Title

WATER DISTRIBUTION SYSTEM

APPENDIX

D SANITARY SERVICING





LEGEND



LIMIT OF PLAN

DRAINAGE BOUNDARY

16.92
257 592

AREA IN HECTARES
POPULATION
OF UNITS

EXTERNAL DRAINAGE AREA

0.48
10 192

AREA IN HECTARES
POPULATION
OF UNITS

INTERNAL DRAINAGE AREA

CLIENT

GEORGIAN VILLAS INC.

TITLE

COBBLE BEACH
THE DELL

SANITARY DRAINAGE PLAN



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Date	JAN 2023	Proj. No.	19M-00180
Scale	1:3000	Figure No.	D1