

SUMMARY OF DESIGN REFINEMENTS TO PROJECTS IDENTIFIED IN KANATA WEST MASTER SERVICING STUDY

FOR

**2325483 ONTARIO INC.
195 HUNTMAR DRIVE**

CITY OF OTTAWA

PROJECT NO.: 12-624

**SEPT 2016 – REV 1
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FOR
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TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Report Objectives	3
2.0	PROPOSED REFINEMENTS TO INFRASTRUCTURE IDENTIFIED IN THE KANATA WEST MASTER SERVICING STUDY	4
2.1	Sanitary Servicing Projects.....	4
2.2	Watermain Projects	4
2.3	Stormwater Management Projects	4
3.0	CONCLUSIONS AND RECOMMENDATIONS	6

APPENDICES

Appendix A	Comparison of Key Servicing Design Elements in KWMSS and FSR (DSEL, September 2016)
Appendix B	IBI Concept for KWMSS Sanitary Sewer Realignments (IBI, December 2015)
Appendix C	Servicing Options Presented in Development Application for 173 Huntmar Drive (DSEL, June 2015)
Appendix D	Excerpts from Autopark Engineering Drawings (JL Richards, May 2003)

DRAWINGS

Figure 1	Sanitary Servicing (DSEL, August 2016)
Figure 2	MSS Storm Drainage Concept (DSEL, August 2016)
Figure 3	Proposed MSS Storm Drainage Changes (DSEL, August 2016)

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1.0 INTRODUCTION

David Schaeffer Engineering Limited (DSEL) has prepared a *Functional Servicing Report* (July 2016) in support of Official Plan Amendment, Zoning By-law Amendment, and Plan of Subdivision applications for 195 Huntmar Drive.

The subject property is located within the City of Ottawa urban boundary, in the Stittsville ward. As illustrated in **Exhibit 1**, the subject property is located south of the Highway 417 interchange with Palladium Drive and west of Huntmar Drive. The subject property is one unique parcel (PIN 044870339) that measures approximately 54.6 ha. The property is currently zoned Development Reserve (DR) Zone.



Exhibit 1: Site Location

The proposed concept plan would allow for the development of four commercial blocks, one apartment block, five blocks of stacked townhomes, 345 townhome lots, 182 single-family home lots, and an 11.1 ha. district park within the subject property.

The subject property is within the *Kanata West Concept Plan* (KWCP) area and is subject to the associated *Kanata West Master Servicing Study* (KWMSS) (Stantec/CLC/IBI, June 2006) and the *Implementation Plan for the Kanata West Development Area* (Delcan, October 2009) that were completed under the *Municipal Engineers Association Class Environmental Assessment Process* (June 2000). The KWMSS and the *Implementation Plan for the Kanata West Development Area* were completed in order to provide a conceptual servicing strategy and cohesive development approach for an overall development area of 725 ha. west of the Carp River and north of Hazeldean Road at the intersection of the former municipalities of Goulbourn, West Carleton, and Kanata. The KWMSS and the *Implementation Plan for the Kanata West Development Area* identify existing infrastructure and environmental constraints, describe the neighbourhood-level trunk services that will service all properties within the study area, identify required infrastructure upgrades to support the proposed development of the KWMSS area, and identify required mitigation measures and monitoring for the recommended infrastructure projects.

Since completion of the KWMSS and the *Implementation Plan for the Kanata West Development Area*, many of the identified neighbourhood-level infrastructure projects have been completed or are underway, including stormwater management ponds, trunk sewers, and the Kanata West pumpstation. The following outstanding projects related to 195 Huntmar Drive have been identified in the KWMSS and the *Implementation Plan for the Kanata West Development Area* for future design and construction:

- Sanitary Servicing Projects:
 - Trunk sanitary sewer from Silver Seven & along Carp River between Maple Grove Road and Palladium Drive.
- Watermain Projects:
 - Watermains in Huntmar Road Widening from Maple Grove Road to Campeau Drive.
 - Watermains in North-South Arterial from Hazeldean Road to Campeau Drive Extension.
 - Watermains in Stittsville Main Street Extension from Maple Grove Road to Palladium Drive.
- Stormwater Management Projects:
 - Stormwater Management Pond #4 and associated storm sewers.
 - Stormwater Management Pond #7 and associated storm sewers.

1.1 Report Objectives

As described in the *Functional Servicing Report* (DSEL, July 2016), as part of the development applications for 195 Huntmar Drive, specific refinements to the projects noted in Section 1.0 are proposed to support the proposed land uses/phasing plans and to align with the associated proposed transportation network. Based on consultation with City of Ottawa staff, the design and construction of the proposed works are expected to be undertaken by the Developer as conditions of Plan of Subdivision approval under the *Planning Act*.

This report has been prepared to:

- be read in conjunction with the *Functional Servicing Report* for 195 Huntmar Drive (DSEL, July 2016), the *Kanata West Master Servicing Study* (Stantec/CLC/IBI, June 2006), and the *Implementation Plan for the Kanata West Development Area* (Delcan, October 2009);
- address City staff's request for additional details about the proposed project refinements, with a focus on demonstrating that neighbouring properties are not negatively affected by the proposed refinements to the KWMSS; and,
- support discussions and general consensus with City staff that the proposed project refinements are not significant deviations from the KWMSS.

2.0 PROPOSED REFINEMENTS TO INFRASTRUCTURE IDENTIFIED IN THE KANATA WEST MASTER SERVICING STUDY

As described in the *Functional Servicing Report* (FSR) (DSEL, July 2016), as part of the development applications for 195 Huntmar Drive, specific refinements to the outstanding servicing projects identified in the *Kanata West Master Servicing Study* (KWMSS) (Stantec/CLC/IBI, June 2006) and the *Implementation Plan for the Kanata West Development Area* (Delcan, October 2009) are proposed to support the proposed land uses/phasing plans and to align with the associated proposed transportation network.

A comparison table between the FSR and the KWMSS designs for key wastewater, water, and stormwater servicing design elements is provided in **Appendix A**, and key points are summarized in the sections that follow.

2.1 Sanitary Servicing Projects

The attached **Figure 1** depicts the KWMSS sanitary sewer plan and the proposed changes to the sanitary trunk sewer alignments as described in the FSR. The proposed alignments provide service to all lands within the KWMSS trunk sanitary sewer drainage area: specifically, the proposed sanitary sewer network provides wastewater servicing to the MTO lands north of 195 Huntmar Drive and to the two parcels along Huntmar Drive flanking 195 Huntmar Drive. Per the KWMSS, all sanitary drainage is conveyed to the Kanata West Pumpstation.

Sanitary trunk sewer options identified in the FSR are in conformance with:

- the conceptual sanitary sewer alignments developed by IBI Group and City staff for other parcels within the KWMSS area (**Appendix B**); and,
- with the servicing options presented in the development application for 173 Huntmar Drive (**Appendix C**).

The FSR and work undertaken by IBI Group and City staff for other parcels within the KWMSS area (**Appendix B**) illustrate that sufficient capacity is available in the downstream network to support the proposed changes.

2.2 Watermain Projects

No changes are proposed in the FSR to the alignment of the trunk watermain system depicted in the KWMSS, other than minor changes associated with realignment of the transportation network. Minor re-sizing of trunk watermains may be proposed as part of the detailed hydraulic modelling for the site, but would not negatively impact the level of service for lands in the KWMSS area and would only be proposed in order to meet current City of Ottawa watermain design standards.

2.3 Stormwater Management Projects

The attached **Figure 2** depicts the KWMSS drainage plan, while **Figure 3** shows the proposed changes to the storm trunk sewer alignments and drainage scheme as

described in the FSR. The proposed drainage and stormwater management plan incorporate a drainage split between two ponds (Pond 4 & Pond 7), keeping with the two-pond concept presented in the KWMSS.

As shown in **Figures 2 & 3**, three properties share storm trunk sewers with 195 Huntmar Drive in the KWMSS:

- MTO lands north of 195 Huntmar Drive, west of Palladium Drive;
- Autopark lands north of 195 Huntmar Drive, west of Huntmar Drive (**Appendix D**); and
- 173 Huntmar Drive, south of 195 Huntmar Drive.

The KWMSS shows Pond 7 in the area between the now-constructed Highway 417 eastbound on-ramp/off-ramp and the main Highway 417 through lanes. The Pond 7 facility footprint is proposed to shift and expand from that shown in the KWMSS, to receive all stormwater runoff from the portion of 195 Huntmar Drive that is west of the North-South arterial road. Pond 7 is also to receive stormwater runoff from the MTO lands north of 195 Huntmar Drive, as per the KWMSS. The proposed Pond 7 drainage area refinement better reflects existing topography and the proposed development plan layout and phasing. The applicant is negotiating with the Ministry of Transportation regarding Pond #7 to ensure a mutually agreeable pond location, and will continue to consult with MTO, City of Ottawa, MVCA, and other potentially affected agencies regarding outflows of Pond #7 to Feedmill Creek, as required by the KWMSS.

East of the north-south arterial, all drainage boundaries and storm trunk sewers are to remain as planned in the KWMSS, except for the trunk sewer alignment through 173 Huntmar Drive which is consistent with the servicing options presented in the development application for those lands. The change in Pond 7 drainage boundaries reduces the inflows to Pond 4, but does not negatively impact operating conditions for the pond. The Autopark lands can be serviced by the proposed trunk storm sewer, in conformance with the KWMSS.

3.0 CONCLUSIONS AND RECOMMENDATIONS

This report summarizes the proposed servicing projects associated with 195 Huntmar Drive that deviate from the *Kanata West Master Servicing Study* (KWMSS) (Stantec/CLC/IBI, June 2006) and the *Implementation Plan for the Kanata West Development Area* (Delcan, October 2009) in an effort to achieve orderly and cost-effective development given the proposed phasing of the subject property and having regard for how the KWMSS area has built out since the original 2006 study.

The *Functional Servicing Study* (FSR) (DSEL, July 2016) provides additional details on the planned on-site and off-site municipal services for the subject property, describes in full the proposed refinements from the KWMSS, and explains that adequate municipal infrastructure capacity is expected to be available for the planned development of the subject property.

The proposed servicing project refinements consist of modifications to alignments of conveyance infrastructure within the KWMSS development area, adjustment to the location of a stormwater management facility to accommodate infrastructure size and natural drainage conditions, and modifications to the servicing demands associated with the proposed concept plan. As such, the proposed servicing project refinements are not interpreted as a significant change to the KWMSS, because they:

- do not change the fundamental design intention of the KWMSS;
- will not result in major changes to the impacts identified in the KWMSS;
- do not represent a change to the concept or technology identified in the KWMSS; and
- ensure that the overall serviceability within the KWMSS area and the general functionality of the other existing and future KWMSS servicing projects remain unchanged.

Based on consultation with City of Ottawa staff, the design and construction of the proposed servicing projects are expected to be undertaken by the Developer as conditions of plan of subdivision approval under the *Planning Act*. Potential environmental impacts of the proposed servicing projects and commitments for mitigation measures and associated monitoring are being addressed and implemented through the Environmental Impact Statement, Headwater Assessment Study, and Integrated Environmental Review Statement associated with the development applications for 195 Huntmar Drive and will be subject to City of Ottawa review and approval. The applicant (2325483 Ontario Ltd.) and City of Ottawa will consult with the public and other landowners in the KWMSS area about the proposed works through the *Planning Act* approval of the development applications for 195 Huntmar Drive, to ensure the servicing project refinements are not expected to negatively affect other landowners within the KWMSS area.

Should City of Ottawa and the KWMSS landowners undertake an update to the KWMSS, the addendum should incorporate the refinements described in this report in concert with other changes and required updates to the KWMSS.

David Schaeffer Engineering Ltd.



Per: Laura Maxwell, B.Sc.(Civil Eng)

David Schaeffer Engineering Ltd.



Per: Matt Wingate, P.Eng

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APPENDIX A

Comparison of Key Servicing Design Elements in KWMSS and FSR (DSEL, September 2016)

List of Design Refinements
(Summary of Information presented in Functional Servicing Report, DSEL, July 2016 – Rev 0)

Parameter		KWMSS	Current Proposal																																														
Development	Land Use	54.57 ha site of prestige business park, extensive employment, and district park:	54.57 ha site of residential, commercial, and district park:																																														
		<table><thead><tr><th>Land Use</th><th>Approx Area (ha.)</th></tr></thead><tbody><tr><td>District Park</td><td>8.34</td></tr><tr><td>Prestige Business Park</td><td>32.83</td></tr><tr><td>Extensive Employment</td><td>13.40</td></tr><tr><td>Roads</td><td>Included above</td></tr><tr><td>Total</td><td>54.57</td></tr></tbody></table>	Land Use	Approx Area (ha.)	District Park	8.34	Prestige Business Park	32.83	Extensive Employment	13.40	Roads	Included above	Total	54.57	<table><thead><tr><th>Land Use</th><th>Approx Area (ha.)</th><th>Units</th><th>Pop. For Servicing</th></tr></thead><tbody><tr><td>Singles</td><td>6.25</td><td>182</td><td>618.8</td></tr><tr><td>Towns</td><td>6.75</td><td>345</td><td>931.5</td></tr><tr><td>Stacked Towns</td><td>8.51</td><td>520</td><td>1404</td></tr><tr><td>Apartments</td><td>1.34</td><td>190</td><td>342</td></tr><tr><td>District Park</td><td>11.14</td><td>-</td><td>-</td></tr><tr><td>Commercial</td><td>8.71</td><td>-</td><td>-</td></tr><tr><td>Roads</td><td>11.87</td><td>-</td><td>-</td></tr><tr><td>Total</td><td>54.57</td><td>1237</td><td>3296.3</td></tr></tbody></table>	Land Use	Approx Area (ha.)	Units	Pop. For Servicing	Singles	6.25	182	618.8	Towns	6.75	345	931.5	Stacked Towns	8.51	520	1404	Apartments	1.34	190	342	District Park	11.14	-	-	Commercial	8.71	-	-	Roads	11.87	-	-	Total	54.57
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Water	Trunk watermain size	Huntmar N of N-S Arterial: 600mm Huntmar S of N-S Arterial: 400mm N-S Arterial: 300 mm E-W Collector Through Site: 300mm	Huntmar N of N-S Arterial: 600mm Huntmar S of N-S Arterial: 400mm N-S Arterial: 300 mm E-W Collector Through Site: 300mm																																														
	Watermain location	Per above.	The proposed alignment of the trunk watermain infrastructure differs from the KWMSS because of changes to the proposed road network.																																														
	Watermain demand for site	Average water demand allowance = 4.9 L/s (inferred) [using the rate of 152 l/d/p and an estimate of 60 employees/ha. for 46.27 ha of ‘prestige business park’ and ‘extensive employment’ land uses (total site area less KWMSS district park area of 8.3 ha.)]	Average water demand allowance = 22.0 L/s.																																														
	Watermain fire flow requirement	216 L/s	283 L/s																																														
Sanitary	Sanitary sewer trunk size	625mm	625mm																																														
	Sanitary sewer trunk location	Trunk sanitary sewer through servicing easements and/or future road rights-of-way from N-S Arterial eastwards towards the Palladium Drive crossing of the Carp River, to the north of Pond 4, and finally south to the KWPS.	Trunk sanitary sewer along N-S arterial, then along Huntmar Drive directly to the Maple Grove Road (MGR) trunk sewer (KWMSS MH 10) [Huntmar @ Maple Grove], which discharges to the KWPS. Sanitary sewer proposed in road ROW, no easements proposed at this time. According to the KWMSS sanitary sewer design sheet, a peak wastewater flow rate of 368.56 L/s was proposed to be directed to the MGR trunk sanitary sewer east of Huntmar Drive, with a full flowing capacity																																														

			of 669.89 L/s within the 825 mm sewer. The proposed trunk sewer alignment would direct an additional 97.4 L/s to the MGR sewer. The total proposed flowrate in the MGR trunk sanitary sewer is 465.98 L/s, which results in 27% (176.0 L/s) remaining residual capacity within the MGR trunk sewer.
	Sanitary outflows from site	76.79 L/s [based on a total contributing area of 68.89 ha. (54.57 ha. subject site, plus 20.62 ha. north business park, less 8.3 ha. KWMSS park area at 0 L/s)]	98.21 L/s [based on a total contributing area of 75.19 ha. (54.57 ha. subject site, plus 20.62 ha. north business park)]
	Sanitary drainage boundary	Contributing areas to trunk sanitary sewer: <ul style="list-style-type: none">32; 57.03 ha (west of N-S Arterial)32-A; 8.34 ha (district park - west of N-S Arterial)33; 23.23 ha (east of N-S Arterial)34; 31.62 ha (east of N-S Arterial)37; 36.70 ha (east of Huntmar)Total area: 156.92 ha	Contributing areas to trunk sanitary sewer: <ul style="list-style-type: none">Aligning the trunk sanitary sewer along Huntmar Drive to outlet into the MGR sewer would direct KWMSS sanitary drainage areas 32 and 34 into the MGR sewer at KWMSS MH10.32; 57.03 ha (west of N-S Arterial)34; 31.62 ha (east of N-S Arterial)32-A; 8.34 ha (district park - west of N-S Arterial)Total contributing area: 96.99 ha [FSR to be updated for revised residential area] Non-contributing areas: <ul style="list-style-type: none">Area 33 (Palladium Autopark) is already developed and wastewater is conveyed through sewers on Cyclone Taylor Boulevard. Area 37 is assumed to be serviced per the KWMSS. See KWMSS “Preferred Wastewater Option” drawing.33; 23.23 ha (east of N-S Arterial)37; 36.70 ha (east of Huntmar)Total non-contributing area, to be directed to future Palladium Drive Trunk Sewer, per KWMSS: 59.93 ha
Storm	Storm sewer size	Pond 7: <ul style="list-style-type: none">1500mm Collector Road1500mm N-S Arterial Pond 4: <ul style="list-style-type: none">2x1200mm Collector Road2x1200 N-S Arterial2x1500mm Sewer Easement (N-S Arterial to Huntmar)2250mm from Huntmar to Pond 4 North Inlet (North Trunk)	Pond 7 inlet sewers to be upsized and Pond 4 inlet sewers downsized based on current proposal. Sizes TBD, based on approval of drainage boundary changes.
	Storm sewer & pond location	Pond 7: <ul style="list-style-type: none">Collector Road & N-S Arterial to Pond 7 inlet Pond 4: <ul style="list-style-type: none">Collector Roads, stubs on N-S Arterial, within sewer easements to Huntmar, and within sewer easements from Huntmar to Pond 4 North Inlet (North Trunk).	Pond 7: <ul style="list-style-type: none">Pond 7 shifted west, outside of interchange.Trunk shifted west to within subdivision, running north through commercial lands to shifted Pond 7 inlet. Pond 4: <ul style="list-style-type: none">Pond 4 location same as KWMSS. Pond 4 constructed.N-S Arterial, to Huntmar Road, then through sewer easement to Pond 4 North Inlet (North Trunk). The proposed alignment of the trunk storm sewer infrastructure differs from the KWMSS because sewer proposed in road ROW instead of in easement between N-S Arterial and Huntmar. East of Huntmar is consistent with KWMSS.
	Storm drainage boundary	<ul style="list-style-type: none">The northern 6.6 ha of the subject lands was planned to be treated by Pond 7 (total drainage area approximately 34 ha., Runoff Coefficient C=0.7), which was to be	<ul style="list-style-type: none">The expanded Pond 7 is proposed to receive 40.8 ha from the subject site west of the North-South arterial road. Total drainage area is 57.3 ha including commercial lands to the north.

		located within the Palladium Drive/ Highway 417 interchange and outlet to Feedmill Creek. <ul style="list-style-type: none">The remaining 48 ha of the subject lands was planned to be treated by Pond 4 (total drainage area 278 ha., Runoff Coefficient C=0.63), which is located beside and outlets to the Carp River.	<ul style="list-style-type: none">The remaining 13.8 ha (subject site east of the North-South arterial road) is to drain to Pond 4 along with the other KWMSS-defined areas, via an off-site ‘North Trunk’ storm sewer, as planned in the KWMSS
	Pond 4 Operating Characteristics	Details in KWMSS.	Inflows to reduce from KWMSS, but operating levels/ outflow rates to remain per KWMSS.
	Pond 7 Operating Characteristics	<ul style="list-style-type: none">Drainage Area: 34.08 ha.Average Imperviousness: 70%Required Permanent Pool Volume: 6305 m3 (185 m3/ha)Permanent Pool Elevation: 102.20Required Quality Control Volume: 1363 m3 (40m3/ha)100-year Release Rate: 3654 L/s (Carp River Restoration Plan – Greenland International Consulting Engineers, Feb 2014)	<ul style="list-style-type: none">Drainage Area: 57.30 haAverage Imperviousness: 70% (To be confirmed at detailed design)Required Permanent Pool Volume: 10,601 m3 (185 m3/ha)Permanent Pool Elevation: To be confirmed at detailed designRequired Quality Control Volume: 2292 m3 (40m3/ha)100-year Release Rate: 305.76 L/s (8 L/s/ha, per City direction)
Infiltration	Infiltration target	The KWMSS calls for an increase of 25% in infiltration rates from pre-development levels for all areas subject to the KWMSS. For the subject lands, the KWMSS suggests pre-development infiltration rate is 70-100mm/yr.	Predicted infiltration deficit, based on the development plan and existing development within KWMSS area (developed after time of publication of KWMSS). TBD at detailed design, with water budget.
Grading	Road centreline grades	106.5m – 107.5m	Estimated to be 106.5m – 107.5m, TBD based on drainage scheme.

APPENDIX B

IBI Concept for KWMSS Sanitary Sewer Realignment (IBI, December 2015)

APPENDIX C

Servicing Options Presented in Development Application for 173 Huntmar Drive (DSEL,
June 2015)



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Stittsville, Ontario K2S 1E9
Tel (613) 836-0856
Fax (613) 836-7183
www.DSEL.ca

June 25, 2015

DSEL File No.: 1-595

City of Ottawa
Infrastructure Services and Community Sustainability
110 Laurier Avenue West
Ottawa, ON K1P 1J1

Attention: Chris Ogilvie
Project Manager
Planning and Growth Management Department

Re: City File Number D07-16-14-0016 and D02-02-14-0093
173 Huntmar Drive Subdivision

Thank you for your comments dated May 26, 2016. The comments are reproduced below along with our action taken or response, where applicable.

Comment 6)

Even though this block configuration size and hedgerow is not typical of land taken for required parkland contribution it was agreed that Block 7 could be considered as a parkland contribution due to unique characteristic of this site and the development, including but not limited to the relationship of the hedgerow and the heritage farmhouse and the hedgerow being a natural feature that can be used as public amenity. If it is determined at the detailed engineering design and review stage that the hedgerow cannot be preserved Block 7 will not be accepted as parkland contribution. It is noted that the KWMSS shows a future 1500 storm pipe along the northern property line within the location of the hedge row (see below). As shown this pipe would require the removal of the hedge row. It must be demonstrated that the pipe can be shifted/relocated in order to ensure the preservation of the hedgerow. The relocation must be acceptable to the Kanata West Owners Group.

(Action/Confirmation required).

The alignment of the contemplated storm sewer can be accommodated within municipal right-of-ways within the proposed subdivision. Please see the attached sketches illustrating alternate means to accommodate the storm sewer. The contemplated alternatives remain in keeping with the KWMSS.

Comment 11a)

The application has provided a detail site plan showing unit counts and layout however, the servicing provides a very general approach. I would suggest that the site plan not be part of the approval and we are merely approving a change in land use and subdivision application. Detail land use will be determined at a later date when detail engineering is

submitted. This is still all on the premises that the zoning have an “h” until the details are approved.

Further to the City’s previous request to provide a high level grading and servicing plan to demonstrate serviceability the ‘site plan’ was included to satisfy this request. The ‘site plan’ has been more appropriately named ‘Concept Plan’ for inclusion in this submission. This submission includes a reduction plot of the proposed subdivision plan.

Comment 12a)

Section 1.1 first paragraph is missing some text.

Updated text accordingly.

Comment 12b)

Section 4, when doing land use design flow calculations; please use City of Ottawa design guidelines e.g. 50,000l/h/d.

The estimated wastewater flow rate was developed in concert with the Concept Plan. The Concept Plan illustrates a more intensive development than contemplated in the KWMSS. The study used the unit count estimates to provide the City with insight into the probable increase in flow. The servicing study concludes that sufficient capacity is available to accommodate the more intensive development.

Comment 12c)

Section 5, please provide some further detail on how the mjr system will be able to be stored on site. I just don’t see enough lands to be able to store the water.

Underground storage will be necessary within each site plan block to store the 100-year event. Additional information on requirements for underground storage has been added to Section 5.3.

Comment 12d)

Section 5, the 1500 storm pipe is in the area that the hedge row is being proposed to be retained. Please review.

As noted in the response to comment 6), alternatives for the relocation of the storm sewer are available. Options have been appended to this letter.

Yours truly,
David Schaeffer Engineering Ltd.

A handwritten signature in black ink, appearing to read 'A.D. Fobert', with a long horizontal flourish extending to the left.

Per: Adam D. Fobert, P.Eng

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OPTION 1B - LOCATE STORM TRUNK ON SECTION OF PROPERTY TO THE NORTH

OPTION 2 - LOCATE STORM TRUNK ENTIRELY ON PROPERTY TO THE NORTH

OPTION 1A - LOCATE STORM TRUNK THOUGH SECTION OF HEDGEROW - BLOCK 6

SUBJECT TO THE CONDITIONS, IF ANY, SET FORTH IN OUR LETTER DATED _____ THIS DRAFT PLAN IS APPROVED BY THE CITY OF OTTAWA UNDER SECTION 51 OF THE PLANNING ACT, THIS _____ DAY OF _____

JEFFREY PETT, P. ENG., MANAGER
DEVELOPMENT REVIEW, SUBURBAN SERVICES
PLANNING AND GROWTH MANAGEMENT DEPARTMENT
CITY OF OTTAWA



DRAFT PLAN OF SUBDIVISION OF
PART OF LOT 1
CONCESSION 1
Geographic Township of Huntley
CITY OF OTTAWA

Scale 1:500
Metric
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND
CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
The boundaries of the lands to be subdivided and their relationship
to adjoining lands have been accurately and correctly shown.

Date _____
E.H. Henneker
ONTARIO LAND SURVEYOR
Annex, O'Sullivan, Vollebek Ltd.

OWNER'S CERTIFICATE

This is to certify that I am the owner / agent of the lands to be
subdivided and that this plan was prepared in accordance with
my instructions.

Date _____
()
I have the authority to bind the corporation

TABLE TO ILLUSTRATE PROPOSED USE			
Block	Frontage	Area (Ha)	Land Use
3 and 4	2.3331	0.9965	Multi-family residential
1 and 2	0.9965	0.9965	Commercial
5 to 7	0.7074	0.1375	Plan
8	0.1375	0.7437	Arterial road
9	0.7437	0.9947	Vicinity
Streets 1 to 3	0.9947		Public road
Total Area		5.9129	

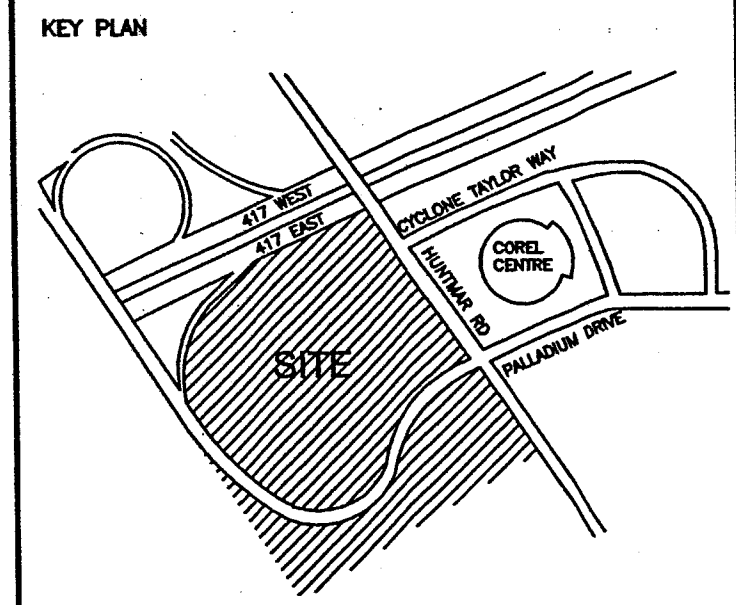
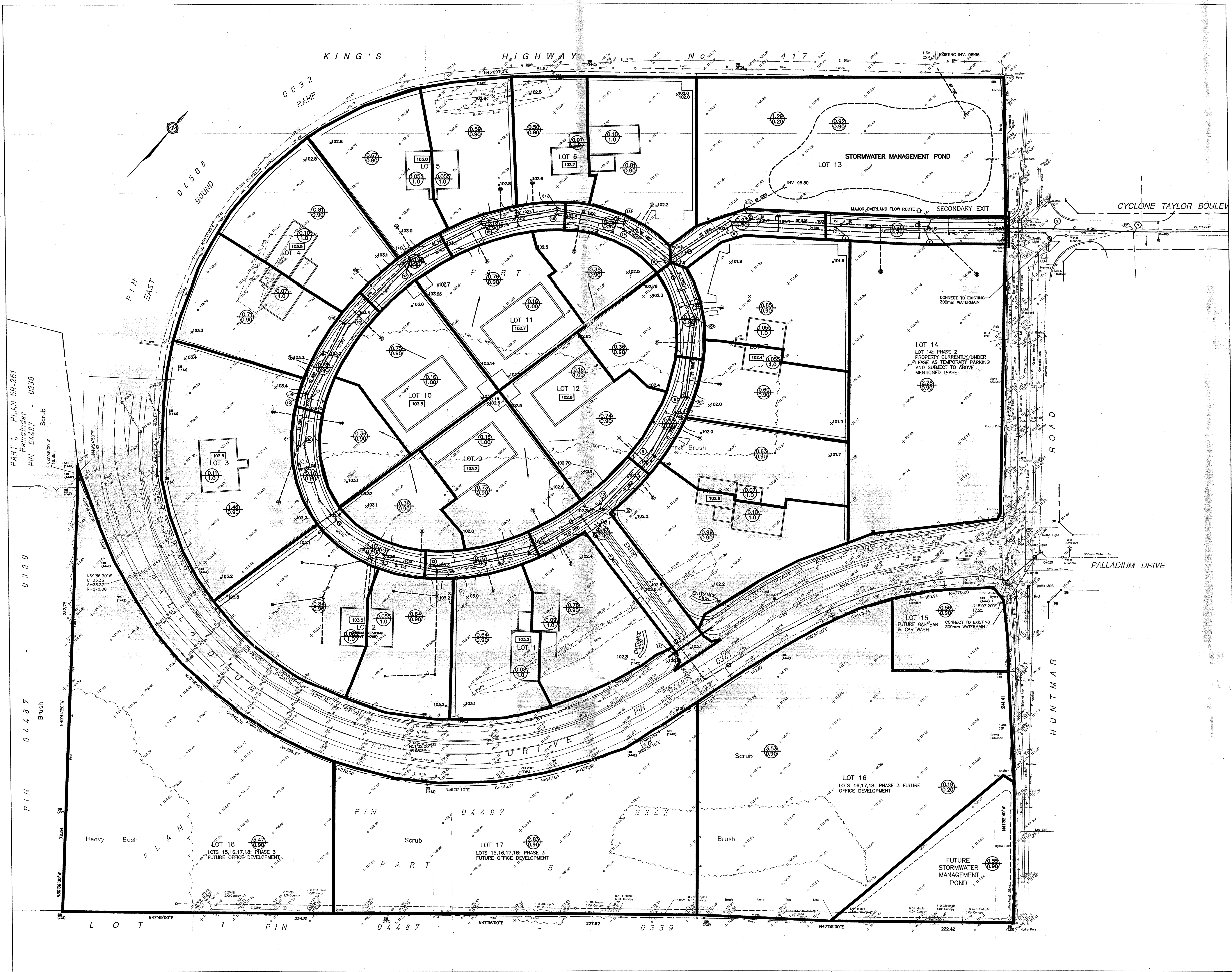
ADDITIONAL INFORMATION REQUIRED UNDER
SECTION 51-17 OF THE PLANNING ACT

- (a) see plan
- (b) see plan
- (c) see plan
- (d) Residential Housing/Commercial
- (e) see plan
- (f) see plan
- (g) see plan
- (h) Municipal Water System available
- (i) see soils report
- (j) see plan
- (k) sanitary, storm sewers, municipal water, bell, hydro, cable and gas to be available
- (l) see plan

ANNIS, O'SULLIVAN, VOLLEBEK LTD.
14 Concession Road, Suite 500
Repton, ON L2E 3S8
Phone: (513) 227-0501 Fax: (513) 227-1079
Email: annis@anniss.com
See the Ontario Land Surveyors Act, R.S.O. 1990, c. 28, s. 24

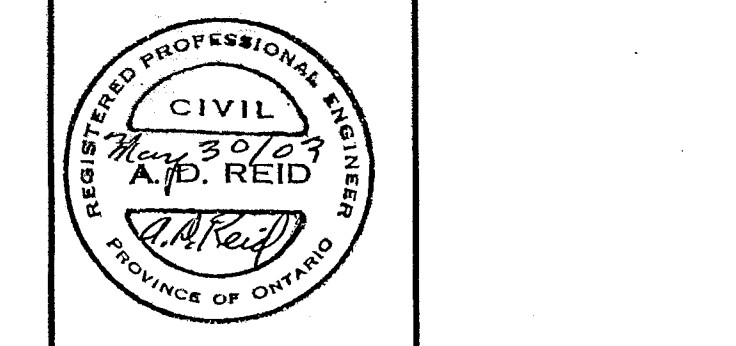
APPENDIX D

Excerpts from Autopark Engineering Drawings (JL Richards, May 2003)



- LEGEND**
- PROPOSED CATCH BASIN
 - PROPOSED CATCH BASIN c/w ICD (PEX TYPE "C" @ 42 L/S)
 - PROPOSED CATCH BASIN c/w ICD (PEX TYPE "D" @ 95 L/S)
 - LOT NUMBER
 - PROPOSED ELEVATION AROUND BUILDING
 - PROPOSED ELEVATION
 - EXISTING ELEVATION
 - PROPOSED DRAINAGE ARROW
 - STORM DRAINAGE AREA (ha)
 - RUNOFF COEFFICIENT
 - BUILDING AREA (ha)
 - RUNOFF COEFFICIENT

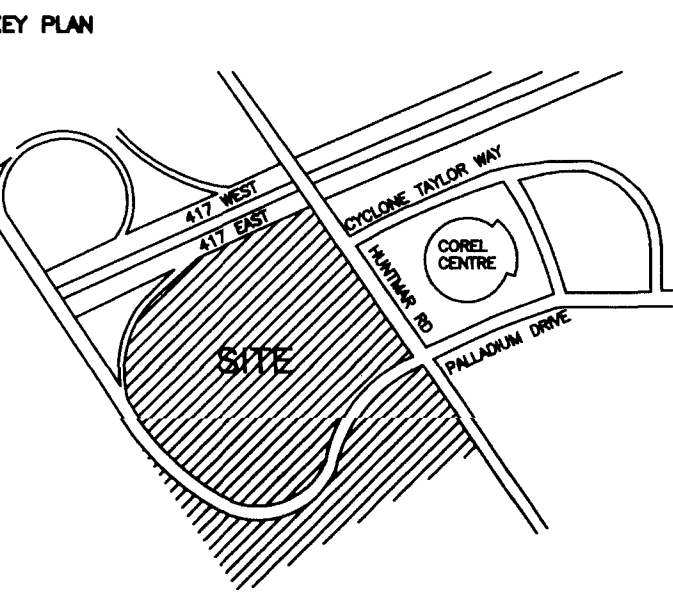
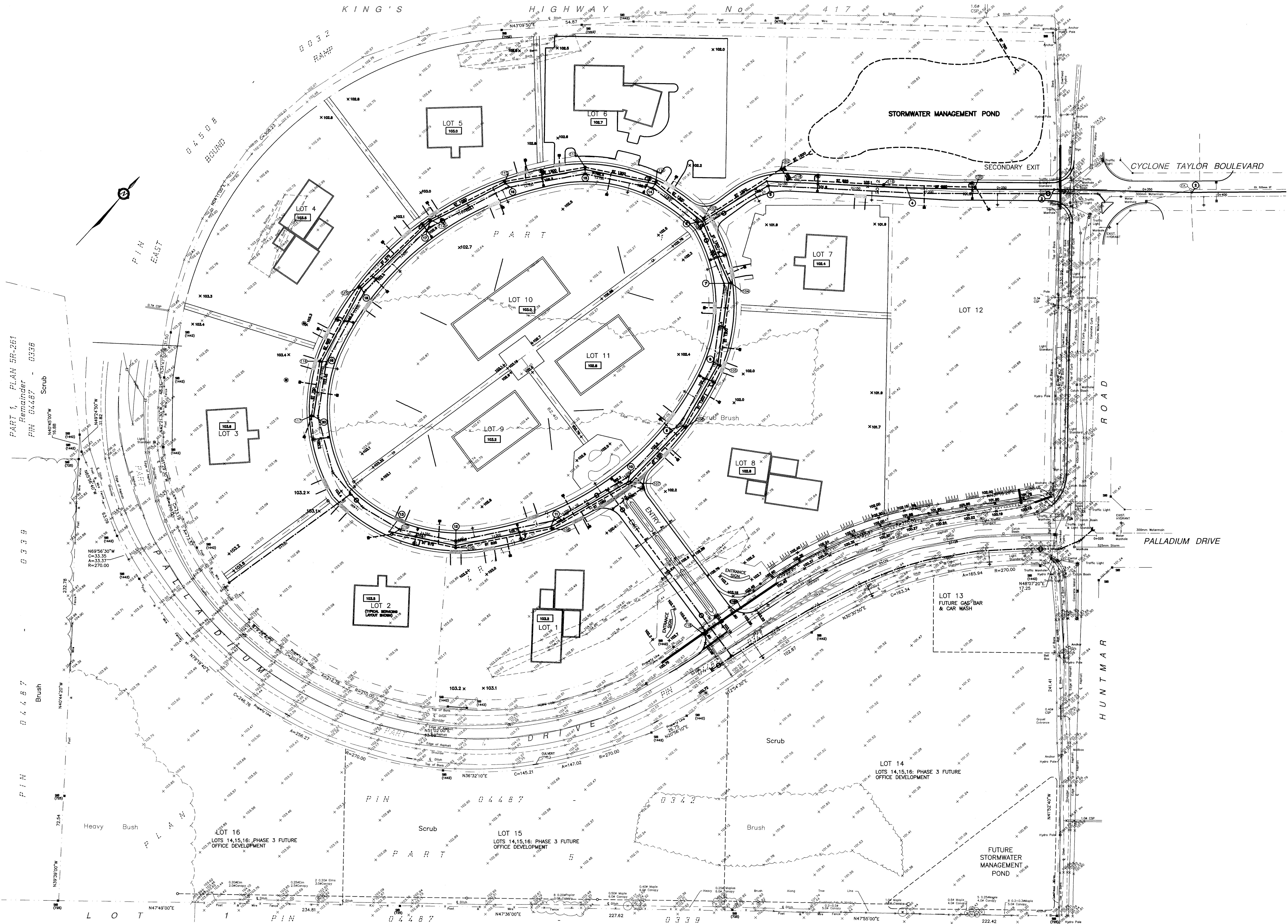
NO.	REVISION	DATE
1	ISSUE	23/04/03
2	FINAL LAYOUT REVISIONS	23/04/03
3	FOR CITY OF OTTAWA COMMENTS	30/05/03



PALLADIUM AUTO PARK

DRAINAGE PLAN

DESIGN: G.F.	REVISION NO.:
DRAWN: M.G.B.	DRAWING NO.:
CHECKED:	D1
DATE: MAY 2003	JOB NO.: 15941-04
SCALE: 1:1000	



- LEGEND**
- PROPOSED CATCH BASIN c/w ICD (IPEX TYPE "C" @ 42 L/S)
 - PROPOSED CATCH BASIN c/w ICD (IPEX TYPE "D" @ 95 L/S)
 - LOT NUMBER
 - PROPOSED ELEVATION AROUND BUILDING
 - PROPOSED ELEVATION
 - EXISTING ELEVATION
 - PROPOSED DRAINAGE ARROW
 - PROPERTY LINE
 - DEPRESSED SIDEWALK

BENCH MARK
SCOTT'S MONUMENT
ELEVATION 100.88m
IRON PIPE WITH BRASS CAP AT T-INTERSECTION OF HUNTMAR ROAD, WITH MAPLE GROVE ROAD, 28.3 m SOUTH WEST FROM MIDDLE OF ROAD INTERSECTION, 6.7m FROM CENTER LINE OF ROAD AND AT SAME LEVEL.

NO.	REVISION	DATE
8	REVISED BOUNDARY LOTS #1 AND #2	06/12/04
7	REVISED FOR FINAL SITE PLAN APPROVAL	13/04/04
6	REVISED PER CITY OF OTTAWA COMMENTS	15/03/04
5	REVISED LOTS AND ENTRANCES	18/12/03
4	WATERMAIN RELOCATED - ISSUED FOR DISTRIBUTION	08/08/03
3	FOR TENDER	17/06/03
2	PER CITY OF OTTAWA COMMENTS	30/05/03
1	FINAL LAYOUT REVISIONS	23/04/03
NO.	ISSUE	DATE



J.L. Richards & Associates Limited
Consulting Engineers, Architects & Planners
864 LADY ELLEN PLACE, OTTAWA, ONTARIO K1Z 5A2

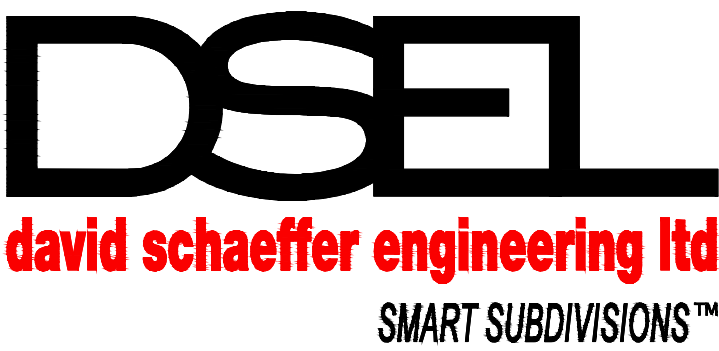
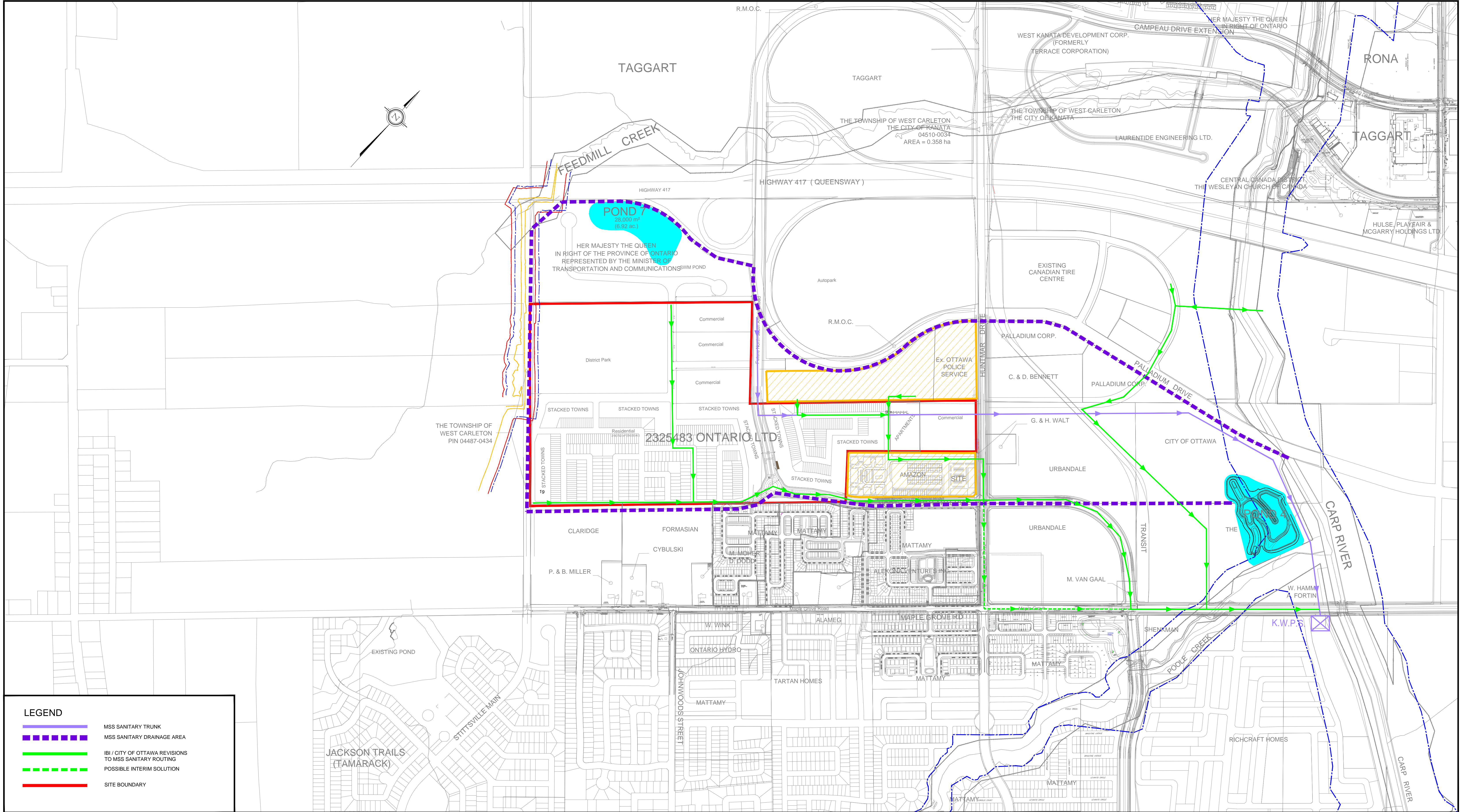
PALLADIUM AUTO PARK

SITE SERVICES

DESIGN: A.R.	REVISION NO.:
DRAWN: M.G.B.	DRAWING NO.:
CHECKED:	S1
DATE: JUNE 2003	
SCALE: 1:1000	JOB NO.: 15941-04

FIGURES

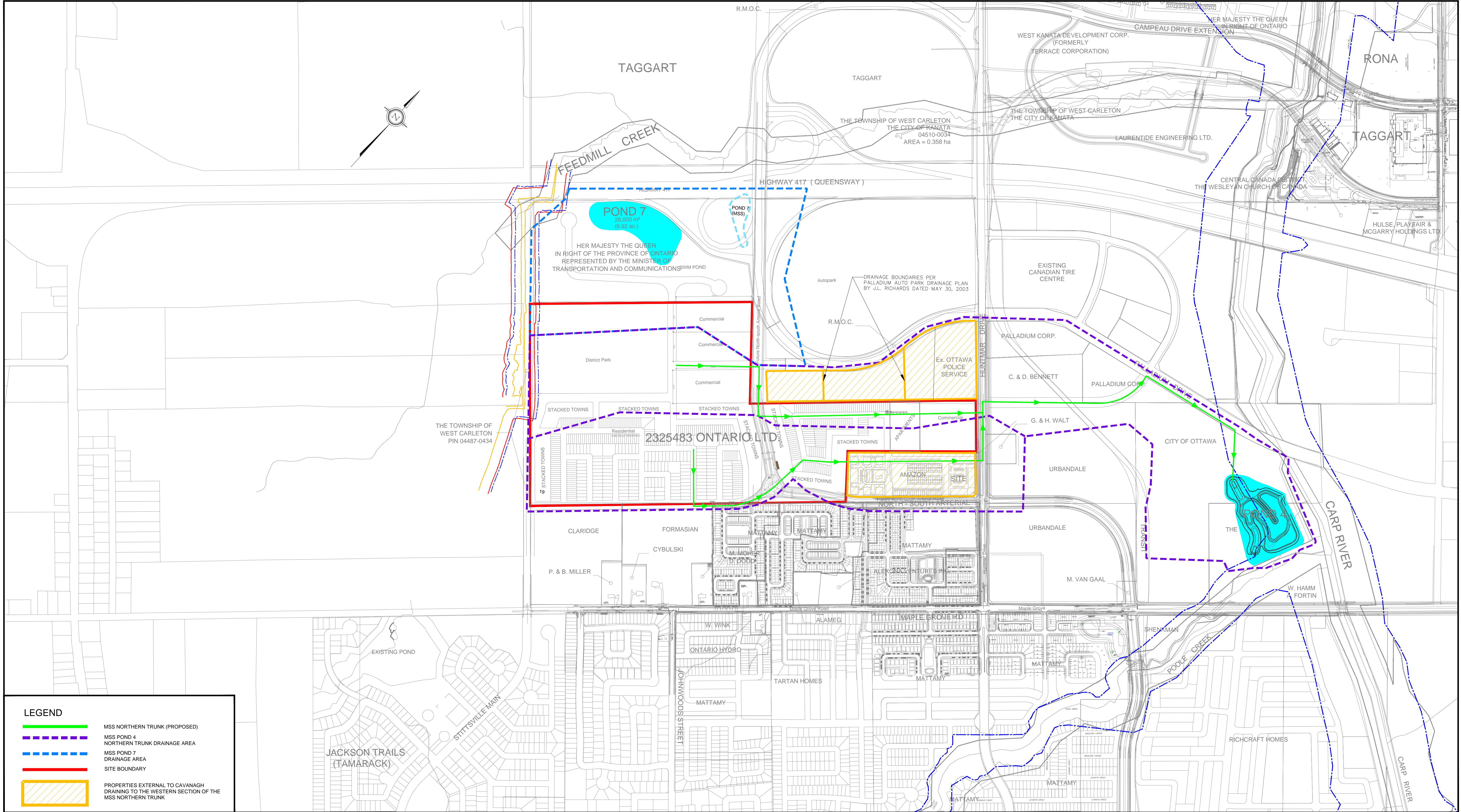
- Figure 1 Sanitary Servicing (DSEL, August 2016)
- Figure 2 MSS Storm Drainage Concept (DSEL, August 2016)
- Figure 3 Proposed MSS Storm Drainage Changes (DSEL, August 2016)



120 Iber Road, Unit 103
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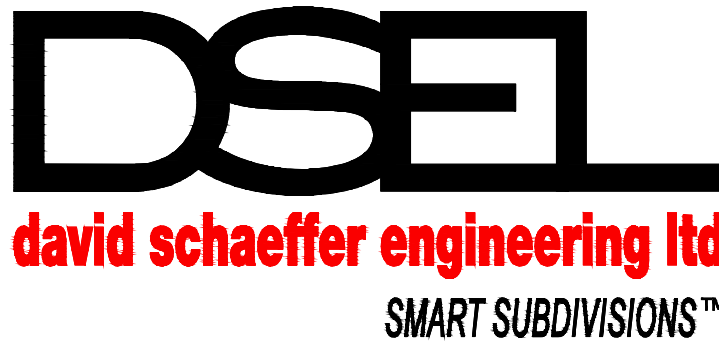
CAVANAGH KANATA WEST SANITARY SERVICING

PROJECT No.:	12-624
SCALE:	1:5000
DATE:	2016-08-29
FIGURE:	1



LEGEND

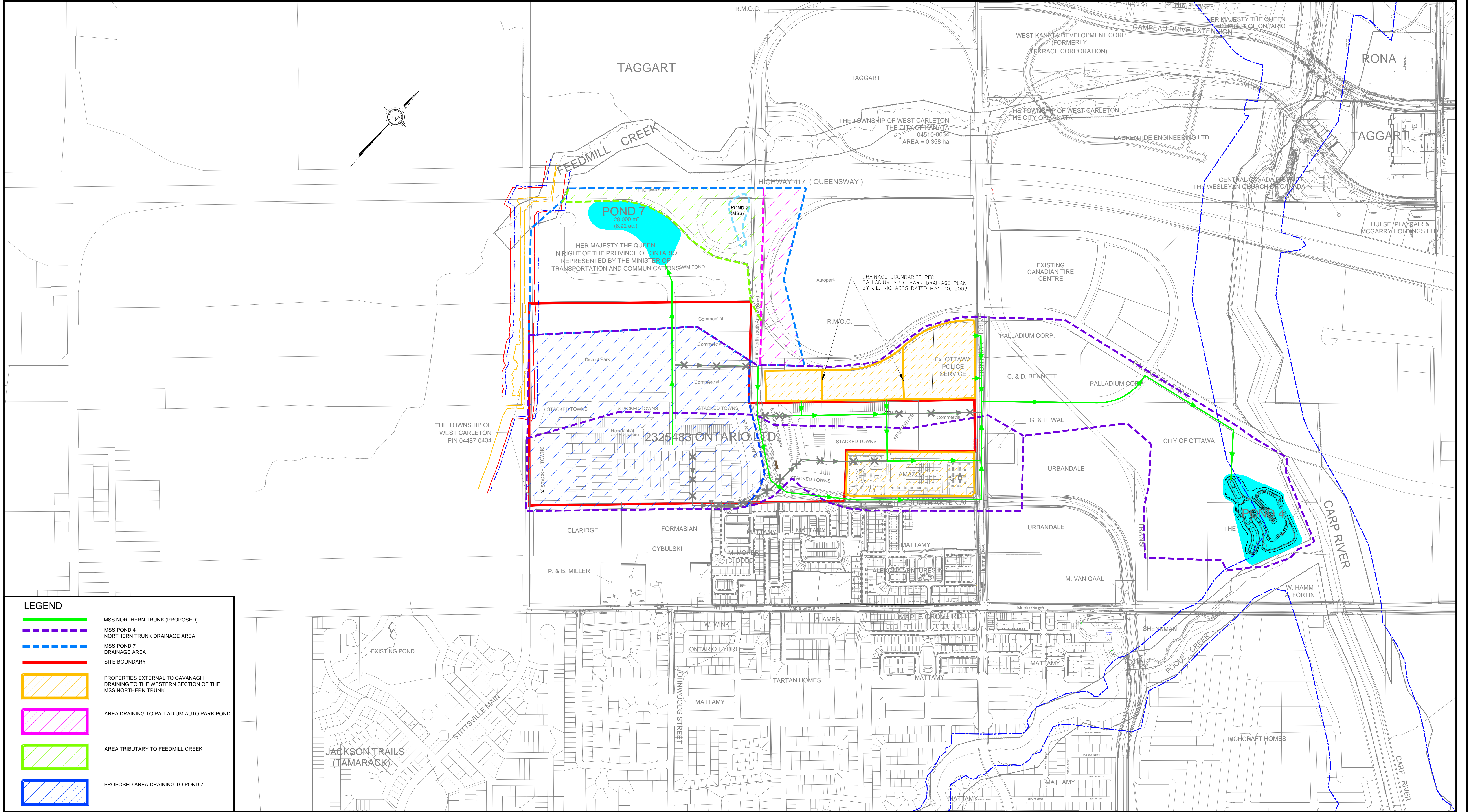
- MSS NORTHERN TRUNK (PROPOSED)
- MSS POND 4 NORTHERN TRUNK DRAINAGE AREA
- MSS POND 7 DRAINAGE AREA
- SITE BOUNDARY
- PROPERTIES EXTERNAL TO CAVANAGH DRAINING TO THE WESTERN SECTION OF THE MSS NORTHERN TRUNK



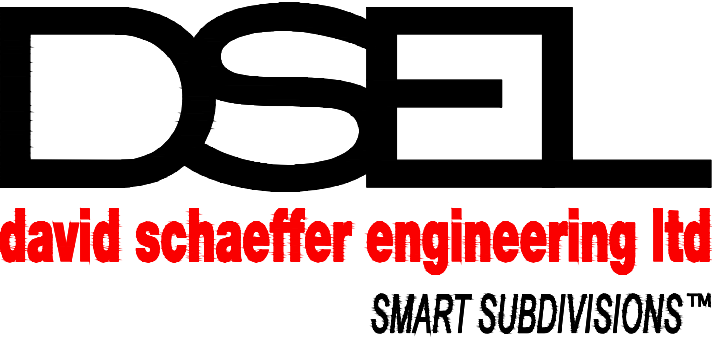
120 Iber Road, Unit 103
Stittsville, ON K2S 1E9
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FAX: (613) 836-7183
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CAVANAGH KANATA WEST MSS STORM DRAINAGE CONCEPT

PROJECT No.:	12-624
SCALE:	1:5000
DATE:	2016-08-29
FIGURE:	2



- LEGEND**
- MSS NORTHERN TRUNK (PROPOSED)
 - MSS POND 4 NORTHERN TRUNK DRAINAGE AREA
 - MSS POND 7 DRAINAGE AREA
 - SITE BOUNDARY
 - PROPERTIES EXTERNAL TO CAVANAGH DRAINING TO THE WESTERN SECTION OF THE MSS NORTHERN TRUNK
 - AREA DRAINING TO PALLADIUM AUTO PARK POND
 - AREA TRIBUTARY TO FEEDMILL CREEK
 - PROPOSED AREA DRAINING TO POND 7



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CAVANAGH KANATA WEST PROPOSED MSS CHANGES

PROJECT No.:	12-624
SCALE:	1:5000
DATE:	2016-08-29
FIGURE:	3