

City Council Meeting

Date: July 11, 2022
Time: 4:00 o'clock p.m.

Location: Council Chambers, 1st Floor, Windsor City Hall

All members will have the option of participating in person in Council Chambers or electronically and will be counted towards quorum in accordance with Procedure By-law 98-2011 as amended, which allows for electronic meetings. The minutes will reflect this accordingly. Any delegations will have the option of participating electronically or in person.

MEMBERS:

Mayor Drew Dilkens

Ward 1 – Councillor Fred Francis

Ward 2 – Councillor Fabio Costante

Ward 3 – Councillor Rino Bortolin

Ward 4 – Councillor Chris Holt

Ward 5 – Councillor Ed Sleiman

Ward 6 – Councillor Jo-Anne Gignac

Ward 7 – Councillor Jeewen Gill

Ward 8 – Councillor Gary Kaschak

Ward 9 – Councillor Kieran McKenzie

Ward 10 - Councillor Jim Morrison

ORDER OF BUSINESS

Item #	Item Description
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1.	ORDER OF BUSINESS
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1.1.	In the event of the absence of the Mayor, Councillor Holt has been Appointed Acting Mayor for the month of July, 2022 in accordance with By-law 176-2018, as amended.
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2.	CALL TO ORDER - Playing of the National Anthem
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READING OF LAND ACKNOWLEDGEMENT

We [] would like to begin by acknowledging that the land on which we gather is the traditional territory of the Three Fires Confederacy of First Nations, which includes the Ojibwa, the Odawa, and the Potawatomie. The City of Windsor honours all First Nations, Inuit and Métis peoples and their valuable past and present contributions to this land.

3.	DISCLOSURE OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF
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4.	ADOPTION OF THE MINUTES
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5.	NOTICE OF PROCLAMATIONS
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Proclamations

“Srebrenica Genocide Remembrance Day” – Monday, July 11, 2022

Flag Raising Ceremony

“Eid” – Friday, July 22, 2022

Illumination

“Eid” – Friday, July 22, 2022

6.	COMMITTEE OF THE WHOLE
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7.	COMMUNICATIONS INFORMATION PACKAGE (This includes both Correspondence and Communication Reports)
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- 7.2. Disposal of Surplus Goods Reporting Requirements - Purchasing Bylaw 93-2012 - City Wide **(CM 7/2022)**
- 7.3. Windsor Canada Utilities - 1st Quarter 2022 Financial Statements - City Wide **(C 106/2022)**
- 7.4. Performance Appraisal Report (for period of January - December 2021) - City Wide **(CM 8/2022)**

8. **CONSENT AGENDA**

- 8.1. Response to Council Directive in Council Decision Number CR83/2022 Regarding the Repair and Improvement to the McKee Drain - Wards 1 and 2 **(C 102/2022)**
- 8.2. Correcting the Spelling of Matchette Road to Matchett Road (Wards 1 and 2) **(C 101/2022)**
- 8.3. Application for Municipal Borrowing from Infrastructure Ontario - Housekeeping Matters - City Wide **(C 105/2022)**
- 8.4. Payment Card Data Security Policy - City Wide **(C 57/2022)**
- 8.5. Petition in Opposition to Sidewalk Installation on the West Side of Roxborough Blvd – Between Ojibway St. and Cleary St. (Ward 10) **(C 109/2022)**

CONSENT COMMITTEE REPORTS

- 8.6. Essex-Windsor Solid Waste Authority Regular Board Meeting Minutes - April 5, 2022 **(SCM 175/2022) (SCM 142/2022)**
- 8.7. Essex-Windsor Solid Waste Authority Annual Report - Essex-Windsor Residential Waste Diversion 2021 **(SCM 176/2022) (SCM 143/2022)**
- 8.8. Minutes of the Windsor Bicycling Committee of its meeting held May 4, 2022 **(SCM 177/2022) (SCM 151/2022)**
- 8.9. CQ24-2019 - Designating all BIA's as "Tourist Destinations" - City Wide **(SCM 178/2022) (S 66/2022)**
- 8.10. Fleet Documentation - City Wide **(SCM 179/2022) (S 67/2022)**
- 8.11. City of Windsor Traffic Pre-Emption and Priority Project - Pre-Approval – City Wide **(SCM 180/2022) (S 71/2022)**
- 8.12. Tuition-Based ("SaintsPass") Bus Pass Program - Partnership with St. Clair College Student Representative Council - City Wide **(SCM 181/2022) (S 52/2022)**
- 8.13. Transit Windsor Route Infrastructure Planning & Design Guidelines - City Wide **(SCM 182/2022) (S 69/2022)**

- 8.14. Town of Amherstburg - Transit Service Agreement - City **Wide (SCM 183/2022) (S 70/2022)**
- 8.15. 2022 Decommissioning of Transit Windsor Buses - City Wide **(SCM 184/2022) (S 73/2022)**
- 8.16. Closure of part of southerly half of north/south alley between Brant Street and Wyandotte Street East, Ward 3 **(SCM 158/2022) (S 58/2022) Clerks Note: Administration providing an Additional Information Memo dated June 14, 2022 (enclosed) (AI 9/2022)**
- 8.17. Zoning By-Law Amendments for 1646 to 1648 Drouillard Road; File Z-004/22 (ZNG/6659) Ward 5 **(SCM 168/2022) (S 46/2022)**
- 8.18. Rezoning – Andi Shallvari - 716 Josephine Ave - Z-011/22 ZNG/6703 - Ward 2 **(SCM 169/2022) (S 56/2022)**
- 8.19. 1478 Kildare Road, Cunningham Sheet Metal (formerly) - Heritage Permit Request (Ward 4) **(SCM 170/2022) (S 60/2022)**

9. **REQUEST FOR DEFERRALS, REFERRALS AND/OR WITHDRAWALS**

10. **PRESENTATIONS AND DELEGATIONS**

11. **REGULAR BUSINESS ITEMS (Non-Consent Items)**

- 11.1. Bernard Road Subdivision – NOC Development Inc. Cost Sharing/Oversizing/Servicing - Ward 5 **(C 104/2022)**
- 11.2. Declaration of a Vacant Parcel of Land Municipally Known as 0 Rockwell Boulevard Surplus and Authority to Offer for Sale - Ward 10 **(C 100/2022)**
- 11.3. Lanspeary Lions Outdoor Pool and Change Room Replacement - Ward 4 **(C 107/2022)**
- 11.4. Proposed Expropriation of lands and easements on Riverside Drive East for the Riverside Vista Road Improvements, Phase 2A- Ward 6 **(C 103/2022)**

12. **CONSIDERATION OF COMMITTEE REPORTS**

- 12.1. (i) Report of the Special In-Camera meeting or other Committee as may be held prior to Council (if scheduled)

13. **BY-LAWS (First and Second Reading)**
14. **MOVE BACK INTO FORMAL SESSION**
15. **NOTICES OF MOTION**
16. **THIRD AND FINAL READING OF THE BY-LAWS**
17. **PETITIONS**
18. **QUESTION PERIOD**
19. **STATEMENTS BY MEMBERS**
20. **UPCOMING MEETINGS**

Development & Heritage Standing Committee
Monday, July 4, 2022
4:30 p.m., Zoom/Hybrid Platform

Community Services and Parks Standing Committee
Wednesday, July 6, 2022
9:00 a.m., Zoom/Hybrid Platform
21. **ADJOURNMENT**

**Subject: Disposal of Surplus Goods Reporting Requirements -
Purchasing Bylaw 93-2012 - City Wide**

Reference:

Date to Council: July 11, 2022
Author: Alex Vucinic
Purchasing Manager
519-255-6100 x6280
avucinic@citywindsor.ca

Purchasing
Report Date: June 8, 2022
Clerk's File #: A12022

To: Mayor and Members of City Council

Recommendation:

THAT the report of the Purchasing Manager dated July 1, 2022 entitled "Disposal of Surplus Goods Reporting Requirements – Purchasing Bylaw 93-2012", **BE RECEIVED** for information.

Executive Summary:

Not applicable

Background:

Part XIV (s.163) of the Purchasing Bylaw provides:

"The Purchasing Manager shall submit an annual information report to Council disclosing all Surplus items disposed of" under this section.

This report covers the period between January 1, 2021 to December 31, 2021.

Discussion:

The Purchasing Bylaw requires an annual report summarizing transactions made with respect to surplus and obsolete material.

Transactions of surplus items for sale totalled \$282,268.03 in 2021. These items are summarized in Appendix A - Surplus or Obsolete Material Summary 2021.

Risk Analysis:

There is no significant or critical risks associated with the recommendation.

Climate Change Risks

Climate Change Mitigation:

Not applicable

Climate Change Adaptation:

Not applicable

Financial Matters:

Net proceeds from the sale of surplus items in 2021 was \$282,268.03. These proceeds were returned to the originating departments as per section 158 of the Purchasing Bylaw. An itemized breakdown is presented in Appendix A.

Consultations:

Elaine Castellan, Purchasing Supervisor

Alexandra Taylor, Financial Planning Administrator

Conclusion:

In fulfillment of the requirements of Purchasing Bylaw 93-2012 (s. 163), attached is a list of all surplus items that was disposed of in 2021.

Planning Act Matters:

Not applicable

Approvals:

Name	Title
Alex Vucinic	Purchasing Manager
Alexandra Taylor	Financial Planning Administrator
Joe Mancina	Chief Financial Officer
Shelby Askin Hager	City Solicitor
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

- 1 Appendix A - Surplus and Obsolete Material Summary 2021
- 2 Appendix B - Details and Breakdown

Appendix A – 2021

Surplus or Obsolete Material Summary 2021			
Requesting Department/Area	Description	Acquiring Company or Department	Proceeds
Transit Windsor	obsolete transfer inventory stock	Niagara Falls Transit	\$2,340.00
Crawford Yard Transit Windsor Public Works Windsor Fire & Rescue Services Parks & Facilities Recreation & Culture	surplus vehicles and equipment	Various Buyers Via Government Surplus Online Auction (GovDeals)	\$279,928.03 *details and breakdown is attached
TOTAL PROCEEDS			\$282,268.03

***Appendix B - Details and Breakdown**

Description	Department	High Bid	HST	Total	GovDeals Fee (high bid x7.5%)	Fee Tax	Net Pay
1985 Kubota L4150 Tractor with Bucket	Parks and Facilities	\$9,300.00	\$1,209.00	\$10,509.00	(\$697.50)	(\$90.67)	\$9,720.83
Toro Mower	Parks and Facilities	\$9,200.00	\$1,196.00	\$10,396.00	(\$690.00)	(\$89.70)	\$9,616.30
Foley 460 Rotary Blade Grinder	Parks and Facilities	\$1,600.00	\$208.00	\$1,808.00	(\$120.00)	(\$15.60)	\$1,672.40
Woods Mower	Parks and Facilities	\$2,601.00	\$338.13	\$2,939.13	(\$195.07)	(\$25.36)	\$2,718.70
2006 Club Car Golf Cart	Parks and Facilities	\$4,200.00	\$546.00	\$4,746.00	(\$315.00)	(\$40.95)	\$4,390.05
Arrow board	Parks and Facilities	\$210.00	\$27.30	\$237.30	(\$15.75)	(\$2.05)	\$219.50
2001 Club Car Golf Cart	Parks and Facilities	\$4,050.00	\$526.50	\$4,576.50	(\$303.75)	(\$39.49)	\$4,233.26
2013 Bobcat Tool Cat	Parks and Facilities	\$20,300.00	\$2,639.00	\$22,939.00	(\$1,522.50)	(\$197.92)	\$21,218.58
Golf Cart	Parks and Facilities	\$5,105.00	\$663.65	\$5,768.65	(\$382.87)	(\$49.77)	\$5,336.01
2011 Kubota L3940 Tractor	Parks and Facilities	\$18,200.00	\$2,366.00	\$20,566.00	(\$1,365.00)	(\$177.45)	\$19,023.55
2011 Kubota L3940 Tractor	Parks and Facilities	\$16,200.00	\$2,106.00	\$18,306.00	(\$1,215.00)	(\$157.95)	\$16,933.05
2004 Club Car Carryall	Parks and Facilities	\$3,300.00	\$429.00	\$3,729.00	(\$247.50)	(\$32.17)	\$3,449.33
Bannerman Dethatcher /Aerator	Parks and Facilities	\$2,225.00	\$289.25	\$2,514.25	(\$166.87)	(\$21.69)	\$2,325.69
Lot of Golf Cart Parts	Parks and Facilities	\$67.00	\$8.71	\$75.71	(\$5.02)	(\$0.65)	\$70.04
Sand Spreader	Parks and Facilities	\$50.00	\$6.50	\$56.50	(\$5.00)	(\$0.65)	\$50.85
2011 Kubota Deck	Parks and Facilities	\$510.00	\$66.30	\$576.30	(\$38.25)	(\$4.97)	\$533.08
2012 Kubota ZD331 Mower	Parks and Facilities	\$9,600.00	\$1,248.00	\$10,848.00	(\$720.00)	(\$93.60)	\$10,034.40
2007 Mack Garbage Truck	Public Works	\$25,000.00	\$3,250.00	\$28,250.00	(\$1,875.00)	(\$243.75)	\$26,131.25
2005 Chevrolet Uplander Base FWD 1SA	Public Works	\$691.66	\$89.92	\$781.58	(\$51.87)	(\$6.74)	\$722.97
2009 Ford Focus S Sedan	Public Works	\$575.00	\$74.75	\$649.75	(\$43.12)	(\$5.61)	\$601.02
2009 Chevrolet Uplander LS 1LS	Public Works	\$1,850.00	\$240.50	\$2,090.50	(\$138.75)	(\$18.04)	\$1,933.71
2005 Ford F-150 XL 2WD	Public Works	\$3,050.00	\$396.50	\$3,446.50	(\$228.75)	(\$29.74)	\$3,188.01
2013 GMC Sierra 1500 Work Truck 2WD	Public Works	\$4,207.00	\$546.91	\$4,753.91	(\$315.52)	(\$41.02)	\$4,397.37
2011 Chevrolet Silverado 2500HD Work Truck Crew Cab 2WD	Public Works	\$2,550.00	\$331.50	\$2,881.50	(\$191.25)	(\$24.86)	\$2,665.39
1996 International 2654	Public Works	\$3,200.00	\$416.00	\$3,616.00	(\$240.00)	(\$31.20)	\$3,344.80
2002 Freightliner FL60 ALTEC Boom Truck	Public Works	\$25,400.00	\$3,302.00	\$28,702.00	(\$1,905.00)	(\$247.65)	\$26,549.35
2009 Chevrolet Silverado 1500 Work 2WD	Public Works	\$3,950.00	\$513.50	\$4,463.50	(\$296.25)	(\$38.51)	\$4,128.74
2010 Chevrolet Express 2500 Cargo	Public Works	\$4,500.00	\$585.00	\$5,085.00	(\$337.50)	(\$43.87)	\$4,703.63
2005 Ford F-150 XL SuperCab 2WD	Public Works	\$600.00	\$78.00	\$678.00	(\$45.00)	(\$5.85)	\$627.15
2005 Ford F-150 XL 2WD	Public Works	\$4,062.00	\$528.06	\$4,590.06	(\$304.65)	(\$39.60)	\$4,245.81

2009 Chevrolet Colorado Work Truck Ext. Cab 2WD	Public Works	\$4,008.00	\$521.04	\$4,529.04	(\$300.60)	(\$39.08)	\$4,189.36
2005 Chevrolet Uplander Base FWD 1SA	Public Works	\$1,000.00	\$130.00	\$1,130.00	(\$75.00)	(\$9.75)	\$1,045.25
2009 Chevrolet Uplander LS 1LS	Public Works	\$1,125.00	\$146.25	\$1,271.25	(\$84.37)	(\$10.97)	\$1,175.91
2011 Chevrolet Silverado 2500HD Work Truck Crew Cab 2WD	Public Works	\$9,263.00	\$1,204.19	\$10,467.19	(\$694.72)	(\$90.31)	\$9,682.16
2009 Chevrolet Colorado Work Truck Ext. Cab 2WD	Public Works	\$6,658.00	\$865.54	\$7,523.54	(\$499.35)	(\$64.92)	\$6,959.27
Lot of OBSOLETE STOCK from 2020 - INVERO/NOVA/CLASSIC	Transit	\$28.00	\$3.64	\$31.64	(\$5.00)	(\$0.65)	\$25.99
Lot of OBSOLETE Parts from 2019 - INVERO/NOVA/CLASSIC	Transit	\$360.00	\$46.80	\$406.80	(\$27.00)	(\$3.51)	\$376.29
2007 Chrysler PT Cruiser Base	Public Works	\$1,500.00	\$195.00	\$1,695.00	(\$112.50)	(\$14.62)	\$1,567.88
2002 Freightliner FL60 ALTEC Boom Truck	Public Works	\$16,100.00	\$2,093.00	\$18,193.00	(\$1,207.50)	(\$156.97)	\$16,828.53
Lot of Bus Electronic Cash Boxes	Transit	\$6.00	\$0.78	\$6.78	(\$5.00)	(\$0.65)	\$1.13
Cummins Engine CORE - PARTS ONLY	Transit	\$815.00	\$105.95	\$920.95	(\$61.12)	(\$7.95)	\$851.88
Two Seat Couch with Pull Out Bed	Public Works	\$50.00	\$6.50	\$56.50	(\$5.00)	(\$0.65)	\$50.85
Leg Press	Public Works	\$875.00	\$113.75	\$988.75	(\$65.62)	(\$8.53)	\$914.60
Lot of Free Weights and Rack	Public Works	\$575.00	\$74.75	\$649.75	(\$43.12)	(\$5.61)	\$601.02
Workout Bench	Public Works	\$120.00	\$15.60	\$135.60	(\$9.00)	(\$1.17)	\$125.43
Lot of Glass Shower Doors	Public Works	\$50.00	\$6.50	\$56.50	(\$5.00)	(\$0.65)	\$50.85
1998 Zamboni	Parks and Facilities	\$7,650.00	\$994.50	\$8,644.50	(\$573.75)	(\$74.59)	\$7,996.16
2013 Canada Trailers Landscape Trailer	Parks and Facilities	\$4,200.00	\$546.00	\$4,746.00	(\$315.00)	(\$40.95)	\$4,390.05
2015 Jacobsen HR9016 Mower	Parks and Facilities	\$25,200.00	\$3,276.00	\$28,476.00	(\$1,890.00)	(\$245.70)	\$26,340.30
Kubota Sweeper	Parks and Facilities	\$635.00	\$82.55	\$717.55	(\$47.62)	(\$6.19)	\$663.74
Treadmill	Public Works	\$1,250.00	\$162.50	\$1,412.50	(\$93.75)	(\$12.19)	\$1,306.56
		\$267,821.66	\$34,816.82	\$302,638.48	\$20,097.76	\$2,612.69	\$279,928.03
Total Received from GovDeals: \$279,928.03							
Total GovDeals Fees Withheld: \$22,710.45							

Subject: Windsor Canada Utilities - 1st Quarter 2022 Financial Statements - City Wide

Reference:

Date to Council: July 11, 2022

Author: Janice Guthrie

Deputy Treasurer - Taxation, Treasury & Financial Projects

(519) 255-6100 Ext. 6271

jguthrie@citywindsor.ca

Taxation & Financial Projects

Report Date: June 22, 2022

Clerk's File #: MU2022

To: Mayor and Members of City Council

Recommendation:

THAT City Council **RECEIVE** for information, the Windsor Canada Utilities Ltd. 1st Quarter 2022 Financial Statements.

Executive Summary:

N/A

Background:

The Shareholder direction for Windsor Canada Utilities Ltd. (WCU) requires that Quarterly Financial Statements be provided to the shareholder.

Discussion:

In compliance with this requirement, WCU has provided consolidated financial statements as at March 31, 2022 with comparatives as at March 31, 2021.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

See attached Appendix A, which includes the following as at March 31, 2022:

- Covering letter from WCU's Vice President and Chief Financial Officer and the President and Chief Executive Officer
- Consolidated Balance Sheet
- Consolidated Income Statement
- Consolidated Statement of Cash Flows

Consultations:

N/A

Conclusion:

Information is submitted to City Council in compliance with the requirements of the Shareholder Direction for WCU.

Planning Act Matters:

N/A

Approvals:

Name	Title
Janice Guthrie	Deputy Treasurer – Taxation, Treasury & Financial Projects
Joe Mancina	Commissioner, Corporate Services & CFO/City Treasurer
Onorio Colucci	Acting Chief Administrative Officer

Notifications:

Name	Address	Email
Geoff Boose	4545 Rhodes Drive, Windsor, ON N9A 5T7	gboose@enwin.com

Appendices:

- 1 Appendix A - WCU - 2022 Q1 Financial Statements



To: Mayor and Members of City Council

2022 06 01

From: Matt Carlini

Re: Windsor Canada Utilities Ltd. March 2022 Quarterly Financial Statements

BACKGROUND AND BASIS OF REPORTING

Enclosed are the financial reports for Windsor Canada Utilities Ltd. (“WCU”) as at March 31, 2022.

WCU’s financial statements are presented in accordance with International Financial Reporting Standards (“IFRS”) which is a requirement, as WCU is a publicly accountable entity. WCU is not eligible to use Public Sector Accounting Standards, which is what the Corporation of the City of Windsor uses for external reporting. Within the Windsor Canada Utilities Ltd., consolidated operations are the operations of the local distribution company (ENWIN Utilities Ltd.) and ENWIN Energy Ltd. The Ontario Energy Board (“OEB”) regulates ENWIN Utilities Ltd. (“EWU”), and the regulator requires certain regulatory balances to be recognized and tracked for rate-setting purposes. These rate-setting accounts are considered for regulatory purposes as either regulatory assets or liabilities; however, those accounts are not recognized under IFRS.

In January 2021, the International Accounting Standards Board (“IASB”) published the Exposure Draft *Regulatory Assets and Regulatory Liabilities*, which sets out proposals that aim to give investors better information about the financial performance of companies that are subject to rate regulation. The Exposure Draft is still in the consultation and review stages. It is anticipated that EWU will have the ability to recognize regulated assets and liabilities within the IFRS financial statements once this standard is published. The final standard is expected to be issued in late 2022 with an effective date of January 1, 2025, however, early adoption may be an option for EWU. Until such time when this new standard is adopted, EWU will

maintain two sets of records to report regulated activities and to fulfil external financial reporting requirements.

DISCUSSION

The objective of this report is to provide quarterly consolidated financial performance updates to the Mayor and members of City Council. Further financial analysis and explanations can be found under the 'Financial Matters' section.

RISK ANALYSIS

The results reported to the City Council are for internal reporting purposes and are intended to provide an update of the company's financial performance relative to budget and prior year. The figures are not audited and do not contain all the note disclosure that would be present in a full audited financial statement.

FINANCIAL MATTERS

Financial Highlights

Overall, the performance of the group was slightly better than budget in the first quarter of the year and is projected to outperform the original budget when regulatory adjustments are excluded (MIFRS net income). Net Income however is highly sensitive to changes in electricity pricing as well as other regulatory rate adjustments and those are currently reducing reported earnings on an IFRS basis.

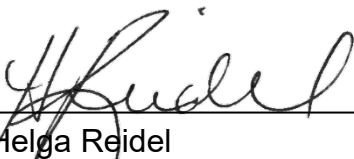
As of the quarter-ended March 31, 2022, WCU is reporting Total Revenue of \$12.9 million, Operating Income of \$5.5 million, and Net Income of negative \$1.1 million under IFRS. The 2022 forecast shows revenue favourability largely driven by favourability within EWU however that is offset with higher than anticipated regulatory adjustments which, at this time, are expected to put downward pressure on net income. These regulatory adjustments are often impacted by market conditions but management will continue to monitor financial performance and liquidity throughout the year.

Liquidity and Financial Strength

As at March 31, 2022, WCU is in a positive cash flow position despite having to settle some regulatory balances. Cash is expected to slowly decrease throughout 2022 – 2024 because over \$5 million per year is anticipated to be settled through rate riders, however WCU continues to experience a strong balance sheet and consistent credit profile.



Matt Carlini
Vice President, Corporate Services and CFO



Helga Reidel
President and CEO

encls Appendix A – WCU Q1 2022 Consolidated Financial Review Statements

Appendix A

Windsor Canada Utilities Ltd.

Board Financial Review Statements

March 31, 2022

Unaudited

	Page Reference
Consolidated Balance Sheet.....	i
Consolidated Income Statement.....	ii
Consolidated Statement of Cash Flows.....	iii

Windsor Canada Utilities Ltd.

Consolidated Balance Sheet
(In thousands of Canadian dollars)

March 31, 2022, with comparative information for 2021

	March 2022	March 2021	December 2021
Assets			
Current assets:			
Cash and cash equivalents	\$ 28,648	\$ 46,522	\$ 34,986
Investment	15,548	5,021	15,503
Accounts receivable	39,544	45,615	43,194
Due from related parties	3,753	2,139	2,270
Inventory	5,093	4,434	4,854
Other assets	2,144	1,862	1,285
	94,730	105,593	102,092
Non-current assets:			
Property, plant and equipment	246,649	242,949	246,016
Intangible assets	1,096	1,796	1,253
Investment, sinking fund	12,640	11,185	12,968
Investment in joint venture	171	120	184
Work in progress	433	252	203
Due from related parties - debentures and post-retirement	52,000	52,411	52,000
Deferred income taxes	8,274	9,118	8,274
	321,263	317,831	320,898
Total assets	\$ 415,993	\$ 423,424	\$ 422,990
Liabilities			
Current liabilities:			
Accounts payable and accruals	\$ 22,907	\$ 28,336	\$ 29,339
Payments in lieu of income taxes payable	851	293	1,183
Due to related parties	8,503	7,054	7,145
Current portion of customer deposits	1,109	1,118	1,008
Deferred revenue	5,282	7,856	5,203
	38,652	44,657	43,878
Non-current liabilities:			
Customer deposits	4,574	3,644	4,417
Deferred revenue - customer contributions	18,995	18,624	19,126
Long-term debt	102,515	102,500	102,511
Employee future benefits	66,439	69,801	66,127
	192,523	194,569	192,181
Total liabilities	231,175	239,226	236,059
Equity			
Common shares	81,842	81,842	81,842
Contributed surplus	516	516	516
Retained earnings	102,460	101,840	104,573
	184,818	184,198	186,931
Total liabilities and equity	\$ 415,993	\$ 423,424	\$ 422,990

Windsor Canada Utilities Ltd.

Consolidated Statement of Income
(In thousands of Canadian dollars)

March 31, 2022, with comparative information for 2021

	YTD - March 31, 2022			YTD - March 31, 2021		2022 Annual	2022
	Actuals	Budget	Variance	Actuals	Variance	Budget	Forecast
Distribution revenue:							
Residential	\$ 6,702	\$ 6,587	\$ 115	\$ 6,477	\$ 225	\$ 26,349	\$ 26,771
General service - small	4,314	4,226	88	4,022	292	17,670	17,965
General service - large	920	848	72	926	(6)	3,472	3,586
Street lighting	409	403	6	396	13	1,611	1,632
	12,345	12,064	281	11,821	524	49,102	49,954
Net service revenue							
Services provided to WUC	4,644	4,790	(146)	4,711	(67)	19,159	19,241
Services provided to City	589	661	(72)	577	12	2,645	2,578
	5,233	5,451	(218)	5,288	(55)	21,804	21,819
Cost of services - MSA	(4,924)	(5,140)	216	(4,942)	18	(20,558)	(20,577)
Cost of services - depreciation - MSA	(185)	(176)	(9)	(214)	29	(720)	(675)
	124	135	(11)	132	(8)	526	567
Other income	459	282	177	345	114	1,054	1,150
Total revenue	12,928	12,481	447	12,298	630	50,682	51,671
Operating expenses:							
Distribution operation and maintenance	3,009	2,955	(54)	2,608	(401)	12,047	12,252
Billing and collection	758	759	1	671	(87)	3,101	3,146
Community relations	60	57	(3)	31	(29)	248	259
Administration and general	894	848	(46)	731	(163)	3,420	3,581
Property and tools and maintenance	504	490	(14)	464	(40)	1,948	2,029
Salaries and benefits	1,614	1,728	114	1,554	(60)	6,433	6,194
Regulatory	111	112	1	103	(8)	449	488
Employee future benefits	494	499	5	490	(4)	1,998	1,990
	7,444	7,449	5	6,652	(792)	29,644	29,939
Operating income / EBITDA	5,484	5,032	452	5,646	(162)	21,038	21,732
Other income/expenses:							
Share of joint venture's net loss (gain)	13	1	(12)	15	2	5	14
Depreciation and amortization	1,838	1,721	(117)	1,909	71	6,725	6,624
Net finance expense	770	404	(366)	310	(460)	1,617	1,391
Loss (gain) on sale of PP&E	89	-	(89)	(165)	(254)	-	(140)
	2,710	2,126	(584)	2,069	(641)	8,347	7,889
Income before tax	2,774	2,906	(132)	3,577	(803)	12,691	13,843
Provision for PILs of corporate taxes	708	844	136	917	209	3,658	3,953
	708	844	136	917	209	3,658	3,953
Net income - MIFRS	2,066	2,062	4	2,660	(594)	9,033	9,890
Regulatory adjustment (IFRS)	(3,178)	(1,367)	(1,811)	(54)	(3,124)	(5,467)	(7,277)
Net income - IFRS	(1,112)	695	(1,807)	2,606	(3,718)	3,566	2,613

Windsor Canada Utilities Ltd.

Consolidated Statement of Cash Flows
(In thousands of Canadian dollars)

March 31, 2022, with comparative information for 2021

	March 2022	March 2021	December 2021	Forecast 2022
Cash flows from operating activities:				
Total IFRS net income for the year	\$ (1,112)	\$ 2,606	\$ 8,338	\$ 2,011
Adjustments for:				
Depreciation and amortization	2,846	2,947	11,760	11,365
Amortization of deferred revenue customer contribution	(131)	(127)	(514)	(515)
Remeasurement of employee future benefits	-	-	(4,584)	-
Loss (gain) on investment	283	(146)	(784)	(483)
Loss (gain) on sale of property, plant and equipment	89	(163)	370	(140)
Amortization of debt issuance costs	4	4	14	15
Share in joint venture's net loss	13	15	51	14
Net finance expense	419	294	1,003	1,391
Income tax expense	708	917	1,638	1,113
	3,119	6,347	17,292	14,771
Changes in:				
Accounts receivable	3,652	7,697	10,118	9,684
Due from related parties	(1,340)	(561)	(1,103)	(2,240)
Inventory	(238)	(260)	(680)	49
Other assets	(860)	211	792	(559)
Investment in joint venture	-	-	(100)	-
Work in progress	(229)	2	50	(229)
Deferred income taxes	-	-	844	-
Accounts payable and accruals	(6,438)	(6,247)	(5,245)	(12,302)
PIL of income taxes	(754)	(260)	915	3,166
Due to related parties	1,215	644	735	482
Deferred revenue	79	13	(2,639)	(5,203)
Customer deposits	259	(181)	483	259
Employee future benefits	313	414	1,323	1,328
	(4,341)	1,472	5,493	(5,565)
Interest paid	(1,073)	(1,073)	(4,277)	(4,320)
Interest received	655	779	3,273	2,929
Income taxes paid	(287)	(791)	(1,798)	(1,113)
	(1,927)	6,734	19,983	6,702
Cash flows from investing activities:				
Acquisition of PP&E and intangible assets	(3,533)	(2,416)	(14,889)	(21,646)
Acquisition of investments	-	3,177	(11,627)	(1,200)
Deferred revenue - customer contributions	-	-	1,017	1,194
Proceeds from investments	-	-	3,177	-
Proceeds on sale of PP&E	122	189	665	350
	(3,411)	950	(21,657)	(21,302)
Cash flows from financing activities:				
Decrease (Increase) in shareholder note Payable	-	-	-	(123)
Increase (decrease) in shareholder note receivable	-	-	-	123
Decrease in due from related parties	-	-	822	-
Dividends paid	(1,000)	(1,000)	(4,000)	(4,000)
	(1,000)	(1,000)	(3,178)	(4,000)
Net increase (decrease) in cash and cash equivalents	(6,338)	6,684	(4,852)	(18,600)
Cash and cash equivalents, beginning of period	34,986	39,838	39,838	34,986
Cash and cash equivalents, end of period	\$ 28,648	\$ 46,522	\$ 34,986	\$ 16,386



Subject: Performance Appraisal Report (for period of January - December 2021) - City Wide

Reference:

Date to Council: July 11, 2022

Author: Alicia Saroli, Workforce Planning Specialist

519-255-6515, ext. 6536; asaroli@citywindsor.ca

Vincenza Mihalo, Executive Director of Human Resources

519-255-6515, ext. 6259; vmihalo@citywindsor.ca

Human Resources

Report Date: June 23, 2022

Clerk's File #: AS2022

To: Mayor and Members of City Council

Recommendation:

That the report by the Executive Director of Human Resources regarding Performance Appraisals for the period January to December 2021 **BE RECEIVED FOR INFORMATION.**

That going forward the annual report **BE RECEIVED AND REVIEWED BY THE CAO.**

Executive Summary:

N/A

Background:

Performance appraisals are an integral part of assisting managers in achieving departmental and corporate objectives. As an effective communication tool, the performance appraisal allows employees and their managers the opportunity to discuss employee's performance, career goals, and the overall objectives of the Corporation. Properly constructed performance appraisals encourage trust between employees and managers, which can lower the distracting factors that impact an employee's job performance.

Since 2006, the completion rates of performance appraisals have been monitored and the results have been reported to Council on an annual basis since 2010. In an effort to improve the completion rate, many changes to the system have been made, such as the consolidation of forms, the development of a Performance Appraisal policy, Competency Dictionary, and training for management staff on how to complete an effective performance appraisal.

Last updated in 2008, our goal moving forward will be to update once again the Performance Appraisal forms and the Performance Appraisal procedures given the feedback and comments we have received from employees since our last update. As part of our goal of having seven (7) overall Human Resources policies, the Learning and Development Policy has been updated to incorporate Performance Appraisals, thus eliminating the need for a specific Performance Appraisal Policy and rather proceed with a Performance Appraisal procedure to ease administrative review of this process.

The following completion rates were recorded for regular full-time, temporary full-time and regular part-time employees:

- 2006: 28%
- 2007: 57%
- 2008: N/A*
- 2009: 62%
- 2010: 54%
- 2011: 90.73%
- 2012: 89.1% **
- 2013: 84.9%
- 2014: 82.9%
- 2015: 89.85%
- 2016: 79.4%***
- 2017: 84.74%
- 2018: 86.86%
- 2019: 86.16%
- 2020: 93.15%
- **2021: 88.57%**

** Performance appraisal report was not produced in 2008 as procedural modifications were being developed.*

*** Regular Part-Time employees were added to the completion rate set by CAO in 2012 and incorporated into the annual performance appraisal completion rate report.*

****Performance appraisals for Transit Windsor were incorporated.*

Discussion:

The report for the compliance period of January 2021 – December 2021, indicates a **88.57% completion rate** across the corporation.

Great effort has been made to educate supervisors and managers of the importance of conducting performance reviews with their staff, with the intended goal of managing organizational performance, managing people and managing money. We consider these efforts to be required on an ongoing basis in order to reach the 95% completion rate target.

The overall completion rate in 2021 continues to strive for a 95% target rate, and administration considers the current completion rate to be an outstanding accomplishment for our managers and supervisors, especially dealing with ongoing extraordinary circumstances of 2021.

The Performance Management training program will continue to emphasize and support the importance of supervisors and managers connecting with their staff through both formal and casual performance discussions.

As the Corporation moves towards a fully integrated Succession Planning program, the performance appraisal becomes a key factor in its success by identifying potential career paths for employees, However, the updated performance appraisal system will also endeavour to recognize employees' strengths and opportunities, including those exceptional workers who are satisfied in their current positions but are not looking to advance. Their consistency helps stabilize the department and it is important for those individuals to feel understood and valued.

Although it was expected that Windsor Public Library's performance appraisal completion statistics would appear on the 2021 report to Council, their data is not yet fully incorporated into our PeopleSoft Program.

Risk Analysis:

There is a risk for not completing performance appraisals for employees on an annual basis, which include:

Resource Risks: The Performance Appraisal process provides the opportunity for employees and their supervisor's to participate in a discussion addressing short and long term goals and objectives, which often include employee career aspirations.

Supervisors and Managers often times suggest training courses or modules to employees in an effort to reach departmental and/or career goals as a part of Corporate Succession Planning. These discussions are valuable to Human Resources as it helps identify employees who have an aspiration and work ethic to progress through the corporation while at the same time ensures that the proper training, supports, educational and skill set building activities are available to help employees become the future leaders of the corporation.

Timing Risks: If Performance Appraisals are not completed on time an employee who is due a step increase will need to be paid retroactively and this becomes a liability for the Corporation. The liability is dependent on the number of outstanding Performance Appraisals for employees who fall within the initial steps of their pay band and do not receive incremental increases automatically per their respective Collective Agreement. Since there are a limited number of employees that fall into this category it is UNLIKELY that retroactive payments should be required and this can therefore be considered a MINOR risk to the Corporation.

Cross-Corporate Impact Risks: If Performance Appraisals are not completed on time, or at all hiring managers will not have the opportunity to review performance related information for internal candidates during the recruitment/succession planning process. A lack of available performance information may result in small operational inefficiencies as hiring managers may need to seek out this information from other managers within the Corporation or may not be able to access this information at all. Since the current Performance Appraisal completion rate is 86.16% it suggests that many managers and supervisors are engaged in the process of completing regular Performance Appraisals with their employees. As such, it is UNLIKELY that managers interested in reviewing performance information for internal candidates will be unable to do so and this can therefore be considered a MINOR risk to the Corporation.

Community Impact Risks: If Performance Appraisals are completed regularly it provides managers and supervisors an opportunity to formally identify and strengthen positive workplace behaviours and provide tools to correct inappropriate workplace behaviours. Failure to engage in a formal evaluation of performance could result in the continuation of negative workplace behaviours which may impact the community through poor customer service. As managers and supervisors are encouraged to deal with negative workplace behaviours as they occur through coaching and progressive discipline measures it is UNLIKELY that Performance Appraisals are the only means used to address negative workplace behaviours and this can therefore be considered a MINOR risk to the Corporation.

Other Risks: No other risks assessed.

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

N/A

Consultations:

Dan Iatonna, Manager of Employment & Consulting Services

Alicia Saroli, Workforce Planning Specialist

Conclusion:

This report provides the opportunity to highlight the Corporation’s ongoing efforts in striving to reach performance appraisal targets. Continued emphasis will be placed on the importance of reaching these targets as a way of ensuring the continued success and improvement to the organization. Given the administrative nature of these reports it is being recommended that the reporting in future years be by way of a delegated authority report to the CAO.

Planning Act Matters:

N/A

Approvals:

Name	Title
Vincenza Mihalo	Executive Director, Human Resources
Shelby Askin Hager	Commissioner, Legal & Legislative Services
Chris Nepszy	Commissioner, Infrastructure Services
Joe Mancina	Commissioner, Corporate Services
John Revell for Jelena Payne	Commissioner, Economic Development & Innovation
Ray Mensour	Commissioner, Community Services
Debbie Cercone	(A) Commissioner, Health & Human Services
Onorio Colucci	(A) Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

Subject: Response to Council Directive in Council Decision Number CR83/2022 Regarding the Repair and Improvement to the McKee Drain - Wards 1 and 2

Reference:

Date to Council: July 11, 2022
Author: Paul Mourad
Engineer III
519-255-6100 ext. 6119
pmourad@citywindsor.ca
Design - Engineering
Report Date: June 9, 2022
Clerk's File #: SW/14303

To: Mayor and Members of City Council

Recommendation:

That City Council **RECEIVE** this report for information.

Executive Summary: N/A

Background:

At the February 28, 2022 meeting of City Council, Council Decision Number CR83/2022 stated:

*“That Administration **BE DIRECTED** to request funding from the Ministry of Transportation (MTO) for all expenses associated with any repair and improvements (construction works) to the McKee Drain as it provides a drainage outlet to the Rt. Honourable Herb Gray Parkway and was altered due to the development of the Parkway project.”*

The following information is provided as additional information in response to the council directive noted in Council Decision Number CR83/2022.

Discussion:

The recently completed McKee Drain Drainage Report (dated February 9th, 2022) does assess construction costs to the Ministry of Transportation (MTO) as shown in the Schedule of Assessment. They are not assessed “all expenses” as noted in Council’s Direction as this would not be in accordance with the provisions of the Ontario Drainage Act. The drain also serves as drainage for other benefiting property owners downstream of the MTO corridor, including the City of Windsor, which are all assessed accordingly in the Schedule of Assessment. In addition, there are private access culverts that benefit certain properties outside of the MTO corridor and thus would be assessed to those properties only as a Special Benefit. So any expenses associated with repair and improvements to the McKee Drain that benefits other property owners must be shared and assessed accordingly.

Also the MTO has paid for the full cost of the engineer’s Drainage Report as well as all improvements within their MTO corridor as part of the Herb Gray Parkway work.

Risk Analysis:

As this is an informational report to Council, there are no significant or critical risks associated with the recommendation in this report.

Climate Change Risks:

Climate Change Mitigation: The recommendations related to this Council Report do not facilitate Climate Change Mitigation in a material way.

Climate Change Adaptation: The recommendations related to this Council Report do not facilitate Climate Change Adaptation in a material way.

Financial Matters:

As this is an informational report to Council, there are no costs associated with the recommendation in this report.

Consultations:

Linda Mancina, Financial Planning Administrator

Conclusion:

The above information is provided in response to the Council Directive provided in Council Decision Number CR83/2022.

Approvals:

Name	Title
Fahd Mikhael	Manager of Design
France Isabelle-Tunks	Executive Director of Engineering/Deputy City Engineer
Chris Nepszy	Commissioner, Infrastructure Services
Wira H.D. Vendrasco	<i>Acting</i> Commissioner, Legal & Legislative Services
Joe Mancina	Commissioner, Corporate Services CFO/City Treasurer
Onorio Colucci	Acting Chief Administrative Officer

Notifications:

Name	Address	Email
Fred Francis, Ward 1 Councillor	c/o 350 City Hall Square West, Suite 220 Windsor, ON N9A 6S1	francis@citywindsor.ca
Fabio Constante, Ward 2 Councillor	c/o 350 City Hall Square West, Suite 220 Windsor, ON N9A 6S1	fcostante@citywindsor.ca

Appendices:

**Subject: Correcting the Spelling of Matchette Road to Matchett Road
(Wards 1 and 2)**

Reference:

Date to Council: July 11, 2022
Author: Tracy Tang
Planner II- Revitalization & Policy Initiatives
519-255-6543, ext. 6449
ttang@citywindsor.ca

Planning & Building Services
Report Date: June 7, 2022
Clerk's File #: SPL2022

To: Mayor and Members of City Council

Recommendation:

THAT City Council **APPROVE** correcting the spelling of Matchette Road to Matchett Road in honour of Alfred Matchett for whom the road was originally named; and,

THAT City Council **APPROVE** up to \$6,580 from the Budget Stabilization Reserve (BSR) to undertake the work, with internal City departments providing in-kind service, to the extent possible, before drawing on the BSR; and further,

THAT Administration **BE DIRECTED** to undertake the required internal and external communications and project work to update all signage as required to effect the name change as soon as possible.

Executive Summary:

N/A

Background:

In January 2021, following the request of constituent Mr. Allan (Al) Matchett, local resident and descendant of Alfred Matchett whom the road was named after, Administration was asked to conduct a review of requirements to correct the spelling of Matchette Road to Matchett Road without the 'e'.

The topic of correcting the spelling of Matchette Road was first brought to the City's attention in October 2011. Al Matchett sent emails to LaSalle and Windsor (regarding correcting the spelling of Matchette Road in honour of his ancestor. The topic was also featured in a number of articles within the Windsor Star. Consequently, (former) Councillor Jones asked a Council Question to Administration concerning changing the

spelling of Matchette Road to Matchett Road. There is no record of a formal Council Question report in response to Councillor Jones, however internal staff discussions were held. Staff from Public Works, Cultural Affairs, Museum Windsor, Planning, and the Mayor's Office were consulted. The estimated cost to the City of renaming Matchette Road was \$8,000 and following concerns regarding logistics and financing of the project, it was not pursued.

The potential road renaming was similarly proposed to Town of LaSalle, where Matchette Road continues into. According to a Windsor Star news article from November 19, 2011, the Town of LaSalle staff recommended denial of the request for renaming Matchette Road based on expenses and operations. Town staff alternatively suggested installation of a plaque to recognize the naming of Matchette Road after Alfred Matchett.

In January 2021, the topic of correcting the spelling of Matchette Road resurfaced when Al Matchett again reached out to the Mayor's Office. City Administration reviewed the history of the file, the legacy intent behind the street naming, and the feasibility of correcting the mistake.

This report will provide a brief overview of the justification for correcting the spelling of Matchette Road to Matchett Road, as well as the implementation measures required through a lens of rectification.

Discussion:

Matchette Road

Matchette Road is a Class I Collector Road. A small segment of Matchette Road begins in Sandwich Town at a Y-intersection with Wigle Avenue and Manchester Road, and ends in a cul-de-sac at the intersection of Prince Road and Tecumseh Road West. Matchette Road then continues down southward at the intersection of Prince Road and Tecumseh Road West, past the E.C. Row Expressway and Rt. Hon. Herb Gray Parkway, and continues onward into the LaSalle town boundary.

From the block between Sprucewood Avenue to Morton Drive, Matchette Road is within City of Windsor boundaries on the west side and Town of LaSalle boundaries on the east side. Matchette Road officially crosses from the City of Windsor municipal boundary into the Town of LaSalle boundaries entirely on both sides south of the intersection with Morton Drive. See Appendix 'A' for a location map of Matchette Road.

Historical Context

According to his obituary article published in the Windsor Evening Record on December 10, 1913, Matchette Road was named after Alfred Matchett. Alfred Matchett, born in Ontario in 1844, was a farmer, early pioneer of Essex County, and Canadian veteran of the Fenian Raids on Canada in 1866 after the United States Civil War. He owned a number of properties in Sandwich West in the mid-1800s (and circa 1899 in Anderson). Based upon a map in the collection of Museum Windsor, it can be seen that his properties in Sandwich West fronted the road which bears his name (see Appendix 'B', specifically image M336 from circa 1890s). This general area later became part of the

former Town of Ojibway, and so by living and working there on his farm, Alfred Matchett was one of the first persons to settle the Town.

In the above-mentioned circa 1890s map of Sandwich West, the road today known as Matchette Road is spelled Matchett Road without the 'e'. Based on the map showing the Matchett-owned properties fronting Matchett Road and the information provided in the Windsor Evening Record article, one can deduce that Matchett Road was named after Alfred Matchett. Further, additional sources such as newspapers, maps, and city directories use the spelling Matchett in reference to the road as well as to Alfred Matchett's family. Refer to Appendix 'B' for historical documentation of the spelling of Matchette Road. It appears that in later editions of these sources, an "e" was added to the end of the name. The 'e' addition becomes more prevalent in the sources beginning in the 1940s. This can possibly be attributed to the French heritage of the area as the 'ette' ending is common in that language.

Request for Correcting the Spelling of Matchette Road

In 2011 Al Matchett, who is Alfred Matchett's great-great grandson, reached out to the City of Windsor and the Town of LaSalle to request that the spelling of Matchette Road be corrected to Matchett Road without the 'e' as it was originally intended. Al Matchett created a Facebook page dedicated to the renaming, and the topic was also featured in local news sources including the Windsor Star.

Although deemed logistically and financially unfeasible in 2011, the topic of correcting the spelling of Matchette Road resurfaced in January 2021. Through social media posts on Twitter, both Mayor Dilkens and LaSalle Mayor Bondy agreed to look into correcting the spelling of the road name.

Implementation Measures

In total, an inventory of the signs containing the current spelling of Matchette Road that would be affected by the spelling correction to Matchett Road is as below:

- nine (9) municipal street signs
- three (3) Ontario Ministry of Transportation signs on Ojibway Parkway
- decorative signs at the Ojibway Nature Centre
- rear entrance sign to Malden Park
- two address signs on private property, both at the entrance to Plains Midstream Canada

Additionally, there are approximately 140 property owners and/or tenants that directly front onto Matchette Road and thus have municipal addresses referencing the current spelling of Matchette.

Administration has reached out to key stakeholder groups, both internal to the City and external, to acquire an estimate of the works and costs associated with changing the naming of Matchette Road. The groups contacted were:

- City of Windsor (Traffic Operations; Recreation & Culture)

- Ontario Ministry of Transportation
- Canada Post
- Windsor Star
- City of Windsor Mayor's Office

A summary table of the costs is provided within the Financial Matters section of this report.

Notifications would be required to inform both the owners of properties with a Matchette Road address and the general public about the spelling correction of the road. A formal notice would need to be posted in the Windsor Star newspaper, and Administration would need to prepare and mail out an information letter regarding the proposed change to the property owners.

Timing of the works is to be determined and dependant on the time of year at which implementation is pursued. The estimated time required from Public Works perspective would be a few months. The MTO noted that the change will not be expansively time-consuming and can potentially be scheduled at the same time as a lane closure to improve efficiency.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

The total estimated cost of correcting the spelling of Matchette Road and changing signs is \$6,580. These cost estimates were provided by City of Windsor Traffic Operations, City of Windsor Parks Department, MTO, the Windsor Star, and City of Windsor Mayor's Office. In their correspondence, Canada Post informed that there would be no cost associated with changing the spelling of Matchette Road, as the old (original) spelling would be included as a valid alternative in their addressing database. Please see the table below for a summary of the estimated costs:

Stakeholder/Agency	Description	Upset Estimated Cost	Notes
City of Windsor – Traffic Operations	Labour and material costs to replace/cover the 'e' on nine (9) signs	\$3,500	---
City of Windsor – Parks Department	Paint the 'e' on Ojibway Nature Centre decorative signage and Malden Park rear entrance sign	\$500	---
Ontario Ministry of Transportation (MTO)	Affix a green plate to cover the 'e' on three (3) signs on Ojibway Parkway; lane closures required	\$2,000	It is not expected to be time-consuming; will try to coordinate with another planned lane closure to reduce costs
Private Property Owners	Two (2) private property signs will need to be changed/replaced	---	This will occur at the Owners' expense
Canada Post	Mail delivery and database updates	\$0	There will be no impact from a mail delivery perspective as they would include the old spelling as a valid alternative in their addressing database
Windsor Star	Post notice in the Windsor Star to inform the general public of the change	\$450	---
City of Windsor – Mayor's Office	Prepare and mail information letters to approx. 140 property owners and tenants with a current City of Windsor address on Matchette Road	\$130	---
Total Estimated Costs (upset limit)		\$6580	

Table 1: Summary of Estimated Associated Costs of Changing the Spelling of Matchette Road

Should Council direct Administration to correct the spelling of Matchette Road as outlined in this report, the required \$6,580 could be sourced from the Budget Stabilization Reserve (BSR), with internal City departments providing in-kind service, to the extent possible, before drawing on the BSR.

Consultations:

Planning Staff have been in discussions with staff in Finance, the Mayor's Office, Public Works (Traffic Operations; Parks Department), and Museum Windsor. External stakeholders namely the MTO, Canada Post, and the Windsor Star were also consulted in the preparation of this report.

Conclusion:

Based on historical evidence of both Matchette Road being named after Alfred Matchett and the original and intended spelling of Matchette Road as Matchett without the 'e', Administration finds merit in pursuing the correction of spelling of Matchette Road. Administration recommends that Council approve the request to correct the spelling of Matchette Road to Matchett Road without an 'e'.

Planning Act Matters:

N/A

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/ Deputy City Planner
Thom Hunt	City Planner / Executive Director Planning
Jen Knights	Executive Director of Recreation & Culture
Wira Vendrasco	Deputy City Solicitor, Legal Services & Real Estate
Dana Paladino	Deputy City Solicitor, Purchasing, Risk Management & POA
John Revell for Jelena Payne	Commissioner of Economic Development & Innovation
Chris Nepszy	City Engineer / Commissioner, Infrastructure Services
Onorio Colucci	Acting Chief Administrative Officer

Notifications:

Name	Address	Email
Allan (Al) Matchett		
Jennifer Astrologo, Director of Council Services/Clerk		jastrologo@lasalle.ca
Shawna Boakes		sboakes@citywindsor.ca
Michelle Staadegaard		mstaadegaard@citywindsor.ca

Appendices:

- 1 Appendix A - Location Map of Matchette Road
- 2 Appendix B - Historical Documentation



LOCATION MAP : MATCHETTE ROAD

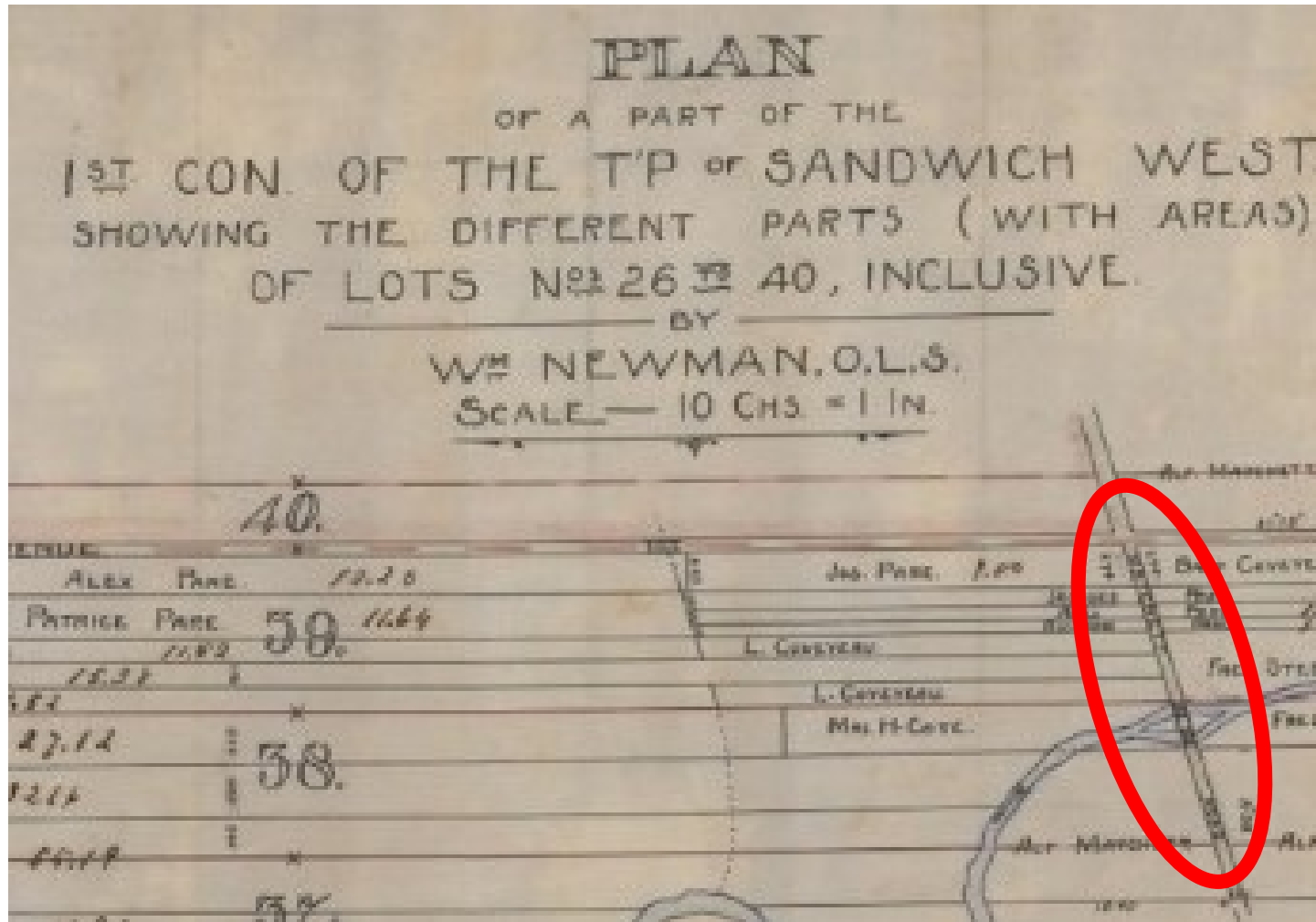


- PRIVATE OWNERSHIP
- MUNICIPAL/OTHER GOVERNMENT OWNERSHIP
- WINDSOR-ESSEX PARKWAY BOUNDARY
- MATCHETTE ROAD
- CITY BOUNDARY

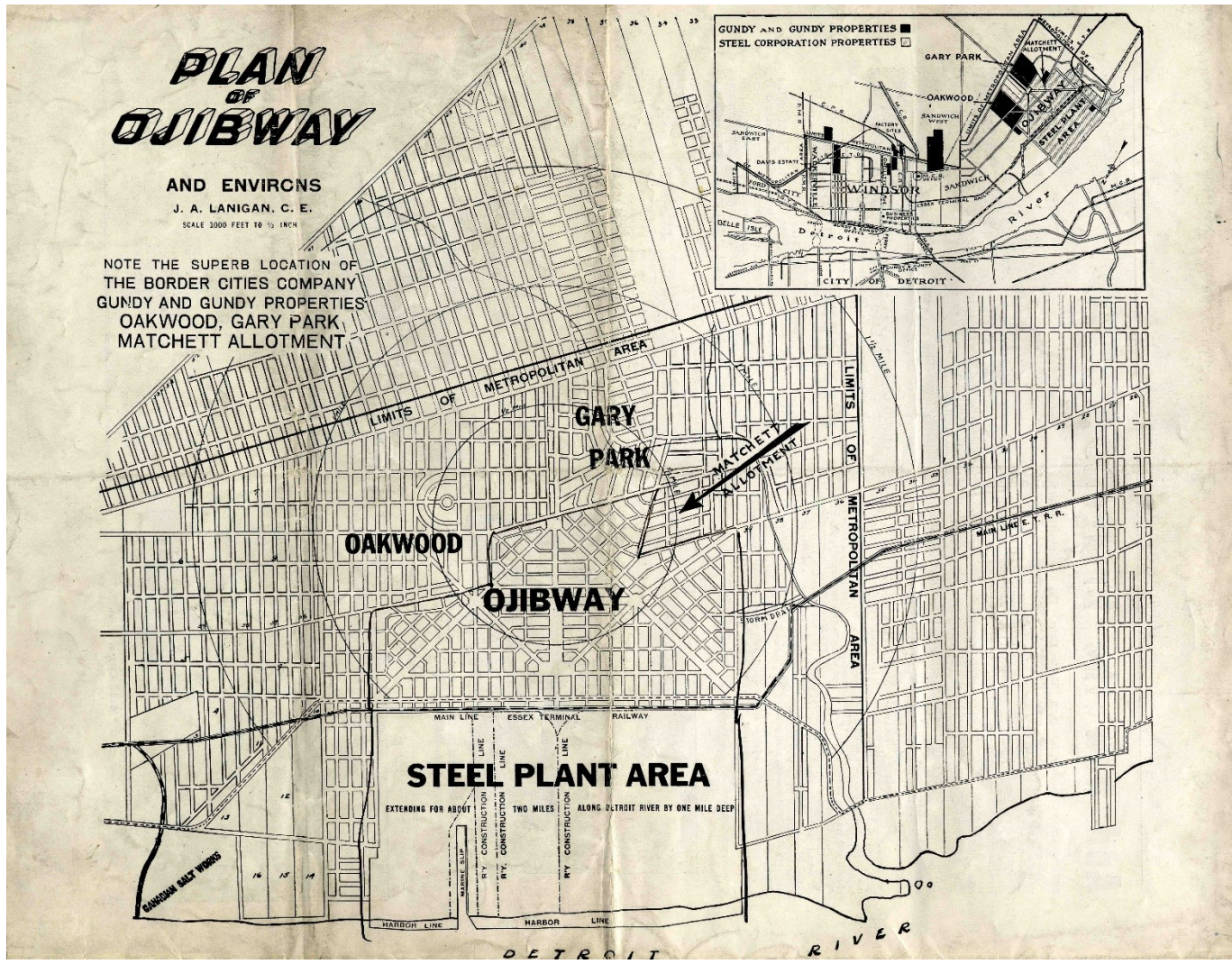
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Appendix B - Historical Documentation of Matchett Road Naming and Alfred Matchett

Historical Maps



Excerpt of Map M336 – Scan of 1st Concession of Sandwich West Township, c. 1890s (Museum Windsor)



Map M368 – Scan of the Plan of Ojibway and surrounding area, 1922 (Museum Windsor)

Newspaper Articles

Sandwich West Council

Sandwich West, Aug. 6.—Council met pursuant to adjournment, all present, minutes of last meeting were read and adopted.

Parent — Dupuis, that Chas. Scullier be paid \$5.00 for work done in J. Scullier's road division; Albert Sinesac, \$33.80 for ditching done in Chauvin road division; Louis Lamant, \$7.88 for ditching on the Broderick road; Janisse & Son, 24.50 for funeral expenses for one Toussant Martin, poor; Joel Cousineau, \$25.00 for one-half the cost for grading the town-line between Sandwich East and West; Louis Couvillon, \$6.50 for repairing three bridges on the Matchett road; James Herdman, \$10.00 for ditching on the Bouffard road; E. Bondy, \$3.00 for attending Court of Appeal; Mag-

HERE'S A NEW ONE

Matchett Road Subdivision

In the town of Sandwich on Matchett Road, Prince Road, Maple and Bruce streets. It is contemplated that Matchett Road will be the main business street in Ojibway, the new steel city where the steel plant of \$20,000,000 will be erected; where in course of a few weeks will be a beehive of industry.

This is not a way-out subdivision, but right in town. Sidewalks run to the property, water hydrants on corner and water pipes run all along Matchett Road to end of property.

Now is your opportunity on the proposed main street that will connect Walkerville, Windsor, Sandwich and Ojibway. Located this side of the steel plant, right in the town of Sandwich.

Sale Opens Today **Prices Range From \$210 to \$300** **Corners a Little Higher**

\$25 Down Secures Any Lot—Balance \$5 Per Month

This won't last long. You know why you missed out many a time by putting it off till tomorrow. Tomorrow may bring an advance of prices, who knows, as every day brings more tidings of new industries, more people, larger area required and higher prices. Act now, see—

Osterhout & Little | **Winter & Williamson**

25 PITT ST. E. | PHONE 3124: 48 OUELLETTE AVE. | PHONE 1470.

Sandwich West Council – August 16, 1904 edition of the Windsor Evening Star (INK OurDigitalWorld)

Matchett Road Subdivision – March 28, 1913 edition of the Windsor Evening Star (INK OurDigitalWorld)

**IT WELL
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**OJIBWAY PIONEER
DROPS DEAD**

As he was walking to the break-
fast table at the home of his daugh-
ter, Mrs. Felix Couvyneau, 70 London
street west, Mr. Alfred Matchett,
aged 69, a Fenian raid veteran and
pioneer of Ojibway, placed his hand
to his head, fell to the floor and ex-
pired without saying a word.

Mr. Matchett had been living on
his farm in Ojibway until last fall,
when he came to live with his daugh-
ter on account of poor health, heart
trouble being the disability under
which he was laboring.

He was one of the pioneers of the
county, and was responsible for the
opening up of Matchett road, which
was named after him.

He is survived by three children,
one son, Richard, living on the Te-
cumseh road near the race track, and
two daughters, Mrs. Couvyneau, at
whose home he died, and Mrs. Mary
Bondy, of Ojibway.

The funeral arrangements have not
yet been completed.

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Ojibway Pioneer Drops Dead – December 10, 1913 edition of the Windsor Evening Star (INK OurDigitalWorld)

Subject: Application for Municipal Borrowing from Ontario Infrastructure and Lands Corporation – Administrative Matters - City Wide

Reference:

Date to Council: July 11, 2022

Author: Janice Guthrie

Deputy Treasurer - Taxation, Treasury & Financial Projects

519-255-6100 Ext 6271

jguthrie@citywindsor.ca

Taxation & Financial Projects

Report Date: June 22, 2022

Clerk's File #: APM/14378

To: Mayor and Members of City Council

Recommendation:

Whereas City Council previously approved the capital cost of land acquisitions being Point East Development ("Land Acquisitions") to be financed through long-term borrowing by issue of debentures to Ontario Infrastructure and Lands Corporation (OILC), City Council **APPROVES** the following with respect to the financing of the Land Acquisitions:

THAT the Mayor and CFO/City Treasurer **BE AUTHORIZED** to **SECURE** the long-term borrowing through issue of debentures to OILC with the terms of such long-term borrowing being those which, in the opinion of the CFO/City Treasurer, best meet the requirements of the City; and further,

THAT the Mayor and CFO/City Treasurer **BE AUTHORIZED** to **EXECUTE** and **DELIVER** the Rate Offer Letter agreement provided by OILC on the financial terms satisfactory to the CFO/City Treasurer and satisfactory in form to the City Solicitor; and further,

THAT the Clerk and CFO/City Treasurer **BE AUTHORIZED** to **UNDERTAKE** and **EXECUTE** any and all documents and agreements as necessary to complete the long-term borrowing, satisfactory in legal form to the City Solicitor and financial/technical form to the City Treasurer; and further,

THAT the CFO/City Treasurer **BE INSTRUCTED** to report back to City Council the results of the long-term borrowing at the earliest opportunity following completion; and further,

THAT in the event Council is determined to be “Lame Duck” during the period commencing August 19, 2022 and ending November 14, 2022 the outgoing Council is **AUTHORIZED** to pass any by-laws deemed to be necessary or appropriate in connection with the issuance of one or more debentures; and,

THAT the City Solicitor **BE AUTHORIZED** to prepare all necessary by-laws.

Executive Summary:

N/A.

Background:

On May 9, 2022 City Council received and approved a report (C77-2022) from the Deputy Treasurer – Taxation, Treasury & Financial Projects with regards to the financing strategy authorizing the capital works consisting of land acquisitions and site servicing that would facilitate the location of the new electric battery manufacturing plant. The project which includes the land acquisition and site servicing is referred to as Point East Development

Within the above noted report, Administration sought approval from City Council to make application to finance the land acquisition by the issuance of debentures to Ontario Infrastructure and Lands Corporation (OILC). This report seeks further approvals from City Council for those administrative matters that are required in order to complete the application and borrowing process so as to carry out the transaction in an efficient and effective manner.

Discussion:

The process for making application to OILC has been somewhat streamlined from what was required in past years however does require certain authorities to be in place. Administration is in the process of completing its submission through the on-line portal which must be accompanied by further supporting documentation including a Borrowing By-law as well as a Treasurer’s Certificate of Litigation. Other supporting documents such as the City’s most recent audited financial statements, Financial Information Return and 10-year Capital Plan must also be provided. Following a review of the City’s submissions, OILC will provide a preliminary debenture document (Rate Offer Letter Agreement) which will contain all financing terms and conditions. Once the Rate Offer Letter Agreement is executed OILC will provide the information to complete the required debenture documents and a Debenture By-law will then be required to be passed by Council.

The approval process as laid out by OILC is anticipated to take at least two months however at the time that the Rate Offer Letter Agreement is provided the expectations by OILC is for a response by City Administration within a very short period of time. This expedited timeline would not accommodate obtaining any further approvals from City Council in advance.

Risk Analysis:

There is a chance that approval of the borrowing request and finalization of the financing arrangements will occur concurrent with the upcoming election period. In order to mitigate the risk that this Council will be in a “Lame Duck” position and not be able to provide the required approvals, Administration is recommending that a Delegation By-Law be prepared. The format and wording of this by-law has been approved by OILC and used by other municipal councils to avoid any undue delays.

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

There are no financial implications to report at this time. City Council previously approved the capital works being the Point East Development in an amount estimated to be \$53 million allocated at \$45 million for land acquisition and \$8 million in site servicing and further authorized the issuance of debentures to OILC for the Land Acquisition capital costs to a maximum of 30 years.

Following a review of the City’s submission to OILC, the details as to the financial arrangements including applicable interest rate and repayment amounts will be known. Those details will be reported to City Council as soon as practical by the CFO/City Treasurer.

Consultations:

Alex Hartley – Senior Legal Counsel

Wira Vendrasco – Deputy City Solicitor

Conclusion:

Additional approvals are required from City Council so as to facilitate the administrative matters related to the financing arrangements with Ontario Infrastructure and Lands Corporation as previously approved by City Council.

Planning Act Matters:

N/A

Approvals:

Name	Title
Wira Vendrasco for Shelby Askin Hager	Commissioner of Legal & Legislative Services/City Solicitor
Joe Mancina	Commissioner of Corporate Services/CFO, City Treasurer
Onorio Colucci	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

Subject: Payment Card Data Security Policy - City Wide

Reference:

Date to Council: July 11, 2022

Author: Marco Aquino

Executive Initiatives Coordinator

maquino@citywindsor.ca

(519) 255-6100 ext 6477

Taxation & Financial Projects

Report Date: June 27, 2022

Clerk's File #: AL2022

To: Mayor and Members of City Council

Recommendation:

THAT City Council **APPROVE** the Payment Card Data Security Policy attached as Appendix A to this report; and,

THAT City Council **DIRECT** Administration to take the necessary actions to implement the Payment Card Data Security Policy and **TO ENSURE** this policy is communicated to all City Staff.

Executive Summary:

N/A

Background:

The Payment Card Industry Security Standards Council, founded in 2006 by five major credit card brands (American Express, Discover, JCB International, MasterCard, and Visa Inc.), developed the Payment Card Industry Data Security Standards (PCI DSS). These are a set of security standards designed to ensure that all companies that accept, process, store or transmit credit card information, maintain a secure environment that will protect cardholder data. PCI DSS compliance is a requirement for any organization (including the City of Windsor), regardless of size or number of transactions. PCI certification is required where an organization meets a certain threshold. The City of Windsor has met those thresholds and is required to be PCI certified by September 30, 2022. In 2018, City Council authorized the retention of a Qualified Security Assessor to perform an on-site corporate PCI DSS assessment to assist the City with obtaining compliance with these standards.

MNP LLP (hereinafter referred to as MNP), a PCI Certified consultant, was subsequently contracted and completed a PCI scope review and process analysis of the

City's credit card processing environment. MNP's initial review was completed in August 2019 in which they provided a report outlining the scope of the City's credit card environment, the Corporation's current level of PCI compliance, and the required remediation measures to achieve PCI certification. Once the City completes the identified remediation work as well as the associated PCI Self Assessment Questionnaire(s) (SAQ(s)), MNP will complete their final work by validating the SAQ(s).

At present, the PCI Working Group, which consists of members of the Finance and Information Technology departments, is addressing the recommendations for PCI certification that were identified in the MNP report. Those recommendations included process enhancements to mitigate the impact and risks associated with technology used for credit card processing and the development of formalized training to educate employees about their role in protecting credit card data. To facilitate that work, and at the recommendation of MNP, the PCI Working Group has taken measures to reduce the scope of the City's Cardholder Data Environment and any resulting impact of credit card transactions on the rest of the City's technology infrastructure.

Discussion:

The aforementioned scoping report from MNP identified several recommendations that will assist the City in achieving PCI DSS compliance by September 30, 2022. One such recommendation was a formalized policy that would provide guidance on the collection, classification, retention and disposal of cardholder data. The recommendation was to develop and issue a corporate policy that governs the handling of credit card data across all City operations.

The policy, attached as Appendix A, outlines best practices with respect to the processing of credit cards and management of cardholder data. This includes the approved payment channels, access to cardholder data, protecting payment terminals, managing third party service providers, the retention and storage of cardholder data, and security awareness training. It also provides guiding principles and responsibilities when it comes to incident reporting and consequences of non-compliance.

The policy has been reviewed by the PCI Working Group with input from the PCI Executive Committee, which consists of departmental representatives from each department/board that processes credit card transactions.

Risk Analysis:

Failure to be compliant with PCI DSS can result in investigations, penalties, increased credit card fees, decreased public confidence, and the loss of the ability to process credit card transactions.

Climate Change Risks

N/A

Financial Matters:

As part of the 2021 Capital Budget process, City Council approved a capital budget of \$280,000 to be used as required to achieve PCI compliance. To date a limited amount of the budget has been expended as internal resources have been primarily utilized for the work undertaken to date. There may be the need for further funding following PCI compliance to ensure that ongoing processes can be maintained and customer service improvements can be made in a secure environment.

There is no financial cost for the approval of this policy.

Consultations:

PCI Executive Committee
PCI Working Group

Conclusion:

The implementation of the above policy will continue to enhance controls around the processing of credit cards thereby ensuring compliance with PCI DSS and the financial well-being of the Corporation.

Planning Act Matters:

N/A

Approvals:

Name	Title
Marco Aquino	Executive Initiatives Coordinator
Norm Synnott	Chief Information Officer/Executive Director Information Technology
Janice Guthrie	Deputy Treasurer–Taxation, Treasury and Financial Projects
Joe Mancina	Commissioner Corporate Services, CFO/City Treasurer
Onorio Colucci	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

- 1 Appendix A – Payment Card Data Security Policy

THE CORPORATION OF THE CITY OF WINDSOR POLICY

Primary Owner:	Financial Acctg & Corp Controls	Policy No.:	TBD
Secondary Owner:	Taxation & Financial Projects and Information Technology	Approval Date:	TBD
		Approved By:	TBD
Subject:	PAYMENT CARD DATA	Effective Date:	IMMEDIATE
	SECURITY POLICY	Procedure Ref.:	n/a
Review Date:	TBD	Pages: 7	Date: TBD
Prepared By:	Marco Aquino, Jocelyn De Luna		Replaces:

1. POLICY

- 1.1. To reduce the risk of credit card fraud, the Payment Card Industry (**PCI**), which consists of the five major credit card brands including VISA and MasterCard, requires its merchants to meet certain conditions when handling credit card data. These conditions are referred to as PCI Data Security Standards (**DSS**).
- 1.2. The Corporation of the City of Windsor (“the City”) is considered a merchant, because it processes credit card transactions through the course of normal business and thus is required to comply with PCI DSS.
- 1.3. The City is committed to safeguarding cardholder information when storing, transmitting, and/or processing credit/debit card transactions and will comply with the PCI DSS as established and revised by the PCI Security Standards Council.

2. PURPOSE

- 2.1. To communicate the rules and expectations necessary to facilitate compliance with PCI DSS.

3. SCOPE

- 3.1. This policy applies to all of the City Departments funded by the City, in whole or part, or whose governing body contains the City’s representation **AND** whose financial transactions are accounted for within the City’s financial systems **OR** accept credit cards using a City of Windsor merchant identification number (MID).
- 3.2. Agencies, Boards and Commissions (ABCs) and wholly owned corporations incorporated by the City under Section 203 of the Municipal Act 2001, are encouraged to have a similar policy in the establishment of their respective policies.
- 3.3. This policy also applies to all of the City employees (including permanent, part-time, temporary, contractual, or seasonal staff) who are involved in accepting or processing credit card payments, including those that have access to cardholder data or cardholder data systems (e.g. network, applications, etc.).

4. DEFINITIONS

- 4.1. **Attestation of Compliance (AOC)** – a document completed by the company itself or a Qualified Security Assessor that states the company’s PCI DSS compliance status.
- 4.2. **Card Verification Value (CVV) or Card Verification Number (CVN)** – the 3 digit security code that is printed on the back of a credit card.

- 4.3. **Cardholder Data (CHD)** – the full primary debit/credit account number including any of the following: Cardholder name, expiration date, and/or 3 digit security code, that is printed on front/back of the card.
- 4.4. **Payment Card** – for the purposes of this policy, a debit/credit payment card/device that bears the logo of a member of the PCI Security Standards Council.
- 4.5. **Payment Channel** – for the purpose of this policy, the methods (e.g. in person, over the phone) by which the public will be able to use a credit card to purchase goods or services from the City.
- 4.6. **Payment Terminal** – the device used to take customer card payments via swipe, dip, insert, tap, or manual entry of the card number. Point of Sale (POS) terminal, PIN pad, and credit card machine are also names used to describe these devices.
- 4.7. **PCI Executive Committee** – the governance group for the City’s PCI efforts. The group consists of a representative from each Department/Board that processes credit card transactions.
- 4.8. **PCI Security Standards Council** – the governance body representing the major credit card brands. The “Council’s mission is to enhance global payment account data security by developing standards and supporting services that drive education, awareness, and effective implementation by stakeholders.”
- 4.9. **PCI Working Group** – a group comprised of representatives from the City’s Finance and Information Technology Departments.
- 4.10. **Primary Account Number (PAN)** – the 16-digit numeric code (typically for credit or debit cards) located on the front of the card that identifies the issuer and the cardholder account.
- 4.11. **Qualified Security Assessor (QSA)** – independent security organization or individual that has been qualified by the PCI Security Standards Council to validate an entity’s adherence to PCI DSS.
- 4.12. **Self-Assessment Questionnaires (SAQs)** – validation tools intended to assist merchants and service providers to report their compliance with PCI DSS.
- 4.13. **Third-Party Service Providers** – any entity directly involved in the processing, storage, or transmission of cardholder data on behalf of the City. This also includes companies that provide services that control or could impact the security of cardholder data.

5. RESPONSIBILITY

- 5.1. The **Chief Administrative Officer (CAO)** has the following responsibilities:
 - 5.1.1. Ensure that PCI compliance is made a priority at the City by assigning the necessary resources to work on PCI-related matters.
 - 5.1.2. Completion of annual documentation with regards to PCI Compliance.
- 5.2. The **Chief Financial Officer (CFO)/City Treasurer** or designate has the following responsibilities:
 - 5.2.1. Communicate this policy to all stakeholders
 - 5.2.2. Ensure stakeholder compliance to this policy.
 - 5.2.3. Direct the review of this Policy, at a minimum every five (5) years, or sooner if required, and recommend updates when necessary.

- 5.3. The Deputy Treasurer – Taxation, Treasury, and Financial Projects** or designate has the following responsibilities:
- 5.3.1.** Coordination of annual review to facilitate ongoing certification with respect to compliance to PCI DSS.
 - 5.3.2.** Coordinate any new installation, removal, returns or replacement of any credit card payment solutions/processes.
 - 5.3.3.** Maintain a master list of third-party service providers that accept and/or process online payments, including PCI DSS compliance status (e.g. via an Attestation of Compliance).
 - 5.3.4.** Review and approve Third-Party Service Providers' contracts/agreements, and ensure they include an acknowledgement that the Third-Party Service Providers will maintain all applicable PCI DSS requirements and will protect all customers' cardholder data and the Cardholder Data Environment.
 - 5.3.5.** Maintain a master list of payment terminals (e.g. PIN Pads, Point of Sale Terminals, and credit card machines).
 - 5.3.6.** Develop, implement, and maintain procedures for the use of payment terminals, and provide training regarding those procedures to the users of that technology.
- 5.4. The Chief Information Officer/Executive Director of Information Technology** or designate has the following responsibilities:
- 5.4.1.** Coordination of annual review to facilitate ongoing certification with respect to compliance to PCI DSS.
 - 5.4.2.** Develop, implement, and maintain procedures, documentation, practices, and standards to address the PCI DSS requirements that pertain to the cardholder data technology being managed by Information Technology Department staff.
 - 5.4.3.** Maintain an inventory of system components (software, networking, and hardware (with the exception of PIN Pads and Third-Party Service Providers)) that are in scope for PCI DSS, including all components sourced from a third party.
 - 5.4.4.** Implement a formal security awareness program/training for all Information Technology Department staff handling cardholder data and those who support the processes, systems, and applications within the cardholder data environment.
- 5.5. The Executive Directors** (or ABC equivalents) or designates have the following responsibilities:
- 5.5.1.** Notify the Deputy Treasurer-Taxation, Treasury and Financial Projects and Chief Information Officer/Executive Director of Information Technology:
 - 5.5.1.1.** Prior to adding, removing, or changing any Payment Channel.
 - 5.5.1.2.** If any Cardholder Data is being stored and the process being used to store and secure it.
 - 5.5.1.3.** Of any processes the respective department uses for transmitting cardholder data, so the Deputy Treasurer-Taxation, Treasury and Financial Projects and Chief Information Officer/Executive Director of Information Technology can verify whether those transmissions are secure.
 - 5.5.2.** Develop, implement, and maintain procedures for the use of the Payment Channels and the security of the Cardholder Data in their respective department.
 - 5.5.3.** Ensure all individuals involved in handling cardholder data transactions complete the PCI Security Awareness Program/Training and any other specific PCI training required.

5.5.4. Participate or have a designate participate in the PCI Executive Committee if their department processes credit card transactions.

5.5.5. Ensure employees comply with the provisions of this policy.

5.6. **Department Employees** who are involved in the storing, processing, or transmitting or have access to cardholder data have the following responsibilities:

5.6.1. Complete the PCI Security Awareness Program/Training and any other specific PCI training required.

5.6.2. Maintain confidentiality of the cardholder data.

5.6.3. Ensure adherence with this policy, procedures and directives to facilitate compliance with PCI DSS.

6. **GOVERNING RULES AND REGULATIONS**

6.1. **PAYMENT CARDS**

The City only accepts the following Payment Cards for the payment of goods, services, or donations: Visa, Visa Debit, MasterCard, and MasterCard Debit.

6.2. **PAYMENT CHANNELS**

The City accepts payment card transactions only via the following payment channels with the restrictions noted below: In Person, Postal Mail, Online, and via Phone. Regardless of the Payment Channel, all credit card transactions will be processed directly into a PIN pad or via a Third-Party Service Provider that has been approved by the Deputy Treasurer – Taxation, Treasury, and Financial Projects and the Chief Information Officer/Executive Director of Information Technology.

6.2.1. **In Person**

- Credit card payments should be completed using an authorized payment solution.

6.2.2. **Postal Mail**

- Credit card payments should be completed using an authorized payment solution. Cardholder data that is provided in paper format must be treated as confidential and protected against unauthorized access.

6.2.3. **Online**

- All on-line payments must be processed using a PCI compliant third-party service provider.

6.2.4. **Phone**

- The use of phones for the collection of cardholder data is only permitted when using technology that has been approved for that purpose by the Chief Information Officer/Executive Director of Information Technology.
- The employee must enter the cardholder data directly into a payment terminal.
- The phone conversation with the customer must not be recorded during the time that the customer is providing credit card information.

6.2.5. **Other Payment Channels**

- Other than the Payment Channels listed above, no other Payment Channels will be permitted. Under **NO** circumstances will the cardholder data be transmitted/received or accepted via e-mail, fax, voicemail, instant/text messaging or chat.

6.3. CARDHOLDER DATA ACCESS

- 6.3.1.** Each Department must maintain an up-to-date list of individuals (i.e. managers, supervisors, and other staff) who may accept or access cardholder data.
- 6.3.2.** Access to system components and cardholder data must be restricted appropriately based on individual job classification and functions.
- 6.3.3.** Physical access rights granted based on individual function must be regularly reviewed and revoked immediately upon termination or job transfer.

6.4. PROTECTING PIN PADS

- 6.4.1.** All of the City Departments using credit card devices for processing customer transactions must ensure that all devices are secured and protected from tampering and substitution.
- 6.4.2.** Device surfaces must be regularly examined to detect tampering (e.g. addition of card skimmers to devices) or substitution (e.g. by checking the serial number or other device characteristics to verify it has not been swapped with a fraudulent device).
- 6.4.3.** The identity of third-party personnel requesting access to payment terminals for reasons such as repairs, inspections, equipment swapping, etc. must be verified prior to granting them access to modify devices. Employees must always verify with their manager that the third party personnel and their devices are legitimate and from a trusted source.
- 6.4.4.** Any new installation, removal, returns, or replacement of any payment terminals from the City's premises must be documented and authorized by the Deputy Treasurer-Taxation, Treasury and Financial Projects or designate.
- 6.4.5.** Departments must maintain an up-to-date inventory of payment terminals (e.g. PIN pads, Point of Sale terminals and Credit card machine) in coordination with the Deputy Treasurer of Taxation, Treasury, and Financial Projects. This inventory should be reviewed at a minimum annually for accuracy.

6.5. MANAGING THIRD PARTY SERVICE PROVIDERS

Third party service providers contracted by the City are an integral part of the City's business and may impact the City's PCI compliance, as well as the security of the cardholder data environment. Departments who work directly with third-party service providers are required to:

- 6.5.1.** Ensure agreements or contracts include clauses that states annual provision of AOC, termination for non-compliance, and that the service provider will be responsible for the security of cardholder data in their possession on behalf of the City.
- 6.5.2.** Consider to include in agreements or contracts clauses related to indemnification rights and special insurance provisions.
- 6.5.3.** Maintain a list of service providers, including pertinent information such as business owner, address, contact information, term of contract, and renewal date, etc.
- 6.5.4.** Annually monitor service providers' PCI DSS compliance status or request proof of PCI DSS compliance via an Attestation of Compliance.

6.6. RETENTION AND STORAGE

- 6.6.1. Cardholder data must **NOT** be entered/stored on any electronic device including network servers, workstations, laptops, tablets, and cell phones unless it is explicitly approved for use as part of the cardholder data environment.
- 6.6.2. Cardholder data must **NOT** be stored on any removable storage devices such as USB keys/drives and portable external hard drives. This includes **cardholder data that is contained within** Excel, Word, or PDF file formats.
- 6.6.3. Cardholder data storage should be kept to a minimum, and retention time should be limited to that which is required for business, legal, and/or regulatory requirements.
- 6.6.4. All paper records (e.g. receipts, forms) containing cardholder data may only be retained where it is necessary for business or legal purposes and must be kept in a locked cabinet in a secured area or a safe that is accessible only by authorized staff. When no longer needed, the paper record must be securely destroyed (cross-cut shredded) or placed in the designated confidential shred receptacles.
- 6.6.5. Sensitive authentication data should never be stored or retained after authorization. This includes the 3 digit security code (CVV or CVN) printed on the back of a payment card and personal identification numbers (PINs) entered by the cardholder.
- 6.6.6. Cardholder data must never be duplicated or scanned using a photocopier or multifunctional devices.

6.7. SECURITY AWARENESS PROGRAM/TRAINING

- 6.7.1. Employees involved in handling cardholder transactions, including those who support the processes, systems, and applications within the cardholder data environment, must annually complete the PCI Security Awareness Program/Training. That PCI Security Awareness Program/Training may include web-based, pre-recorded, or in-person formal training. Employees will acknowledge that they have read and understood the various information, security policies, and procedures described during that PCI Security Awareness Program/Training.

6.8. INCIDENT REPORTING

- 6.8.1. In the event of suspected theft or loss of cardholder data, potential cardholder data security breach, or suspected tampering or substitution of a payment terminal or payment card capture device (PIN pad), employees must immediately inform their manager/supervisor. The manager/supervisor will report to the following and assist with investigation of the suspected incident:
 - Chief Information Officer/Executive Director of Information Technology
 - Deputy Treasurer-Taxation, Treasury and Financial Projects
- 6.8.2. The Deputy Treasurer-Taxation, Treasury and Financial Projects and Chief Information Officer/Executive Director of Information Technology must report to the CAO all **confirmed** incidents.

6.9. CONSEQUENCE OF NON-COMPLIANCE

6.9.1. Failure to comply with PCI DSS can result in serious consequences for the City including substantial fines and penalties, litigation, reputational damage, revocation of the City's right to accept credit card payments, and other financial costs.

6.9.2. Any employees found to be in violation of their responsibilities under this policy are subject to disciplinary action up to, and including, dismissal.

7. REFERENCES AND RELATED DOCUMENTS

7.1. Information Security Policy

7.2. Acceptable Use Policy

7.3. Fraud and Misuse of Assets Policy

7.4. Accounts Receivable Collections Policy

7.5. Corporate Accounts Receivable Policy

Subject: Petition in Opposition to Sidewalk Installation on the West Side of Roxborough Blvd – Between Ojibway St. and Cleary St. (Ward 10)

Reference:

Date to Council: July 11, 2022
Author: Michael Cooke
Manager of Planning Policy/Deputy City Planner
519-255-6543, ext. 6102
mcooke@citywindsor.ca

Planning & Building Services
Report Date: June 23, 2022
Clerk's File #: SL2022

To: Mayor and Members of City Council

Recommendation:

THAT the petition received by City Council on May 30, 2022 (CR258/2022) regarding the 2200 block of Roxborough Boulevard **BE NOTED**; and

THAT the Commissioner, Infrastructure Services **BE DIRECTED** to proceed to schedule the installation of a sidewalk on the west side of Roxborough Avenue sidewalk as specified in the registered subdivision agreement (Instrument Number CE309063); and further,

THAT the City Clerk **BE DIRECTED** to mail a copy of the Council Resolution and Administrative report to every property owner in the 2200 block of Roxborough Boulevard.

Executive Summary:

N/A

Background:

On May 30, 2022, City Council adopted the following resolution CR258/2022:

*That the petition presented by Councillor Morrison on behalf of the residents of the 2200 block of Roxborough Boulevard opposing the installation of sidewalks on the west side of Roxborough Boulevard **BE RECEIVED** by the Clerk and the Clerk **BE DIRECTED** to forward the petition to the Commissioner, Infrastructure*

Services for the purpose of an examination of the requested works or undertakings.

Discussion:

Since the 1990's, the policies of the Official Plan have stated that sidewalks are a requirement on one side of all new local roads. Accordingly, when the Plan of Subdivision for the lands described as the 2200 block of Roxborough Boulevard and Glenwood Avenue (between Ojibway and Cleary) was approved by City Council in 2006 – a sidewalk on one side of these local roads were identified as a condition of approval.

This specific policy was introduced to ensure current and future area residents (including school-age children, the elderly and individuals with mobility challenges) would be able to safely access neighbourhoods by removing the challenges of walking on streets. These policies were established in consultation with a number of local agencies and boards.

Excerpts of the relevant Official Plan policies are contained in Appendix 2.

Furthermore, this policy now stands to support Council's more recent policies and plans adopted to improve active transportation and climate change mitigation strategies by facilitating pedestrian mobility. These include the Community Energy Plan and the Active Transportation Master Plan.

Registered Subdivision Agreement

The conditions of subdivision approval are included in subdivision agreements that are signed by the owner of the land at the time. Subdivision agreements are registered on title and bind all future owners of those lands. Subdivision agreements are not deleted from title. This means that they remain on title in perpetuity. Therefore all future purchasers of the land have notice of the contents of the subdivision agreement.

In this case, City Council adopted resolution CR226/2006 on April 24, 2006. The CR contained all the conditions of approval for the Plan of Subdivision for the Roxborough/Glenwood subdivision.

Below is an excerpt from the subdivision agreement (registered on title as Instrument No. CE309063) between South Windsor Development and The Corporation of the City of Windsor that contains the relevant references to sidewalks:

S-3. SIDEWALKS

(1) The Owner further agrees to construct, at its entire expense, a four foot (4') wide concrete *sidewalk* on:

- i) the west side of Roxborough Avenue and
- ii) one side of Glenwood Avenue and Cleary Street;

all according to the City of Windsor Standard Specifications and in a manner satisfactory to the City Engineer and the Executive Director of Parks and Facility Operations.

(2) The Owner further agrees to insert a ***Sidewalk Notification Clause*** into all Agreements of Purchase and Sale and Leases for lots on the subject lands, making persons aware that a *sidewalk* will be constructed in accordance with paragraph S(3) herein and that the *sidewalk* will be located on the Corporation's lands adjacent to their property and that no structures or excavations are to take place beyond their property line without a written permit or permission of the Corporation.

Risk Analysis:

A decision to support the removal of the sidewalk requirement would not be consistent with the Official Plan, the Community Energy Plan or the Active Transportation Master Plan, all as adopted by City Council.

Climate Change Risks

Climate Change Mitigation:

The Community Energy Plan (CEP) estimates a relatively modest reduction of 2 percent of average personal vehicle journeys results in emissions reduction of about 8,000 tonnes CO₂. The CEP recommended the development of an Active Transportation Master Plan (ATMP) to support an improved modal shift. One of themes of the ATMP is to connect communities through enhancing the sidewalk network.

A lack of sidewalks can discourage people from walking, as they have limited options to walk depending on an individual's ability and comfort therefore increasing the reliability on personal vehicles. In 2020, transportation accounted for approximately 40% of the community's greenhouse gas emissions.

Climate Change Adaptation:

N/A

Financial Matters:

N/A

Consultations:

Planning Staff have been in discussions with staff in Public Works and Legal Services in the preparation of this report. Staff in Public Works and Planning have also had telephone conversations with some of the area residents.

Conclusion:

Should City Council decide to recognize the petition and wish to eliminate the requirement for the sidewalk on the west side of Roxborough, applications to amend the Official Plan and the subdivision agreement, along with a planning rationale from a planning consultant to support the applications would need to be submitted by the area residents. Such applications may also require amendments to the Community Energy Plan and Active Transportation Master Plan.

The conditions of the Plan of Subdivision approved by City Council were included in the subdivision agreement with South Windsor Development. The agreement is registered on title as Instrument Number CE309063 for each property in the 2200 block of Roxborough. The provision of this sidewalk is consistent with the policies of the Official Plan and Administration recommends that the sidewalk installation proceed.

Planning Act Matters:

N/A

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/ Deputy City Planner
Patrick Winters	Development Engineer
Thom Hunt	City Planner / Executive Director Planning
Wira Vendrasco	Deputy City Solicitor, Legal Services & Real Estate
Shelby Askin Hager	Commissioner, Legal & Legislative Services
John Revell for Jelena Payne	Commissioner, Economic Development & Innovation
Chris Nepszy	Commissioner, Infrastructure Services
Onorio Colucci	Acting Chief Administrative Officer

Notifications:

Name	Address	Email
Nick Vincelli		
Stacey McGuire		smcguire@citywindsor.ca

Appendices:

- 1 Appendix 1 - Subject lands on Roxborough Blvd. south of Ojibway St.
- 2 Appendix 2 - Official Plan policies regarding sidewalks

Appendix 2: Official Plan policies regarding sidewalks

7.2.2.27 SCHOOL ACTIVE TRANSPORTATION PLANS

Council shall require that school boards implement active transportation plans for new or refurbished schools that include:

- (a) Safe walking routes including new sidewalk connections, street crossing improvements and other pedestrian infrastructure within the school property or municipal road allowance fronting the school property;

7.2.3.2 PEDESTRIAN NETWORK

Council shall make pedestrian movement safer and more convenient by:

(a) Requiring the provision of sidewalks in new developments as follows:

- (i) On both sides of all Class I and Class II Arterial Roads, Class I and Class II Collector Roads and Scenic Drives; and
- (ii) On at least one side of all Local Roads.

(h) Providing special sidewalk treatments at all intersections to make visible the location of the pedestrian crossing to drivers and to provide a tactile warning to visually impaired pedestrians that they are about to cross a roadway.

Item No. 8.6



Committee Matters: SCM 175/2022

Subject: Essex-Windsor Solid Waste Authority Regular Board Meeting Minutes - April 5, 2022

Moved by: Councillor Kaschak
Seconded by: Councillor McKenzie

Decision Number: **ETPS 895**

THAT the minutes of the Essex-Windsor Solid Waste Authority (EWSWA) of its meeting held April 5, 2022 **BE RECEIVED**.

Carried.

Report Number: SCM 142/2022
Clerk's File: MB2022

Clerk's Note:

1. Please refer to Item 7.1. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
2. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>



Committee Matters: SCM 142/2022

**Subject: Essex-Windsor Solid Waste Authority Regular Board Meeting Minutes -
April 5, 2022**



Essex-Windsor Solid Waste Authority Regular Board Meeting MINUTES

Meeting Date: Tuesday, April 5, 2022
Time: Regular Session – 4:00 PM
Location: Zoom Meeting

Attendance

Board Members:

Gary Kaschak – Chair	City of Windsor
Fabio Costante	City of Windsor
Kieran McKenzie	City of Windsor
Jim Morrison	City of Windsor
Ed Sleiman	City of Windsor
Aldo DiCarlo – Vice Chair	County of Essex
Hilda MacDonald	County of Essex
Gary McNamara	County of Essex (Ex-Officio)

EWSWA Staff:

Michelle Bishop	General Manager
Steffan Brisebois	Manager of Finance & Administration
Cathy Copot-Nepszy	Manager of Waste Diversion
Tom Marentette	Manager of Waste Disposal
Teresa Policella	Executive Assistant

City of Windsor Staff:

Anne Marie Albidone	Manager of Environmental Services
Tony Ardovini	Deputy Treasurer Financial Planning
Shawna Boakes	Executive Director of Operations
Tracy Beadow	Project Administrator

County of Essex Staff:

Mary Birch	Director of Council & Community Services/Clerk
Mike Galloway	County of Essex CAO
Sandra Zwiers	Director of Financial Services/Treasurer

Absent:

Marc Bondy	County of Essex
Drew Dilkens	City of Windsor (Ex-Officio)
Chris Nepszy	City Engineer/Commission of Infrastructure Services
Natasha Gabbana	Manager of Performance Measurement & Financial Administration

1. Call to Order

The Chair called the meeting to order at 4:01 p.m.

2. Roll Call of Board Members Present

Marc Bondy – Not present
Fabio Costante - Present
Aldo DiCarlo - Present
Gary Kaschak - Present
Hilda MacDonald - Present
Kieran McKenzie - Present
Gary McNamara -Present
Jim Morrison - Present
Ed Sleiman - Present

3. Declaration of Pecuniary Interest

The Chair called for any declarations of pecuniary interest and none were noted. He further expressed that should a conflict of a pecuniary nature or other arise at any time during the course of the meeting that it would be noted at that time.

4. Approval of the Minutes

A. March 1, 2022 Regular Meeting Minutes

Moved by Aldo DiCarlo
Seconded by Ed Sleiman

THAT the minutes from the Essex-Windsor Solid Waste Authority Regular Meeting, dated March 1, 2022, be approved and adopted.

**27-2022
Carried**

5. Business Arising from the Minutes

No items were raised for discussion.

6. Delegations

There were no delegations for April 5, 2022.

7. Correspondence

- A. Municipality of Lakeshore dated February 10, 2022
Resolution 54-02-2022 Re Park Development – Landfill #3

The General Manager stated that this correspondence is regarding closed Landfill #3 located on Puce Rd. (County Rd. 25) in the Municipality of Lakeshore. This site closed in 1997. The site accepted approximately one million plus cubic metres of clay from the Windsor Essex Parkway project between 2013 and 2015 in order to properly cap the site to address operational issues and possibly use the site as a passive recreation site at some point in the future. The municipality is requesting an update and Administration will be following up with a report to the Board at a future meeting.

Moved by Kieran McKenzie
Seconded by Hilda MacDonald

THAT the Board receive the correspondence from the Municipality of Lakeshore.

**28-2022
Carried**

- B. County of Essex dated March 24, 2022
Resolution 063-2022 Re County Participation in the Regional Food and Organics Waste Management Project

The General Manager advised the Board that on March 16, 2021, County of Essex Council resolved the following:

That County Council advise the EWSWA prior to March 31, 2022, that all Essex County municipalities will participate in a regional solution for the collection and processing of organic waste material from urban settlement areas, at a minimum, as part of the short-term processing contract commencing January 1, 2025 or immediately upon the expiration of a municipality's existing waste collection contract, whichever is later.

The General Manager advised the Board that consensus was not reached at County Council as there were two municipalities that voted against the motion, being the Town of Kingsville and the Town of Essex. She also advised that the solicitor for the Town of Kingsville has had correspondence with David Sundin, the Authority and County of Essex solicitor, requesting information pertaining to the agreement and by-laws that created the Authority. This information was provided immediately upon request to

Kingsville's solicitor. Since that time, there has not been any further correspondence or dialogue.

The General Manager further advised that correspondence has been sent to all municipal CAOs advising them of the resolution from the County of Essex. She has also requested each municipality provide a contact person that will be responsible to provide information regarding the contract expiration dates and urban settlement data.

Mr. McKenzie requested a better understanding on the legal framework that exists between the parties. He asked what the resolution from the County would mean for the Authority in terms on how the Authority will proceed with the RFP.

The General Manager suggested that Mr. Sundin be invited to the May Board meeting where these items could be discussed. With regards to the status of the RFP, the Authority has been given direction from County of Essex Council to proceed with including all municipalities.

Mrs. MacDonald asked if the Authority could ban organic material from the Regional Landfill in advance of a Provincial ban. She believes it follows through on the environmental aspect but it also places the onus back on the municipalities that don't want to participate.

The General Manager stated that she had previously contacted Dave Gordon, Senior Advisor Waste Diversion for the Association of Municipalities of Ontario (AMO), to inquire if any Ontario municipality had proactively instituted a landfill ban on organics. Per Mr. Gordon, he was not aware of a municipality instituting a ban proactively. Where she would caution is that the Authority currently receives a significant amount of material from local businesses and greenhouse operations. There would need to be further dialogue in regards to what we are looking to ban and the impact a potential ban would have on the Region.

Mr. Kaschak stated that Mrs. MacDonald brings up a good point and further noted the additional \$2 million in additional revenue from the disposal of greenhouse vines at the landfill in the updated budget projection that the Manager of Finance would be presenting later in the meeting.

Mrs. MacDonald asked if greenhouses and industry will continue to be separate from municipalities when it becomes mandatory for all municipalities to be a part of the organics program.

The General Manager stated that it has not been addressed, the Province has only included municipalities at this time with a possible target date of 2030 for a full organic material ban. One of the largest contributors of organic material in the landfill is from the industrial, commercial and institutional sector (ICI). The organic material is not just from the greenhouse industry

but from hospitals, correctional facilities, and grocery stores. The majority of the region's ICI waste does flow across the border with the exception of greenhouse material as it is heavy, wet and slightly problematic to bring across the border and that's why it is delivered to the landfill. It is an issue that's going to have to be addressed in the very short term by the Province, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and the Ministry of the Environment, Conservation and Parks (MECP). While the Authority benefits financially from the tipping fees, the material uses up capacity in the landfill, produces methane and generates leachate.

Moved by Gary McNamara

Seconded by Fabio Costante

THAT the Board receive the correspondence from the County of Essex.

**29-2022
Carried**

- C. City of Windsor dated March 25, 2022
Resolution CR89/022 Re Regional Food and Organics and Biosolids Waste Management Project

Moved by Ed Sleiman

Seconded by Aldo DiCarlo

THAT the Board receive the correspondence from the City of Windsor.

**30-2022
Carried**

- D. Town of Kingsville dated March 17, 2002
Resolution Re Regional Food and Organics Waste Management Program

Mr. McKenzie asked if there was a discussion that proceeded the General Manager's presentation regarding organics at the Kingsville Council meeting. He understands that Kingsville indicated that they do not want to participate in the regional organics program and they want their citizens to be more vigilant with respect to waste in their own community. He asked if Kingsville was aware that the Province may make the regulatory environment even more stringent and potentially include municipalities like Kingsville and others.

The General Manager noted that all municipalities received the same presentation which included identifying the potential of a landfill ban in 2030. Further, all municipalities were provided the pros of having a regional solution and participating at the onset. The potential costs were identified if a municipality chose not to participate at the onset and that they would be assuming additional costs based on the landfill model that is currently in place. At the County Council meeting, Authority Board members on County Council all had an opportunity to speak and reiterate these elements. The

General Manager stated that she is not sure what Kingsville's exact intention is in regards to their residents.

Moved by Kieran McKenzie

Seconded by Ed Sleiman

THAT the Board receive the correspondence from the Town of Kingsville.

**31-2022
Carried**

8. Waste Diversion

- A. Regional Food and Organics Biosolids Waste Management Project – Short Term Service Processing Provider Request for Proposals (RFP) Terms of Reference

The General Manager stated that Tracy Beadow, Project Manager, would provide an overview of the Request for Proposals (RFP) Terms of Reference and to explain the evaluation process of the RFP. The General Manager noted that the overview was very high level and details such as weightings were intentionally left out as to prevent any potential bidders from receiving advance knowledge of the RFP and to maintain the integrity of the process.

Ms. Beadow stated at the October 5, 2021 Authority Board meeting, Administration was directed to proceed with the preparation of a Request for Qualifications (RFQ), followed by an RFP and that the Authority Board approve the Terms of Reference prior to the publishing of the RFQ and RFP. At the January 12, 2022 Authority Board meeting, Administration was directed to proceed with the preparation of the short-term organic waste processing contract RFP. She noted that an RFQ is not typically completed for a service contract, as the RFP has a qualification component embedded in it to allow only qualified proponents who pass the technical stage of the evaluation to proceed to the financial evaluation, therefore, an RFQ will not be completed and Administration will proceed with the RFP for a short-term service provider.

The RFP is comprised of a technical proposal and a financial proposal. The proposals will be carried out by an evaluation committee, which will consist of members from the County, the City and the Authority. The Oversight Committee will select these individuals. Ms. Beadow explained the evaluation process and the various stages.

Ms. Beadow summarized the scope of work that will be included in the RFP. The proponent will be required to be currently experienced in the processing of organic waste and she outlined the responsibilities of the Authority and the Contractor.

The proponent with the best score would be selected as the preferred contractor. The Oversight Committee is expecting to release the RFP in mid-

spring, which would allow to have a preferred contractor selected by early to mid-summer of this year.

The Oversight Committee is recommending that the RFP for a short-term service provider be issued as soon as possible in order to secure processing capacity. The recommendation is that the Oversight Committee approve the Terms of Reference framework of the RFP and direct Administration to finalize and issue the RFP for a short-term organic waste processing contract.

Mr. McKenzie asked if a proponent is selected by mid-summer could the service contract actually start in 2025 or could potentially start earlier.

Ms. Beadow stated that the exact start dates have not actually been defined as they were waiting for the responses from the municipalities. The start date will also depend on existing waste contracts that are in place and their expiration dates. The consultant is currently working through this information.

Mr. McKenzie asked if it is anticipated that any of the proponents might want to involve the Authority in any of the processing activities that they may undertake, for example, land use.

The General Manager stated not at this point. Perhaps if we were looking at a long-term solution or partnership but we are looking for straight processing at this time.

Mr. McKenzie asked if the selection of the proponent will come back to the Authority Board for approval.

The General Manager stated like other RFPs, this will require Board approval. The draft Terms of Reference have been brought forward at this meeting and the RFP will be issued once it is complete. Administration will continue to provide updates to the Board. When the evaluation process concludes, the recommendation will be brought forward to the Board for approval.

Moved by Hilda MacDonald

Seconded by Kieran McKenzie

THAT the Board approve the Terms of Reference framework of the RFP, and direct Administration to finalize and issue the RFP for a short-term organic waste processing contract(s).

**32-2022
Carried**

B. Outreach Program Update

The Manager of Waste Diversion provided an update on the various annual outreach programs in an effort to engage residents in more waste diversion. This year some of the events will be hosted in person. In 2022, the primary

message and focus of all the outreach activities will be on food and organic waste.

The Authority will be hosting a regional Earth Day event on April 24th at Malden Park along with partners such as the City of Windsor and the Essex Region Conservation Authority as well as other organizations. This free event is open to all ages and there will be interactive activities and giveaways. Also, as a result of the WeRecycle Bike Program that was launched last year, Bike Windsor-Essex will donate two children's bikes that will be raffled off at this event. This will also help increase awareness of this program.

Due to its success in 2021, a Virtual Earth Day Scavenger Hunt will run again in 2022 from April 17th-30th.

To support residents to get more involved in diverting organic waste, the Authority will be selling backyard composters and green cone digesters at two inventory sales between May 2nd-6th. To continue the partnership with the City of Windsor, they will be selling their rain barrels at this inventory sale.

The Gold Star program will run again in 2022. Registration will be done on May 12th and the first 100 registrants will be accepted into the program.

The Authority is also in the process of developing an RFQ for the design and development of a new website to provide an improved resident experience.

The annual Envirotips newsletter will be delivered in July to residents. This newsletter is a key communication strategy to engage residents along with social media, the Recycle Coach app and the Authority website, ewswa.org.

Moved by Kieran McKenzie

Seconded by Jim Morrison

THAT the Board receive the report as information.

**33-2022
Carried**

C. EWSWA 2020 Blue Box Costs

The General Manager stated that in addition to receiving notification from the Resource Productivity and Recovery Authority (RPPRA) regarding the amount of Blue Box funding the Authority will receive in 2022, a document is also released that provides information on all 249 Blue Box programs in Ontario.

This report provides an update on how the Authority compares to other Blue Box programs in Ontario. The General Manager referred to the table on page 44 of the agenda listing the 12 largest recycling programs in Ontario. The Authority is in the middle at \$409 a tonne compared to a low of \$252 in Waterloo and a high of \$582 in Toronto. The General Manager explained the while the document includes cost and revenue information for all programs in Ontario not all programs are the same. The program that would be the most

similar to the Authority would be London. They also do not have an organics program at this time and they have bi-weekly collection. They are also one of the smaller recycling programs.

The General Manager detailed the breakdown of the total cost and net costs of the Blue Box program which includes the cost of the Blue Box collection, processing/sorting recyclables, administration and public education and promotion.

Mr. McKenzie asked if there is a marketing solution for the recyclables collected.

The Manager of Waste Diversion stated that while the Authority is prioritizing organic waste this year with promotion and education, the Authority will still be sending information and trying to engage residents more in the Blue Box program. She also noted that the Authority is constantly working with the Material Recovery Facility (MRF) contractor on ways to divert more material out of the residue stream and currently has a buyer purchasing residue from the Container MRF. This will also have an impact on the diversion rate and keep material out of the landfill.

Mr. McKenzie suggested that the 2023 budget for promotion and education be reviewed to determine if increasing the budget would have a positive impact on tonnes of material marketed for sale.

Mr. McNamara commented on the Provincial net cost of the Blue Box Program. The net cost of \$349 million is a large number and has a significant impact on municipalities.

The General Manager noted that what Mr. McNamara stated is certainly true. Through AMO, the Regional Public Works Commissioners and the Continuous Improvement Fund, we are all very aware of the \$350 million and the financial impact that operating the recycling programs has on the municipalities of Ontario and the concerns that municipalities have with the upcoming EPR transition.

Moved by Ed Sleiman

Seconded by Gary McNamara

THAT the Board receive the report as information.

**34-2022
Carried**

D. Blue Box Transition Update

The General Manager stated that the purpose of the report is to advise the Board of a proposed amendment to Ontario Regulation 391 (the Regulation), which is the regulation that confirmed the Blue Box transition to an Extended Producer Responsibility (EPR) that was released in June 2021.

The General Manager summarized the regulation including how the Producer Responsibility Organizations (PROs) would establish and operate the collection and processing system in Ontario, in accordance with the regulation that was released

The original rules stated that eligible PROs would determine the rules and the allocation table. The allocation table would identify which region the PRO was going to be responsible for, for example, Windsor-Essex. Unfortunately, the PROs could not come to an agreement. In February, a meeting was held with PROs and Ontario's Environment Minister. The outcome of the meeting resulted in mediation plan between the parties.

On March 22nd, through their membership on various committees, Anne Marie Albidone of the City of Windsor and the General Manager received a document from the Minister's office stating the proposed amendments to the regulation.

One of the potential changes states that the PROs would not be required to provide documentation until April 1, 2023 as to how they plan to establish and operate a collection and post collection system. Municipalities are scheduled to begin transitioning in July 2023 with Essex-Windsor transitioning in August 2024. The committee discussed concerns relating to the proposed changes and how the April 2023 reporting deadline would impact decision making by the municipalities.

Correspondence was sent to the Minister by both M3RC and RPWCO on March 25th explaining their concerns with the proposed amendments and the impact on the timelines.

The General Manager noted that she will continue to update the Board as further information is received.

Moved by Ed Sleiman

Seconded by Kieran McKenzie

THAT the Board receive the report as information.

**35-2022
Carried**

9. Waste Disposal

There were no Waste Disposal items for April 5, 2022.

10. Finance & Administration

A. 2022 Budget – Projection Update

The Manager of Finance and Administration provided an update on the 2021 projected revenue figures that were previously included in the 2022 budget document pertaining to Industrial Commercial Institution (ICI) tipping fee

revenue for both landfilled and non-landfilled material and municipally delivered refuse revenue. As summarized in the report, the Authority received an additional net revenue of \$1.49 million. This revenue increase was attributed to receiving 68,097 more tonnes of ICI landfilled, non-landfilled and municipal material in the 2021 fiscal year than previously projected.

The additional revenue will serve to increase the 2021 projected surplus and a full year end report will be provided to the Board in May when the 2021 audit is completed by KPMG. The final operating surplus figures will be reported at that time.

Moved by Aldo DiCarlo

Seconded by Gary McNamara

THAT the Board receive the report as information.

**36-2022
Carried**

11. Other Items

Mr. Morrison asked about the delay of the collection calendars in Windsor. His concern is that residents will miss the first yard waste collection. He asked how this information can be relayed to residents.

Ms. Albidone stated there was delay with the printer but the City of Windsor had received the calendars and were in the process of having the calendars delivered. She noted that they are promoting yard waste dates through the Recycle Coach app and on the website. A one-page calendar for the year has been printed for residents that have come to the office to pick them up which shows the collection days. The first collection will be the week of April 18th and staff will be prioritizing the areas with this collection date first. The Public Drop Off Depot is also open for yard waste drop off free of charge and currently operating summer hours. All calendars will be delivered by the end of the month.

12. By-Laws

A. By-Law 5-2022

Moved by Aldo DiCarlo

Seconded by Fabio Costante

THAT By-Law 5-2022, being a By-law to Confirm the Proceedings of the Board of the Essex-Windsor Solid Waste Authority be given three readings and be adopted this 5th day of April, 2022.

**37-2022
Carried**

13. Future Meeting Dates

Tuesday – May 3, 2022
Tuesday – June 7, 2022
Tuesday – July 5, 2022
Wednesday – August 10, 2022
Wednesday – September 14, 2022
Tuesday – October 4, 2022
Tuesday – November 1, 2022
Tuesday – December 6, 2022

14. Adjournment

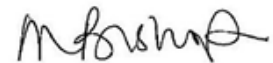
Moved by Jim Morrison
Seconded by Ed Sleiman
THAT the Board stand adjourned at 5:17 p.m.

38-2022
Carried

All of which is respectfully submitted.



**Gary Kaschak
Chair**



**Michelle Bishop
General Manager**



Committee Matters: SCM 176/2022

Subject: Essex-Windsor Solid Waste Authority Annual Report - Essex-Windsor Residential Waste Diversion 2021

Moved by: Councillor McKenzie
Seconded by: Councillor Francis

Decision Number: **ETPS 896**

THAT the Essex-Windsor Solid Waste Authority (EWSWA) Annual Report – Essex-Windsor Residential Waste Diversion 2021 **BE APPROVED**.

Carried.

Report Number: SCM 143/2022
Clerk's File: MB2022

Clerk's Note:

1. Please refer to Item 7.2. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
2. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>



Committee Matters: SCM 143/2022

Subject: Essex-Windsor Solid Waste Authority Annual Report - Essex-Windsor Residential Waste Diversion 2021



ANNUAL REPORT

Essex-Windsor Residential Waste Diversion 2021

Report Date: March 31, 2022

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Essex-Windsor Residential Waste Diversion

Annual Report for January – December 2021

1 Introduction

The Annual Waste Diversion Report provides information on the waste diversion activities carried out by the Essex-Windsor Solid Waste Authority (EWSWA) during 2021 in compliance with Condition 5.2 of the Environmental Assessment Approval for the Essex-Windsor Regional Landfill.

1.1 Residential Waste Diversion Rate 2021

This report also provides the EWSWA the ability to track any changes in the amount of waste diverted through its waste diversion initiatives from year to year.

In 2021, the seven County of Essex municipalities and the City of Windsor delivered 112,053 tonnes of residential waste to the Regional Landfill. During the same time period, 56,242 tonnes of residential waste were diverted from the landfill via the blue and red box recycling program, municipal hazardous or special waste program, composting, and other waste diversion programs. These waste diversion initiatives resulted in a 2021 residential diversion rate of 32.9%. The 2020 diversion rate was 32.4%.

2021 Residential Diversion Rate is calculated as follows:

$$\frac{56,242 \text{ Tonnes Diverted (see Table 19)}}{112,053 \text{ Tonnes of Residential Refuse Collected Curbside} + 2,632 \text{ Residuals} + 56,242 \text{ Diverted Tonnes}} = \frac{56,242}{170,927} \times 100 = 32.9\%$$

2020 Residential Diversion Rate is calculated as follows:

$$\frac{55,465 \text{ Tonnes Diverted (see Table 19)}}{109,902 \text{ Tonnes of Residential Refuse Collected Curbside} + 5,636 \text{ Residuals} + 55,465 \text{ Diverted Tonnes}} = \frac{55,465}{171,003} \times 100 = 32.4\%$$

2 Programs

2.1 Residential Recycling Blue Box Program

The tonnes of residential recyclable materials collected curbside during 2021 totaled 23,802 tonnes. The overall tonnes of recyclables collected in 2021 were slightly lower compared to the 24,585 tonnes collected in 2020.

A monthly summary and comparison of the tonnes collected curbside from the City and the County in 2020 and 2021 is shown in Table 1. Collection of recyclables in the County was carried out under contract in 2021 by the City of Windsor. Collection of recyclables in the City of Windsor in 2021 was carried out by Green For Life Environmental Inc.

All materials were processed at the EWSWA owned Essex-Windsor Material Recovery Facility (MRF), located at E.C. Row and Central Avenue in Windsor where HGC Management Inc. via contract process delivered materials.

In addition to the residential recyclables collected curbside, 605 tonnes of recyclables were delivered to the EWSWA's Public Drop Off Depots in 2021. This is up 33% from 2020 where 455 tonnes were delivered. This increase may be a result of the site being closed for a short period of time in 2020 due to COVID-19.

Table 1: Residential recycling blue box collection tonnes by month comparison

Month	2021 County of Essex* Tonnes	2021 City of Windsor Tonnes	2021 Combined Tonnes	2020 Comparable Tonnes
January	1,047	1,018	2,065	4,130.00
February	892	869	1,761	3,522.00
March	1,021	975	1,996	3,992.00
April	1,006	994	2,000	4,000.00
May	948	922	1,870	3,740.00
June	1,034	1,051	2,086	4,171.00
July	1,015	1,065	2,079	4,159.00
August	932	906	1,838	3,676.00
September	965	1,021	1,986	3,972.00
October	1,014	978	1,991	3,983.00
November	947	974	1,921	3,842.00
December	1,110	1,099	2,210	4,419.00
Total:	11,931.00	11,872.00	23,802	24,585

* The County of Essex includes the Town of Amherstburg, the Town of Essex, the Town of Kingsville, the Municipality of Lakeshore, the Town of LaSalle, the Municipality of Leamington, and the Town of Tecumseh. Due to rounding, sum of combined tonnes for 2020 and 2021 will not equal total value.

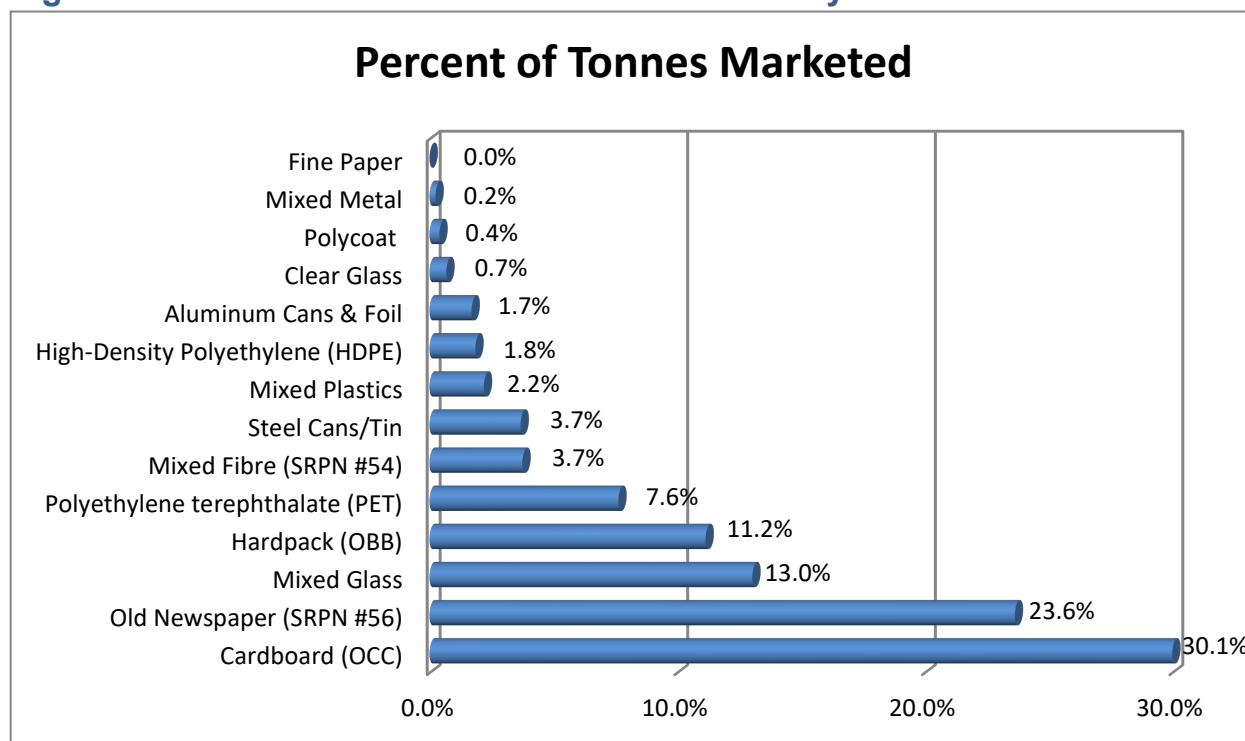
2.2 Recycling Residual Disposal

Recycling Residual is the material that is left over after the processing of the recyclable materials are collected and delivered to the MRF. The residuals consist of contaminated materials, non-recyclable materials, and packaging materials used to secure recyclables placed in the recycle box. A total of 2,632 tonnes of recycling residuals was disposed of in 2021. This is a significant decrease in residuals from 2020 (5,636 tonnes), as there were great favourable changes in market demands and HGC Management Inc. made processing refinements that supported these new market opportunities.

3 Tonnes Marketed

For the purposes of waste diversion calculations, tonnes marketed are used instead of the tonnes collected curbside. The tonnes marketed by material type are shown in Tables 2, 3, and 4. The EWSWA markets all materials processed through the MRF, and retains 100% of the revenue from the sale of materials. Revenue from the sale of material in 2021 was approximately \$4,967,436 (see Table 5) representing a basket-of-goods revenue of approximately \$237/tonne compared to a basket-of-goods revenue of \$114/tonne in 2020. This is as a result of very strong market conditions for the majority of recyclable materials marketed by the EWSWA. A brief discussion on market conditions and prices for each of the materials follows.

Figure 1: Percent of tonnes for 2021 marketed recyclables



Note: Due to rounding, total tonnes marketed does not total 100%.

3.1 Fibres

Old Newspaper (SRPN #56)

Ontario market price trends are published annually by the Continuous Improvement Fund's (CIFs) Price Sheet (January 2022). For 2021, SRPN #56 prices started the year at a low of \$102 per tonne in January and then increased gradually to finally close out the year at \$186 per tonne in December. The EWSWA average price for 2021 was \$155 per tonne which is higher than this provincially published CIF average of \$145 per tonne. The EWSWA 2020 average price for SRPN #56 was \$74 per tonne.

Old Corrugated Cardboard (OCC)

The EWSWA price for old corrugated cardboard ranged from a low of \$125 per tonne to a high of \$295 per tonne in 2021. The 2021 EWSWA average price per tonne was \$208 compared to \$117 in 2020. The EWSWA's average price of \$208 per tonne was higher than the provincial average of \$201 per tonne per the CIF Price Sheet - January 2022.

Hardpack (OBB)

(Example: cereal boxes, cardboard)

The EWSWA's prices for this cardboard/boxboard mix started the year low at \$69 per tonne and increased due to the global market conditions to a high of \$223 per tonne in 2021. The 2021 EWSWA average price was \$149 compared to \$56 per tonne in 2020, again as a result of global market conditions. The EWSWA's average 2021 price of \$149 per tonne was higher than the provincial average of \$103 per tonne per the CIF Price Sheet - January 2022.

Fine Paper

Fine paper was not marketed in 2021, as the amount of material available to market in 2021 was negligible.

Mixed Fibre (SRPN #54)

Like all fibre the pricing for mixed fibre started the year low (\$0 per tonne) and increased to \$120 per tonne by December in 2021. This is an increase from 2020 as market demands for this low-grade fibre drove the average price for 2021 to \$103/tonne; which is a significant increase in diversion of fibre materials.

3.2 Containers

Steel Cans

The 2021 average price was \$429 per tonne compared to \$196 per tonne in 2020.

Aluminum Cans and Foil

The 2021 average price was \$2,157 per tonne compared to \$1,321 in 2020. Aluminum foil was sold at an average price of \$770 during 2021, whereas in 2020 it sold at \$449 per tonne.

Glass

Due to issues with this market, \$0 was received for this material in 2021, which is lower than the 2020 average price of \$27 per tonne. Clear glass is the only product that is not marketed FOB (Freight on Board) at the Essex-Windsor MRF. Mixed coloured glass was delivered to the Regional Landfill for use as road base.

Polyethylene terephthalate (PET)

(Example: plastic water bottles)

The average price was \$491 per tonne in 2021 which is much higher than the 2020 average price of \$186 per tonne.

High-Density Polyethylene (HDPE)

(Example: laundry soap bottles)

The average price was \$1,276 per tonne in 2021 compared to the 2020 average price of \$325 per tonne, again as a result of extremely favourable market conditions.

Polycoat and Gable Top

(Example: milk cartons)

Four loads of polycoat were shipped out in 2021 at an average price of \$19 per tonne compared to the average price of \$21 per tonne in 2020.

Mixed Plastics

(Example: tubs & lids, clamshells, trays, cups, plastic bottles, excludes polystyrene and plastic film bags)

The average price was \$168 per tonne in 2021 compared to the average price of \$81 per tonne in 2020.

Table 2: Marketed fibre summary comparison: 2020 versus 2021

Fibre Material	2020 Tonnes	2021 Tonnes	% Change
Old newspaper (SRPN #56)	5,015	4,963	-1.0
Cardboard (OCC)	5,491	6,311	14.9
Hardpack (OBB)	2,287	2,341	2.4
Fine paper	37	0	-100.0
Mixed fibre (SRPN #54)	19	787	4042.1
Totals:	12,849	14,402	12.1%

Table 3: Marketed containers summary comparison: 2020 versus 2021

Container Material	2020 Tonnes	2021 Tonnes	% Change
Clear glass	91	142	56.0
Mixed glass	2,571	2,737	6.5
Steel cans	744	772	3.8
Aluminum cans and foil	345	356	3.2
Polyethylene terephthalate (PET)	1,514	1,601	5.7
High-density polyethylene (HDPE)	307	388	26.4
Polycoat/gable top	65	83	27.7
Mixed plastics	588	461	-21.6
Totals:	6,225	6,540	5.1%

Table 4: Residential recyclables marketed comparison

Tonnes Marketed	2020 Tonnes	2021 Tonnes
a) Total tonnes marketed	19,074	20,942
b) ICI Tonnes	(484)	(630)
Net marketed residential recyclables	18,590	20,312

Notes: a) Total tonnes marketed less b) ICI delivered tonnes = Net marketed residential recyclables.

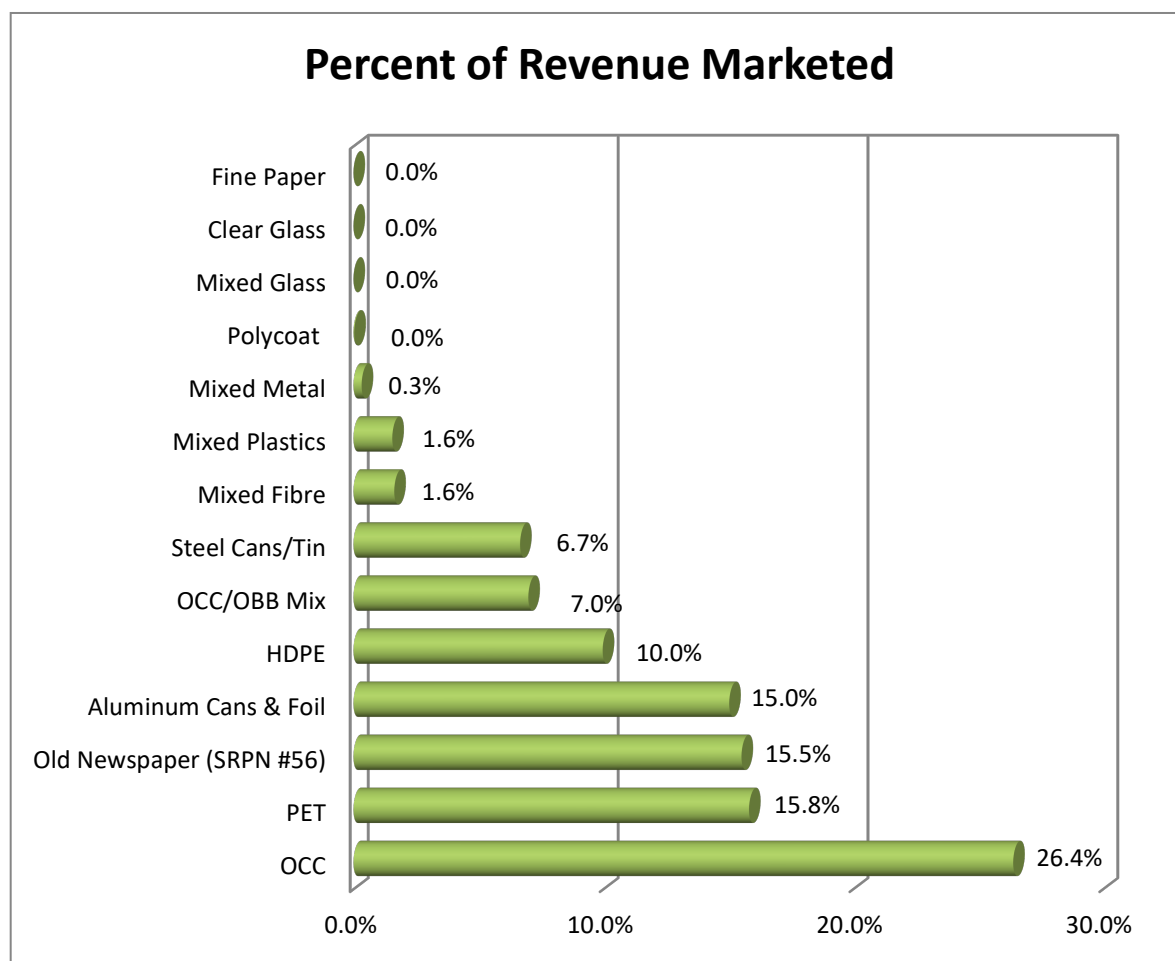
Table 5: Revenue comparison: 2020 versus 2021

Recyclable Material	2020 Revenue	2021 Revenue
Old newspaper (SRPN #56)	\$371,557	\$771,507
Cardboard (OCC)	\$646,101	\$1,311,714
Hardpack (OBB)	\$127,847	\$347,701
Clear glass	\$2,423	\$0
Mixed fibre (SRPN #54)	\$0	\$81,149
Steel cans	\$145,504	\$331,266
Fine paper	\$5,740	\$0
Aluminum cans and foil	\$441,106	\$747,075
Polyethylene terephthalate (PET)	\$281,271	\$786,433
High-density polyethylene (HDPE)	\$99,769	\$495,494
Mixed glass	\$0	\$0
Polycoat/gable top	\$1,366	\$1,626
Mixed metal	\$10,701	\$16,259
Mixed plastics	\$47,396	\$77,212
Total Revenue	\$2,180,781	\$4,967,436

Table 6: Annual revenue comparison

Year	Revenue
2015	\$3,101,234
2016	\$3,414,055
2017	\$4,241,411
2018	\$3,204,744
2019	\$2,076,450
2020	\$2,180,781
2021	\$4,967,436

Figure 2: Percent of revenue marketed in 2021



Note: Due to rounding, total revenue marketed does not total 100%.

3.3 Markets

While overall delivered tonnages for 2021 were slightly lower than 2020, total marketed tonnes were higher due to market availability and processing refinement. Total revenue increased significantly in 2021 due to exceptionally favourable market conditions for most commodities. Specifically, the mixed fibre market saw a tremendous increase in tonnage diverted and favourable pricing as a result of these market conditions. On the flip side, there was an unfavourable shift in revenue in 2021 for the clear glass and polycoat markets as a result of poor market conditions for these commodities.

4 Other Residential Recycling Programs

4.1 White Goods

Since 1991, white goods, such as fridges, stoves, air conditioners, washers, dryers, freezers, dishwashers, etc. have been restricted from landfill disposal. In 2021, curbside collection of white goods from County municipalities captured 1,952 white good units (approximately 176 tonnes).

While the City of Windsor did not operate a white goods collection program during 2021, there were also 171 tonnes of white goods delivered to the Public Drop Off Depots for a combined total of approximately 346 tonnes. Using the Resource Productivity & Recovery Authority (RPRA) Municipal Datacall residual percentage of 20%, approximately 277 tonnes of white goods were recycled and diverted. Table 8 details the white goods collection program for each of the municipalities in the County of Essex by month during 2021.

Table 7: Summary of white goods diversion for 2021

White Goods Summary	2021 Tonnes
Curbside Collection Converted to Tonnes	176
Drop Off Depots	171
Total White Goods Tonnes	346
Less 20% Residual Calculation Amount	(69)
Total Tonnes Recycled and Diverted	277

Note: Total White Goods Tonnes does not equal the sum of Curbside Collection Converted to Tonnes and Drop Off Depots due to rounding.

Table 8: 2021 White goods collected by month in municipalities across Essex County

Month	Tecumseh	Essex	LaSalle	Amherstburg	Leamington	Kingsville	Total for Month
January	22	22	33	53	23	23	176
February	16	27	20	25	13	27	128
March	12	27	27	51	32	21	170
April	22	24	46	52	36	24	204
May	21	31	31	47	19	50	199
June	23	25	20	46	15	30	159
July	23	19	31	32	32	19	156
August	22	29	31	36	16	23	157
September	14	26	24	33	24	34	155
October	27	25	27	50	18	28	175
November	26	22	22	40	22	34	166
December	21	23	10	19	15	19	107
Total Units	249	300	322	484	265	332	1,952

Notes: 1,952 units with the average weight of 90 kilograms per unit results in diversion of approximately 175.68 tonnes; there were no tonnes reported for Lakeshore in 2021.

4.2 Tires

In 2021, RPRA Datacall resulted in the diversion of approximately 3,001 tonnes of used tires in the Essex-Windsor area. While automotive tire recycling is now offered at many locations across Essex-Windsor, EWSWA still collects and recycles used tires through the RPRA program.

4.3 Scrap Metal

There are 40-yard roll off bins located at the Windsor Public Drop-off Depot for the collection of ferrous and non-ferrous scrap metal material. The metals are sold through a competitive bid process to local scrap dealers. In 2021, approximately 550 tonnes of metals were collected and recycled. While the EWSWA does not advertise that it accepts other metal household objects besides steel cans in the blue box program, the EWSWA does receive and does try to capture any metal objects through its programs which are called "mixed metal".

4.4 Electronics Recycling

Under contract to the EWSWA, Quantum Lifecycle Partners Inc. supplies sea containers for the collection of electronics at the EWSWA's Public Drop-off Depots. The EWSWA staff place electronic items that are received from the public in these containers. In 2021, approximately 302 tonnes of computers, televisions, audio visual equipment, and various electronic items were collected through the Waste Electrical and Electronics Equipment (WEEE) stewardship program. Based on a residual portion of 20%, the total electronics recycled was approximately 241 tonnes.

4.5 Deposit/Return Program

The EWSWA has a capture program at its Material Recovery Facility (MRF) for deposit/return containers (i.e. aluminum beer cans; glass, wine and spirit bottles) that were placed curbside for blue box collection. During 2021, approximately 84 tonnes of deposit/return containers were received at the MRF and are included as part of the 2,329 tonnes that were diverted throughout Essex-Windsor as part of the Deposit/return & stewardship program. The 2,329 diversion tonnes figure is calculated as part of the 2021 RPRA datacall and is based on the Essex-Windsor population as determined by the latest Statistics Canada census data.

4.6 WE ReCYCLE Bike Program

The EWSWA recognizes the importance of providing waste diversion programs that are convenient and safe for the public to access. In 2021, the EWSWA Board approved a bike reuse program, that supports bikes that are collected at the EWSWA sites to be refurbished, and recycled back into the Essex-Windsor area through a community partnership program. A total of 150 bicycles were recycled through this program as a result of its launch in fall 2021.

Table 9: Bikes recycled through the WE ReCYCLE program in 2021

	Windsor Public Drop Off	Kingsville Transfer Station #2	Total
Number of Bikes Recycled	121	29	150

As the average bike weighs 10 kg, and 150 bikes were recycled in 2021, it is estimated that 1,880 kgs or 1.88 tonnes of bikes were diverted through the WE ReCYCLE Program in 2021.

4.7 Election Signs

As the EWSWA attempts to divert materials where feasible, it has been successful to offer a drop off program at its sites for election signs after an election. As 2021 was an election year, approximately 720 kgs or 0.72 tonnes of signs were dropped off at the EWSWA sites and later recycled.

Table 10: Other recyclables comparison: 2020 versus 2021

Other Recyclable Programs	2020 Tonnes	2021 Tonnes	% Change
White goods (all sites)	286	277	-3.1%
Used tires	2,831	3,001	6.0%
Scrap & mixed metal	496	550	10.9%
Electronics	258	241	-6.6%
Deposit/return & stewardship	2,197	2,329	6.0%
Bicycles	N/A	2	N/A
Election Signs	N/A	1	N/A
Total Other Recyclables	6,068	6,401	5.5%

Notes: RPRA data call calculation is based on population for Used tires and Deposit/return & stewardship programs in the Essex-Windsor area as reported by the Statistics Canada census. N/A as program started in 2021.

5 Residential Organics

5.1 Yard Waste

Grass, leaves, tree trimmings, and brush are restricted from disposal at the Essex-Windsor Regional Landfill site. As a result, all local municipalities have established separate collection systems for yard waste, including special collections in January for Christmas trees. Furthermore, individual residents and grounds maintenance contractors also brought yard waste to each of the three depots operated by the EWSWA in 2021.

The Essex-Windsor area accepts the use of paper bags, wheeled carts, garbage bins, and cardboard boxes for the collection of yard waste. Plastic bags are not accepted. Approximately 24,521 tonnes of yard waste was received in 2021, which is a decrease of 5% compared to the 25,690 tonnes delivered in 2020.

Table 11: 2021 Yard waste summary for all EWSWA sites

Material Type	Windsor Public Drop Off	Kingsville Transfer Station 2	Regional Landfill	Total
Municipal Delivered	11,418	1,849	4,727	17,994
Residential Delivered	4,095	1,132	298	5,525
Total Res. Organics	15,513	2,981	5,025	23,519
*ICI Organics and Pallets	578	333	90	1,002
Grand Total (Tonnes)	16,092	3,315	5,114	24,521

Notes: *ICI is Industrial, Commercial, and Institutional delivered material type. Total numbers do not equate due to rounding.

Table 12: Yard waste tonnes comparison: 2020 versus 2021

Material Type	2020 Tonnes	2021 Tonnes
Municipal Delivered	19,368	17,994
Residential Delivered	5,442	5,525
Total Res. Organics	24,810	23,519
*ICI Organics and Pallets	880	1,002
Grand Total (Tonnes)	25,690	24,521

*ICI is Industrial, Commercial, and Institutional delivered material type.

5.2 Screened Compost Sales

The EWSWA undertakes an in-depth process to the organics and yard waste it receives to turn it into saleable, quality compost. The composting process involves grinding up yard waste and placing it in long rows called 'windrows'. The material is turned frequently and the temperature is maintained above 55 degrees Celsius in order to kill any pathogens or weed seeds. Once the compost has matured, it is tested, screened, and then sold for use in landscaping, as well as flower and vegetable gardens.

In 2021, compost was sold as bulk (delivered or pick-up), bag-your-own, and prepackaged items as listed below.

Table 13: Compost sales 2021 summary

Compost Material	Quantity Sold	Tonnes
Delivered	1,056 cubic yards	528
Bulk sales	21,788 cubic yards	10,894
Bag-Your-Own	1,362 bags	75-78
Prepackaged Garden Gold	11,030 bags	199-243
Total Tonnes		11,696-11,743

Notes: Pre-packaged bag weights are based on approximately 18 to 22 kg/bag; Bag-Your-Own is approximately 55-57 kg/bag; Bulk compost is approximately 500 kg/cubic yard. Compost weight is expressed in 'ranges' due to the differing moisture content & density. One cubic yard = one bucket from the small EWSWA loader in Windsor. Weights are approximate.

Under contract to the EWSWA, Frank Dupuis Landscaping and Trucking provided delivery services for the sale of 528 tonnes of bulk compost locally. Also 10,894 tonnes in bulk sales were sold to residents and businesses at EWSWA Depots. Additionally, about 11,030 prepackaged bags of compost were sold at the Depots. Many residents also bagged their own compost at one of the depots. The combined total weight of compost sold in 2021 was approximately between 11,696 to 11,743 tonnes. In 2021, compost sales totaled \$223,693.

5.3 Backyard Composting

Backyard composters (BYC) with the brand name "The Earth Machine" and "The Green Cone" were sold to Essex-Windsor residents in 2021. The Earth Machine was sold through local Home Hardware stores year-round. Both units were sold during an EWSWA week long fall sale. Approximately 40 Earth Machine units were sold through the Home Hardware stores and 24 units were sold during the fall sale and miscellaneous sales for a total of 64 units sold in 2021. There were 14 Green Cones sold in 2021. This brings the cumulative total to 811 Green Cones distributed since 2010, which is when they were first introduced to the area. The combined BYC distributed in 2021 was 78 units bringing the total number of units sold since 1988 to 40,148 units.

Current research has indicated that approximately 100 kg/year/BYC is diverted as a result of the backyard composting program. This translates into 4,015 tonnes of organic waste diverted from the landfill through this

program. This does not consider homemade composters or composting done independent of the EWSWA’s backyard composting program.

Table 14: Residential organic waste reduction comparison: 2019 — 2021

Residential Organic Programs	2019 Tonnes	2020 Tonnes	2021 Tonnes
BYC Program	3,988	4,006	4,015
Mulching Blades	1,343	1,343	1,343
Yard Waste (Residential)	23,707	24,810	23,519
Total Residential Organics	29,038	30,159	28,877

Notes: The mulching blade program was no longer directly offered through EWSWA after 2001. Even though mulching blades and mowers are used by residents in the area, it can’t be measured for the purposes of this report; therefore, no increase in diversion is indicated.

6 Promotion and Education (P&E)

6.1 Community Outreach

EWSWA staff traditionally organize displays and talk to area residents at various special events scheduled such as the Horticultural Show, Earth Day Celebrations, and the Truckload Sale. With Covid-19, public presentations were limited in 2021. EWSWA staff conducted 1 presentation via Zoom to Elder College Seniors. There were a total of 21 participants. The topic of the presentation was “Recycle: Why Should I?” In lieu of opportunities to visit the community, staff were allocated to address visitor direction challenges at the Windsor Public Drop off by implementing a 2019 sign audit of the site. By fall 2021, new wayfinding signage throughout the site were installed at key decision-making points on the site to improve customer visits to this site.

6.2 Special Community Events

Due to Covid-19, there were only three special events serviced with recycling in 2021. As a result, many special event venues had implemented their own sustainable recycling program throughout the season where events were permissible.

6.3 On-going Public Education Activities

The EWSWA maintains a Waste Reduction Hotline (1-800-563-3377), a

website (www.ewswa.org), and an annual newsletter called EnviroTips which is delivered to each household and is available online. In fall 2021, the newsletter "Enviro Tips" was delivered to every household, apartment, farm and business in Windsor/Essex County. Over 171,000 newsletters were delivered. The newsletter featured the 3 basic rules of recycling collection, information about 'bulky items', the Recycle Coach App, the new bicycle recycling program as well as information about where to purchase EWSWA products, and a reminder about the ban on plastic bags.

Early in 2021, the EWSWA initiated a "Recycling Recharge" campaign to help address common issues that were noted with Blue Box collection. Over 85,000 postcards were distributed by Canada Post. Set-out by 6 a.m., keeping blue and red box items separated, and the "Size Right" of cardboard so that it is no larger than 30" x 30" were the three highlights of this campaign. This campaign also reached residents through local radio, social media ads, EWSWA.org and an updated OOPS sticker.

E-newsletters are also part of the program as they are low cost and another way to reach residents. The EWSWA has 3,168 e-newsletter subscribers. Industry standards indicate that a decent open rate is anything between 20-33%. Open rates for e-newsletters are as follows: Gold Box, 54%; Spring Sale 2021, 54%; Fall Sale 2021, 56%.

The EWSWA website (www.ewswa.org) is updated on a regular basis to provide detailed information and public education to residents. Topics covered range from waste management and reduction, to details regarding waste diversion activities. Through the website, residents have access to instructions, tenders, reports, calendars, acceptable recycle box materials, incentives, etc. In 2021, there were approximately 64,353 hits on the website bringing the total hits to 416,260 hits since the launch of this website in 2012; the monthly average hits in 2021 had a duration of approximately 1.45 minutes. The 'What Goes Where' material search database resulted in 55,227 searches and municipal calendar searches were at 63,180 searches in 2021. In 2021, method of access by device was 60.2% mobile; 35.8% desktop computer, and 4.0% tablet.

Recycle Coach is an app which makes recycling and collection schedule information easy to find. The app is continuously developing new programs that combat complacency and gets people re-engaged in recycling. It promotes best practices ideas on better waste management to improve

outcomes such as increasing the amount recycled, proper disposal and diversion of solid waste, etc. In 2020 & 2021, EWSWA made it a priority to promote this app and get local residents onboard with accessing information around solid waste through this app. As a result, increased metrics listed below were noted for Recycle Coach in 2021:

- 43,166 total subscribers
- 2,090,720 resident interactions
- 174,227 average monthly resident interactions

EWSWA also continues to maintain a presence in social media sites such as Facebook, Instagram, and Twitter. EWSWA started with 30 Twitter followers in January 2015 and had 933 followers by December 2021. A total of 220 tweets were sent out from our EWSWA Twitter account in 2021.

Due to a major technical glitch in 2021, the original EWSWA Facebook account was disabled, forcing the EWSWA to establish a new Facebook account. Unfortunately, after thorough review, the consultant advised that the two Facebook accounts could not be merged. The EWSWA Facebook page had the EWSWA is using various strategies to increase their following in 2022. Additionally, the EWSWA added an Instagram account in 2021 and attracted 133 followers through 149 posts.

The EWSWA board meetings have been conducted via Zoom since 2020. In November 2021, the EWSWA began live streaming the board meetings on Facebook (via Zoom). In accordance to the provincial social distancing guidelines, the general public and media were invited to watch the board meetings live on the EWSWA Facebook page.

6.4 Gold Star Program

In 2016, the EWSWA launched a new recycling incentive program aimed at increasing public awareness regarding the red and blue box recycling program. Residents were encouraged to apply for a new “Gold Recycling Box” through a program that evaluated their curbside recycling, provided feedback and rewarded successful recyclers with a gold box. The program’s ultimate objective is to decrease the amount of contamination being put out by residents and thereby decrease the amount of residual waste leaving the MRFs. The program was renewed in 2017 and 2,050 residents registered for the “Gold Star” program and by 2018, 1,217 homes were awarded a gold box. Due to the community engagement in this program, it was also offered

in 2019 and 2020. In 2021, 100 more applicants were accepted into the program and all were awarded gold star boxes. To date, 2,667 homes that have registered to have their recycling inspected and were rewarded for excellent recycling habits with a Gold Box.

7 Municipal Hazardous or Special Wastes (MHSW) Program

7.1 MHSW Depots

The EWSWA opened its Windsor MHSW Depot in October 1995. In addition to the Windsor facility, the EWSWA opened a second MHSW Depot at Transfer Station No. 2 in the Town of Kingsville in 1997. A third depot was opened at the Essex-Windsor Regional Landfill in October 2013. The Depots replaced the annual Household Chemical Waste Days held in Essex-Windsor. A total of 546,504 litres and 123,829 kg of MHSW materials were delivered to the sites in 2021. See Table 15 and 16 for details.

Reuse Centre

A Reuse Centre has been operational at the Windsor MHSW facility since 1995.

Paint is distributed in both 1-gallon and 5-gallon pails for reuse. According to the records, 673 residents accessed the Reuse Centre and took 23,672 products or approximately 33,954 kg of paint and miscellaneous materials in 2021 compared to 10,201 products or 14,663 kg of reusable materials in 2020. Due to Covid-19, this program had been closed since March 2020. It re-opened in July 2021.

Mercury Roundup Program

In June 2019, the EWSWA launched Mercury Roundup: an initiative designed to divert a toxic chemical—liquid mercury—from the waste stream. In partnership with Scout Environmental, and with funding from the Ontario Trillium Foundation, Essex-Windsor has become one of the first environmentally conscious municipalities to launch the Mercury Roundup program that expanded to six other Ontario municipalities by 2021. With this program, residents who dropped off a product containing mercury received a free digital thermometer. Throughout the partnership, the EWSWA was able to collect 342 products and divert a total of 25.65 kilograms of mercury from landfills.

Table 15: Municipal Hazardous or Special Waste for 2021 in litres

Material	MHSW from Facilities	Reuse Centre Quantities	Total
Adhesives/flammable liquids	68,509	7,453	75,962
Aerosols	8,538	606	9,144
Antifreeze (Glycol)	11,857	0	11,857
Corrosive liquid	7,570	207	7,777
Inorganic acids	978	0	978
Paints & Coatings	220,067	22,599	242,666
Pesticides	4,526	219	4,745
Waste oils (used motor oil, hydraulic oil, etc.)	193,375	0	193,375
Total MHSW Litres	515,420	31,084	546,504

Table 16: Municipal Hazardous or Special Waste for 2021 in kilograms

Material	MHSW from Facilities	Reuse Centre Quantities	Total
Car batteries	29,303	0	29,303
Dry cell batteries	15,423	0	15,423
Fire extinguishers	1,984	0	1,984
Fluorescents/misc. lamps/ballasts	21,196	0	21,196
Inorganic oxidizers	3,187	2,870	6,057
Mercury (HG items)/lead	51	0	51
Pharmaceuticals	1,042	0	1,042
Plastic used oil containers	15,788	0	15,788
Propane cylinders	4,040	0	4,040
Propane tanks/misc. tanks	21,943	0	21,943
Rechargeable & mixed batteries	4,389	0	4,389
Corrosive solids (e.g. cement)	1,698	0	1,698
Waste oil filters	915	0	915
Total MHSW Kilograms	120,959	2,870	123,829

Table 17: MHSW Diversion Comparison

	2020 Tonnes	2021 Tonnes
MHSW recycled or reused	667	670
MHSW not recycled	(19)	(17)
Total MHSW Diverted	648	653

7.2 Waste Oil

Waste motor oil is collected curbside alongside the residential recycling program. As well, residents are able to deliver waste oil to EWSWA's MHSW facilities. The quantity of waste oil collected during 2021 was 193,375 litres, which is down by 5.5% compared to the 204,650 litres collected in 2020. The quantity of oil collected by month is shown in Table 18 with historical data over four years.

Table 18: Litres Waste Oil collected

Month	2018 Litres	2019 Litres	2020 Litres	2021 Litres
January	10,225	8,875	13,825	7,950
February	4,950	6,025	5,925	4,300
March	13,100	11,025	11,425	23,625
April	20,800	20,850	19,125	20,700
May	22,750	17,950	6,750	14,625
June	16,400	20,900	21,625	21,950
July	20,150	20,075	23,825	17,000
August	16,350	18,725	20,475	19,250
September	15,325	17,950	26,700	18,775
October	18,425	15,275	20,900	14,850
November	13,425	14,275	18,900	15,925
December	13,050	11,525	15,175	14,425
Total:	184,950	183,450	204,650	193,375

Note: Due to contractor change in 2021, the data for 2021 accounts for all types of oil collected, both hydraulic and motor.

8 Overall Summary of Residential Diversion Quantities

8.1 Residential Waste Diversion

This table below summarizes the residential waste diversion activities detailed in this report.

Table 19: Residential Waste Diversion Summary

Residential Waste Diversion Summary	2020 Tonnes	2021 Tonnes
Net Marketed Recyclables (Table 4)	18,590	20,312
Other Recycling Programs (Table 10)	6,068	6,401
Yard Waste, BYC & Mulching Blades (Table 14)	30,159	28,877
MHSW Waste including Waste Oil (Table 17)	648	653
Total Residential Tonnes Diverted	55,465	56,242

Due to rounding, the Total Residential Tonnes Diverted does not equate to the sum of tables 4, 10, 14, and 17.

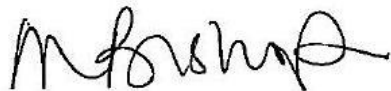
For further information, please contact the undersigned.



Catharine Copot-Nepszy

Manager, Waste Diversion

CCNepszy@ewswa.org



Michelle Bishop

General Manager

MBishop@ewswa.org

Report prepared by:

Carlie Trepanier, Administrative Assistant



Committee Matters: SCM 177/2022

Subject: Minutes of the Windsor Bicycling Committee of its meeting held May 4, 2022

Moved by: Councillor Kaschak
Seconded by: Councillor McKenzie

Decision Number: **ETPS 897**

THAT the minutes of the Windsor Bicycling Committee (WBC) of its meeting held May 4, 2022 **BE RECEIVED**.

Carried.

Report Number: SCM 151/2022
Clerk's File: MB2022

Clerk's Note:

1. Please refer to Item 7.3. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
2. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>



Committee Matters: SCM 151/2022

**Subject: Minutes of the Windsor Bicycling Committee of its meeting held
May 4, 2022**

Windsor Bicycling Committee

Meeting held May 4, 2022

A meeting of the Windsor Bicycling Committee is held this day commencing at 4:30 o'clock p.m. via Zoom video conference, there being present the following members:

Councillor Kieran McKenzie, Chair
Ken Acton
Klaus Dohring
Teena Ireland
Jessica Macasaet-Bondy
Erika Valvasori
Ellen van Wageningen

Guests in attendance:

Lauren Hedges, Parallel 42 Systems regarding **Item 4.1**
Gail Robertson of GailNow regarding **Items 4.1 and 4.2**

Also present are the following resource personnel:

Jeff Hagan, Transportation Planning Senior Engineer
Rania Toufeili, Policy Analyst
Karen Kadour, Committee Coordinator

1. Call to Order

The Chair calls the meeting to order at 4:31 o'clock p.m. and the Committee considers the Agenda being Schedule A attached hereto, matters which are dealt with as follows:

2. Declaration of Conflict

None disclosed.

3. Adoption of the Minutes

Moved E. Valvasori, seconded by K. Acton,
That the minutes of the Windsor Bicycling Committee of its meeting held December 2, 2021 **BE ADOPTED** as presented.
Carried.

4. Business Items

4.1 Cycling Initiatives City Wide – Update

The Chair introduces Lauren Hedges, Project Lead for the C3Tech Initiative to develop the cycling app which is being co-sponsored by the WBC. He adds that this project is well underway and several partners have been added to the group.

Lauren Hedges advises that when this project was initially brought to Parallel 42 Systems, the funding source to develop the cycling app was provided solely by the WBC. Following that, sponsorship was received from Parallel 42, CWATS, the Ontario Tourism Innovation Lab and from Share the Road, County of Essex. The C3Tech Cycling Hackathon was officially kicked off on April 1, 2022 and will run for five weeks. Participants in the Cycling Hackathon will have an opportunity to participate in weekly events to learn more about design and software development. Participants are encouraged to contact her to share their thoughts about what can make for a useful digital application that will improve the cycling experience (at WindsorEssexCycling.ca).

J. Hagan provides an update of the current city wide cycling initiatives as follows:

- The Hawthorne cycle track near Lauzon Parkway is under construction and will provide a convenient route around Lauzon Parkway and Tecumseh Road which is the worst intersection in the city for cyclists' collisions.
- There are a number of road reconstructions with a bikeway element to them – North Talbot and on Cabana Road.
- Another roadway project is the Matchette Multi-Use Trail Phase 2 which will continue to Ojibway Nature Centre.
- The University Avenue bike lanes are still on track for construction in 2022.
- The Kildare protected bike lanes were approved by City Council which will be going forward for construction. This is one of the projects that the city applied for funding through the National Active Transportation Fund. One of the requirements is that they cannot proceed with construction until the funds are awarded.
- Working on a multi-use trail that will connect from Walker and Seminole down to Kildare and Seneca to help close that loop and to connect with the bikeway project on Kildare.
- Environmental assessment for University and Victoria will be going to Council on May 9, 2022 which includes cycle tracks from Huron Church to McDougall.
- Sandwich South Master Servicing Plan which looks at the lands south of the airport.

K. Dohring asks in terms of the pop up bike lanes on University Avenue, he refers to the City of Waterloo that have pop up bike lanes with massive concrete curbs at the bottom and high visibility bollards going up. He indicates that he is a proponent of physical separation and hopes that there will be concrete curbs at the bottom. He advises that he commutes everyday on Kildare Road along with Shepherd and Seminole and adds that

he is looking forward to the protected bike lanes. Lastly, he thanks Council and Administration for viewing the WBC as being representative of a growing group and for viewing cycling with a positive attitude.

J. Macasaet-Bondy refers to the National Active Transportation funding candidates noted in Mr. Hagan's update and asks if those projects will be approved.

J. Hagan responds that a report went to Council earlier in the year with the projects to be submitted for the Grant. He adds that the Federal Government has a pool of funds earmarked for each municipality and notes that he is confident that the funding will be received.

In response to a question asked by the Chair regarding the University Avenue pilot and the timelines, J. Hagan responds that it will be in the fall.

Moved by E. Valvasori, seconded by K. Dohring,
That the update provided by the Transportation Planning Senior Engineer regarding the cycling initiatives city wide **BE RECEIVED.**
Carried.

4.2 Bike to Work Event – May 15-20, 2022

The Chair introduces Gail Robertson of GailNow who will provide information related to the Bike to Work Day in partnership with Bike Windsor-Essex. He invites cyclists to meet on Friday, May 20, 2022, at 8:00 o'clock a.m. to cycle to the west side of Jackson Park (near the splash pad) and to view the maps and leave comments. He notes that these comments will be triaged by the WBC and will be part of a report to Council. By actively soliciting public input into what they would like to see in our community to promote a greater degree of commuter cycling, this will provide an opportunity to gather this information to bring back to Council in the form of a report.

Gail Robertson provides the following comments as a consultant and as an advocate of cycling:

- Present to make suggestions on providing public awareness on what is happening with cycling including the many trails available for cyclists.
- In terms of Bike to Work Week, there is an opportunity for the WBC to use social media (Facebook and Twitter) to highlight what is happening with cycling using a hashtag.
- She asks members who use Twitter to tag her to allow it to be shared.

The Chair remarks that the intention is to create excitement around Bike to Work Week along with a ride on May 20, 2022 to bring cyclists together.

In response to a question asked by J. Macasaet-Bondy regarding advertising through traditional media, the Chair responds the event will be promoted with a Press Release; media will be invited to attend along with Bike Windsor Essex as a partner (who have their own network of folks to bring to the event).

Moved by K. Dohring, seconded by J. Macasaet-Bondy,
That **APPROVAL BE GIVEN** to an expenditure in the upset amount of \$500 for costs associated with the purchase of bottled water for the participants at the Bike to Work Day event to be held on May 20, 2022.
Carried.

4.3 Community Acknowledgement Awards

The Chair advises that the WBC at its meeting held December 2, 2021 approved \$1,100 for the Community Recognition Cycling Program.

Gail Robertson provides the following remarks relating to the Community Acknowledgement Awards:

- Looked at the overall perspective of how to get some momentum going.
- The Bike to Work week is very important as it provides public awareness of the Windsor Bicycling Committee.
- Once there is a momentum, the next step is announce the Community Cycling Champion Awards which will involve a call for nominations.
- There will be a need for some regulations regarding criteria for what the WBC considers a community cycling champion award recipient to be.
- Year one will be building on the brand, getting the word out about and what is happening with cycling
- The announcement regarding the recipients of a Community Cycling Champion Awards will likely occur around Labour Day. Following that, there will be outreach to the award winners.
- Suggestion to provide a certificate to the award winners rather than a plaque (due to the cost) and also to post and acknowledge the recipients on social media.

The Chair states that this is an opportunity to provide recognition to those who are promoting cycling in our community. Once the criteria is determined, i.e. that an organization has bike parking facilities, the WBC would like to acknowledge their positive contributions to promoting cycling in our community. Then, we would invite people to nominate groups/organizations to provide a brief statement regarding what they are doing to promote cycling. The WBC would then decide who is deserving of acknowledgement.

Moved by J. Macasaet-Bondy, seconded by E. van Wageningen,
That the Community Cycling Acknowledgement Awards plan as presented by Gail Robertson, Consultant **BE RECEIVED**.
Carried.

K. Acton advises that annually the Windsor Region Society of Architects sponsors films with the Windsor International Film Festival (WIFF) relating to cycling and infrastructure. He asks that the WBC consider sponsoring a film at WIFF and to provide the Community Cycling Acknowledgment Awards at WIFF.

4.4 Fireworks Bike Corral

The Chair asks for volunteers to assist with the Fireworks event to be held on June 27, 2022. The Chair, E. van Wageningen, K. Acton, and T. Ireland volunteer to assist with the fireworks event.

E. van Wageningen refers to the Bike to Work and the Fireworks events and notes there is an opportunity for the WBC to ask the public to provide information relating to businesses and organizations that are bike friendly. She suggests giving handouts to the public with an e-mail to provide feedback.

K. Acton suggests reaching out to CUPE Local 82 to determine if there is interest in partnering with the WBC to provide fencing and service for the fireworks event.

Moved by J. Macasaet-Bondy, seconded by K. Acton,

That **APPROVAL BE GIVEN** to an expenditure in the upset amount of \$500. for costs associated with fencing the bike corral at Charles Clark Square and for the purchase of promotional materials for the event.

Carried.

K. Dohring voting nay.

4.5 2022 Operating Budget Discussion

K. Acton provides the following remarks relating to a cycling initiative:

- Advises that he met with Lori Newton, Bike Kitchen and adds that he sits on the Windsor Essex Community Housing Board.
- Notes that he is in the process of finalizing sessions that will take place over the summer for the residents of Windsor Essex Community housing to come into the Bike Kitchen to utilize the services and to promote active transportation.
- The Windsor Regional Society of Architects has committed approximately \$500. to purchase a bicycle and is requesting that the WBC consider donating \$500 as well.
- He adds that those who participate in the summer sessions will be eligible to win a bicycle.

K. Dohring indicates that he has donated many bikes over the years to the Bike Kitchen and adds that \$500 is too much for a bicycle. He states that he can donate five bicycles if required. He is in favour of donating funds to the Bike Kitchen but he defers to this organization to choose the bicycle and the value of the bicycles. There are more economical ways to fund decent bicycles for residents of Windsor Essex Community housing.

The Chair will consult with Lori Newton regarding this matter.

In response to a question asked by J. Macasaet-Bondy regarding the cycling app and what are the WBC's responsibilities for continued funding, the Chair responds that the ownership has not been determined and suggests that perhaps the city may assume the ownership or Hackforge.

J. Hagan responds he is unsure which department will have ownership of the app.

Moved by J. Macasaet-Bondy, seconded by K. Acton,
That the 2022 Operating Budget discussion **BE RECEIVED**.
Carried.

Moved by E. van Wageningen, seconded by T. Ireland,
That **APPROVAL BE GIVEN** to an expenditure in the upset amount of \$500 for the partnership of the Windsor Bicycling Committee and the Windsor Regional Society of Architects to sponsor and show a film about cycling by the Windsor International Film Festival.
Carried.

6. Date of Next Meeting

The next meeting will be held at the call of the Chair.

7. Adjournment

There being no further business, the meeting is adjourned at 6:09 o'clock p.m.

CHAIR

COMMITTEE COORDINATOR



Committee Matters: SCM 178/2022

Subject: CQ24-2019 - Designating all BIA's as "Tourist Destinations" - City Wide

Moved by: Councillor McKenzie
Seconded by: Councillor Kaschak

Decision Number: **ETPS 898**

THAT the Trailblazing and Identification Sign Policy **BE ADOPTED** by Council as amended.

Carried.

Report Number: S 66/2022

Clerk's File: MI2022

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 8.1. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>

Subject: CQ24-2019 - Designating all BIA's as "Tourist Destinations" - City Wide

Reference:

Date to Council: June 22, 2022
Author: Ian Day
Manager of Traffic Operations
519-255-6247 x6106
iday@citywindsor.ca

Public Works - Operations
Report Date: May 24, 2022
Clerk's File #: MI2022

To: Mayor and Members of City Council

Recommendation:

THAT the Trailblazing and Identification Sign Policy **BE ADOPTED** by Council as amended.

Executive Summary:

N/A

Background:

At the City Council meeting of September 9, 2019 Councillor Holt asked the following question CQ 24-2019:

Asks that Administration report back to council at the September 23, 2019 meeting with addendums to the By-law that identifies 2 of the 9 BIA's as "Tourist Destinations" that extend this benefit to all BIA's and take advantage of the pending wayfinding signage program equally.

Administration reported back to Council on October 2, 2019 to which Council provided direction as per Decision Number: CR565/2019 ETPS 719:

That the report of the Manager of Traffic Operations dated October 2, 2019 entitled, "CQ24-2019 - Designating all BIA's as "Tourist Destinations" – City Wide" BE REFERRED to the Windsor Business Improvement (BIA) Advisory Committee for comment.

In 1988, City Council approved CR890/88 “The Guide Signing Policy for Major Tourist Attractions”. The Ouellette Avenue Mall was included in this designation. In 2000, City Council approved CR366/2000, which amended CR890/88 to include the Via Italia Business Improvement Area and permit a maximum of 10 trailblazing or identification signs. The amendment also allowed the remaining BIA’s to apply for trailblazing or identification signs according to the following criteria:

- Maximum of four (4) locations jointly agreed between the BIA and the Commissioner of Traffic
- Design (colour and wording) to the satisfaction of BIA’s on 12” x 36” sign blank
- Cost of production and installation (including ongoing maintenance and replacement) recovered from requesting BIA’s

Discussion:

In 1988, the Guide for Signing Major Tourist Attractions was developed to avoid over signing highways by ensuring that only essential signs are erected. However, since major tourist attractions can generate significant volumes of traffic, it was considered desirable that Windsor establish a policy permitting exemptions to be made in the case of individual establishments which are major tourism generators and by reason of their location, are difficult for out of town drivers to find. The objective of the policy was to establish guidelines and conditions for the erection and guide signing to major operators of a tourism nature. Applicants requesting the provision of special guide signing were required to meet certain criteria in order to have their request considered. No BIA at that time met the criterion except for the Ouellette Avenue Mall.

At this time, there are a total of nine (9) BIAs of which two (2) are designated as tourist attractions. The remaining BIAs do not fall under this status. A tourist attraction, according to the Trail Blazing Policy, may have up to 10 way finding signs installed throughout the City at various locations. Non-tourist attraction BIAs are allowed a maximum of 4 way finding signs. Under the existing policy and designations, there would be 48 signs throughout the City directing travellers to the different BIA locations.

The remaining BIAs have expressed an interest in becoming approved as tourist attractions, similar to the Downtown BIA and Via Italia. If this request was to be permitted, an additional 42 signs would be allowed, resulting in a potential total of 90 wayfinding signs.

Based upon further discussion with Windsor Business Improvement (BIA) Advisory Committee, extending the benefits of the current tourist attraction designation to all BIA’s through amendments to the Trail Blazing and Identification Policy would not significantly contribute to the number of signs currently in the City of Windsor, nor would there be any safety related concerns.

Costs related to wayfinding signs (including installation) shall be the responsibility of the applicant therefore there are no operating cost impacts to the City. This applies to all applicants, including the BIAs.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

Under the current policy, the cost of trailblazing signage is borne by the requesting applicant.

Consultations:

Roberto Peticca – Supervisor Signs & Markings

Cindy Becker – Financial Planning Administrator – Public Works

Michelle Staadegaard – Manager, Culture & Events

Conclusion:

Administration is of the view that the addition of all BIA's as tourist attractions would not have a safety impact upon the number of signs in the City of Windsor and has amended the policy as attached.

Planning Act Matters:

N/A

Approvals:

Name	Title
Shawna Boakes	Executive Director of Operations
Chris Nepszy	Commissioner, Infrastructure Services
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

- 1 Appendix A - Trailblazing and Identification Sign Policy

**THE CORPORATION OF THE CITY OF WINDSOR
TRAILBLAZING AND IDENTIFICATION SIGN POLICY**

Service Area:	Office of the City Engineer	Policy No.:	
Department:	Public Works -Operations	Approval Date:	
Division:	Traffic Engineering & Parking	Approved By:	
		Effective Date:	
Subject:	Trailblazing and Identification Sign Policy Amendments	Procedure Ref.:	
Review Date:		Pages:	Replaces:
Prepared By:	Ian Day, Acting Senior Manager Traffic Operations and Parking		Date:

1. POLICY

1.1. To develop a standard for directional signing for tourist attractions and Business Improvement Areas (BIA) in The City of Windsor.

2. PURPOSE

2.1. To establish guidelines and conditions for the erection of guide signing to major generators of a tourism nature, where in the opinion of Windsor, such action would be a significant benefit to the travelling public and to Windsor's roads system.

3. SCOPE

3.1. Applicants requesting the provision of special guide signing must meet the following conditions:

- a) The establishment must be primarily a tourist attraction, or similar operation of a tourism nature. Retail-oriented developments such as shopping centres or hotels and motels will not be eligible.
- b) The establishment shall not be centrally located within an established urban area or recreational or tourist centre. However, specific attractions could be signed within the specific area.
- c) Any tourism establishment, which of necessity must maintain on its own property an exclusive parking area containing not less than 500 individual parking spaces, would automatically qualify.

3.2. Each applicant will be considered on its own merit. The City's primary concern will be to ensure that the provision of such signing is necessary and desirable and would be of benefit to a significant number of the travelling public and to the Windsor road system.

In the case where a tourist facility is located in Essex County but could generate heavy traffic through Windsor, such a facility should be considered for guide signing from the Bridge and Tunnel exits to tie in with existing signs on county roads.

3.3 BIA's may apply for trailblazing or identification signs according to the following criteria:

- a) Maximum of ten (10) sign locations – jointly agreed between the BIA and the Manager of Traffic Operations.
- b) Design (color and wording) to satisfaction of BIA's on 300mm x 900mm sign blank.
- c) Cost of production and installation (including ongoing maintenance and replacement) recovered from requesting BIA's.

4. RESPONSIBILITY

4.1. Traffic Operations – Traffic Operations shall be responsible, along with Recreation and Culture to review and approve all applications. All signs authorized under this policy shall be erected and maintained by the City of Windsor Traffic Operations. Signs will be manufactured in the City of Windsor's sign shop. The cost of manufacture and erection of the signs shall be borne by the applicant. Cost of product and installation of signs is estimated at \$190.00 per sign. Final costs will be provided upon completion of the work.

4.2. Recreation and Culture – Recreation and Culture shall be responsible, along with Traffic Operations to review and approve all new applications.

4.3. Applicants - Application of signs shall be in writing and shall state the conditions and circumstances given rise to application and the route(s) being requested. If required by The City of Windsor, the applicant shall provide additional data respecting attendance and parking usage and turnover to enable Windsor to assess the possible need for signing. In conjunction with the application for special guide signing, the applicant shall be required to make a written undertaking to be financially responsible for the future replacement of all signs.

4.4. City Council – City Council approves the Trailblazing and Identification Sign Policy and any amendments.

5. GOVERNING RULES AND REGULATIONS

5.1. Signing of Routes

On approval of an application, Traffic Operations will review the location and access routes and will determine the nature and extent of the signing required on the basis of using the nearest suitable Windsor streets. Where considered advisable, such routes will by-pass heavily travelled streets or congested areas in order to make the best of the Windsor road system and to provide motorists with the best service possible. Final approval for the location of signs shall be at the discretion of the Road Authority.

Only one route will be signed from any given direction and where there is a choice between routes such as at an intersection, only one direction will be signed.

No more than three establishments will be signed on any one route or in any one location.

5.2. Types of Signing

Guide signs shall be manufactured and erected in accordance with the following:

- a) The signs shall consist solely of the name and/or symbol of the establishment, plus a separate directional arrow. No advertising of any kind whatsoever will be permitted.
- b) The appearance of the sign shall be generally consistent with standards used by road authorities. No more than two colours may be used. Signs shall be fabricated from standard gauge aluminum sign stock and shall preferably be reflectorized.
- c) Unless field conditions dictate otherwise, signs shall not exceed 45cm x 45cm in size. Arrow indications shall be 30cm x 45cm.
- d) Where there are already a number of other guide signs along the route in question or where more than one establishment requires special guide signing, Windsor may require that all or part of such signing be combined on a single sign. In such a case, the size and design of such sign shall be determined by Windsor and will normally consist of a white legend on a green reflectorized background.

5.3 Street Name Signs

Districts, Areas, or Neighbourhoods may apply for street names which may include a special colour scheme or identifying logo on a standard street name sign blank, with a minimum 10 cm reflective lettering. Schedule B lists approved areas.

- 5.4 Future removal of signs – It shall be clearly understood by the applicant that if it shall subsequently be determined that the conditions originally warranting the erection of special guide signs no longer exist, or the number of establishments warranting special signing on any particular route exceeds three, that permission may be withdrawn and the signs removed.

Signs that have reached the end of life or have been damaged and require removal shall be done so at the discretion of Traffic Operations. The applicant shall be responsible for the cost of manufacturing and installation of a new sign, should they wish to replace the sign.

6. RECORDS, FORMS AND ATTACHMENTS

6.1. Approval Process: Recreation and Culture, and Traffic Operations – Applications for Trailblazing and Identification Signs shall be submitted to Traffic Operations for approval. The applicant shall provide all necessary documentation which includes the sufficient technical specifications listed on the applicants form or policy. All applications shall be reviewed by the Senior Manager Traffic and Parking Operations and the General Manager of the Convention & Visitors Bureau.

6.2. Schedule “A”

Attractions Inside the City of Windsor

1. Jackson Park
2. Riverfront Parks (Windsor Sculpture Gardens, Dieppe Park, Peace Fountain)
3. City Centre
4. Art Gallery of Windsor
5. Casino Windsor
6. Downtown Windsor Business Improvement Area
7. Ford City Business Improvement Area
8. Walkerville Business Improvement Area
9. Olde Riverside Business Improvement Area
10. Olde Sandwich Business Improvement Area
11. Ottawa Street Business Improvement Area
12. Pillette Village Business Improvement Area
13. Erie Street Business Improvement Area
14. Wyandotte Town Centre Business Improvement Area

Attractions Outside the City of Windsor

1. Point Pelee National Park
2. Jack Miners Bird Sanctuary

6.2.1. Schedule “B”

Areas For Street Name Signs

1. Casino District
2. Southwood Lakes

3. City Centre
4. University of Windsor



Committee Matters: SCM 179/2022

Subject: Fleet Documentation - City Wide

Moved by: Councillor McKenzie
Seconded by: Councillor Kaschak

Decision Number: **ETPS 899**

THAT City Council **APPROVE** the Fleet Division Mandate and the Fleet Use Policy as attached in Appendix A and Appendix B; and,

THAT City Council **APPROVE** the Fleet Review Committee Charter as the corporate policy for the ongoing replacement of the Corporate, Parks and Fire First Response fleets as attached in Appendix C.

Carried.

Report Number: S 67/2022
Clerk's File: SW2022

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 8.2. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>

Subject: Fleet Documentation - City Wide

Reference:

Date to Council: 6/22/2022
Author: Angela Marazita, Fleet Manager
519-255-6560 x4244
amarazita@citywindsor.ca

Public Works - Operations
Report Date: 5/27/2022
Clerk's File #: SW2022

To: Mayor and Members of City Council

Recommendation:

THAT City Council **APPROVE** the Fleet Division Mandate and the Fleet Use Policy as attached in Appendix A and Appendix B; and,

THAT City Council **APPROVE** the Fleet Review Committee Charter as the corporate policy for the ongoing replacement of the Corporate, Parks and Fire First Response fleets as attached in Appendix C.

Executive Summary:

N/A

Background:

The Fleet Division Mandate, Fleet Review Committee Charter and the Fleet Use Policy were developed and approved by City Council as per CR258/2011. A revision to the Fleet Use Policy was approved as per M246/2013.

Furthermore, CR564/2020 approved "that Administration **BE DIRECTED** to come back with a draft policy for Council's consideration on how to replace vehicles while at the same time supporting the Climate Change Plan."

Discussion:

The Fleet Mandate, Fleet Use Policy and Fleet Review Committee Charter were developed in 2011 in response to a fleet audit performed by the City Auditor's Office and are the existing documents that govern the management and use of the corporate fleet. The Fleet Review Committee Charter addresses how the corporation replaces vehicles and is reviewed with Asset Management, specifically with the Supervisor of

Environmental Sustainability and Climate Change. These documents communicate the expectations of the Fleet Division and are being updated as part of the normal review of operating procedures.

Fleet Mandate

This document outlines the expectations of the Fleet Division. It was originally developed in consultation with the Fleet Review Committee and Chief Administrative Officer. The Mandate has been revised to reflect changes since it was approved by City Council on October 17, 2011, CR258/2011.

Changes to the Fleet Mandate include the addition of responsibilities for Parks Equipment and Fire First Response fleet replacement planning and reserve fund management as well as elimination of corporate clothing from the Fleet stockroom.

Fleet Use Policy

The Fleet Use policy was developed in consultation with Risk Management, Human Resources, the Collision Review Committee and the Fleet Review Committee. It establishes a level of internal control by communicating the acceptable use of fleet assets managed by the Operations Department Fleet Division and used by Divisions with a direct reporting relationship to the Chief Administrative Officer.

Revisions to the Fleet Use Policy include the following:

- Exclusion of items that are addressed by another corporate policy or procedure
- Wording to address the newly implemented red light camera signals and the implications for drivers of corporate vehicles
- Update to accident reporting procedure
- Inclusion of defensive driving standards

Fleet Review Committee Charter

The Fleet Review Committee is a corporate committee with representation from various departments. Its mandate is to review and make recommendations to City Council through the Chief Administrative Officer on all fleet equipment acquisitions including replacements and additions as well as the appropriate means for financing. Furthermore, the Committee ensures the ongoing financial sustainability of the Corporate Fleet Replacement Reserve ensuring that appropriate reserve funds are available for future acquisitions. To achieve this, Fleet Operations maintains fleet replacement plans based on life cycles appropriate for each class of vehicles and equipment. Equipment is evaluated and condition is assessed annually prior to the development of the capital budget. Equipment may be extended if feasible or may be replaced earlier if deemed necessary. The replacement plans are approved annually during the budget process and Fleet Operations expedites all purchases in compliance with the Purchasing By-Law 93-2012.

The Fleet Review Committee Charter outlines the mandate of the committee, roles of the members and processes that guide the management and replacement of the Corporate, Parks and Fire First Response fleet. The Fleet Review Committee reviewed the current Charter and recommended including the following revisions:

- Additional responsibilities for Parks Equipment and Fire First Response fleets' replacement planning and reserve fund management
- Factors considered when replacing vehicles
- Update to the Green Fleet Plan to support the City of Windsor Corporate Climate Action Plan and Sustainable Procurement initiatives

The Charter acts as the current policy to be utilized to replace vehicles. The draft update to the Fleet Review Committee Charter provides the draft policy for Council's consideration on "how to replace vehicles while at the same time supporting the Climate Change Plan."

Further to supporting the Climate Change Plan, the City's original Green Fleet Plan was developed and approved by City Council in 2012 as per M501-2012 to provide information about best practices in the area of green fleets as well as direct actions at an operational level. The guiding principle in the plan was to improve fuel efficiency, which would reduce greenhouse gas emissions and fuel costs.

In 2019 and 2021, organizational reviews completed by PricewaterhouseCoopers (CR637/2019, CR314/2021) recommended the creation of a position to fill a gap identified with respect to technology and training related to the fleet. A Fleet Technology and Training Administrator would be key in participating in corporate climate change initiatives such as greening the fleet and training of staff where applicable. The position would research current industry trends related to technology and sustainability initiatives. It would also be involved with updating and monitoring the Green Fleet Plan and the preparation of an electric vehicle transition strategy to provide a roadmap to guide the Fleet Division with future fleet replacements. The position was brought forward to the 2022 budget process but was not recommended. Administration recommends this position be brought forward for consideration as a priority during the 2023 budget. The current Green Fleet Plan is out of date and the Fleet Division does not have staff that are able to complete this task. Without this position, Administration will look to an external consultant to assist with this update.

Risk Analysis:

A risk associated with greening the fleet includes the incremental cost for green alternatives beyond the available budget.

Also, the availability of domestic vehicles to meet operational requirements of the city fleet limits the vehicles considered for purchase.

Climate Change Risks

Climate Change Mitigation:

Emissions from the corporate fleet are included in the corporate greenhouse gas emissions inventory. As vehicles are replaced, consideration is given to fuel-efficient vehicles when operationally feasible and a more efficient alternative are available within budget limitations.

Installation of charging infrastructure continues in preparation of fleet electrification.

Climate Change Adaptation:

N/A

Financial Matters:

A risk associated with replacing vehicles to support climate change initiatives is the affordability of green alternatives. The incremental cost to purchase the vehicles may be beyond the available budget. Additionally, funding is required for the necessary charging infrastructure required to support electrification.

Funds of \$50,000 per year are available starting in 2022 in the Greening the Fleet capital project.

The City was successful in receiving \$100,000 funding from the Natural Resources Canada Zero Emission Vehicle Infrastructure Program (ZEVIP) for eligible project costs to install a minimum of twenty (20) charging stations on city owned property and dedicated for charging corporate fleet vehicles.

Consultations:

Fleet Review Committee

Collison Review Committee

Financial Planning

Supervisor, Environmental Sustainability and Climate Change

Conclusion:

The Fleet Mandate and Fleet Review Committee Charter define, document and communicate the expectations of the Fleet Division. The Fleet Use Policy further provides guidelines related to the use of the corporate fleet managed by the Operations Department. Administration recommends approval of these documents to govern the management and use of the corporate fleet.

Planning Act Matters:

N/A

Approvals:

Name	Title
Cindy Becker	Financial Planning Administrator – Public Works Operations
Shawna Boakes	Executive Director of Operations
Chris Nepszy	Commissioner, Infrastructure Services
Alex Vucinic	Purchasing Manager
Dan Seguin	On behalf of Commissioner, Corporate Services CFO/City Treasurer
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

- 1 Appendix A - Fleet Division Mandate (Draft)
- 2 Appendix B - Fleet Use Policy (Draft)
- 3 Appendix C - Fleet Review Charter

Operations Department Fleet Division

MANDATE - DRAFT

- To provide quality fleet management services to our customers in the acquisition, maintenance, repair, disposal and management of the corporate fleet and in the provision of services for outside agencies in a timely, effective and fiscally responsible manner including consideration for alternate service delivery.
- Assist the Fleet Review Committee to meet its mandate as per the Fleet Review Committee Charter as follows:

“ . . . responsible for reviewing and making recommendations to City Council through the Chief Administrative Officer on all fleet equipment acquisitions, including replacements and additions as well as the appropriate means for financing for the Corporate, Parks Equipment and Fire First Response fleets.”

“ . . . responsible for ensuring the ongoing financial sustainability of the Fleet Replacement Reserve, the Parks Equipment Reserve and the Fire First Response Reserve ensuring the appropriate reserve funds are available for future acquisitions.”

- To operate on a full cost recovery position.
- To provide fuel management services to our customers in the supply and availability of fuel and operation of fuel sites managed by the Fleet Division.
- To provide inventory control service for automotive parts and operational materials.
- To consider emerging technology and trends in the fleet industry while attempting to reduce environmental impacts.
- To develop, recommend and administer corporate fleet policies and guidelines to be adhered to by the Fleet Division customers.

Revised: October 17, 2011 – CR258/2011
October 4, 2021

**THE CORPORATION OF THE CITY OF WINDSOR
POLICY**

Service Area:	Public Works	Policy No.:	Fleet – General – M246-2013
Department:	Operations	Approval Date:	
Division:	Fleet Division	Approved By:	City Council
		Effective Date:	
Subject:	Fleet Use Policy - DRAFT	Procedure Ref.:	
		Pages:	Replaces: Fleet-General-M246-2013
Prepared By:			Date: June 17, 2013

1. POLICY

1.1 To provide effective and efficient delivery of the City of Windsor fleet services through the delivery of safe, reliable, economical and environmentally sound transportation and related support services that are responsive to the needs of stakeholder divisions, while conserving vehicle value and equipment investment.

2. PURPOSE

2.1 Communicate responsibilities of all employees in the use and safe-guarding of City vehicles and equipment including:

- How vehicles are assigned
- Who can drive a City Vehicle
- Responsibilities and obligations of employees driving City Vehicles.

3. SCOPE

3.1 This Policy covers the use of all City of Windsor supplied vehicles managed by the Operations Department – Fleet Division and used by Divisions with a direct reporting relationship to the Chief Administrative Officer.

4. RESPONSIBILITY

4.1 Chief Administrative Officer and Corporate Leadership Team are responsible to:

- 4.1.1** Support this policy and ensure compliance and adherence by the City Departments.
- 4.1.2** Assign City Vehicles to positions based on specific criteria described in this policy.
- 4.1.3** Review mileage and related financial information provided by Finance annually and determine continued eligibility for vehicles assigned to a position.
- 4.1.4** Approve locations where City Vehicles may be parked.

4.2 The Executive Director of Operations (in the role of Chair of the Fleet Review Committee) or designate is responsible to:

- 4.2.1** Ensure the communication, distribution and availability of this Policy to all City employees.

- 4.2.2 Review the policy content, effectiveness, and scope periodically and initiate required revisions as legislation changes with a review every 5 years.
- 4.2.3 Represent the City of Windsor as the Director for the Commercial Vehicle Operator Registration #062-452-600 with the Ministry of Transportation.

4.3 The Fleet Manager is responsible to:

- 4.3.1 Coordinate and integrate fleet policy and procedures that impact on and support the goals of the Fleet Use Policy.
- 4.3.2 Control the assignment of City Vehicles and equipment to authorized departments/divisions; (See 'City Vehicle Assignment' attachment to this policy).
- 4.3.3 Control the recovery of vehicle and equipment charges to user Departments.
- 4.3.4 Monitor the usage and the rotation of vehicles to maximize vehicle life.
- 4.3.5 Complete monthly Commercial Vehicle Operator Registration (CVOR) Abstract searches to monitor the City of Windsor's CVOR.
- 4.3.6 Ensure compliance with the CVOR legislative requirements.
- 4.3.7 Provide current vehicle listings to Risk Management for the purposes of insuring the corporate fleet.

4.4 The Fleet Division is responsible for:

- 4.4.1 The acquisition, maintenance, repair, disposal and management of corporate vehicles in a timely, effective and fiscally responsible manner including consideration for alternative service delivery.
- 4.4.2 Placing appropriate documents in the glove compartment (e.g. ownership, insurance slip, CVOR certificate, etc.)
- 4.4.3 Ensuring a supply of fuel is available for use at corporate fuel sites with contingency fuelling locations to ensure business continuity.
- 4.4.4 Prepare information packages to be placed in each vehicle.

4.5 The Executive Directors and their Subordinates are responsible to:

- 4.5.1 Provide and communicate applicable policy, procedure and protocol pertaining to the use of City Vehicles and equipment to the employees whom they supervise.
- 4.5.2 Ensure that employees receive appropriate training in the safe use of vehicles and equipment where required and ensure compliance with retraining requirements.
- 4.5.3 Regularly monitor use of City Vehicles to ensure proper and safe usage.
- 4.5.4 Issue discipline for misuse of a City Vehicle or for violations of the rules, regulations or conditions of its use.
- 4.5.5 Advise all staff of the appropriate contacts in the event of an accident.
- 4.5.6 Complete and submit to Human Resources, Health and Safety and Risk Management all accident/incident reports within 48 hours and comply with all requirements set out in the Accident/Incident Procedure.
- 4.5.7 Contact the Fleet Division for service in the event of a vehicle/equipment failure.
- 4.5.8 Budget for pool and seasonal vehicle usage as well as actual cost vehicle billings and damage repairs to external rental vehicles.

- 4.5.9** Ensure that preventable accidents are addressed with the responsible employee, and that the employee receives retraining where appropriate.
- 4.5.10** Return both sets of keys and fuel fob with vehicle when vehicle replacements are picked up.

4.6 City of Windsor Employees must:

- 4.6.1** Abide by all required legislation in relation to the Highway Traffic Act, Commercial Vehicle Operator's Registration (CVOR) regulations, the Income Tax Act and related City of Windsor by-laws, policies and procedures as they relate to the use of City Vehicles.
- 4.6.2** Employees driving City Vehicles must possess and maintain an appropriate driver's license for the class of vehicle being operated.
- 4.6.3** Comply with training and retraining requirements as determined by Corporate Health & Safety.
- 4.6.4** Comply with the Personal Use of City Vehicle - Taxable Benefit Procedure.

4.7 The Human Resources department is responsible to:

- 4.7.1** Adhere to the Driver's Licence and Abstract procedure to obtain a copy of valid driver's licenses and driver's abstracts, including a CVOR abstract when applicable, of prospective drivers upon hire or transfer to a job that requires a driver's licence for the purpose of completing a Driver's Abstract Report.
- 4.7.2** Complete quarterly Driver's Abstract searches on all active City drivers to ensure the validity of driver licenses (Corporate Health and Safety division).
- 4.7.3** Provide commercial and non-commercial defensive driving courses to facilitate compliance with Section 25(2)(h) of the Occupational Health & Safety Act (Corporate Health and Safety Division).
- 4.7.4** Provide other training courses relating to the use of City Vehicles to facilitate compliance with legislative requirements.
- 4.7.5** Update the Corporate Driver Management Program to ensure training programs meet legislative and operational requirements.

4.8 The Risk Management department is responsible to:

- 4.8.1** Ensure that all vehicles and equipment used in the undertaking of City business activity are appropriately insured.
- 4.8.2** Investigate and assess all vehicle accidents/incidents as necessary.
- 4.8.3** Facilitate communication with insurance companies in case of injury and/or property damage and obtain appropriate recoveries.
- 4.8.4** Respond to staff inquires as they pertain to insurance coverage of City owned/leased vehicles and equipment.
- 4.8.5** Obtain liability slips from the City's insurance company for all City owned/leased vehicles and equipment and provide to the Fleet Division.
- 4.8.6** Distribute certificates of insurance as required to third parties for rental of vehicles and equipment.

4.9 The Finance department is responsible to:

- 4.9.1** Calculate taxable benefits and mileage reimbursements based on information received from user departments and the individual employee.
- 4.9.2** Annually review the mileage reimbursement of employees and reporting the amount annually to the Chief Administrative Officer.

4.10 The Collision Review Committee is responsible to:

- 4.10.1** Adhere to the Collision Review Committee Terms of Reference.
- 4.10.2** Use Defensive Driving guidelines to review vehicle collisions to determine cause, preventability and make recommendations for avoidance of future incidents.

5. GOVERNING RULES, STATUTES AND REGULATIONS

5.1 This policy is in accordance with the *Highway Traffic Act, Occupational Health and Safety Act, Insurance Act, Income Tax Act, Provincial Offences Act, Fuel Tax Act* and any other applicable legislative requirements including Regulations under the applicable Acts, City of Windsor By-laws, policies and procedures.

- 5.1.1** Employees will be personally responsible for any and all traffic/parking violations or other fines incurred while using a City Vehicle. This requirement applies regardless of whether the charge or fine is imposed upon the City or the Employee. In circumstances where the City is charged or fined as a result of an Employee using a City Vehicle, the City will comply with all legislative requirements pertaining thereto, but will seek reimbursement for its costs from the Employee.

5.2 Accident/Incident Reporting Policy;

5.3 Driver's License and Driver's Abstract Procedure.

5.4 Assignment of a City Vehicle to a Department

- 5.4.1** Assignment of City Vehicles is subject to review by the corporate Fleet Review Committee and the budgetary process. In the event a department exceeds 5 preventable accidents per year, it will need to bring forward to the Fleet Review Committee a proposal to address accident prevention, and this will be considered prior to City Vehicle assignment.
- 5.4.2** As part of the annual review of fleet requirements, departments shall rationalize their assigned vehicles for possible consolidation or elimination.
- 5.4.3** Any changes or upgrades being requested for existing vehicles being considered for replacement MUST be submitted to the Fleet Review Committee for consideration and approval.
- 5.4.4** The Fleet Division maintains a pool of marked City Vehicles to supplement departments' fleet needs and meet short-term requirements on a seasonal basis. If a vehicle is not available in the pool, the Fleet Division will rent

seasonal units from a third party. The user department will be billed for the full cost of damages that must be repaired prior to returning external rentals.

5.5 City Vehicle Use

- 5.5.1** City Vehicles are for municipal business during working hours.
- 5.5.2** Only City employees who have completed required training are authorized to operate City Vehicles unless approval is received from Risk Management and Fleet.
- 5.5.3** City Vehicles are not permitted outside the limits of the City of Windsor without prior authorization from the employee's immediate supervisor or council approved service level or initiative as applicable.
- 5.5.4** City Vehicles are not to be used for personal matters.
- 5.5.5** Under normal circumstances, the City Vehicle shall not be used for the transportation of any persons other than City of Windsor employees or persons engaged in City of Windsor business without prior authorization from the employee's Executive Director or designate. Only in exceptional or emergency situations will passage in a City Vehicle by non-employees be permitted.
- 5.5.6** City Vehicles should contain only those items for which the vehicle is designed.
- 5.5.7** Employees are to keep the interior of City Vehicles clean and ensure projectile items are secured.
- 5.5.8** Employees shall report any malfunction or damage to their supervisor immediately.
- 5.5.9** All Employees must wear seatbelts during the operation of the City Vehicle, whether a driver or a passenger.
- 5.5.10** Employees must not, under any circumstance, operate City Vehicles under the influence of alcohol, illegal or recreational drugs, or prescription drugs or medications which may interfere with effective and safe operation.
- 5.5.11** Employees using a City Vehicle must ensure that any materials or equipment being transported in a City Vehicle is secure at all times. Employees can request covers, ties or other restraining devices from their supervisor as required.
- 5.5.12** Employees using a City Vehicle are responsible to remove ice and snow build-up that may fly from the top of a City Vehicle prior to its use to ensure the safety of other motorists and the general public.
- 5.5.13** Employees are to ensure they take every precaution to avoid a collision when driving a City Vehicle.
- 5.5.14** Employees must ensure the City vehicle is left in a safe position and secured to avoid damages or theft.
- 5.5.15** Employees driving City Vehicles shall obey all applicable traffic and parking regulations, ordinances and laws.
- 5.5.16** Employees shall not idle City Vehicles in contravention of the City of Windsor Anti-idling by-law.
- 5.5.17** Employees will be personally responsible for any and all traffic/parking violations or other fines incurred while using a City Vehicle. This requirement applies regardless of whether the charge or fine is imposed upon the City or the Employee. In circumstances where the City is charged or fined as a result of an Employee using a City Vehicle, the City will

comply with all legislative requirements pertaining thereto, but will seek reimbursement for its costs from the Employee.

- 5.5.18** In addition to the foregoing, if a suspension of an employee's driver's license occurs while driving a City Vehicle, and if the City Vehicle is impounded or towed, any costs incurred to obtain the release of the City Vehicle and any associated legal costs are the responsibility of the employee.
- 5.5.19** Employees who are issued citations for any offence while using a City Vehicle must notify their supervisor immediately if practical, otherwise within 24 hours at the maximum.
- 5.5.20** Smoking is not allowed in City Vehicles pursuant to the Smoking in the Workplace By-law.
- 5.5.21** No modifications are permitted to a City Vehicle without the approval of the Fleet Review Committee.
- 5.5.22** Keys are not to be left in City Vehicles when unattended and not in a secure municipal yard.
- 5.5.23** City Vehicles may be equipped by the Fleet Division with Global Positioning System/Automatic Vehicle Locating devices as approved by operating departments.

5.6 Accidents

- 5.6.1** The Ontario Highway Traffic Act (HTA) sets out criteria for motor vehicle collision reporting in Ontario. Accidents must be reported to the nearest police officer if the accident results in personal injuries or in damage to property apparently exceeding \$2,000.
- 5.6.2** If directed by an officer to report the accident at a specified location, employees must attend the specified location (e.g. Collision Reporting Centre) and report the accident there.
- 5.6.3** In the event of an accident involving a City Vehicle, all employees are responsible to adhere to the City's Accident/Incident Reporting Procedure.
- 5.6.4** Departments are responsible to have vehicle assessed by the Fleet Division to ensure vehicle is safe for continued use.

5.7 Commercial Motor Vehicles

- 5.7.1** All commercial motor vehicles are equipped with a first aid kit and fire extinguisher. Employees shall ensure supplies are replenished from the Fleet Division stockroom as they are used.
- 5.7.2** All drivers of commercial motor vehicles must comply with the Commercial Vehicle Pre-Trip Inspection Procedure.
- 5.7.3** All drivers of commercial motor vehicles must comply with the Hours of Service Procedure.

5.8 Vehicles for Out of Town Use

- 5.8.1** Marked City Vehicles may be used for business purposes out of town.
- 5.8.2** In addition to City Vehicles, a contract exists to utilize a third party for vehicle rental purposes on an as-needed basis.
- 5.8.3** Use of City Vehicles for out of town business travel is strongly encouraged as the first choice to avoid third party costs including mileage

reimbursement to staff, while cars are available and unused. Use of alternative means of transportation must be justified within the travel and expense advance approval form, giving regard to the most economical means of transportation.

5.9 Parking of City Vehicles

5.9.1 When finished with the City Vehicle, it must be returned to the appropriate and safe location as approved by the Commissioner of the department. Vehicles must be locked and keys are not to be left in the vehicle.

5.10 Take Home Privileges

5.10.1 Vehicles are not to be taken home without the permission of the immediate supervisor. Permission shall only be granted for urgent circumstances.

5.10.2 After working hours, City Vehicles shall be used only to respond to situations within the scope of the employee's duties and for no other purpose.

5.10.3 City Vehicles are not to be used for personal matters. The personal driving of a City of Windsor vehicle for purposes not related to his or her employment is a taxable benefit for the employee. This includes personal use during an employee's vacation, driving to conduct personal activities and travel between home and work (even if the employee is directed to drive the vehicle home). Travel from home to a point of call (such as responding to a call after hours) is not considered personal driving. The taxable benefit shall be calculated as outlined by the Canadian Revenue Agency (CRA) subject to amendment by CRA from time to time.

5.11 Car Allowance

5.11.1 For employees entitled to a car allowance (whether paid monthly, quarterly, annually, or on any other basis) this is a taxable benefit as per the Income Tax Act and included as remuneration.

5.12 Fuelling of City Vehicles and Equipment (Unleaded, Premium, Diesel, Coloured Diesel)

5.12.1 Employees who use a City Vehicle are responsible for ensuring that the vehicle has an adequate supply of fuel.

5.12.2 Employees are to fuel City Vehicles at one of the City's fuel sites operated by the Fleet Division except in extraordinary and/or emergency situations. In the event of an emergency, employees may contact their supervisor for

direction. Fuel may be purchased from one of the local service stations approved by the Fleet Division.

5.12.3 Employees are to follow the fuelling procedures posted at the fuel site.

5.12.4 Employees who use a City Vehicle must complete a one-time fuel training session administered by Corporate Health & Safety and a fuel refresher training session every 5 years.

5.12.5 Employees who have not completed the appropriate fuel training session will not have access to dispense fuel at a city fuel site.

5.12.6 Employees must provide the correct vehicle mileage or number of equipment hours at the time of fuelling. Entering incorrect or inaccurate meter readings may result in discipline up to and including dismissal.

5.12.7 Employee and vehicle HID cards are required for fuelling a City Vehicle at a city fuel site operated by the Fleet Division.

5.12.8 Employees must notify their supervisor immediately if an HID employee/vehicle card is lost or stolen. New or replacement cards are subject to a fee.

5.12.9 Propane equipment must be refuelled externally.

5.12.10 Employees fuelling at an authorized external site must provide unit number, employee name (printed and signed), employee id and mileage on the fuel slip.

5.12.11 Coloured fuel is available for off road equipment only. The use of coloured fuel in a licensed motor vehicle is prohibited and the driver may be liable to penalties and fines under the Provincial Offences Act or the Fuel Tax Act.

5.13 Electric Vehicles

5.13.1 Corporate charging stations will be provided and assigned to charge City Vehicles.

5.13.2 Corporate charging stations are for City Vehicles only.

6. RECORDS, FORMS AND ATTACHMENTS

- 6.1** Schedule A - City Vehicle Assignment Methods
- 6.2** Schedule B - Definitions
- 6.3** Schedule C - Break Even Point for Assignment of a City Vehicle
- 6.4** Schedule D – Defensive Driving Standards
- 6.5** Schedule E – Regulations for and Authorization for Replacement Vehicle ID Card

City Vehicles are assigned in one of three ways:

- 1) Dedicated
- 2) Assignment of a Pool Vehicle (Infrequent Use)

1) Dedicated Vehicle

Dedicated vehicles are assigned to a department on an annual basis. They are assigned on a day-to-day basis by the immediate supervisor based upon job description and will be consistent with departmental workload and employee function.

2) Assignment of a Pool Vehicle

Pool vehicles are vehicles assigned for use on a request basis as needed. The Fleet Division maintains a pool of vehicles to supplement dedicated vehicles on a seasonal basis, for casual use when vehicles are in for service or on an as-needed basis.

A pool vehicle is also assigned to City Hall and is available through the City Engineer's office at City Hall.

Seasonal

- User departments provide their seasonal requirements in advance and in writing to the Fleet Division.
- Fleet Division will assign vehicles from the pool and charge a monthly rental rate to the user department.
- If there is not a seasonal unit available, the Fleet Division will make arrangements for an external rental. The monthly rental cost will be charged to the user department.

Casual Use

- User requests a pool vehicle prior to or when required from the Fleet Division or the City Engineer's office.
- For the Fleet Division's pool vehicles, the user provides the Fleet Division with a chart field for billing of vehicle usage based on hours of use. The user will be charged the hourly rental rate associated with that class of vehicle until it is returned by the user.
- If available, loaner vehicles are provided free of charge to users who require replacements for vehicles brought in for service.

“Accident” –an incident whereby a City owned vehicle/equipment has come into contact with another vehicle/equipment, person or object regardless of damage or injury, or an incident with or without contact that results in injury to a person, property, vehicle or equipment.

“Actual Cost Billing” – a billing method whereby the user department is charged by the Fleet Division for the actual costs incurred to maintain non-dedicated equipment.

“City Vehicle” – any licensed or unlicensed automobiles, trucks, vans, or other self-propelled equipment owned, rented, or leased by the City of Windsor.

“Car Allowance” – payment that employees receive from an employer for using their own vehicle in connection with or in the course of their office or employment without having to account for its use. An allowance is a taxable benefit unless it is based on a reasonable per-kilometre rate.

“Commercial Motor Vehicle” – a commercial motor vehicle includes:

- Trucks that have a registered gross weight of over 4,500 kilograms
- Buses that can carry ten or more passengers
- Trailers that have a registered gross weight greater than 2,800 kilograms, when pulled by a truck that is less than 4,500 kilograms and the overall weight is greater than 4,500 kilograms.

A commercial motor vehicle does not include fire apparatus.

“Commercial Vehicle Operator Registration” – registration system for operators of commercial motor vehicles (trucks, trailers and buses) as per the Highway Traffic Act.

“Corporate Driver Management Program” – program maintained by Human Resources Health and Safety Division that outlines all driver related policies and training programs.

“Dedicated Vehicle” – a vehicle assigned to a department or division on an annual basis. Dedicated vehicles are included on the corporate fleet replacement plan.

“Distracted Driving” – Drivers in Ontario are prohibited from using hand-held cell phones and other hand-held electronic entertainment or communications devices while driving. The use of hands-free devices is permitted. Emergency calls, such as calls to 911, are not affected.

“Licensed motor vehicle” – any motor vehicle to which a number plate is attached as required under the Highway Traffic Act.

“Pool Vehicle” – a general purpose City Vehicle supplied by the City of Windsor which can be used on a request basis as needed. Pool vehicles are not included on the corporate fleet replacement plan.

“Preventable Collision” – a collision that could have been prevented, regardless of whether the employee is at fault in accordance with fault determination rules, and as determined by the immediate supervisor following an accident/incident or by the Collision Review Committee.

“Valid Driver’s License” – (a) appropriate to the vehicles being driven; or (b) specified by the department.

Schedule 'C'
Break Even Point for Assignment of a City Vehicle

Individual mileage claims will be reported on to the Chief Administration Officer on an annual basis by the Finance Department.

Once an individual's annual reimbursement exceeds the annual charge out rate for a rental vehicle (based on the Class of vehicle used), an assessment of whether or not a dedicated vehicle should be provided to the employee will take place.

Consideration will also be given to other individuals in the department to see if vehicles can be rationalized and shared amongst employees/positions.

The analysis will involve comparing annual mileage paid at the current Corporate Travel Policy rate (based on CRA guidelines) against the annual vehicle rental rate charged by the Fleet Division for the Class of vehicle being used on a 'cost per km' basis.

If the cost of providing a dedicated unit is lower than payment of individual mileage over the course of a year, the individual's Manager, will bring forward a Fleet Addition request through the Fleet Manager to the Fleet Review Committee for inclusion in the annual Fleet Additions and Upgrades capital budget. Furthermore, the individual's Manager will submit an operating budget request for the addition of a dedicated fleet unit.

Schedule 'D' Defensive Driving Standards

Drive to avoid collisions in spite of the incorrect actions of others and adverse driving conditions.

Make allowances for the lack of skill or improper driving practices of the other driver.

Adjust driving to compensate for unusual weather, road and traffic conditions and is not involved in a collision due to the unsafe actions of pedestrians and other drivers.

Be alert to collision inducing situations to recognize the need for preventable action in advance and take the necessary precaution to prevent a collision.

Know when it is necessary to slow down, stop or yield the right of way to avoid a collision.

Conduct circle checks thoroughly and notify supervisors if any anomalies occur while operating a motor vehicle.

Use a guide to help back out of a difficult area and survey your exit plan before entering the vehicle.

Avoid parking spaces near driveways or other areas that are susceptible to collisions.

Leave room to account for stopping distances between their vehicle and the one in front. Leave more space if visibility or speed of the vehicle is an issue.

Be mindful of vehicles tailgating you and change lanes to let them pass.

Always give advanced warning of your driving intentions.

Remove distractions and always be mindful of surroundings and traffic.

Obey all traffic signs.

Enter traffic in a way that will avoid obstructing the flow of traffic.

Always be attentive and prepared to stop in the event a pedestrian/cyclist crosses your path.

Drive in a safe manner that would never endanger the safety of a passenger.

Use appropriate load securement procedures to secure cargo.

Do not utilize hand-held devices while driving as per the Corporate Cell Phone/Wireless Device Safe Use Policy.

Be aware of the safe use of your vehicle and/or related equipment.

**The Corporation of the City of Windsor
Regulations for and Authorization for Replacement Vehicle ID Card**
(Please read carefully and complete all applicable areas.)

1. VEHICLE INFORMATION
Unit #:

2. EMPLOYEE INFORMATION			
Last Name:		First Name:	Middle Name:
Emp. #	Position Title:	Service Area/Division:	Date of Notification of New/Lost Card:

3. REGULATIONS	
1.	This vehicle ID card is the property of the City of Windsor and must be available for fuelling at a fuel site operated by the Fleet Division.
2.	If this card is lost or stolen, I will notify my supervisor immediately.
3.	I understand that there is replacement cost for Vehicle ID Cards.
4.	I understand that this vehicle ID card is for Corporate and fuel use only.
5.	This vehicle ID card must be kept on the vehicle key chain or secured by the department if multiple employees are utilizing the same vehicle.

4. ACKNOWLEDGEMENT OF REGULATIONS AND AUTHORIZATION	
Consistent with the Fleet Use Policy and Procedures and the Vehicle ID Card Regulations form (both available on Dashboard), and as authorized by City Council, replacement cards are subject to a \$10.00 fee. The fee is to be paid by the department. This form authorizes the Fleet Division to charge for the replacement card(s).	
Number of Replacement Cards requested:	_____ x \$10.00
Total Charge:	\$ _____
Chartfield:	_____
Department Signature:	Date:
Fleet Representatives Signature:	Date:

The following section is for use by Fleet Division only.		
Distribution	Initials of Processor	Date
Fleet Card File		
Journal ID		



Fleet Review Committee

Charter

**DRAFT
2022**

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Approved by City Council:

October 17, 2011 – CR258/2011

Revision Approved By Fleet Review Committee:

April 4, 2022

City of Windsor Fleet Review Committee Charter

1. FLEET REVIEW COMMITTEE

1.1 Mandate

The Committee shall be responsible for reviewing and making recommendations to City Council through the Chief Administrative Officer or to the Chief Administrative Officer through a Delegation of Authority on all fleet equipment acquisitions, including replacements, additions and upgrades as well as the appropriate means for financing.

The Committee shall be responsible for ensuring the ongoing financial sustainability of the Corporate Fleet Replacement Reserve, Parks Off Road Fleet Replacement Reserve and Fire Major Equipment Reserve, ensuring that appropriate reserve funds are available for future acquisitions.

1.2 Membership

The permanent Chairperson is the Executive Director of Operations.

The Committee shall consist of members or a designate as follows:

Executive Director of Parks
Chief Financial Officer & City Treasurer
Fire Chief
Executive Director as appointed by the Chairperson

In addition, the following departments will be resource members to the Committee:

Recording Secretary, Fleet Manager
Fleet Division
Finance
Purchasing
Clerical Support as required

1.3 Role of Chairperson

The **Chairperson** shall:

- Call meetings:
 - i) based on requests from users;
 - ii) for budget review purposes;
 - iii) on information supplied by the Fleet Manager; or
 - iv) as the Chairperson may deem necessary

- Conduct meetings in an orderly fashion.
- Coordinate and participate in the equipment review process and formulation of recommendations.
- Ensure agendas and minutes are compiled and distributed.
- Action Committee direction.

1.4 Role of Committee Members

The **Committee members** shall:

- Review with users the need for replacement/additional equipment.
- Present impartial views on requests.
- Participate in formulating recommendations as to use of reserve funds.
- Establish guidelines regarding seasonal/supplemental vehicles.
- Recommend approval for fleet replacements/additions with due consideration to reserve fund balances and annual projections.
- Provide expertise in own subject area.
- Establish and review standard equipment features.
- Approve all markings on City vehicles.
- Establishes methods related to calculation of depreciation charges.
- Ensure sufficient funding available within reserve funds and continued financial sustainability of funds.
- Ensure adequacy of repayment to the reserve fund relative to equipment purchased.
- Research and make recommendations emerging technology and trends (e.g. greening the fleet) in the industry.

1.5 Role of Fleet Manager

- Prepare and distribute agendas, minutes and other correspondence related to the Committee's activities.
- Provide background information on equipment, such as performance, cost or other statistical data.

- Provide recommendations based on sound, historical cost or technical information.
- Recommend fleet replacements/additions to the Committee for consideration.
- Provide projections for future fleet reserve fund requirements including projections of revenues/expenditures with consideration of inflationary factors.
- Report on fleet status, accidents, purchases, progress, repairs or other fleet information that may be pertinent or requested either by Council or the users.
- Monitor the Fleet Replacement Reserve Fund, Parks Off road Fleet Replacement Reserve and the Fire Major Equipment Reserve.
- Monitor fleet capital projects including equipment purchased with grant funds.
- Review and recommend changes to fleet life cycles.
- Report annually to the Committee on financial matters related to the operation of the City fleet (i.e. shop door rate).

1.6 Procedures

The Committee shall undertake its duties as follows:

- Decisions shall be arrived at by consensus of the members, based on facts presented, sound background information and policy as may be established by the Committee, Chief Administrative Officer, City Council or other authority. If consensus is not reached by Committee members, the Chairperson will break any ties.
- Decisions by the Chairperson may be appealed to the corporate leadership team.
- When an agenda item is not recommended by the Committee an explanation of the non-recommendation shall be provided to the requesting user.

1.7 User Requests

User requests shall comply with the following process:

- The Fleet Manager will advise users regarding the replacement of depreciated equipment as deemed appropriate given the condition and life cycle of the equipment, and users may request replacement through the Fleet Manager accordingly.
- Capital fleet replacement budget funds approved by City Council annually are to replace existing units with a like unit. If an upgrade or a different unit is

requested, departments must follow the process for additional equipment requests.

- Users may request through the Fleet Manager the replacement of depreciated fleet equipment when one of the following factors occurs before the end of the life cycle:
 - i) Equipment becomes obsolete and cannot perform its intended function in an efficient manner.
 - ii) Equipment no longer meets the safety criteria, provincial standards, etc., and is not economical to modify it to meet the necessary criteria.
 - iii) Equipment is too large or too small and is not economically efficient.
 - iv) The normal function of the equipment has undergone technological change that requires a new type of equipment.
 - v) An employee's documented medical condition requires modified equipment to carry out a job requiring a vehicle.
 - vi) The cost of maintenance of the equipment has become cost prohibitive.
- These requests will be reviewed on an individual business case by the Committee.
- Users may request through the Fleet Manager additional equipment in the following manner:
 - i. Information shall be provided for inclusion on the agenda using the attached form "*Fleet Addition or Upgrade Request Form*".
 - ii. Background data is to be forwarded giving such information as productivity, payback and work programs planned.
 - iii. Users requesting replacement or additional equipment shall appear before the Committee to present, explain and answer questions concerning requests.
 - iv. All unfavorable recommendations by the Committee may be appealed by users in writing to the Chief Administrative Officer with copies to the Chairperson, which shall include all background data as necessary to support the appeal.
- The Fleet Division will retain a limited number of vehicles that have been replaced or otherwise deemed surplus to supplement the fleet on a seasonal basis (referred to as seasonal units), for casual use when vehicles are in for service (referred to as pool units) or on an as-needed basis. Seasonal units may supplement user fleet requirements as necessary. Seasonal equipment is intended for a short term timeframe and typically used for increased staffing levels to a maximum of 6 months. If insufficient vehicles are available to

supplement the dedicated fleet as needed, the Fleet Division will attempt to rent vehicles from a third party.

2. FLEET POLICIES

2.1 Replacement Planning

A target life cycle is established for all vehicles based on industry standards. Each year the Fleet Manager assesses the vehicles nearing the end of their life cycle to determine whether they can be extended and identifies vehicles for potential replacement. The analysis includes a number of factors including:

- age
- utilization (mileage, hours, single/double shifting)
- repair history
- expected maintenance and repairs
- departmental operational requirements including consideration for mobile offices
- availability of parts
- condition ratings
- idle time
- technological requirements
- ergonomics
- safety
- replenishment of the pool
- green alternatives

2.2 Specifications

Specifications for all fleet equipment shall be prepared by the Fleet Manager or designate in consultation with users and the Purchasing By-law. The Committee may determine specification features on an individual or fleet basis as appropriate. Notwithstanding the foregoing, specifications for certain fleet equipment may be prepared by other agencies or cooperation agreements upon the approval of the Committee.

2.3 Purchase of Off-Lot Vehicles

Users may submit requests to the Committee for fleet equipment to be purchased directly from current inventories of local dealers consistent with the Purchasing By-law. Upon approval of the Committee, the Fleet Manager or designate shall obtain specifications and prices of available equipment from various dealers and purchase in accordance with the Purchasing By-law.

2.4 Purchase of Used Equipment

The Committee may recommend the purchase of used fleet/equipment as may be deemed appropriate in accordance with the sole source purchase section of the Purchasing By-law.

2.5 Equipment Disposal

In accordance with the Purchasing Bylaw, the Committee shall have the responsibility for disposal of equipment under its mandate. The Fleet Manager or designate is authorized to dispose of obsolete equipment and report any disposal to the Fleet Review Committee and the Manager of Purchasing and Risk Management on an annual basis. Sale proceeds will be returned to the appropriate reserve fund.

2.6 Equipment Retention

The Committee may recommend that units replaced or otherwise deemed surplus to the fleet be retained to supplement the fleet during peak usage periods. The Fleet Manager shall hold units so designated in storage, insured and unlicensed until required by a user. The Fleet Manager or designate is authorized to dispose of a unit if sufficient hours are not recovered or if it is not effective to continue maintaining the unit.

Vehicles planned for disposal may be purchased by departments for the current market value. Purchases are funded from the department's operating budget and the department is responsible for all actual costs incurred for their use.

2.7 Valuation

The Committee shall review all fleet equipment requests for items having an individual or combined minimum value of \$10,000.

Equipment purchases of multiple units with a value exceeding \$10,000 may be reviewed by the Fleet Review Committee.

Equipment that has a value greater than \$10,000 but is not expected to be replaced or purchased only to be utilized for a specific contract are exempt.

2.8 Funding

Fleet replacements for the corporate fleet are funded from the Fleet Replacement Reserve Fund.

Fleet replacements for the Fire fleet are funded from the Fire Major Equipment Reserve Fund.

Fleet replacements for Parks equipment are funded from the Parks Equipment Replacement Reserve.

Fleet additions that are related to growth are funded through the capital budget from the Development Charges Reserve fund or by Pay As you GO (PAYG) funds up to the approved budgeted amount as approved by the Corporate Leadership Team and City Council.

2.9 Fleet Use

Use of the City fleet shall be in accordance with the Council approved Fleet Use Policy.

2.10 Greening the Fleet

Implementation of the initiatives to green the fleet shall be in accordance with the Council approved Green Fleet Plan. The Green Fleet Plan shall be updated as necessary to support the City of Windsor Corporate Climate Action Plan and Sustainable Procurement initiatives.



Committee Matters: SCM 180/2022

Subject: City of Windsor Traffic Pre-Emption and Priority Project - Pre-Approval – City Wide

Moved by: Councillor McKenzie
Seconded by: Councillor Kaschak

Decision Number: **ETPS 900**

THAT City Council **APPROVE** the purchase of Transit Signal Priority (TSP), Emergency Vehicle Pre-emption (EVP), and subscriptions associated therewith, in the total amount of \$1,043,000 USD (exclusive of applicable taxes), to Kimley-Horn, in accordance with Purchasing By-Law 93-2012 and amendments thereto, with the funding to come from the sources identified in the financial section of this report; and,

THAT City Council **APPROVE** a pre-commitment of \$600,000 CDN in 2025 capital funding for immediate use, as identified in the Fire & Rescue Emergency Vehicle Pre-emption project FRS-004-22; and,

That City Council **APPROVE** a transfer of \$100,239 in additional funding from Project 7191009, Grant Matching and Inflationary Pressures, for the Fire & Rescue Emergency Vehicle Pre-Emption project; and further,

THAT the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign any agreement or applications necessary to implement Emergency Vehicle Pre-emption (EVP), Transit Signal Priority (TSP), and a Traction Gold subscription, satisfactory in legal form to the City Solicitor, in financial content to the Chief Financial Officer and City Treasurer, and in technical content to the City Engineer.
Carried.

Report Number: S 71/2022
Clerk's File: SW/13188

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 8.3. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>

Subject: City of Windsor Traffic Pre-emption and Priority Project - Pre-Approval – City Wide

Reference:

Date to Council: 6/22/2022

Author: Ian Day, Senior Manager of Traffic Operations and Parking Services (A)

519-255-6247 ext 6053

iday@citywindsor.ca

Public Works - Operations

Report Date: 6/3/2022

Clerk's File #: SW/13188

To: Mayor and Members of City Council

Recommendation:

THAT City Council **APPROVE** the purchase of Transit Signal Priority (TSP), Emergency Vehicle Pre-emption (EVP), and subscriptions associated therewith, in the total amount of \$1,043,000 USD (exclusive of applicable taxes), to Kimley-Horn , in accordance with Purchasing By-Law 93-2012 and amendments thereto, with the funding to come from the sources identified in the financial section of this report; and,

THAT City Council **APPROVE** a pre-commitment of \$600,000 CDN in 2025 capital funding for immediate use, as identified in the Fire & Rescue Emergency Vehicle Pre-emption project FRS-004-22; and,

That City Council **APPROVE** a transfer of \$100,239 in additional funding from Project 7191009, Grant Matching and Inflationary Pressures, for the Fire & Rescue Emergency Vehicle Pre-Emption project; and,

THAT the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign any agreement or applications necessary to implement Emergency Vehicle Pre-emption (EVP), Transit Signal Priority (TSP), and a Traction Gold subscription, satisfactory in legal form to the City Solicitor, in financial content to the Chief Financial Officer and City Treasurer, and in technical content to the City Engineer.

Executive Summary:

N/A

Background:

Advanced Traffic Management System (ATMS):

At the meeting of July 22, 2002, City Council approved (CR636/2002) for the upgrading of the ATMS commencing with Stage 1 – Communications Server.

At the meeting of June 6, 2005 City Council approved (CR359/2005) the commencement of Stage 2 – User Workstation Interface. At the meeting of February 22, 2010, City Council approved (CR71/2010) the implementation of the 2070 Traffic Controller Platform and Communication System Upgrade. This pilot project was successfully completed and implementation is ongoing. All Council Resolutions noted above confirmed Kimley-Horn as the Sole Source to complete these works.

Subsequent upgrades to the original Kimley-Horn system have been completed as follows;

In February 2015, KITS Upgrade Phase 2 was undertaken in a staged approach. Stage 1 was completed in late 2015, stage 2 was completed in 2017, stage 3 was completed in January 2018 and stage 4 was completed in mid 2018.

In 2018, KITS ATMS Enhancements Phase 3 was undertaken. This phase included the installation of adaptive signal control at 40 intersections on main arterial corridors. As of the end of 2019, 35 of the 40 signals are operating under the adaptive control module, and the remaining 5 signals will be online by the end of 2022. Completion of phase 3 has been delayed awaiting receipt of the new detection equipment.

In 2020, KITS ATMS Enhancements 2020 was undertaken. This phase included the development of a phase malfunction report and enhanced malfunction features, and a pedestrian call log module. These enhancements were completed in the summer of 2020.

In 2021, the development of a Signal Work History Module was initiated along with a one-year subscription for Traction Software and Support (level Silver). The work history module will be complete by the end of 2022.

In 2015, Windsor Fire & Rescue Services (WFRS) identified a need to replace its existing Opticom pre-emption system. The estimated funding required at that time was \$2,500,000, and a request was brought forward in the 2016 capital budget process for funding approval. Budget approval was not successful for each of the years 2016 through 2019. In 2020, conversations between WFRS and Transit Windsor took place, and it was determined that consolidating the efforts for a priority traffic system between the two departments is a viable and more preferred option. With the lead of Public Works (from a traffic system point of view), Transit Windsor and WFRS have been considering and researching a joint project in traffic pre-emption technology that would service all departments and have the opportunity for further expansion of services if so desired.

In 2021, Transit Windsor reviewed the Kimley-Horn product and determined that it would meet the needs of Transit Signal Priority (TSP) initiatives as outlined in the Transit Master Plan. WFRS also expressed interest in Kimley-Horn, and funding was established through the 2021 Capital Budget process for WFRS with the creation of a Fire and Rescue Emergency Vehicle Pre-emption Project.

Discussion:

In 2022, both WFRS and Transit Windsor identified joint pre-emption and priority projects as priorities to maintain the current levels of service provided. A review was initiated to determine how such systems would be integrated into the existing ATMS software and system operated by Traffic Operations. The results of that review determined that new modules in the existing system would be possible to provide both pre-emption and priority utilizing the existing Global Positioning Software (GPS) solutions already implemented by both WFRS and Transit Windsor services.

The traffic pre-emption system currently used by WFRS is over 40 years old. The system uses old technology that employs a strobe light that triggers a detector on the traffic light to respond for an oncoming emergency vehicle. In order for the current system to remain reliable, regular maintenance is required. This involves using a bucket truck at each intersection and assigning staff at regular intervals to clean the receivers. The technology used by Kimley-Horn, Emergency Vehicle Pre-emption (EVP) allows for the control of all traffic signals throughout the city by connecting the KITS Advance Traffic Management System and utilizing the existing GPS technology that can identify vehicle locations and vehicle speed. Traffic pre-emption technology can reduce response times and reduce the risk of collision at intersections by giving priority to responding Fire apparatus. Priority is accomplished by either holding or advancing the signal light to green in the direction the fire vehicle is traveling.

Transit Windsor currently does not have a signal priority system in place, and the adoption of the Kimley-Horn system will fill a technology gap that currently exists. TSP measures are a key element in the improvement of transit service quality and reliability. Signal priority for transit assists buses in maintaining schedule adherence by adjusting the timing of traffic signals based on pre-determined parameters. This system allows buses to arrive on-time, despite schedule adherence challenges posed by heavy traffic, high passenger loads, and delays at bus stops. The Transit Master Plan, *More than Transit*, approved by Council in 2020, identifies transit signal priority as an important component of the development and modernization of transit technology, as part of the suite of Intelligent Transit Systems (ITS), which also includes electronic fare collection, automatic vehicle location and communications (CAD/AVL), automatic passenger counters (APC), etc. The renewal of the traffic priority system in concert with Windsor Fire and Rescue Service provides a unique opportunity to share costs and achieve operational synergies, while providing unique services to both agencies.

The KITS Emergency Vehicle Pre-emption (EVP) module will work in conjunction with the KITS Transit Signal Priority (TSP). Further, this system, once operational, could be expanded to include other agencies, all of which could leverage this investment. Additionally, the city may also include snowplow, bicycle and pedestrian priorities.

Traffic Operations currently utilizes the Traction Silver subscription level, which includes the field access for the 2021 signal work history upgrades. Administration recommends increasing to the Traction Gold subscription level that will provide Traffic Operations with access to crowd source data including travel times on dedicated corridors. The gold subscription will provide data for both the Traffic Operations and Transportation Planning departments for upcoming projects, which has not been available with the Traction Silver subscription.

The Purchasing Manager has already reviewed and approved that this qualifies for a sole source to Kimley-Horn in accordance with the Purchasing By-law 93-2012.

Project Description

Signal pre-emption and signal priority are similar concepts when it comes to traffic timing; however, they are very different when it comes to how the traffic signal system and controllers react to the different calls the system receives.

Signal pre-emption is used for emergency situations such as fire response and/or train calls. This allows the signal controller to truncate the existing phase and allow for a pre-determined phase to be signalized so that responders are not required to stop at a red light. The sequencing will not change the length of amber or red but it will eliminate as much of the opposing green phase as possible, to safely clear traffic and pedestrians, before changing.

Signal priority is used to allow additional time to be given to a green phase if there is a call from an approaching transit bus. This will allow a green phase to stay green for a set number of seconds in order to allow an upcoming bus to pass through. The intent is to enable the transit system to remain on time and on schedule for the customers.

Both programs will utilize the GPS systems available in both WFRS vehicles and transit vehicles and will integrate into the KITS ATMS system that operates the City's traffic signal network. The programs will integrate seamlessly with the existing adaptive signal timing system that is running on three major corridors and expanding every year.

The project will be broken into seven development tasks;

Task 1 – Project and Program Management

Task 2 – System Design

Task 3 – Pilot and Validation Memo

Task 4 – Software Implementation and Configuration

Task 5 – Advanced Reporting

Task 6 – Integration and Verification

Task 7 – Documentation and Training

The entire project is expected to take ten (10) months from the initial project kick off.

Risk Analysis:

There is a moderate risk for both WFRS and Transit Windsor should this project not be implemented. WFRS response times may be further extended as the existing system continues to fail. In a fire or medical call, seconds may count in the outcome of the emergency. For Transit Windsor, continued delays to route schedules potentially harm and decrease customer satisfaction, consequently leading to a reduction in ridership and revenues.

The implementation of this project will result in the requirement for \$50,880 in additional estimated annual operating budget increases related to the ongoing annual subscription and support services commencing in 2025.

Climate Change Risks

Climate Change Mitigation:

Improving customer satisfaction, through the use of signal priority to keep buses on schedule will support a shift to public transportation. For every passenger km that switches from car to bus, the emissions drop by at least a factor of three.

Improving access to data through the Traction Gold subscription will also support Transportation Planning in the design of corridors. Environmental Sustainability and Climate Change team often requires transportation data to inform the climate mitigation assessments required for federal grant applications. Improved data will allow for better understanding of the current transportation emissions and may allow for a better understanding of greenhouse gas emissions reduction potential for proposed projects.

Climate Change Adaptation:

Enhancing the signal pre-emption for Fire and Rescue is intended to maintain or improve response times, which can also improve response times for impacts of climate change (e.g. severe storms).

Financial Matters:

Kimley-Horn is the identified sole provider of this type of Traction Smart Priority technology. They provided a quote of \$1,043,000 USD or approximately \$1,324,610 CDN, excluding applicable taxes, at an estimated exchange rate of \$1.27. The total estimated cost of this project including non-refundable HST costs is \$1,347,923.

The quote provided includes the cost of the Emergency Vehicle Pre-emption (EVP) module, the Transit Signal Priority (TSP) module, the Traction Gold subscription for years 1 – 3, annual support for both modules for years 1 – 3, and licence fees for both modules. Costs and funding will be split between the Public Works, Fire and Rescue, and Transit Windsor departments per the below summary of costs and funding.

Summary of Costs in Canadian Dollars (CND) <i>Note: Exchange rate of 1.27 applied for Canadian equivalent calculation</i>	Kimley Horn Total Cost (Years 1 - 3) ** USD **	Kimley Horn Total Cost (Years 1 - 3) ** CND **	Windsor Fire Cost ** CND **	Transit Windsor Cost ** CND **	Traffic Operations Cost ** CND **
-------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------	-------------------------------------------------------------------	------------------------------------------------	---------------------------------------------------	------------------------------------------------------

CND Including non-refundable HST

Emergency Vehicle Preemption (EVP) Module	442,500	561,975	561,975		
Transit Signal Priority (TSP) Module	332,500	422,275		422,275	
Additional Services	100,000	127,000	42,333	42,333	42,333
Traction Gold Annual Subscription (years 1-3, \$36,000 / year USD)	108,000	137,160	45,720	45,720	45,720
EVP - Annual Support (years 1 - 3, \$10,000 / year USD)	30,000	38,100	38,100	-	-
TSP - Annual Support (years 1 - 3, \$10,000 / year USD)	30,000	38,100	-	38,100	-
Non-refundable HST (HST self assessment)		23,313	12,111	9,652	1,550
	1,043,000	1,347,923	700,239	558,081	89,603

Summary of Funding Sources in Canadian Dollars (CND)

Note: Exchange rate of 1.27 applied for Canadian equivalent calculation

Total Funding Required ** USD **	Total Funding Required ** CND **	Capital Funding Available ** CND **	Capital Funding Required ** CND **
-----------------------------------------------------	-----------------------------------------------------	--------------------------------------------------------	-------------------------------------------------------

CND Including non-refundable HST

Advanced Traffic Management System (ATMS) Project ID 7003326	69,333	89,603	89,603	-
Transit Master Plan Project ID 7201016	431,833	558,081	558,081	-
Fire and Rescue Emergency Vehicle Preemption Project FRS-004-22 - 2025	472,441	600,000		600,000
Inflationary Pressures and Grant Matching Project ID 7191009	69,392	100,239		100,239
	1,043,000	1,347,923	647,684	700,239

There are unencumbered approved funds available in the ATMS Upgrade Project 7003326, Transit Windsor Master Plan Project ID 7201016, and the Inflationary Pressures and Grant Matching Project 7191009 to fund this project as outlined in the above table. Administration is requesting approval to precommit \$600,000 in 2025 funding currently approved in principle in the Fire and Rescue Emergency Vehicle Preemption Project FRS-004-22 to fund the EVP portion of this project and to approve a transfer of \$100,239 in additional funding from Project 7191009, Grant Matching and Inflationary Pressures, for the Fire & Rescue Emergency Vehicle Pre-emption project.

All funding and costs associated with this project will be tracked centrally in a new capital project to be set up in Traffic Operations titled Traffic Pre-emption and Priority Project.

Beginning in year 4, 2025-2026, there will be estimated ongoing annual support costs of \$10,000 USD for each module, and ongoing annual Traction Gold subscription costs of \$36,000 USD that will require operating budget funding as outlined in the below summary.

Summary of Ongoing Annual Costs in Canadian Dollars (CND)						
<i>Note: Exchange rate of 1.27 applied for Canadian equivalent calculation</i>						
Department	Traction Gold Annual Subscription	EVP Annual Support	TSP Annual Support	Total Annual Ongoing Costs	Existing Budgets	Annual Budget Required
	** CND **	** CND **	** CND **	** CND **	** CND **	** CND **
Public Works	15,240			15,240	15,240	
Fire & Rescue	15,240	12,700		27,940	5,000	22,940
Transit Windsor	15,240		12,700	27,940		27,940
	45,720	12,700	12,700	71,120	20,240	50,880

The additional operating budget requirements to address the above annual costs for the required ongoing subscription and support services will be brought forward as part of the 2025 budget process.

Consultations:

Cindy Becker – Financial Planning Administrator, Public Works

Monika Schneider - Financial Planning Administrator, Fire & Rescue

Kathy Buis – Financial Planning Administrator, Transit Windsor

Mike Dennis – Financial Manager, Asset Planning

Jonathan Wilker – Deputy Fire Chief – Support Services

Conclusion:

Administration recommends the purchase of the Kimley-Horn TSP and EVP modules as well as the upgraded Traction Gold level subscription. Purchase and implementation of these modules will allow for integration of traffic pre-emption and priority for both WFRS and Transit Windsor services into the existing computerized traffic signal system. This integration will result in the maintenance of the current levels of service for WFRS and an improvement of service reliability for Transit Windsor.

Planning Act Matters:

N/A

Approvals:

Name	Title
Cindy Becker	Financial Planning Administrator – Public Works
Stephen Laforet	Fire Chief
Tyson Cragg	Executive Director of Transit
Shawna Boakes	Executive Director of Operations
Chris Nepszy	Commissioner of Infrastructure Services
Wira Vendrasco	Commissioner of Legal & Legislative Services (A)
Joe Mancina	Commissioner, Corporate Services/CFO Corporate Services
Shelby Askin Hager	Chief Administrative Officer (A)

Notifications:

Name	Address	Email

Appendices:



Committee Matters: SCM 181/2022

Subject: Tuition-Based ("SaintsPass") Bus Pass Program - Partnership with St. Clair College Student Representative Council - City Wide

Moved by: Councillor Kaschak
Seconded by: Councillor Francis

Decision Number: **ETPS 901**

THAT the Environment, Transportation and Public Safety Standing Committee, sitting as the Transit Windsor Board of Directors and City Council:

- i. **AUTHORIZE** Transit Administration to develop a tuition-based bus pass program, called the "SaintsPass" for St. Clair College students; and,
- ii. **AUTHORIZE** Transit Administration to enter into a three-year Agreement (September 1, 2022 to August 31, 2025) with the St. Clair College Student Representative Council (SRC); and,
- iii. **AUTHORIZE** the Chief Administrative Officer and City Clerk of the City of Windsor to sign the resulting Agreement, satisfactory in form to the City Solicitor, in financial content to the City Treasurer, and in technical content to the Commissioner, Infrastructure Services, and the Executive Director of Transit Windsor.

Carried.

Report Number: S 52/2022
Clerk's File: MT/14417

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 9.1. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>

Subject: Tuition-Based ("SaintsPass") Bus Pass Program - Partnership with St. Clair College Student Representative Council - City Wide

Reference:

Date to Council: June 22, 2022
Author: Tyson Cragg, Executive Director
Transit Windsor
519-944-4141 ext 2232
tcragg@citywindsor.ca

Transit Windsor
Report Date: April 21, 2022
Clerk's File #: MT/14417

To: Mayor and Members of City Council

Recommendation:

That the Environment, Transportation and Public Safety Standing Committee, sitting as the Transit Windsor Board of Directors and City Council:

- i. **AUTHORIZE** Transit Administration to develop a tuition-based bus pass program, called the "SaintsPass" for St. Clair College students; and,
- ii. **AUTHORIZE** Transit Administration to enter into a three-year Agreement (September 1, 2022 to August 31, 2025) with the St. Clair College Student Representative Council (SRC); and,
- iii. **AUTHORIZE** the Chief Administrative Officer and City Clerk of the City of Windsor to sign the resulting Agreement, satisfactory in form to the City Solicitor, in financial content to the City Treasurer, and in technical content to the Commissioner, Infrastructure Services, and the Executive Director of Transit Windsor.

Executive Summary:

N/A.

Background:

City Council Decision B10/2021 adopted on February 22, 2021, provides:

*That a pilot project for 2021 **BE ESTABLISHED** from September to December of 2021 related to Route 18 that provides services from the East End, from Tecumseh Mall to St. Clair College, to **BE COST-SHARED** between the City of Windsor and St. Clair College at a cost of \$90,000 each; and,*

*That the amount of \$90,000 for the City of Windsor's portion **BE FUNDED** from the Budget Stabilization Reserve (BSR) Fund for 2021; and,*

*That administration **BE DIRECTED** to enter into discussions with St. Clair College and the Student Council for the potential of a "St. Clair College Pass Program"; and further,*

*That the pilot project **BE RE-VISITED** by Council in early December, 2021.*

Transit Administration is bringing forward this report to provide an update on the results of the pilot project, and is seeking approval of the recommendations as detailed above.

Discussion:

As a result of the 2021 operating budget deliberations, decision numbers ETPS 808 and B10/2021, the Transit Windsor Board of Directors and City Council directed Transit Administration to pilot Route 18, which has since been renamed to Route 518X. This route had been slated for implementation in the first year of the Transit Master Plan (TMP). The City of Windsor and St. Clair College cost-shared to run this pilot in the fall of 2021 in order to gauge the level of demand for this new route without making permanent budget commitments should the route not perform as expected. The route runs from Tecumseh Mall, along the E.C. Row Expressway, to Devonshire Mall, and then on to St. Clair College, on a 30-minute frequency. This had been a long-standing request from east-end residents and students, as it would provide a more direct service to these areas of the City, reducing travel time by Transit by more than two-thirds.

Although the COVID-19 pandemic resulted in a significant decrease to ridership across all of our routes, ridership performance on the 518X showed immediate promise. Ridership on this route averaged 1,500-1,800 weekly, which exceeded expectations for a new route. These numbers are a strong indication of demand for service despite COVID-19 restrictions and St. Clair College not having 100% on-campus attendance. We expect that as more routes are implemented, as outlined in the TMP, which are feeders to this route, ridership would increase as a result.

City Council Decision B42/2021, adopted on December 13, 2021, approved Transit Administration's request to permanently fund Route 518X. The success of receiving permanent funding for this route ensures that transit services continue to meet the needs of our riders. Although pandemic restrictions such as virtual learning and bus capacity limits have hindered an accurate reflection of route performance, ridership numbers are strong nonetheless and are indicative of the need for this service.

As directed by City Council, Transit Administration had entered into discussions with St. Clair College and the Student Representative Council regarding a partnership to develop a tuition-based bus pass program for St. Clair College Students. This bus pass will be known as the "SaintsPass". Further, the Administration team has been working with the City of Windsor's Finance team to develop a similar costing model to that of the

U-Pass program that was developed with the University of Windsor. Talks with the SRC are now at a point where the essential elements of the program have been determined. Along with developing the costing model, the Administration team is currently working on a draft Agreement to present to SRC, as requested. Administration is seeking approval from the Transit Windsor Board of Directors and City Council, that should both parties find the Agreement to be satisfactory, approval be given to enter into a three-year Agreement.

Risk Analysis:

Given the public feedback through the Transit Master Plan development and consultation process, there was a recognition of the need for additional service to St. Clair College, including the 518X. Enrollment at St. Clair College has increased since 2019 and the significant increase in ridership seen in 2018-2020 is a strong indication of the need for improved transit service and the continued ridership and revenue growth that is expected. Entering into an Agreement with St. Clair College to provide the SaintsPass to students would reinforce the strong partnership that currently exists, and would help to ensure that the revenue from this program be invested to enhance the service to meet the demands. The risk of not approving the recommendations as detailed within this report could cause potential strains in the existing partnership, and risks significant stable, predictable revenue to be received via the tuition-based pass program that takes pressure off the municipal levy for the funding of these transit services.

Climate Change Risks

Climate Change Mitigation:

The City of Windsor's Community Energy Plan (2017) recognizes the importance of encouraging a modal shift towards public transit which was reaffirmed as a priority in the Acceleration of Climate Change Actions in response to the Climate Change Emergency Declaration (2020) report.

The Community Energy Plan estimates that for every passenger km that switches from car to bus, the emissions drop by at least a factor of three. Based on the current ridership on the 518X alone, a reduction of approximately 219 tonnes per year can be achieved over the use of a single occupancy vehicle. Providing access to additional students through the SaintsPass will provide students with further opportunities to access public transit further reducing community greenhouse gas emissions.

Climate Change Adaptation:

There are no climate change adaptation risks associated with the St. Clair College Pass Program.

Financial Matters:

Transit Administration is recommending that the City enter into a three-year Agreement (September 1, 2022 to August 31, 2025) with the St. Clair College Student Representative Council (SRC) to offer a tuition-based bus pass program, called the "SaintsPass" for St. Clair College students.

The pricing for the pass for September 2022 has been set at a rate of \$91.33 per semester (\$274 for the academic year) with an annual increase based on the higher of the Consumer Price Index (CPI) for Transportation for the preceding year, or 2% each September 1st.

The per-semester cost of a SaintsPass incorporates the anticipated revenue loss from the current student riders who pay by cash, tickets, and monthly passes. The costing model is based on best estimates/assumptions pertaining to the student enrollment, estimated by SRC to be 10,500 (excluding Chatham Campus), and the number of students currently purchasing monthly bus passes.

In recognition of the fact that a significant percentage of students do not reside in Windsor and therefore, would not have access to Transit Windsor services, an opt-out clause of 40% was negotiated. While this may reduce the revenue to Transit Windsor (due to a lower guaranteed number of annual passes), this reduced revenue has been taken into account in determining the overall cost of the pass, i.e., the cost of the pass is higher (compared to the University of Windsor's U-Pass) because the SRC requested a higher opt-out percentage. Since opting out of the program requires action on the student's part, there is significant upside for Transit Windsor either through eligible students not exercising their opt-out rights, or other (non-mandatory) students opting into the program.

Transit Administration is currently also negotiating a commission, payable to the SRC estimated to be approximately \$10,000. This is consistent with the University of Windsor U-Pass Agreement and assists SRC with the cost of administering the program. Unless they qualify for the opt-out provisions of the agreement, all students will be required to pay for a SaintsPass as part of their tuition.

The estimated annual gross revenue from the SaintsPass for 2022 is approximately \$1.7 million. The annual net revenue from the bus pass program, as presented in the 2022 Budget, is projected at \$260,000. Revenue of \$86,000 for the period September – December was approved in the 2022 Operating Budget. The revenue balance of \$174,000 for the period January – August will be annualized as a part of the 2023 Operating Budget.

The revenue will be monitored and the future operating budgets will be adjusted appropriately to reflect any changes. Ongoing financial updates will be provided through regular operating budget variance reporting.

Consultations:

Tony Ardovini, Acting Commissioner, Corporate Services CFO/City Treasurer, City of Windsor

David Calibaba, Sales and Marketing Manager, Transit Windsor

Poorvangi Raval, Acting Manager of Performance Management & Business Case Development, City of Windsor

Karina Richters, Supervisor, Environmental Sustainability & Climate Change, City of Windsor

Conclusion:

The partnership with the University of Windsor to provide their students with a U-Pass (tuition-based) bus pass program has proven to be extremely successful. Learning from this partnership, Administration expects to achieve similar success through the partnership with SRC to provide the St. Clair College students their own program. Improved ridership would result in additional Provincial Gas Tax (PGT) funding and a more sustainable transit system within our community. Transit Administration strongly recommends the approval of the recommendations as detailed within this report.

Planning Act Matters:

N/A.

Approvals:

Name	Title
Tyson Cragg	Executive Director, Transit Windsor
Christopher Nepszy	Commissioner, Infrastructure Services
Joseph Mancina	Commissioner, Corporate Services CFO/City Treasurer
Shelby Askin Hager	Acting Chief Financial Officer

Notifications:

Name	Address	Email

Appendices:



Committee Matters: SCM 182/2022

Subject: Transit Windsor Route Infrastructure Planning & Design Guidelines - City Wide

Moved by: Councillor Kaschak
Seconded by: Councillor McKenzie

Decision Number: **ETPS 902**

THAT the Environment, Transportation and Public Safety Standing Committee, sitting as the Transit Windsor Board of Directors and City Council **RECEIVE FOR INFORMATION** Transit Windsor's updated route infrastructure planning and design guidelines as shown in Appendix A. Carried.

Report Number: S 69/2022
Clerk's File: MT2022

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 9.2. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>

**Subject: Transit Windsor Route Infrastructure Planning & Design
Guidelines - City Wide**

Reference:

Date to Council: June 22, 2022

Author: Jason Scott

Planning Supervisor

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Transit Windsor

Report Date: May 30, 2022

Clerk's File #: MT2022

To: Mayor and Members of City Council

Recommendation:

That the Environment, Transportation and Public Safety Standing Committee, sitting as the Transit Windsor Board of Directors and City Council **RECEIVE FOR INFORMATION** Transit Windsor's updated route infrastructure planning and design guidelines as shown in Appendix A.

Executive Summary:

N/A.

Background:

Transit Windsor's current bus stop guidelines were last updated in 2016. They addressed a number of issues with the previous guidelines from 1998 that were very general in nature, lacking specific details, and only a few pages in length. The updated guidelines attached to this report build upon the foundation of the guidelines from 2016 and further expand into more transit industry standards. The guidelines should be reviewed on a 5 to 10 year basis as is best practice in the transit industry. Updating the guidelines was an action item for year 1 of the Council approved Transit Master Plan – More Than Transit under bus stops.

The new Transit Windsor Route Infrastructure Planning & Design Guidelines have been expanded from just bus stops to the entire transit network to ensure a complete system is achieved that meets the needs of both Transit Windsor and its customers. The guidelines follow industry standards and were gathered from several sources across North America; including Translink's Bus Infrastructure Design Guidelines and the National Association of City Transportation Officials (NATCO) Transit Street Design Guide.

Discussion:

The Route Infrastructure Planning and Design Guidelines serve as a blueprint for Transit Windsor to ensure industry best practices and standards are met. These guidelines are used for any new road design projects to ensure that Transit Windsor's needs are satisfied at the design stage so that roads and bus stops can effectively be used for transit. This eliminates potential conflicts in the future and allows Transit Windsor to effectively service the residents of the City of Windsor. All new bus stops are to be developed to these standards and existing bus stops are to be upgraded as the opportunity arises.

The updated guidelines discuss a range of industry best practices to ensure consistency for bus stops and associated infrastructure. The six main sections of the guidelines are spacing of bus stops, placement of bus stops, bus stop configuration, physical design for safe passenger access and amenities, transit priority measures, and transit road design.

Transit Windsor staff will occasionally be asked to relocate a bus stop in front of a residence or business and staff refer to these guidelines to relay the information to the individual of why the bus stop is located where it is. Placing bus stops in the ideal location allows transit service to run more efficiently and effectively. It also gives greater access to passengers accessing the service by not having bus stops placed too far apart. Liabilities are reduced for accidents by following these standards and the incidence of accidents should be reduced.

Risk Analysis:

As Transit Windsor continues to implement the Transit Master Plan and revamp its system to ensure all bus stops are following these guidelines, there will be a loss of parking at certain locations. Parking loss will be minimized as much as possible, but in some instances will be unavoidable. The bus needs the proper length to pull in and around vehicles so that passengers are boarding and disembarking the bus on to the proper surface; therefore helping to reduce the risk of passenger injury and potential lawsuits. If the bus doesn't have the proper length at a bus stop it could also lead to potential vehicular accidents at intersections and potential pedestrian conflicts at crosswalks.

Climate Change Risks

Climate Change Mitigation:

Increasing transit ridership and decreasing private automobile usage by making transit more effective and attractive are key goals of the Transit Master Plan. These goals contribute to climate change mitigation efforts. One bus replaces over 40 single-occupant vehicles, reducing air pollution, greenhouse gas emissions, and road congestion, not to mention the need to continually expand existing roads. By integrating bus stops with existing or new trees where possible, the passenger has a place to wait with shade relief from the heat and sun, while the tree provides environmental benefits.

The updated guidelines allow Transit Windsor to help achieve the City of Windsor's climate change goals.

Climate Change Adaptation:

N/A.

Financial Matters:

Capital funds will need to be budgeted on an annual basis in order for Transit Windsor to be able to continue implementing changes to bus stops and associated infrastructure to ensure these guidelines can be achieved. This would include concrete pads for passengers, shelters, schedules, maps, and signs. Administration will continue to assess the annual budget requirements and bring forward appropriate requests via the annual capital budget process in order to ensure sufficient resources are available.

Consultations:

Kathy Buis, Acting Financial Planning Administrator, FPA for Transit Windsor

Conclusion:

Transit Windsor will continue to follow these guidelines to create a better overall experience for transit riders. More attractive bus stops and a better transit image, create higher ridership resulting in increased revenue. Investing in bus stops is an opportunity to improve transit reliability and enhance the street with green infrastructure and public spaces.

Planning Act Matters:

N/A.

Approvals:

Name	Title
Stephan Habrun	Manager of Operations, Transit Windsor
Tyson Cragg	Executive Director, Transit Windsor
Chris Nepszy	Commissioner, Infrastructure Services
Joseph Mancina	Commissioner, Corporate Services CFO/City Treasurer
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

- 1 Appendix A - Transit Windsor Route Infrastructure Planning & Design Guidelines



Transit Windsor Route Infrastructure Planning & Design Guidelines



TRANSIT WINDSOR

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Executive Summary

These route infrastructure planning and design guidelines use industry best practices and serve as a blueprint for Transit Windsor. Road design is often updated with the City of Windsor and this tool will allow for consistency among transit infrastructure throughout the City. All new bus stops are to be developed to these standards while existing bus stops are to be upgraded as the opportunity arises.

In order to maintain the consistency of bus stops, a number of items need to be assessed to ensure the correct bus stop placement. These guidelines discuss a range of industry best practices that are broken down into six sections:

- Spacing of Bus Stops
- Placement of Bus Stops
- Bus Stop Configuration
- Physical Design for Safe Passenger Access and Amenities
- Transit Priority Measures
- Transit Road Design

Transit stops are more than just a place to wait. Investing in transit stops is an opportunity to improve transit reliability and enhance the street with green infrastructure and public spaces.

A transit system fits into a geometric puzzle involving transit vehicles and intersection operations. While the location of a stop determines to a large extent how transit passengers gain access to transit service, the design and configuration of stops and stations impacts how everyone on the street interacts with the transit system. When designed with transit quality as the priority, transit infrastructure and design influences the interactions that occur at transit stops, including bus-bike and bus-turning vehicle interactions and road design.

Section 1 Spacing of Bus Stops

To determine the number and location of bus stops, one has to consider the following:

- The relative spacing between subsequent stops
- Locating bus stops that correspond to passenger demand
- Providing physical facilities that promote safe and efficient interaction of transit vehicles, transit passengers and other road users

This section contains discussions related to the relative spacing between subsequent stops and land use areas in relation to ridership. Passenger access and amenities are discussed in Section 4.

1.1 Stop Spacing Guidelines

The recommended bus stop spacing range for different land use areas is included in Table 1. In general, bus stops are spaced closer in central business districts and urban areas where activities are more concentrated. It is noted that there may be special circumstances that require the spacing to deviate from the spacing ranges. Nevertheless, bus stop spacing should be optimized as much as possible to correspond to passenger demand.

Table 1 Recommended Bus Stop Spacing

Area	Typical Spacing (m)	Spacing Range (m)
Central Business Districts	200	200-300
Urban Areas	230	200-365
Suburban Areas	300	200-760
Rural Areas	380	200-800

Transit users are generally willing to walk 400 m (metres) to a local stop or 800 m to a rapid transit station / express bus stop. The placement of local stops between 200 m and 250 m apart supports an average 400 m walking distance to local stops within an interconnected network of streets and blocks. For express or rapid transit services supported by a network of feeder transit routes, spacing stops greater than 250 m apart is often appropriate to limit stops, reduce travel times, and maintain route efficiency. No bus stops should be placed closer than 150 m together.

An over abundance of bus stops on a route will reduce the route efficiency, slow down the bus service, and impact the level of customer riding comfort. A lack of bus stops, will increase customer walking distance and therefore limit bus stop accessibility. To satisfy accessibility and efficiency, the following three factors are considered when determining the locations of bus stops:

1. Network - based stop spacing guidelines
2. Passenger demand
3. Other traffic considerations

1.2 Dwell Time of Bus Stops

Dwell time refers to the amount of time a bus is stopped at a bus stop. The following values can be used to estimate dwell times at bus stops:

- 60 seconds at a downtown stop, transit centre, major on-line transfer point, or major park-and-ride stop
- 30 seconds at a major outlying stop
- 15 seconds at a typical outlying stop

1.3 Land Use

It is best to locate transit stops next to uses that generate high transit use, such as senior residences, hospitals, social services, large employers, retail and entertainment venues. Bus stops may be spaced closer together in these areas to correspond to passenger demand. Locate transit stops in highly visible locations along well-travelled routes and support their function through the design of adjacent development.

To maximize pedestrian access and minimize walking distances, locate transit stops at points where local roads intersect with collectors and arterials. Ensure that bus stops have direct and safe connections, with the minimum provision of a sidewalk. Stops without sidewalks are discouraged.

The spacing between subsequent bus stops in rural areas may vary according to population and development density.

Design stops and stations as introductions to the transit system, paying special attention to how transit space interacts with the sidewalk and adjoining buildings. Comfortable stops with shade trees, shelter, places to sit or lean, and nearby business activity can anchor an improved local pedestrian realm and improve rider perceptions of transit service.

Transit stops involve interactions among nearly everyone on the street and the type and location of transit stops affect reliability and travel time. Stop location and design can support prompt transit and safe crossings by accounting for intersection operations, transfers to other routes and local destinations. Cluster stops with bike share stations, car share and for-hire-vehicle zones to create neighborhood mobility hubs, making the best use of station and sidewalk investments.

Section 2 Placement of Bus Stops

2.1 Far-Side, Near-Side and Mid-block Configuration

At Transit Windsor, each bus stop is evaluated individually in terms of its environment. Bus stops are to be located on the near or far-side of intersections or mid-block as appropriate. Bus stops should be evaluated to be at the near or far-side of intersections before middle block (mid-block) as shown in Figure 1, dimensions of the configurations are shown in Table 2:

- Locate stops on the near-side of the intersection to accommodate pedestrians near a cross walk and to provide the bus driver more control of the bus as they make the stop and then proceed through the intersection
- Locate stops on the far-side of the intersection to reduce interference where there is a high volume of turning vehicles and bus service is frequent. Far-side stops allow the bus to proceed through a green signal and make it easier for buses to re-enter traffic
- Mid-block stops are located at a minimum of 60 m from intersections. Mid-block stops are applicable where large destinations justify high-volume access

Once a bus stop is established, stops should not be relocated unless transit service to the affected stop is removed or road re-construction/environmental changes require a change in stop location. Requests by residents, businesses, city staff or councillors to move established stops should be resisted. However, if a request is made and Transit Windsor deems it to be an acceptable move, the cost of moving the stop (sign, database, etc.) should be billed to the individual(s) requesting it. This cost will be determined on an individual basis, based on the conditions of the move as some moves may cost more than others.

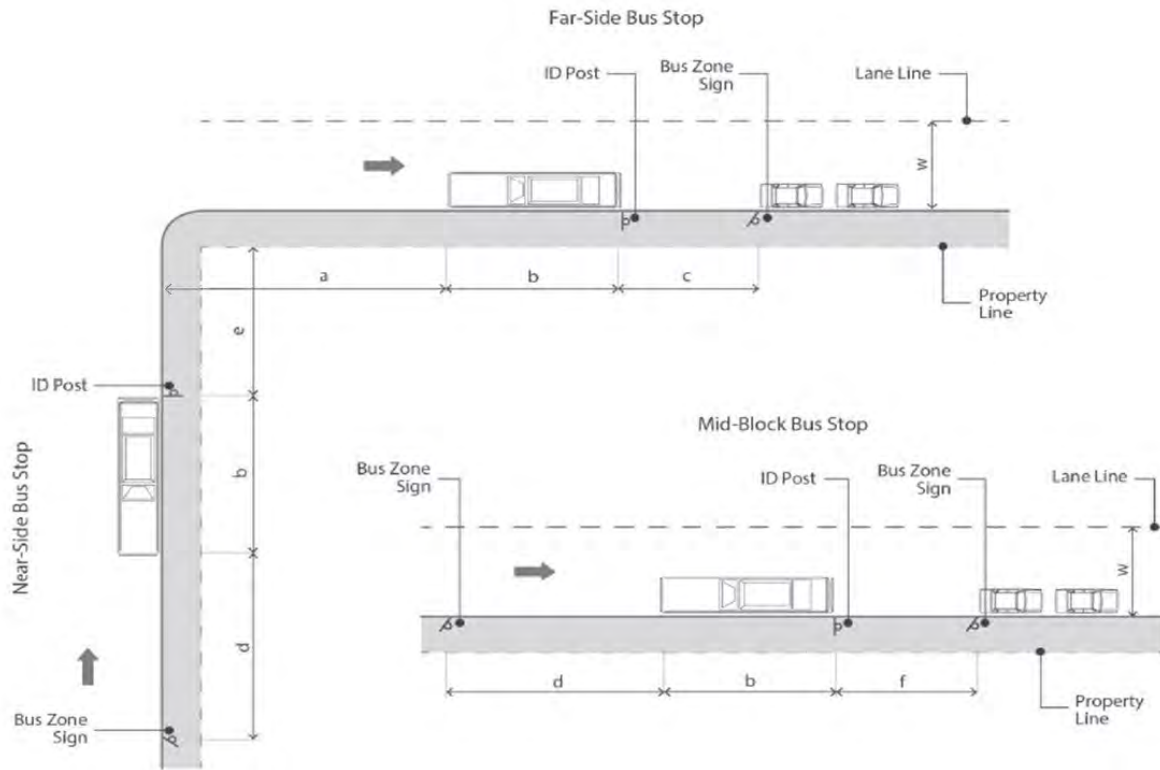


Figure 1 Far-Side, Near-Side and Mid-Block Configurations

Table 2 Far-Side, Near-Side and Mid-Block Bus Stop Dimensions from Figure 1

Type of Bus	Bus Length (b) (m/ft)	Far-Side Stop			Near-Side Stop		Mid-Block Stop		Width (w) (m/ft)
		Approach Movement	Corner Clearance (a) (m/ft)	Pull Out (c) (m/ft)	Pull In (d) (m/ft)	Corner Clearance (e) (m/ft)	Pull In (d) (m/ft)	Pull Out (f) (m/ft)	
Standard Bus	12.4 / 40	Right Left Through	12.3 / 40	7.7 / 25	18 / 59	Minimum 6 / 20	18 / 59	7.7 / 25	Minimum 6 / 20 Preferred 7 / 23
Articulated Bus	18.5 / 60		15.9 / 52		6 / 20		21 / 69		

Notes:

1. A minimum clearance of 6 m (20 ft) between the stopped bus and a crosswalk, a flashing beacon, stop sign, traffic control signal located at the side of a roadway for near side stops.
2. The clearance distance between the crosswalk edge and the rear of the bus is to be 6 m (20 ft) for a bus making the through movement and 14 m (46 ft) for a bus making the left - turn or right - turn movement.
3. For bus bays, an extra 3 m (10 ft) should be included at the stop for a standard/articulated bus to straighten out
4. Upstream from Pedestrian Crossover (PXO): at least 15 m (49 ft) (required) / 30 m (98 ft) (desirable)
5. Downstream from PXO: at least 10 m (33 ft) (required) / 15 m (49 ft) (desirable)

2.1.1 Far-Side Bus Stop

Far-side bus stops have buses parked on the far-side of an intersection. This positioning can minimize the potential for buses to limit the view of intersection controls, (i.e., a STOP sign or traffic signal heads) and pedestrians for traffic traveling in the same direction. Figure 2 and Figure 3 show the configuration of a far-side bus stop.

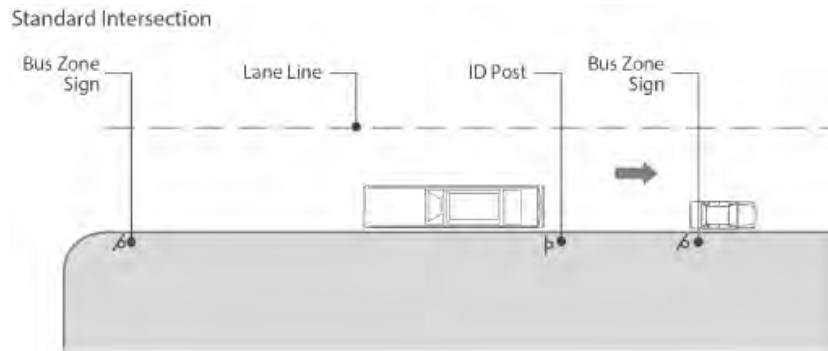


Figure 2 Far-Side Bus Stop Configuration (40 ft standard bus)

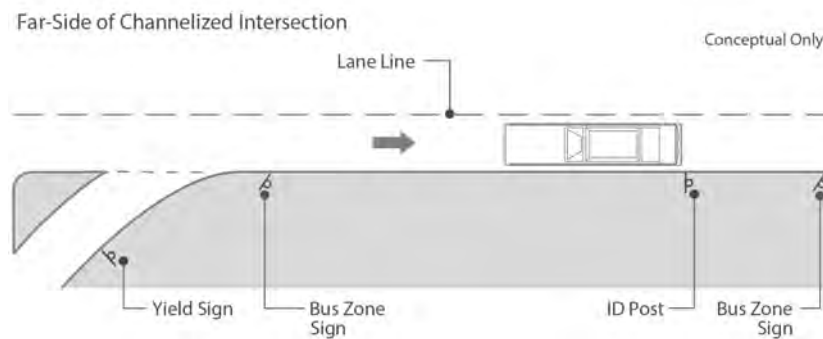


Figure 3 Far-Side Bus Stop Configuration at Channelized Intersection

Advantages of the far-side configuration include:

- Traffic on the curb lane has minimal interference with buses pulling-in to the bus stop, as opposed to a near-side configuration where bus operation may be affected by delays and queues on the approach to a traffic signal or STOP sign
- At signalized intersections, far-side stops allow buses to clear the intersection before stopping
- Bus movements would have minimal interference with right-turn vehicles
- There is reduced risk of bus passengers stepping in front of the bus to cross the street
- The bus stop can also be used by approaching buses from the intersecting street after making a turn onto the street where the stop is located
- Stopped buses would not obstruct the view of pedestrians that wish to cross the street for other traffic in the same travel direction. Pedestrians are more likely to cross behind the bus at the intersection than in front of the bus
- Far-side stops support the use of a broad array of active transit signal priority treatments with relatively simple infrastructure, since transit vehicle approaches can be anticipated based on typical approach speeds
- At intersections where transit vehicles turn, use far-side stops to simplify transit turns and allow pedestrians to better anticipate turning movements
- Buses re-entering traffic flow do not experience as much delay
- On-street parking loss is reduced
- Waiting customers accumulate at less crowded sections of sidewalk rather than close to the intersection

Disadvantages of the far-side configuration include (shown in Figure 4):

- Reduced through traffic capacity if the volume of boarding and/or alighting is high resulting in long dwell time
- Increased walking distance to the intersection crosswalk for bus passengers
- Bus operators have restricted view of passengers approaching from the intersection
- For a far-side stop sited beyond a channelization island or in an acceleration lane, special consideration should be given to eliminating the potential weaving conflicts between buses approaching the stop area and right-turn traffic from the intersecting street
- On single-lane streets where in-lane stops are most needed, far-side in-lane stops in mixed traffic may result in traffic behind the bus spilling back into the crosswalk and intersection. At these locations, provide a longer far-side stop that accommodates queued vehicles behind the stopped transit vehicle, or activate an early red phase after the transit vehicle clears the intersection
- Far-side stops may require further consideration of street lighting

An example of a far-side bus stop in Windsor is shown in Figure 5.



This diagram illustrates a potential disadvantage of a far-side bus stop where boarding and alighting activities results in long dwell time at an on-line bus stop. Vehicles traveling on the curb lane (lane closest to the sidewalk) queue behind the bus and need to make a lane change to avoid delays.

Figure 4 Far-Side Bus Stop Disadvantage



Figure 5 Example of a Far-Side Bus Stop

2.1.1.1 Far-Side, In-Lane Bus Stop

In-lane stops at the far-side of an intersection confer the highest priority to transit operations at most signalized intersections. Far-side, in-lane stops are generally the preferred stop configuration where transit lanes are present as shown in Figure 6. Figure 7 is an example of a far-side in-lane bus stop in Windsor.

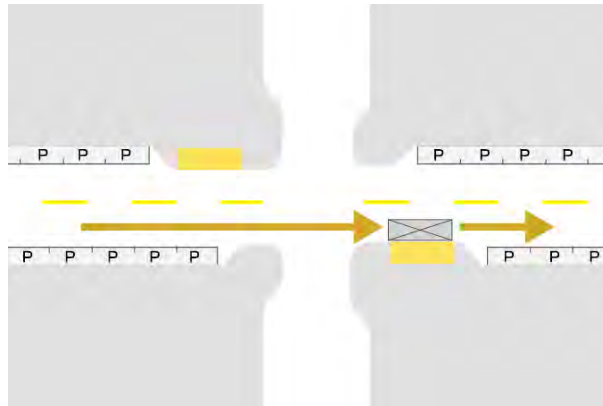


Figure 6 Far-Side, In-Lane Bus Stop



Figure 7 Example of Far-Side, In-Lane Bus Stop

Advantages of Far-Side, In-Lane Stops:

- In-lane stops reduce wear on transit vehicles and street infrastructure by avoiding lane shifts during braking
- By allowing buses to move in a straight line, in-lane stops eliminate both pull-out time and traffic re-entry time, a source of delay and unreliable service
- In-lane stops are especially valuable on streets operating at or near vehicle capacity, or on streets with long signal cycles, in which transit vehicles may experience long re-entry delays while waiting for traffic to clear

2.1.1.2 Far-Side, Pull-Out Bus Stop

Far-side pull-out stops use intersection space efficiently, with little impact on general traffic if they are wide enough for a bus to pull completely out of traffic. Among pull-out configurations, far-side stops are preferred as shown in Figure 8. Figure 9 is an example of a far-side pull-out bus stop in Windsor.

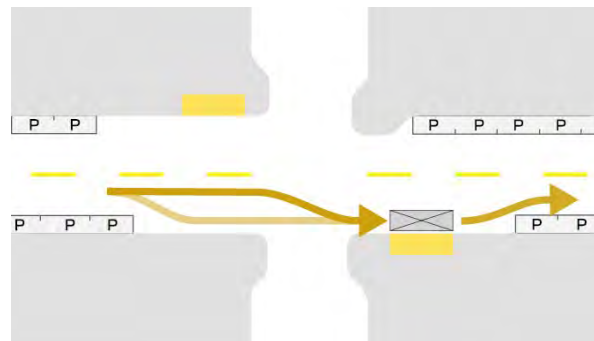


Figure 8 Far-Side Pull,-Out Bus Stop

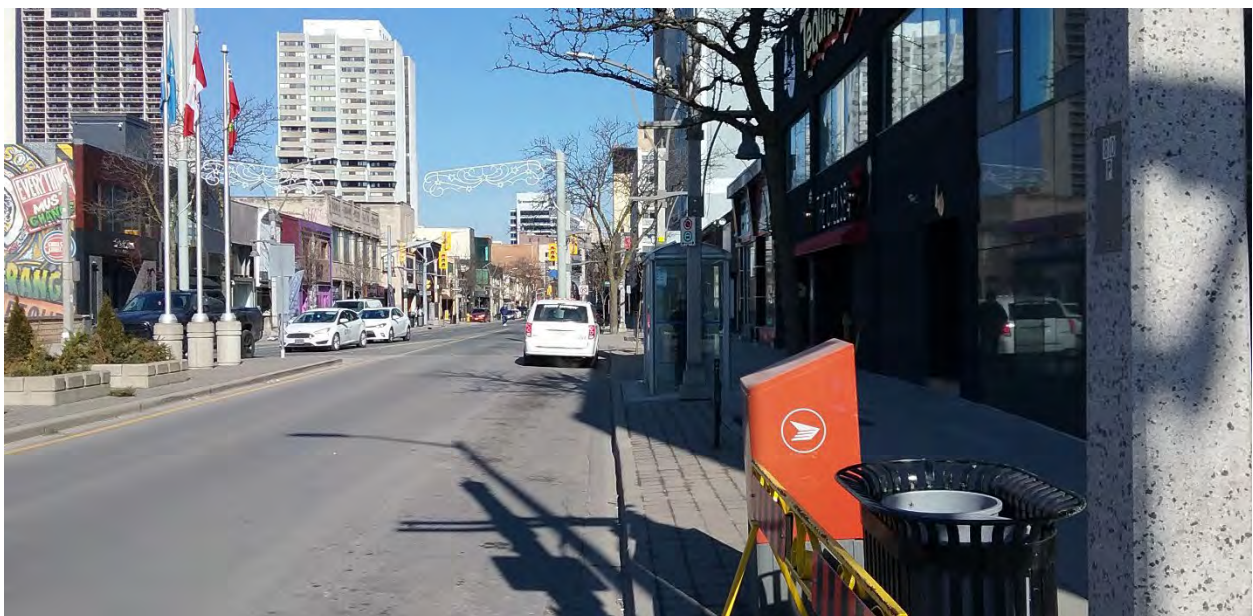


Figure 9 Example of a Far-Side, Pull-Out Bus Stop

Advantages of Far-Side, Pull-Out Stops:

- A periodic pull-out stop on streets with primarily in-lane stops allows vehicles to pass while a bus is stopped
- A far-side pull-out configuration shortens the transition distance needed along the stop platform. Buses can shift to the right while crossing the intersection
- Pull-out stops can be used for local stops adjacent to offset or curbside transit lanes to allow rapid services to pass local services
- Pull-out stops create additional space to receive left-turning transit vehicles

Far-side, pull-out stops work well with queue jumps designed as bus-only approach lanes or shared right-turn lanes that advance transit vehicles into the stop.

Disadvantage of Far-Side, Pull-Out Stops:

- Buses may be significantly delayed in re-entering the travel lane on high-volume streets

2.1.2 Near-Side Bus Stop

Near-side stops may be considered in the context of facilitating passenger transfers between bus stops on two intersecting streets. Near-side bus stops are located before an intersection. A near-side stop may be considered on the intersecting street in the same quadrant as the far-side street bus stop to minimize the need for passengers to cross the intersection. Figure 10 shows the near-side stop configuration.

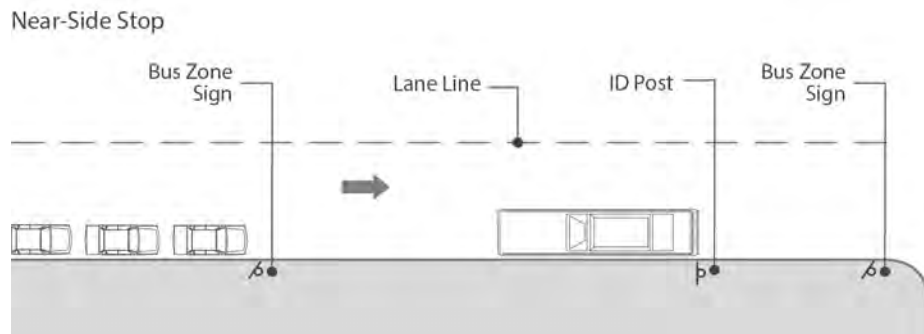


Figure 10 Near-Side Bus Stop Configuration (Standard 40ft Bus)

Advantages of the near-side configuration include:

- Improved passenger transfers between a near-side stop and a far-side stop on the cross street, if these are in the same quadrant
- Bus operators have a better view of approaching passengers, particularly those from the across street
- Where a high volume of vehicles turn onto the transit street, locating a stop near-side keeps the far-side of the intersection clear to receive turns
- Near-side stops at the approach to an intersection can facilitate in-lane stops in mixed-traffic lanes, where turning movements and queued vehicles behind transit vehicles do not block the intersection
- Street lighting is generally better near the crosswalk

Disadvantages of the near-side configuration include (shown in Figure 11 and Figure 12):

- Potential conflicts with vehicles making right turns
- Stopped bus may obscure STOP signs, traffic signals or pedestrians crossing in front of the bus
- Conflicts associated with buses pulling-out of the stop and the risk of rear-end collisions related to approaching traffic slowing or stopping for the merging buses may be introduced
- Near-side stops present challenges at intersections with transit route turns. If buses are required to turn right from the curbside, provide a signal phase for the transit movement or design the cross street to accommodate a vehicle sweeping across the second lane or the oncoming lane
- Operational efficiency of the intersection may be reduced, especially at congested signalized intersections
- When there is no receiving lane on the far-side of the intersection, buses moving to the travel lane maybe delayed or may have to change lanes in the intersection
- A near-side bus stop usually occupies longer curb space than a far-side bus stop (since the pull-in distance is along the curb rather than as part of the intersection), resulting in possible loss of on street parking spaces

Figure 13 is an example of a near-side bus stop in Windsor.



This diagram illustrates a potential disadvantage of a near-side bus stop where queuing on the approach to an intersection may delay buses from reaching the bus stop

Figure 11 Near-Side Bus Stop Queuing Disadvantage



This diagram illustrates a potential disadvantage of a near-side bus stop where there is high volume of right turn vehicles at an intersection and a bus with high boarding and alighting activities results in long dwell time, which forces the right turn traffic to make a lane change to bypass the stopped bus.

Figure 12 Near-Side Bus Stop Right Turn Traffic Disadvantage



Figure 13 Example of a Near-Side Bus Stop

2.1.2.1 Near-Side, In-Lane Bus Stop

Near-side stops at the approach to an intersection can facilitate in-lane stops in mixed-traffic lanes, where turning movements and queued vehicles behind transit vehicles do not block the intersection as shown in Figure 14.

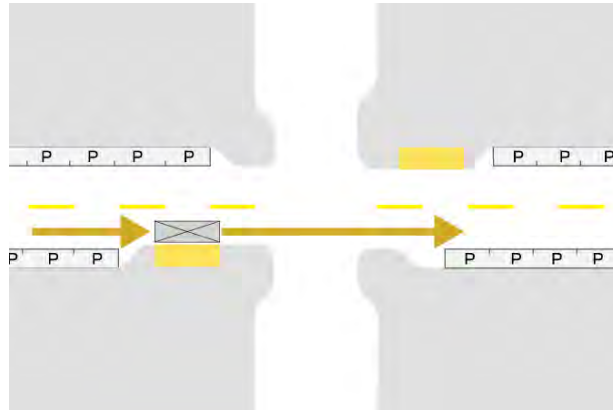


Figure 14 Near-Side, In-Lane Bus Stop

At stop-controlled locations with only one travel lane in each direction, near-side, in-lane stops eliminate “double-stopping”.

Figure 15 is example of a near-side in-lane bus stop in Windsor.



Figure 15 Example of a Near-Side, In-Lane Bus Stop

2.1.2.2 Near-Side, Pull-Out Bus Stop

Near-side, pull-out stops favour motor vehicle traffic flow and confer limited benefits to transit operations as shown in Figure 16. At high traffic volume locations, the near-side stop functions as a right-turn lane when buses are not present.

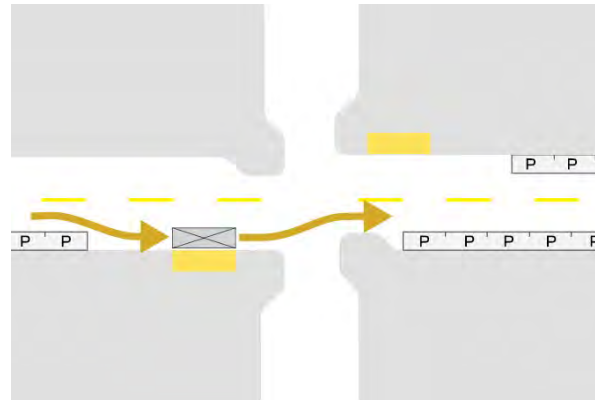


Figure 16 Near-Side, Pull-Out Stop

Except for transfer points, near-side pull-out stops are not preferred on multi-lane streets, but may be applied if a major near-side destination exists or if problematic conditions such as driveways or missing sidewalks exist at the far-side location.

Figure 17 shows an example of a near-side pull-out bus stop in Windsor.



Figure 17 Example of a Near-Side, Pull-Out Bus Stop



Figure 19 Example of a Mid-Block Bus Stop

2.1.3.1 Mid-Block In-Lane Bus Stop

In-lane mid-block configurations use significantly less curb length than mid-block pull-out stops, as shown in Figure 20.

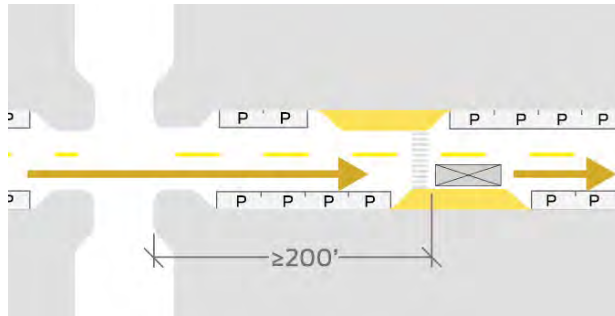


Figure 20 Mid-Block In-Lane Bus Stop

Figure 21 shows an example of a mid-block in-lane bus stop.



Figure 21 Example of a Mid-Block, In-Lane Bus Stop

2.1.3.2 Mid-Block, Pull-Out Bus Stop

Mid-block, pull-out stops may be applicable at heavy intermodal transfer points, or transit vehicle layover points as shown in Figure 22. Ensure that adequate curbside space exists to maneuver buses in and out of stops.

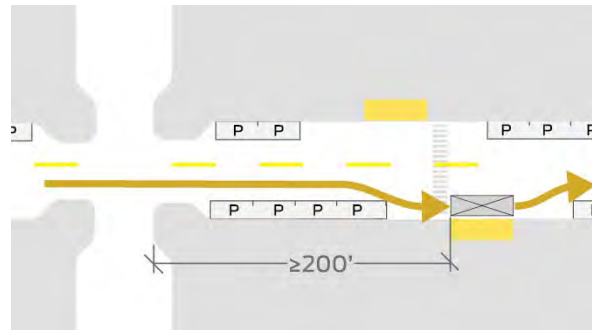


Figure 22 Mid-Block, Pull-Out Bus Stop

2.3 Route Transfer

Consideration should be given to coordinating bus stop placement with passenger transfer movements. As described earlier in Section 2.1.2, a near-side stop may be considered in the context of facilitating passenger transfers between bus stops on two intersecting streets.

On roads with two way direction of bus routes, pedestrian connectivity may be enhanced by placing stops across from each other as much as possible. The provision of a signed and marked crosswalk may be considered to enhance guidance and safety for passengers needing to access from one bus stop to another. Figure 23 shows configurations of passenger transfers.

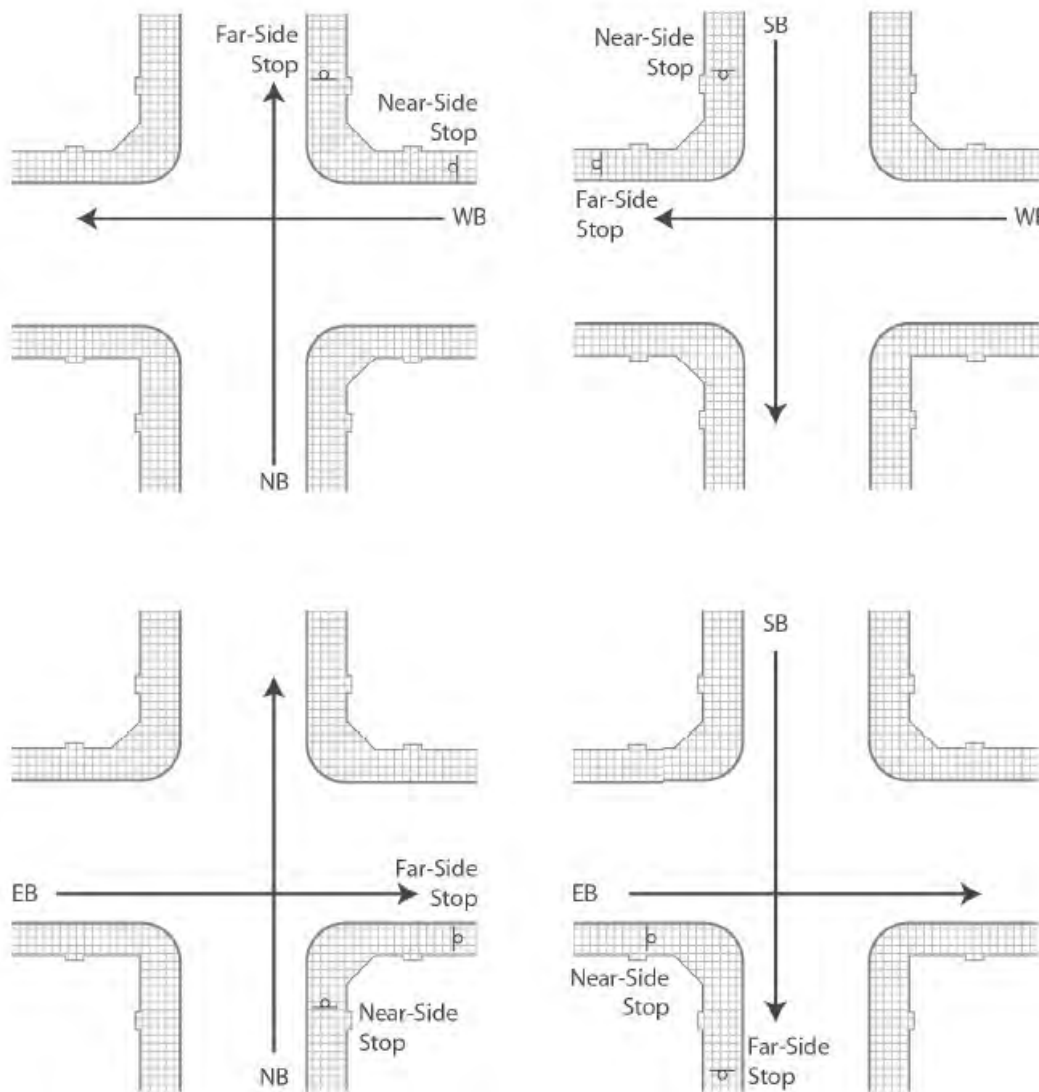


Figure 23 Passenger Transfers

2.4 Bus Stop Access Between Driveways

Bus stops should be located away from driveways wherever possible to minimize conflicts between buses and vehicles using the driveways of adjacent properties. At locations where this cannot be avoided, the minimum requirements for the placement of a bus stop between two driveways can be found in Figure 24. The placement of a bus stop between access driveways is to be examined on a case-by-case basis. When locating a bus stop near a driveway the following should be considered:

- Type and spacing of access driveways near the bus stop
- Peak volume of traffic entering/exiting the access driveways
- Expected service level and customer boarding/alighting volumes at the bus stop
- Peak time of bus stop usage vs. the peak time of driveway traffic
- Adequacy of passenger waiting area at the bus stop
- Sight line requirements between customers walking to/from bus stop and drivers at the access
- Possibility that traffic queued at the driveway will affect the efficient operation of the bus stop
- Availability of alternative bus stop locations

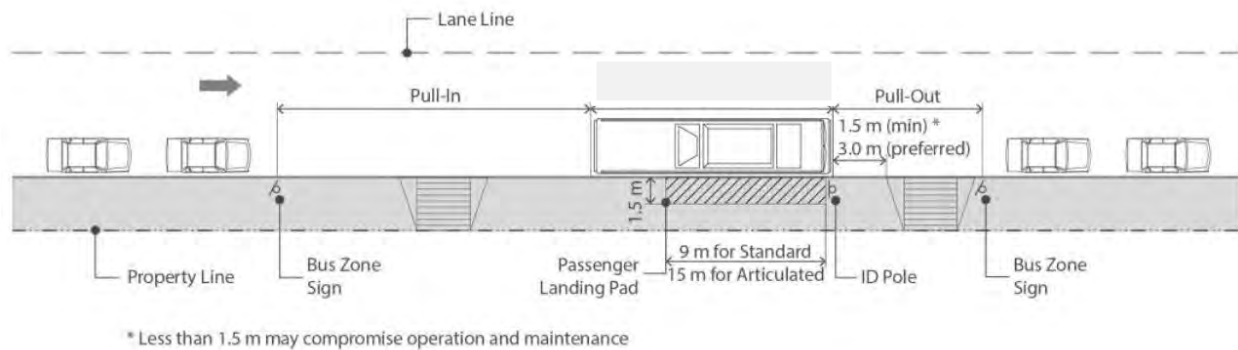


Figure 24 Bus Stop Minimum Requirements Between Access Driveways

If a bus stop is placed at the near-side of an access driveway there should be at minimum 1.5 m (5 ft) from the bus stop sign to the driveway. An example of a bus stop adjacent to an access driveway is shown in Figure 25.



Figure 25 Example of a Bus Stop Between Access Driveways

2.5 Bus Stop Locations Near Roundabouts

When placing a bus stop in the vicinity of a roundabout, placing it on the near-side provides the advantage of being in a potentially slower speed environment where vehicles are slowing to enter the roundabout, whereas a far-side location vehicles may be accelerating as they exit the roundabout.

When locating a bus stop near a roundabout the following should be considered:

- A bus stopped at a nearside stop should not obstruct sightlines to and from pedestrians crossing in a crosswalk
- Near-side stops should be far enough away from the splitter island so that a vehicle overtaking a stationary bus does not strike the splitter island, especially as the bus starts to pull away from the stop
- Far-side stops should be located beyond the crosswalk so they do not obstruct the view of crossing pedestrians
- At the approaches to multilane roundabouts, a nearside bus stop can be included in the travel lane (a bus bulb-out design) as long as it is set back at least 20 m (66 ft) from the crosswalk
- At multilane roundabouts in slow-speed urban environments, a bus stop without a bus pullout may be located immediately beyond the crosswalk, as exiting traffic can pass the waiting bus
- Bus pull-outs can reduce the risk of vehicles queuing into the crosswalk or roundabout behind a stopped bus, but may limit sightlines for bus drivers attempting to merge into traffic
- In a traffic-calmed environment or close to a school, it may be appropriate to locate the bus stop so that other vehicles cannot pass the bus while it is stopped

Figure 26 is an example of a bus stop located near a roundabout.



Figure 26 Example of a Bus Stop Near a Roundabout

Section 3 Bus Stop Configurations

Bus stops provide the interface between customers and buses, they are one of the critical components in transit infrastructure design. The physical configuration of the bus stop, will allow customers to board, alight, and make transfers in a safe and efficient manner, and will minimize bus conflicts with other traffic (for example, bicycle traffic).

When configuring bus stops, there are various considerations to be made:

- Curb-side design around a bus stop, different bus stop types require different curb-side design
- Bus stop type will dictate how the curb-side is designed. Different bus stop types are:
 - In-lane (on the curb travel lane or as a bus bulge) where the transit vehicles stays in the lane of traffic
 - Pull- out (bus bay or out of the lane of travel) where the transit vehicles exit the lane of traffic
- Bus concrete pads may be considered at high transit traffic locations such as on street terminals, bus bays and bus layover locations to reduce maintenance costs
- Multi-position bus stops may be considered at locations serviced by high frequency routes or more than one bus route. Two or more buses may arrive at the same time requiring a multi-position stop layout
- Bike lanes need to be considered as they are commonly provided on the right-hand side of the pavement where bus stops are also frequently located
- Terminals are designed to optimize the needs of all users including the requirements of transit operations and customers, and the terminals impacts to the adjacent road network and adjacent developments needs to be considered

Appendix A shows the bus stop evaluation used to ensure new and current Transit Windsor bus stops adhere to these planning and design guidelines.

3.1 Curb-side Considerations

The curb-side area around a bus stop needs to be properly designed in order to ensure that bus movements can be as smooth and efficient as possible. Figure 27 shows examples of bus stop design elements, specific considerations are as follows:

- For an in-lane bus stop, the curb lane should be regularly maintained to ensure no potholes are present and gutter and drains should be flush with the road surface
- In an urban location, the curb should have a minimum height of 150mm
- Adequate overhead clearance should be provided
- Bus stop length, including pull-in and pull-out zones, should be clearly delineated
- The door openings of the bus should be as far away as possible from drainage grates and utility covers



Figure 27 Examples of Bus Stop Design Elements

3.2 Types of Bus Stops

Bus stops can be either in-lane (on the curb travel lane or as a bus bulge) or a pull-out stop (bus bay or out of the lane of travel). The considerations associated with each bus stop type are described below.

3.2.1 Bus Stop on the Curb Travel Lane

The most typical bus stop layout is to provide the stop on the curb of the travel lane of a roadway, an example is shown in Figure 28. This type is considered when:

- Roadway is multi-lane or the travel lane has adequate width for approaching vehicles to bypass a stopped bus

It is critical for a bus stop zone to be at a minimum 6 m (20 ft) clear of the crosswalk or curb return whether near or far-side. The stop length must equal the length of the bus, and curbside boarding area should include both the front and rear doors.

Advantages of this type include:

- Less cost of implementation compared to the bus bulge and bus bay options
- Bus is able to re-enter traffic more easily

Disadvantages of this type may include:

- Increased risk of collisions associated with vehicles making lane changes to avoid a stopped bus
- Depending on the stop configuration (far-side, near-side or midblock), there is potential to reduce visibility of traffic controls and the supply of on-street parking spaces and/or loading areas may be affected
- Where transit is not provided with a dedicated lane making stops may cause traffic following the transit vehicle to queue behind it

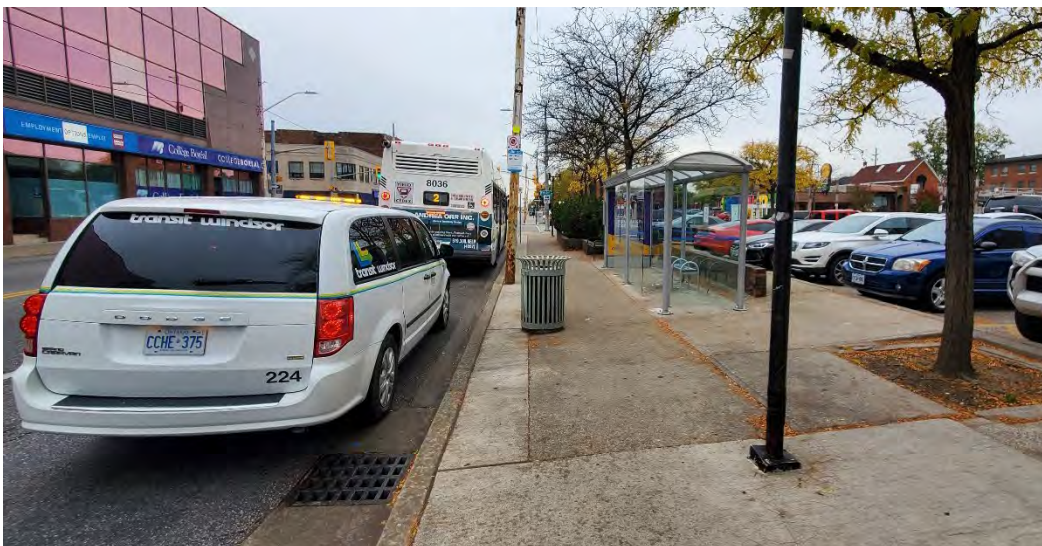


Figure 28 Example of a Bus Stop in the Curb Lane

3.2.2 Boarding Bulb Stop (Bus Bulges)

Boarding bulb stops use curb extensions that align the transit stop with the parking lane, creating an in-lane stop. Figure 29 shows an example and Figure 30 shows a diagram of a bus bulge configuration and Table 3 provides dimensions. Boarding bulbs can be installed at near-side, far-side and mid-block stops, at both signalized and unsignalized locations. Figure 31 details some specifics about boarding bulbs.

Boarding bulbs are considered when:

- It is desirable to provide high visibility for transit along a corridor
- On-street parking is provided along a corridor
- Use where transit passenger volumes require a larger dedicated waiting area than is available on the sidewalk

Advantages of this type include:

- Relatively smooth transition associated with buses pulling-in and pulling-out of the stop, resulting in better passenger comfort
- Boarding bulb stops can become a focal point for improved public space along the street, creating space for waiting passengers, furnishings, bike parking, and other pedestrian amenities and community facilities without encroaching on the pedestrian through zone
- Boarding bulbs improve speed and reliability, decreasing the amount of time lost when merging in and out of traffic
- When placed at intersections, boarding bulb stops also act as curb extensions to shorten pedestrian crossings
- In-lane stops can reduce bus and pavement wear and tear reducing maintenance costs
- If the bus pull-out area is frequently blocked by vehicles stopped illegally at a bus stop, a boarding bulb will eliminate the problem

Disadvantages of this type may include:

- Increased risk of collisions associated with vehicles making lane changes to avoid a stopped bus
- Increased risk of pedestrians crossing at midblock locations, if there is limited guidance that lead passengers from the boarding bulb area to the desired crossing location (for example, a nearby intersection or marked crosswalk)



Figure 29 Example of a Boarding Bulb

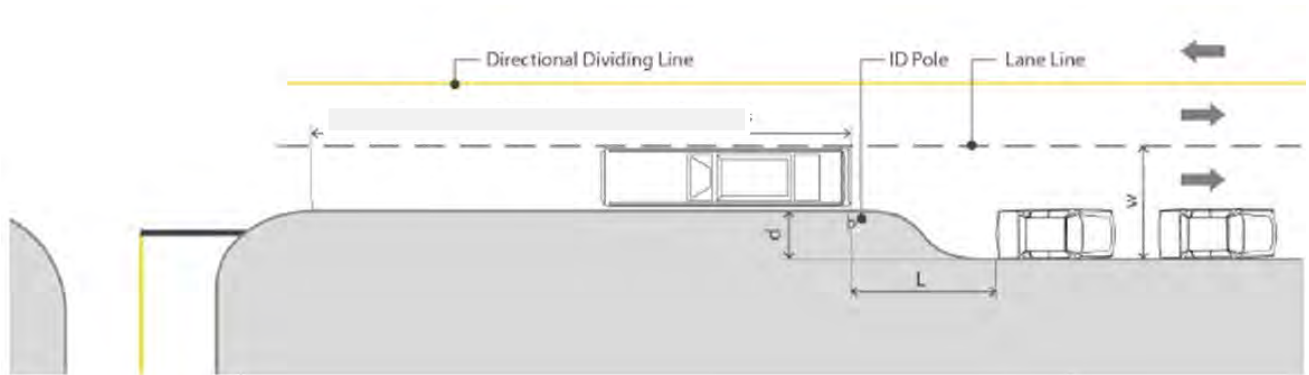


Figure 30 Boarding Bulb Configuration

Table 3 Boarding Bulb Dimension

Width of Curb Lane w (m/ft)	Depth of Boarding Bulb d (m/ft)	Distance between ID Pole and End of Parked Vehicle L (m/ft)
5.6 / 18	1.9 / 6	5 / 16
	2.3 / 7.5	7 / 23
5.7 / 19	1 / 3	5 / 16
	1.9 / 6	7 / 23



- 1) At stops adjacent to crosswalks, provide at least 6 m (20 ft) of clear sidewalk space, ahead of transit vehicle at near-side stops and behind the transit vehicle at far-side stops
- 2) If shelters are placed on boarding bulbs, they must be placed clear of front- and back-door boarding areas
- 3) Include green features like bio swales or planters to improve streetscape and storm water recapture

Figure 31 Diagram of a Boarding Bulb Bus Stop

3.2.2.1 Tiered Boarding Bulb Bus Stop

- 1) Where local and rapid/limited service serve the same corridor or route, rapid stops may provide a combined pull-out/in-lane stop—where rapid service stops in-lane, local buses pull-out. *shape of the curb*

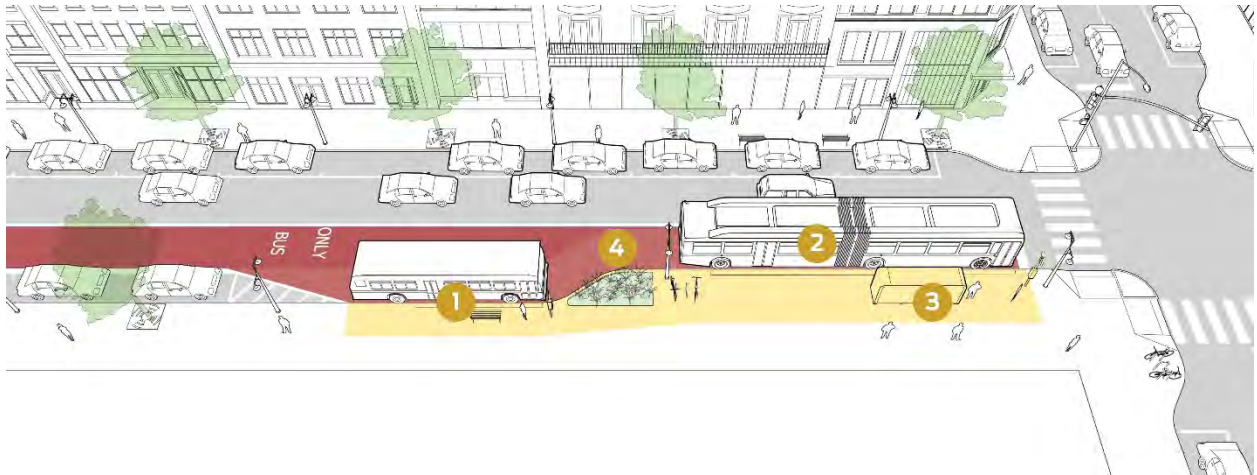


Figure 32 shows this.

- 2) Pull-out stop is located before the bulb stop and serves the local service. Each stop should include its own “pole and sign,” as well as legible rider and route information. Distinguishing between local and rapid service stop locations is critical for trip planning
- 3) Rapid/limited bus service is accommodated by the boarding bulb. Regardless of arrival order, rapid buses are able to jump local buses in the queue and allow transfer between services. Curb radii at the back of the bulb must be great enough to accommodate the local bus’s transition back into the travel lane
- 4) Stop amenities (e.g. shelters, seating, wayfinding, and trash bins) can be placed on the bulb to preserve capacity and throughput of the sidewalk. For rapid service, stop shelter and amenities should be more robustly designed, including expanded capacity and seating, maps and real-time arrival information, and wayfinding
- 5) Concrete bus pads are “S” shaped and continuous through the stop, conforming to the shape of the curb

Figure 32 Example of a Tiered Boarding Bulb Bus Stop

3.2.3 Curbside Pull-Out Bus Stop

Curbside pull-out bus stops are a pull-over zone, adjacent to the main travel lanes, where buses can stop and pick up passengers without interfering with the regular flow of traffic. The pull-in and pull-out taper ratio requirements for these stops should accommodate those shown in Table 4.

Curbside pull-out bus stops are a low-cost option for bus stops on streets with curbside parking. While bus transition time is longer than for in-lane designs, it is relatively easy to make these stops accessible, provided sidewalks are sufficiently wide.

Curbside pull-out bus stops are considered when:

- The roadway has high traffic volumes
- Where the roadway is a high speed facility, defined as having posted or prevailing speed of 70 kilometres per hour or higher, bus bays should be provided
- The roadway has a single travel lane in each direction where passing sight distance is not available for vehicles approaching a stopped bus
- The bus is scheduled to layover at the stop for an extended period of time
- Bus service frequency is high such that buses occupying the curb lane would impede traffic flow or increase the risks of rear-end and sideswipe collisions associated with approaching vehicles trying to bypass the bus

Advantages of this type include:

- Clear definition of the bus stop zone
- Traffic flow on the mainline is better maintained compared to the curb lane bus stop or boarding bulb options

Disadvantages of this type may include:

- Property and other right-of-way acquisition may be needed
- Reduced bus efficiency as buses are required to pull-off the roadway and re-enter the adjacent travel lane
- When curbside stops are partially blocked by illegal loading or parking, transit vehicles may have insufficient space to transition increasing the likelihood that passengers will be forced to board from street level and that the through-traffic lane will be blocked
- Even when provided with entry and exit tapers, buses may not be able to pull close to curb, making boarding more difficult

Table 4 Pull Out Stop Taper Ratios

Roadway Posted Speed	Pull-in Taper	Pull-out Taper
<=50 km/h	1:6	1:3:3
>=60 km/h	1:8:3	1:8:3

3.2.3.1 Far-Side, Pull-Out Bus Stop

Far-side, pull-out stops are appropriate at intersections with high traffic volumes, where traffic is heavier on the near side, complex intersections with multi-phase signals, or where traffic conditions may cause delays by locating near-side. Figure 33 shows a diagram for a far-side, pull-out bus stop while Figure 34 is an example of this stop type in Windsor. Figure 35 details how a far-side, pull-out bus stop can work with a bike lane.

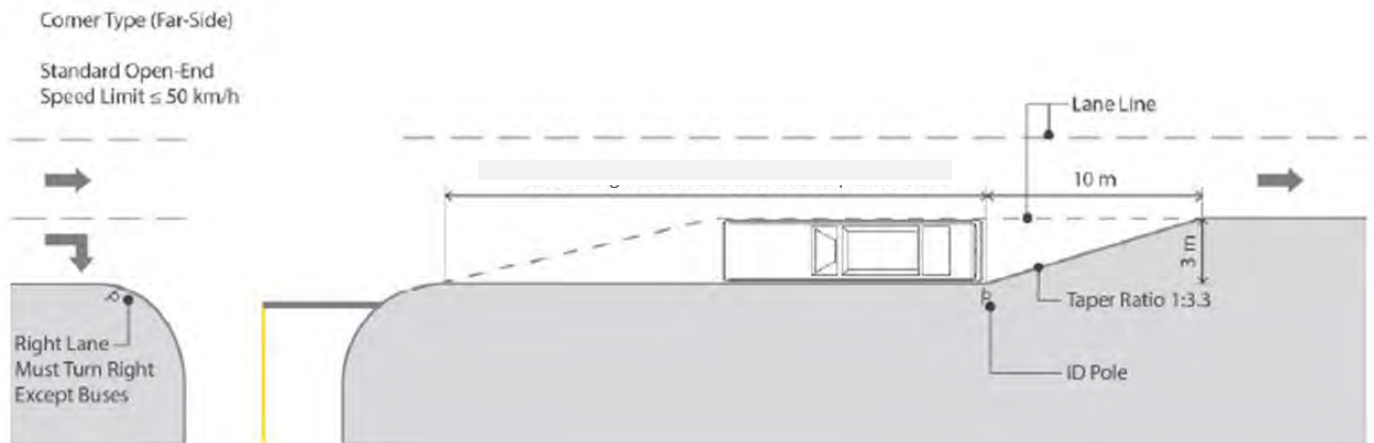
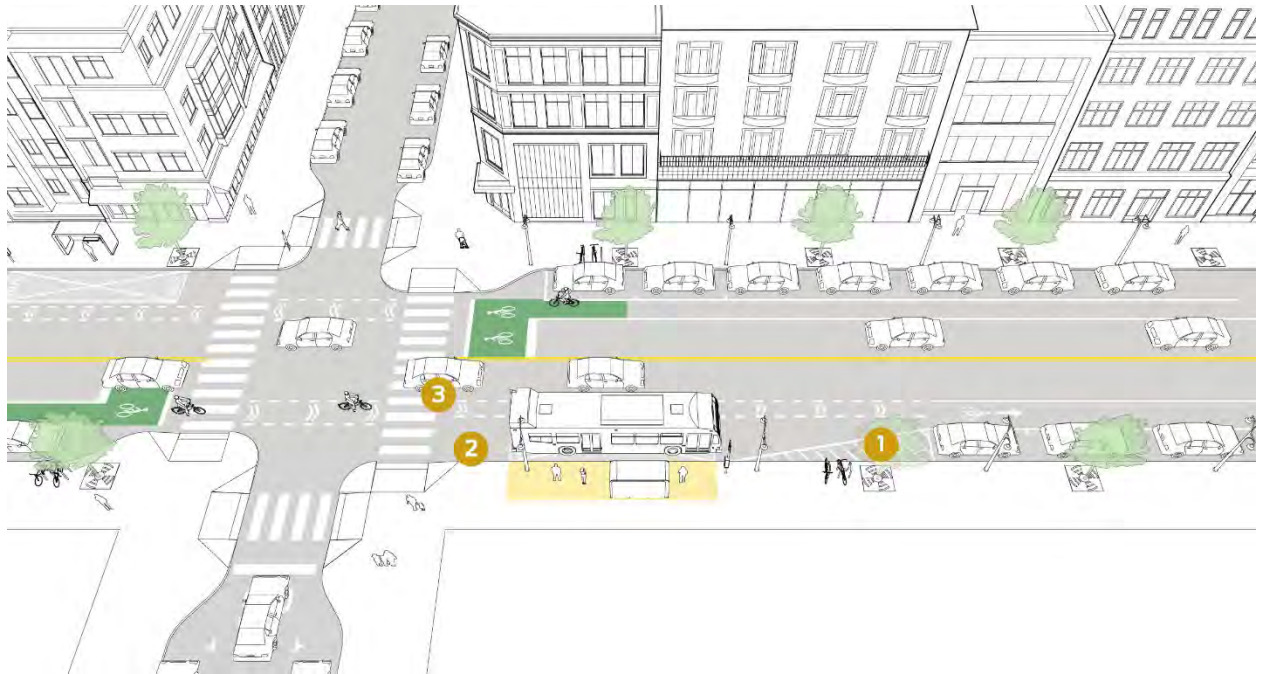


Figure 33 Far-Side Pull-Out Bus Stop Configuration



Figure 34 Example of a Far-Side, Pull-Out Bus Stop



- 1) Exit taper is typically 7-9 m (23-29.5 ft). Enforcement should ensure stop areas remain unblocked by parking or loading vehicles
- 2) Platform length includes length of the bus plus 6 m (20 ft) of clearance from back of vehicle to crosswalk
- 3) Use conflict-zone markings to position bicyclists to the left of the bus zone. Mark the bike lane to the left of the bus stop; place the seam of the concrete bus pad to either side of the bike zone, as seams and cracks pose a hazard to bike wheels. The bike zone should be at minimum 1 m (3 ft) wide

Figure 35 Typical Far-Side, Pull-Out Bus Stop with Bike Lane

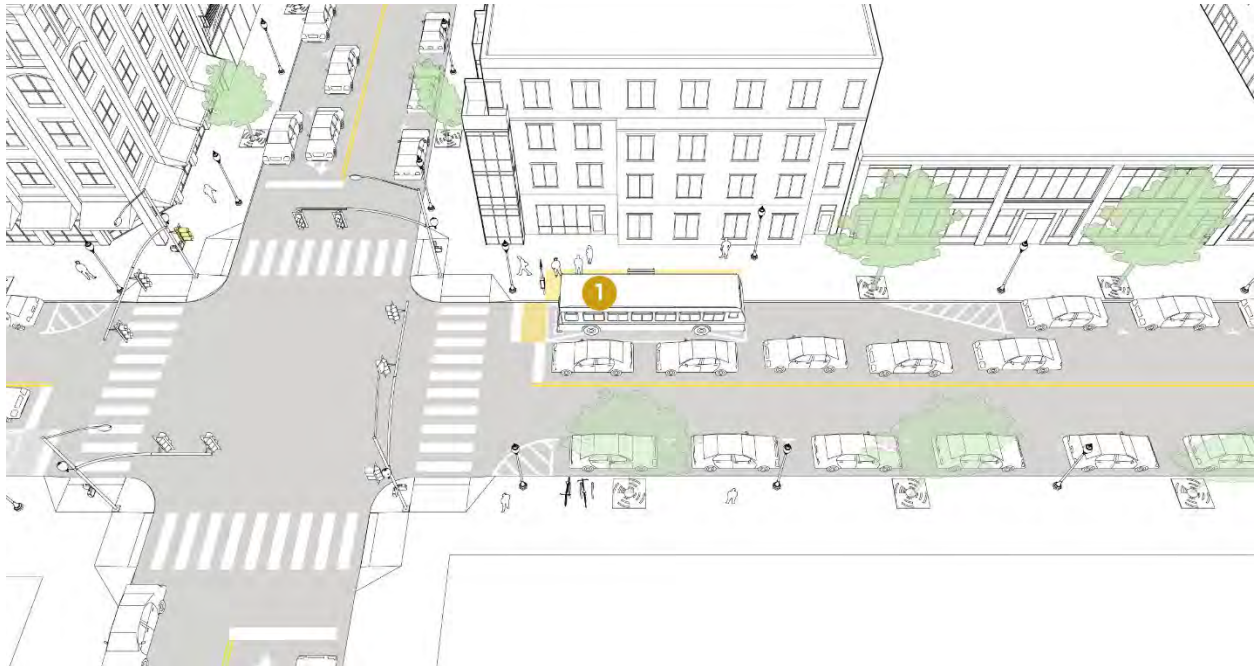
3.2.3.2 Near-Side Pull-Out Bus Stop

The near-side, pull-out bus stop configuration is applicable where a neighborhood street crosses a larger street that may or may not be stop-controlled. If two similarly sized streets intersect with moderate to high traffic volumes, traffic signals with low-speed progressions may confer greater benefit to users.

In stop-controlled configurations, the bus may pull into a near-side stop, allowing traffic behind to pull forward to the stop line and proceed while the bus is dwelling. When the bus completes boarding it pulls forward and proceeds.

Where a small neighborhood street intersects a larger corridor or destination street and high transfer volume between intersecting routes is expected, the near-side stop can be paired with an adjacent far-side stop on the cross-street, facilitating easy and safe transfer.

Locate the bus stop at least 6 m (20 ft) from the crosswalk to ensure pedestrians and drivers have adequate sightlines. Figure 36 is a diagram for a typical near-side pull-out bus stop and Figure 37 shows the typical configuration of this type of stop.



- 1) At signal-controlled locations, the near-side pull-out stop may be implemented as a queue jump—the bus pulls into the stop, completes boarding’s, and then receives an advance or extended green phase through the intersection, while general traffic is held

Figure 36 Typical Near-Side, Pull-Out Bus Stop

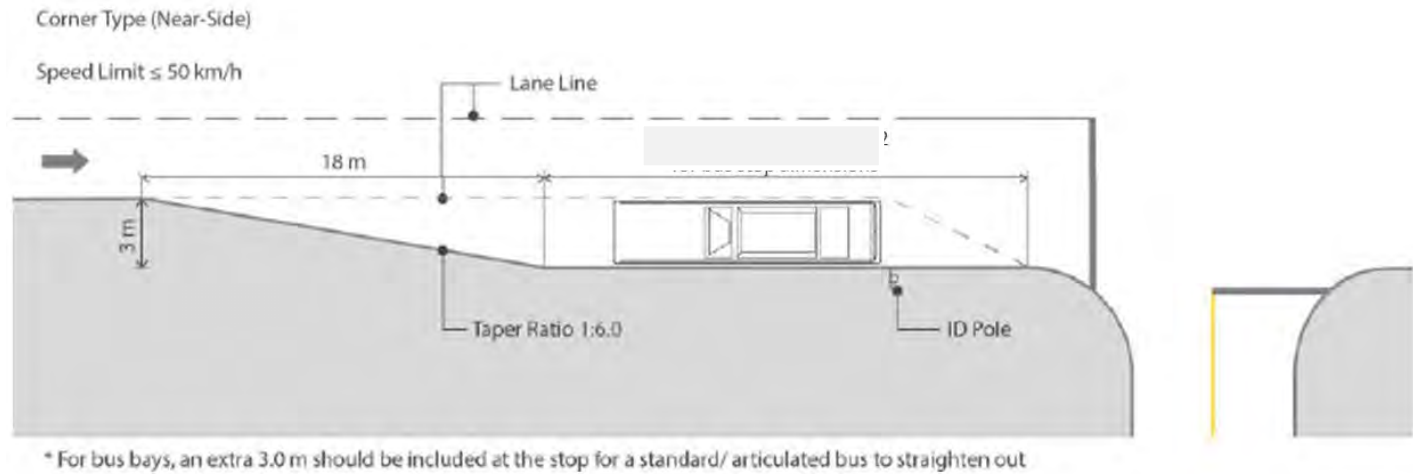


Figure 37 Near-Side, Pull-Out Stop Bus Configuration

3.2.3.3 Full Bus Bays

Surface-water drainage will require special attention in a bus bay. To reduce the risk of customers at a stop being splashed in wet weather, it is preferable that the cross fall of a bus bay be outward from the curb towards the travel lanes, or the catch basins, if any, be installed away from the bus stop.

Figure 38 shows an example of a bus bay with a heavy turn volume while Figure 39-44 show various bus bay configurations.



Figure 38 Example of a Full Bus Bay with Heavy Right Turn Volume

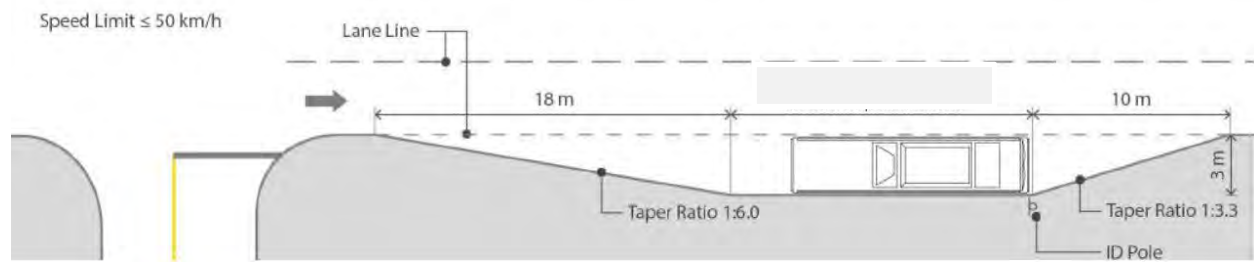


Figure 39 Full Bus Bay Diagram with Heavy Right Turn Volume

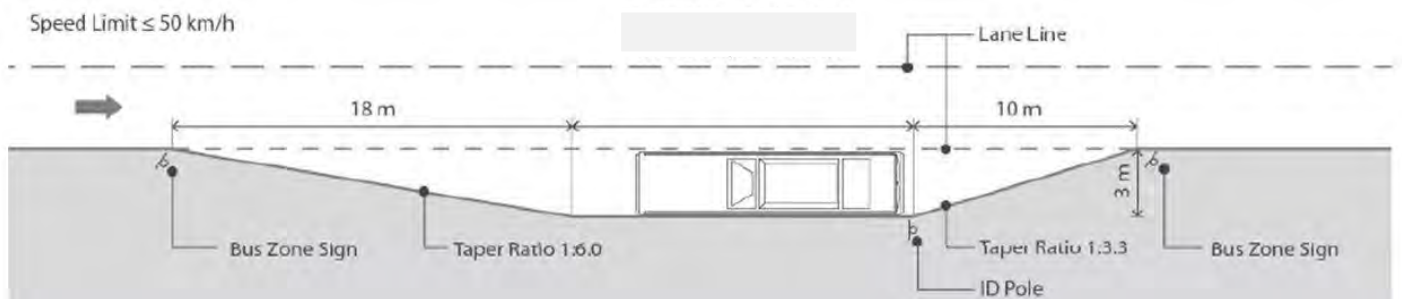
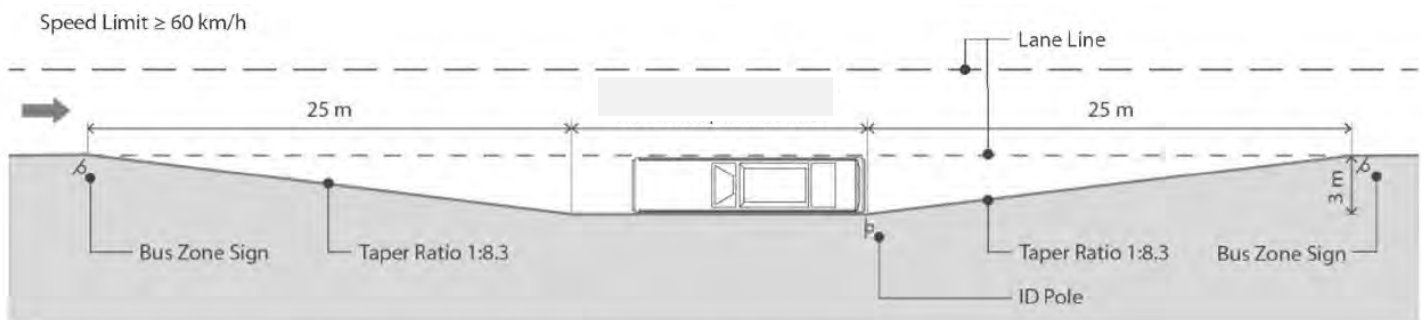


Figure 40 Mid-Block Bus Bay Diagram with Speed Less than or Equal to 50km/h



* For bus bays, an extra 3.0 m should be included at the stop for a standard/ articulated bus to straighten out

Figure 41 Mid-Block Bus Bay Diagram from Speed Greater than or Equal to 60 km/h

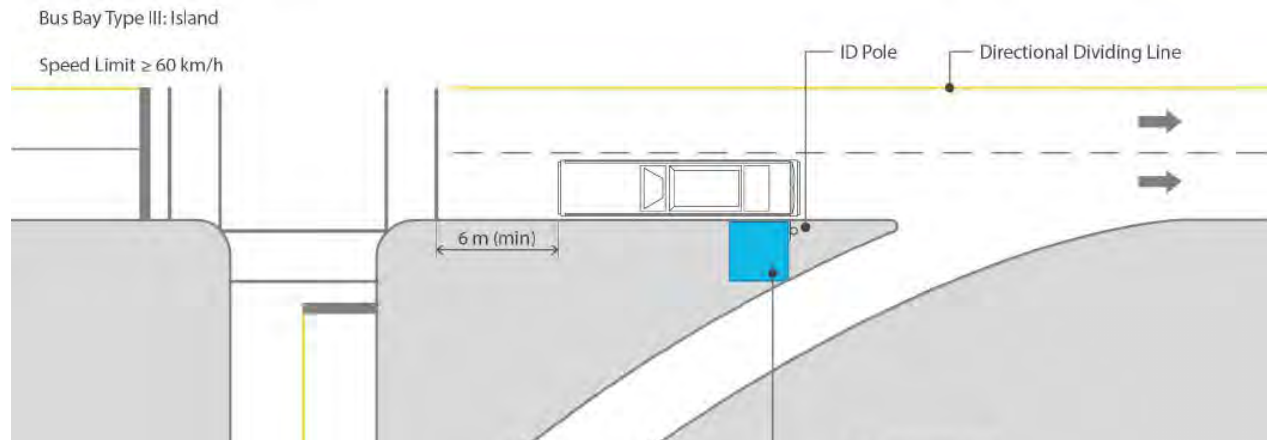


Figure 42 Island Bus Bay Diagram

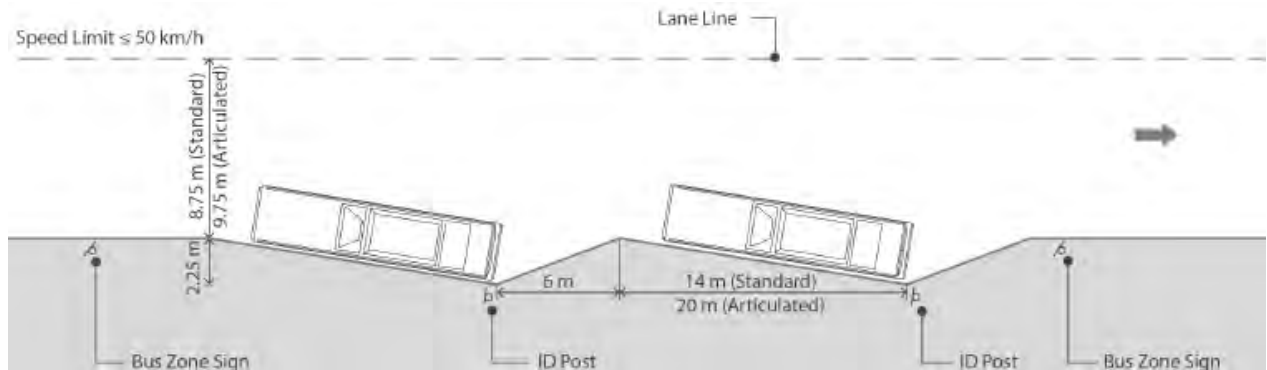


Figure 43 Sawtooth Bus Bay Diagram

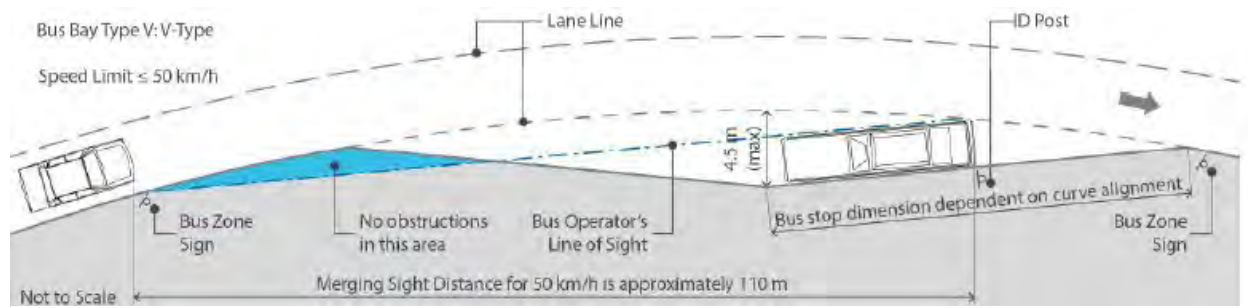


Figure 44 V-Type Bus Bay Diagram

3.3 Bus Concrete Pads

A bus concrete pad is a reinforced concrete slab installed in the pavement of the travel lane at the bus stop, loading/unloading bays at transfer points, and bus layover locations to improve resistance to rutting and petroleum deterioration, thus reducing pavement maintenance costs. Bus concrete pads should be provided at all bus bays to reduce long-term maintenance costs. The width of the pad should be a minimum of 3 m (10 ft), and the length should be long enough to cover the rear wheel of the last bus stopping at the stop. The required length would depend on the number and types of buses stopping at the stop, as well as the operating scenario (e.g. “first-in, first-out”, “first-in, independent-departure”, “independent-arrival, independent-departure”).

Typical bus pad lengths, as determined by the distance from the front bumper to the rear wheel of a bus, are as follows:

- Standard Bus = 10 m (33 ft)
- Articulated Bus = 16 m (52.5 ft)

Full concrete pad coverage should be considered in exchanges with high bus volumes and/or tight turnaround spaces in order to minimize service disruption during the repaving and rehabilitation activities typically required for facilities featuring conventional asphalt pavement. Figure 45 shows an example of an on-street bus bay with red concrete.



Figure 45 Example of an On-Street Bus Bay with Red Concrete

3.4 Multi-Position Bus Stops

For stops serviced by high frequency routes or more than one bus route, two or more buses may arrive at the same time, requiring a multi-position stop layout.

For tandem bus stop operations with a “first-in, first-out” arrangement, the required length for a multi-position stop should be based on the recommended bus stop dimensions as shown in Figure 46 plus extra length to accommodate the second bus (or as many as required) with suitable spacing between two consecutive stop positions. A minimum of 3 m (10 ft) spacing is typically the required clearance for a deployed bicycle rack on the front of the second bus. For tandem bus stop operations with a “first-in, independent-departure” arrangement, longer spacing would be required for independent departure of the buses, as shown in Figure 47. If independent operations (i.e. “independent arrival, independent departure”) are required, Figure 48 illustrates the recommended bus stop dimensions between two consecutive stop positions.

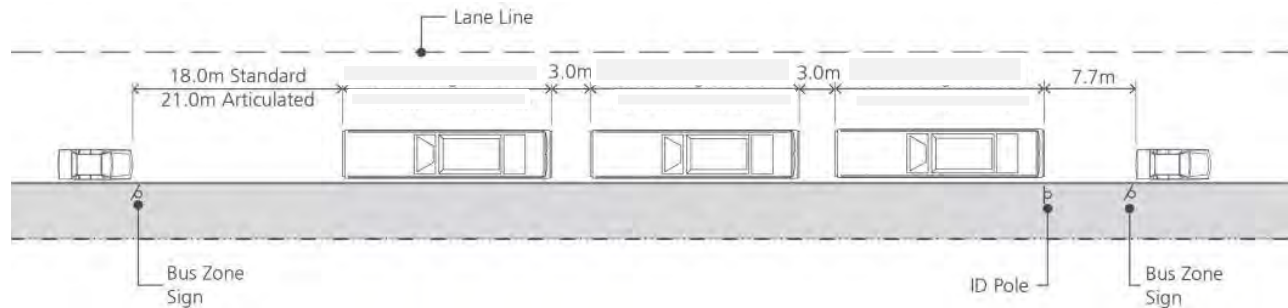


Figure 46 First-In, First-Out Bus Stop Configuration

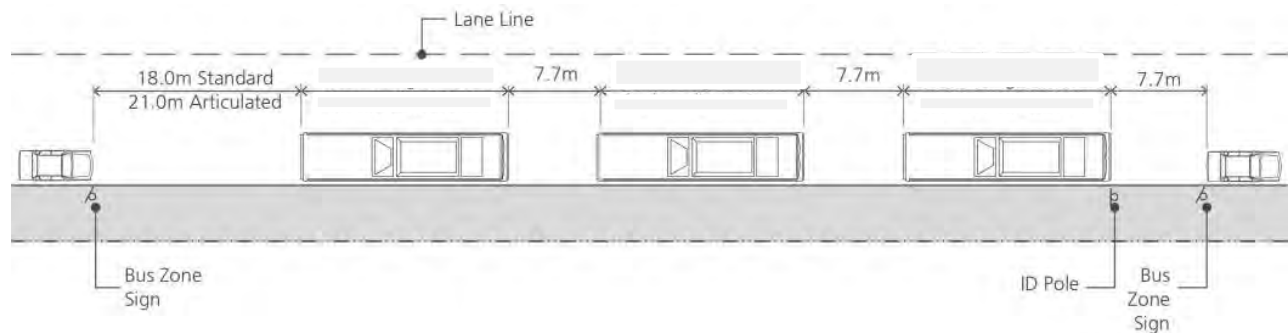


Figure 47 First-In, Independent-Departure Bus Stop Configuration

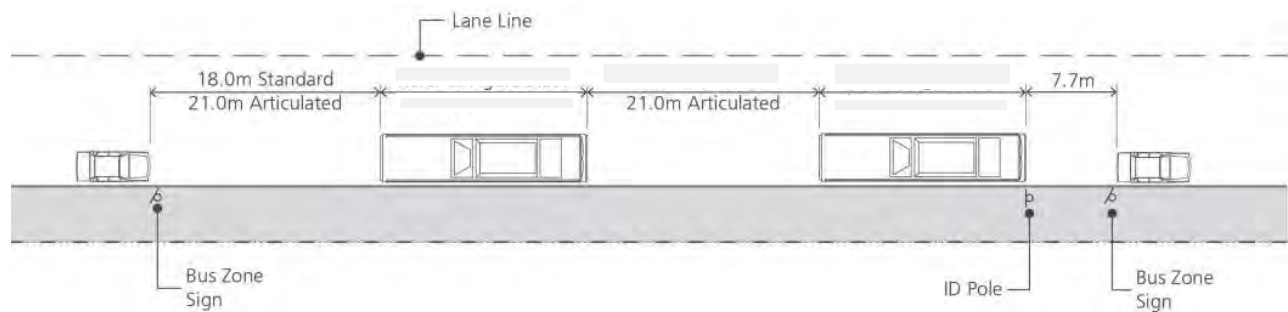


Figure 48 Independent-Arrival, Independent-Departure Bus Stop Configuration

3.5 Bike Lanes

Typically, bike lanes are provided on the right-hand side of the pavement adjacent to the curb or separated from the curb by a parking lane, a bus bay, or a turning lane. Key considerations of this arrangement are:

- A minimum 3 m (10 ft) wide bus stop next to a bike lane is desirable so that a stopped bus does not impact the bike lane
- A bus stop in a bus bay adjacent to a bike lane requires longer pull-in and pull-out distances than a bus bay adjacent to a vehicle travel lane due to the additional bike-lane width that a bus needs to cross to enter or exit the bus stop

Various bus stop configurations with bike lanes are shown in the following sub-sections.

3.5.1 Side Boarding Island Bus Stop

At a location where separated bike path (one-way or two-way) is provided between the travel lane and the sidewalk and where sufficient right of way is available, an “island bus stop” with the separated bike lane between the sidewalk and the bus stop could be considered.

Side boarding islands, like boarding bulbs, are dedicated waiting and boarding areas for passengers that streamline transit service and improve accessibility by enabling in-lane stops. Side boarding islands are separated from the sidewalk by a bike channel, eliminating conflicts between transit vehicles and bikes at stops. Boarding islands allow the creation of accessible in-lane stops with near-level or level boarding as shown in Figure 49.



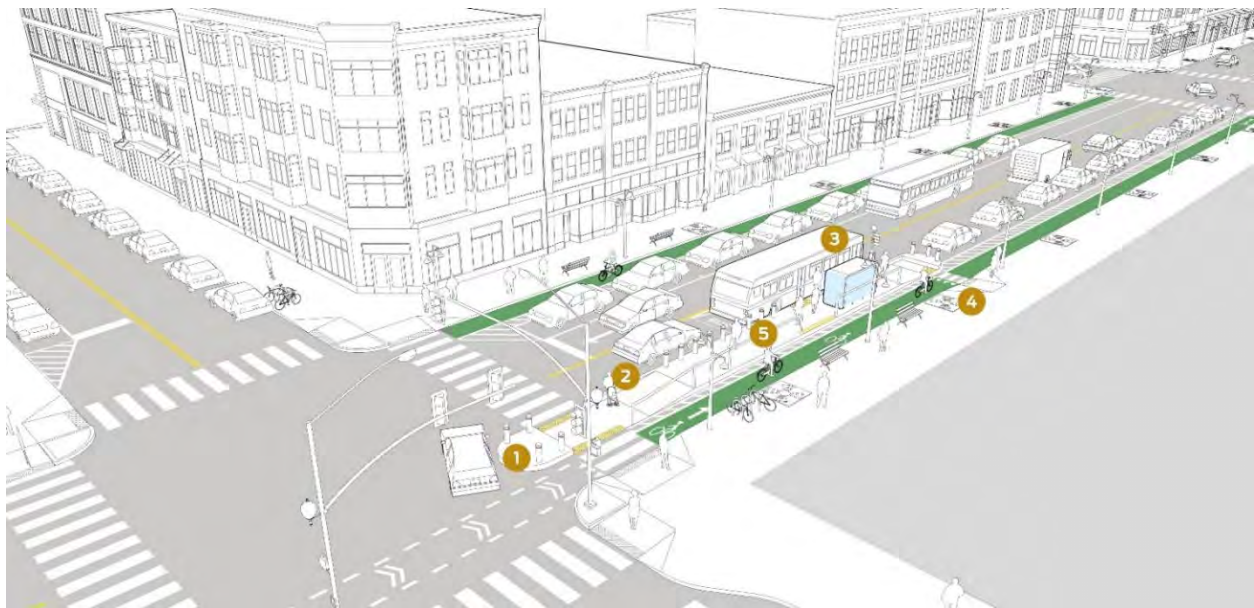
Figure 49 Side-Boarding Island Bus Stop Example

Streets with moderate to high transit frequency, transit ridership, pedestrian volume or bicycling volume can utilize boarding islands to maintain in-lane stops and provide separation to more users. If bicycle facilities exist or are planned, island stops maintain continuity of the bike lanes.

Boarding islands eliminate bus-bike “leapfrogging” conflict at stops, in which buses merge across the bicycle travel path at stops, causing bicycles to merge into general traffic to pass the stopped bus, only to be passed again as the bus accelerates. At boarding islands, both buses and bicycles can move straight at the stop, in their own dedicated space. See Figure 50 for an in-depth look at side-boarding.

Islands provide more space for transit passengers and amenities while maintaining a clear pedestrian path on the sidewalk. Operators are able to deploy ramps, as needed, onto the island without disrupting pedestrian flow. Boarding islands usually require less complex drainage modifications than boarding bulbs.

At high-volume stops, it may be necessary to require people on bikes to yield to people accessing the island directly from the sidewalk. Markings, color, and signage must reinforce appropriate yield behavior.



- 1) Use reflective signage or other visible raised element on the leading (back left) corner of the island
- 2) An accessible ramp should be placed at the intersection end of the island entering the crosswalk. If there is no crosswalk at the intersection, install one, with a refuge island tip to protect pedestrians (at least 1.8 m (6 ft) wide)
- 3) Boarding island stops should include shelters, seating, wayfinding, and passenger information when feasible
- 4) Shelters should be located at least 3 m (10 ft) from crosswalks over the bike lane to allow visibility between people on bicycles and people exiting the island. Leaning rails may be located along this gap
- 5) Install leaning rails along the edge of the island along the bike channel on portions of the island without a shelter or accessible boarding area. If leaning rails or fence are installed along the accessible boarding area, the total island width usually must be increased to 2.7 m (9 ft). Boarding islands can be extended to include bike parking, additional seating, parklets, or other community facilities

Figure 50 Typical Side-Boarding Island Bus Stop

Boarding islands must be designed to permit accessible boarding. An accessible boarding area, typically 2.4 m (8 ft) wide by 1.5 m (5 ft) long, must be provided to permit boarding maneuvers by a person using a wheelchair, see Figure 51.

Where the bike lane or cycle track requires cyclists to yield at a crosswalk from the sidewalk onto the island, the “BIKES YIELD TO PEDESTRIANS” sign and yield triangle markings must be installed.

Platform access ramp may have a maximum slope of 1:12 at a crosswalk or other crossing point, at the sidewalk and onto the platform. Detectable warning strips must be placed on both sides of every crossing over the bike lane.

For mid-block stops, include raised crosswalks across bike channel to encourage people on bikes to yield to people accessing the island. A “YIELD” stencil marking may be marked in the bike channel prior to the crosswalk to reinforce the requirement to yield.

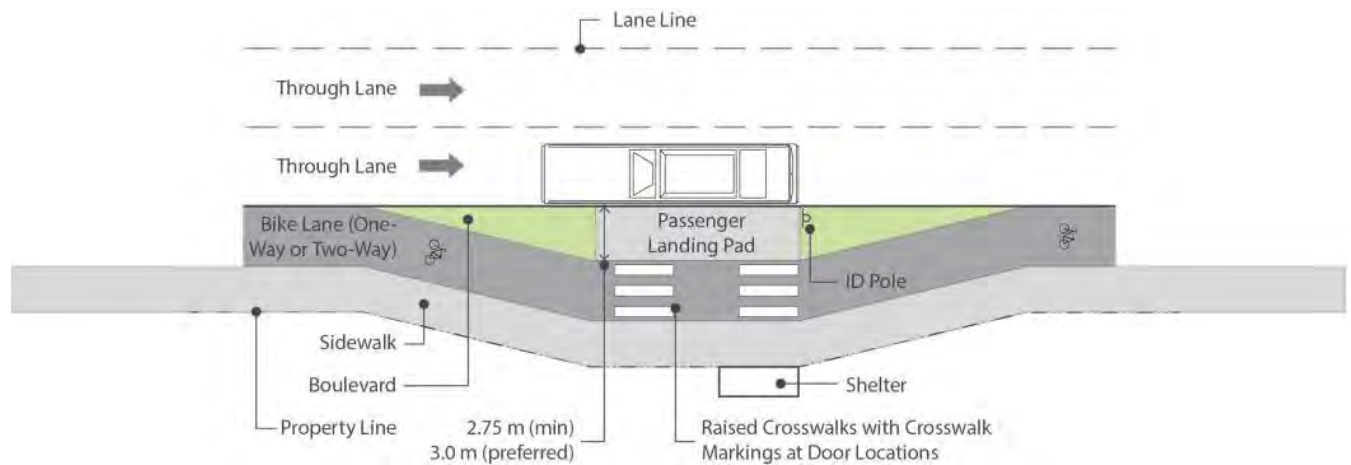
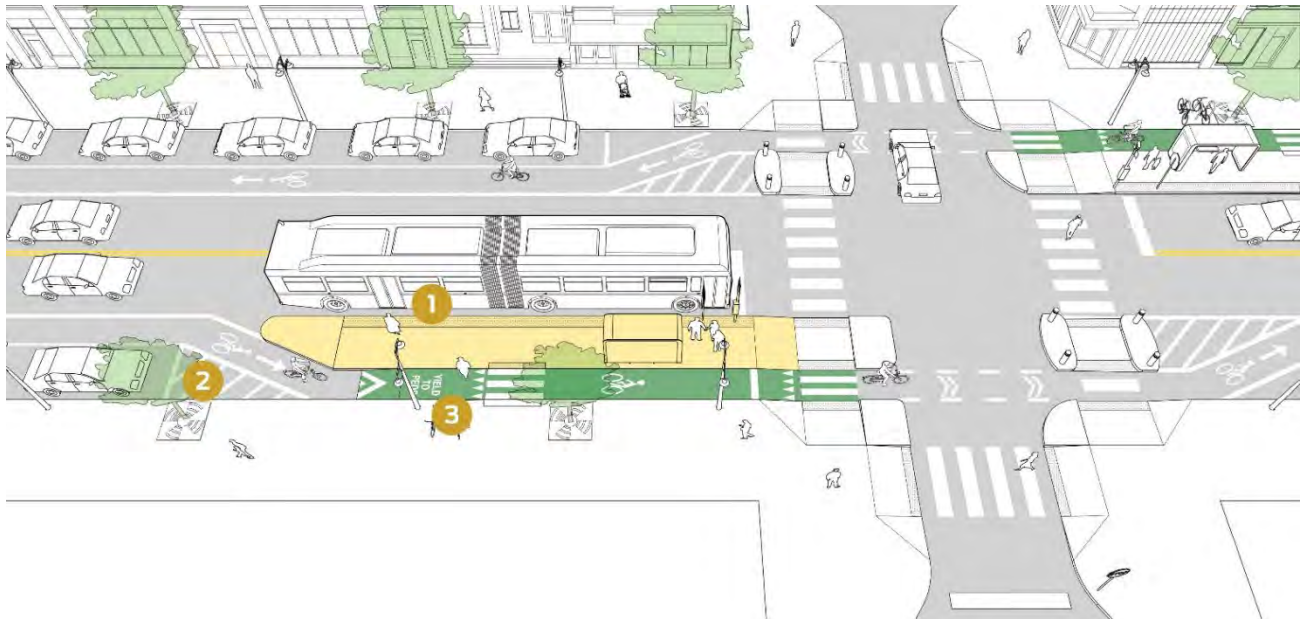


Figure 51 Side-Boarding Island Bus Stop Configuration

3.5.1.1 Near-Side, Side-Boarding Island Bus Stop

The near-side, side-boarding island bus stop is placed on the near-side of an intersection and is separated from the curb by a bicycle lane. This bus stop configuration provides a safe environment for bicycle and transit users by locating the bicycle lane behind the bus boarding island and utilizing crosswalks for safe crossing. This design has the potential for conflict between vehicular traffic and bicycle users by offering on-street parking between the curb and the bicycle lane. The vehicle user has to cross the bike lane to utilize the on-street parking. Refer to Figure 52 for an example of this configuration.



- 1) *The boarding platform must at minimum span from the front door to the rear door, and may be extended to meet capacity demands*
- 2) *The bicycle lane behind the floating boarding island can be at street grade or may be raised. Where the bike lane changes grade, bicycle ramps should not exceed a 1:8 slope. If raised, delineate bike and pedestrian realms using colored paint or paving materials*
- 3) *Mark pedestrian crossings through bike lane. Yield teeth and other markings and signs such as “YIELD” stencils and “BIKES YIELD TO PEDESTRIANS” signs inform bicyclists of the requirement to yield to pedestrians*

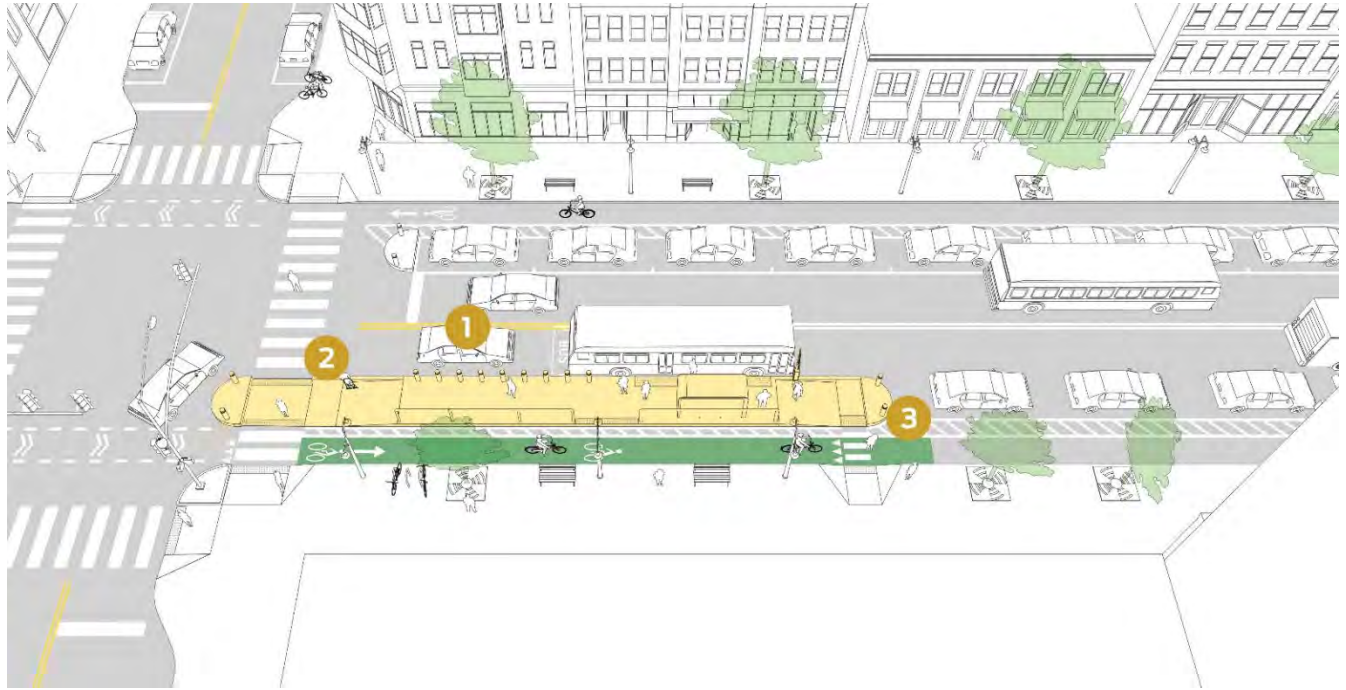
Figure 52 Typical Near-Side Bus Stop with Bike Lane Boarding Island

Bike lanes may be narrowed to slow bicycle traffic and reduce conflicts, with a minimum 1.5 m (5 ft) width.

Where a near-side island is combined with a right-turn restriction, extend the refuge island into the intersection and reduce the curb radius to self-enforce the turn restriction and provide additional pedestrian space. Continuing the bike lane in a protected configuration through the intersection simplifies interactions with pedestrians and provides right-turning vehicles with a place to wait as they approach the conflict zone.

3.5.1.2 Far-Side, Side-Boarding Island Bus Stop

The far-side, side-boarding island bus stop is placed on the far-side of an intersection and is separated from the curb by a bicycle lane. This bus stop configuration provides a safe environment for bicycle and transit users by locating the bicycle lane behind the bus boarding island and utilizing crosswalks for safe crossing. This design also minimizes conflict between vehicular traffic and bicycle users by offering on-street parking in line with the boarding island, between the bicycle lane and the lane of travel. Refer to Figure 53 for an example of this configuration.



- 1) *If high turn volumes are present, include a rear storage area so cars are less likely to queue into the intersection while the bus dwells. More storage space may be necessary on streets with only one lane per direction*
- 2) *Accessible ramps should be paired with crosswalks to direct users to safe crossings. If the bike channel stays at street grade, ensure that ramps, landings, and detectable warnings are provided whenever pedestrians cross into another “modal zone” (i.e. bikeway or travel lane)*
- 3) *At high passenger volumes, channelize pedestrian movements on and off the platform to reduce conflicts*

Figure 53 Typical Far-Side Bus Stop with Bike Lane Boarding Island

If a lean bar or railing is installed continuously along the back of the platform, the island must be at least 2.7 m (9 ft) wide to accommodate the 2.4 m (8 ft) deep accessible landing. If the accessible landing opens directly to an accessible crossing (either flush or raised), the island may be 2.4 m (8 ft) wide.

A crossing over the bike channel may be raised to provide a flush path to the sidewalk. Install yield teeth and “YIELD TO PEDESTRIANS” signs. Bicycle ramps should not exceed a 1:8 slope.

3.5.2 Bus Stops Adjacent to Bike Lanes

Subject to site-specific and right-of-way availability conditions, the following bus stop arrangements next to a bike lane might also be considered:

At a location where the available right-of-way is not sufficient to provide a 3 m (10 ft) wide bus stop next to a bike lane, the stopped bus may partially encroach on the bike lane at the stop. In this situation, the cyclist must either be able to pass the stopped bus safely or be able to make other decisions such as stopping behind the bus or making a deliberate lane change safely. Preferably, a minimum combined width of 4.3 m (14 ft) should be provided for the bus stop and bike lane to provide sufficient clearance for a cyclist to pass a stopped bus safely without the need to enter the adjacent travel lane. If a 4.3 m (14 ft) combined width for the bus stop and bike lane cannot be achieved, a sign advising cyclists to look before passing the bus should be considered. Figure 54-56 display bus stops with bike lanes.

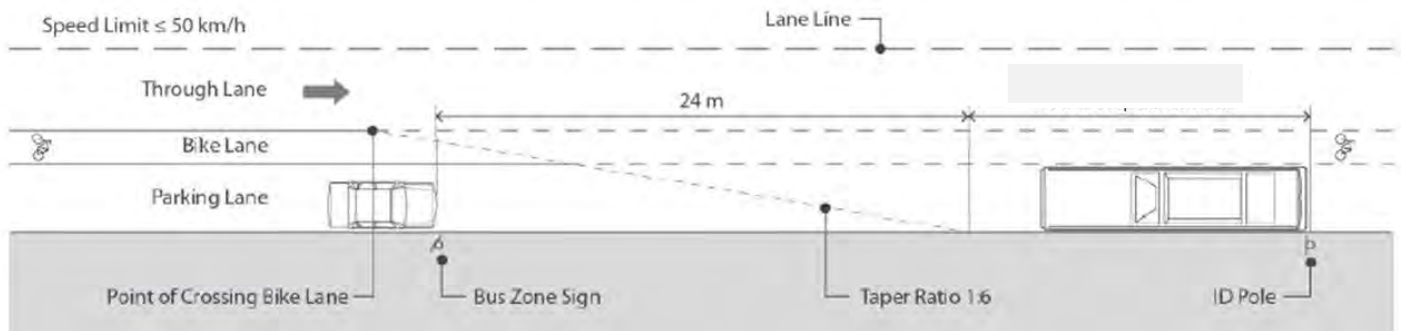


Figure 54 Bus Stop in Parking Lane Configuration

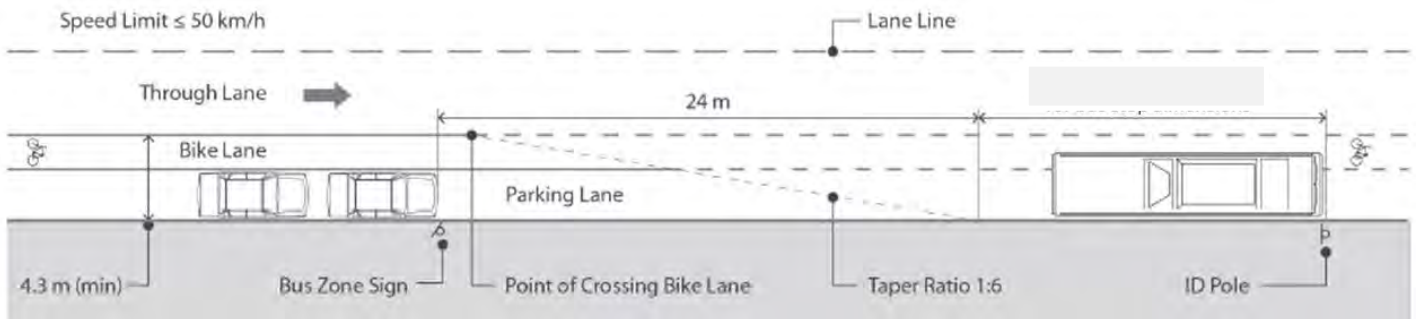


Figure 55 Bus Stop on Narrow Parking Lane Configuration

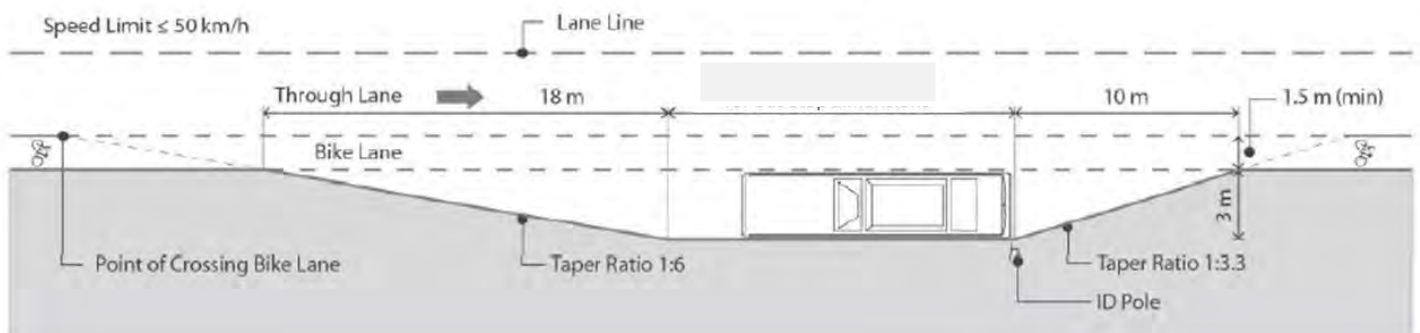


Figure 56 Bus Stop in Bike Lane with Bus Bay Configuration

3.5.3 Shared Cycle Track Bus Stop

Shared cycle track bus stops are an important retrofit option for constrained transit streets with in-lane stops if a boarding island configuration does not fit in either the street or the sidewalk. In shared cycle track stops, a bike lane or protected bike lane rises and runs along the boarding area, along the extended curb, rather than wrapping behind the boarding area, as shown in Figure 57. Bicyclists can ride through the boarding area when no transit vehicles are present, but must yield the space to boarding and alighting passengers when a bus or streetcar stops.



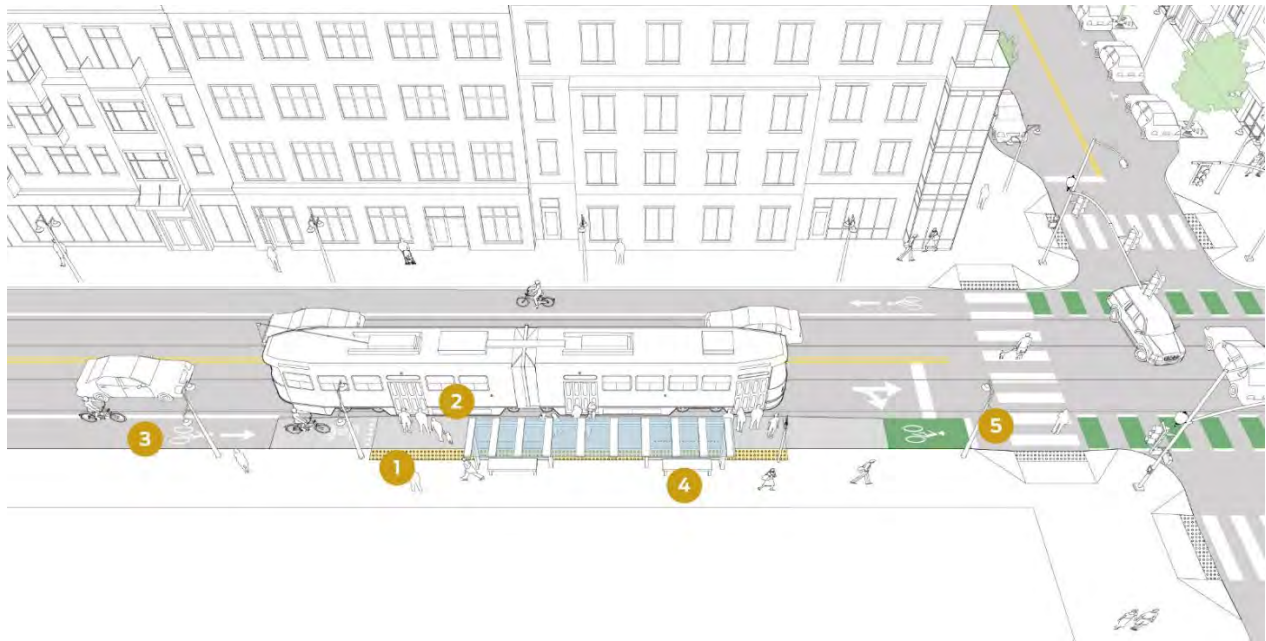
Figure 57 Example of a Shared Cycle Track Bus Stop

Generally occurs in a curbside condition; if street parking exists in the cross section space may be available for a boarding island or bulb. Bicycle lanes ramp up to platform height before the stop, and then ramp down after. Bicyclists should be at street grade at intersections.

Benefits:

- Provides more space for transit passengers and amenities while maintaining a clear pedestrian path on the sidewalk
- Space within bike lane can be used to partially satisfy accessible boarding zone requirements.
- Can facilitate level or near-level boarding

Measures must be taken to ensure bicyclists yield to boarding and alighting transit passengers; compliance is critical to providing safe and comfortable conditions, Figure 58 goes into more detail about this.



- 1) Place detectable warning strips along the edge of the sidewalk where passengers step into the shared raised boarding area, and along the boarding area curb where passengers board the transit vehicle. Use shark's teeth yield markings near the top of the bicycle ramp leading to the platform
- 2) The whole width of shared cycle track area can be used as the accessible boarding area for wheelchair lifts. However, wheelchair users must have a waiting area provided that is accessible to allow maneuvers to the space, and must be located outside of conflict areas
- 3) Ensure cycle track is wide enough for compatibility with maintenance equipment (sweepers or plows)
- 4) Where transit shelter is closer than 1 m (3 ft) to bike lane, it should open to the building side to maintain accessible paths and to avoid pedestrian conflicts with passing bicycles
- 5) Ensure bicyclists are well positioned in view of turning traffic. Terminate the boarding platform at least 3 m (10 ft) from the crosswalk to allow bicyclists to queue in front of transit vehicles

Figure 58 Typical Shared Cycle Track Bus Stop

Considerations:

- Slope of bicycle ramp shall not exceed 1:8
- Shared boarding locations require comprehensive multi-sense information to guide visually disabled passengers. Provide audible announcements that a transit vehicle is arriving, including the route name if multiple routes are present
- Curbside activities that will conflict with bike movements and visibility (such as lay-bys or parking bays) must be prohibited at minimum 6 m (20 ft) from either direction of the bike ramps

3.6 Terminals

At terminals, customers transfer between other modes of transportation and transit or between transit services. Terminals are broadly defined as customer facilities that serve multiple bus routes and provide layover space for buses. Terminals are generally located at activity centers along the route and at the end of bus routes.

In general, terminals have the following basic functions:

- Customer access from non-transit modes, including walking, cycling, park and ride and passenger pick-up/drop-off (kiss and ride)
- Transit information and wayfinding for customers
- Layover spots for bus routes
- Interlining among bus routes
- Operations supervisors and/or service vehicle parking
- Operators' crew room and washrooms

Terminals need to consider the requirements of transit operations and customers, and the terminals impacts to the adjacent road network and adjacent developments. The ultimate design of the terminal should optimize the needs of all users. Terminals should be built to meet the design horizon year, as those that are over or under built will be expensive to retrofit.

The following are some design considerations for terminals:

- Transit operation
 - Vehicle types (standard or articulated bus)
 - Number of bus bay and layover requirements
 - Nature of bus routes (e.g., terminating routes or flow through routes)
 - Bus bay function (e.g., first-in/first-out, independent departure and independent arrival and departure)
 - Bus operating plan (e.g., location and operating procedure for drop-off/layover/pick-up)
 - Bus circulation (eg., access to and from adjacent road network and internal circulation within terminal)
 - Height and ventilation requirements for covered facilities
 - Lighting requirements for terminal access, drive aisles, bus bays, pedestrian crossings and layover area
 - Telecommunications requirements (radio and cellular)
 - Concrete bus pads for bus bays and layover
 - Safe and efficient transit operation (e.g., location of pedestrian crossings within transit exchange, and travel distance between drop-off/layover/pick-up)
 - Location of bus operator washroom and crew room
 - Transit supervisor and service vehicles parking
 - Environmental requirements (i.e. oil-water separator)

- Passenger Space
 - Area for customer queuing, boarding and alighting, and transferring (e.g., passenger circulation)
 - Covered customer waiting area (e.g., shelter) for weather protection at queuing areas
 - Space for customer amenities (e.g., benches, bike parking, lighting, garbage bins, wayfinding maps)
 - Accessibility requirements (e.g., wheelchair landing pad, accessible routes and grades)
- Passenger Access
 - Number and location of pedestrians and cyclists crossings within, and to and from the terminal
 - Safe pedestrians and cyclists crossings within, and to and from terminal (e.g., sightline, lighting, pavement marking and signage)
 - Provision for bike storage (e.g., bike racks, lockers and secure bike parking)

3.6.1 Terminal Types

The selection of a terminal type would generally depend on land availability, operating plan, bus bay requirements and its location in relation to the adjacent road network and adjacent land uses. The following subsections provide a summary and general description of typical transit terminal types.

3.6.1.1 Centre Loading Platform Terminal

A centre loading platform terminal consists of a single customer platform surrounded by a bus drive aisle for clockwise circulation, shown in Figure 59. Generally, the terminal is located off-street and is not accessible to general purpose traffic. Layover, like pick-up and drop-off, may be located in bays adjacent to the customer platform. It may also be accommodated around the perimeter of the bus circulation area or off-site.

Transit Windsor has one type of these terminals located at Hotel-Dieu Grace Healthcare on Prince Road (Figure 60).

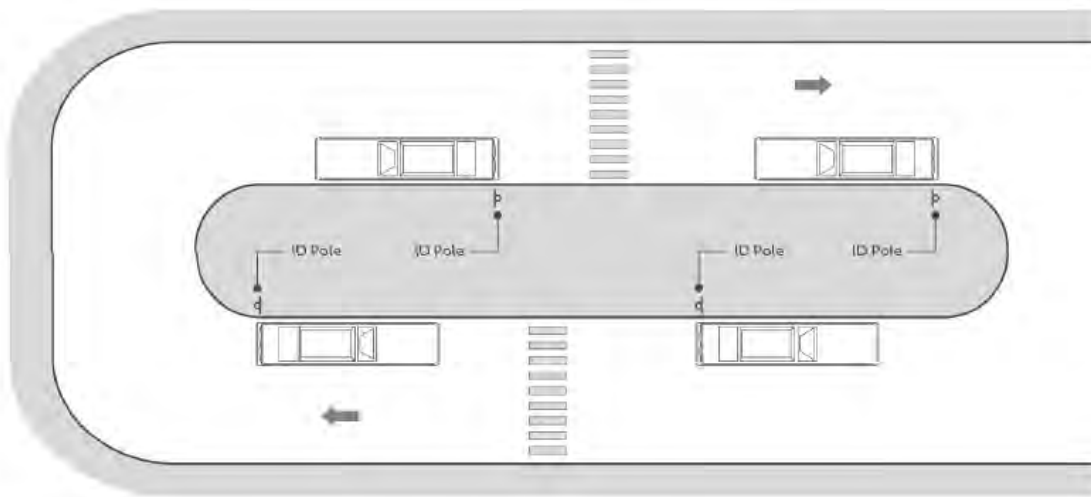


Figure 59 Centre Loading Platform Configuration



Figure 60 Hotel Dieu Grace Healthcare Transit Windsor Terminal

Site characteristics:

- When majority of customers are transferring between buses, customers are not required to cross the drive aisle, therefore reducing bus-pedestrian conflicts
- Customer amenities (e.g. weather protection, seating, and retail kiosks) can typically be accommodated within the platform
- Platform can generally be sized to accommodate large number of bus bays, long customer queues, and high customer transfer volumes

Design recommendations:

- Provide safe pedestrian crossings along desire lines and minimize number of crossings to and from the platform
- Design a compact platform to reduce customer walking distance and minimize land requirement
- Provide adequate weather protection near the bus stop pole, where customers will likely form queues, especially on bus routes that have high chance for pass-ups, long distance, or low customer turnover
- Provide good visibility along platform, for better customer safety and security

3.6.1.2 Multiple Parallel Loading Terminal

This type of terminal consists of multiple parallel platforms that accommodate bus passenger pick-up and drop-off. Generally, multiple parallel loading terminals are located off-street and are not accessible to general purpose traffic, as shown in Figure 61. Layover, like pick-up and drop-off, may be located in bays adjacent to the customer platforms. It may also be accommodated around the perimeter of the bus circulation area or off-site.

Transit Windsor’s Windsor International Transit Terminal downtown is this type of terminal (Figure 62).

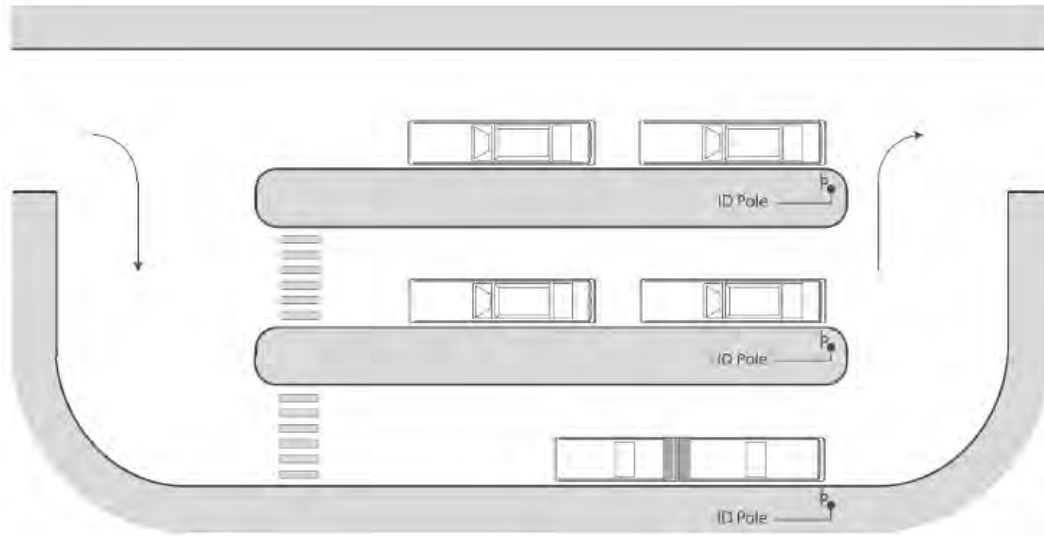


Figure 61 Multiple Parallel Loading Transit Terminal Configuration



Figure 62 Windsor International Transit Terminal

Site characteristics:

- May be more suitable for terminus where transferring customer volumes are relatively low, as fewer customers will be required to cross between drive aisles
- At location where space is constrained, large number of bays can generally be designed in a spatially efficient manner

Design recommendations:

- Provide safe crossings along desired lines and minimize number of crossings within/to-from transit terminal
- Assign bus routes with high customer transfers on the same platform, to optimize customer transfer movement and minimize pedestrian crossings
- Incorporate measures (e.g. landscaping) to discourage customers from jaywalking between drive aisles within the terminal
- Provide sufficient platform space for queuing, boarding/alighting and customer amenities
- Consider various operating plans to optimize number of bus bays and layover required at the terminal

3.6.1.4 Perimeter Terminal

A perimeter terminal consists of a continuous customer platform with pick-up and drop-off bays on a single side or multiple sides—depending on number of bus bays and layovers required, with an adjacent bus drive aisle for circulation, as shown in Figure 63. Layover, like pick-up and drop-off, may be located in bays adjacent to the customer platform. It may also be accommodated around the perimeter of the bus circulation area or off-site.

Transit Windsor has three locations that are this type of terminal; they are the terminals located at Tecumseh Mall (Figure 64), Devonshire Mall (Figure 65) and St. Clair College (Figure 66).

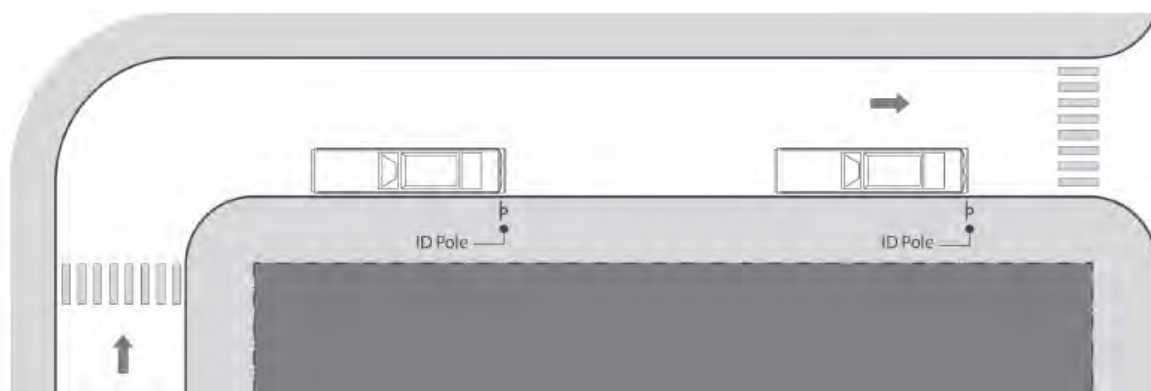


Figure 63 Perimeter Terminal Configuration



Figure 64 Tecumseh Mall Terminal

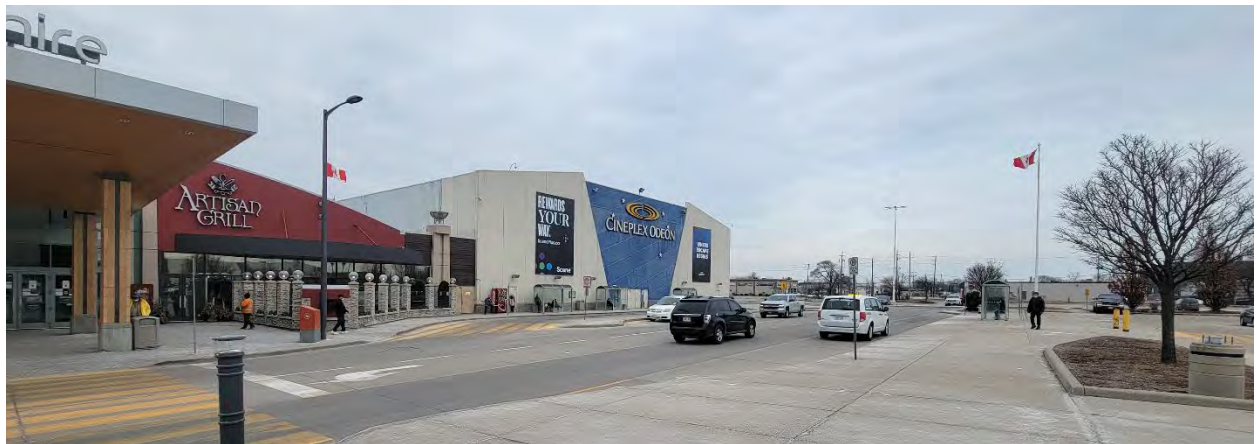


Figure 65 Devonshire Mall Terminal



Figure 66 St. Clair College Terminal

Site characteristics:

- Bus-pedestrian conflicts are reduced if most customers are approaching the terminal from a single direction of the platform
- Customer amenities can typically be accommodated on a single platform

Design Recommendations:

- Provide safe crossings along desired lines and minimize the number of crossings to the transit terminal if pedestrians are expected to access it from other directions other than the platform
- Consider the possibility of increased walking distance for bus to bus transferring customers if the terminal has a large number of bays

3.6.1.5 On-Street Terminal

An on-street transit terminal locates passenger pick-up/drop-off areas on a street that shares the roadway with general purpose traffic, as shown in Figure 67. Layover may be located either curbside or in a separate, off-street area. On-street terminals serving many routes can increase capacity and reduce transit vehicle congestion where multiple routes converge. By grouping routes and spacing stops in a skip-stop configuration, using skip-stop configurations and enhanced boarding platforms for heavy passenger volumes can result in passenger boardings being dispersed

Transit Windsor has one location that is considered this type of terminal and it's located on Ouellette at Wyandotte Southwest Corner (Figure 68).

Site Characteristics:

- When a large number of destinations are distributed around the terminal area, customer desired lines can be accommodated through the urban street network
- A small number of layover bays can be accommodated on street.



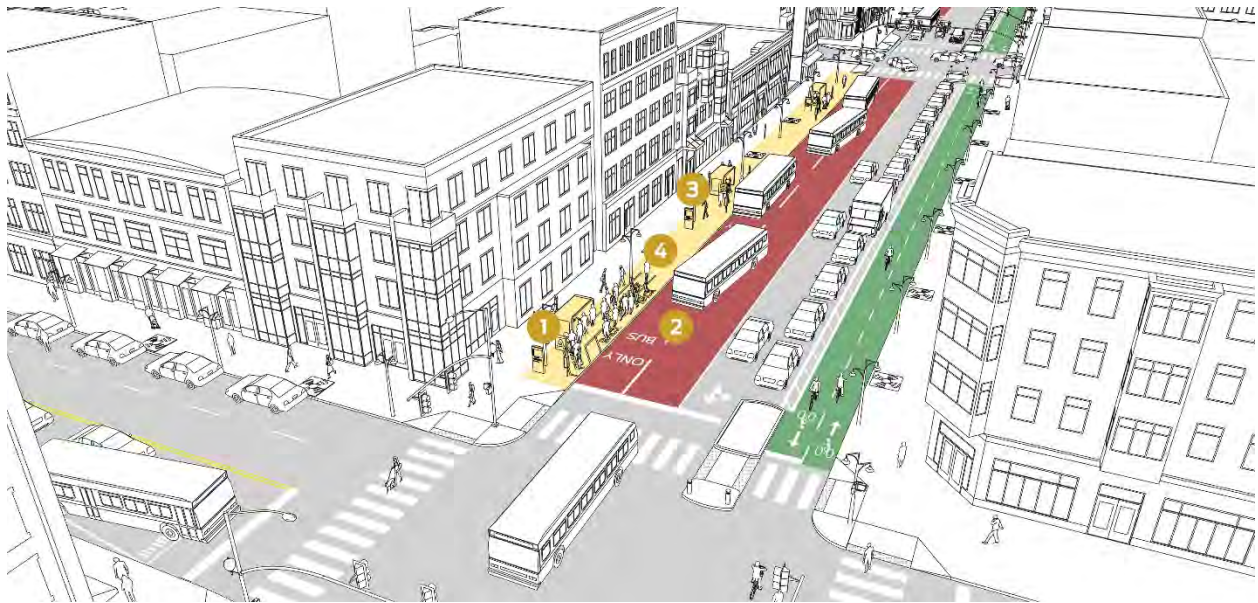
Figure 67 On-Street Terminal Configuration



Figure 68 Transit Windsor On-Street Terminal at Ouellette and Wyandotte

Design Recommendations, as shown in Figure 69:

- Provide sufficient sidewalk space for both customer queues and pedestrians. In high-volume queue locations, line markings or other queueing systems may be required to keep pedestrian through zones free from customer queues
- Design bus bay location that channels customers to use intersection crosswalks
- Incorporate measures (e.g. landscaping) to discourage customers from jaywalking across roadway for bus to bus transfers
- Consider possibility of increased walking distance for bus to bus transferring customers, if the terminal has large number of bays
- Consider combination of off-street and on-street layover if large amounts of layover bays are required
- Consider transit priority measures, such as a bus lane, if buses must circulate on city streets between drop-off, layover, and pick-up
- Provide wayfinding to help customers identify bus bays locations and accessible routes



- 1) Transit stop signs must clearly communicate which routes are served at which locations
- 2) The on-street terminal must always operate in the curbside lane; to ensure stops remain unobstructed, all other curbside activities must be prohibited on the terminal side of the street
- 3) Strip maps, system maps, and wayfinding infrastructure should be consistently and prominently displayed to assist riders in finding correct stop locations
- 4) For high-boarding stops with either all-door boarding or multiple lines, managed passenger queues may be implemented at the stop to speed boarding, sort passengers into distinct queues, and maintain a clear pedestrian zone on the sidewalk

Figure 69 Typical On-Street Terminal Design

3.6.1.6 Hybrid Terminal

A hybrid terminal has on-street bus stops along one or more sides of the terminal and some bus stops located off-street. Figure 70 shows a hybrid terminal diagram while Figure 71 shows a real-world example. The bus layover areas can be placed on the off-street side of the terminal.

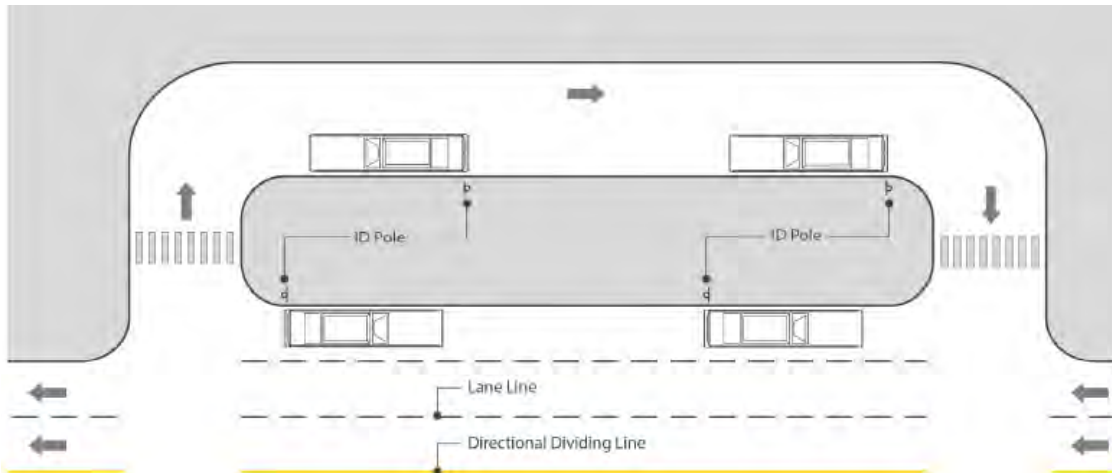


Figure 70 Hybrid Terminal Configuration



Figure 71 Example of a Hybrid Terminal

Site Characteristics:

- When majority of customers are transferring between buses, customers are not required to cross the drive aisle, therefore reducing bus-pedestrian conflicts
- Customer amenities (e.g. weather protection, seating, and retail kiosks) can typically be accommodated on single platform
- Platform can generally be sized to accommodate a large number of bus bays, long customer queues and high customer transfer volumes

Design Recommendations:

- Provide safe crossings along desired lines and minimize number of crossings within/to-from transit terminal
- Design a compact customer waiting platform to reduce customer walking distance and minimize land requirement
- Provide weather protection near bus stop pole, as customers will likely form queue on long distance or low-turnover bus routes
- Size terminal to accommodate future service demand
- Provide good visibility within customer waiting platform for better customer safety and security
- Provide separate washroom facilities and waiting area for bus operators

3.6.2 Bus-Pedestrian-Cyclist Conflicts within a Terminal

The circulation of buses within a terminal should be designed to minimize conflicts with pedestrian and cyclist movements. The locations of bus entry and exit points should be segregated from pedestrian and cyclist traffic wherever possible; otherwise, pedestrian and cyclist traffic should be controlled by traffic management measures such as fences or railings.

To avoid any potential sightline problems within a terminal, wherever possible, pedestrian and cyclist crossings should be placed at locations behind stopped buses, before bus turning maneuver points, or at the end of a bus turning maneuver, as illustrated in Figure 72. There should be sufficient stopping sight distance for a bus operator to see pedestrians and cyclists; otherwise, signals or a stop sign should be installed to ensure that buses stop before a crossing and bus operators can check for pedestrians before proceeding.

The locations where pedestrians step out from the platform should not be located in the visibility impairment zone of the bus operator while the bus is making a turn around the platform. As much as possible, pedestrian and cyclist crossings should be located on pedestrian/cyclist desired lines so that bus operators will know where to expect people crossing, to minimize the number of people crossing where they are not expected and to minimize the need for barriers or fences. If barriers or fences are required to prevent unsafe pedestrian/cyclist crossings, consider altering the design or including aesthetically pleasing custom fences and/or landscaping to improve the pedestrian environment. Pedestrians and cyclists should be oriented so they face oncoming buses when entering a crossing; designs where pedestrians and cyclists have their back to oncoming buses should be avoided.

The “LOOK LEFT (OR RIGHT) FOR BUSES” warning sign, with supplementary tab, is to be used at transit exchanges where buses cross pedestrian crosswalks to alert pedestrians of the direction from which buses will be coming. Warning signs, such as the “CYCLISTS YIELD TO PEDESTRIANS” warning sign can also be used at transit exchanges to alert cyclists of pedestrian and bus traffic.

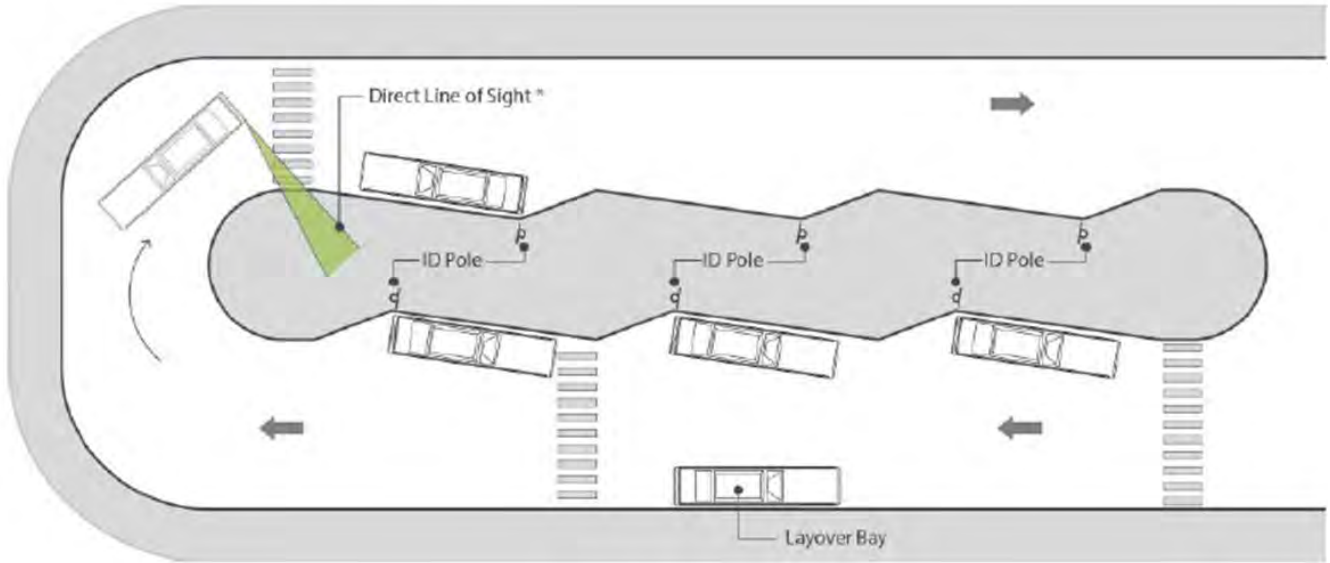


Figure 72 Pedestrian and Cycling Crossing within a Terminal

Section 4 Physical Design for Safe Passenger Access & Amenities

After the selection of the bus stop configuration, the physical design should be considered in promoting safe and efficient operation for the interaction of transit vehicles, transit passengers and other road users. The physical design involves various elements:

- Bus stop visibility
- Passenger access
- Passenger amenities
- Universal access

Appendix B is a maintenance checklist for the elements that are involved, including the suggested frequency of on-site checking for bus stops.

Design that promotes minimal “perceived barriers” by the general public, particularly vulnerable road users (including the young and the elderly) is fundamental to the design of all transit infrastructure. This must be considered in all design elements.

4.1 Bus Stop Visibility

The primary tool for communicating to passengers about the bus stop location is the bus stop sign. The bus stop sign also alerts the transit operator to the area where the bus should be stopped.

Bus stop sign considerations:

- Sign should be positioned at a minimum approximately 0.6 m (2 ft) from face of curb to avoid conflict with bus mirrors
- Sign should be clearly visible to passengers and the driver, and not obscured by other objects (i.e. streetlights, trees, other street signs, etc)
- Sign should be easily distinguishable as a bus stop, this may require a bus symbol on the bus stop sign or on the pole or text on the sign indicating bus stop
- When installed behind sidewalk, sign should be positioned at a 45 degree angle to the street to ensure the sign is visible to transit operators. When installed between the road and the sidewalk, the sign should be positioned perpendicular to the street to ensure the sign is visible to pedestrians using the sidewalk
- Sign should be securely mounted on its own post
- Sign should provide basic information, such as routes served, direction and bus stop number
- Sign should also provide information regarding the type of routes servicing the stop (i.e. BRT (Bus Rapid Transit), on-demand, express, etc.) and the service level (i.e. night route, no Sunday or holiday service, weekday service only, etc.). This could be displayed through text, symbols and/or colors
- Sign should be designed with those with visual impairments in mind. This includes using high contrast colours and adequate text size



Figure 73 Transit Windsor Bus Stop Sign

4.1.1 Detours

Buses are prohibited from boarding or dropping off passengers at bus stops in construction zones. Detouring a bus route is necessary during construction, road closures, special events, etc. The following should be considered when detouring a bus route:

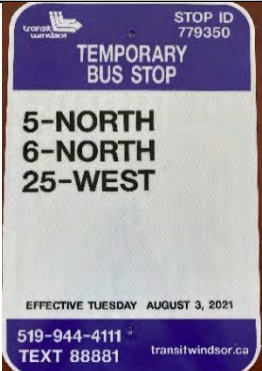
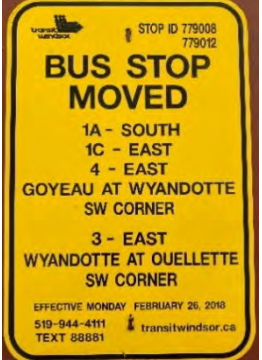
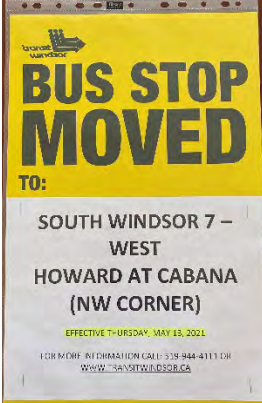

- Road width; roads with a width of less than 6.4 m (21 ft) should not be considered. Refer to section 6 for more information regarding road design
- Minimize the amount of deviation from the regular bus route
- Locations to place temporary bus stops
- Traffic & road design; i.e. Left turns on high traffic roads
- Curb Radii: curb radii as intersections must be large enough to allow buses to turn. Refer to section 6 for more information regarding road design

Temporary bus stops along detour routes are used to continue servicing passengers while the route is on detour. The following should be considered when choosing a location for temporary bus stops:

- Minimize increases to walking distance from bus stops on the regular route
- Bus stop spacing requirements identified in section 1, taking into consideration existing bus stops. Consider using existing bus stops before creating temporary bus stops
- Follow requirements set out in sections 1 and 2
- Ensure that temporary bus stops are clearly visible to passengers and operators

Table 5 below outlines the three different types of temporary signage Transit Windsor uses for detours.

Table 5 Temporary Signage used for Detours

SignType	Purpose	Details	Example
Purple Metal Sign	<ul style="list-style-type: none"> Used to indicate a temporary bus stop Used when construction project is over 1 week in duration (long term) 	<ul style="list-style-type: none"> Installed & made by City of Windsor Traffic department Details for sign creation & installation provided by Transit Windsor Planning department Installed at temporary bus stop locations 	
Yellow Metal Sign	<ul style="list-style-type: none"> Used to indicate that the bus stop is not being serviced due to a detour Used when construction project is over 1 week in duration (long term) 	<ul style="list-style-type: none"> Installed & made by City of Windsor Traffic department Details for sign creation & installation provided by Transit Windsor Planning department Installed at existing bus stops that will not be serviced due to the detour 	
Yellow Paper Sign	<ul style="list-style-type: none"> Temporary signs used as a bus stop moved sign & as a temporary bus stop sign Used when construction project is less than 1 week in duration (short term) or for special events 	<ul style="list-style-type: none"> Made by Transit Windsor Planning department Installed by Transit Windsor Planning department or Operations Supervisors Paper signs are placed in clear plastic protectors and installed on stanchions or hydro poles using zip ties 	 

Notices, maps and a summary table of bus stops closed and temporary bus stops are created and posted on the Transit Windsor website and on internal detour boards to communicate up to date service disruptions to the public and the operators. The detour notice should portray the following details:

- Detour route
- Route and direction being impacted
- Road closure limits
- Closed bus stops
- Temporary bus stops
- Durations

The Transit Windsor Prediction Portal is also used to update the public with real time information regarding detours, closed bus stops, temporary bus stops, service disruptions, etc.

Automatic Vehicle Location (AVL) is another way that we communicate detours to operators, this allows planners to input the detour, including closed bus stops and temporary bus stops into a software that shows this information to operators on the bus.

4.2 Passenger Access

Having optimal conditions for pedestrian access to the bus stop are key in promoting transit use. These conditions can be classified into several areas:

- Physical characteristics of the routes
- Personal security

4.2.1 Physical Characteristics of Pedestrian Routes Used by Passengers

For convenience, the point of origin and destination to and from the bus stop should be as direct as possible. The path may be along the public right-of-way (for example, a sidewalk next to a major street) or private right-of-way (for example, a short-cut walking route through a residential development). Optimal conditions involve the path being clear of physical obstacles (for example, fences and barriers) and the ground clear of slippery or unstable materials, such as mud and water puddles. Where obstacles do exist, they should be marked by warning strips.

Snow removal in winter months is prioritized in the City of Windsor, including all streets that have bus routes on them. Transit Windsor has a priority list that is given to Public Works for snow removal at priority bus stops.

Extreme vertical grades and stairs, which may make access difficult for all users should be avoided. Where stairs or extreme grades exist, barrier-free alternative routes should be provided. Both lateral and overhead clearance should be adequate to avoid obstructed travel.

Curb ramps and other travel paths should be designed to prevent the accumulation of water and snow. Ramps may not have a slope exceeding 1:12. Ramps must have a landing for each 0.8 m (2.5 ft) of rise. Inclines and cross slopes of the street may impact other surfaces and should be accounted for in curb heights, sidewalks and boarding platforms, and drainage infrastructure. A 1% to 2% slope is often needed for proper drainage of sidewalks.

4.2.2 Personal Security

Aspects of the built environment can be improved to enhance personal security. Crime Prevention through Environmental Design (CPTED) is an approach to planning and design that reduces opportunities for crime. The physical environment can be designed to reduce the risk of crime and nuisance behaviour associated with public spaces.

Well-cared-for transit facilities improve their desirability. Locations that offer natural surveillance by adjacent land use are desired, such as where neighbouring houses look on to the facility or commercial businesses open late.

With regards to lighting, adequate lighting that illuminates on waiting and surrounding areas is desired. Coordination with existing lighting, such as street lighting or lighting with adjacent land uses should be considered to maximize visibility of the transit facility. Where existing lighting is not available, installation of new lighting or the use of bus shelter lights by solar panels can be considered to ensure visibility at night-time. Lighting requirements at bus stops should be no less than the lighting design requirements for the adjacent roadway.

Pedestrian-scale lighting, typically including lamps less than 8 ft (25 ft) high, increases comfort and safety around stops. Higher illumination around transit stops should be gradual rather than sudden to avoid creation of virtual shadows as driver and bicyclist eyes adjust.

To provide a safe waiting environment during night-time at rural or remote bus stops, the use of lighted bus shelters by solar panels is an important consideration to ensure that light can be provided without access to the electricity supply grid, as shown in Figure 74.



Figure 74 Transit Windsor Bus Shelter with Ad panel at Night

With regards to landscaping, low shrubbery or canopied trees should be considered as opposed to taller bushes or evergreen trees that promote hidden areas.

Incorporate landscape treatments that preserve views but improve the environment for waiting passengers by providing shade from the sun and shelter from the wind, as shown in Figure 75. This can enhance the user experience, environmental performance, and the image of the system.

Regular maintenance of the facility area can prevent a “run-down” appearance and the landscaping from overgrowing and allow observation of the environment conditions for signs of unwanted activities.



Figure 75 Example of a Bus Stop with Shade Provided by Trees

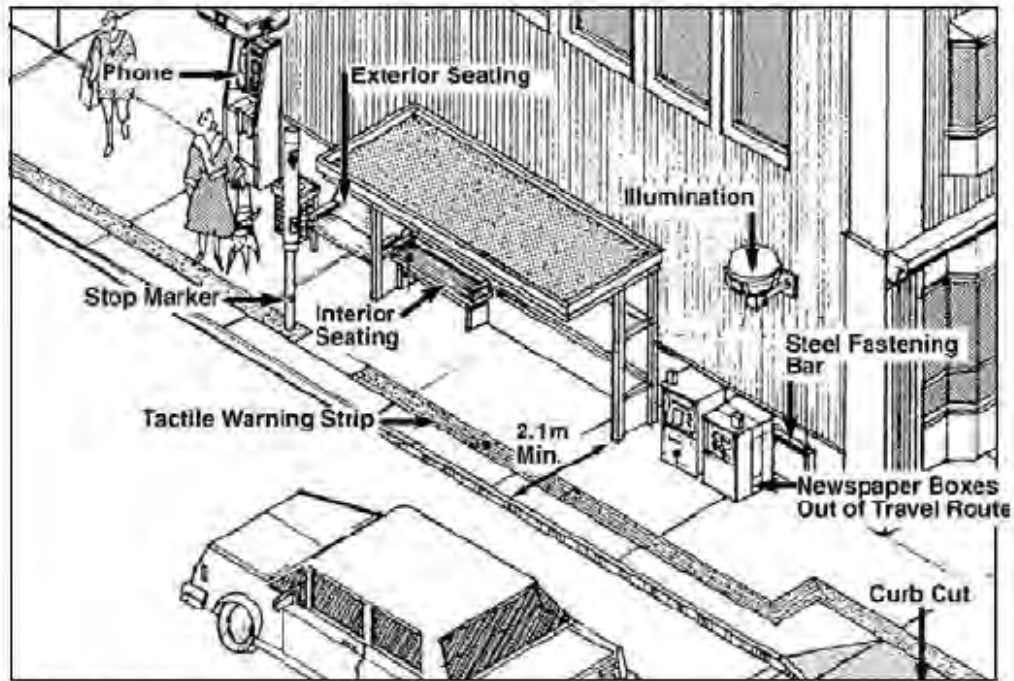
4.3 Passenger Amenities

The amenities to be provided for passengers include an adequate waiting and queuing area, as well as shelter and benches where warranted.

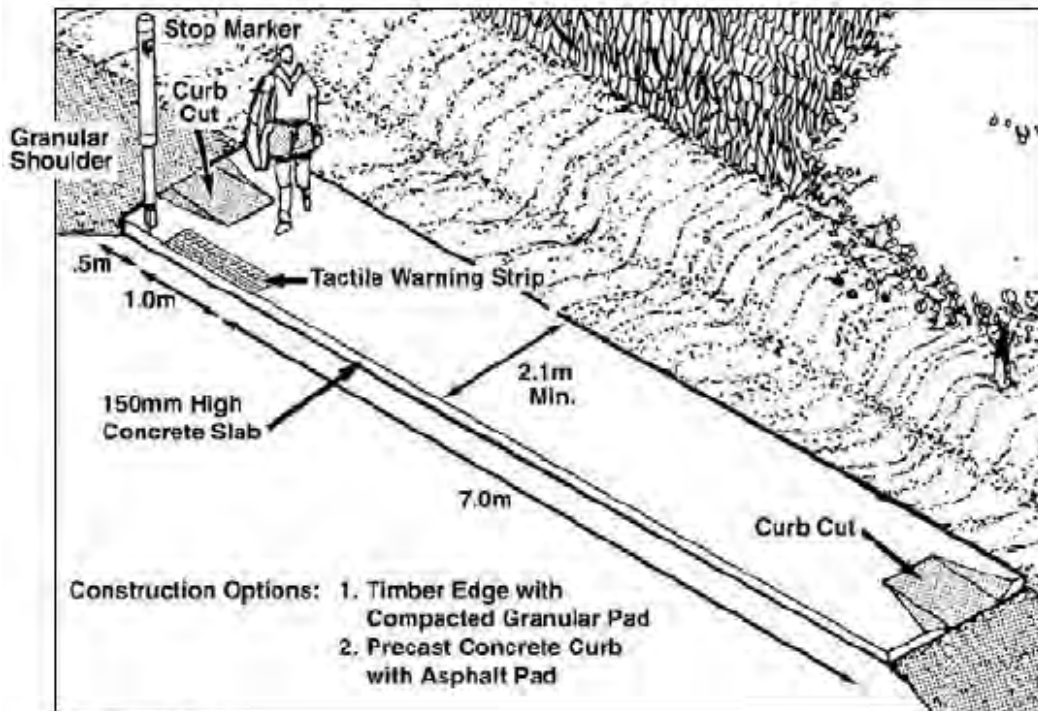
It is important for passengers to have sufficient room to queue for the bus without blocking other pedestrians or interfering with other sidewalk activities. The passenger zone typically consists of the following:

- A bus stop pole and sign
- Lighting
- A passenger landing pad
- A wheelchair pad and curb letdown

The extent of passenger amenities to be provided at each bus stop also depends on the local context. Typical layouts of the passenger amenities provided in an urban area versus a rural area are illustrated in Figure 76.



Urban Location



Rural Location

Figure 76 Passenger Amenities

When available, provide a range of pedestrian amenities to enhance pedestrian comfort and safety, including:

- trees to provide shade during hot summer months and contribute to an attractive pedestrian environment
- furnishings such as benches and waste bins
- attractive pedestrian-oriented lighting

Coordinate the provision of pedestrian amenities with patterns of usage, concentrating amenities along key streets leading to and from stop or station areas or between key destinations. Street-related buildings can contribute to pedestrian amenity through the provision of canopies or elements designed to mitigate the impacts of wind or weather conditions. Incorporate curb cuts at all pedestrian crossings to assist people with strollers, carts or mobility issues. All curb cuts should be equipped with tactile warning strips to enhance safety and accessibility at transit stops.

Sidewalks on principal pedestrian routes within nodes and corridors should provide for broad pedestrian through zones, particularly in pedestrian districts. An additional furnishing zone to accommodate bus shelters and waiting areas, street trees, planters and the potential for retail or commercial spill-out space may also be required. Different street zones are shown in Figure 77.

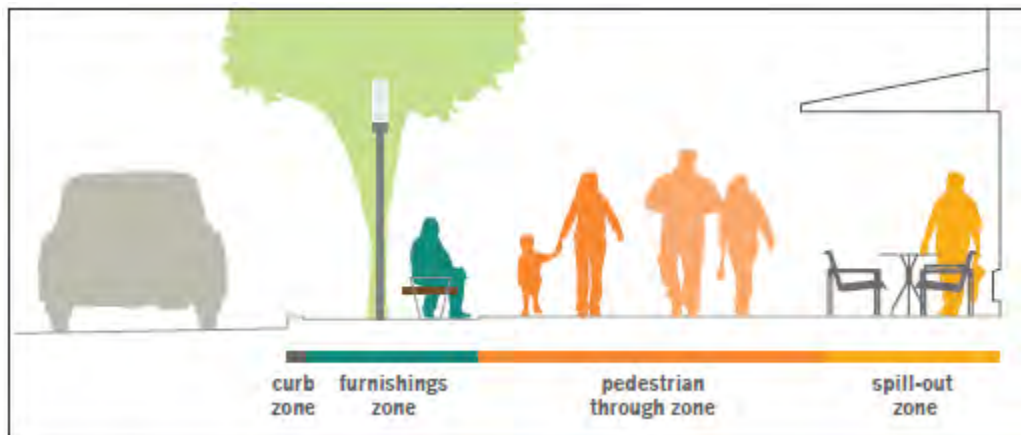


Figure 77 Street Zones

Figure 78 illustrates two potential transit stop configurations. The configuration shown as the first stop configuration creates a waiting area away from the street. The second configuration has the area adjacent to the street. Stops should be located adjacent to a street only where there is low traffic volume.

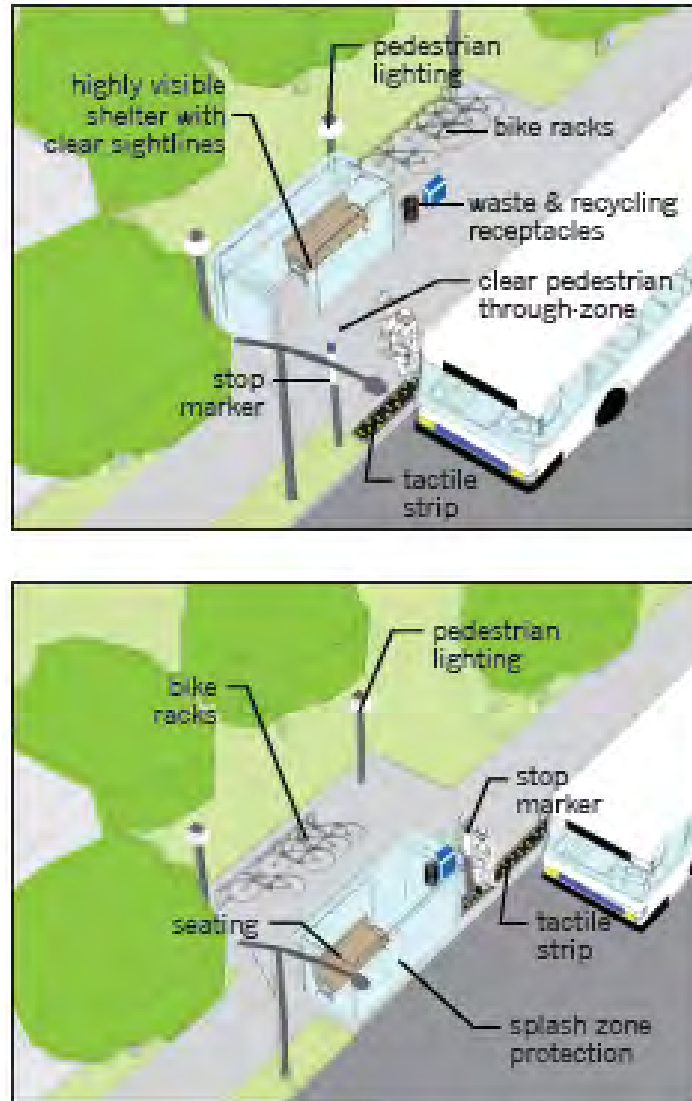


Figure 78 Bus Stop Configuration with Amenities

Table 6 summarizes the type of amenities that are considered mandatory and those that are considered desirable or to be provided where warranted.

Table 6 Bus Stop Amenities

Amenities	Criteria for Provision		
	Regular Stop	Enhanced Transit Stop	Terminals
Bus Stop pole/stanchion	Mandatory	Mandatory	Mandatory
Bus stop sign	Mandatory	Mandatory	Mandatory
Route/Schedule information holder	Desirable	Mandatory	Mandatory
Lighting	Desirable	Mandatory	Mandatory
Passenger landing pad	Mandatory	Mandatory	Mandatory
Wheelchair pad	Desirable	Mandatory	Mandatory
Garbage Receptacles	Desirable	Mandatory	Mandatory
Seating	Desirable	Mandatory	Mandatory
Bus shelter	Desirable	Mandatory	Mandatory
Real-time information	If Warranted	Desirable	Mandatory
Bicycle storage	If Warranted	Desirable	Mandatory

There are some regular stops that may have elements of an enhanced bus stop, such as seating and/or shelters depending on the specific circumstances. Any new stop that is put into place will be evaluated and determined if it will be a regular stop or an enhanced stop based on a number of factors including ridership and site location. Existing stops will also be evaluated using the same criteria. All bus stops on a BRT (Bus Rapid Transit) route will be considered enhanced transit stops, making many of the above amenities mandatory.

It is desirable for the passenger zone to be made of a slip resistant, impervious and well drained surface. The passenger zone should be large enough to accommodate users that are either boarding, alighting, or waiting for a different bus (if multiple routes share a common stop). Depending on the width of sidewalk, the passenger zone may be bound by the adjacent property line or the boulevard before the property line, the curb face, and lateral limits upstream and downstream of the stop marker.

The required space at a passenger zone depends largely on the expected maximum number of waiting passengers at the bus stop. This may be estimated by the number of passengers on- and off-loading, the volume of transfer passengers and the scheduled bus frequencies at the stop.

4.3.1 Passenger Landing Pad

The passenger landing pad is a surface provided at a bus stop for passenger waiting and loading/unloading activity. Passenger landing pads should be connected to sidewalks that lead to the adjacent intersections, wherever feasible. In areas where a sidewalk does not exist, the passenger landing pad should be raised with connecting ramps on each end to the road shoulder.

Landing pad height affects ease of boarding; raised pads enable easier, more accessible passenger boarding and alighting by decreasing step-down distance and gap between vehicle floor and landing pad. Level and near-level landing pad stops can also increase route efficiency, allowing vehicles to enter and exit stops more quickly.

All bus stops should have a firm, even, and slip resistant surface for passengers to step on/off the bus. A passenger landing pad length of 9 m (29.5 ft) is recommended in order to span both sets of doors on a standard 40 foot bus. A passenger landing pad length of 15 m (49 ft) is recommended in order to span both sets of doors on an articulated 60 foot bus. Passenger landing pads are recommended to have a cross slope of less than 1%. The passenger landing area must be connected to an accessible sidewalk by a hard even-surface, free of obstructions with a minimum 1.5 m (5ft) width.

Passenger landing pads may contain amenities such as shelters or benches, but these must not act as obstacles preventing riders from accessing the bus doors. Furthermore, to comply with accessibility standards, a clear minimum width of 2.1 m (7 ft) is necessary to accommodate wheelchair ramp deployment from the bus and allow for wheelchair movement after clearing the ramp.

In urban areas, the sidewalk may extend all the way to the curb. In this case, the sidewalk already acts as a passenger landing pad, and no major modifications are necessary. The passenger landing pad should be at least 3 m (10 ft) wide, if possible, unless a property line or a building prevents it from being extended this far. If any further amenities, such as bus shelters are to be added, a minimum sidewalk width of 1.5 m (5 ft) should still be maintained. Cross slopes on most sidewalks should be between 0.5% and 2% to achieve both good drainage and accessibility.

In more suburban areas, there will likely be a sidewalk, but it will be separated from the curb or edge of road by a grass boulevard. In this case, the grass boulevard should be replaced with a landing pad that extends from the curb or edge of road to the sidewalk. An example of this configuration is shown in Figure 79. If the grass boulevard is wider than 3 m (10 ft) (the required width of the landing pad), then a 1.5 m (5 ft) wide pathway may be installed to provide a connecting path between the passenger landing pad and the sidewalk.

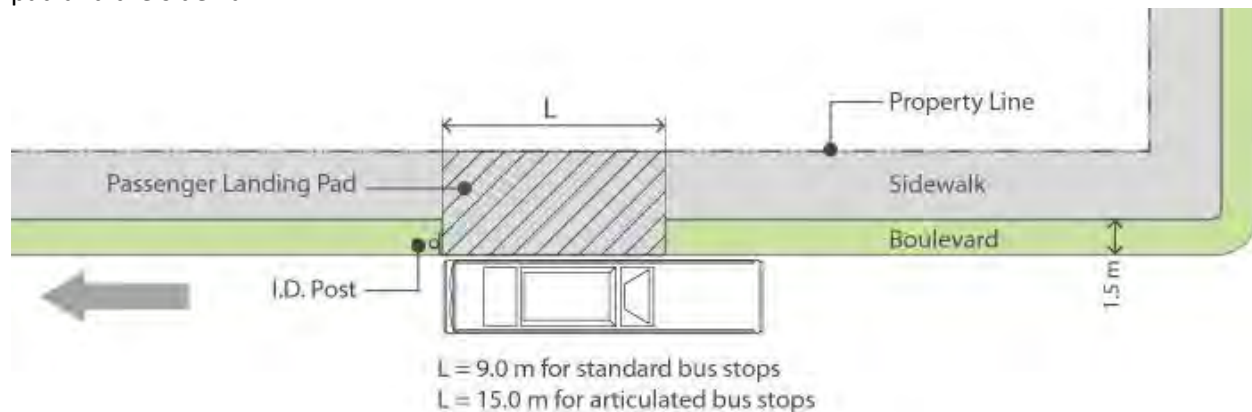


Figure 79 Passenger Landing Pad Configuration

In more rural areas, bus stops may be placed on a road that features a gravel shoulder, rather than a sidewalk. In this case, a passenger landing pad should be provided at the site of the bus stop, instead of having passengers queue on the road shoulder. It is preferred that the bus stop (curb) be built at an elevation of 150 mm above the road surface, to minimize the “step-up” distances required for passengers to board or alight from the bus. A ramp (maximum slope of 8%) should be provided at each end of the pad for access to a safe location away from the travel lane(s).

In rural areas, site-specific reviews may be warranted to identify amenities such as crosswalks, pedestrian pathways, lighting and roadside treatments for enhancing the safety and convenience of pedestrian access to/from a bus stop.

4.3.2 Wheelchair Pad

A wheelchair pad should be present at a bus stop for wheelchair accessibility. All Transit Windsor buses are equipped with a mechanical ramp at the front door of the bus to allow wheelchair customers to board or alight the bus.

A wheelchair pad is a designated area within the passenger waiting area, located near to where the front door of the bus will be located once the bus stops. The wheelchair pad is an obstruction free area that allows space for the bus to deploy its ramp or lift, and to allow the wheelchair to manoeuvre as needed in order to move between the sidewalk and the bus and vice versa. Figure 80 shows a bus with the wheelchair ramp deployed.



Figure 80 Transit Windsor Accessibility Ramp

To ensure that the wheelchair ramp is deployed safely and efficiently, and to facilitate the maneuverability of wheelchair users, a clearance zone should be provided at the bus stop pole as illustrated in Figure 81 for Standard/Articulated Buses. To improve operation efficiency and to accommodate wheelchair users with less agility, a wheelchair clearance area of 3 m (10 ft) long by 3 m wide (10 ft) is preferred. The minimum width of the clearance area should be 2 m (7 ft).

Overhead clearance above the wheelchair pad must be at least 2.7 m (9 ft) at bus bays to accommodate the wheelchair ramp. In some highly constrained locations, it is acceptable to locate the wheelchair pad partly within the shelter. Where the wheelchair pad is inside the shelter, the overhead clearance of 2.7 m (9 ft) is of particular importance.

The required cross section for a wheelchair pad and the protective measures at the back of the wheelchair pad are shown in Figure 82.

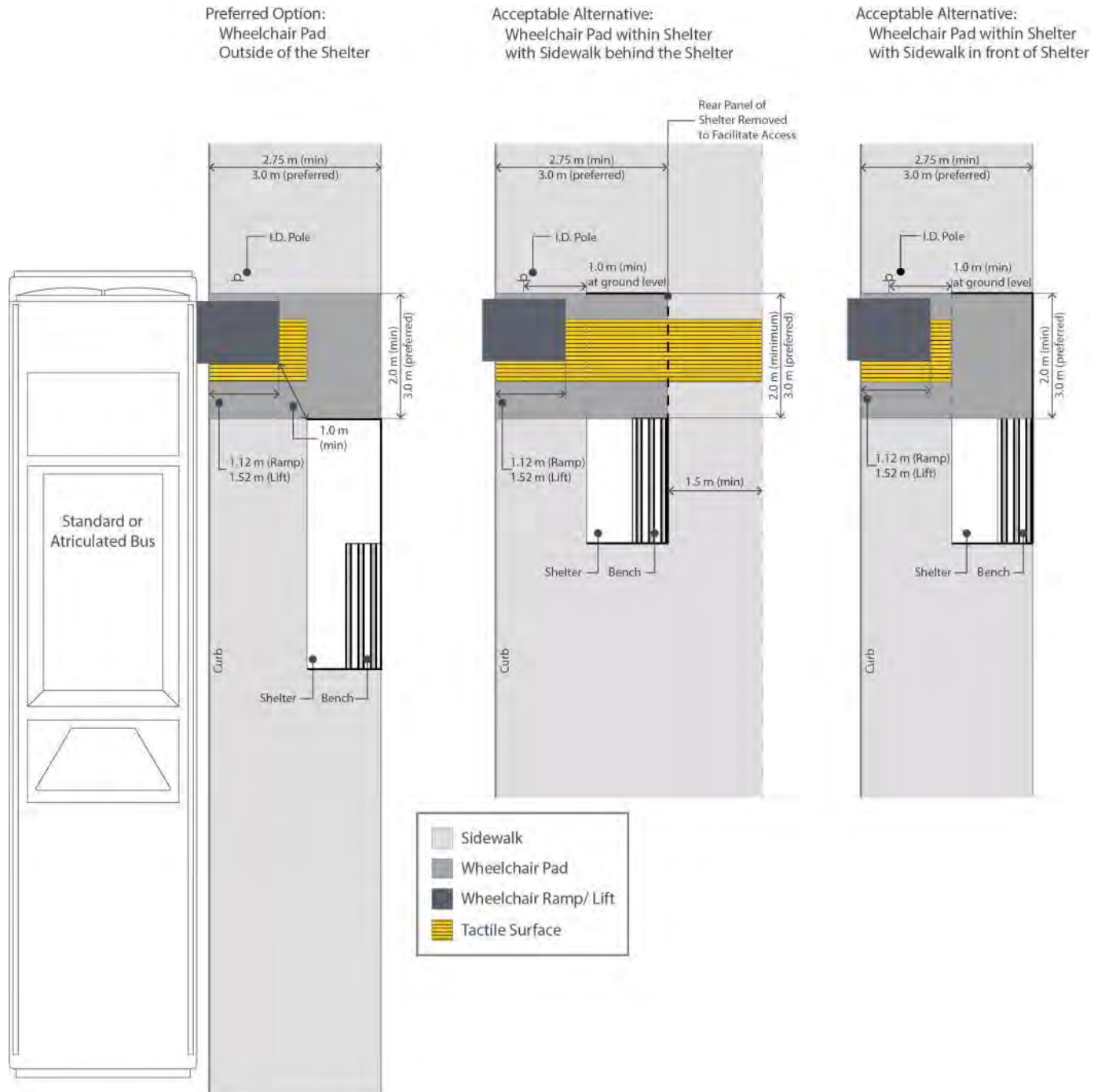
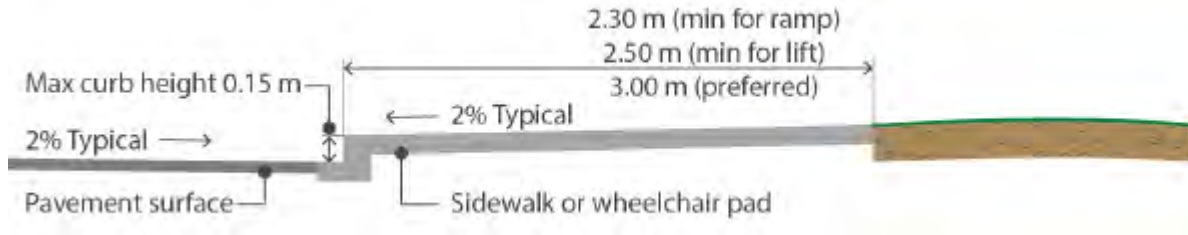
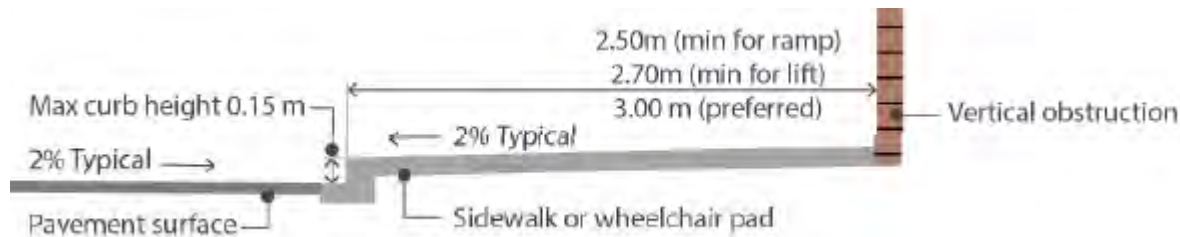


Figure 81 Wheelchair Pad Dimensions

Scenario 1: Surrounding ground behind sidewalk is level and extends for at least 0.2 m (0.7 ft).



Scenario 2: Vertical obstruction at the back of the sidewalk (ie. Wall, fence, etc.)



Scenario 3: Surrounding ground behind sidewalk slopes or drops down. The installation of a protecting curb or handrail at the back of the sidewalk is required.

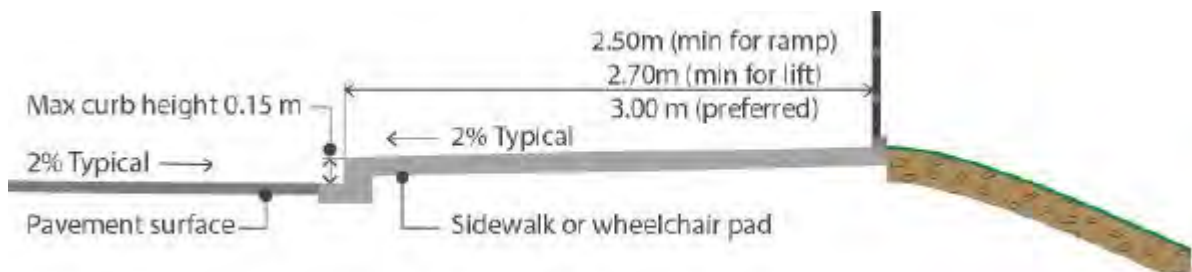


Figure 82 Wheelchair Pad Cross-Section Design

4.3.3 Bus Shelter

Bus shelters protect waiting customers from poor weather and may provide additional integrated amenities such as benches, route maps, lighting, etc. There are several forms of bus shelters, which meet various space restrictions and weather protection requirements. Figure 83 shows the preferred placement of Transit Windsor bus shelter and Figure 84 shows the bus schedule display on the bus shelter. Figure 85 shows a more complete diagram of shelter placement. Please see Appendix C to view the various types of Transit Windsor shelters

Transit shelters should be designed to be comfortable and highly visible with transparent sides, seating with armrests to support passengers with mobility issues and lighting. Shelters should be designed to accommodate a range of users including people with carriages or wheelchairs. Provision of comfortable shelter and seating can significantly improve perception of wait time and rider satisfaction. Bus shelter specifications are outlined in Appendix D. The conditions to be considered for the installation of bus shelters are described in Table 7.



Figure 83 Transit Windsor Bus Shelter Preferred Placement

Figure 84 Bus Shelter Schedule



- 1) Ensure the waiting passengers can be seen from outside by using glass or open design for the back wall. Include lighting in the shelter, or locate shelters in a well-lit area. Social safety is a primary consideration at shelters. Use transparent materials to enhance visibility of waiting passengers
- 2) Pole and bus stop signs must indicate critical information including the stop name, route number, stop number, direction or destination, and system logo. Shelter should include stop name and further system information

Figure 85 Diagram of a Typical Bus Shelter Placement

Table 7 Considerations of Bus Shelter Installation

Condition	Bus Shelter is more warranted when
Bus Service	Frequent services are provided and/or there are a number of transfers at a stop, hence more passenger activities
Adjacent land use	Shelter can be made compatible with the adjacent land use (for example, a bus stop in a busy commercial area) and space is available for construction such that the shelter can be sited on level ground and without obstructions by trees, utility poles, etc.
Passenger demographics	There are relatively high percentages of seniors and/or people with physical disabilities using the bus stop
Passenger request	The request is supported by the conditions above

Provision of a bus shelter is more warranted when multiple of the above conditions are met. A more detailed bus shelter site evaluation form is found in Appendix E.

Shelters should be located and oriented in the following manner if possible:

- Parallel and facing curb
- Bus driver can easily see passengers that are waiting
- Clear from the passenger landing area or pedestrian path
- Clear of steps between the sidewalk/bus pad and the shelter
- Placed to not obstruct sightlines at intersections or driveways

The shelter size should be determined with reference to maximum number of expected customers waiting at the stop with an appropriate level of service. On higher-frequency transit streets, shelter dimensions and amenities should be expanded to meet increased demand. Transit Windsor bus shelter concrete needs are laid out in Appendix F.

General considerations for shelters include:

- Shelters should be located close to bus boarding locations, typically at the bus stop ID post, but not farther than 9 m (29.5 ft) from the ID post, for customer convenience and to ensure timely boarding
- Shelters should be designed to maximize visual transparency in order to improve visibility of buses to passengers and reduce Crime Prevention Through Environmental Design (CPTED) issues
- Shelters should be designed as to not impede passenger queuing and pedestrian circulation. This can often be achieved by reducing the shelter's number of touch-down points. Site-specific analysis of passenger queuing and pedestrian circulation can inform the shelter design
- In locations where pedestrian circulation would not be impeded, shelters may provide side or back panels. Advertising and wayfinding may be incorporated into bus shelters if they can be placed in such a way that allows for adequate sightlines
- The shelter interior should be illuminated by its own light source or by adjacent street lighting
- The closest portion of the shelter should maintain a minimum lateral clearance of 0.6 m (2 ft) from the curb face to avoid contact with a bus (to account for the maximum rear sweep of a bus)
- In narrow areas where adequate space is not available to site a bus shelter, it may be prudent to put the shelter immediately downstream. Customers waiting in the shelter should be able to clearly see approaching buses

Shelters should be provided wherever possible. As a minimum, shelters are recommended at the following locations:

- Bus stops at transit exchanges or major transfer points
- Bus stops with high loading/unloading volumes
- Bus stops located near schools, seniors' housing developments, community and recreation centres, and other major generators such as shopping malls

Specific considerations with respect to wheelchair accessibility include:

- A bus shelter should incorporate seating for at least three people and a clear area at least 1.0 m (3 ft) wide for one wheelchair
- If wheelchair accessibility is provided within the shelter, the back of the shelter should preferably be set back at least 3 m (10 ft) from the curb face
- Where the wheelchair pad is located within the shelter or under an existing building feature, overhead clearance of 2.7 m (9 ft) must be maintained

The Transit Windsor Master Plan – More Than Transit (2019), states that there should be 25% shelter coverage for bus stops. Transit Windsor currently has 1136 bus stops. At this time, there are 214 shelters throughout Transit Windsor's service area for a 19% coverage rate.

Street Seen Media is the company that is in charge of the advertisements that are placed on the bus shelters for the City of Windsor. Canada Lighting and Sign is used for all structural maintenance required on shelters including installation and removal. Tecumseh Window Cleaning has a contract for all shelters to be cleaned twice a month, including the removal of any garbage inside or outside the shelter at the time of cleaning.

4.3.4 Seating

Seating is one of the most basic features at transit stops. Seats are an opportunity to incorporate attractive design and durable materials into a transit stop. Seats should be designed or selected on the basis of comfort relative to expected wait time and boarding demand at a stop.

Providing comfortable seating at or near transit stops dramatically improves the comfort for passenger experience. Comfortable seating can provide valuable resting places whether or not a transit trip is involved.

The provision of seating at transit stops should be prioritized with the goal of improving comfort for the greatest number of passengers. Stops with a moderate or high number of boardings should be furnished with seating, as should stops with long wait times and stops with relatively high use by senior and child passengers. Observe peak hour queues at stops and stations to determine the adequate number of seats to install.

In the design and placement of bus benches, the following factors should be considered:

- Benches should be large enough to seat three or more persons
- Benches should be constructed to be comfortable and safe for customer use
- Materials should have high resistance to vandalism and weathering
- Armrests must be located at both ends of the bench
- Benches without middle armrests are preferred
- Backrests are preferred along the length of the bench. The backrest should have a typical height of 440-455 mm and be positioned at an angle between 95 degrees and 100 degrees to the (horizontal) seat surface
- Benches should be located to minimize obstruction to the public right-of-way and access to/from the bus for all users, including those in wheelchairs
- The minimum setback for a bus bench from the curb face should be 1.5 m (5 ft)

The clearance requirements between a bench and the ID pole for different bus stop layouts can be found in Appendix G.

Typically, seating space inside a shelter is smaller than standing space to accommodate for more standees. Seating may still be desired when the installation of a bus shelter is not recommended. For example, the passenger demographics may warrant seating, or where there is evidence of transit passengers sitting or standing on nearby land structures.

The location of benches may be coordinated with nearby trees for shade and protection from wind or rain.

Benches should be located away from access driveways if possible. They should have sufficient clearance from the passenger landing pad (especially from the bus rear door), an example of a bench is shown in Figure 86.

Creative Outdoor Advertising is the company that is responsible for all the benches in the City of Windsor (except for the ones owned and maintained by the city Business Improvement Associations (BIA's)).



Figure 86 Public Seating at Bus Stops

4.3.5 Other Bus Stop Amenities

Other potential amenities to accompany shelter and seating installation include:

- Bicycle storage facilities
- Lighting
- Real-time information display
- Trees
- Fare vending
- Garbage and recycling receptacles (shown in Figure 87)

Bus stops should provide a positive customer experience in order to make transit a more appealing travel choice. High quality, attractive, and co-ordinated furniture should be chosen, with fittings and finishing of comparable quality. Street furniture should not interfere with safe bus/passenger operations at the bus stop. To provide adequate lateral clearance, street furniture at bus stops, including the bus stop ID post, shelter, lamp standards, etc., should be set back at least 0.6 m (2 ft) from the curb face.



Figure 87 Trash and Recycling Receptacle

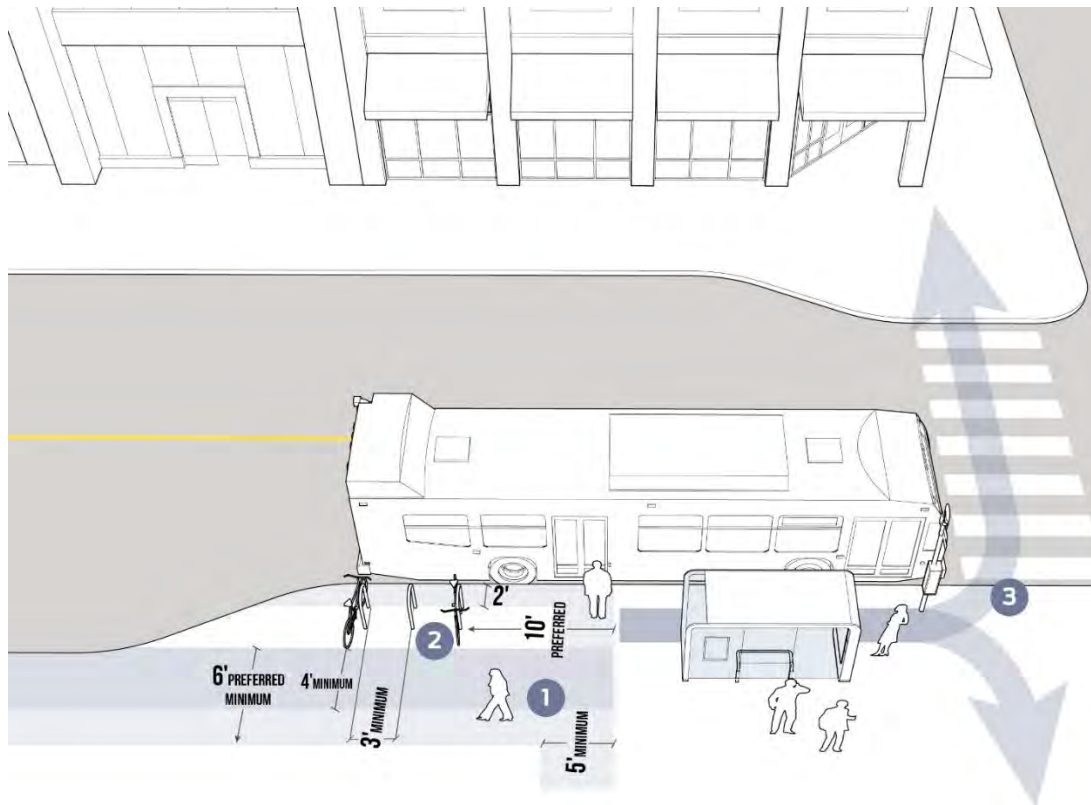
4.3.5.1 Bike Storage Facilities

The provision of proper bicycle storage facilities at bus stops can result in several benefits. While bike racks and bike storage lockers provide organized storage of bikes, innovations such as bike arcs can be visually appealing. Besides the visual benefits, these provisions can prevent unwanted locking of bicycles to other bus facilities and nearby property.

Safe storage of bikes can deter damage and theft of bikes which is a major concern. Not only is this convenient for cyclists using transit; it may also encourage more transit users to bike.

Bicycle storage facilities should be visible while not obstructing pedestrian movements and should not pose as a safety hazard, design is shown in Figure 88. Similar to bus shelters, bicycle storage must be designed so that it is durable and not easily subjected to vandalism and theft. In addition, providing proper lighting and implementing these facilities close to bus stops is important for the convenience and safety of users. Implementation of a bicycle storage facility should depend on passenger demands, which will typically be higher in suburban areas.

Bike parking elements can expand transit sheds, enhancing access to stop-adjacent destinations, and boosting intermodal connectivity.



- 1) Provide a clear zone around bicycle parking to avoid impeding traffic, including near transit vehicle doors, on adjacent sidewalks, and through long-term storage facilities
- 2) If multiple bicycle racks are installed, place them at least 1 m (3 ft) apart to allow convenient, uncluttered access
- 3) Short-term bike parking should be located within 15 m (50 ft) of stop, as well as major destinations

Figure 88 Bike Parking Design

4.3.5.2 Fare Vending

Ticket machines allow riders to purchase single fares, add value to fare cards, or generate proof-of-payment (PoP) tickets from passes. Riders can use a number of payment methods to ride transit, including credit and debit cards, cash and mobile payment systems.

Curbside fare machines are costly to install and maintain; use on high-frequency or high-volume corridors where reduced dwell time is a priority, as seen in Figure 89. Accessibility is key; fare payment purchase instructions should be clear, simple and well communicated, potentially in multiple languages. Machines should also include raised lettering or audible instructions, unless alternatives are available for visually-impaired passengers. Cities are beginning to leverage mobile technology for ticketing, including system apps for off-board fare and pass purchases. The need for off-board fare payment may be reduced or eliminated where passengers are widely able to pay by app, substantially reducing the need for on-board fare payment.

Vending machines must not block accessible path and boarding areas, or bus door zones. Install an adequate number of machines to handle the expected number of passengers purchasing tickets during peak hours, especially if all riders must collect PoP tickets to board. Assess how many tickets can be purchased per machine per hour, and ensure fare machines can accommodate peak hour boardings. Operable parts (including buttons or touch screens) must be placed at a height between 34 and 48 inches to accommodate users in wheelchairs.



Figure 89 Example of a Fare Vending Machine

4.3.5.3 Passenger Information & Wayfinding

Every transit stop must include information about routes served at the stop in a clear, legible manner. Providing clear and simple information like route and system maps, schedules, expected travel times, real-time arrival times, and ridership procedures makes the system more attractive and simpler to use, and improves rider satisfaction. Additionally, good information can enhance the transit stop as a gateway to its surrounding neighborhood or destinations.

Maps, routes and other wayfinding should be prominent at stations and stops, especially high-volume, high-activity, or transfer stops. System information may include strip maps of single routes, fixed schedules or frequencies, full system maps and pertinent transfer maps or schedules. Information can be shown on hanging signs or signage integrated into the shelter. Temporary posted information should be protected from weather behind placards.

At busy transfer nodes, wayfinding promptly guides riders to connecting routes. Outside of stations, wayfinding materials guide rider decision making and transit access. Where bus routes run on one-way streets, or where the location of the stop in the opposite direction is not obvious, wayfinding signage should indicate its location.

For riders with visual impairments, provide an alternative to visual display boards; audible announcements are preferred over braille and other methods that require finding the display. Consider station/street noise and environmental characteristics during implementation.

When at an intersection, signs identifying stop location must be visible from all corners with either a recognizable system logo or standard transit stop marker. Use wayfinding signage and materials that are consistent with regional or agency brand; consistent use of logos, colours and fonts reinforces visibility.

Providing route information that is clear, understandable and accurate makes it easier for passengers to understand their travel options. Schedule and real-time arrival information reduce uncertainty and improve rider satisfaction.

The level of detail for information displayed must be carefully considered to provide clarity and avoid confusion. Avoid over-signing or cluttering the station area with too much information which may be ignored or contribute to information overload.

Real-time arrival displays with mobile app integration improve rider satisfaction and can increase ridership. Real-time displays can range from simple one-color LED text to full-resolution screens (shown in Figure 90), and should be accompanied by audible announcements. Integrate route and real-time arrival information into mobile applications, with emphasis on applications usable by people with visual impairments. Providing information in these formats can strongly complement the written, visual and audio information present at a stop.



Figure 90 Example of a Real-Time Display Sign

4.4 Universal Access

While accessibility standards are integrated into these Bus Stop Planning and Design Guidelines, several design criteria must be implemented to allow bus stop facilities to remain accessible to all users. Universal design features are critical throughout the transportation network, making it possible for any street user to comfortably and conveniently reach every transit stop. Universal street design facilitates station access, system equity and ease of movement for all users, especially people using wheelchairs or mobility devices, the elderly, people with children and strollers and people carrying groceries or packages.

Employ tactile, visual and audible design elements together to guide people of all abilities through the street environment. Consistently using detectable surfaces, colour contrast and audible warnings assists all users, enhancing safety and accessibility.

Bus stops on steep hills are to be discouraged. However, if unavoidable, bus stops should only be placed at the section of the slope with a gradient less than 8% as that is the maximum grade at a bus stop that wheelchair users can manoeuvre manually.

Stops and stations with real-time arrival information should include audible announcement capabilities.

General provisions of an accessible bus stop are as follows:

- Non-slip finishes are provided
- Street furniture and signage are kept out of the way of pedestrian access and circulation
- Hazards are eliminated and dangerous areas are marked clearly where they cannot be eliminated
- Visual and tactile cues are made through colour and texture contrast
- The area is well lit for orientation and security
- Waiting passengers are visible to the bus driver

According to accessibility guidelines, the necessary minimum infrastructure requirements for an accessible stop are summarized in Table 8.

Table 8 Accessible Bus Stop Dimensions

Amenity to be provided	Dimensions
Concrete barrier curb	150 mm (6 in) high, without indentation for a catch basin
Wheelchair pad	Minimum 2 m x 2.75 m (7 ft x 9 ft)
One or two paved connections from transit stop waiting pad to the sidewalk	1.5 m (5 ft) wide
Accessible ramps on either side	Maximum slope 12:1 (8%), minimum 1.2 m (4 ft) wide
Street furniture or other such objects	Minimum clear width of 1.5 m (5 ft) and clear headroom of 2 m (7 ft), kept clear of transit loading and unloading areas
Bench	Only to be provided where sidewalk width is greater than 2 m (7 ft), and where a fire hydrant is located more than 6 m (20 ft) away

4.4.1 Tactile Walking Surface Indicators

Tactile Walking Surface Indicators (TWSIs), when incorporated into the sidewalk and passenger area, enable customers with visual impairments to locate bus stops within the pedestrian environment.

The primary purpose of TWSIs is to alert customers with vision loss of the bus stop location. The tactile pattern used at bus stops should be a raised flat-topped elongated bars style (pattern for direction purpose as per CSA Standards), as opposed to the truncated domes pattern. Figure 91 shows the example of the flat-topped elongated bars style (for bus stop use) and the truncated domes style (not for bus stop use).

Generally, TWSIs for individual stops should extend a sufficient distance from the curb to intersect the general flow of pedestrian traffic along the passenger waiting area, as shown in Figure 92. Refer to Appendix H for detailed dimensions of the TWSIs for bus stop application and an example of bus stop configuration.



Figure 91 TWSI's example with Pattern of Flat Top and Elongated Bars

It is important to note that TWSIs can only be installed at bus stops with a hard-surfaced passenger zone. The TWSIs should have its base surface levels with the surrounding surface or not more than 3 mm above or below it.



Figure 92 Example of TWSI's at the Hotel Dieu Grace Healthcare Terminal

Detectable warning strips must be applied at all curb ramps for their entire width or at any location where pedestrians cross into another modal zone. Where the boarding platform is higher than a typical curb height, including near-level or level boarding platforms, 0.6 m (2 ft) deep detectable warning strips must be applied the entire length of the platform edge.

Where passengers using wheelchairs are directed to specified doors, ensure the accessible doors are clearly communicated throughout the boarding platform using signs and markings. At sidewalk-level stops, detectable warning strips may be used to indicate door locations.

4.4.2 Colour

Use colour consistently to delineate modal zones and edges; for instance, transit lanes may be red/terra cotta, and bike zones or crossings may be green. Colour repetition reinforces legibility and should be employed at conflict zones, flush crossings, or likely sites for encroachment, as shown in Figure 93. Colour-coded detectable warning strips can draw attention to conflict points.

Detectable warning strips should visually contrast with adjacent surfaces to alert pedestrians that they are crossing into a new modal zone (such as a transitway, bikeway, or vehicle traveled way).

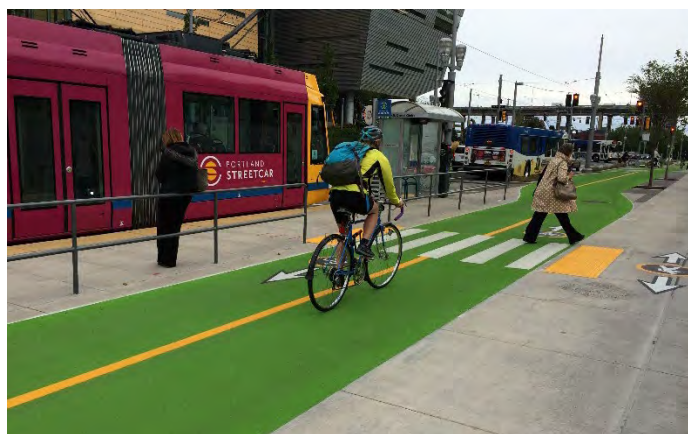


Figure 93 Example of the Use of Colour at Bus Stops

Section 5 Transit Priority Measures

The purposes of transit priority measures are (i) to maximize the 'people carrying' capacity of the road system and (ii) to minimize overall person travel times. As priorities are given to buses, other traffic may incur additional delay or inconvenience. Hence, it is also important to maintain a reasonable balance in the design so that the overall service level is acceptable to both bus and other road users and that an overall net gain is achieved in the performance of the road system. A test for the reasonableness of transit priorities is that the combined auto and transit passenger volumes in the direction(s) and for the time period(s) will not be reduced below the existing level. Another criterion is that the total person-delay will be reduced.

There are three categories of transit priority measures:

- Transit Lanes – a portion of the street designated by signs and markings for the preferential or exclusive use of transit vehicles, sometimes permitting limited use by other vehicles
- Signals and Operations – giving public transit vehicles preferential treatment in the general traffic flow by use of traffic signals
- Legislative and Regulatory Measures – priorities resulting from traffic regulations, national and local acts, and rules of the road (e.g., priority to buses leaving stops, turn exemptions, etc.)

5.1 Transit Lanes

On busy urban streets, transit lanes aid in providing reliable and robust transit service. Continuous lanes provide the greatest benefit to transit operations, and can often be implemented with little impact, or even positive impact, on general traffic flow.

Transit lanes can be dedicated at all times, or only during peak times or daylight hours. Full-time lanes better serve transit performance and visibility, but peak-period lanes may be appropriate in specific contexts. Transit lanes, unlike on-street transitways, are not physically separated from other traffic, as shown in Figure 94.

Transit lanes are best used on streets where transit is delayed by high motor vehicle traffic volume, congestion and curbside activities. Transit lanes organize traffic flow and improve on-time performance and transit efficiency.



Figure 94 Diagram of a Typical Transit Lane

Red colour treatments are effective in reinforcing lane designation. Apply red color along the entire lane.

The decision to dedicate a lane to transit on a multilane street should be based on a combination of factors:

- Transit volume and demand
- Potential to reduce total person delay
- Potential to limit average travel time over both short and long term analysis periods.
- Motor vehicle traffic capacity and travel time

The recommended minimum lane width for a curb transit lane on city streets is 3.3 m (11 ft). When a curb parking lane is converted to exclusive bus use, it may be necessary to flatten out the street crowns at cross streets to avoid the "roller-coaster" effect that occurs when traveling on the curb lane. Physical obstructions, such as utility poles and signs, should also be set back far enough from the curb to allow space for vehicle "tilt" on high crowned roadway sections. When right-turn movements are allowed at intersections, the transit lane should be set back far enough from the stop bar to provide the required right-turn capacity. In locations where right-turn and conflicting pedestrian volumes are high, an advanced right-turn arrow should be considered to minimize the bus delay on the transit lane.

For a median transit lane (or busway), the minimum lane width for bus operation on city streets is 4 m (13 ft) where design speed is greater than 60 km/h and 3.7 m (12 ft) to 4 m (13 ft) where design speed is equal to or less than 60 km/h. Median transit lanes are normally controlled by traffic signal phasing designated for 'with-flow' through traffic.

For operational efficiency and safety reasons, a bus lane should not be less than 3.3 m (11 ft) in width if it is adjacent to a bike lane. A real-world transit lane example is shown in Figure 95 and design is shown in Figure 96.



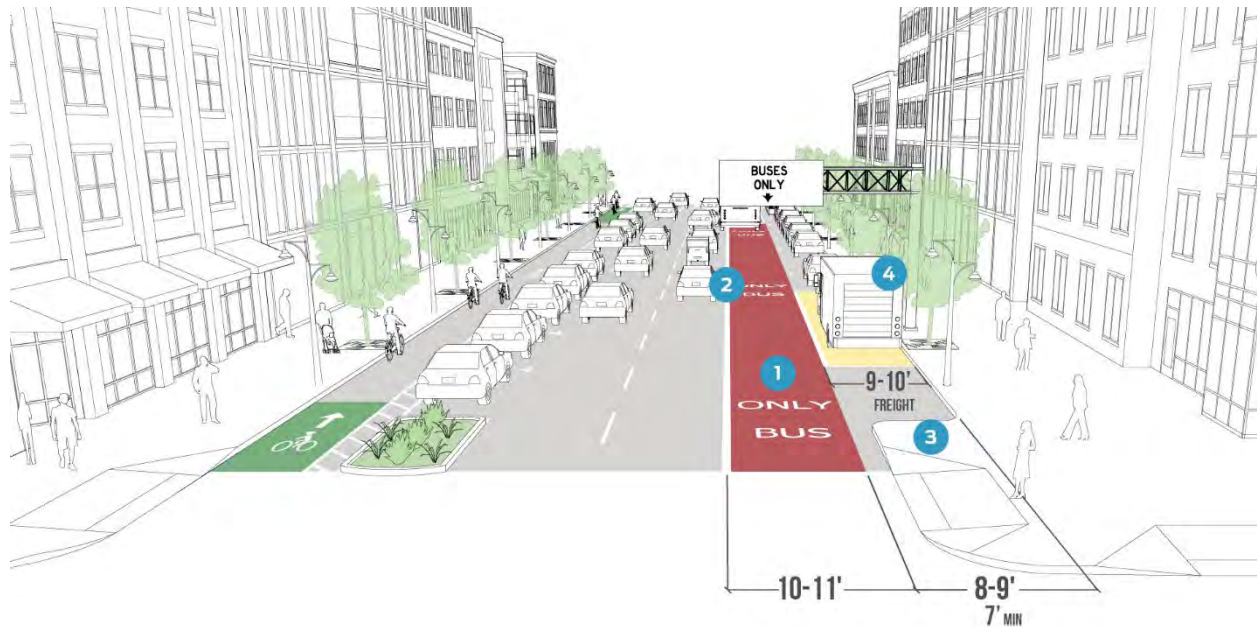
Figure 95 Example of a Transit Lane



Figure 96 Diagram of a Transit Lane

5.1.1 Offset Transit Lane

Also known as “floating” or “parking-adjacent” lanes, offset transit lanes place transit vehicles in the right-most moving lane, but are offset from the curb by street parking, curb extensions, or raised cycle tracks, shown in Figure 97. Offset transit lanes accommodate high transit vehicle volumes and improve both reliability and travel times on streets operating near or beyond their motor vehicle traffic capacity.

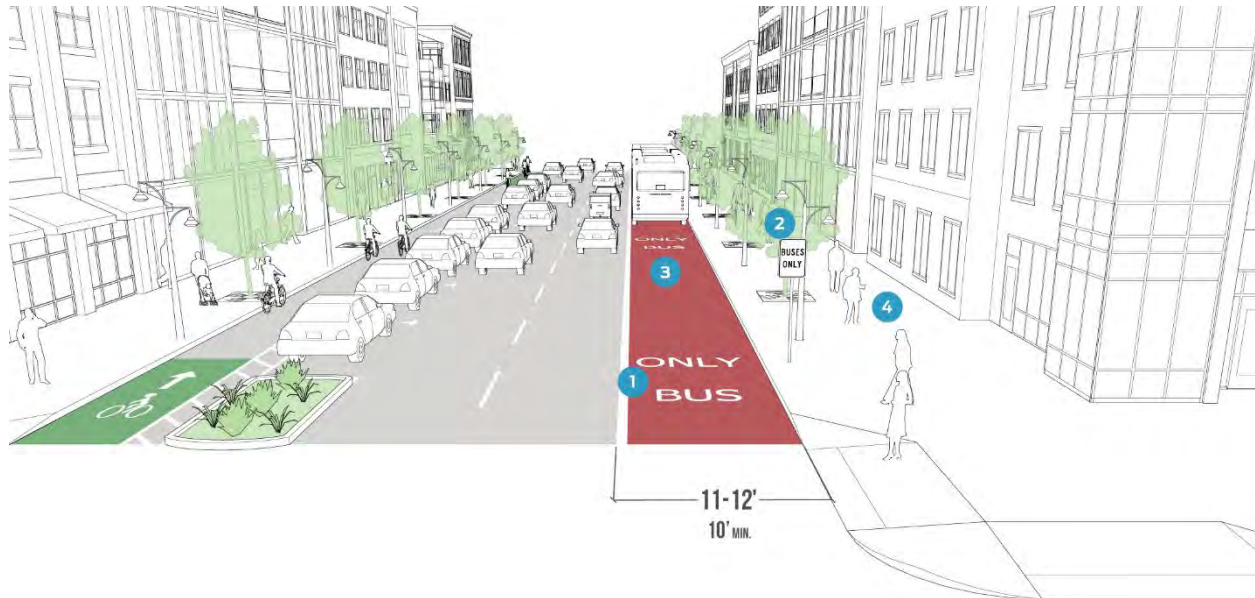


- 1) Designate lanes using “BUS ONLY” markings and signs
- 2) Dedicated transit lanes must be separated from other traffic using solid single stripes or double white stripes. A solid single white line conveys that crossing into the transit lane is discouraged, and typically indicates that using the transit lane to pass is prohibited, whereas a double solid white line means that encroachment is legally prohibited
- 3) Transit bulbs should be installed at stops to enable in-lane stops, and provide space for other stop and sidewalk amenities. Curb extensions may be installed at non-stop intersections to increase pedestrian space and shorten crossing distance—interim treatments and materials such as paint, planters, and bollards can be implemented at low cost
- 4) It may be desirable to assign additional space to a buffer or to a parking lane rather than to the bus lane, especially when large vehicles use the parking lane for loading. A 3 m (10 ft) bus lane provides a predictable operating environment when adjacent to a buffer or bicycle lane on at least one side

Figure 97 Diagram of an Offset Transit Lane

5.1.2 Curbside Transit Lane

The lane adjacent to the curb can be dedicated to transit vehicles, especially on through corridors where parking is either not provided or not well utilized, as shown in Figure 98. Curbside transit lanes can be implemented with varying levels of separation, increasing service capacity and allowing riders to board directly from the curb.

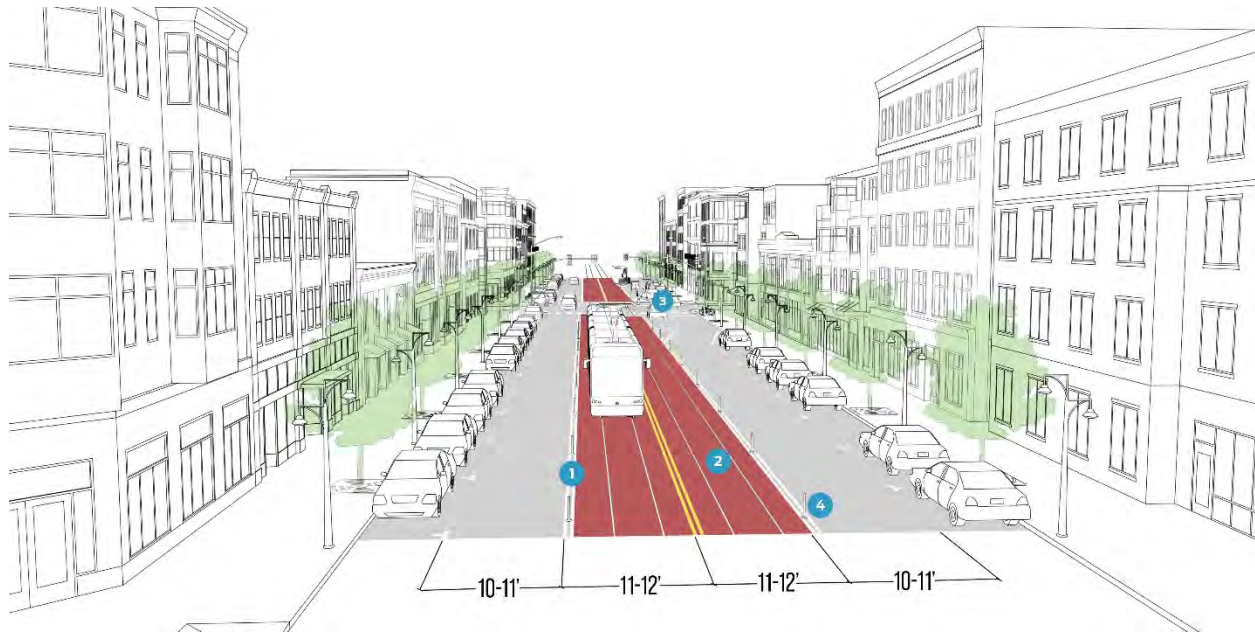


- 1) Designate lanes using a single or double solid white line, as well as a stenciled "BUS ONLY" marking
- 2) Signage must designate the transit lane as restricted. Place signs either on the curbside or overhead
- 3) Mark the transit lane with red color. Red color treatments are effective in reinforcing lane designation
- 4) Wider sidewalks, especially those buffered with plantings or furnishings, increase pedestrian safety and comfort adjacent to curbside transit lanes

Figure 98 Diagram of a Curbside Transit Lane

5.1.3 Centre Transit Lane

Centre transit lanes are typically used on major routes with frequent headways and where traffic congestion may significantly affect reliability. They also reduce the chance of conflicts with parked vehicles. Centre transit lanes can play a key role in creating high-quality transit service. While traditionally found on streetcar streets, centre transit lanes can be used with buses as well. With left turn restrictions and minimal separation, centre transit lanes can be effectively converted to transitways, as shown in Figure 99.



- 1) *Solid white lines or double white lines must be striped along the right side of the transit lane, along with BUS ONLY or LRT ONLY pavement markings*
- 2) *Centre-running lanes should be designated using red/terra cotta color to emphasize the lane and deter drivers from entering it*
- 3) *To avoid conflicts with centre-running transit vehicles, left turns should be prohibited, or accommodated using left-turn lanes and dedicated signal phases. Left turns from the centre bus lane add significant safety and operational issues for high-frequency bus service, but left turns may be permitted at times of day with longer headways*
- 4) *Separation with soft (e.g. rumble strips) or hard (e.g. concrete curbs) barriers may be used to reduce encroachment from general traffic. Install reflective vertical elements to enhance visibility at night*

Figure 99 Diagram of a Centre Transit Lane

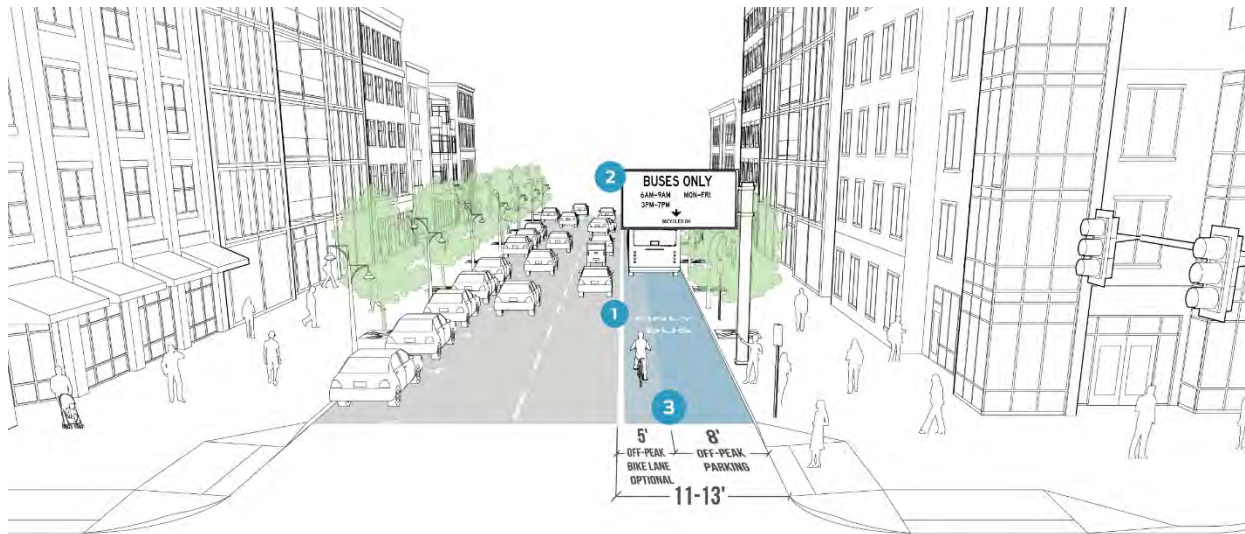
5.1.4 Peak Only Bus Lane

Many streets with a trunk line role in the bus network have high demand at peak commute periods, but a rich array of goods movement and social life at other times. A peak-only bus lane allows transit to take precedence over parking and curbside access at peak hours when it most benefits bus operations.

A peak-only bus lane can operate as a dedicated bus lane at peak travel periods and provide general curbside uses at other times as shown in Figure 100 and Figure 101. Wider lanes can enable an effective bicycle lane off-peak adjacent to parking. Peak-only transit lanes may also be exclusive to streetcars or buses at peak times while permitting mixed traffic at other times.



Figure 100 Example of Peak-Only Bus Lane

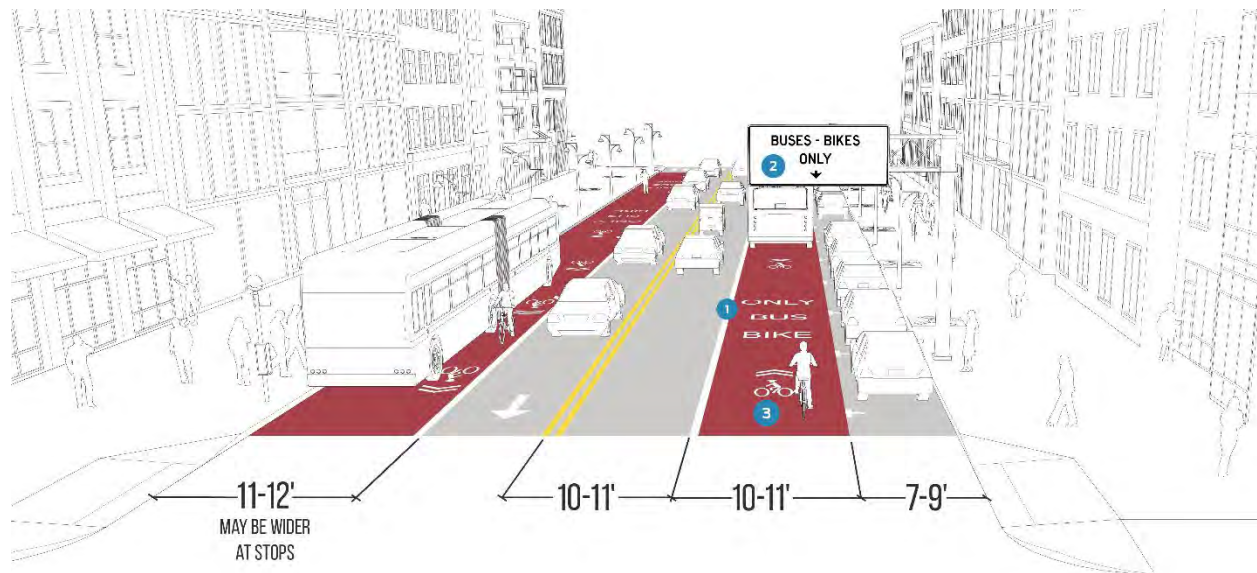


- 1) Pavement markings must indicate that the lane is dedicated to transit, including a solid white line and “BUS ONLY” stencil. Skip-lines may be applied where vehicles are permitted to cross, such as at intersections and turn pockets
- 2) Signage must clearly indicate the lane restriction, as well as hours of enforcement and any turn allocations
- 3) During non-operational hours, the curbside portion of the lane may become a parking lane. A 3.7 m (12 ft) or 4 m (13 ft) wide lane can accommodate curbside parking with a bike lane during non-peak hours, and operate as a shared bus-bike lane during peak hours. Signage must communicate that bicycling is permitted at all times

Figure 101 Diagram of a Peak-Only Bus Lane

5.1.5 Shared Bus Bike Lane

The shared bus-bike lane is not a high-comfort bike facility, nor is it appropriate at very high bus volumes. However, buses and bicycles often compete for the same space near the curb. On streets without dedicated bicycle infrastructure, curbside bus lanes frequently attract bicycle traffic. Shared bus-bike lanes can accommodate both modes at low speeds and moderate bus headways, where buses are discouraged from passing and bicyclists pass buses only at stops, as shown in Figure 102. In appropriate conditions, bus-bike lanes are an option on streets where dedicated bus and separate high-comfort bicycle facilities cannot be provided.



- 1) Pavement markings must indicate that the lane is dedicated to transit, including a solid white line and "BIKE BUS ONLY" or similar marking
- 2) Install signs permitting buses and bicycles, and excluding other traffic. "BUSES-BIKES ONLY" signs may be used. Overhead signs are preferred
- 3) Bicycle shared lane markings should be placed in the center or left side of the lane. At stops, place markings at the left side of the lane

Figure 102 Diagram of a Shared Bus Bike Lane

5.1.6 Queue Jumper Lanes

A queue jumper lane refers to a special lane for transit buses to bypass the general traffic queue, usually at a location where queues frequently form. In designing a queue jumper lane it is important to ensure that the entry to the lane is not blocked by the traffic queue in the adjacent travel lane and that it is long enough to accommodate the expected bus volumes. In some cases, a queue jumper is provided for transit vehicles through the regulation of "Right Turn Only Except Buses" on an exclusive right-turn lane to transit vehicles to continue through the intersection.

A queue jumper lane at an intersection can be facilitated by a bus-only traffic signal phase (for example, a bus activated phase) so that buses using the queue jumper lane can leave the queue jumper lane safely and access the travel lane on the far-side of the intersection ahead of other traffic, as shown in Figure 103. Sufficient intersection clearance time is required for the bus to clear the intersection before the conflicting traffic signal turns green. The green times available to other traffic may be slightly reduced. However, a net gain in system performance can often be achieved where the reduction in total bus passenger delay is greater than the increased delay to other road users.

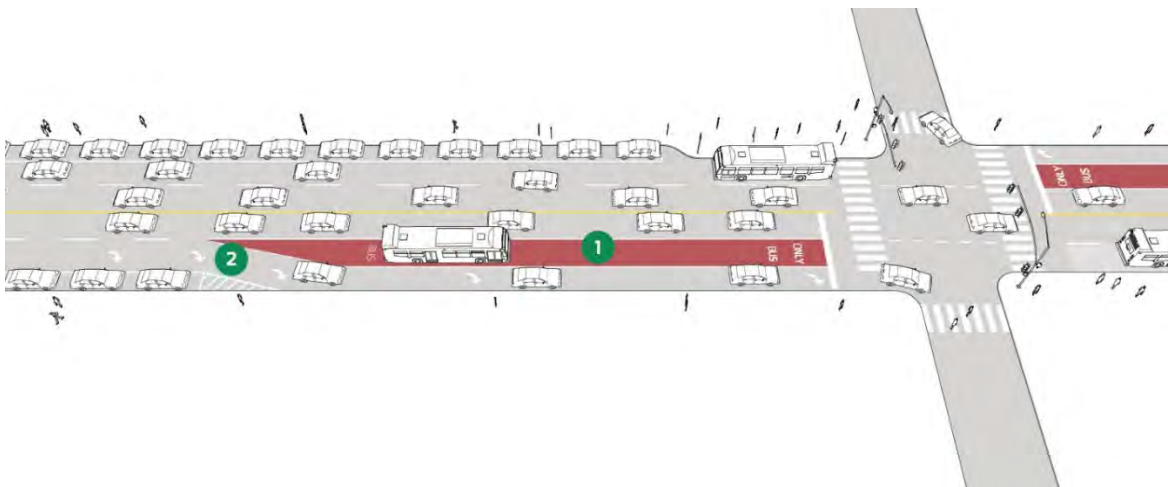
The recommended minimum lane width for a queue jumper lane on city streets is 3.3 m (11 ft).



Figure 103 Diagram of a Queue Jumper Lane

5.1.7 Short Transit Lines

Short transit lanes on the approach to major intersections, sometimes paired with active signal priority, allow transit vehicles to bypass long queues that form at major cross streets, as shown in Figure 104. Since these streets often have long signal cycles or break the progression of the transit street, they often present a significant source of delay across downtown, neighborhood and corridor transit streets. Transit approach lanes let the transit vehicle stay in its lane.



- 1) *The dedicated approach lane should be long enough to allow the transit vehicle to fully bypass a routinely forming queue. Queue length calculations must account for the additional length of the queue after a general traffic lane is reassigned to a transit lane; in the example shown, this length is twice the pre-existing queue length*
- 2) *Right turns either should be accommodated with a dedicated turn pocket/turn lane to the right of the transit approach lane, or should be restricted to prevent queuing in the transit lane.*

Figure 104 Diagram of a Transit Approach Lane/Short Transit Lane

5.2 Signals and Operations

Signals and operations on the road can be used as tools to facilitate smoother movement of buses throughout their routes. These can range from equipment for use with traffic signals to regulatory measures to give priority to buses.

5.2.1 Bus-Only Signals

Bus-only signals are typically used in conjunction with a bus lane (or a queue jumper lane) on the near-side of the intersection, as shown in Figure 105. Under this type of transit priority treatment, buses are given an exclusive traffic signal phase (i.e. protected movement) to clear a congested intersection ahead of the main traffic stream.



Figure 105 Diagram of a Typical Bus-Only Signal

5.2.2 Bus-Actuated Signals

Priority for transit buses turning onto a major street from a minor street can be provided through traffic signals that can only be actuated by buses, as shown in Figure 106. The actuation may be achieved by physical loop detectors, video detectors way-side or wireless detectors that communicate with a transmitter on the buses. When the presence of an approaching bus is detected, a special protected signal phase is provided allowing the transit bus to proceed safely through the intersection. This phase may or may not be associated with a pedestrian walk phase. Typically, the minor street operates under a "stop sign" control when no bus is detected.

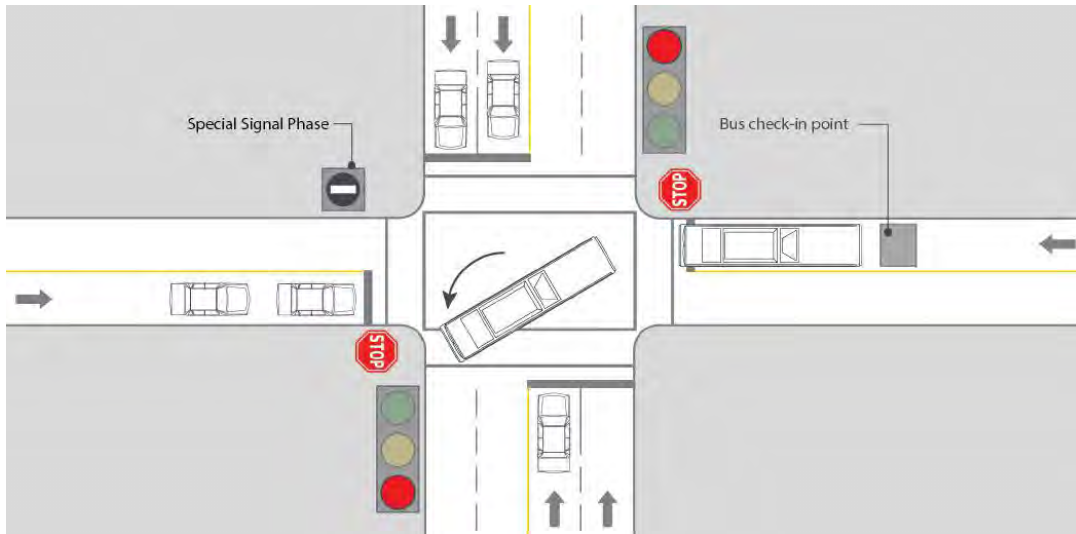


Figure 106 Diagram of a Typical Bus-Actuated Signal

5.2.3 Transit Signal Priority (TSP)

Transit signal priority (TSP) is an operational measure that assists transit vehicles through signalized intersections through Passive (non-bus-activated) or Active (bus-activated) measures, as shown in Figure 107. These signal priorities can be done in conjunction with emergency vehicles.



Figure 107 Diagram of a Transit Signal Priority Intersection

5.2.3.1 Passive TSP

Passive priority strategies give priority to transit vehicles without the need for transit vehicle detection. Transit Signal Progression a form of passive TSP involves re-optimization of signal timing and adjustment of phases, splits and /or off-sets to provide a green band that reflects the travel time of buses along the transit corridor. This is a passive measure because the optimized signal timings will be there regardless of the presence of the bus. Signal progressions (green waves) are set to realistic travel speeds for on-street transit. Signal progressions are frequently set without considerations of stop-related delay, including dwell time and time lost to acceleration and deceleration at each stop. Reducing signal progression speeds to meet average transit running times allows buses to keep up with the signal progression.

Below are examples of good candidates for passive TSP:

- On signalized streets with a high volume of transit vehicles, typically more than 10 per hour or with combined headways less than 4 to 6 minutes, in mixed-traffic or dedicated lanes.
- Where active TSP is less feasible or has limited benefits, including streets with short distances between signals, streets with high pedestrian activity levels, and streets with short signal cycles.

5.2.3.2 Active TSP

Active TSP tools modify traffic signal timing or phasing when transit vehicles are present either conditionally for late runs or unconditionally for all arriving transit. For active TSP to work, transit vehicles must be able to reach a signal, either with a dedicated lane or by using a clear lane. For transit corridors with short headways (under 6 minutes) it may be beneficial to operate conditional TSP, providing priority only to late vehicles. On corridors with longer headways or with high reliability, TSP should generally be applied to all transit runs, with time savings incorporated into the service schedule. Figure 108 shows a diagram of this technology while Table 9 shows different examples of active TSP.

Active TSP can reduce transit delay significantly. In some cases, bus travel times have been reduced around 10%, and delay was reduced up to 50% at target intersections.

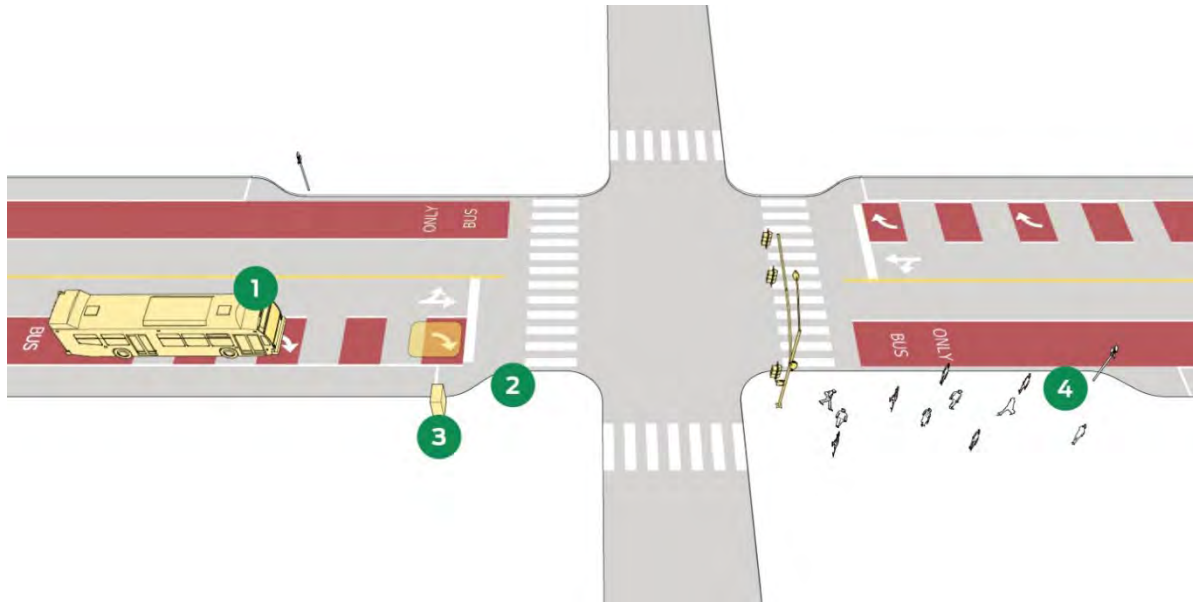
Below are examples of good candidates for active TSP:

- Corridors where signal delay is a significant portion of transit delay
- Corridors with relatively long signal cycles, or relatively long distances between signals.
- Specific intersections that favor the cross street and operate off of the progression of the rest of the corridor
- Where transit routes turn, active TSP can extend turn phase time or re-service a turn phase to provide a clear turn lane and additional phase time for slow maneuvers
- Intersections with a far-side stop or no stop, allowing the bus to clear the intersection without waiting at a signal

Table 9 Examples of Active TSP Treatments

TSP Treatment	Definition	Lane Types	Stop Types
Green Extension	Provides extra time for detected transit vehicle to clear intersection, green light extended	Transit Lane, Mixed Travel	Far-Side Pull-Out or In-Lane
Green Reallocation	Green phase begins and ends late to accommodate transit	Transit Lane, Mixed Travel	Far-Side Pull-out or In-Lane
Red Truncation	Provides green phase earlier than programmed, red light reduced	Transit Lane, Shared Right Turn / Queue Jump	Near-Side or Far-side; Pull-Out or In-Lane
Upstream Green Truncation	Stops traffic behind bus as boarding is completed	Mixed Travel	Near-Side or Far-Side; Pull-Out
Phase Insertions / Phase Sequence Changes	Special bus-only phases or prioritization of turn phases	Transit Lane	Any
Phase Reservice	Provides same phase twice in given signal cycle	Transit Lane, Mixed Travel	Any





- 1) *Active signal priority uses a combination of on-board and wayside technology that determines what type of signal priority can be implemented. Conditional priority usually requires on-board automatic vehicle location (AVL), GPS, optical or laser communication, or other link between the transit vehicle and the signal system*
- 2) *Active transit signal priority can be provided on transitways using in-ground loop detectors to identify arriving transit vehicles, since only authorized vehicles are present*
- 3) *Intersection signal controllers and centralized traffic signal management systems are usually the longest-lifecycle elements of the system, and should be chosen with flexibility in mind and in direct coordination with transit agencies and technical specialists*
- 4) *Using mobile Wi-Fi or other higher-bandwidth communication, transit vehicles can communicate their estimated time of arrival at an intersection, passenger load, schedule adherence, route number or type, and other attributes to the traffic signal controller or signal system. Various technologies can be used to detect when a transit vehicle has cleared an intersection and no longer requires priority. Advanced signal systems can use this information to prioritize signal priority requests, select the most appropriate TSP strategy for the situation, and end a priority phase as soon as it is no longer needed*

Figure 108 Diagram of Transit Signal Priority Technology

5.2.3.3 Short Signal Cycles

On average transit speeds are slower than car traffic. Transit vehicles make regular stops and tend to fall behind signal progressions. Shortening signal cycle length can greatly reduce the time spent by transit vehicles waiting at red signals.

Below are examples of good candidates for short signal cycles:

- When there is no coordinated signal progression
- Streets that take a “minor” role in the signal system
- Signalized streets with frequent transit service, in mixed-traffic or dedicated lanes
- Where active transit signal priority is less feasible or has limited benefits, including streets with short distances between signals, and downtown streets with high pedestrian activity

Short signal cycles reduce overall pedestrian wait times and cross street delay, improving rider access to transit. With sufficient pedestrian crossing time, shorter cycles can improve pedestrian safety by reducing wait times and crossings against the signal.

5.3 Legislative and Regulatory Measures

There are legislative and regulatory measures that can be practised to provide transit priority.

5.3.1 Exemptions from Prohibited or Forced Turns

Exemptions from turns that general traffic are prohibited from making or forced turns (i.e. designated right turn lanes) at intersections allow transit vehicles to service their designated route with minimal detouring, as shown in Figure 109.



Figure 109 Example of "Buses Exempted" Sign

5.3.2 Priority to Bus Leaving Stop

The “YIELD TO BUS” sign on the back of buses gives them a priority right - of way when leaving a bus stop or bus bay, thereby reducing the delay in re-entering the general traffic flow.

5.3.3 No Stopping Signage

No stopping signs at bus stops are used to prevent activity by other vehicles at a bus stop. Stopping bans at bus stops are the most common legal transit priority to prevent pick-up and drop-off activities by other vehicles at a bus stop. This is important for the stop to maintain wheelchair accessibility since the space required by the buses to stop parallel to the curb for the deployment of wheelchair ramp is specific. The distance of the no stopping zone is dependent on the bus stop type. Please refer to Section 2.1 for bus stop dimensions.



Figure 110 Example of a "No Stopping" Sign

5.3.4 Exempting Transit Vehicles from Roadway Infrastructure with Size or Weight Limitations

Exempting transit vehicles from weight restrictions on bridges, or length or width restrictions on narrow roads, allow buses to travel along the most desirable route. These measures may only be considered where bridge or roadway conditions can safely accommodate transit vehicles.

Section 6 Transit Road Design

Transit Streets are Living Streets

Great transit brings more people to a street in less space than other modes of transportation, creating nodes of activity around stations and along routes. Designing transit streets as linear public spaces enhances both the attractiveness of transit and its ability to support healthy urbanism. Shift vehicular priority from cars to transit to unlock space for parklets, plazas, bike lanes and sidewalk cafes.

Transit streets are Active Streets

Transit streets are built around safe, low-stress, and complete pedestrian and bicycling infrastructure. Transit riders are active users of the street, relying on comfortable sidewalks and bikeways—and orderly motor vehicle traffic moving at safe speeds. Intuitive travel paths and frequent opportunities to cross the street make it easy and safe for people to get to transit stops, and are essential to building ridership.

As specific roadway requirements for transit operations are not included in most design manuals, they are included in this section to assist roadway designers. Transit Windsor should be given an opportunity to review and comment on roadway-related designs on all existing or planned bus routes. It should be noted that the design objective is to provide bus operators with adequate opportunity to act and react safely in all traffic conditions, taking into account the design and performance characteristics of buses, particularly those critical in roadway design. If any minimum design standards are not met, one or a combination of the following scenarios may occur, which may compromise public safety, transit efficiency and customer service:

- A bus may not be able to physically complete a certain maneuver without conflicting other traffic movement(s)
- A bus operator may be forced to maneuver without adequate visibility of adjacent traffic
- Bus adherence to schedule may be delayed due to design deficiency
- The mechanical parts of the bus may be damaged, increasing maintenance needs and affecting operational safety
- The safety and comfort of the customers may be adversely impacted
- The opportunity to provide bus customer facilities or bus stops may be limited

6.1 Transit Buses

The dimensions of transit buses are important when designing roadways intended for transit operations. When designing a road or transit facility, the designer should identify the types of transit vehicles that would use the roadway or transit facility, and the dimensions (e.g., minimum width and height clearances, turning radius, etc.) based on the proposed bus maneuvers.

Transit Windsor currently operates several models of buses. Bus dimensions vary by manufacturer, model and production year, but generally fall within a consistent range.

These transit models are:

- New Flyer Xcelsior Hybrid
- New Flyer Xcelsior Clean Diesel
- Orion VII (7)
- Nova LFS Diesel

The current fleet consists of all 40 foot (ft) buses that run on diesel fuel or a hybrid of diesel - electric power, details found in Table 10. There is potential to have 60 foot articulated buses in the future as well as 30-35 foot buses as the Transit Master Plan – More Than Transit is developed. Detailed dimensions of Transit Windsor buses can be found in Appendix I.

All buses are equipped with a bicycle rack at the front of the bus and a wheelchair ramp to provide access to customers with disabilities.

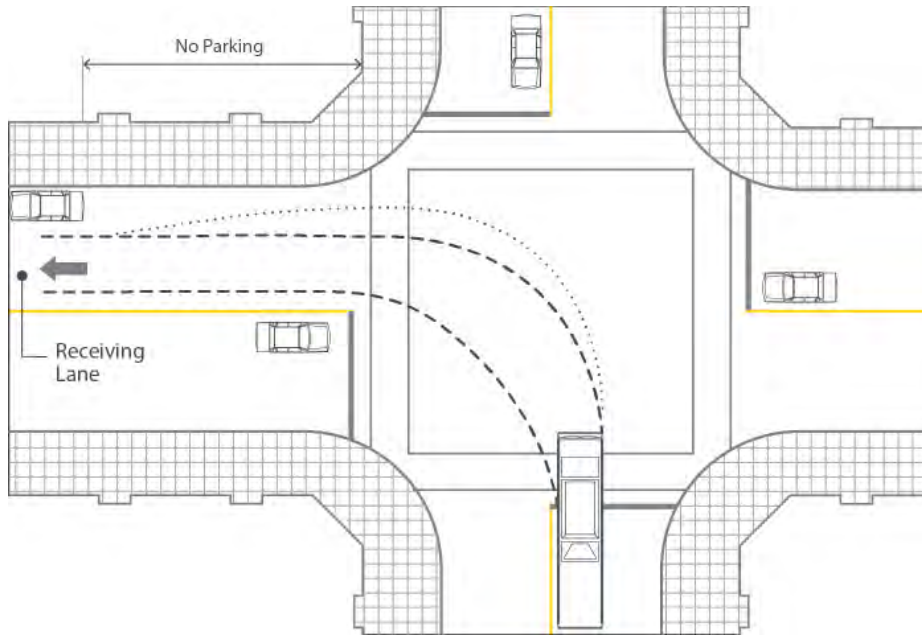
Table 10 Transit Bus Dimensions

Bus Type	Length Over Bumpers (m)	Length Over Body (m)	Width (m)	Height (m)	Wheelbase (m)	Step Height (mm)	Front Step Height (Kneeled) (mm)	Turning Radius (m)
New Flyer Xcelsior Hybrid	12.5	12.24	2.6	3.3	7.2	356	254	13.4
New Flyer Xcelsior Clean Diesel	12.5	12.24	2.6	3.2	7.2	356	254	13.4
Orion VII (7)	12.6	N/A	2.59	3.38	7.26	368.3	279.4	13.2
Nova LFS Diesel	12.19	N/A	2.59	3.2	6.2	N/A	N/A	12.45

6.2 Intersection Design

The design of intersections should accommodate the required bus turning paths. The Design Vehicle selected should reflect the "worst case" condition for the types of vehicles, including buses, expected to operate on the specific route. It should be noted that the following design dimensions are provided as a guide only. Realities of urban design should be acknowledged, such as curb radius vs. pedestrian exposure and other trade-offs. Traffic conditions and frequency of bus movements may also affect intersection design. Figure 111 illustrates the vehicle path of a Standard Bus making a typical left - turn movement at an intersection with either one or two receiving lanes. During the design of a new intersection or the evaluation of an existing one, the receiving lane should be wide enough to prevent a left - turning bus from encroaching on the directional lane line or from coming into contact with a parked vehicle. It is generally preferred that a buffer distance of 0.45 m (1.5 ft) is provided between the bus and these hazards.

One receiving lane



Two receiving lanes

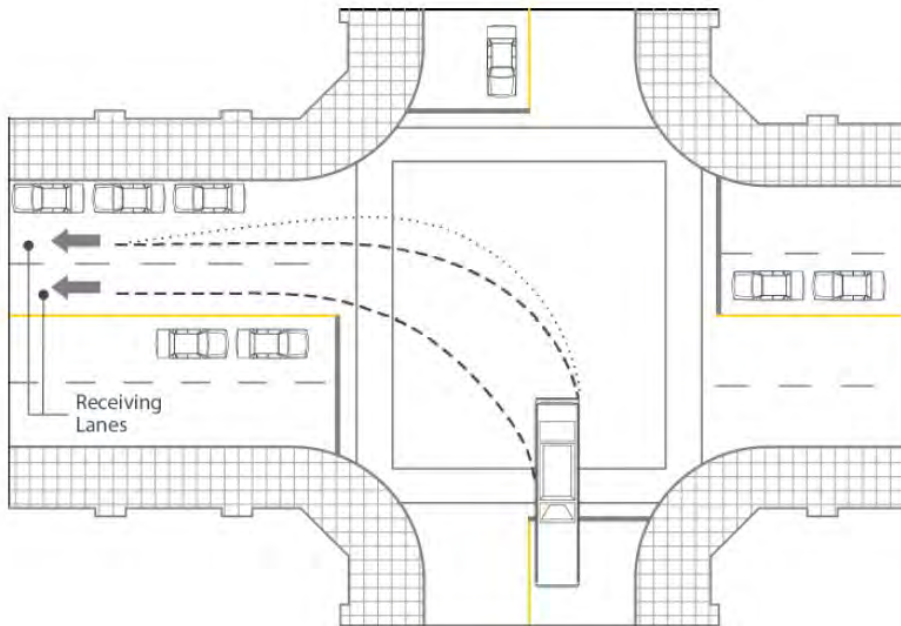


Figure 111 Diagram of Bus Turning Left at an Intersection

Figure 112 illustrates the vehicle path of a Standard Bus making a typical right - turn movement at an intersection and the associated design considerations for corner radii and entry/receiving lane widths. During the design of a new intersection or the evaluation of an existing one, critical vehicle turning paths and other site-specific characteristics should be taken into account when determining corner radii and entry/receiving lane widths.

In a single wide lane, the current practice for a right - turning bus is to leave no more than a 1.35 m (4 ft) gap from the curb prior to the turn to avoid safety hazards resulting from vehicles, bicycles, etc. trying to pass the bus on its right side. This is a 'defensive driving' behavior.

Depending on the lane assignment at an intersection, specific design considerations at entry and receiving lanes, as summarized in Table 11, should be reviewed.

Table 11 Bus Turning Design Considerations at Intersections

Turn Type	Entry Lane	Receiving Lane
Left Turn	<ul style="list-style-type: none"> • The starting position of the turn • The sight triangles for crossing traffic • The potential conflict with the turning path of opposing traffic • The sight line for opposing traffic 	<ul style="list-style-type: none"> • The stop position of the cross traffic on the left • The width of the receiving lane(s) • The lateral clearance between any parked vehicles and the turning path of the bus
Right Turn	<ul style="list-style-type: none"> • The starting position of the turn • To prevent small vehicles such as bicycles, motorcycles, etc. from passing the bus on its right side, a right-turning bus should commence the turn at a distance no more than 1.35 m (4 ft) from the curb, where possible • The sight triangles of traffic from the left 	<ul style="list-style-type: none"> • The corner radius • The width of the receiving lane(s) • The lateral clearance between any parked vehicles and the turning path of the bus

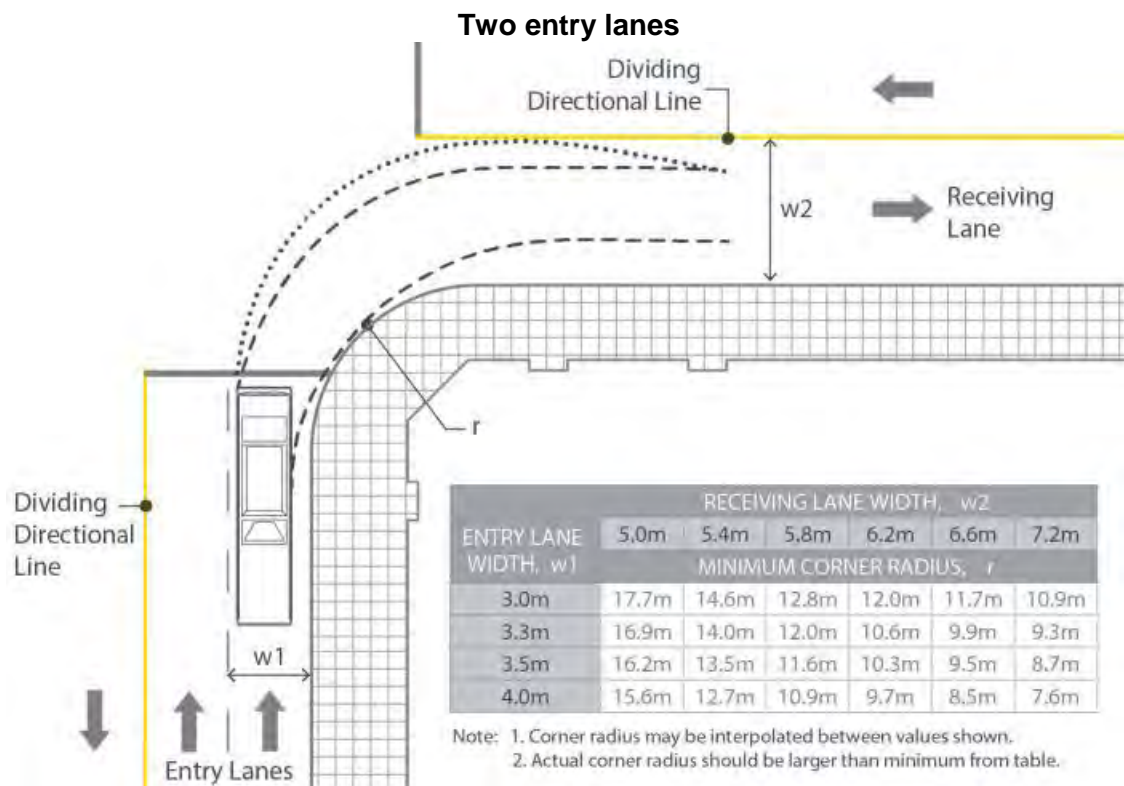
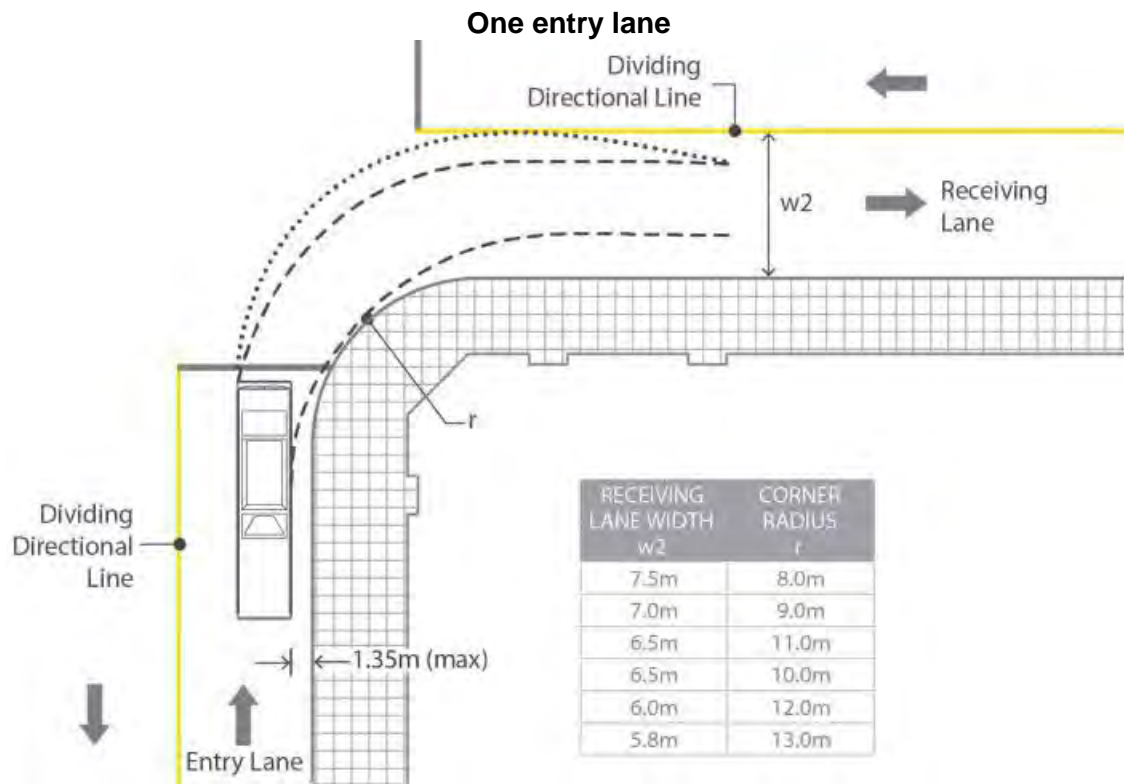


Figure 112 Diagram of Bus Turning Right at an Intersection

6.3 Lane Widths

Pavement widening beyond standard widths should be considered when buses are the largest design vehicle for an undivided roadway.

Figure 113 through Figure 118, show the desirable curb lane widths on road sections for bus operation, as well as the ideal pull-out distance between a stopped bus and parked vehicles.

The required width of the curb lane depends on the number of through lanes available in the same direction of travel, any allowance for parking in the curb lane, and the presence of bike lanes. The minimum width of a shared lane for transit and bicycle use is 4.3 m (14 ft).

When two or more through lanes are available and parking is not allowed in the curb lane, the desirable width of the curb lane ranges from 3.3 m (11 ft) to 3.7 m (12 ft). When more than one lane is available and parking is allowed in the curb lane, the minimum width of the shared curb lane is 5.8 m (19 ft). When there is only one travel lane in the direction of travel and parking is allowed, the minimum lane width is increased to 6 m (20 ft) to provide clearance from opposing traffic.

The width of the travel lane immediately upstream of a bus stop should not be more than 4.5 m (15 ft) such that approaching vehicles must change lanes to pass a stopped bus. The 4.5 m (15 ft) width can be achieved by having a curb bulge at a bus stop area close to an intersection.

Buses are among the largest vehicles operating on city streets, with mirror widths often exceeding available lane space. Where buses operate in a narrow mixed-traffic lane, intrusion into adjacent lanes may sometimes occur, such as when two buses pass each other. Ensure that adjacent lanes in a street section can occasionally accommodate such movements when needed. Figure 119 and Figure 120 explore the widths of buses and lanes interacting with the buses.

Three through lanes

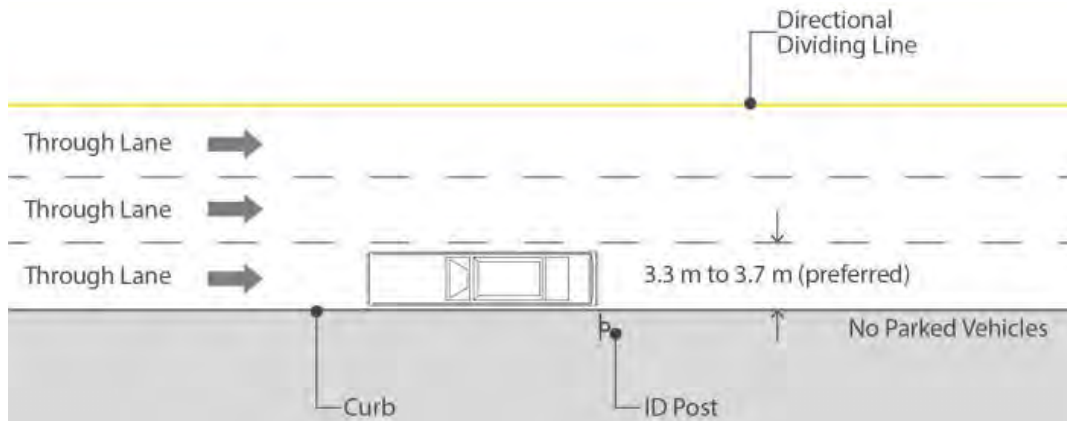


Figure 113 Three Through Lanes Diagram

One through lane and one shared/parking lane

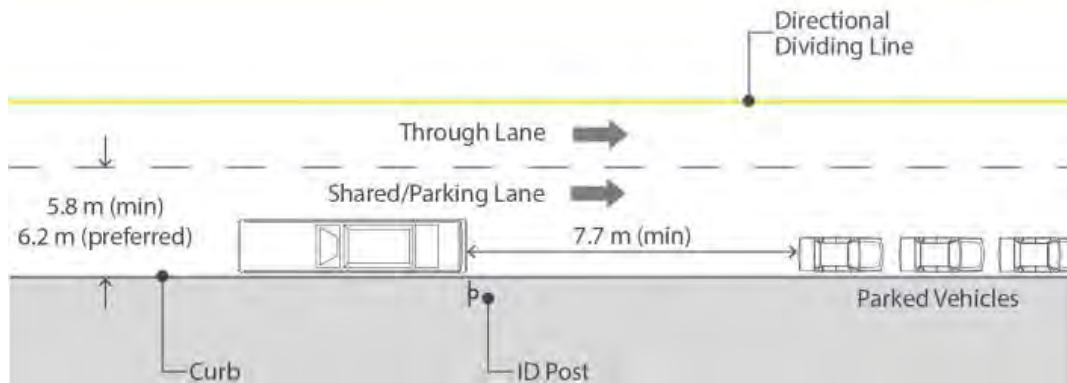


Figure 114 One Through Lane and One Shared/Parking Lane Diagram

Two - way bus - only lane

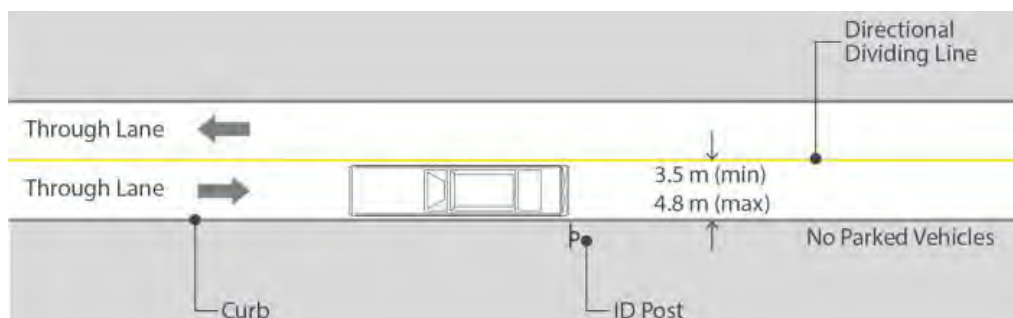


Figure 115 Two-Way Bus-Only Lane Diagram

Shared/parking lane

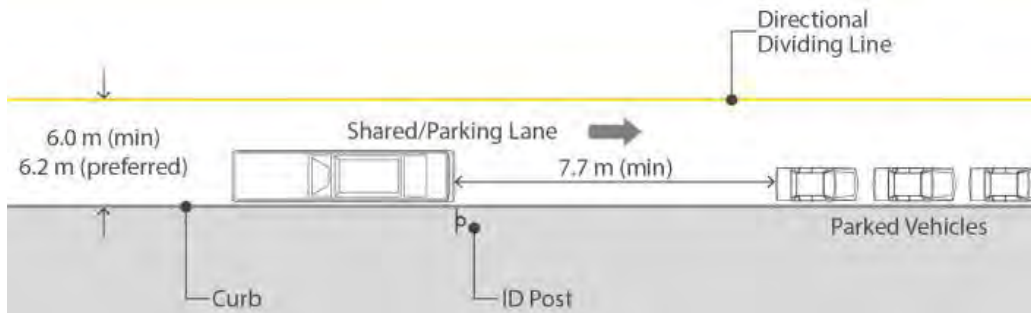


Figure 116 Shared/Parking Lane Diagram

Bike lane – separated

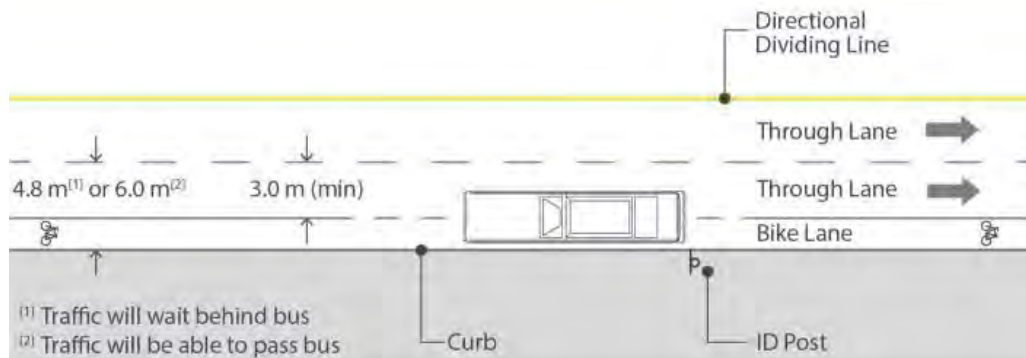


Figure 117 Bike Lane - Separated Lane Diagram

Bike lane – shared

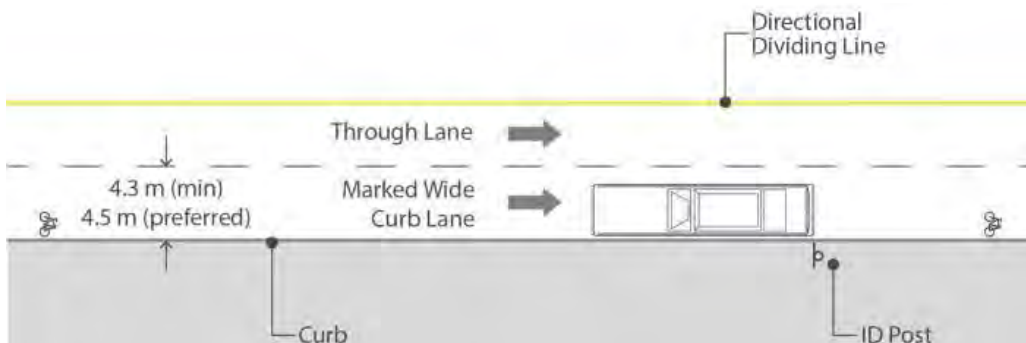


Figure 118 Bike Lane - Shared Diagram

STANDARD 40' BUS



Figure 119 Width and Buffer for a Standard 40 foot Bus

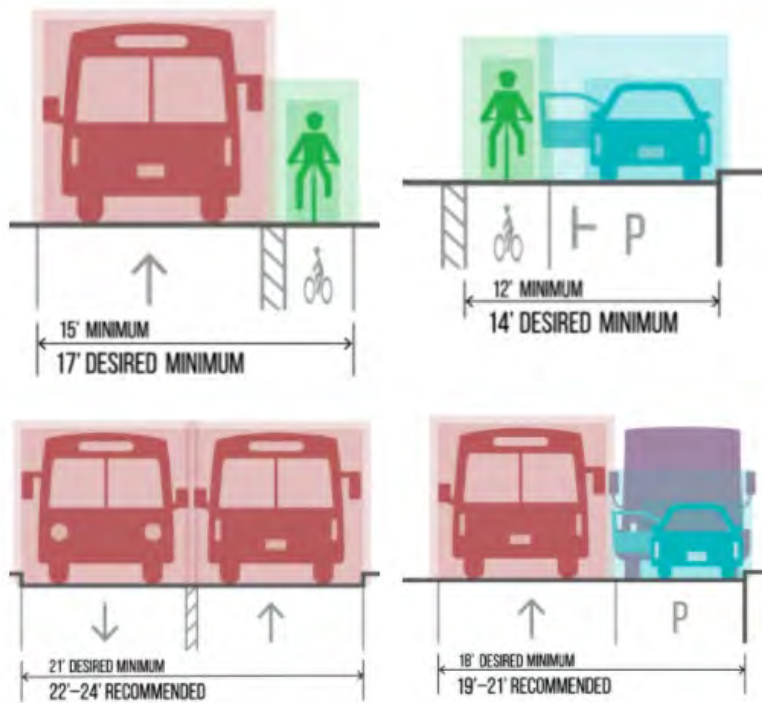


Figure 120 Minimum and Recommended Lane Widths for Transit Vehicles

6.4 Alignment, Grades, and Height

Given the vehicle performance characteristics of buses, such as lower rates of acceleration and deceleration, using minimum geometric design standards should be avoided wherever possible to achieve a high level of bus performance and customer comfort.

6.4.1 Maximum Gradient

The maximum grade or slope that transit buses can negotiate safely and economically is somewhat less than that for general traffic. The maximum grade for roadways designed for transit buses is generally 12%. For sustained gradients longer than 800 m (2625 ft), the maximum grade is 8%. Note that 8% is also the maximum grade at a bus stop so that wheelchair users can maneuver manually. All roads proposed for bus services should preferably be designed with sustained grades of no more than the maximum value to allow safe and efficient bus operation.

Although buses can climb a grade greater than 12%, the speed and operating performance will be significantly reduced. Stopping sight distance and other safety aspects are also important design factors that must be considered on downhill road sections with grades greater than 12%.

The maximum grade at bus layover locations should not exceed 3%.

6.4.2 Minimum Vertical Clearance

When a bus is being towed under a roofed structure, the minimum vertical clearance is 4.5 m (15 ft). This clearance accommodates access for repair activity on the roof of the bus and height needed for towing. Overhead structures including sprinkler and HVAC equipment should be mounted higher than 4.5 m (15 ft) from the ground.

6.5 Traffic Calming Measures

Traffic calming measures are often installed on local or residential streets for the purposes of:

- Reducing vehicular speeds
- Discouraging through traffic
- Minimizing conflicts between street users
- Improving the neighborhood environment

Traffic calming measures may be regulatory, such as posting reduced speed limits or four-way stop signs. However, many involve physical measures that deflect or alter vehicle paths. The latter type includes speed humps, traffic circles, curb extensions, etc. If traffic calming measures are to be installed on transit bus routes, their effects on bus operations must be considered, particularly for the physical traffic calming measures. On bus routes, the impacts of physical traffic calming measures should be very carefully considered in order to maintain safe and efficient bus transit operations. More traffic calming measures are provided in Appendix J.

6.5.1 Speed Humps and Tables

A speed hump slows down vehicles by transferring an upward force to a vehicle and its occupants as it crosses the speed hump. A level of discomfort results, depending on the profile of the hump, the speed of the vehicle, and the length of the vehicle's wheel base. If feasible alternatives are available, speed humps are not recommended for use on streets with public transit. Transit Windsor also does not support, in principle, the installation of speed humps on bus routes for reasons of customer safety and comfort, operational efficiency, and vehicle maintenance implications.

If speed humps or speed tables are to be installed on transit routes, the design should consider the special operational characteristics and the needs of transit vehicles, including:

- A speed table (with flat top) is preferred to a speed hump for installation on transit routes. If speed tables are to be installed on transit routes, a 6.7 m (22 ft) speed table with a 3.1 m (10 ft) plateau, 1.8 m (6 ft) sinusoidal or parabolic approaches and a vertical height of 76 mm (3 in) is recommended. Figure 121 shows the typical sinusoidal and parabolic approach speed tables
- Speed humps should not be installed immediately before or after a bus stop as they may affect the stability of the customers who are walking to the doors for alighting, walking to their seats, or moving toward the back of the bus. It is recommended that the speed tables be located at least 25 m (82 ft) in advance or after a bus stop
- Typically, buses cannot travel over a speed hump at the same speed as passenger vehicles. A special transit speed reduction warning sign may be required to advise the operators of the speed at which they should travel over the speed hump

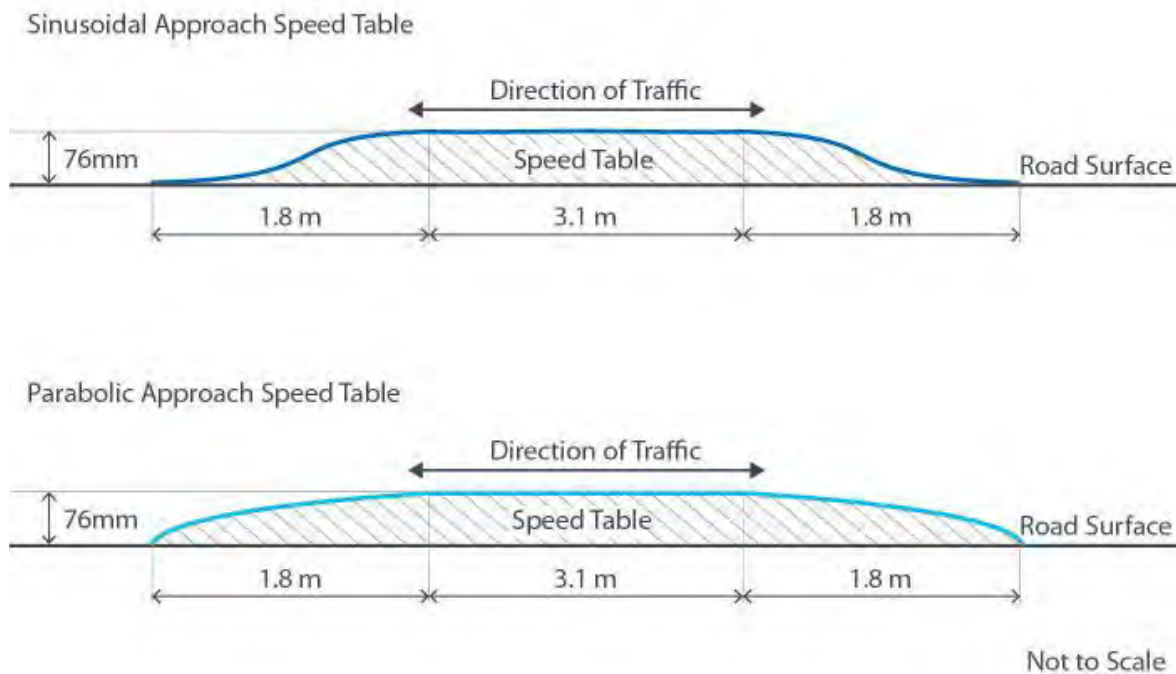


Figure 121 Speed Table Dimensions

6.5.2 Curb Extensions, Radius Reductions, and Traffic Circles

Curb extensions, radius reductions, and traffic circles are examples of traffic calming measures used to influence the path and speed of moving traffic by modifying the alignment, the width of the travel lane and/or the corner radius. Figure 122 shows an example of a curb extension, while Figure 123 illustrates the conceptual layouts of the possible arrangements.

When designing these traffic calming measures on transit bus routes, the following transit operation requirements should be considered:

- Bus routing
- Bus turning paths for a 12.4 m (40 ft) Standard Bus (details provided in Appendix K)
- Minimum lane width
- Corner radii

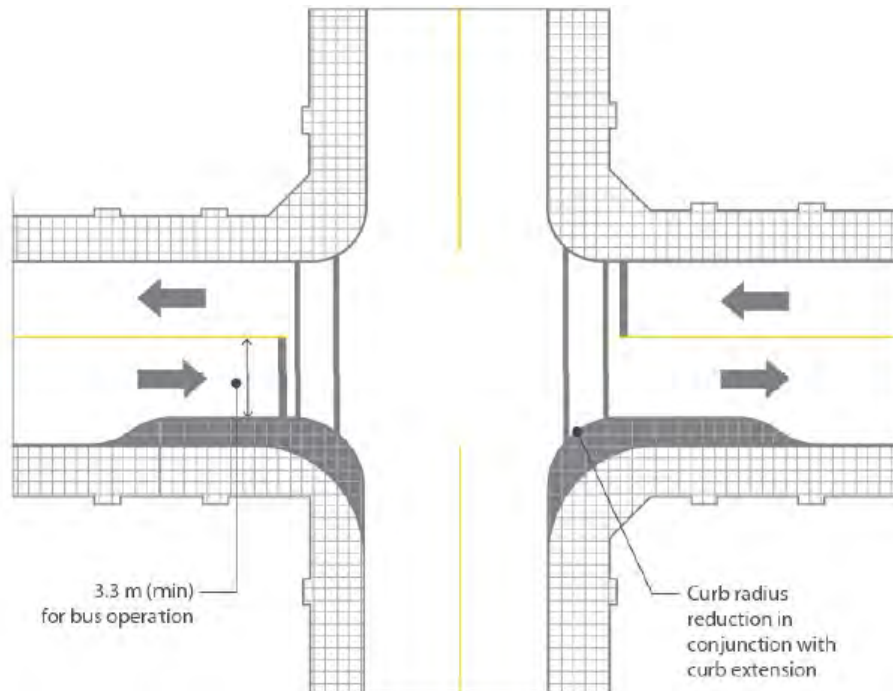


Figure 122 Example of Radius Reduction

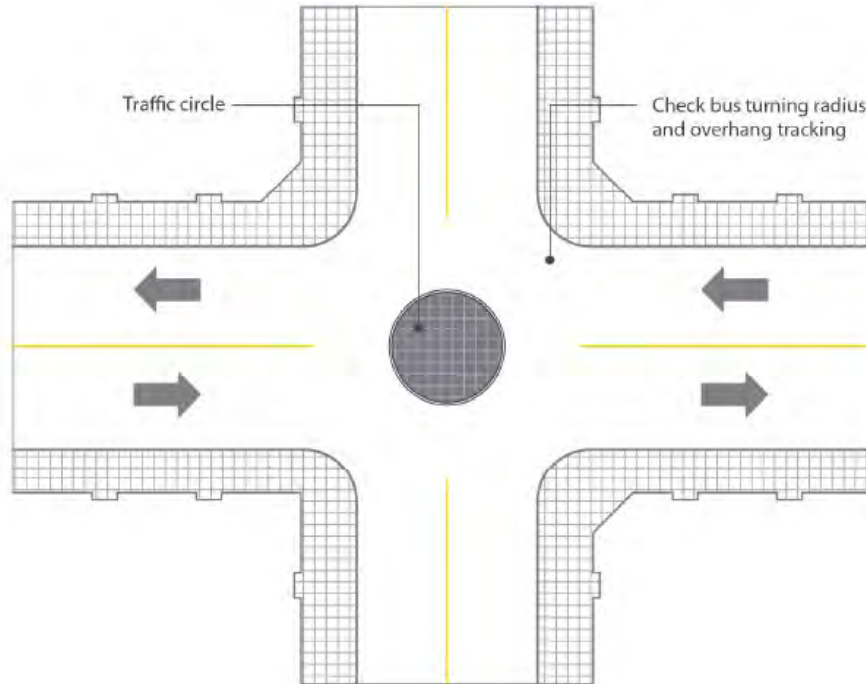


Figure 123 Example of a Traffic Circle

6.6 Roundabout Requirement

To minimize customer discomfort associated with driving over a mountable curb at a roundabout, buses should circulate the roadway without intruding on the truck apron. The minimum diameter of a roundabout is 32 m (105 ft). Figure 124 shows a real-world round-about in Transit Windsor’s route network.



Figure 124 Example of a Roundabout Used by Transit Windsor

Conclusion

Overall, Transit Windsor uses these route infrastructure planning and design guidelines to create consistency when establishing new bus stops and reviewing current bus stops. Having this consistency gives Transit Windsor users a better understanding of the transit system and allows other City of Windsor departments to understand what is needed in the public right-of-way for Transit Windsor. These guidelines also allow Transit Windsor to appropriately address public concerns or suggestion with clarity and reasoning for bus stop and route infrastructure decisions.

These planning and design guidelines emphasize the importance of collaboration between Transit Windsor and other City of Windsor departments in order to achieve proper transit standards. These guidelines have been informed by a variety of guidelines from other transit properties across Canada and national transit organizations to ensure that Transit Windsor is following industry standards and best practices.

Appendix A Bus Stop Design Evaluation

Transit Windsor Bus Stop Design Evaluation

Date of Evaluation:

Submitted by:

Location of Existing or Proposed Stop		
Stop ID:		
Route(s) Affected:		
Criteria		Answer
Stop Spacing Guidelines		
*Refer to Section 1 in Transit Windsor Route Infrastructure Planning & Design Guidelines for more information		
1) What type of stop is this or will this be for?	Regular Transit Route Express Transit Route	N/A
a. If the answer to question 1 is regular, is the stop spacing between 200-300 m?	Yes (10 points) No (5 points) N/A	
b. If the answer to question 1 is express, is the stop spacing greater than 300 m?	Yes (10 points) No (5 points) N/A	
Placement of Bus Stop		
*Refer to Section 2 in Transit Windsor Route Infrastructure Planning & Design Guidelines for more information		
2) What is the bus stop configuration of the proposed / existing bus stop?	Far-Side Near-Side Mid-Block	N/A
3) Is the bus stop In-Lane or Pull-Out?	In Lane (10 points) Pull-Out (5 points)	
4) If a crosswalk is present in the vicinity of the bus stop, is the stop the required distance from the crosswalk?	Yes (5 points) No (0 points) N/A	
5) If parking is present before or after the bus stop, do you have the proper distance between the transit vehicle and parked vehicles?	Yes (5 points) No (0 points) N/A	
6) If a pedestrian crossover (PXO) is present in the vicinity of the bus stop, is the stop the required distance from the crossover?	Yes (5 points) No (0 points) N/A	

Question	Bus Stop Configuration	Answer	Scoring
Is the bus stop near a signalized intersection?	Far-Side	Yes (5 points) No (0 points) N/A	
	Near-Side	Yes (0 points) No (5 points) N/A	
	Mid-Block	N/A	N/A
Is there on street parking?	Far-Side	Yes (5 points) No (0 points) N/A	
	Near-Side	Yes (0 points) No (5 points) N/A	
	Mid-Block	N/A	N/A
If this intersection is a transfer point, is this stop being placed on an adjacent corner to an existing stop?	Far-Side	Yes (5 points) No (0 points) N/A	
	Near-Side	Yes (5 points) No (0 points) N/A	
	Mid-Block	N/A	N/A
Is the bus stop the required distance from the intersection?	Far-Side	Yes (5 points) No (0 points) N/A	
	Near-Side	Yes (5 points) No (0 points) N/A	
	Mid-Block	N/A	N/A
Is there a large ridership generator near the bus stop?	Far-Side	N/A	N/A
	Near-Side	N/A	N/A
	Mid-Block	Yes (5 points) No (0 points) N/A	
Is there a safe pedestrian crossing nearby?	Far-Side	N/A	N/A
	Near-Side	N/A	N/A
	Mid-Block	Yes (5 points) No (0 points) N/A	
Bus Stop Type			
*Refer to Section 3 in Transit Windsor Route Infrastructure Planning & Design Guidelines for more information			
7) If a boarding bulb is present, does the bus stop meet the required distance?		Yes (5 points) No (0 points) N/A	
8) If a bus bay is present, does the bus stop meet the required distance?		Yes (5 points) No (0 points) N/A	
9) If a bike lane is present, does the bus have to cross over or stop in the bike lane?		Yes (0 points) No (5 points) N/A	

Physical Design for Safe Passenger Access & Amenities			
*Refer to Section 4 in Transit Windsor Route Infrastructure Planning & Design Guidelines for more information			
10) Is the bus stop sign located at a minimum of 0.6 m from face of curb or can it be?		Yes (5 points) No (0 points) N/A	
11) Is the bus stop sign obscured by objects or will it be?		Yes (0 points) No (5 points) N/A	
12) If the sign is installed behind the sidewalk or it will be, is the sign positioned at a 45 degree angle to road?		Yes (5 points) No (0 points) N/A	
13) If the sign is installed between the road and the sidewalk or it will be, is the sign positioned perpendicular to the road?		Yes (5 points) No (0 points) N/A	
14) If the sign is near a driveway or it will be, what is the distance between the driveway and the sign?		0-4 feet (0 points) 5-9 feet (3 points) 10+ feet (5 points)	
15) What type of bus stop is being analyzed?		Regular Enhanced Terminal	N/A
Amenity	Stop Type	Answer	Scoring
Route / schedule information holder	Regular Stop	Yes (5 points) No (0 points) N/A	
	Enhanced Stop	Yes (5 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	
Lighting	Regular Stop	Yes (3 points) No (0 points) N/A	
	Enhanced Stop	Yes (5 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	
Passenger Landing Pad	Regular Stop	Yes (5 points) No (0 points) N/A	
	Enhanced Stop	Yes (5 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	
Wheelchair Pad	Regular Stop	Yes (3 points) No (0 points) N/A	
	Enhanced Stop	Yes (5 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	



Garbage Receptacle	Regular Stop	Yes (3 points) No (0 points) N/A	
	Enhanced Stop	Yes (5 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	
Seating	Regular Stop	Yes (3 points) No (0 points) N/A	
	Enhanced Stop	Yes (5 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	
Bus Shelter	Regular Stop	Yes (3 points) No (0 points) N/A	
	Enhanced Stop	Yes (5 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	
Real-time Information	Regular Stop	Yes (1 point) No (0 points) N/A	
	Enhanced Stop	Yes (3 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	
Bicycle Storage	Regular Stop	Yes (1 point) No (0 points) N/A	
	Enhanced Stop	Yes (3 points) No (0 points) N/A	
	Terminal	Yes (5 points) No (0 points) N/A	
Total Points			0
	Scoring		
	Maximum:	150	
	Minimum:	37	
Additional Comments			

Appendix B Maintenance Checklist

A maintenance checklist was developed for the elements described in the previous sections. The intent is to provide personnel with a list of items that require observation and checking on-site to ensure that maintenance is provided as required. All bus stops will be evaluated on an annual basis. A score will be given to each bus stop.

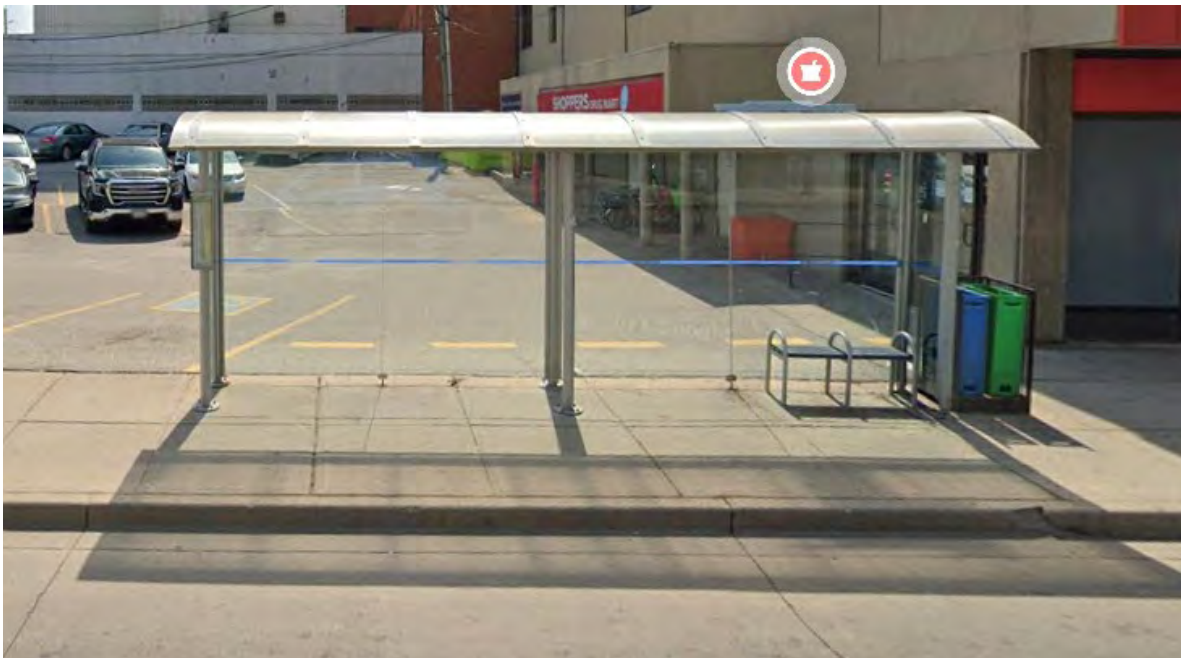
Element	Preferred Condition
Access routes used by passengers, eg. sidewalks	No physical obstacles, clear of materials that create slippery surfaces
Lighting	In operation, adequate lighting level
Landscaping	Low-level shrubbery or canopied trees
Bus stop signage	Good visibility, not obscured by streetlights or trees Free of vandalism
Bus shelter and bench	Free of vandalism and weathering effects
Refuse receptacles	Free of vandalism, free of pooling of liquids
Bus schedules and route maps	Free of vandalism, good condition
Curb-side	Free of potholes, no drainage issues
Bus pad	Free of cracks in concrete

Appendix C Types of Bus Shelters within Transit Windsor's Route Network

2' x 10' Daytech Avanti Shelter – NON AD



2' x 20' Daytech Avanti Shelter – NON AD



4' x 8' Daytech Avanti Shelter – NON AD



4' x 10' Daytech Avanti Shelter - AD



4' x 10' Daytech Avanti Shelter – NON AD



4' x 20' Daytech Avanti Shelter – NON AD



4' x 20' Daytech Avanti Shelter - AD



5' x 20' Daytech Avanti Shelter – NON AD



4' x 8' Daytech Traditional Shelter – NON AD



4' x 10' Daytech Vangarde Shelter



4' x 10' Daytech Traditional Shelter – NON AD



4' x 12' Daytech Contemporary Shelter – NON AD

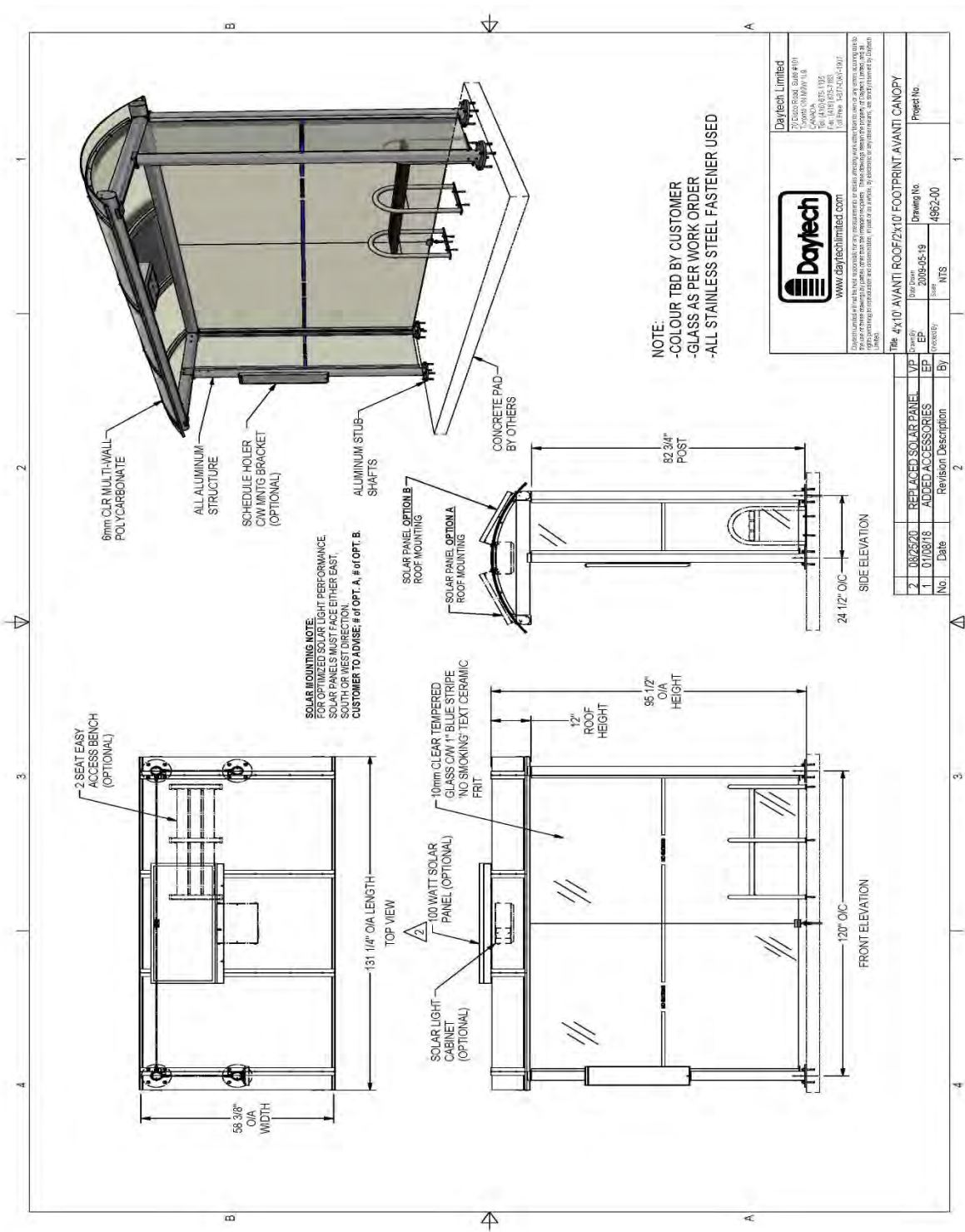


4' x 10' Daytech Classic Shelter

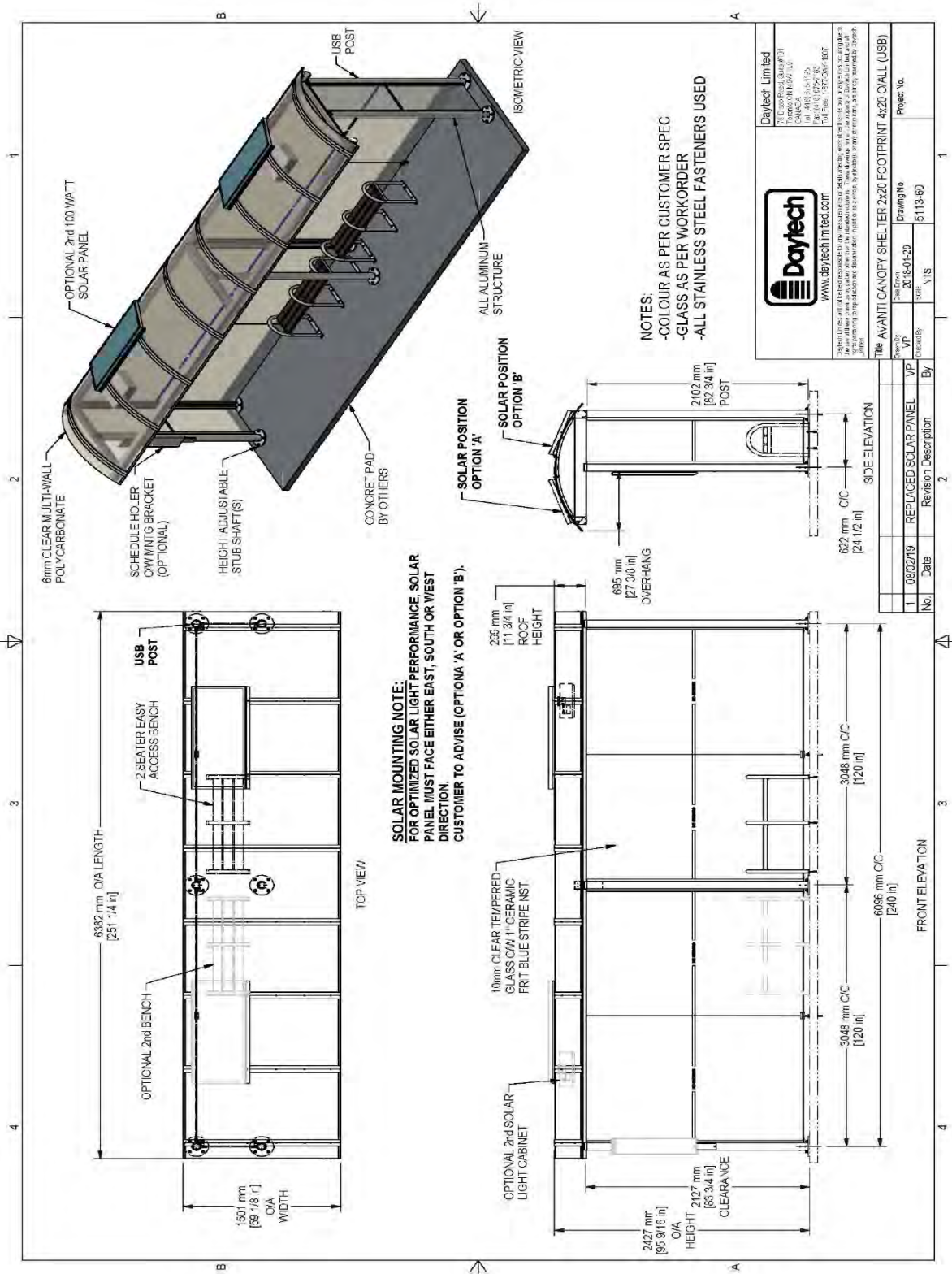


Appendix D Daytech Bus Shelter Specifications

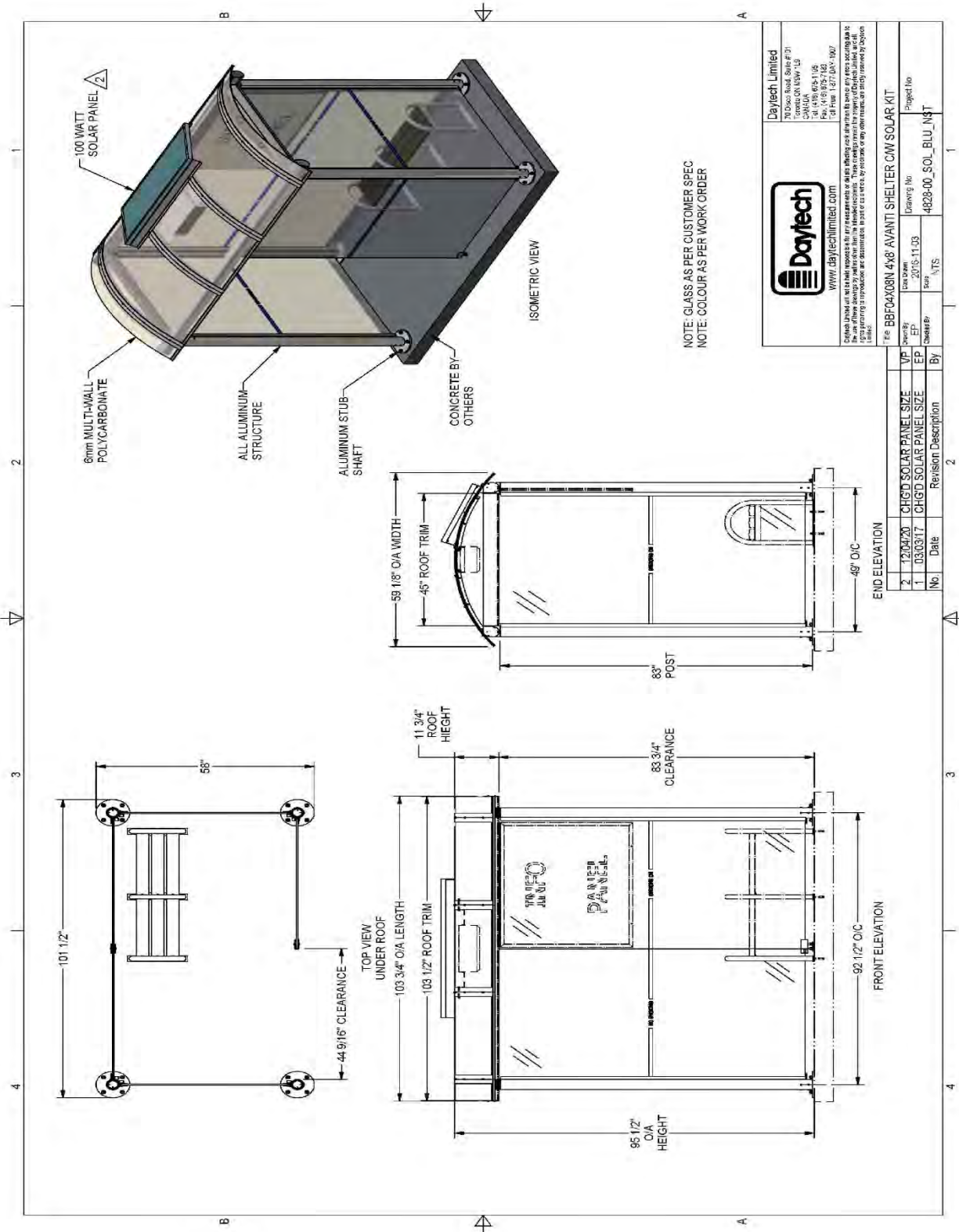
2' x 10' Avanti



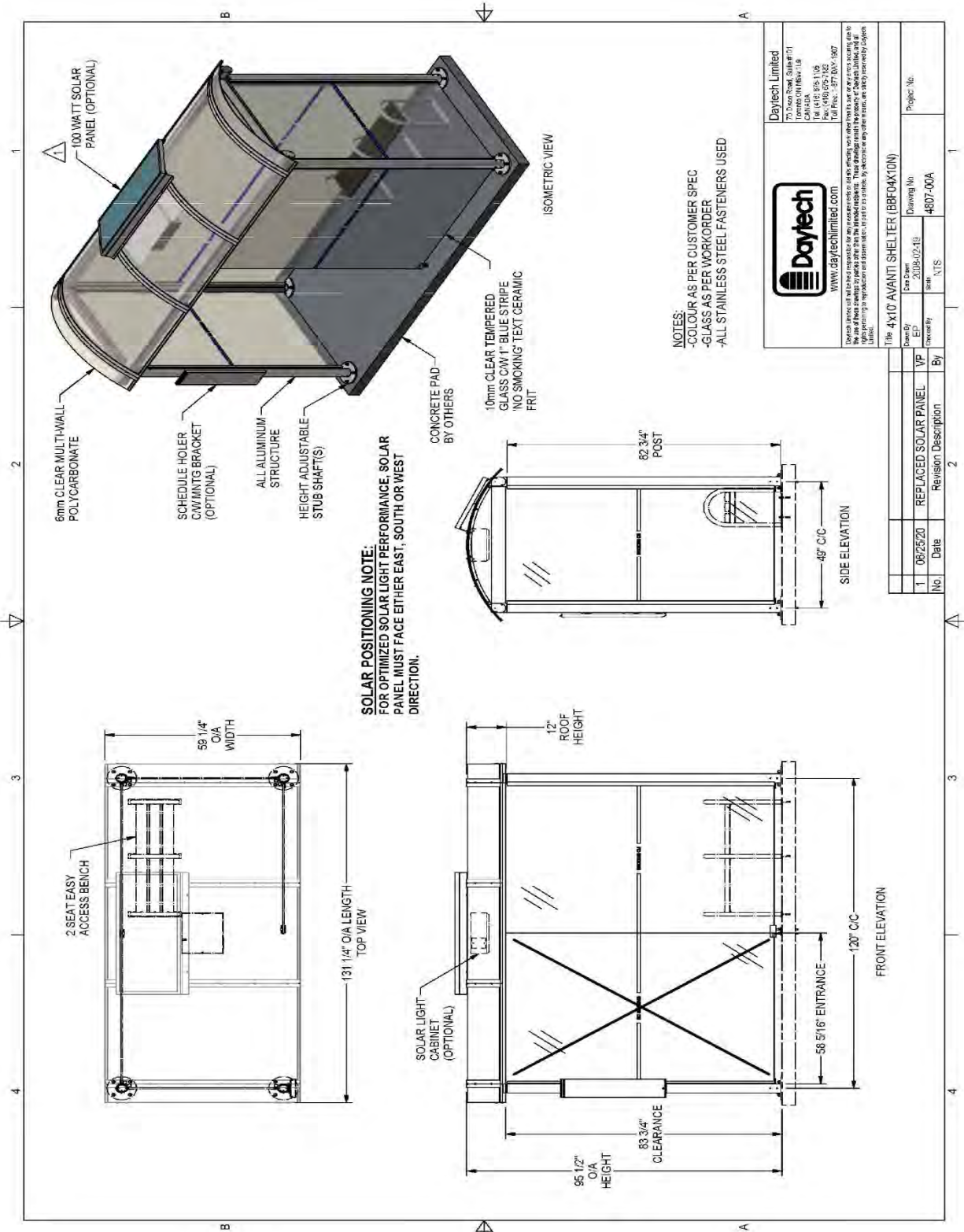
2' x 20' Avanti



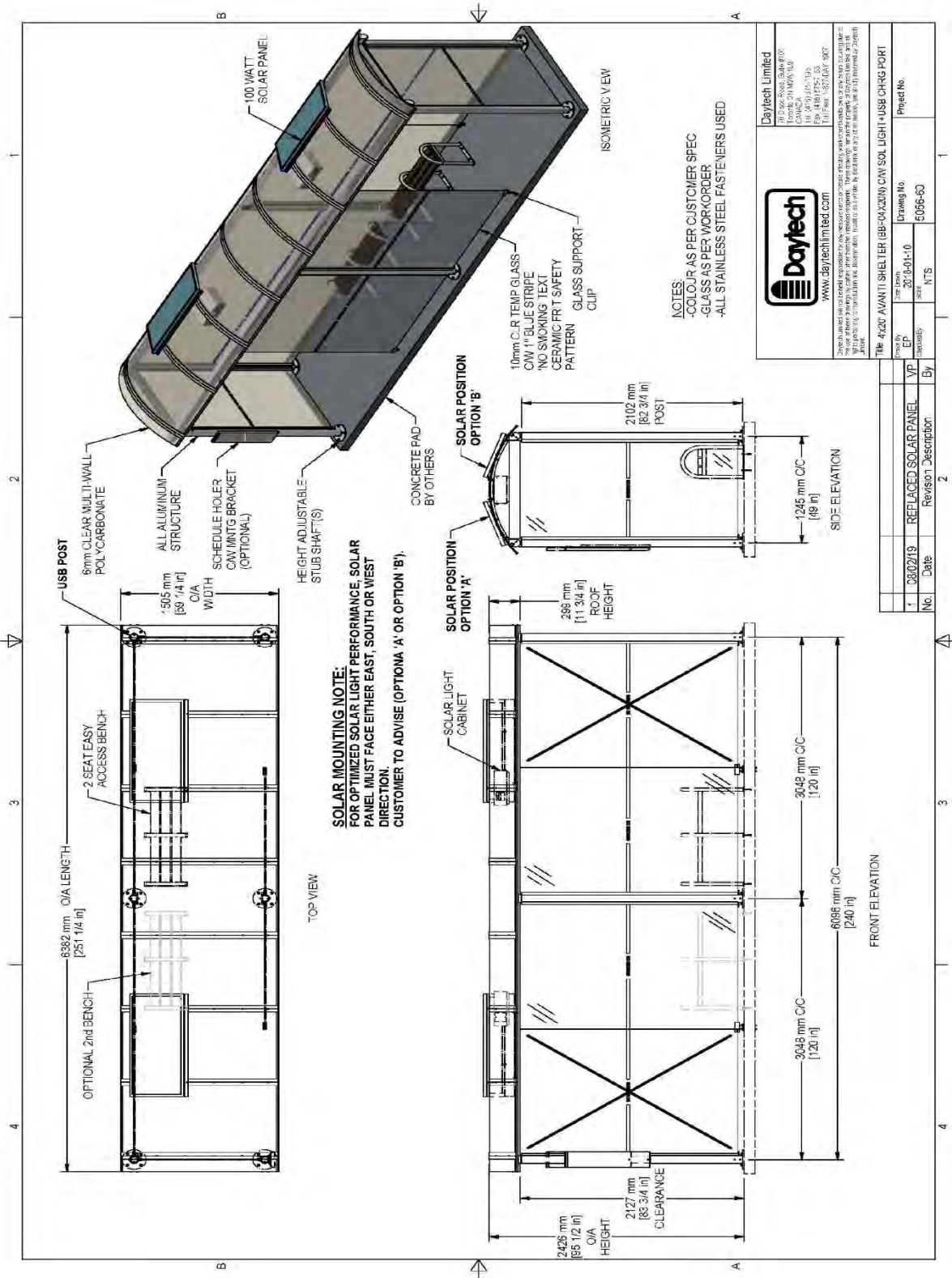
4' x 8' Avanti



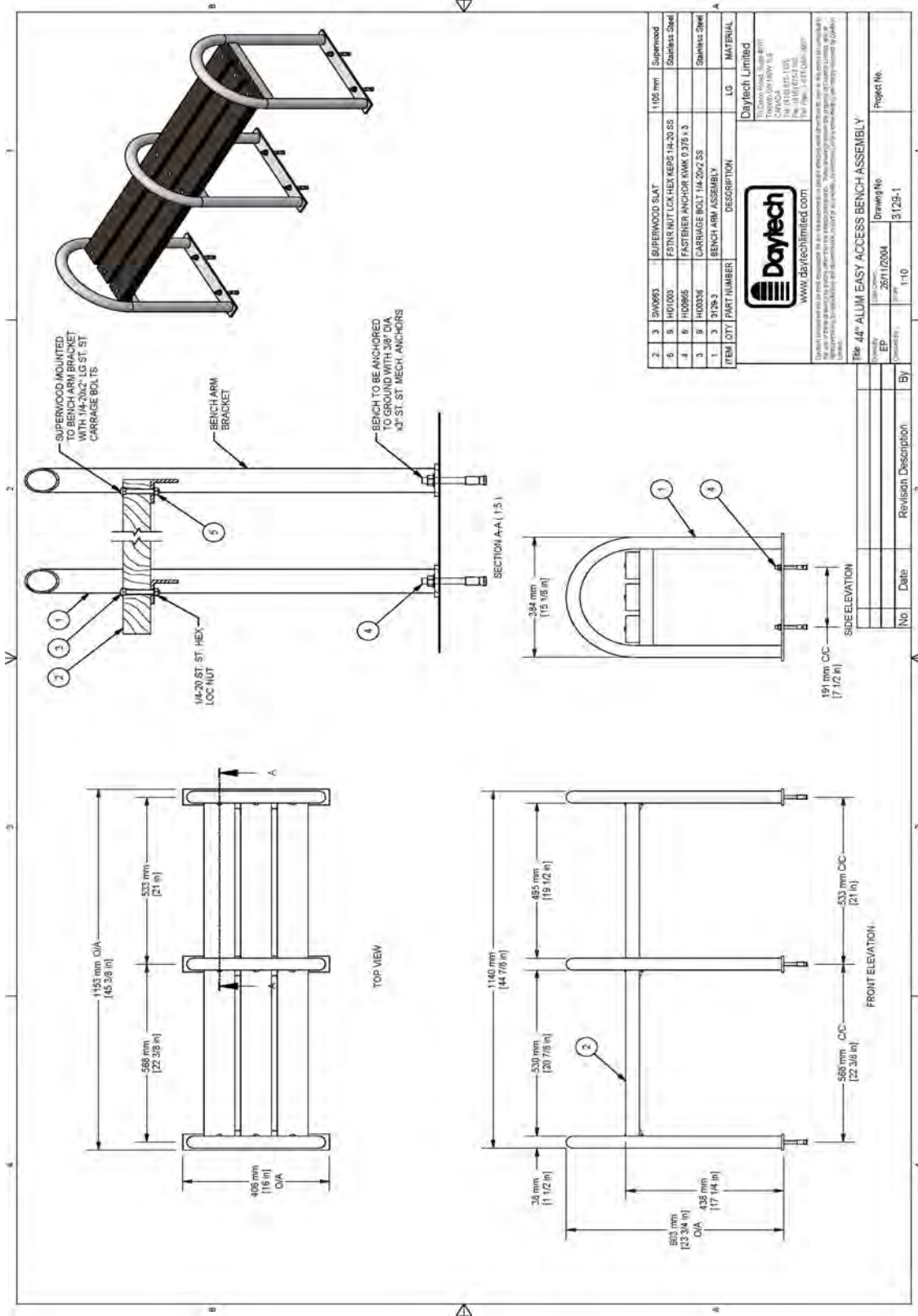
4' x 10' Avanti



4' x 20' Avanti



Bench (2 Seats) for Inside a Bus Shelter



Appendix E Bus Shelter Site Evaluation Form

Transit Windsor will place all requests through a series of selection criteria to ensure that the best utilization of the shelter is achieved by the City of Windsor and the Transit Windsor system. The selection criteria used to assess any proposed shelter installation location includes:

- Number of passenger boardings per weekday (where data is available)
- Initial site survey details
- Long term strategic planning network plans
- Safety of location in terms of passengers, operators, and general traffic
- Historical or present operation concerns
- Funding available

*The amount of funding available each year for this program is allocated through the City of Windsor's capital budget process and is part of a larger scope, not just bus shelters. Limited funding is available each year.

Date of Evaluation:
Submitted By:

Transit Windsor Bus Shelter Site Evaluation Form

Proposed Location Stop ID and Name:

Route(s) Affected:

CRITERIA	Circle	Points
1.) Is this bus stop a transfer point?	YES (10) NO (5)	_____
2.) Is this bus stop an end point to a route?	YES (10) NO (5)	_____
3.) Is vandalism a concern at this location? (Consider lighting, remoteness, etc.)	YES (5) NO (10)	_____
4.) Is passenger safety/security a concern at this location?	YES (10) NO (5)	_____
5.) Is this bus stop near a school, hospital or seniors apartment?	YES (10) NO (5)	_____
6.) Is this bus stop near another type of fare generator, such as a shopping mall, plaza, etc.?	YES (10) NO (5)	_____
7.) Is this location currently protected from the weather?	YES (0) NO (5)	_____
8.) Is a concrete pad required?	YES (0) NO (5)	_____
9.) Are there other passenger amenities at this location? (Consider benches, trash cans, etc.)	YES (5) NO (10)	_____
10.) Are other expenditures required such as curb cuts, retaining walls, etc.?	YES (0) NO (5)	_____
11.) What is the average ridership per day at this stop?		
a. 0-5 Point Total (0)		
b. 6-10 Point Total (2)		
c. 11-20 Point Total (5)		
d. 21-40 Point Total (8)		
e. 41+ Point Total (10)		
12.) Is there room on the City right of way to install a bus shelter?	YES (10) NO (0)	_____
13.) If the answer to Question 12 is "NO", can this stop be moved to a location in close proximity?	YES (5) NO (0)	_____
14.) If the answer to Question 13 is "YES", is there an expenditure to moving the bus stop, excluding signage?	YES (0) NO (5)	_____
15.) If the answer to Question 13 is "NO", a shelter cannot be installed at this location and this evaluation is complete.		

Total Points _____

Rating (score out of 100)

- Excellent 90-100
- Good 75-89
- Fair 50-74
- Poor Below 50

Additional Comments

Planning Department Recommendations:

Approved By:



Appendix F Bus Shelter Concrete Pad Specifications



Daytech Limited
70 Disco Rd. Suite 101
Toronto, ON M9W 1L9

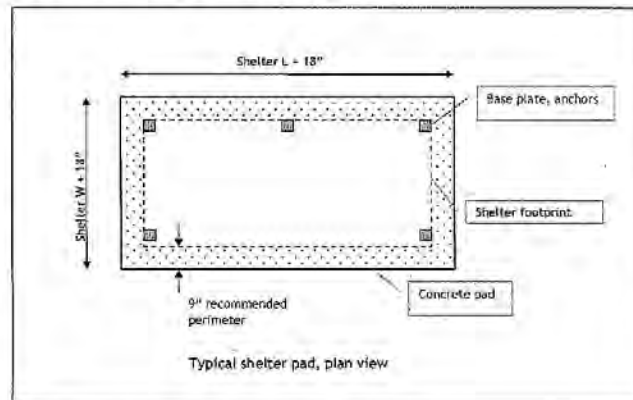
Tel (416) 675-1195 Fax (416) 675-7183
www.daytechlimited.com

Concrete pad guidelines

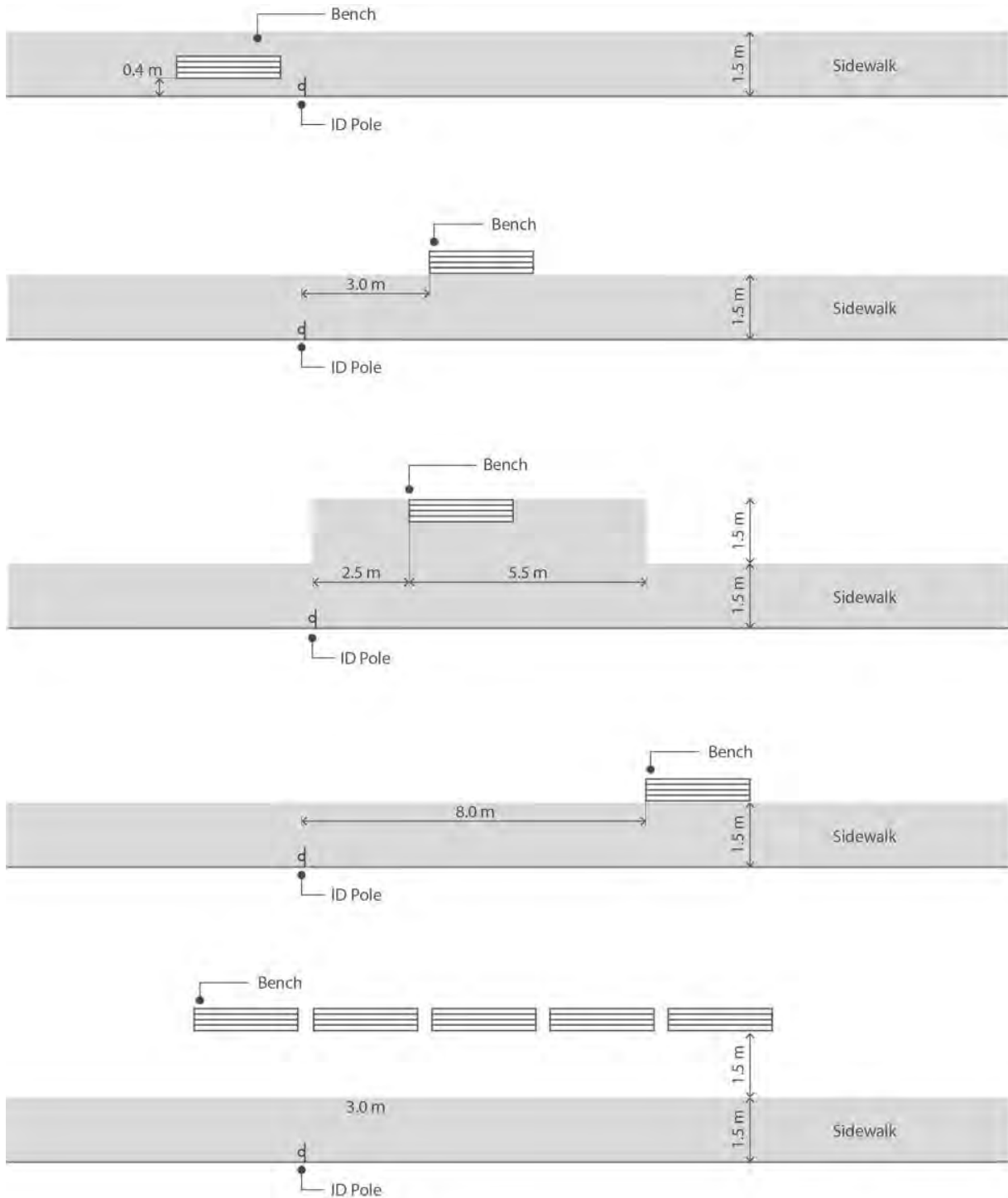
For Transit & Smoking Shelters

Revised: Mar 10, 2007

1. **This is a guideline only. Responsibility for providing a pad suitable for a transit or smoking shelter is the full responsibility of the owner (or it's engineer or contractor) and may be affected by local building codes.**
2. Pad design should take into account barrier-free accessibility for ADA compliance (in USA).
3. Shelter must be grounded (#6 stranded ground wire) as per local electrical codes
4. Concrete pad to be as per local sidewalk construction (retaining walls, grade and access ramps / aprons)
5. All concrete pads should be level. A very slight grade, not to exceed 1" over the entire length, would be advantageous to assist with water drainage and prevent pooling
6. Exposed edges to have a 1" chamfer
7. Pad surface shall be broom finished
8. Prepare underlay with 3/4" gravel, 4" to 6" deep
9. Fiberglass mesh screen or steel re-bar for re-enforcement
10. Pad size should ideally extend 9" on all sides beyond the shelter footprint, or a total of 18" larger than both the length and width dimensions of the shelter.
11. When pad length exceeds 12'-0", a fiber board at perimeter and expansion joints is required
12. Use 3500 PSI concrete 6" to 8" thick, 3" to 4" slump and 5 to 7% air entrained. In some instances, a 20" wide perimeter footing may be necessary which may be 18" thick.
13. If electrical equipment (ie. Light fixture, illuminated ad display sign, or heater) is required, then electrical conduit is required. Supply a PVC conduit (typically 1" to 1"-1/2" dia is suitable)
14. Install anchors per Daytech drawing, using Daytech recommended anchors, following installation procedure supplied by anchor supplier.



Appendix G Bench Locations at Bus Stops



Appendix H Tactile Walking Surface Indicators

In accordance with the Canadian Standards Association (CSA), the Tactile Walking Surface Indicators (TWSIs) shall be composed of flat-topped, parallel, elongated bars having:

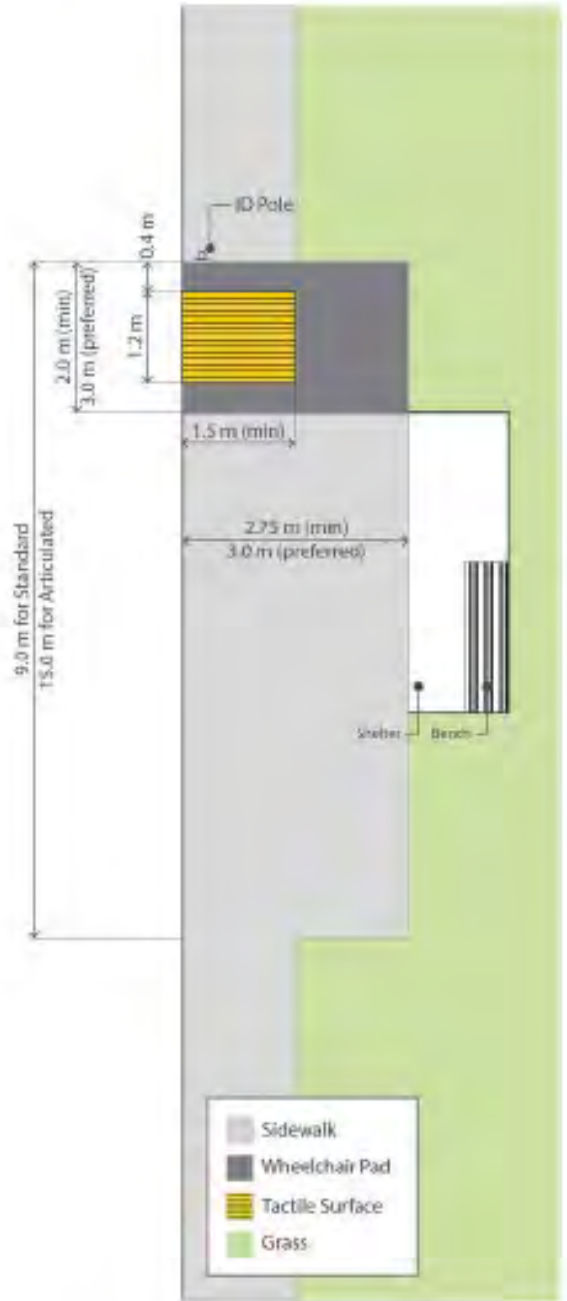
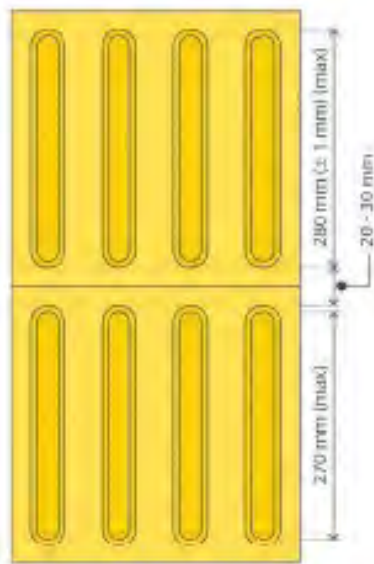
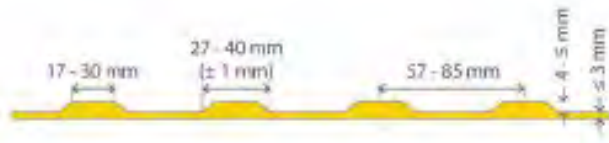
- A height of 4 mm to 5 mm;
- A top width between 17 and 30 mm and a base width 10 mm \pm 1 mm greater than the top width;
- A centre-to-centre distance between adjacent bars of 57 to 85 mm;
- A top length not more than 270 mm and the base length 10 \pm 1 mm greater than the top length;
- A spacing of 20 to 30 mm between the ends of parallel bar; and
- A height of base plate not more than 3mm.

Width of flat-topped elongated bars (mm)	Base width spacing (mm)	Centre-to-centre distance between elongated bars (mm)
17	27	57-78
20	30	60-80
25	35	65-83
30	40	70-85

For application at bus stops, the TWSIs should be:

- Placed in parallel groups and oriented in the direction of travel (perpendicular to the curb or roadway edge in the case of directing customers to a bus stop);
- Located at the point where the front door of a bus is in line with the bus stop ID pole;
- Installed with its base surface levels with the surrounding surface, or not more than 3 mm above or below it;
- A minimum of 1.2 m in length along the sidewalk and be the entire width of the sidewalk;
- In a contrasting color to surrounding surfaces (yellow is preferred); and
- In slip resistance material.

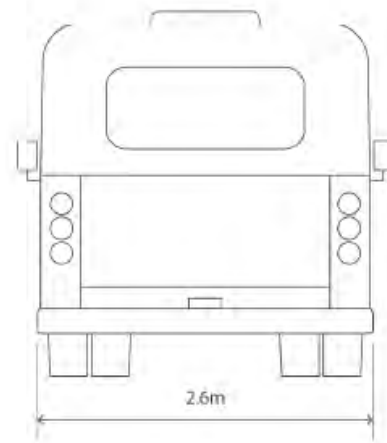
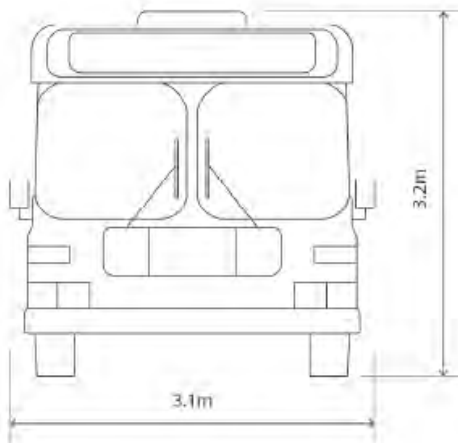
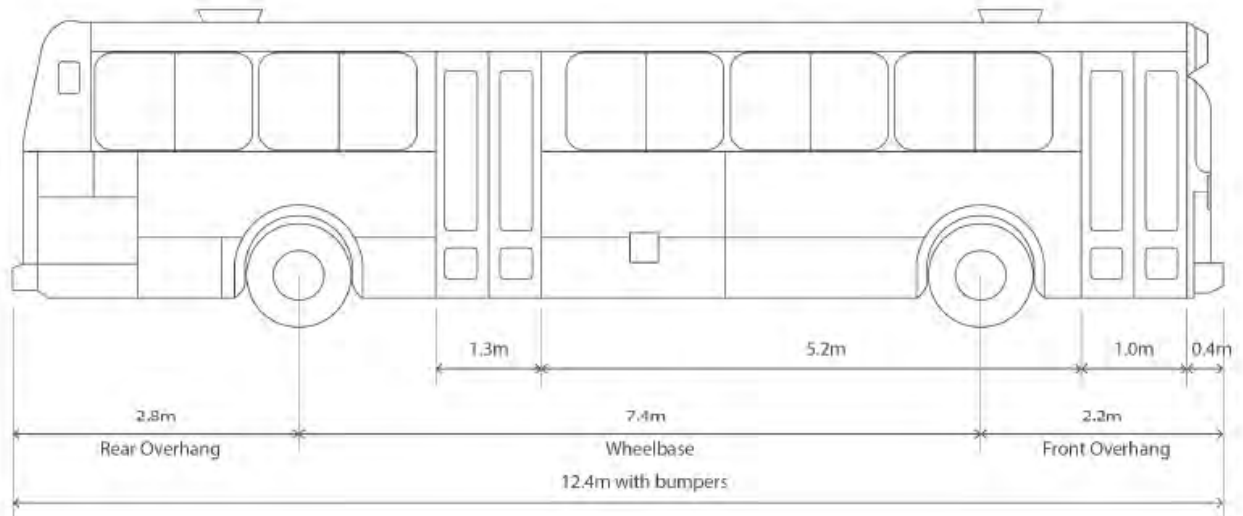
It is important to note that TWSIs can only be installed at bus stops that provide a hard-surfaced passenger zone.



- Sidewalk
- Wheelchair Pad
- Tactile Surface
- Grass

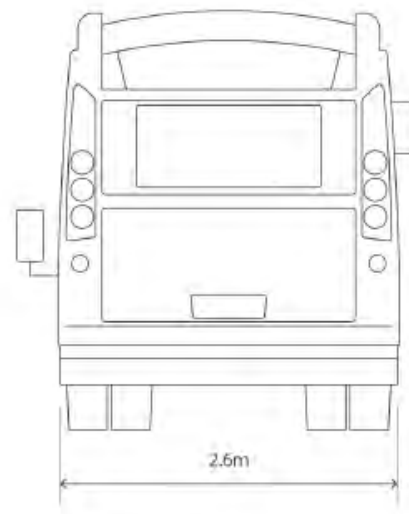
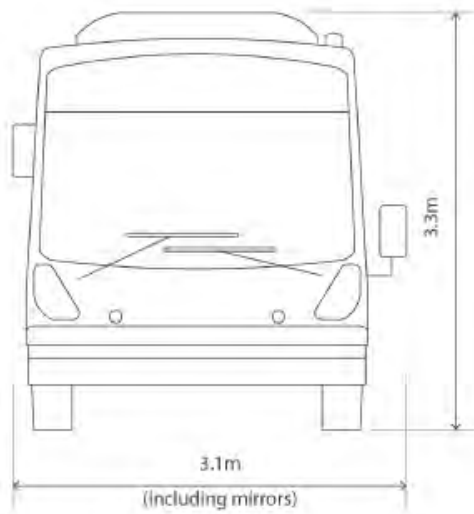
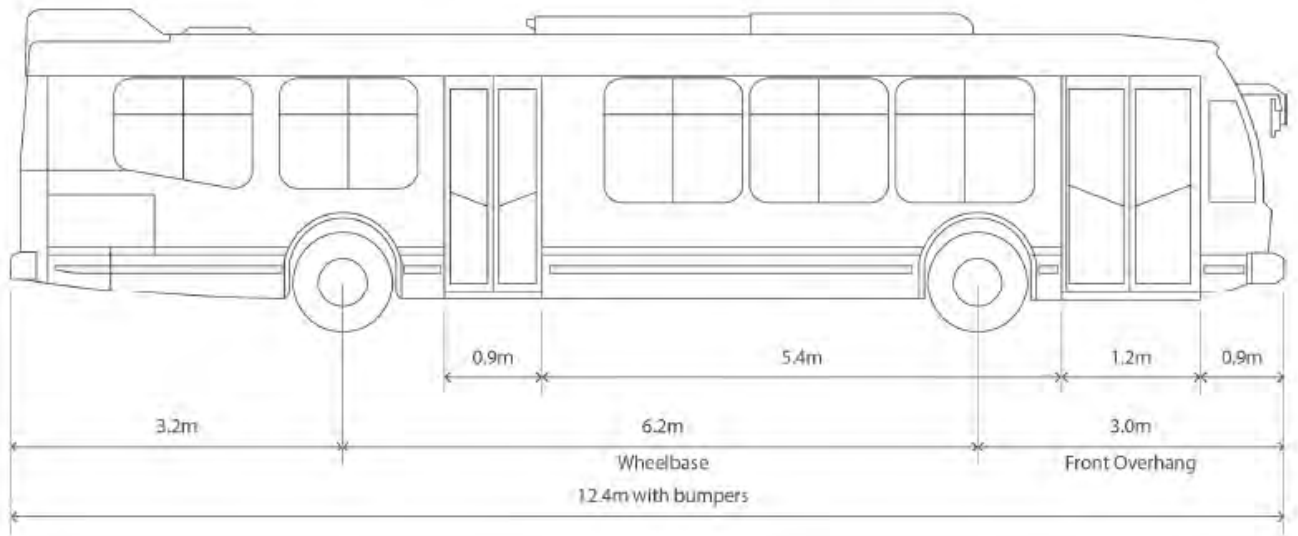
Appendix I Bus Vehicle Dimensions and Photos

Standard 40 foot bus (New Flyer) Dimensions



Not to Scale

Standard 40 foot Bus Nova Dimensions



Not to Scale

Example of New Flyer Xcelsior Hybrid



Example of New Flyer Xcelsior Clean Diesel



Example of Orion VII



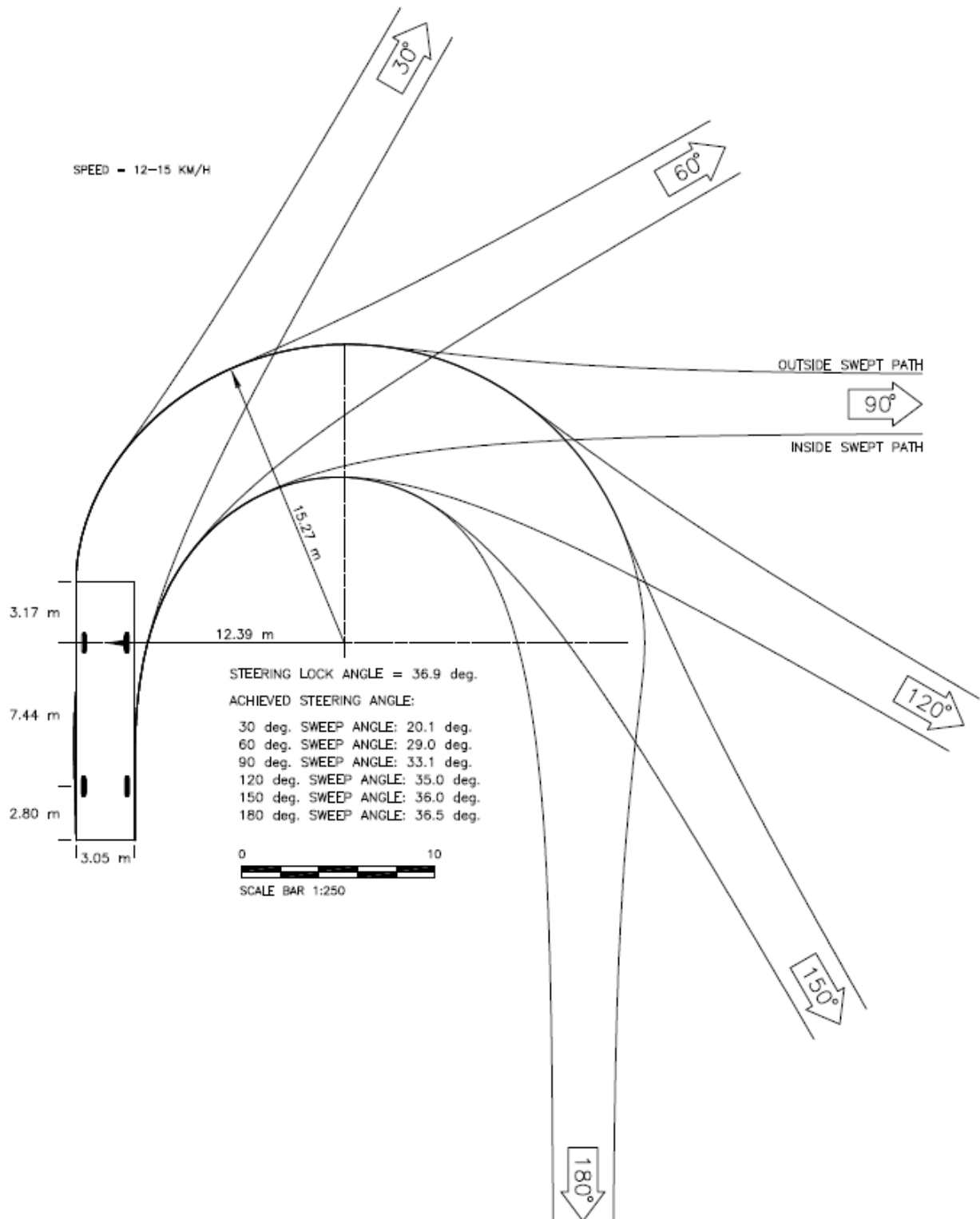
Example of Nova LFS Diesel



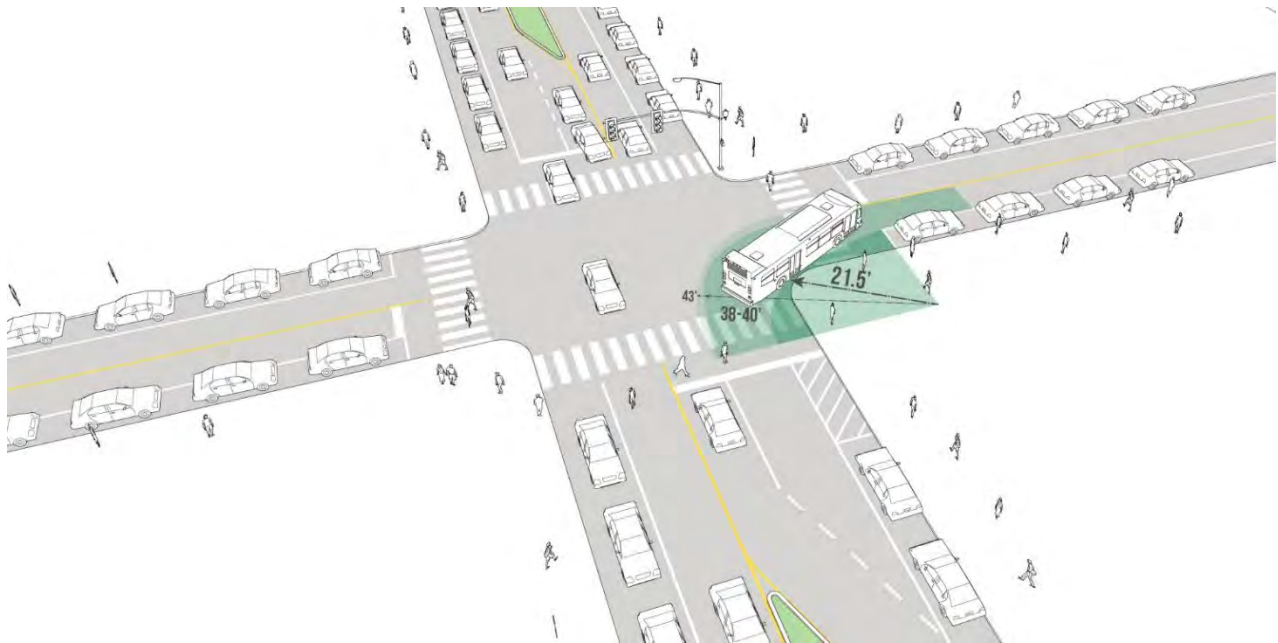
Appendix J Traffic Calming Measures

Traffic Calming Measure	Impact on Passenger Safety	Impact on Bus Operational Efficiency
Traffic Circle	No adverse impact, but avoid a series of traffic circles to minimize side to side movement	The circular roadway width that provides traffic calming for passenger vehicles may result in buses having difficulty going through the traffic circle
Speed Hump	Shorter ramps result in greater passenger discomfort. A speed hump should not be installed immediately before or after a bus stop for passenger safety	Buses need to reduce speed significantly to travel over a speed hump. It may cause damage to the suspension of the bus. A series of speed humps should be avoided along a bus route.
Curb extensions	No adverse impact	The corner radii may impact bus right turning movement
Raised intersection	A raised intersection should not be installed immediately before or after a bus stop for passenger safety	A series of raised intersections should be avoided along a bus route
Diverter	No adverse impact	Room must accommodate bus manoeuvre, and without obstruction by parked vehicles

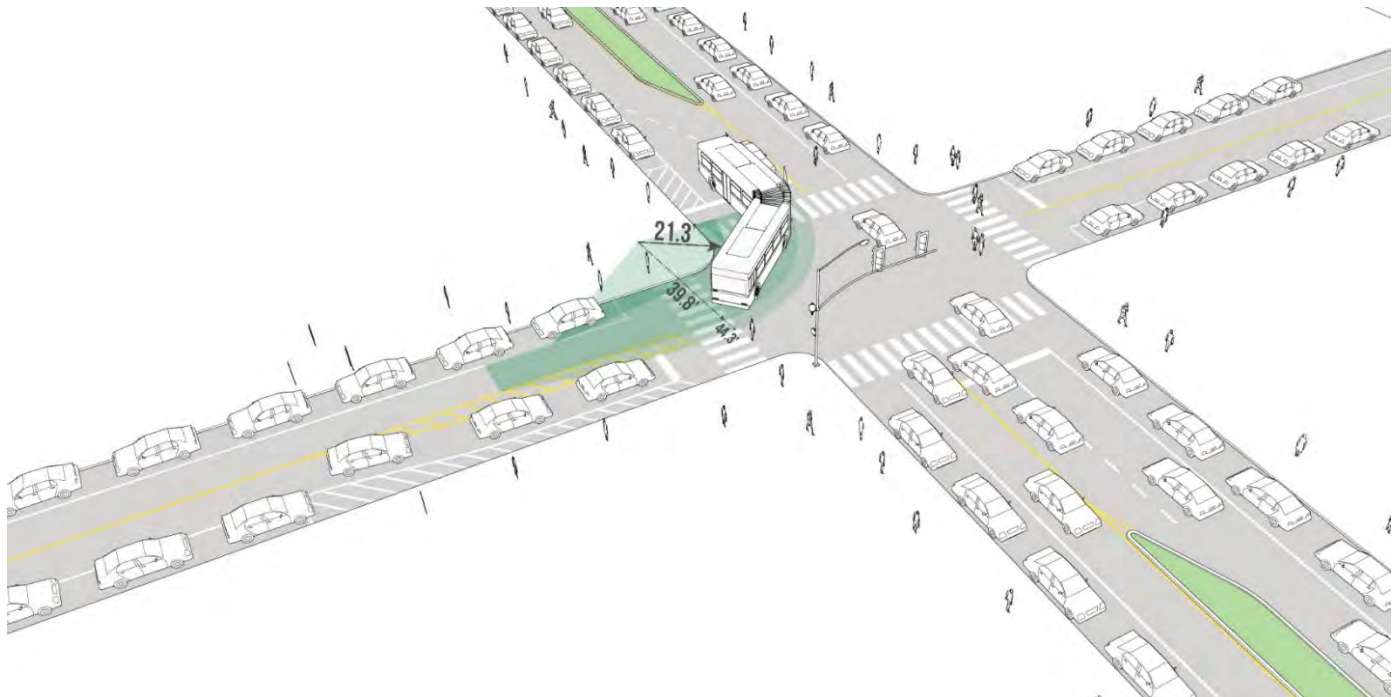
Appendix K Bus Turning Needs



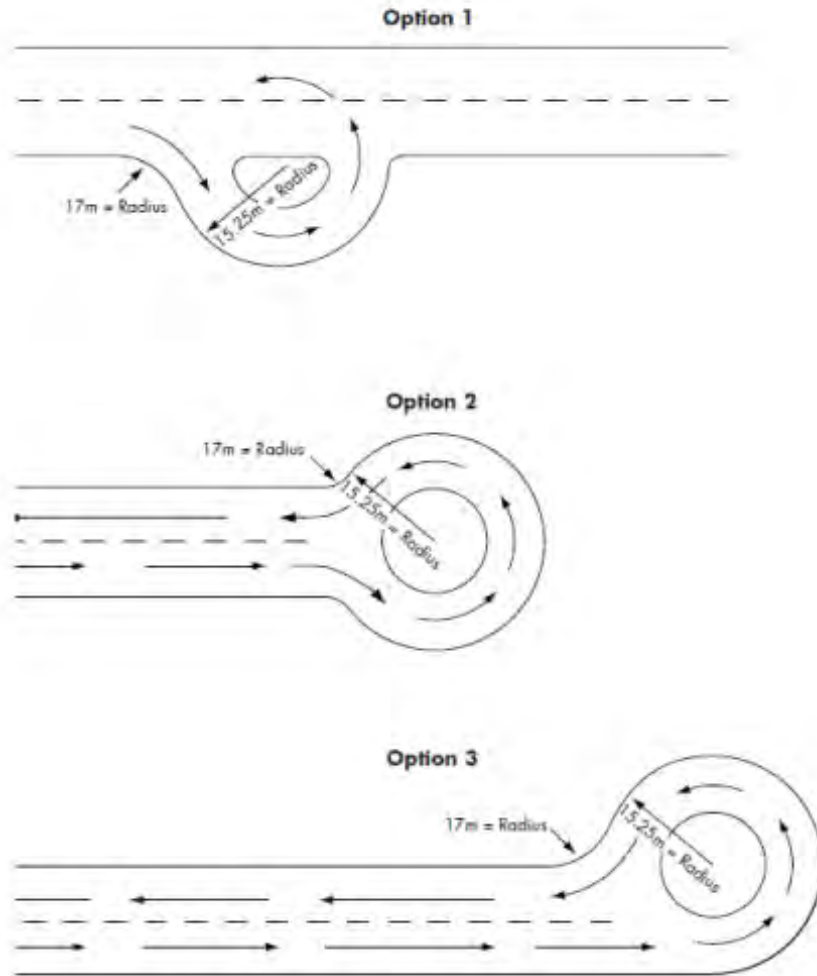
Standard 40 foot Bus Turn Radii



Articulated 60 foot Bus Turn Radii



BUS TURNAROUNDS



Note: To maintain sight distance, only low plantings are used in island areas

References

1. BC Transit Infrastructure Design Guidelines, November 2010
2. BC Transit Design Guidelines for Accessible Bus Stops, 2002
3. Ontario Ministry of Transportation (MTO) Transit-Supportive Guidelines, 2012
4. Calgary Transit, Transit Friendly Design Guide, 2006
5. Transit Capacity and Quality of Service Manual (TCRP) 2nd Edition, Transportation Research Board of the National Academies, 2003
6. National Association of City Transportation Officials (NATCO), Transit Street Design Guide,
7. TransLink Bus Infrastructure Design Guidelines, September 2018
8. Hamilton Transit Bus Stop Accessibility Criteria & Guidelines, January 2014
9. New Flyer, Xcelsior, 2021
10. Nova Bus, Bus Models, 2017
11. Federal Highway Administration, Separated Bike Lane Planning and Design Guide, May 2015
12. Brampton Transit Bus Stop Standards & Technical Guidelines, 2016



Committee Matters: SCM 183/2022

Subject: Town of Amherstburg - Transit Service Agreement - City Wide

Moved by: Councillor McKenzie
Seconded by: Councillor Kaschak

Decision Number: **ETPS 903**

THAT the Environment, Transportation and Public Safety Standing Committee, sitting as the Transit Windsor Board of Directors, and City Council **RECEIVE** for information the update regarding negotiations for transit service with the Corporation of The Town of Amherstburg; and,

THAT Transit Windsor **BE AUTHORIZED** to enter into a 2-year pilot agreement (2022-2024) with the Corporation of The Town of Amherstburg to provide a transit service route that connects the town's resident to services provided by Transit Windsor as detailed in the report; and,

THAT the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign the resulting Agreement with the Corporation of The Town of Amherstburg, satisfactory in form to the Commissioner of Legal and Legislative Services, in financial content to the Commissioner of Corporate Services, and in technical content to the Commissioner of Infrastructure Services and the Executive Director of Transit Windsor.
Carried.

Report Number: S 70/2022
Clerk's File: MT2022

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 9.3. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>

Subject: Town of Amherstburg - Transit Service Agreement - City Wide

Reference:

Date to Council: June 22, 2022
Author: Tyson Cragg, Executive Director
519-944-4141 ext 2232
tcragg@citywindsor.ca

Transit Windsor
Report Date: May 31, 2022
Clerk's File #: MT2022

To: Mayor and Members of City Council

Recommendation:

That the Environment, Transportation and Public Safety Standing Committee, sitting as the Transit Windsor Board of Directors, and City Council **RECEIVE** for information the update regarding negotiations for transit service with the Corporation of The Town of Amherstburg; and,

That Transit Windsor **BE AUTHORIZED** to enter into a 2-year pilot agreement (2022-2024) with the Corporation of The Town of Amherstburg to provide a transit service route that connects the town's resident to services provided by Transit Windsor as detailed in the report; and,

That the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign the resulting Agreement with the Corporation of The Town of Amherstburg, satisfactory in form to the Commissioner of Legal and Legislative Services, in financial content to the Commissioner of Corporate Services, and in technical content to the Commissioner of Infrastructure Services and the Executive Director of Transit Windsor.

Executive Summary:

N/A.

Background:

At the May 26, 2021 meeting of City Council, report S48/2021 was presented, to seek approval to enter into negotiations with the Corporation of The Town of Amherstburg (the Town of Amherstburg) to discuss provisions of providing transit services to the Town. Council resolution CR278/2021, approved Transit Windsor's recommendations as follows:

1. That the City Engineer – Corporate Leader of Environmental Protection & Infrastructure Services and the Executive Director of Transit Windsor **BE AUTHORIZED** to negotiate with the Corporation of The Town of Amherstburg for Transit Delivery and Maintenance Services and to engage in any resulting contract negotiations; and,

2. That a subsequent report on the outcomes of the negotiations **BE PREPARED AND SUBMITTED** to the Environment, Transportation & Public Safety Standing Committee sitting as the Transit Windsor Board of Directors and City Council with that report fully detailing the cost associated with the proposed service delivery and seeking any further approvals or authorizations that may be required from the Transit Windsor Board of Directors and City Council.

Transit Administration is seeking the approval from the Transit Board of Directors, and City Council, as detailed within this report.

Discussion:

The Town of Amherstburg held a Public Transit Open House in September of 2020 and posted a survey on the “Town’s Talk the Burg” portal to gauge the level of interest and gathered thoughts on the provisions of transit services in their community. At the Town of Amherstburg’s Council Meeting, held on May 24, 2022, Council unanimously approved administration’s recommendation to proceed with a 2-year pilot with Transit Windsor to provide transit services that would begin in September of 2022.

Transit Windsor will be providing transit service to the Town of Amherstburg from the terminal at Hotel Dieu Grace Healthcare. The southbound route will travel along Ojibway Parkway to Front Road in LaSalle and ending in downtown Amherstburg. This will include service to the Kingsbridge subdivision. The northbound route will loop back to Sandwich Street and have a one-way loop through the Amherstburg town core and then return to the Hotel Dieu Grace Healthcare Terminal, including service again to Kingsbridge. This route was chosen by the Town of Amherstburg after public consultation and by looking at several route options proposed by Transit Windsor. A map of the route has been attached in Appendix A.

There will be multiple transfer points along the route to be able to transfer to current transit services provided by Transit Windsor. The new Amherstburg route will have a transfer point with the LaSalle 25 route in both directions on Front Road at Laurier. Transit Windsor’s South Windsor 7 route will have a direct transfer point on Marigold at Weaver from the new Amherstburg route, allowing students to get to St. Clair College quickly from there. Hotel Dieu Grace Health Care Terminal allows any passengers coming from the new Amherstburg route to transfer onto the following Transit Windsor routes: Transway 1C, Crosstown 2, Central 3, and South Windsor 7. These transfers allow all routes to grow ridership and be an overall benefit to the community.

Below are the proposed bus stops in each direction:

- Southbound
 1. Hotel Dieu Grace Healthcare Terminal
 2. Marigold at Weaver Southwest Corner

3. Front at Laurier Southwest Corner
 4. Knobb Hill at Whelan Southwest Corner
 5. Knobb Hill at McLellan Northwest Corner
 6. Sandwich at Alma Northwest Corner
 7. Sandwich at Maple Northwest Corner
 8. Sandwich at Richmond Southwest Corner
 9. Sandwich at Simcoe Northwest Corner
 10. Sandwich at Pickering Southwest Corner
 11. Sandwich at McCurdy Southwest Corner
 12. Sandwich at Malden Hill Northwest Corner
- Northbound
 1. Lowes Sideroad at Sandwich Southwest Corner
 2. Sandwich at Malden Hill Southeast Corner
 3. Sandwich at McCurdy Southeast Corner
 4. Sandwich at Pickering Northeast Corner
 5. Simcoe at Sandwich Southeast Corner
 6. Simcoe at Victoria Southeast Corner
 7. Fryer at Gibb Southeast Corner
 8. Fryer at Richmond Northeast Corner
 9. Fryer at Military Southeast Corner
 10. Alma at Victoria Northeast Corner
 11. Alma at Balaclava Northeast Corner
 12. Alma at Sandwich Northeast Corner
 13. Knobb Hill at McLellan Northeast Corner
 14. Whelan at Knobb Hill Northwest Corner
 15. Front at Laurier Northeast Corner
 16. Marigold at Weaver Southwest Corner

The route will run three (3) times a day, every day of the year including Holidays, for the duration of the pilot. The route is 45-minutes total duration in each direction for a roundtrip total of 90-minutes. It will depart the Hotel Dieu Grace Healthcare Terminal at 6:00AM, 1:30PM, and 6:00PM on weekdays.

The route will be called Route 605, which is consistent with Transit Windsor's new route naming guidelines. As the Transit Master Plan is implemented, all primary routes will be in the 100's, secondary routes 200's, local routes 300's, skip stop (semi-express) routes 400's, expressway routes 500's, regional routes 600's, and school extras 700's. Some of these changes have already been implemented, such as Route 518X and the school extras. Routes with a primarily north-south alignment will be assigned odd numbers, (hence the designation of Route 605 for Amherstburg), and routes with a primarily east-west alignment will have even numbers. The numbers will be separated by 5, so for example, 605 then 610, then 615, and so on. This allows Transit Windsor to follow industry standards for route names.

Risk Analysis:

Since this is a pilot, the associated risks are limited to the terms of the agreement for the pilot. If the pilot is not approved, there is a potential risk that the Town of Amherstburg would seek contracted services from another service provider, which would hinder a seamless transit service delivery model that benefits both, the City of Windsor and the Town of Amherstburg's residents, and places in jeopardy the goals of the Transit Master Plan of developing a regional transit model.

Climate Change Risks

Climate Change Mitigation:

The Community Energy Plan aims to double transit ridership by 2041. For every passenger car that switches from car to bus, the emissions drop by at least a factor of three.

The addition of the Amherstburg route will contribute to a reduction in emissions in Amherstburg's community greenhouse gas emissions with some benefit to Windsor's Community emissions. Over time, there will be an opportunity to connect the two municipalities via transit, thereby reducing the reliance on single occupancy vehicle trips between Windsor and Amherstburg.

As the buses are City of Windsor assets, the greenhouse gas emissions resulting from the fuel used will be included in the City's Corporate GHG inventory.

Climate Change Adaptation:

There are no climate change adaptation risks associated with this pilot agreement for Transit Service to Amherstburg.

Financial Matters:

The Amherstburg route will have a designated route number that will allow Transit Windsor to record all rides and associated revenue. For every rider who boards the bus in Amherstburg, the associated fare (cash or Smart Card) will be credited to the Town of Amherstburg.

The Town of Amherstburg will pay Transit Windsor the cost for all hours of Service associated with the Amherstburg route. The hourly rates include a full cost recovery basis with no incremental costs to be borne by Transit Windsor. The hourly cost includes, but is not limited to, wages and benefits, cost of insurance, claims, daily servicing costs, technology enhancement operating costs, maintenance rate, and administration costs. The hourly cost does not include fuel and this will be billed separately on a monthly basis, based on usage and the average rack rate for diesel that Transit Windsor pays.

Year 1 pricing has been set at a rate of \$70.20 per hour. Year 2 pricing will be \$72.01 per hour, or the Year 1 rate increased by the Consumer Price Index (CPI) for transportation for the preceding year, whichever is higher.

Example: Year 1 rate \$70.20 X Consumer Price Index @ 5% = \$73.71. Therefore, Year 2 rate would be \$73.71.

The annual hourly operating costs based on service seven days per week (estimated as 2,228 hours) are as follows:

Estimated Annual Hours: 2,228	Year 1
Hourly Cost	\$70.20
Estimated Annual Cost	\$156,405.60

The Town of Amherstburg will be invoiced separately for the annual capital costs of the transit service, in the amount of \$61,200. This was calculated based on service seven days per week at an estimated 2,228 hours.

Any future uncontrollable costs incurred not funded by senior levels of government, such as pandemic related cleaning, long term construction detours, etc., will be borne by Amherstburg and billed separately with proper notice from the City of Windsor.

Consultations:

Kathy Buis, Acting Financial Planning Administrator, City of Windsor

Karina Richters, Supervisor, Environmental Sustainability & Climate Change, City of Windsor

Jason Scott, Supervisor, Planning, Transit Windsor

Conclusion:

Public transit helps to improve mobility and build strong communities. The transit agreement with the Town of Amherstburg assists in building a strong community partnership with the Town, and strengthens the transit linkages with other municipalities. Transit services help to connect people to jobs, education, health care services, and a better quality of life with social activities and community involvement. The addition of transit service to the Town of Amherstburg would strongly support the current business model and vision of a regional transit service. Transit Administration strongly recommends the approval of the recommendations, as detailed within this report.

Planning Act Matters:

N/A.

Approvals:

Name	Title
Tyson Cragg	Executive Director, Transit Windsor
Christopher Nepszy	Commissioner, Infrastructure Services
Joseph Mancina	Commissioner, Corporate Services CFO/City Treasurer
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

- 1 Appendix A - Amherstburg Route Proposal

Amherstburg Route Proposal



Transfer Point to LaSalle 25 Both Directions

Transfer Point to South Windsor 7 Both Directions

Hotel Dieu
Grace Healthcare
Terminal
Connection to Transit
Windsor Routes:
Tranway 1C
Crosstown 2
Central 3
South Windsor 7

Legend

- Proposed Bus Stops
- Amherstburg Proposed Route

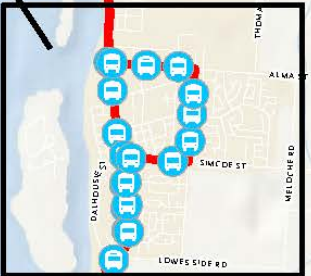
Title: Amherstburg Service Route Proposal

Scale 1:55,000

0 500 1,000 2,000 Meters

5/30/2022 11:23 AM

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3700 North Service Road East, Windsor, Ontario N9W 5X2
TEL: (519) 944-4111 FAX: (519) 944-1211





Committee Matters: SCM 184/2022

Subject: 2022 Decommissioning of Transit Windsor Buses - City Wide

Moved by: Councillor McKenzie
Seconded by: Councillor Kaschak

Decision Number: **ETPS 904**

THAT the Environment, Transportation and Public Safety Standing Committee, sitting as the Transit Windsor Board of Directors, and City Council, in accordance with Section 151 of the Purchasing By-Law, **APPROVE** the decommissioning and disposal of surplus conventional transit bus numbers 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 438, 440, 441, 442, 443, 444, 555, 557, 558, 559, 562 and 564.

Carried.

Report Number: S 73/2022
Clerk's File: MT2022

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 9.4. from the Environment, Transportation & Public Safety Standing Committee Meeting held June 22, 2022.
3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220624/-1/7338>

Subject: 2022 Decommissioning and Disposal of Surplus Conventional Transit Windsor Buses - City Wide

Reference:

Date to Council: June 22, 2022
Author: Tony Houad
Senior Manager, Fleet & Support Services
519-944-4141 ext 2229
thouad@citywindsor.ca

Transit Windsor
Report Date: June 3, 2022
Clerk's File #: MT2022

To: Mayor and Members of City Council

Recommendation:

That the Environment, Transportation and Public Safety Standing Committee, sitting as the Transit Windsor Board of Directors, and City Council, in accordance with Section 151 of the Purchasing By-Law, **APPROVE** the decommissioning and disposal of surplus conventional transit bus numbers 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 438, 440, 441, 442, 443, 444, 555, 557, 558, 559, 562 and 564.

Executive Summary:

N/A.

Background:

Transit Windsor purchases conventional buses through the Transit Procurement Initiative (TPI), a consortium administered by Metrolinx, a Provincial Crown Agency which brings together transit agencies across Ontario to develop common bus specifications in efforts of achieving competitive pricing through economies of scale.

On April 2, 2019, the Federal and Provincial government released the new Public Transit grant funding program under the Investing in Canada Infrastructure Program (ICIP). The program runs from April 1, 2019 to March 31, 2027. Funding under ICIP is provided based on a funding formula of Federal at 40%, Provincial at 33.33% and Municipal at 26.67%.

Discussion:

On April 27 2022, Federal approval was received under the Public Transit stream of the Investing in Canada Infrastructure Program (ICIP) for the purchase of 24 new buses, under the Metrolinx TPI contract for 2020 to 2023 with Nova Bus. After approval was granted by Council, via resolution CR 337/2021 in July, 2021, Transit Windsor placed an order with Nova Bus for the acquisition of 24 replacement conventional 40-foot buses, which are expected to arrive in the coming months.

As a result, 24 existing buses (from model years 2002 to 2005) will be decommissioned as they have outlived their useful life, noting that the design life of a transit bus is 12 years. The buses to be de-commissioned are between 17 and 20 years old, and have far exceeded their expected service life. The majority of these units that are being retired have well in excess of 1,000,000 chassis kilometres and includes the following units: 425, 426, 427, 428, 429, 430 (Orion Bus Industries Orion VII, model year 2002), 431, 432, 433, 434, 435, 436, 438, 440, 441, 442, 443, 444 (OBI Orion VII, model year 2004), 555, 557, 558, 559, 562 and 564 (Nova Bus LFS, model year 2005). Given the age and condition of these buses, they have limited resale value.

Once the new buses arrive on property, they will be prepared for revenue service. These new units continue to support Transit Windsor's commitment to accessibility with 100% of Transit's fleet being fully accessible. This means that all of Transit's fleet are low-floor buses, which provide "kneeling" capability (entry step lowered through release of air from front suspension) and ramps that can be deployed to make it easier for riders with mobility issues to board the bus. The average age of the fleet will improve from 9.3 years to 5.6 years, which moves Windsor from having one of the oldest fleets in Canada to closer to the industry average. This will have a positive impact on fleet maintenance costs and customer satisfaction.

Given the condition of the buses that are being retired, there is a limited market for resale. In discussions with the City of Windsor's Purchasing division, Transit Windsor plans to place the retired buses on an auction website for resale. If Transit Windsor is unsuccessful in selling the retired buses, the buses will be sent to the scrap yard for disposal. Maintenance employees will remove parts from these buses in an effort to salvage items that are in good working condition. Once the salvageable parts have been removed, the buses will be sold for scrap metal.

Risk Analysis:

All associated risks with the decommissioning of buses have been evaluated. A moderate risk involves the environmental concern of any fluids and batteries improperly disposed of. Transit Windsor staff will ensure all environmental aspects of the disposal are done on property prior to the sale of the buses. All other risks, which include selling buses with City of Windsor logos and liability risks with low impact have been reviewed and will be addressed prior to the sale.

Financial Matters:

N/A.

Consultations:

Alex Vucinic, Purchasing Manager, City of Windsor

Conclusion:

Funding from the senior levels of government has allowed Transit Windsor an opportunity to maximize municipal contribution of 26.67% with the Provincial and Federal governments funding the remaining balance and acquire new buses on an accelerated schedule. Having a newer fleet that is more reliable and less costly to maintain attracts new riders to using transit, and reduces cost to the municipal taxpayer. After the acquisition of 24 buses, Transit Windsor will have an average fleet age of 5.6 years and remains 100% fully accessible.

Planning Act Matters:

N/A.

Approvals:

Name	Title
Tony Houad	Senior Manager, Fleet & Support Services, Transit Windsor
Tyson Cragg	Executive Director, Transit Windsor
Christopher Nepszy	Commissioner, Infrastructure Services
Joseph Mancina	Commissioner, Corporate Services/Chief Financial Officer
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:



Subject: Closure of part of southerly half of north/south alley between Brant Street and Wyandotte Street East, Ward 4

Moved by: Councillor Holt

Seconded by: Councillor Gill

Decision Number: **DHSC 407**

- I. THAT the 23.0 metre portion of the 6.1 metre wide north/south alley located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 *attached* hereto as Appendix "A", **BE ASSUMED** for subsequent closure.

- II. THAT the 23.0 metre portion of the 6.1 metre wide north/south alley located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 *attached* hereto as Appendix "A", **BE CLOSED AND CONVEYED** to the abutting property owner at 1958-1998 Wyandotte Street East and as necessary, in a manner deemed appropriate by the City Planner, subject to the following:
 - a) Easement, subject to there being accepted in the City's standard form and in accordance with the City's standard practice, be granted to:
 - Bell Canada to accommodate existing infrastructure;
 - EnWin to accommodate existing 120/240 volt and 120/208 volt hydro distribution pole line with guy wires;
 - MNSi. to accommodate aerial plant on existing utility poles;
 - Owner of the property known municipally as 1900-1942 Wyandotte Street East (legally described as Lots 7 & 9, Part of Lot 5 & Block F, Plan 211; PIN No. 01134-0118) to accommodate existing street level pedestrian entrance/exit from the easterly vacant mercantile unit (1942 Wyandotte Street East) in the commercial building "Imperial Building" onsite, and shown on Ground Floor Plan *attached* hereto as Appendix "F", to the satisfaction of the Chief Building Official; and,
 - The Corporation of the City of Windsor to accommodate existing circa 1905, 200.0 millimetre vitrified clay combined sewer and catch basin, to the satisfaction of the City Engineer.

- III. THAT the Applicant/Owner **OBTAIN** a Driveway Permit to remove the redundant curb cut on Wyandotte Street East and reinstate the curb and sidewalk to City of Windsor standards.
- III. THAT The City Planner **BE REQUESTED** to include, as part of the Site Plan Agreement for Site Plan Control file SPC-002/22, a Special Provision requiring the Applicant/Owner to grant an easement in favour of The Corporation of the City of Windsor, to allow its garbage collection vehicles unobstructed passage over the parking aisle on the property known municipally as 1958-1998 Wyandotte Street East.
- IV. THAT Conveyance Cost **BE SET** as follows:
 - a. For alley abutting lands zoned CD2.1: \$10.00 per square foot, plus deed preparation fee and proportionate share of the survey costs as invoiced to The Corporation of the City of Windsor by an Ontario Land Surveyor.
- V. THAT the City Planner **BE REQUESTED** to supply the appropriate legal description, in accordance with Drawing No. CC-1807, attached hereto as Appendix "A".
- VI. THAT the City Solicitor **BE REQUESTED** to prepare the necessary by-law(s).
- VII. THAT the Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary documents approved as to form and content satisfactory to the City Solicitor.
- VIII. THAT the matter **BE COMPLETED** electronically pursuant to By-Law Number 366-2003.
- IX. THAT Administration **BE REQUESTED** to provide additional information related to the approval process for a business license related to a patio; and that this information **BE BROUGHT FORWARD** at the same time the report moves forward to Council for consideration.

Carried.

Report Number: S 58/2022
Clerk's File: SAA2022

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are **not** the same.
2. Please refer to Item 11.2. from the Development & Heritage Standing Committee Meeting held June 6, 2022.

3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220608/-1/7334>

**Subject: Closure of Part of Southerly Portion of North/South Alley
between Brant Street and Wyandotte Street East, Ward 3**

Reference:

Date to Council: June 6, 2022
Author: Brian Nagata
Planner II - Development Review
(519) 255-6543 ext. 6181
Planning & Building Services
Report Date: May 9, 2022
Clerk's File #: SAA2022

To: Mayor and Members of City Council

Recommendation:

- I. THAT the 23.0 metre portion of the 6.1 metre wide north/south alley located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 **attached** hereto as **Appendix "A"**, **BE ASSUMED** for subsequent closure.
- II. THAT the 23.0 metre portion of the 6.1 metre wide north/south alley located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 **attached** hereto as **Appendix "A"**, **BE CLOSED AND CONVEYED** to the abutting property owner at 1958-1998 Wyandotte Street East and as necessary, in a manner deemed appropriate by the City Planner, subject to the following:
 - a) Easement, subject to there being accepted in the City's standard form and in accordance with the City's standard practice, be granted to:
 - Bell Canada to accommodate existing infrastructure;
 - EnWin to accommodate existing 120/240 volt and 120/208 volt hydro distribution pole line with guy wires;
 - MNSi. to accommodate aerial plant on existing utility poles;
 - Owner of the property known municipally as 1900-1942 Wyandotte Street East (legally described as Lots 7 & 9, Part of Lot 5 & Block F, Plan 211; PIN No. 01134-0118) to accommodate existing street level pedestrian entrance/exit from the easterly vacant mercantile unit (1942 Wyandotte Street East) in the commercial building

“Imperial Building” onsite, and shown on Ground Floor Plan **attached** hereto as **Appendix “F”**, to the satisfaction of the Chief Building Official; and,

- The Corporation of the City of Windsor to accommodate existing circa 1905, 200.0 millimetre vitrified clay combined sewer and catch basin, to the satisfaction of the City Engineer.

- III. THAT the Applicant/Owner **OBTAIN** a Driveway Permit to remove the redundant curb cut on Wyandotte Street East and reinstate the curb and sidewalk to City of Windsor standards.
- III. THAT The City Planner **BE REQUESTED** to include, as part of the Site Plan Agreement for Site Plan Control file SPC-002/22, a Special Provision requiring the Applicant/Owner to grant an easement in favour of The Corporation of the City of Windsor, to allow its garbage collection vehicles unobstructed passage over the parking aisle on the property known municipally as 1958-1998 Wyandotte Street East.
- IV. THAT Conveyance Cost **BE SET** as follows:
 - a. For alley abutting lands zoned CD2.1: \$10.00 per square foot, plus deed preparation fee and proportionate share of the survey costs as invoiced to The Corporation of the City of Windsor by an Ontario Land Surveyor.
- V. THAT The City Planner **BE REQUESTED** to supply the appropriate legal description, in accordance with Drawing No. CC-1807, **attached** hereto as **Appendix “A”**.
- VI. THAT The City Solicitor **BE REQUESTED** to prepare the necessary by-law(s).
- VII. THAT The Chief Administrative Officer and City Clerk **BE AUTHORIZED** to sign all necessary documents approved as to form and content satisfactory to the City Solicitor. THAT the matter **BE COMPLETED** electronically pursuant to By-law Number 366-2003.

Executive Summary:

N/A

Background:

The applicant, 2798315 Ontario Inc. (Rosati Group), owner of the property known municipally as 1958-1998 Wyandotte Street East, applied to close a 23.0 metre portion of the 6.1 metre wide north/south alley (the subject alley) located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 **attached** hereto as **Appendix “A”**, and also shown on the aerial photo **attached** hereto as **Appendix “B”**.

The subject alley serves as the sole egress point for The Corporation of the City of Windsor (the City) vehicles collecting garbage from the residential properties to the north. The subject alley is composed of concrete and asphalt paving, and contains a combined sewer with a catch basin and two utility poles, one of which has four guy wires. There is an existing curb cut serving the subject alley from Wyandotte Street East. The abutting commercial building “Imperial Building” at 1900-1942 Wyandotte Street East has a street level pedestrian entrance/exit directly off of the subject alley. (See Appendix D)

The applicant wishes to close the subject alley to allow for the establishment of a landscaped open space yard (the yard) for their existing commercial building “Strathcona Building” at 1958-1998 Wyandotte Street East. The yard is envisioned to be a unique multi-purpose space, offering outdoor dining and walk-up windows for the proposed restaurant “Twisted Apron” in the Strathcona Building, and an area for hosting various seasonal community events. The design of the subject alley will be reviewed by members of Administration as part of the Site Plan Control review (SPC-002/22).

Discussion:

The decision to recommend closure of an alley is derived from the City’s *Classification of Alleys and Suitability for Closure* guideline document (the document), **attached** hereto as **Appendix “E”**. The document details four classifications of alleys based on their usefulness, and provides corresponding criteria for determining suitability for closure.

Classification of Public Right-of-Ways

The initial step is to determine if the alley is indispensable. This is achieved through the evaluation of the following criteria set forth in Section 1 of the document.

1. *Does the subject alley serve commercial properties?*
 - a. The subject alley provides vehicular access from Wyandotte Street East to the parking areas serving 1900-1942 and 1958-1998 Wyandotte Street East.
 - b. Notwithstanding the proposed closure, the parking areas will maintain vehicular access from Brant Street through the portion of the alley to remain open.
 - c. Furthermore, the parking areas serving 1900-1942 and 1958-1998 Wyandotte Street East have direct access to Kildare Road and Devonshire Road, respectively.

2. *Does the subject alley serve properties fronting on heavily traveled streets i.e. major arterial routes?*
 - a. The subject alley serves 1900-1942 and 1958-1998 Wyandotte Street East, both of which front a Class I Arterial Road (Wyandotte Street East).

- b. Refer to the first criteria above.
3. *Does the subject alley contain sewers, and must the alley remain accessible for servicing?*
 - a. The subject alley contains a circa 1905, 200.0 millimetre vitrified clay combined sewer with one catch basin.
 - b. The Public Works Department has confirmed that the alley must remain accessible for servicing the combined sewer, which would classify it as indispensable.
 - The document states that “*Indispensable alleys should **not be closed**, conveyed, reduced or otherwise jeopardized through minority interests unless a suitable substitute alley is opened in lieu thereof.*”
 - c. The Public Works Department in this particular situation is amenable to the closure of the subject alley, on the condition that an easement in favour of the City that will effectively allow access to the combined sewer for maintenance and servicing when necessary is granted.
 - d. The features within the subject alley will be designed in a manner that will allow for their quick removal at times when the combined sewer must be accessed.
4. *Does the subject alley serve as the only vehicular means of access to rear parking areas and garages where the property has insufficient lot width for a side drive?*
 - a. The subject alley is the sole egress point for the parking area at 1958-1998 Wyandotte Street East.
 - b. SPC-002/22 will address this issue through reconfiguring the parking area to accommodate two-way vehicular traffic with direct ingress/egress points from Devonshire Road and Brant Street, via the section of the alley to remain open.
5. *Does the subject alley contain Fire Department connections that are deemed to be necessary for firefighting access?*
 - a. Windsor Fire & Rescue Services have identified no concerns with the requested alley closure.

Based on the above, the Planning Division deems the subject alley “dispensable”, and supports the requested closure.

Notwithstanding the alley being deemed “dispensable”, easements will be required to grant access to the aforesaid hard services located therein. Bell Canada, EnWin Utilities and MNSi require blanket easements to access their above-ground services. The City

requires a blanket easement to access their underground combined sewer. An easement is also required to be granted in favour of the owner of 1900-1942 Wyandotte Street East, to accommodate the existing street level pedestrian entrance/exit from the easterly vacant mercantile unit (1942 Wyandotte Street East) in the Imperial Building (See Appendix F). The required easements shall remain unencumbered in perpetuity by any building or other structure, but this shall not prevent the Transferor from paving and utilizing the said lands.

It is our recommendation that, upon closure, the applicant/property owner be given a chance to acquire the subject alley. Hence the recommendation is to close and convey the alley to entire width the abutting property owner of 1958-1998 Wyandotte Street East. It is the understanding of Administration that the owner of the Imperial Building (abutting the west of the alley) has no objection to this arrangement.

Risk Analysis:

The recommended closure will divest the City of associated liability risks and maintenance costs. The recommended closure poses no known risk to City.

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

The alley is assessed at a rate of \$10.00 per square foot, plus deed preparation fee and proportionate share of the survey costs as invoiced to the City by an Ontario Land Surveyor.

Consultations:

Consultations were held with Municipal Departments and Utility Companies, which resulted in the information found in attached **hereto** as **Appendix "C"**.

The Environmental Services Department has identified concerns with the requested alley closure. The subject alley provides a means for the City's garbage collection vehicles to safely exit onto Wyandotte Street East. Reversing the vehicles out of the alley onto Brant Street is not an option, as it poses public safety concerns to pedestrians and vehicular operators, and results in undesirable noise from the vehicles reversal signal.

The applicant, by March 31, 2022 email, confirmed that they would be amenable to granting an easement to the City over 1958-1998 Wyandotte Street East, to allow the City's garbage collection vehicles access to Devonshire Road through the rear parking

area, via the parking aisle. The easement will be included as a condition of the Site Plan Agreement for SPC-002/22 to be approved by the Environmental Services Department.

Notice of Development & Heritage Standing Committee meeting and Council meeting are published in the Windsor Star prior to each of the meetings. In addition, notice of each of the public meetings will be mailed to the abutting/affected property owners prior to the meetings.

Conclusion:

The Planning Division recommends closure of the portion of the north/south alley shown on attached Appendix "A", subject to easements as in Recommendation II of this report, in favour of Bell Canada, Enwin Utilities Ltd., MNSi, owner of the property known municipally as 1900-1942 Wyandotte Street East; and the City.

The closed alley is to be conveyed to the abutting property owner as in Recommendation II of this report.

Planning Act Matters:

Brian Nagata, MCIP, RPP

Planner II - Development

I concur with the above comments and opinion of the Registered Professional Planner.

Michael Cooke, MCIP, RPP

Thom Hunt, MCIP, RPP

Manager of Policy Planning

City Planner

I am not a registered Planner and have reviewed as a Corporate Team Leader

SAH

JM

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Chris Carpenter	Coordinator of Real Estate Services
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Acting Chief Administration Officer

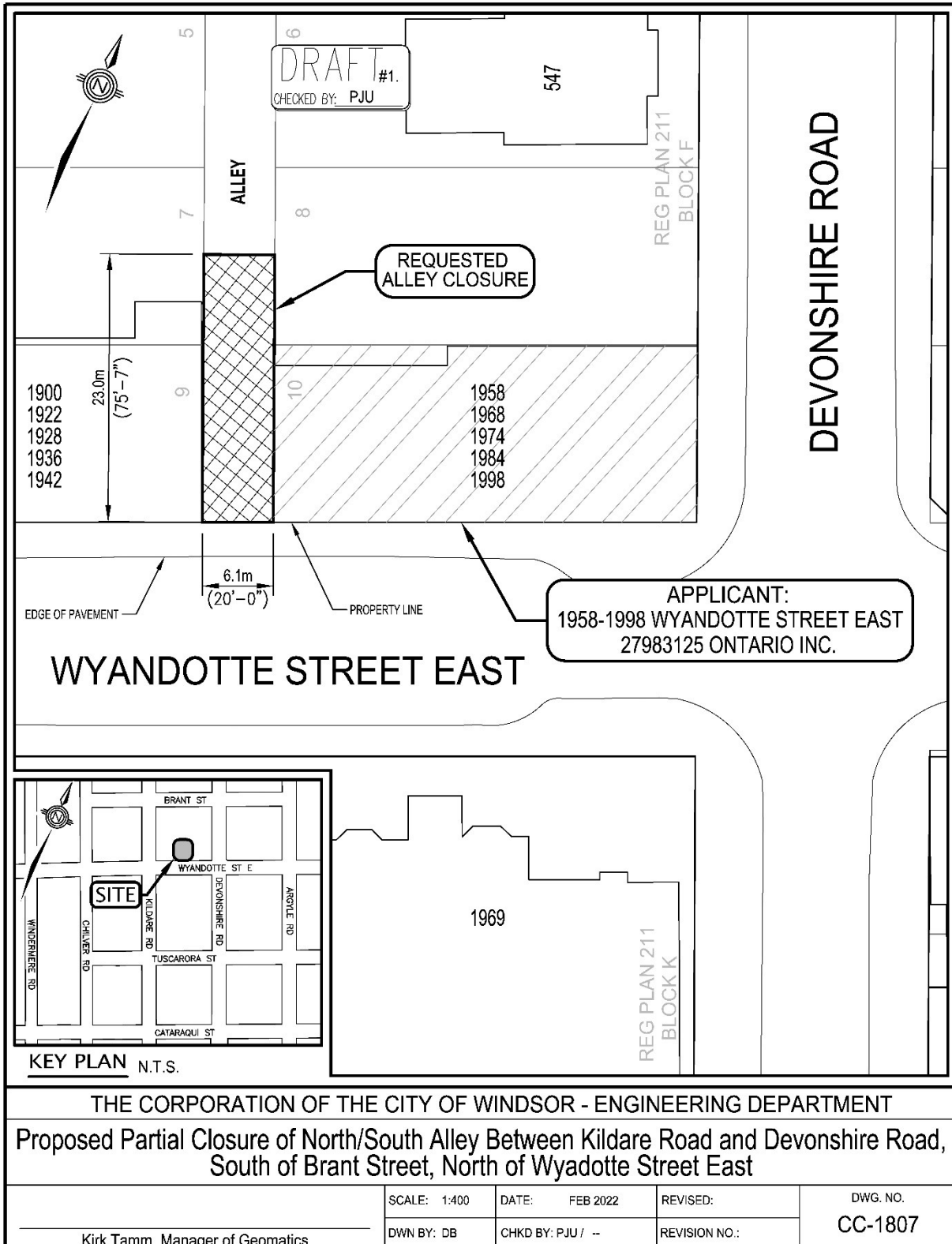
Notifications:

Name	Address	Email
Councillor Chris Holt		cholt@citywindsor.ca
Property owners and tenants within 120 m of the subject parcel		

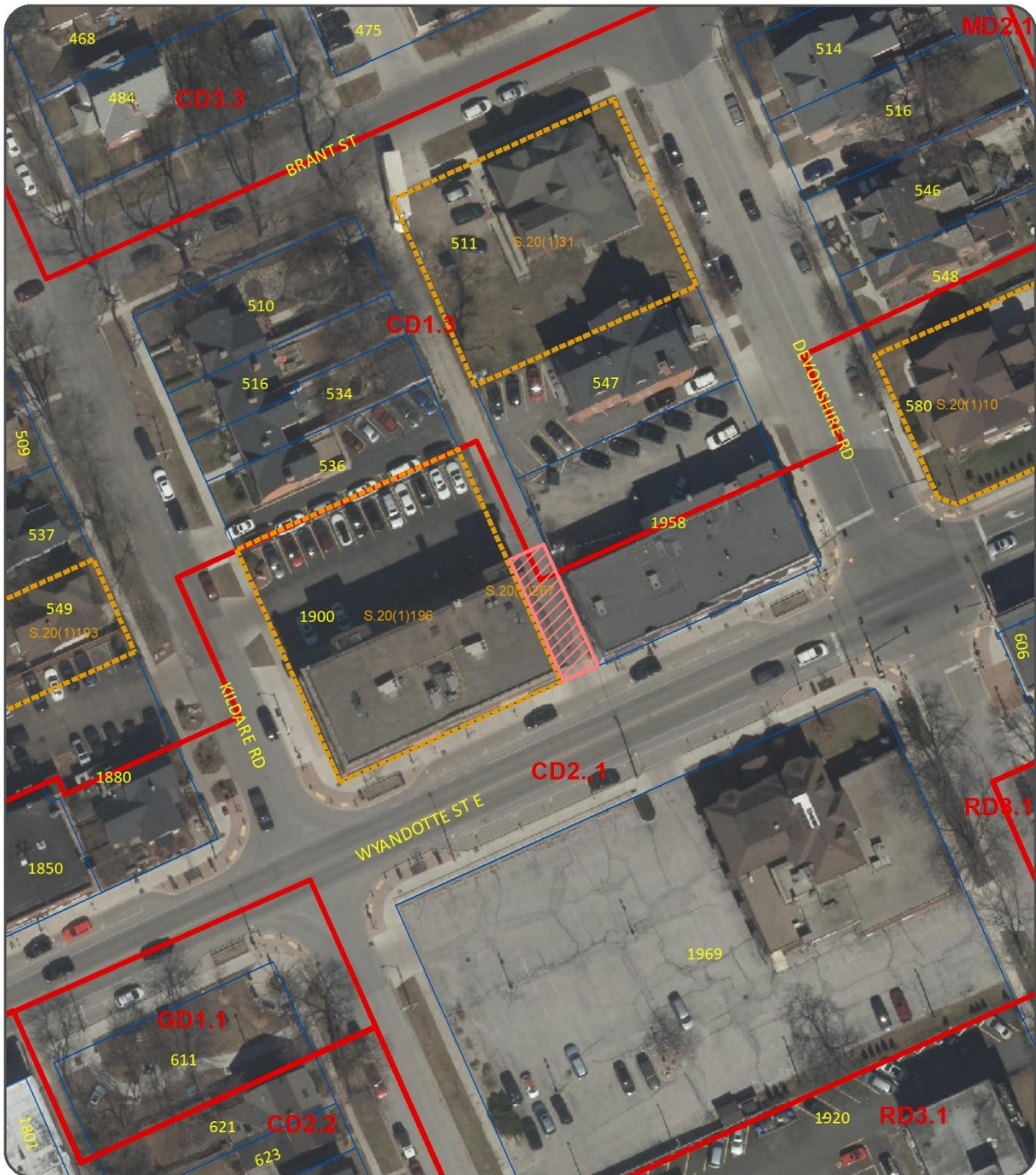
Appendices:

- 1 Appendix A - Drawing No. CC-1807
- 2 Appendix B - EIS Drawing - Aerial Photo
- 3 Appendix C - Consultations with Municipal Departments and Utility Companies
- 4 Appendix D - Site Photos
- 5 Appendix E - Classification of Alleys and Suitability for Closure
- 6 Appendix F - Ground Floor Plan
- 7 Appendix G - Approved Site Plan SPC-002-22

APPENDIX "A"
Drawing No. CC-1807



APPENDIX "B" EIS Drawing - Aerial Photo



STREET & ALLEY CLOSING (SAA/6671)

1:750

APPLICANT : 2798315 ONTARIO INC. (ROSATI)



 SUBJECT LANDS

PLANNING DEPARTMENT - DEVELOPMENT DIVISION

DATE: FEBRUARY, 2022

APPENDIX "C"**Consultations with Municipal Departments and Utility Companies****BELL CANADA WSP**

Bell Canada requests an easement over the entire closure area.

[Charleyne Hall, Bell Canada External Liaison]

CANADA POST

No comments provided

COGECO CABLE SYSTEMS INC.

No comments provided

ENVIRONMENTAL SERVICES

This closure is a concern for Environmental Services. We collect residential garbage in this alley and businesses receive private garbage collection in this alley. We are unable to exit any other way than the location that is requested to close. Although there are parking lots that exit to Kildare and Devonshire, they are private property and we cannot use them with our heavy trucks due to the risk of damage. Put more simply, we do not go on private property. Furthermore, private collection is done by large front end loader trucks which may not have the ability to make the turn required to exit onto Kildare or Devonshire.

A solution to the residential garbage collection would be to relocate garbage collection for all homes between Wyandotte/Assumption/Kildare/Devonshire. This would require Council approval and communication with the affected homeowners. This solution, however, does not address any private front end loader collection issues (if any).

Without the relocation of garbage collection, Environmental Services cannot support this request.

[Anne-Marie Albidone, Manager, Environmental Services]

ENWIN UTILITIES - HYDRO

No Objection, however, an easement named to Enwin Utilities Ltd is required for the entire east/west alley upon closing to accommodate existing 120/240 volt and 120/208 volt hydro distribution pole line.

[Anwar Nagar, Senior Hydro Engineering Technologist]

ENWIN UTILITIES - WATER

Water Engineering has no objections.

[Bruce Ogg, Water Project Review Officer]

LEGAL DEPARTMENT

For lands abutting CD2.1, \$20 per sq/ft without easements and \$10 per sq/ft with easements

[Chris Carpenter, Coordinator of Real Estate Services]

MNSi

MNSi has Aerial plant on the poles in the alley so we will require an aerial easement through the subject properties.

[Dave Hartleib, Outside Plant Manager]

PARKS & FACILITIES

Parks development has no comments

[Sherif Barsom, Landscape Architect]

PLANNING DEPARTMENT

This paved alley should not be closed. It appears to still used by both Residential and Commercial uses on this block.

[Jim Abbs, Planner III - Subdivisions]

PLANNING DEPARTMENT – LANDSCAPE ARCHITECT

The alley closure is associated with a Site Plan Control application where all landscape comments have been made.

From an Urban design perspective, this alley is not specifically included in the IIP0's for Walkerville Distillery District. The alley targeted and detailed in the plan is one block to the west, b/w Kildare and Chilver. That being said the application to close this particular alley for private use aligns with the intent of the overall Plan. This application has the endorsement of the Planning Departments Urban Design section.

[Stefan Fediuk – Landscape Architect]

PUBLIC WORKS DEPARTMENT

The proposed alley closure is approximately 27m long, 5.25m wide and composed of asphalt. A 200mm diameter vitrified clay combined sewer runs through the alley. There is a catchbasin within the proposed closure area, if the alley is closed, the catchbasin will become a private catchbasin and must be maintained by the property owner. If the alley closure is approved, an easement will be required over the municipal sewer. There are hydro poles and guy wires within the alley, an easement will also be required for utilities. There is a driveway approach at the south end of the subject closure, providing access to adjacent parking lots. If the alley is closed, the applicant is required to obtain a driveway permit to close the redundant curb cut to city standards. Due to the presence of the combined sewer, this alley is deemed indispensable by CR146/2005. The requested closure is not supported by the Engineering Department.

(Original - March 29, 2022)

The proposed alley closure is approximately 27m long, 5.25m wide and composed of asphalt. A 200mm diameter vitrified clay combined sewer runs through the alley. There is a catchbasin within the proposed closure area. If the alley is closed, the catchbasin will become a private catchbasin and must be maintained in good working order by the property owner to provide drainage for the open alley. If the alley closure is approved, an easement will be required over the municipal sewer. There are hydro poles and guy wires within the alley. An easement will also be required for utilities. There is a driveway approach at the south end of the subject closure, providing alley access to adjacent parking lots. If the alley is closed, the applicant is required to obtain a driveway permit to close the redundant curb cut to city standards. This alley is deemed indispensable by CR146/2005, and there are concerns with the closure application. However, in this unique situation, the Public Works Department will not oppose the closure application subject to the easement and the catch basin maintenance requirements.

(Revised - May 6, 2022)

[Adam Pillon, Development Engineer]

PUBLIC WORKS – TRANSPORTATION/TRAFFIC

No concerns with closing the portion of alley as proposed provided the north leg at Brant remains open to prevent vehicles backing out of parking lots onto Devonshire Road. Applicant to borne the cost of any required signage (i.e. No Exit sign at Brant). Note closure may affect garbage collection – both private and public.

[Mike Spagnuolo, Signal Systems Analyst]

ROGERS COMMUNICATIONS

No comments provided

TELUS COMMUNICATIONS

TELUS has no underground infrastructure in the area of your proposed work

[Meghna Patel, Permit Coordinator]

TRANSPORTATION PLANNING

No concerns with the proposed closure as the north end of the alley remains open for use by other properties. Appropriate signage required at the applicant's request per Traffic Operations requirements. Garbage collection may be affected, this should be discussed with Operations.

[Rania Toufeili, Policy Analyst]

UNION GAS

After reviewing the provided drawing between Kildare and Devonshire and consulting our mapping system, please note that Enbridge Gas has no active infrastructure in the proposed area.

[Jose Delloso, Drafter Estimator]

WINDSOR FIRE

Windsor fire has no issues

[Michael Coste, Chief Fire Prevention Officer]

WINDSOR POLICE

The Windsor Police Service has no concerns or objections with the closure of this section of alley within the Walkerville neighborhood to permit use of the space as a pedestrian only outdoor patio/amenity area and to facilitate a "grab and go" pickup window. The alley in question is a paved laneway currently accessible to vehicular traffic but its closure will not create problems for police to otherwise gain access for emergency incident response or vehicle patrol purposes within the immediate area. The closure will still leave other options available to the police for such purposes. To ensure the space can be established and then more importantly maintained in a safe condition, it should be enclosed to some degree with fencing and gates to allow pedestrian access but not vehicles. Such fencing needs to be of a type (such as a steel picket style) that will permit ongoing two-way visibility into and out from the space. The space should also have lighting provided to safely address evening conditions. The end result from this closure will create an area of enhanced positivity activity generation (a core principle of good CPTED – crime prevention through environmental design) that supports public safety.

[Barry Horrobin, Director of Planning & Physical Resources]

APPENDIX "D"
Site Photos (March 18, 2022)



Figure 1 - Looking north towards subject alley from Wyandotte Street East



Figure 2 - Looking north towards subject alley from Wyandotte Street East



Figure 3 - Looking south towards subject alley



Figure 4 - Looking south towards subject alley



Figure 5 - Looking south towards subject alley



Figure 6 - Looking north from subject alley



Figure 7 - Rear of 1958-1998 Wyandotte Street East, looking east from subject alley



Figure 8 - Rear of 1958-1998 Wyandotte Street East, looking east from subject alley



Figure 9 - Rear of 1900-1942 Wyandotte Street East, looking west from subject alley



Figure 10 – Looking south towards subject alley from Brant Street



Figure 11 - Front of 1958-1998 Wyandotte Street East, looking north from Wyandotte Street East



Figure 12 - Front of 1900-1942 Wyandotte Street East, looking north from Wyandotte Street East

APPENDIX “E”

Classification of Alleys and Suitability for Closure

Classification of Public Rights-of-Ways:

Currently streets and alleys fall into four classifications on the basis of their usefulness:

- 1) Alleys that are **indispensable**. These would be alleys serving commercial properties and properties fronting on heavily traveled streets i.e. major arterial routes and alleys which contain sewers and must remain accessible for servicing; alleys or streets which serve as the only vehicular means of access to rear parking areas and garages where the property has insufficient lot width for a side drive; and, alleys which contain Fire Department connections that are deemed to be necessary for firefighting access.
- 2) Alleys that, **have some usefulness**, are nevertheless dispensable and may or may not be a complete liability.
- 3) Alleys that appear to serve **no useful purpose**, either now, or anticipated. Such alleys are in residential areas and locations where generally the lots are wide enough for side drives, or those alleys abutting parks and other parcels of land that do not require any servicing from the alley. Remnant or stub-end streets which are dead-ended and do not serve as access to other streets.
- 4) Alleys lying in Holding zones and other similar undeveloped areas where the alley system is **clearly obsolete** and has never been developed, but where the City needs to keep its options open until new area plans are prepared and development is imminent.

Suitability for Closing:

Following are the criteria and suitability for closing alleys in each of the above classifications.

- 1) Indispensable alleys should **not be closed**, conveyed, reduced or otherwise jeopardized through minority interests unless a suitable substitute alley is opened in lieu thereof. They are essential from the viewpoint of fire protection, police protection, emergency services (i.e. ambulance) and loading or unloading of goods, refuse collection, servicing of blocked sewers and utility services. Without such alleys, the above noted services would at least be more costly if not impossible to complete or adequately access; and would noticeably interfere with street traffic, thereby reducing the access capacity of the adjacent arterial, collector, or street for business.
- 2) Alleys having some usefulness should **be considered for closing** only upon request of abutting owners rather than by encouragement of the City.
- 3) Alleys that serve no useful purpose should **be closed** if at all possible, and in fact the owners abutting thereon should be encouraged to accept conveyance.
- 4) Alleys that are clearly obsolete should **not be closed** unless there is a municipal need or specific development proposals acceptable to the City are submitted.

From: Kelly White
Sent: June 2, 2022 12:59 PM
To: clerks <clerks@citywindsor.ca>
Subject: JUNE 6th - public meeting development & heritage standing committee

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

I would like to attend the meeting with respect to the proposed alley closure between Brant & Wyandotte Streets to allow the restaurant, Twisted Apron to establish an outdoor patio.

I live at 534 Kildare Road and my concern is that such an establishment will cause me to have to deal with increased noise in the backyard of my property, as well as the potential for increased vandalism as more people naturally will be in the area and ultimately, negatively impact the resale value of my property.

The O'Maggio Kildare House is across the road from my property and that is certainly the case where intoxicated revellers are leaving the establishment between 1:00-3:00am most weekend nights. Sometimes they are happily shouting goodbye to each other and sometimes there are loud arguments and fights. Regardless of the nature of the vocal exchanges, it is disruptive.

I oppose the closure of the alley for the purpose of using the space for an outdoor restaurant patio.

Regards,
Kelly White

Subject: Additional Information Memo to S58/2022, Ward 4

Reference:

Date to Council: July 11, 2022
Author: Brian Nagata
Planner II - Development Review
519-255-6543 Ext. 6181
bnagata@citywindsor.ca
Planning & Building Services
Report Date: June 14, 2022
Clerk's File #: SPL2022

To: Mayor and Members of City Council

Additional Information:

Background:

The Development & Heritage Standing Committee (DHSC) approved the following motion at their June 6, 2022 meeting, directing Administration to provide additional information on the approval process for a business license related to a patio (Part X of DHSC Decision Number 407).

*THAT Administration **BE REQUESTED** to provide additional information related to the approval process for a business license related to a patio; and that this information **BE BROUGHT FORWARD** at the same time the report moves forward to Council for consideration.*

This motion aims to provide a means for addressing concerns raised at DHSC by neighbouring residents regarding increased foot traffic, increased vehicular traffic, light pollution, noise emissions, property devaluation, and unlawful behaviour resulting from the proposed patio.

The applicant, 2798315 Ontario Inc. (Rosati Group), owner of the property known municipally as 1958-1998 Wyandotte Street East (the subject property), on June 16, 2022 subsequently requested that the terms of the motion requiring Rosati Group to grant an easement over the subject property in favour of The Corporation of the City of Windsor be amended (Part IV of DHSC Decision Number 407).

Discussion:

Business License Approval Process

Staff with the Corporation's Licensing Division have indicated that Business Licensing By-law 395-2004 mandates that the establishment itself will require a municipal hospitality licence, however, the patio associated with the establishment does not

require its own separate licence. The licensee and the business operation (including the patio) will be required to be in compliance with all applicable by-laws and legislation. A non-compliant licensee could be subject to a hearing before the Windsor Licensing Commission with administrative recommendations to suspend, revoke or to impose conditions on the business licence.

Notwithstanding this fact, the patio is included within the scope of work for Site Plan Control file SPC-002/22. SPC-002/22 was approved on June 3, 2022 to allow for alterations to the Strathcona Building and surrounding site. This approval addresses the majority of concerns raised by the neighbouring residents through the following design features and conditions.

- Increased foot traffic and unlawful behaviour
 - A refuse enclosure and decorative fencing will be installed at the north end of the patio, thus restricting pedestrian access to the Strathcona Building and Wyandotte Street East (See caption from approved Site Plan, **attached** hereto as **Appendix “A”**)
 - Windsor Police through their comments to the application stated that *“the end result from this closure will create an area of enhanced positivity activity generation (a core principle of good CPTED - crime prevention through environmental design) that supports public safety”*
- Increased vehicular traffic
 - No concerns related to increased vehicular traffic were identified by Transportation Planning through their comments to the application
- Light pollution
 - The owner, as a condition of Site Plan Approval, must provide lighting product specifications for review and approval by the Planning Department’s Landscape Architect and Windsor Police
 - The lighting product specifications must comply with *City of Windsor Lighting Intensity Standards Study* (Council Resolution 228-2005)
- Property devaluation
 - The owner, as a condition of Site Plan Approval, must design the patio to the satisfaction of the Planning Department’s Landscape Architect
 - The patio design must include decorative fencing, overhead lighting and pavers, all of which will significantly improve the space from its current state

A thriving main street is anticipated to have higher levels of noise from time to time. This is reflected in Noise By-law 6716, which allows yelling, shouting, hooting, whistling or singing in a commercial area between 7:00 A.M. and 12:00 A.M. That being said, the location and design of the patio minimizes the impact of noise emissions on the neighbouring residents and deters patrons from venturing into the residential area.

Amendment to DHSC Decision 407

Part IV of DHSC Decision Number 407 requests the City Planner to include the aforesaid easement as a Special Provision to the Site Plan Agreement for SPC-002/22. Rosati Group has requested that the easement alternatively be included as a condition of the alley closure. This change is being requested to avoid a delay in the issuance of the associated building permits, which are dependent on the Special Provisions being satisfied.

Representatives of the Building, Legal and Planning Departments met to discuss the request. It was confirmed that there are no issues with accommodating this request, as the City's garbage collection vehicles will retain their access to Wyandotte Street East until the alley is closed.

Administration has drafted the following revision to Part IV of DHSC Decision Number 407 for Council's consideration.

*THAT the Applicant/Owner, **PRIOR TO** the closure and conveyance of the 23.0 metre (75.5 foot) portion of the 6.1 metre (20 feet) wide north/south alley located on the north side of Wyandotte Street East, between the properties known municipally as 1900-1942 and 1958-1998 Wyandotte Street East, and shown on Drawing No. CC-1807 **attached** hereto as **Appendix "A"**, **GRANT** an easement in favour of The Corporation of the City of Windsor, to allow its garbage collection vehicles unobstructed passage over the parking aisle in the northernmost 7.1 m of the property known municipally as 1958-1998 Wyandotte Street East (legally described as Lots 8 & 10, Block F, Plan 211; PIN No. 01134-0112), to the satisfaction of the City Engineer.*

Conclusion:

This memo confirms that the patio itself is not required to be licensed and would be considered as part of the daily operations under the establishment's municipal hospitality licence or included under the hospitality licence for the establishment that it is associated with.

This memo further explains that the majority of concerns raised by neighbouring residents will be addressed through the design and conditions approved through SPC-002/22.

This memo finally reviews a request from Rosati Group to amend Part IV of DHSC Decision Number 407 and includes a revised motion for Council's consideration.

Planning Act Matters:

Brian Nagata, MCIP, RPP
Planner II - Development

I concur with the above comments and opinion of the Registered Professional Planner.

*Michael Cooke, MCIP, RPP
Manager of Policy Planning*

*Thom Hunt, MCIP, RPP
City Planner*

I am not a registered Planner and have reviewed as a Corporate Team Leader

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Craig Robertson	Deputy Licence Commissioner, Deputy City Clerk
Wira Vendrasco	Deputy City Solicitor, Legal Services & Real Estate
Jelena Payne	Commissioner, Economic Development & Innovation
Onorio Colucci	Acting Chief Administration Officer

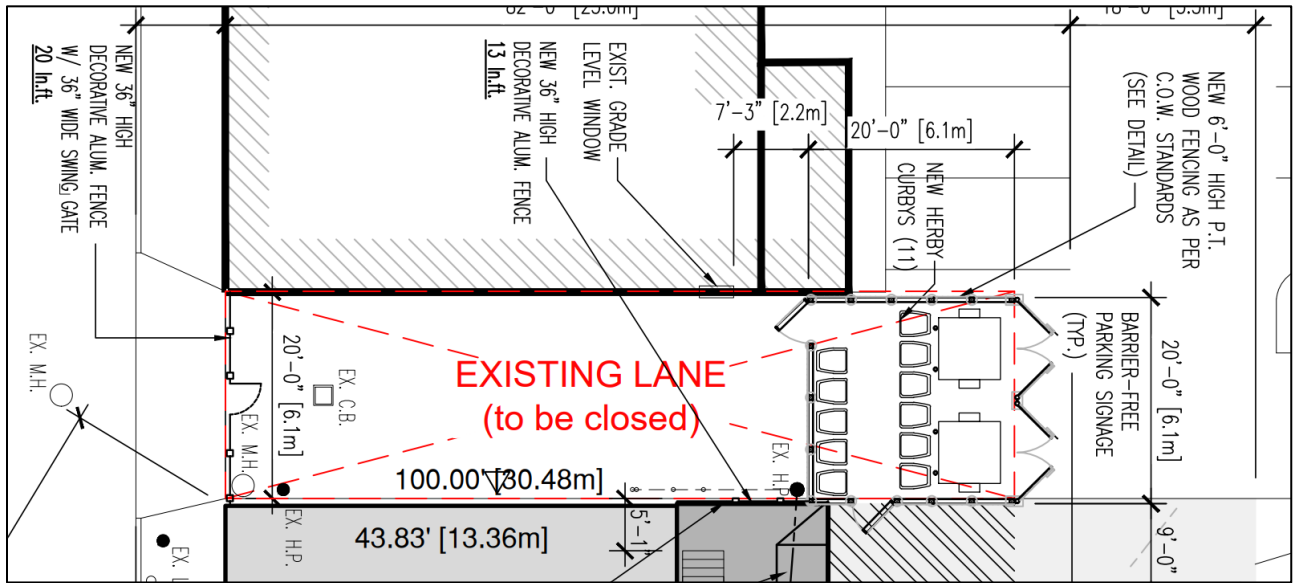
Notifications:

Name	Address	Email
Councillor Chris Holt	350 City Hall Square West, Suite 220 Windsor, ON N9A 6S1	cholt@citywindsor.ca
Property owners and tenants within 120 m of the subject parcel		

Appendices:

Appendix A - Caption from Approved Site Plan SPC-002/22

APPENDIX "A"
Caption from Approved Site Plan SPC-002/22





Committee Matters: SCM 168/2022

Subject: Zoning By-Law Amendments for 1646 to 1648 Drouillard Road; File Z-004/22 (ZNG/6659) Ward 5

Moved by: Councillor Sleiman
Seconded by: Councillor Morrison

Decision Number: **DHSC 398**

THAT Zoning By-law 8600 **BE AMENDED** by adding the following site specific amendment to the existing Commercial District 2.2 (CD2.2) zoning category for the property known municipally as 1646 to 1648 Drouillard Road on Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235), situated on the northeast side of Drouillard Road, by adding the following site specific provision to Section 20(1):

384. Northeast Side of Drouillard Road

For the lands comprising Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235); a *multiple dwelling* shall be an additional permitted use; and the following provisions shall apply:

- a) Section 15.2.5.9 shall not apply.
 - b) Section 15.2.5.15 shall not apply.
 - c) The maximum number of *dwelling units* shall be 4.
- [ZDM 7; ZNG/6659]; and,

THAT the owner of the property located at 1646 to 1648 Drouillard Road **BE REQUIRED** to provide elevation drawings as part of the Site Plan Review process to ensure that alterations will not be irreversible to the commercial storefront facing Drouillard Road and landscaping is provided when converting the existing commercial units to residential.

Carried.

Report Number: S 46/2022
Clerk's File: Z/14314

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 7.2. from the Development & Heritage Standing Committee Meeting held June 6, 2022.
3. To view the stream of this Standing Committee meeting, please refer to: <http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220608/-1/7334>

**Subject: Zoning By-Law Amendments for 1646 to 1648 Drouillard Road;
File Z-004/22 (ZNG/6659) Ward 5**

Reference:

Date to Council: June 6, 2022
Kevin Alexander, Senior Planner Special Projects
519-255-6543 x6732
kalexander@citywindsor.ca

Colin Funk, Planning Assistant
Planning & Building Services
Report Date: April 11, 2022
Clerk's File #: Z/14314

To: Mayor and Members of City Council

Recommendation

THAT Zoning By-law 8600 **BE AMENDED** by adding the following site specific amendment to the existing Commercial District 2.2 (CD2.2) zoning category for the property known municipally as 1646 to 1648 Drouillard Road on Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235), situated on the northeast side of Drouillard Road, by adding the following site specific provision to Section 20(1):

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- a) Section 15.2.5.9 shall not apply.
- b) Section 15.2.5.15 shall not apply.
- c) The maximum number of *dwelling units* shall be 4.

[ZDM 7; ZNG/6659]; and,

THAT the owner of the property located at 1646 to 1648 Drouillard Road **BE REQUIRED** to provide elevation drawings as part of the Site Plan Review process to ensure that alterations will not be irreversible to the commercial storefront facing Drouillard Road and landscaping is provided when converting the existing commercial units to residential.

Executive Summary:

N/A

Background:

1. KEY MAP



KEY MAP - Z-004/22, ZNG-6659

● SUBJECT LANDS

APPLICANT: LEE J DOUCETTE

ADDRESS: 1646-1648 DROUILLARD ROAD



2. APPLICATION INFORMATION

Location: The subject parcel is located on the northeast side of Drouillard Road. The property is known municipally as 1646 to 1648 Drouillard Road and legally described as Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235).

Applicant: Lee J Doucette.

Agent: Jacob Dickie, Urban in Mind has been retained to undertake a planning justification report.

Registered Owner: Lee John Doucette.

Proposal:

The existing mixed-use building has been used for a number of neighbourhood commercial uses over the years at the front of the building and residential uses at the back of the building. In recent years, the two front commercial units have been used as an illegal use for two (2) residential units and the Building Division issued an Order to Comply on August 6th, 2019. However, as of March 23, 2022, the illegal dwelling units had been vacated and the Order to Comply satisfied and closed.

The applicant proposes bringing the two existing non-conforming residential units at the front of the existing one story building into conformity with Zoning By-law 8600, resulting in a total of four residential units on the ground floor of the existing building. The building has been converted from two commercial units and two residential units on the ground floor to a multiple dwelling with four dwelling units. Specifically, the proponent is proposing to legalize the conversion of the two existing commercial units into two dwelling units. The two dwelling units at the rear of the first floor will remain for a total of four residential units in the low profile building.

The building height will remain, and there will be no exterior additions to the building.

The applicant is requesting amendments to Zoning By-law 8600 to add site specific regulations and zoning provisions. The amendments to Zoning By-Law 8600 will maintain the current Commercial District 2.2 (CD2.2) and add a site specific provision to Section 20(1) permitting a *multiple dwelling* as an additional permitted use. Additionally, the site specific amendment will also permit a maximum of 4 *dwelling units* on the site and exempt the property from the required amenity area.

SUBMISSIONS BY APPLICANT: Applications (ZBA), Planning Justification Report, Conceptual Site Plan, and Amendment of Agreement of Purchase and Sale.

3. SITE INFORMATION

OFFICIAL PLAN	ZONING	CURRENT USES	PREVIOUS USE
Residential	Commercial District (CD2.2)	Residential	Mixed Use
FRONTAGE	DEPTH	AREA	SHAPE
12.19 M	30.48 M	371.61 SQ M	rectangular
<p>Note: All measurements are approximate.</p> <p>This property was developed for use as commercial on the main level.</p>			

5. NEIGHBOURHOOD MAP



NEIGHBOURHOOD MAP - Z-004/22, ZNG-6659



SUBJECT LANDS

APPLICANT: LEE J DOUCETTE

ADDRESS: 1646-1648 DROUILLARD ROAD

6. SURROUNDING LAND USES

North of subject lands: Commercial units with commercial retail addition facing Sandwich Street within a 'Commercial District 2.2' (CD2.2) zoning category.

East of the subject lands: a municipal laneway; vacant property and a one (1) storey residential dwelling facing Cadillac Street within a 'Residential District 1.3' (RD1.3) zoning category.

West side of the subject lands: a municipal right-of-way known as Drouillard Road and heating and cooling contractor shop known as Bradd Heating & Cooling within a CD2.2 zoning category.

South side of the subject lands: two (2) storey commercial building within a CD2.2 zoning category.

Site attached photos (Google Street View, September 2022 in **Appendix A**) which identify the surrounding land uses and the context of the subject neighbourhood.

7. MUNICIPAL INFRASTRUCTURE

Sanitary sewer/Storm sewer: Sanitary sewer and storm sewer on the Drouillard Road right-of-way.

Water Fire hydrants: Fire Hydrant west across the public right-of-way of Drouillard Road. Fire Hydrant south on the northeast side of the intersection of Drouillard Road and Alice Street.

Drouillard Road: Class I Collector

Transit Windsor Bus: Central 3 on Drouillard Road at Alice Street Northeast Corner.

Discussion:

PLANNING ACT

The comments, submissions or advice affecting planning matters provided to the council of a municipality, as well as the decision of the council of a municipality shall be consistent with the Provincial Policy Statement 2020 (PPS) and shall conform to the Official Plan (OP).

PROVINCIAL POLICY STATEMENT (PPS) 2020

The recommended amendments to Zoning By-law 8600 represent sound planning and are consistent with the PPS. The recommended amendments will result in the placement of dwelling units on the main floor of the building being consistent with PPS policies identified below (See **Appendix B** for applicable PPS Sections).

PPS provides policy direction for appropriate development taking into consideration efficient use of land and resources, accommodating an appropriate mix of residential uses and supporting active transportation and public transit. The PPS recognizes that land use must be managed to meet the full range of current and future needs, while protecting public safety and the natural environment.

The proposed additional dwelling units on the ground floor contribute to the building of a strong healthy community as per policy 1.1.1 (a, b, c, d, e, f, g, h, and i) of PPS. The proposed amendments are consistent with the PPS as follows:

- The subject building is fully connected to municipal services.
- The inclusion of two additional units represents an effective re-use of the existing building that has experienced vacancies. The addition of two dwelling units will provide rental apartments in a low vacancy rate environment.
- The amendment will allow for a type of flexible zoning where the ground floor dwelling units are permitted as an additional permitted use. Four (4) parking spaces will be provided at the rear of the property. This amendment will provide the flexibility to convert the ground floor commercial use to residential. When/if demand for neighbourhood retail changes in the future, the owner can effectively convert the residential units back to a commercial use.
- There are no impacts on the natural environment. There are no known negative impacts on climate change.

The proposed dwelling units focus growth and development within a settlement area and existing building stock and supports active transportation, as per policy 1.1.3.1, 1.1.3.2, and 1.1.3.3. The proposed amendments are consistent with the PPS as follows:

- The subject lands are within the urban area of the settlement for the City of Windsor. The additional units are contained within the building minimizing land consumption and promoting intensification.
- The subject development will be supportive of active transportation. The new units are located on a street with a bus service (Transit Windsor Bus: Central 3 on Drouillard Road running east and west)

These sections are also identified in Section 4.2 of the *Planning Justification Report* (see **Appendix H**) submitted with the application. The applicable PPS sections promote the vitality of the existing settlements recognizing the importance of long-term prosperity of these communities while minimizing the unnecessary public expenditures.

The requested amendments will facilitate the re-use of an existing building and promotes a healthy, liveable and safe community. The recommended amendments are consistent with the general direction of the PPS as referenced above.

OFFICIAL PLAN (OP)

Applicable OP Sections can be found in detail in the **Appendix C** of this report.

The Official Plan, Schedule D: Land Use designates the subject land as “Residential” providing the main location for housing in Windsor outside of the City Centre Planning District. In order to develop safe, caring and diverse neighbourhoods, opportunities for a broad range of housing types and complementary services and amenities are provided. The legalization of the proposed units is consistent with this description. Specifically, the proposed zoning changes are consistent with the following policy sections:

- 6.3.1.1., *to support a complimentary range of housing forms and tenures in all neighbourhoods*
- 6.3.1.2., *to promote compact neighbourhoods which encourage a balanced transportation system*
- 6.3.1.3, to promote selective residential redevelopment, infill and intensification initiatives

The proposed zoning amendment is consistent with section 6.3.2.1 of the Official Plan “Residential - Permitted Uses”, identifying small-scale Low Profile residential development as permitted.

Chapter 2 “Glossary” of the Official Plan defines small-scale forms as multiplexes with up to 8 units.

The proposed zoning amendment is consistent with section 6.3.2.4 of the Official Plan “Residential – Locational Criteria” because there is access to a collector road, full municipal physical services, and public transportation services can be provided. Adequate community services and open spaces are also available in the area.

The building is built to a regular setback from Drouillard Road and is on an established frontage along Drouillard Road.

The proposed changes within the existing building will accommodate four (4) units. The building has been in place for many years with existing residential and commercial uses on the ground floor. Recently, the commercial units have been used as non-compliant residential units. Therefore, the applicant is requesting the conversion of the two ground floor commercial units to two residential units on the ground floor to create a total of four residential units as an adaptive re-use within an established building.

The proposed development is consistent with the following policies of the Official Plan:

As per Chapter 3 Development Strategy, Section 3.2.1.2 Permitted Uses and Section 6.3.2.4 Locational Criteria, the Official Plan encourages a variety of housing types located within the urban settlement area and in proximity of existing infrastructure and amenities. The availability of various housing types would prevent urban sprawl and allow people to live in the same community at any stage of their life.

The subject property is located in close proximity to the Ford Test Track Park and a block away from Seminole Street, which provides a variety of services including access to a library and various businesses. Tecumseh Road East is located two blocks south, providing more access to local businesses. The subject property has access to full municipal services, an arterial road and transit. The adaptive re-use of the existing building stock facilitates the use of existing infrastructure through intensification.

Regarding parking the applicant will provide four parking spaces at the rear of the building (See **Appendix F Conceptual Site Plan**). Site Plan Control will be required.

ZONING

The property is zoned Commercial District 2.2 (CD 2.2) in Zoning Bylaw 8600.

As per Section 15.2.1 Permitted Uses dwelling units are permitted in a combined use building with other uses such as offices, retail, restaurant, etc.

The requested amendment will provide a type of flexible zoning where the existing vacant commercial units are permitted as an additional permitted use. If demand for neighbourhood retail changes in the future the owner can convert the residential units back to a commercial use. Permitting residential units at the front of the building will allow the applicant to accommodate four dwelling units in the existing building.

Section 2.1 of the *Planning Justification Report* (see **Appendix H**) submitted with the application states that parking for the residential use has been located at the rear of the site with access from the public lane, and that limited on-street parking is available on Drouillard Road. Section 24.6 (Table 24.20.5.1) requires Multiple Dwellings containing a maximum of four dwelling units to provide 1 space for each dwelling unit. Section 15.2.5.9 requires an Amenity Area per unit. Given that the property is in close proximity to the Drouillard Road Main Street and other open space areas no amenity space is being proposed.

SITE PLAN

Given that there is a change of use, Site Plan Review is required to ensure that the first floor storefront can not only accommodate dwelling units but also be able to be converted back if the applicant wishes to convert the units to a retail storefront in the future. Through the Site Plan Review process, staff will request that large storefront windows and glazing are replaced with windows that match the buildings original profile.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

N/A

Climate Change Adaptation:

N/A

Financial Matters:

N/A

Consultations:

City Departments and Agencies

Comments from municipal departments and external agencies are summarized and attached as **Appendix E** Consultation to this report. There are no objections to the proposed amendments.

Public Notice

The official notice will be advertised in the Windsor Star newspaper as mandated by the Planning Act.

A courtesy notice will be mailed to all properties within 120 meters (400 feet) of the subject site, prior to the Planning and Heritage Standing Committee (PHEDSC) meeting.

Conclusion:

The recommended Zoning By-law amendments provides an appropriate adaptive re-use of the vacant first floor of the existing building with additional onsite parking to service the fourunit multi-residential building. The parking area will be designed to City standards with curb, guttering, drainage, and landscape areas.

The recommended Zoning By-law Amendment will maintain conformity with the Official Plan and is consistent with the PPS.

The subject Zoning By-law amendment constitutes good planning because the proposal is consistent with the Provincial Policy Statement and Windsor’s Official Plan. The zoning amendment permits ground floor residential units as an additional permitted use, giving the property owner another viable option to the existing vacant storefronts. If demand for neighbourhood retail changes in the future the owner can convert the ground floor residential units back to a commercial use.

Planning Act Matters:

I concur with the above comments and opinion of the Registered Professional Planner.

Neil Robertson, MCIP RPP

Manager of Urban Design/Deputy City Planner

Thom Hunt, MCIP RPP

City Planner

I am not a registered Planner and have reviewed as a Corporate Team Leader

JP SAH

Approvals:

Name	Title
Neil Robertson	Manager of Urban Design / Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development and Innovation
Shelby Askin Hager	Chief Administration Officer (A)

Notifications:

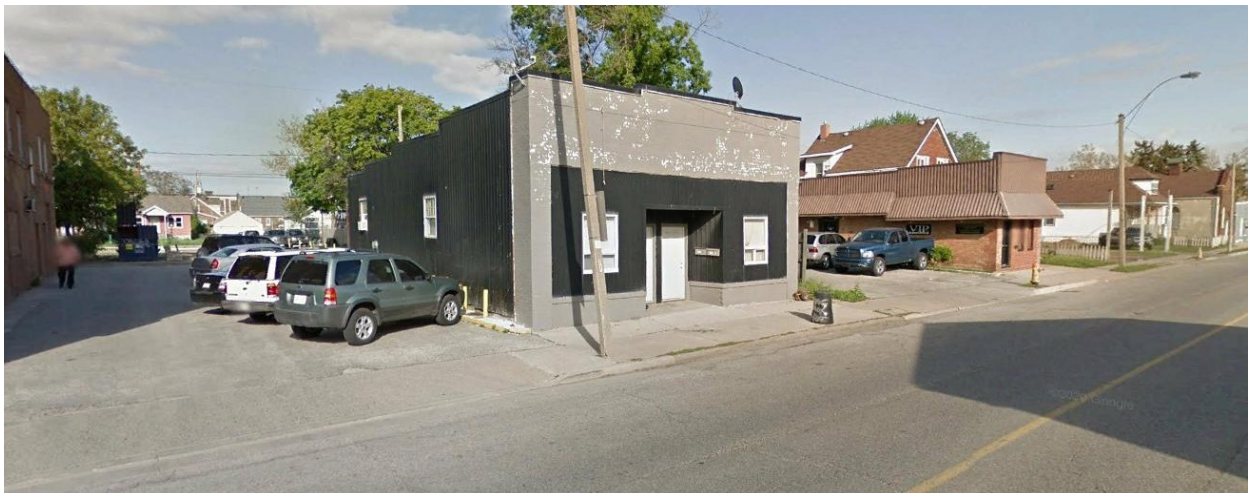
Name	Address	Email
Abutting property owners, tenants/occupants within 120m (400ft) radius of the subject land.		

Appendices:

- 1 Appendix 'A' Surrounding Land Uses
- 2 Appendix 'B' Excerpts from the PPS
- 3 Appendix 'C' Excerpts from the OP
- 4 Appendix 'D' Excerpts from Zoning By-law 8600
- 5 Appendix 'E' Consultations
- 6 Appendix 'F' Survey and proposed Floor and Parking Area Plans
- 7 Appendix G - Draft By-Law Amendment
- 8 Appendix 'H' Planning Justification Report

Appendix 'A'

Subject Property located at 1646 to 1648 Drouillard Road



Appendix 'A'
Surrounding Land Uses

North

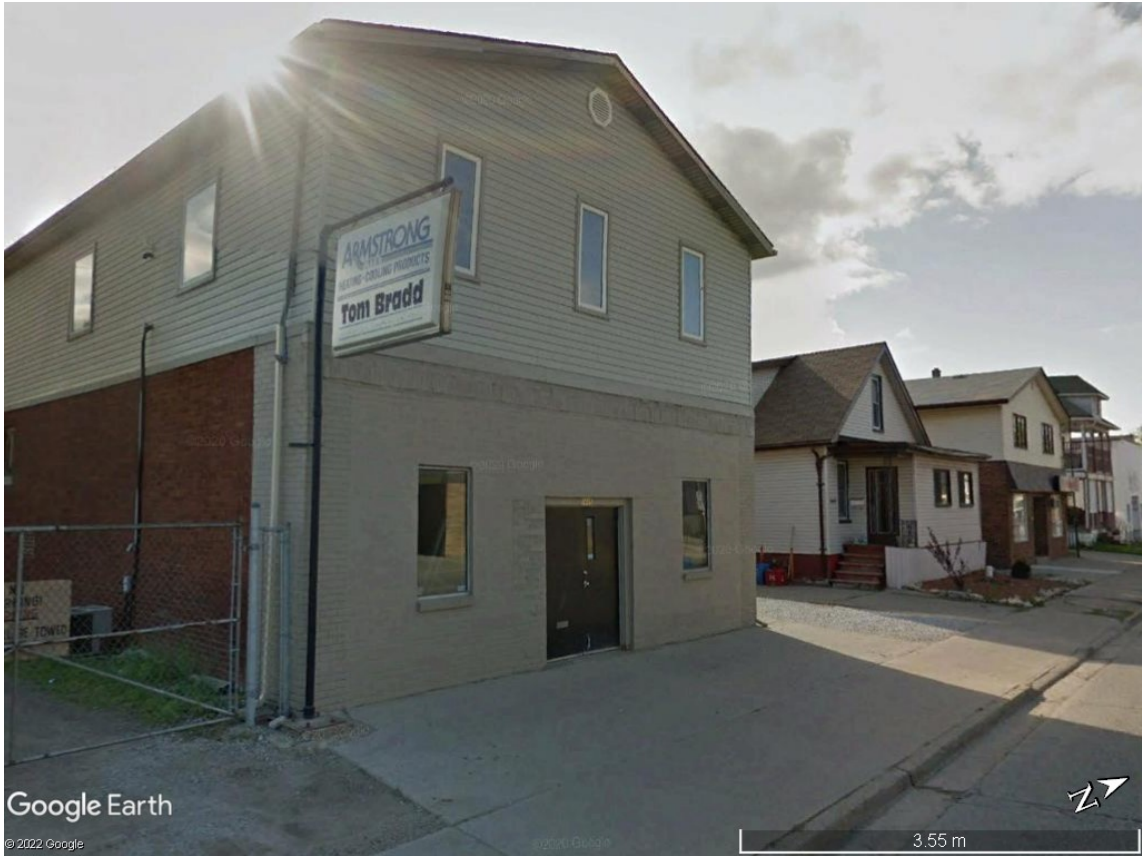


South



Appendix 'A' – Surrounding Land Uses

West



East



Appendix B

Excerpts from the Provincial Policy Statement (PPS) 2020

Applicable PPS Sections:

1.1.1 Healthy, liveable and safe communities are sustained by:

- a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;
- b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;
- c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;
- d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;
- e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;
- f) improving accessibility for persons with disabilities and older persons by addressing land use barriers which restrict their full participation in society;
- g) ensuring that necessary infrastructure and public service facilities are or will be available to meet current and projected needs;
- h) promoting development and land use patterns that conserve biodiversity.

1.1.3.1 Settlement areas shall be the focus of growth and development.

1.1.3.2 Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

- a) efficiently use land and resources;
- b) are appropriate for, and efficiently use, the *infrastructure* and *public service facilities* which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;
- c) minimize negative impacts to air quality and climate change, and promote energy efficiency;
- d) prepare for the *impacts of a changing climate*
- e) support *active transportation*;
- f) are *transit-supportive*, where transit is planned, exists or may be developed; and

Appendix B
Excerpts from the
Provincial Policy Statement (PPS) 2020

g) are *freight-supportive*, and

Land use patterns within settlement areas shall also be based on a range of uses and opportunities for intensification and redevelopment in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

- 1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for *transit-supportive* development, accommodating a significant supply and range of *housing options* through *intensification* and *redevelopment* where this can be accommodated taking into account existing building stock or areas, including *brownfield sites*, and the availability of suitable existing or planned *infrastructure* and *public service facilities* required to accommodate projected needs.

Appendix C

Excerpts from the

City of Windsor Official Plan (OP) 2012

Applicable Official Plan Sections:

6.3 Residential

Residential lands provide the main locations for housing in Windsor outside of the City Centre Planning District. In order to develop safe, caring and diverse neighbourhoods, opportunities for a broad range of housing types and complementary services and amenities are provided.

6.3.1.1 To support a complementary range of housing forms and tenures in all neighbourhoods.

6.3.1.2 To promote compact neighbourhoods which encourage a balanced transportation system

6.3.1.3 To promote selective residential redevelopment, infill and intensification initiatives.

6.3.1.4 To ensure that the existing housing stock is maintained and rehabilitated.

Appendix D Excerpts from the Zoning By-Law 8600

The City of Windsor Zoning Bylaw 8600 designates the zoning for the subject property as ‘Commercial District 2.2 (CD 2.2)

15.1.1 PERMITTED USES --‘Commercial District 2.2 (CD 2.2)

Bakery, Business Office, Child Care Centre, Commercial School, Confectionery, Food Outlet - Take-Out, Funeral Establishment, Medical Office, Micro-Brewery, Personal Service Shop, Place of Entertainment and Recreation, Place of Worship, Professional Studio, Public Hall, Repair Shop – Light, Restaurant Retail Store, Veterinary Office, Wholesale Store.

Dwelling Units in a Combined Use Building with any one or more of the above uses.

Gas Bar, Outdoor Market, Parking Garage, Public Parking Area, Tourist Home, Existing Automobile Repair Garage, Existing Service Station.

Any use accessory to any of the preceding uses. An *Outdoor Storage Yard* is prohibited, save and except, in combination with the following main uses: *Garden Centre, Temporary Outdoor Vendor’s Site, Existing Automobile Repair Garage.*

Report S xxx/2022 proposes amending the Zoning By-law 8600 to a site specific ‘Commercial District 2.2 (CD 2.2) zoning category for the subject property.

15.2.5 PROVISIONS

.4 Building Height – maximum 14.0 m

.9 Amenity Area – Per Dwelling Unit – minimum 12.0 m² per unit

.10 Gross Floor Area – maximum

Bakery or Confectionary 550.0 m²

.15 For a *Combined Use Building*, all dwelling units, not including entrances thereto, shall be located above the non-residential uses.

.24 An *Outdoor Market* is permitted within a Business Improvement Area. An *Outdoor Market* is prohibited elsewhere.

24.20.5 REQUIRED PARKING SPACES

TABLE 24.20.5.1 - REQUIRED PARKING SPACES	
USE	PARKING RATE - MINIMUM
Multiple Dwelling containing a maximum of 4 Dwelling units	1 for each dwelling unit

Appendix E Consultation

Transit Windsor Comments

Transit Windsor has no objections to this development. The closest existing transit route to this property is with the Central 3. The closest existing bus stop to this property is located on Drouillard at Alice Northeast Corner. This bus stop is approximately 110 metres away from this property falling well within our walking distance guidelines of 400 metres to a bus stop. This will be maintained with our Council approved Transit Master Plan.

Jason Scott

Supervisor, Planning

Transit Windsor

3700 North Service Road East, Windsor, ON, N8W 5X2

Phone: (519) 944-4141x2230

ENWIN Comments

Hydro Engineering: No Objection, provided adequate clearances are achieved and maintained from our distribution plant.

Please note that ENWIN has the following hydro distribution around the property.

1. Overhead 16.0KV primary distribution and 120/240V secondary distribution along the east side of the development property in the back alley
2. Overhead 120/240V secondary service conductor at the south east corner of the development property servicing 1646-1648 Drouillard Rd
3. Overhead 120/240V secondary streetlight distribution along the west side of the development property along Drouillard Rd

An acceptable clearance must be maintained from our existing pole lines and conductors to the proposed development area.

Prior to working in these areas, we suggest notifying your contractor and referring to the Occupational Health and Safety Act and Regulations for Construction Projects to confirm clearance requirements during construction. Also, we suggest referring to the Ontario Building Code for required clearances for construction / renovations.

See attached sketch for reference only. This attachment does not replace the need for utility locates.

Water Engineering: Water Engineering has no objections to the rezoning. There is an existing 19mm water service to the building.

Nillavon Balachandran

Hydro Engineering Technologist

Bruce Ogg

Appendix E Consultation

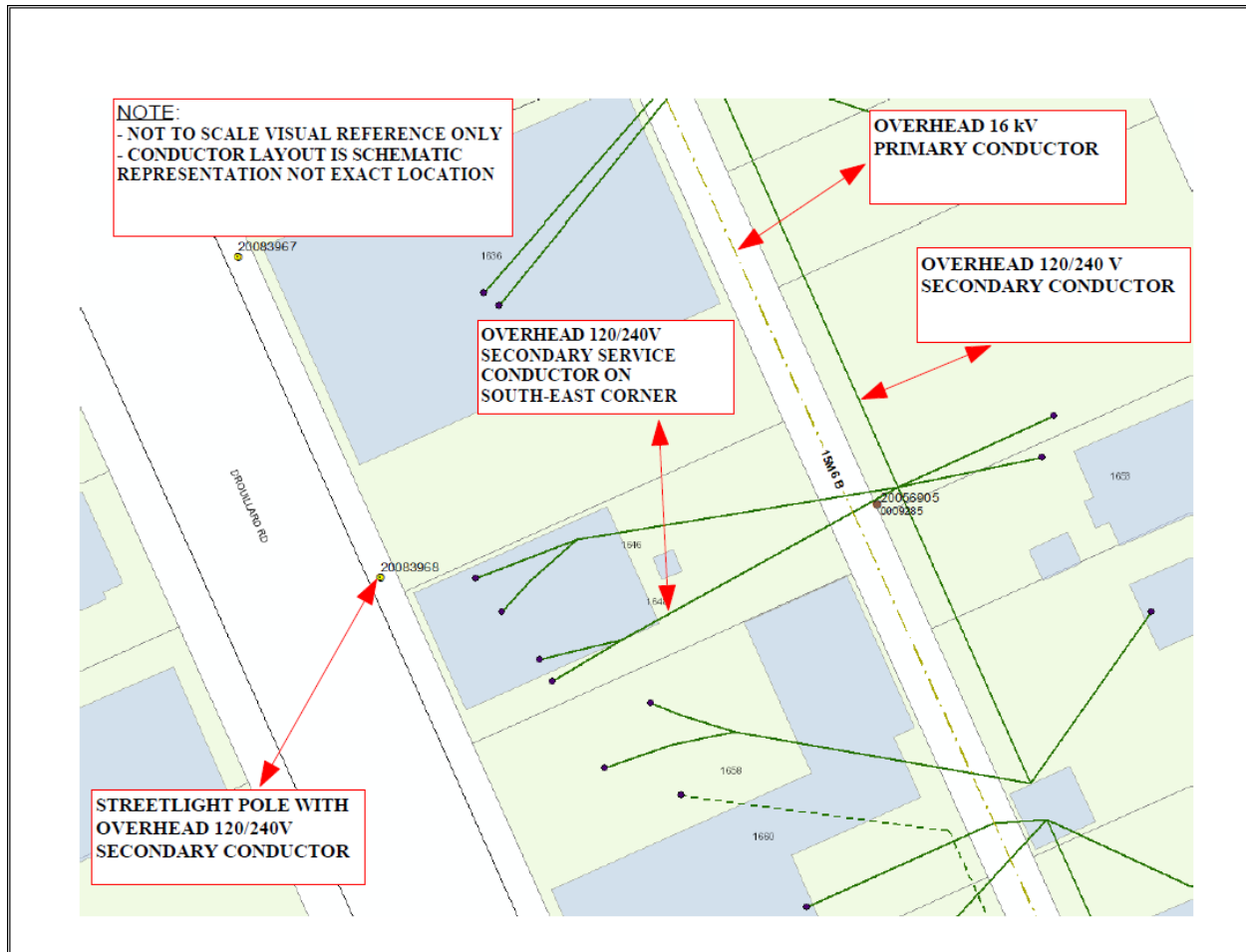
Water Project Review Officer
ENWIN Utilities Ltd.

tsd@enwin.com

P. (519) 251-7303

F. (519) 251-7309

4545 Rhodes Drive | P.O. Box 1625 Station A | Windsor, Ontario | N8W
5T1



Public Works-Engineering

The subject lands are located at 1646-1648 Drouillard Road, zoned Commercial District 2.2 (CD2.2) by Zoning By-Law 8600. The applicant is requesting an amendment to Zoning By-law 8600 to rezone the site to Residential District 2.2 with Site-Specific Provisions (RD2.2) and permit the conversion of the ground floor commercial units to two residential dwelling units as an additional permitted use.

Appendix E Consultation

SEWERS - The site may be serviced by a 375mm concrete pipe storm sewer and a 250mm vitrified clay pipe sanitary sewer, both of which are located within Drouillard Road. The applicant will be required to submit site servicing drawings.

RIGHT-OF-WAY – The Official Plan classifies Drouillard Road as a collector road, requiring a right-of-way width of 26m. The current right-of-way width is 16.2m; requiring a land conveyance of 4.9m, however, a conveyance is not being requested at this time. Permits will be required from this department should any work be required in the right-of-way.

The proposed alley access and rear yard parking is not supported, as the alley is grass/gravel and does not receive snow removal services. If approved, the owner will be required to contribute to the alley maintenance fund in the amount of \$1,220.00 as per the 2022 User Fee Schedule and the parking area would need to be graded to drain away from the alley.

In summary we have no objection to the proposed rezoning, subject to the following requirements (Requirements can be enforced during Building and Right-of-Way permitting):

Alley Contribution – The owner agrees, prior to the issuance of a Building Permit, to contribute the sum of \$1,220.00 payable to the City of Windsor and deposited in the General Fund intended for the upkeep of alleys within the City of Windsor.

Patrick Winters,
Development Engineer

Transportation Planning

The Official Plan classifies Drouillard Road as a Class I Collector road, requiring a right-of-way width of 26m. The current right-of-way width is insufficient however a land conveyance is not being requested at this time.

Parking must comply with Zoning By-Law 8600.

All accesses shall conform to the TAC Geometric Design Guide for Canadian Roads and the City of Windsor Standard Engineering Drawings.

All exterior paths of travel must meet the requirements of the Accessibility for Ontarians with Disabilities Act (AODA).

Rania Toufeili

Policy Analyst - Transportation Planning
519.255.6543 ext. 6830

Appendix E Consultation

Police Services

The Windsor Police Service has no concerns or objections with the proposed Zoning By-law amendment to permit the conversion of the two ground floor commercial units into two residential dwelling units. The nature of this change, in this particular situation, presents no discernible risks to public safety. A review of our incident response records reveals no concerns that exist now and the conceptual site plan being put forward by the applicant shows a layout that ensures proper police incident response capability (including emergency situations) can be achieved and maintained. In case the application is not of a magnitude that would trigger site plan control, we would request approval be conditional on the following important site-specific features that relate to safety and security:

- Building's address number is highly visible, without obstruction, from Drouillard Road to facilitate effective police response
- Lighting is provided for both the front and rear building entrances that yields at least 4.0 foot-candles
- Rear parking lot off the alley has lighting provided that yields at least 1.75 foot-candles

Barry Horrobin

Police Services

Building Department

The Building Code Act, Section 8.(1) requires that a building permit be issued by the Chief Building Official for construction or demolition of a building. The building permit review process occurs after a development application receives approval and once a building permit application has been submitted to the Building Department and deemed a complete application.

Due to the limited Ontario Building Code related information received, review of the proposed project for compliance to the Ontario Building Code has not yet been conducted.

It is strongly recommended that the owner and/or applicant contact the Building Department to determine building permit needs for the proposed project prior to building permit submission.

The City of Windsor Building Department can be reach by phoning 519-255-6267 or, through email at buildingdept@citywindsor.ca

Barbara Rusan

Manager, Policy & Regulatory Services, Building Department

Landscape Architect

Appendix E Consultation

Pursuant to the application for a zoning amendment (Z 004/22) to permit the conversion of the ground floor commercial units to two residential dwelling units as an additional permitted use on the subject, please note no objections. Please also note the following comments:

Zoning Provisions for Parking Setback:

With the entire building being proposed for residential use, the owner is to provide the minimum required 50% soft landscape in the front of the building. Removal of all the concrete in front of building except for the width of the entrance doors, to be excavated to an appropriate depth for landscaping and provision of soft landscape elements as part of the Site Plan review process.

Climate Change & Tree Preservation:

N/A

Urban Design:

The segment of Drouillard Road at the frontage of the subject is not classified as a Theme Street or Civic Way in the Official Plan.

Parkland Dedication:

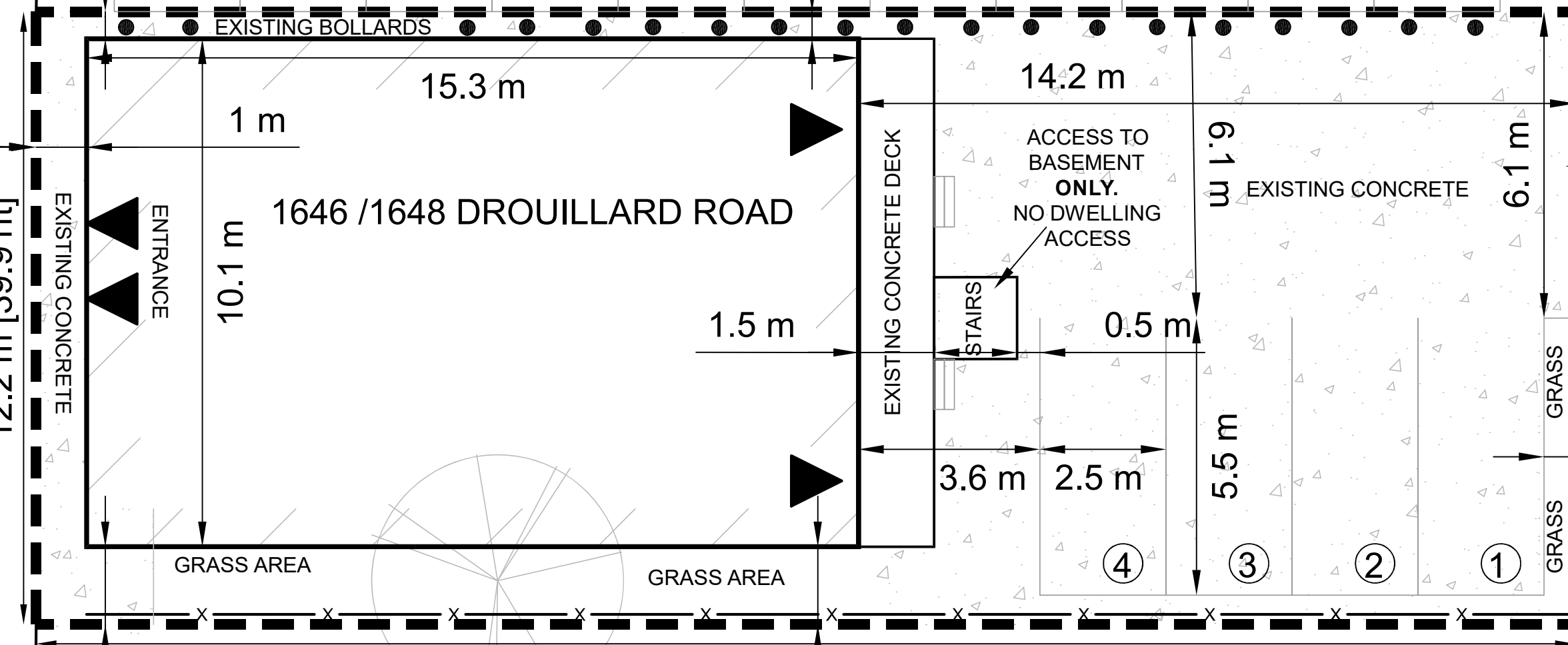
Require a parkland dedication representing 5% of the subject lands, to the satisfaction of the Executive Director of Parks, as per By-law 12780 and the Planning Act.

Stefan Fediuk

Landscape Architect

1636/1638 DROUILLARD ROAD
ZONED CG2.2

ASPHALT SURFACE



REAR LANE

REAR LANE

DROUILLARD ROAD
APPROX. CL OF ROADWAY

ON STREET PARKING

ON STREET PARKING

EXISTING PUBLIC SIDEWALK
FH

1658/1660 DROUILLARD ROAD
ZONED CG2.2

ASPHALT SURFACE

CONCEPT SITE PLAN

1646 & 1648 DROUILLARD ROAD, WINDSOR

LEGAL DESCRIPTION:
PLAN 719: LOT 20 & N PT LOT 21

CURRENT ZONING:
CD2.2 (COMMERCIAL DISTRICT - GENERAL)
PROPOSED ZONING:
RD2.2-XX (RESIDENTIAL DISTRICT - MEDIUM DENSITY)
(Zoning By-Law No. 8600)

TOTAL SITE AREA: 371.6 m² (0.09 ac, 0.04 ha)

ZONING: RD2	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	540 m ²	371.6 m ²	371.6 m ²
MIN. LOT WIDTH	18.0 m	12.2 m	12.2 m
MIN. FRONT YARD	6.0 m	1.0 m	1.0 m
MIN. INT. SIDE YARD	1.8 m	0.5 m	0.5 m
MIN. REAR YARD	7.5 m	14.2 m	14.2 m
MAX LOT COVERAGE	45.0%	41.6%	41.6 %
BUILDING HEIGHT	10.0 m	±3.5 m	±3.5 m
MIN. ACCESS ISLE	3.5 m	6.1 m	6.1 m
MIN. PARKING ISLE	3.5 m	-----	6.1 m
PARKING SEPERATION	2.0 m	-----	3.6 m
ALLEY SEPERATION	0.9 m	-----	0.6 m
NO. DWELLING UNITS			4 UNITS
PROPOSED DENSITY			100 u.p.h.
REQUIRED PARKING			4 SPACES
PROVIDED PARKING			4 SPACES
BUILDING AREA		154.5 m ²	154.5 m ²

MEASUREMENTS ARE NOT EXACT. DRAWING FOR DISCUSSION PURPOSES ONLY.

PARKING: Multiple Dwelling containing a maximum of 4 Dwelling units 1 for each dwelling unit (Table 24.20.5.1). Each parking space shall be 2.5 x 5.5m, with a minimum of 3m access from a rear lane

NOTE: DRAWING IS FOR DISCUSSION PURPOSES ONLY AND HAS NOT BEEN CREATED FROM A LEGAL SURVEY.

SCALE: 1:100
WHEN PRINTED ON 24 X 36

PROJECT FILE NO.
2021_44

DATE:
DECEMBER 16, 2021

DRAWN BY: S.C.
REVIEWED BY: T.G.



APPENDIX G - Draft By-law Amendment

B Y - L A W N U M B E R -2022

A BY-LAW TO FURTHER AMEND BY-LAW NUMBER 8600
CITED AS THE "CITY OF WINDSOR ZONING BY-LAW"

Passed the day of , 2022.

WHEREAS it is deemed expedient to further amend By-law Number 8600 of the Council of The Corporation of the City of Windsor, cited as the "City of Windsor Zoning By-law" passed the 31st day of March, 1986, as heretofore amended:

THEREFORE the Council of The Corporation of the City of Windsor enacts as follows:

1. That subsection 1 of Section 20, of said by-law, is amended by adding the following paragraph:

394. EAST SIDE OF DROUILLARD ROAD BETWEEN REGINALD STREET AND ALICE STREET

For the lands comprising Lot 20 and North Part Lot 21, Plan 719; Windsor (PIN 011260235), known municipally as 1646-1648 Drouillard Road, a *multiple dwelling* shall be an additional permitted use and the following additional provisions shall apply to a *multiple dwelling*:

- a) The maximum number of *dwelling units* shall be 4.
- b) Section 15.2.5.9 shall not apply.
- c) Section 15.2.5.15 shall not apply.

[ZDM 7; ZNG/6659]

2. The said by-law is further amended by changing the Zoning District Maps or parts thereof referred to in Section 1, of said by-law and made part thereof, so that the lands described in Column 3 are delineated by a broken line and further identified by the zoning symbol shown in Column 5:

1. Item Number	2. Zoning District Map Part	3. Lands Affected	4. Official Plan Amendment Number	5. Zoning Symbol
	7	Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235), (1646-1648 Drouillard Road, situated on the east side of Drouillard Road on the block between Reginald Street and Alice Street.)		S.20(1)

DREW DILKENS, MAYOR

CLERK

First Reading - , 2022
Second Reading - , 2022
Third Reading - , 2022

SCHEDULE 2

1. By-law _____ has the following purpose and effect:

To amend the zoning of Lot 20 and North Part Lot 21, Plan 719 (PIN 011260235), known municipally as 1646-1648 Drouillard Road, situated on the east side of Drouillard Road on the block between Reginald Street and Alice Street, as Commercial District 2.2 (CD2.2) by adding a site specific exception to allow a multiple dwelling as an additional permitted use subject to additional provisions.

2. Key map showing the location of the lands to which By-law _____ applies.
(See map following page.)

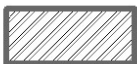


PART OF ZONING DISTRICT MAPS 7

N.T.S.

SCHEDULE 2

APPLICANT: LEE J DOUCETTE



SUBJECT LANDS

PLANNING & BUILDING DEPARTMENT

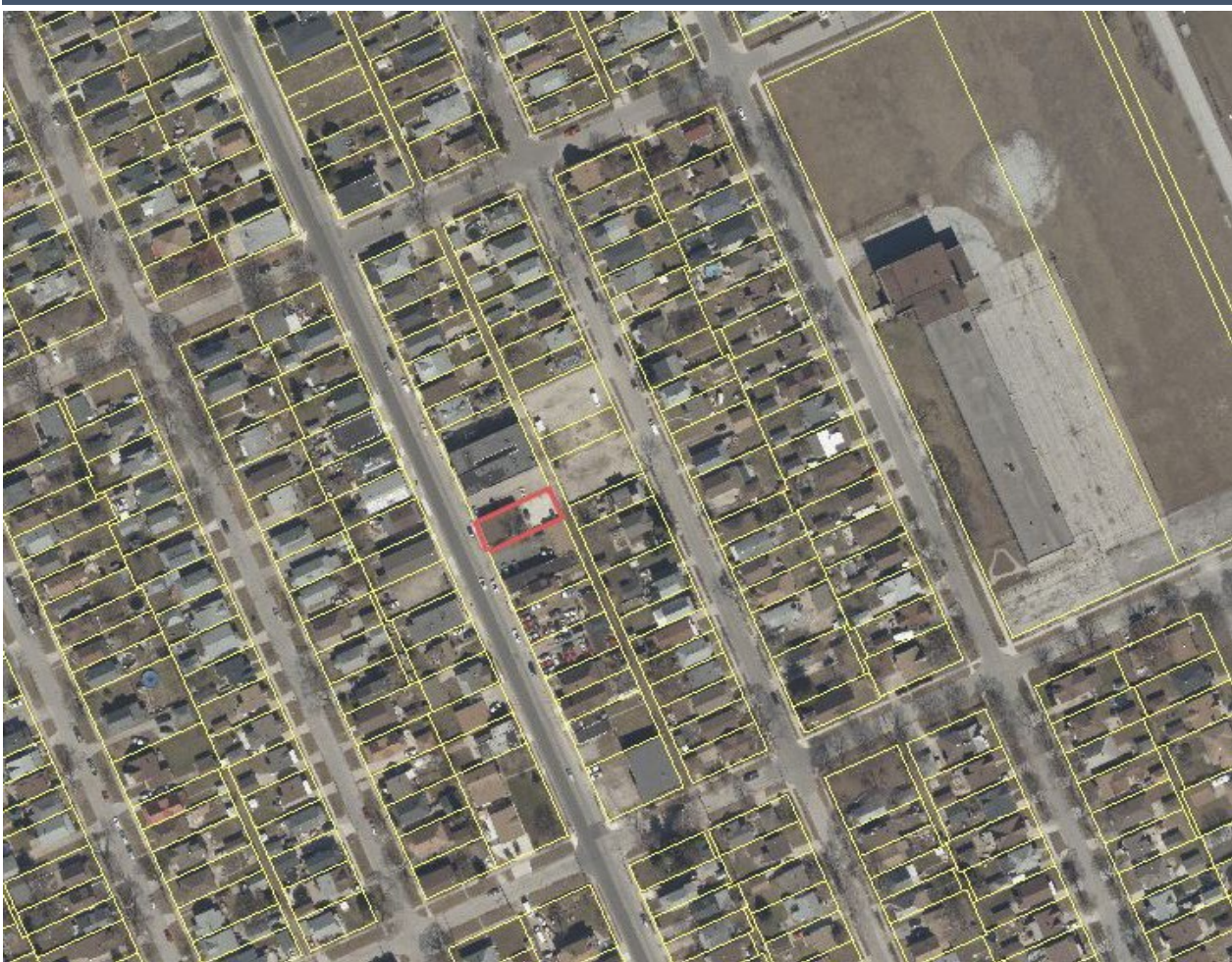


DATE : FEBRUARY 2022
FILE NO. : Z-004/22, ZNG-6659


PLANNING JUSTIFICATION REPORT FOR ZONING BY-LAW AMENDMENT & SITE PLAN CONTROL APPLICATIONS

DECEMBER 20, 2021

1646-1648 DROUILLARD AVENUE, WINDSOR, ON



Prepared by:

Subject Property 

Urban in Mind,
Professional Urban Planning, Land Development & CPTED Consultants
www.UrbanInMind.ca

(905) 320-8120



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1.0 INTRODUCTION:

Urban in Mind has been retained by the owner of 1646-1648 Drouillard Avenue (“subject property”) in the City of Windsor Ontario, to submit a **Zoning By-Law Amendment** and a **Site Plan Control Application** to bring the 2 (two) existing non-conforming residential units into conformity with the Zoning By-law, which will result in a total of 4 (four) legal residential units on the ground floor of the existing building. The purpose of this proposal is to provide needed housing choices to the neighbourhood, to an otherwise underutilized building that has no possibility of providing sustainable commercial tenants. It is understood that the site is also ripe for redevelopment, and as conditions allow, it is fully expected that the property will ultimately be redeveloped sometime in the future.

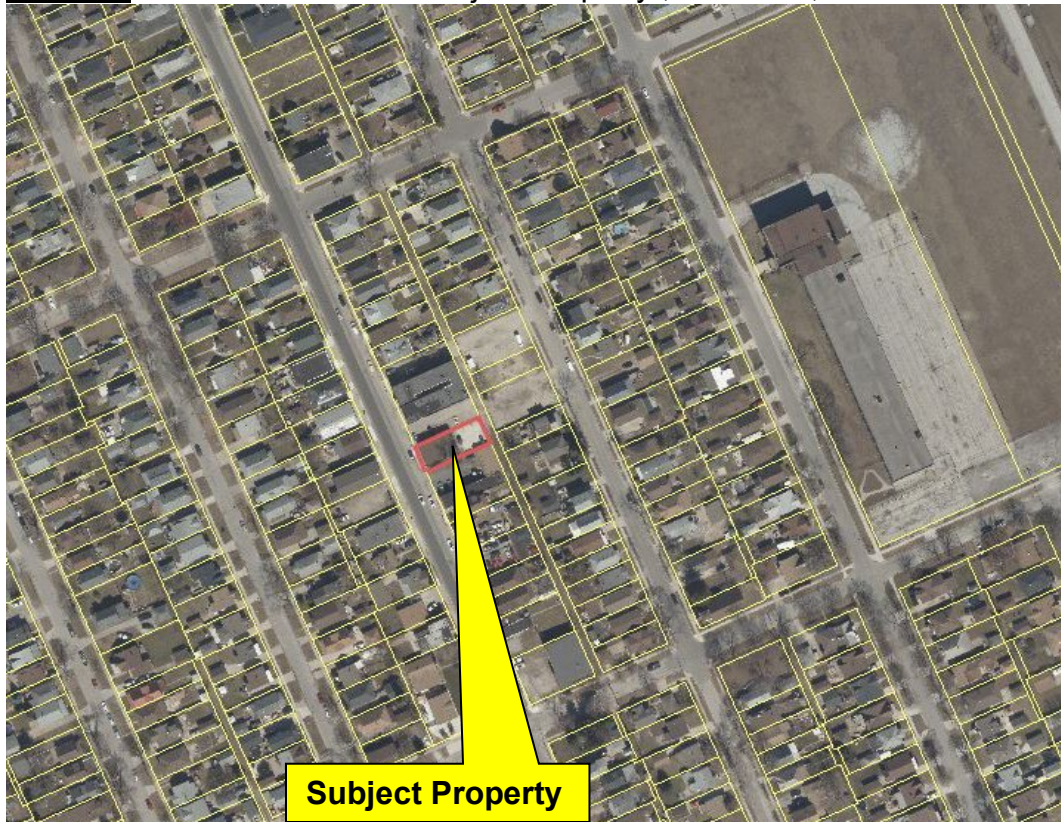
1.1 Purpose of the Report:

The purpose of this **Planning Justification Report** is to provide a sound analysis of the proposed development to allow for a maximum of 4 residential units within the existing building on the site, against the current planning policies. The result of this analysis should provide justification for the approval of the respective Zoning By-Law Amendment & Site Plan Control Applications.

2.0 SUBJECT PROPERTY AND SURROUNDING AREA:

2.1 Site Overview:

Figure 1 – Aerial View #1 of Subject Property (Windsor MAPS)




Subject Property 

Figure 2 – Aerial View #2 of Subject Property (Google Maps)

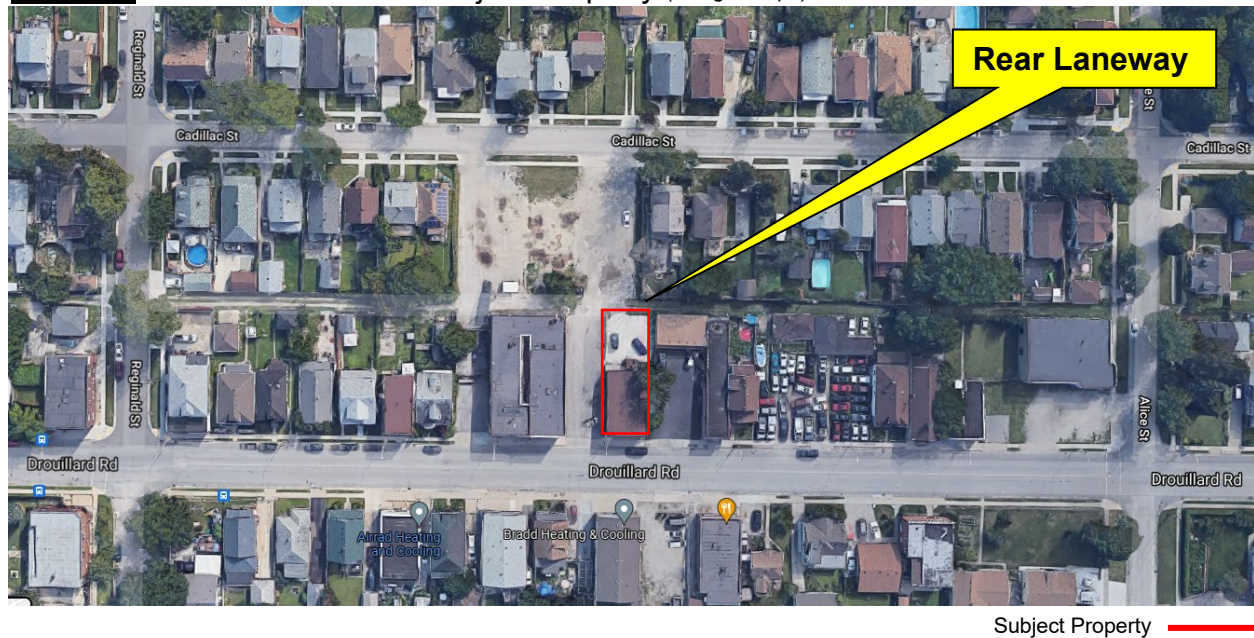


Figure 3 – Street View (Drouillard Road) of Subject Property (Google Maps)



The subject property (**Figure 1-3**) is a rectangular shaped lot that has an approximate total area of 379 sq.m (0.094 ac/0.038 ha) and an approximate frontage of 12.5 m (41 ft) along Drouillard Road. The only vehicular access to the site is from the public lane that abuts the parking lot at the rear of the property. Limited on-street parking is available

along Drouillard Road and in the vicinity of the site. The site is currently occupied by a 1-storey building where two (2) residential units are permitted. The proposal is to allow 2 (two) additional residential units in-place of the dysfunctional and new leased commercial units at the front of the building. Each of the proposed 4 (four) units will have a separate entrance, with 2 doors being located in the front of the building, and 2 doors located in the rear (as exists today).

In terms of topography, the site is relatively flat and is primarily comprised of hard surface treatment (being either asphalt or building surface). There is one tree located along the side wall of the building along with an existing fence. The existing tree and fence are proposed to be maintained.

2.2 Neighbourhood Character:

The subject property is located along Drouillard Road which maintains a pedestrian-friendly streetscape character due to the compact form of older buildings which exhibit a diversity of architectural styles. Many of the buildings found along the street maintain narrow front and side-yard setbacks as a result of the existing rear yard public laneways which provide access to the properties. For the most part, the buildings maintain an average height of 1 - 2 storeys. While the street is primarily residential in character, there are plenty examples of dysfunctional, vacant, and boarded-up commercial units found along the Drouillard Road frontage. This is more prevalent along the segment of Drouillard that abuts the subject property. Nevertheless, Drouillard Road acts as the primary spine within the larger pure residential neighbourhood which is dominated by single-detached homes.

Figure 4 – Drouillard Road Streetscape Character (Google Maps)



The immediate surrounding area includes the following (**Figure 5 - 8**):

Figure 5 – Abutting Property (**North**) (Google Maps)



1636-1638 Drouillard Road, 'Adult Entertainment Club'

Figure 6 – Rear View of Subject Property from Cadillac Street (**East**) (Google Maps)



Figure 7 – Abutting Property (**South**) (Google Maps)
1658-1660 Drouillard Road



Figure 8 – Across the Street, Opposite Side of Drouillard Road (**West**) (Google Maps)
1645 Drouillard Road, Heating and Cooling Contractor



Figure 9 – 1680-1696 Drouillard Road (**South**) (Google Maps)
Boarded up, vacant, and concerted non-commercial units



2.3 Transportation:

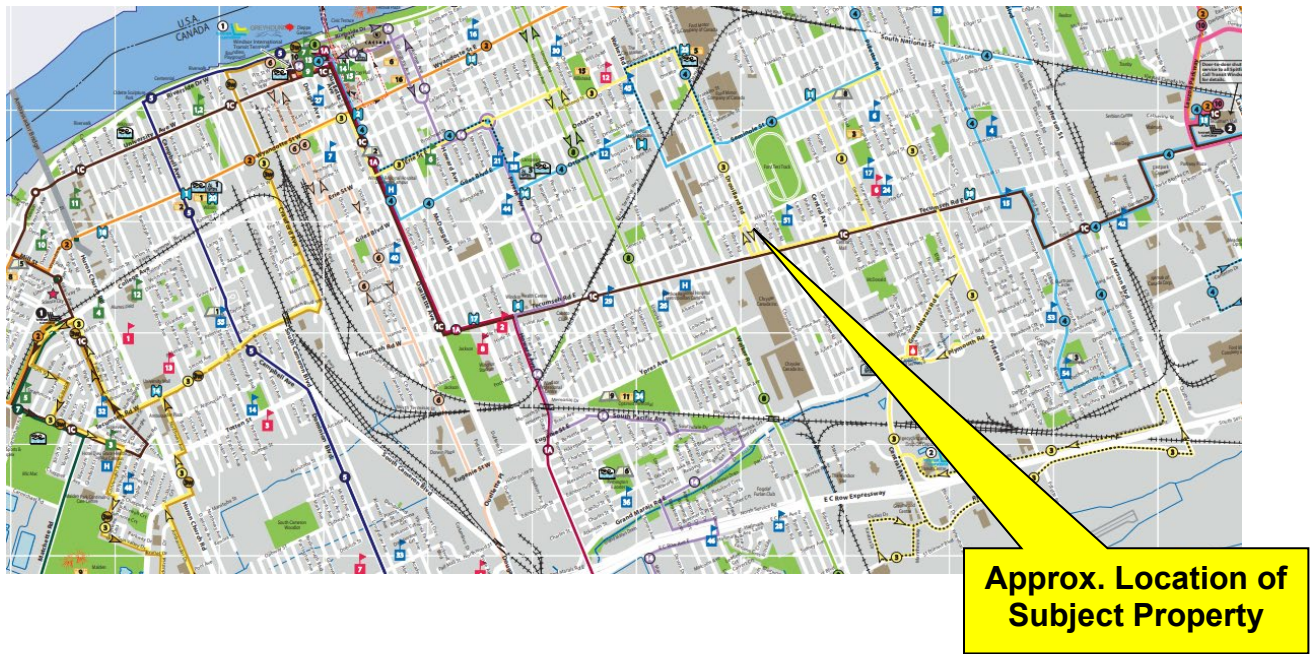
The subject property fronts on to Drouillard Road which is classified as a 'Class 1 Collector Road' with an approximate 'current' right-of-way of 16.5 m (**Appendix 'C'**). According to Schedule 'X' in the City of Windsor Official Plan, this segment of Drouillard Road that abuts the subject property has a required ultimate right-of-way width of 26 m (**Appendix 'D'**). It unclear if there will be a future right-of-way widening and how it may impact the subject property given that the existing building is physically located within this ultimate proposed right-of-way area. Nevertheless, the subject property is located within a convenient location for transit, walkability, and bicycle commuting.

The closest bus stop is located approximately ~150m from the subject property, and can be used to get to Downtown Windsor within 20-30 minutes or to the University of Windsor Campus within 35-50 minutes via Bus Route #3 & #4. In addition, there are number of different parks, stores and community facilities that are within convenient walking and biking distance to the subject property especially along the Tecemuseh Road East, Seminole Street and Ottawa Street commercial corridors.

Figure 10 – Closest Bus Stops (Google Maps)



Figure 11 – Transit Windsor Bus Routes (Transit Windsor)



3.0 PROPOSED DEVELOPMENT & PLANNING APPLICATIONS

As indicated on the City’s Pre-submission Consultation Letter, the following planning applications are required to bring the proposed 2 (two) new non-complying residential units (bringing the total residential unit count to 4 (four) units within the existing 1 storey building without a commercial use:

- Zoning By-Law Amendment
- Site Plan Control

Table 1 below includes conditions for the proposed rezoning from Commercial District 2.2 (CD2.2) to Residential District 2.2 with Site-Specific Provisions (RD2.2-XX).

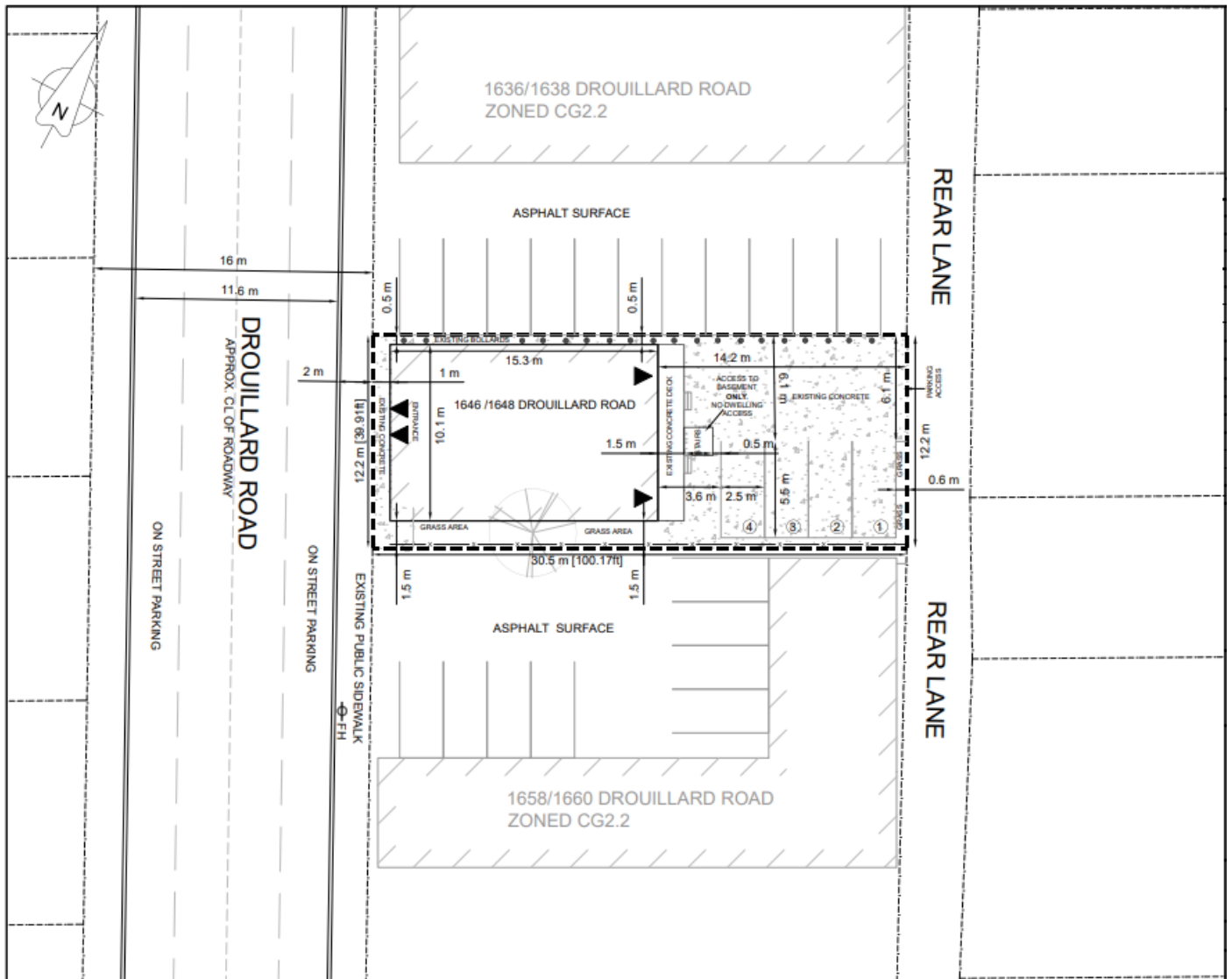
Table 1: Proposed Zoning By-Law Amendment

ZONING BY-LAW 8600	REQUIRED RD2.2	PROPOSED RD2.2-XX
Min. Lot Area	540 m ²	371.6 m ² (ex.)
Min. Lot Width	18.0 m	12.2 m (ex.)
Min. Front Yard	6.0 m	1.0 m (ex.)
Min. Interior Side Yard	1.8 m	0.5 m (ex.)
Min. Rear Yard	7.5 m	14.2 m (ex.)
Max. Lot Coverage	45.0%	41.6% (ex.)
Max. Building Height	10.0 m	1 storey (ex.)
Min. Access Aisle	3.5 m	6.1 m (ex.)
Min. Parking Aisle	3.5 m	6.1 m
Min. Parking Spaces	4	4
Min. Parking Area Separation – From Building Wall with a Main Pedestrian Entrance	2.0 m	3.6 m
Min. Parking Area Separation – From Alley	0.9 m	0.6 m
The area forming the parking area separation shall be maintained exclusively as a landscaped open space yard.		No landscaping will be provided in the parking separation areas.

**There are no changes being proposed to the existing building on the site.*

**(ex.) represents existing conditions of the property. The only physical change to the exterior of the building is the re-delineation of parking spaces to meet City Zoning Requirements – see the last 5 columns in Table 1 above.*

Figure 12 – Concept Site Plan Drawing (*Urban in Mind*)



**There are no structural changes to the exterior of the building being proposed. The only change that is being proposed on the site plan is the delineation of parking spaces and possibly interior renovations.*

3.1 Impact of the Proposed Development:

The proposed development will provide for an opportunity to legalize 2 (two) existing non-complying residential units that provide alternative and additional forms of housing for the City's population. No new building, structures or external renovations are being proposed on the site as a result of this application(s). Furthermore, legalizing the existing residential units will not create any added pressures on municipal infrastructure, local traffic patterns and on-site parking demand, but will provide affordable housing alternatives and new customers for local businesses, not to mention the useful repurposing of a building (from mixed-commercial to pure residential) that would otherwise remain vacant and perhaps boarded-up. The Drouillard Road streetscape appearance will not be changing as a result of the proposed development, as no new development (to the exterior of the building) is proposed at this time. The only thing that is changing on the property is the delineation of 4 parking spaces in the rear in order to meet zoning requirements.

4.0 PLANNING POLICY REVIEW:

4.1 Planning Act, R.S.O. 1990, c. P.13:

The Planning Act is the leading provincial legislation that sets out the rules for land use planning in Ontario. The Planning Act ensures that matters of provincial interest are met and guides planning policy to protect citizen rights and the natural environment.

Applicable provisions from the Planning Act have been included as follows:

"PART I PROVINCIAL ADMINISTRATION

Provincial Interest

- 2** The Minister, the council of a municipality, a local board, a planning board and the Tribunal, in carrying out their responsibilities under this Act, shall have regard to, among other matters, matters of provincial interest such as,
 - (a) the protection of ecological systems, including natural areas, features and functions;
 - (b) the protection of the agricultural resources of the Province;
 - (c) the conservation and management of natural resources and the mineral resource base;
 - (d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;
 - (e) the supply, efficient use and conservation of energy and water;
 - (f) the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;
 - (g) the minimization of waste;
 - (h) the orderly development of safe and healthy communities;
 - (h.1) the accessibility for persons with disabilities to all facilities, services and matters to which this Act applies;

- (i) the adequate provision and distribution of educational, health, social, cultural and recreational facilities;
- (j) **the adequate provision of a full range of housing, including affordable housing;**
- (k) the adequate provision of employment opportunities;
- (l) the protection of the financial and economic well-being of the Province and its municipalities;
- (m) the co-ordination of planning activities of public bodies;
- (n) the resolution of planning conflicts involving public and private interests;
- (o) the protection of public health and safety;
- (p) the appropriate location of growth and development;
- (q) **the promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians;**
- (r) the promotion of built form that,
 - (i) is well-designed,
 - (ii) encourages a sense of place, and
 - (iii) provides for public spaces that are of high quality, safe, accessible, attractive and vibrant;
- (s) the mitigation of greenhouse gas emissions and adaptation to a changing climate. 1994, c. 23, s. 5; 1996, c. 4, s. 2; 2001, c. 32, s. 31 (1); 2006, c. 23, s. 3; 2011, c. 6, Sched. 2, s. 1; 2015, c. 26, s. 12; 2017, c. 10, Sched. 4, s. 11 (1); 2017, c. 23, Sched. 5, s. 80.”

4.2 Provincial Policy Statement (PPS) (2020):

The Provincial Policy Statement (PPS) for the Province of Ontario was recently updated in May 2020. It provides the provincial policy direction on matters of provincial interest related to land development provided under Section 3 of the *Planning Act*. The goal of the PPS is to enhance the quality of life for all people living, working and/or playing in Ontario.

Applicable excerpts from the Provincial Policy Statement have been included as follows:

“Part V: Policies

1.0 Building Strong Healthy Communities

1.1 Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns

1.1.1 Healthy, liveable and safe communities are sustained by:

- a)** promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;
- b)** accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons),

employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;

- c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;
- d) avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;
- e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;

1.1.3 Settlement Areas

Settlement areas are urban areas and rural settlement areas, and include cities, towns, villages and hamlets. Ontario's settlement areas vary significantly in terms of size, density, population, economic activity, diversity and intensity of land uses, service levels, and types of infrastructure available.

The vitality and regeneration of settlement areas is critical to the long-term economic prosperity of our communities. Development pressures and land use change will vary across Ontario. It is in the interest of all communities to use land and resources wisely, to promote efficient development patterns, protect resources, promote green spaces, ensure effective use of infrastructure and public service facilities and minimize unnecessary public expenditures.

1.1.3.1 Settlement areas shall be the focus of growth and development.

1.1.3.2 Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

- a) efficiently use land and resources;
- b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;
- e) support active transportation;
- f) are transit-supportive, where transit is planned, exists or may be developed; and Land use patterns within settlement areas shall also be based on a range of uses and opportunities for intensification and redevelopment in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

1.1.3.3 Planning authorities shall identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through intensification and redevelopment

where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs.

- 1.1.3.4** Appropriate development standards should be promoted which facilitate intensification, redevelopment and compact form, while avoiding or mitigating risks to public health and safety.

1.4 Housing

- 1.4.3** Planning authorities shall provide for an appropriate range and mix of housing options and densities to meet projected market-based and affordable housing needs of current and future residents of the regional market area by:

- b) permitting and facilitating:**

- 1. all housing options required to meet the social, health, economic and well-being requirements of current and future residents, including special needs requirements and needs arising from demographic changes and employment opportunities; and
- 2. all types of residential intensification, including additional residential units, and redevelopment in accordance with policy 1.1.3.3;

- c) directing the development of new housing towards locations where appropriate levels of infrastructure and public service facilities are or will be available to support current and projected needs;**

- d) promoting densities for new housing which efficiently use land, resources, infrastructure and public service facilities, and support the use of active transportation and transit in areas where it exists or is to be developed;**

- e) requiring transit-supportive development and prioritizing intensification, including potential air rights development, in proximity to transit, including corridors and stations; and**

- f) establishing development standards for residential intensification, redevelopment and new residential development which minimize the cost of housing and facilitate compact form, while maintaining appropriate levels of public health and safety.**

1.6 Infrastructure and Public Service Facilities

1.6.6 Sewage, Water and Stormwater

- 1.6.6.1** Planning for sewage and water services shall:

- a) accommodate forecasted growth in a manner that promotes the efficient use and optimization of existing:**

- 1. municipal sewage services and municipal water services;

- c) promote water conservation and water use efficiency;**

- d) integrate servicing and land use considerations at all stages of the planning process; and
- e) be in accordance with the servicing hierarchy outlined through policies 1.6.6.2, 1.6.6.3, 1.6.6.4 and 1.6.6.5. For clarity, where municipal sewage services and municipal water services are not available, planned or feasible, planning authorities have the ability to consider the use of the servicing options set out through policies 1.6.6.3, 1.6.6.4, and 1.6.6.5 provided that the specified conditions are met.

1.6.6.2 Municipal sewage services and municipal water services are the preferred form of servicing for settlement areas to support protection of the environment and minimize potential risks to human health and safety. Within settlement areas with existing municipal sewage services and municipal water services, intensification and redevelopment shall be promoted wherever feasible to optimize the use of the services.

1.6.6.7 Planning for stormwater management shall:

- a) be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term;
- b) minimize, or, where possible, prevent increases in contaminant loads;
- c) minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater, including the use of green infrastructure;
- d) mitigate risks to human health, safety, property and the environment;
- e) maximize the extent and function of vegetative and pervious surfaces; and
- f) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development.

1.6.7 Transportation Systems

1.6.7.4 A land use pattern, density and mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and active transportation.

1.7 Long-Term Economic Prosperity

1.7.1 Long-term economic prosperity should be supported by:

- a) promoting opportunities for economic development and community investment-readiness;
- b) encouraging residential uses to respond to dynamic market-based needs and provide necessary housing supply and range of housing options for a diverse workforce;

- c) optimizing the long-term availability and use of land, resources, infrastructure and public service facilities;
- d) maintaining and, where possible, enhancing the vitality and viability of downtowns and main streets;
- e) encouraging a sense of place, by promoting well-designed built form and cultural planning, and by conserving features that help define character, including built heritage resources and cultural heritage landscapes.

1.8 Energy Conservation, Air Quality and Climate Change

1.8.1 Planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and preparing for the impacts of a changing climate through land use and development patterns which:

- a) promote compact form and a structure of nodes and corridors;
- b) promote the use of active transportation and transit in and between residential, employment (including commercial and industrial) and institutional uses and other areas;
- e) encourage transit-supportive development and intensification to improve the mix of employment and housing uses to shorten commute journeys and decrease transportation congestion;”

4.3 City of Windsor Official Plan (2000 as amended):

The current version of the Official Plan (OP) for the City of Windsor has been in effect since 2000, however, the document has been amended several times over the years with routine changes to ensure policy consistency with the Provincial Policy Statement.

The OP is the leading planning document for guiding growth, land use and development within the City of Windsor. The document addresses matters such as infrastructure, population growth, servicing, transit, natural heritage, cultural heritage, and administrative municipal policies.

Compliance with the City of Windsor Official Plan should be sought for all planning applications.

The following City of Windsor Official Plan designations apply to the subject property:

- The segment of Drouillard road that abuts the subject property is adjacent to a ‘Proposed Recreationway’ (**Appendix ‘A’**).
- The subject property is located within the **‘Residential’** Land Use Designation (**Appendix ‘B’**).
- The segment of Drouillard Road that abuts the subject property is classified as a Class II Collector Road (**Appendix ‘C’**).

- The segment of Drouillard Road that abuts the subject property has an ultimate Right-of-Way of “26m” (**Appendix ‘D’**).

Applicable excerpts from the City of Windsor Official Plan are as follows:

“Chapter 3 – Development Strategy

3.2 Growth Concept

3.2.1 Safe, Caring and Diverse Community

3.2.1.2 Encouraging a range of housing types will ensure that people have an opportunity to live in their neighbourhoods as they pass through the various stages of their lives. Residents will have a voice in how this new housing fits within their neighbourhood. As the city grows, more housing opportunities will mean less sprawl onto agricultural and natural lands.

3.2.1.3 Windsor will keep much of what gives its existing neighbourhoods their character – trees and greenery, heritage structures and spaces, distinctive area identities, parks, and generally low profile development outside the City Centre. Around the neighbourhood centres, the existing character of the neighbourhood will be retained and enhanced. Newly developing areas will be planned to foster their own unique neighbourhood identities with a mixture of homes, amenities and services.

3.3 Urban Structure Plan

3.3.3 Neighbourhoods

Neighbourhoods are the most basic component of Windsor’s urban structure and occupy the greatest proportion of the City. Neighbourhoods are stable, low-to-medium-density residential areas and are comprised of local streets, parks, open spaces, schools, minor institutions and neighbourhood and convenience scale retail services. The three dominant types of dwellings in Windsor’s neighbourhoods are single detached, semi-detached and townhouses. The density range for Windsor’s neighbourhoods is between 20 to 35 units per net hectare. This density range provides for low and some medium-density intensification to occur in existing neighbourhoods. Multiple dwelling buildings with medium and high-densities are encouraged at nodes identified in the Urban Structure Plan

Chapter 4 – Healthy Community

4.2 Objectives

4.2.1 Healthy and Liveable City

4.2.1.5 To encourage a mix of housing types and services to allow people to remain in their neighbourhoods as they age.

4.2.2 Environmental Sustainability

4.2.2.4 To promote development that meets human needs and is compatible with the natural environment.

4.2.2.5 To reduce environmental impacts.

4.2.3 Quality of Life

4.2.3.2 To encourage the location of basic goods and services close to where people live and work.

4.2.3.3 To recognize the needs of the community in terms of shelter, support services, accessibility and mobility.

4.2.3.4 To accommodate the appropriate range and mix of housing.

4.2.4 Sense of Community

4.2.4.2 To encourage development that fosters the integration of all residents into the community.

Chapter 5 – The Environment

5.3.2 Greenway System Policies

5.3.2.9 Lands identified as part of the Greenway System may be protected by the Municipality through:

(a) conveyance or dedication as a part of the planning process;

5.3.2.11 The Recreationways designated on Schedule B: Greenway System will provide for recreational movement within the Greenway System and are further described in section 7.2.3 of this Plan

Chapter 6 – Land Use

6.1 Goals

In keeping with the Strategic Directions, Council's land use goals are to achieve:

6.1.2 Environmentally sustainable urban development.

6.1.3 Housing suited to the needs of Windsor's residents.

6.2 General Policies

6.2.1.2 For the purpose of this Plan, Development Profile refers to the height of a building or structure. Accordingly, the following Development Profiles apply to all land use designations on Schedule D: Land Use unless specifically provided elsewhere in this Plan:

- (a) **Low Profile developments are buildings or structures generally no greater than three (3) storeys in height;**
- (b) Medium Profile developments are buildings or structures generally no greater than six (6) storeys in height; and
- (c) High Profile developments are buildings or structures generally no greater than fourteen (14) storeys in height.

6.3 Residential

6.3.1 Objectives

- 6.3.1.1** To support a complementary range of housing forms and tenures in all neighbourhoods.
- 6.3.1.2** To promote compact neighbourhoods which encourage a balanced transportation system.
- 6.3.1.3** To promote selective residential redevelopment, infill and intensification initiatives.
- 6.3.1.4** To ensure that the existing housing stock is maintained and rehabilitated.

6.3.2 Policies

In order to facilitate the orderly development and integration of housing in Windsor, the following policies shall apply.

- 6.3.2.1** Uses permitted in the Residential land use designation identified on Schedule D: Land Use include Low, Medium and High Profile dwelling units.
- 6.3.2.3** For the purposes of this Plan, Low Profile housing development is further classified as follows:
 - (a) **small scale forms: single detached, semi-detached, duplex and row and multiplexes with up to 8 units; and**
 - (b) large scale forms: buildings with more than 8 units.
- 6.3.2.4** Residential development shall be located where:
 - (a) there is access to a collector or arterial road;
 - (b) full municipal physical services can be provided;
 - (c) adequate community services and open spaces are available or are planned; and
 - (d) public transportation service can be provided.

- 6.3.2.5** At the time of submission, the proponent shall demonstrate to the satisfaction of the Municipality that a proposed residential development within an area having a Neighbourhood development pattern is:
- (a) feasible having regard to the other provisions of this Plan, provincial legislation, policies and appropriate guidelines and support studies for uses:
 - (iv) where traffic generation and distribution is a provincial or municipal concern; and
 - (c) compatible with the surrounding area in terms of scale, massing, height, siting, orientation, setbacks, parking and amenity areas;
 - (d) provided with adequate off street parking;
 - (e) capable of being provided with full municipal physical services and emergency services; and
- 6.3.2.18** Council shall promote the maintenance of Windsor’s housing stock at a standard sufficient to provide acceptable conditions of health, safety and appearance in accordance with the Community Improvement section of this Plan.

Chapter 7 – Infrastructure

7.2 Transportation System

7.2.2 General Policies

7.2.2.12 Council shall require adequate off-street parking and loading facilities as a condition of development approval in accordance with the Land Use chapter of this Plan.

7.2.2.13 Council shall require parking lots to be designed in accordance with the Urban Design chapter of this Plan.

7.2.3 Pedestrian Network Policies

7.2.3.4 Council shall provide for the development of the Recreationway by:

- (c) Ensuring that new development proposals and infrastructure undertakings include extensions and improvements to the Recreationway; and

7.2.6 Road Network Policies

7.2.6.7 Council shall provide for Class II Collector Roads as follows:

- (b) Operational and design characteristics:
 - (i) Class II Collector Roads shall be designed to carry moderate volumes of traffic and shall have a minimum right-of-way width of 26 metres;

- (iv) Cycling facilities may be permitted; and
- (v) On street parking may be permitted.

7.2.6.16 Council shall support the construction of new roads and right-of-way widening for the purpose of adding to the travelled portion of a road only when either of the following factors have been met:

- (a) The new road and/or widened right-of-way have been identified as a recommended system improvement in this Plan, the transportation master plan and/or the cycling master plan; or other relevant transportation plan.
- (b) The need for the new road and/or widened right-of-way has been clearly demonstrated through a comprehensive analysis and public consultation process, conducted in addition to the transportation master plan, in accordance with relevant provincial legislation and the resulting road improves the transportation system by:
 - (iv) Minimizing any negative impacts on the social and natural environment of adjacent areas;
 - (v) Providing for cycling facilities, as appropriate; and
 - (vi) Providing for transit service, as appropriate.

7.2.6.21 As a condition of development approval, council shall require gratuitous land conveyances to the Municipality where it has been determined that the existing right-of-way width is insufficient based on the requirements set out in Schedule 'X', or other provisions of this Official Plan. The size and dimension of each such conveyance shall be determined by what is identified in Schedule 'X', or other provisions of this Official Plan. Generally, equal widths of land will be taken from both sides of the road.

7.2.6.22 Gratuitous land conveyances to the Municipality may also be required as a condition of development approval for, but not limited to any of the following elements:

- (a) Corner cut offs;
- (e) Acceleration or deceleration lanes;
- (f) Transit infrastructure, including transit lanes, stations and transit stops including shelters;
- (g) Cycling infrastructure, including bike lanes and multi-use recreational trails;
- (h) Bus bays; and
- (i) Sidewalks.

7.2.6.25 Notwithstanding the right-of-way widths identified in the policies of this Official Plan, Council may require additional land for exclusive turning lanes or special features. The exact width of this additional right-of-way shall be

determined on a site-specific basis during the development approval process.

7.3 Infrastructure

7.3.2.3 Council shall require all new developments to have full municipal infrastructure available, or agreements in place to provide such infrastructure, as a condition of approving a development proposal.

7.3.2.4 Council shall not permit development on individual on-site sewage services beyond existing farm living lots.

7.3.2.5 Council shall not permit the installation of individual on-site sewage services in new developments

7.3.3 Infrastructure Provision Policies

7.3.3.5 Council shall require that the provision, expansion or modification of infrastructure minimize negative effects on existing neighbourhoods, adjacent land uses and the natural environment

4.4 Zoning By-Law 8600:

The subject property is currently zoned as ‘**Commercial District 2.2 (CD2.2)**’ under Zoning By-Law 8600 (**Appendix ‘E’**). The proposed Zoning By-Law Amendment seeks to rezone the site to ‘**Residential District 2.2 with Site-Specific Provisions (RD2.2)**’, which will bring the property’s zoning into compliance with the City’s Official Plan.

Applicable excerpts from the City of Windsor Zoning By-Law 8600 are as follows:

“SECTION 11 - RESIDENTIAL DISTRICTS 2. (RD2.)

~PROPOSED ZONING~

11.2 RESIDENTIAL DISTRICT 2.2 (RD2.2)

11.2.1 PERMITTED USES

- One Double Duplex Dwelling
- One Duplex Dwelling
- One Multiple Dwelling containing a maximum of four dwelling units**
- One Semi-Detached Dwelling
- One Single Unit Dwelling Townhome Dwelling
- Any use accessory to any of the preceding uses

11.2.5 PROVISIONS

.4 Double Duplex Dwelling or Multiple Dwelling

- .1 Lot Width – minimum 18.0 m
- .2 Lot Area – minimum 540.0 m²

.3 Lot Coverage – maximum	45.0%
.4 Main Building Height – maximum	10.0 m
.5 Front Yard Depth – minimum	6.0 m
.6 Rear Yard Depth – minimum	7.50 m
.7 Side Yard Width – minimum	1.80 m

SECTION 15 - COMMERCIAL DISTRICTS 2. (CD2.)

~CURRENT ZONING~

15.2 COMMERCIAL DISTRICT 2.2 (CD2.2)

15.2.1 PERMITTED USES

Bakery Business Office
 Child Care Centre
 Commercial School Confectionery
 Food Outlet - Take-Out
 Funeral Establishment
 Medical Office
 Micro-Brewery
 Personal Service Shop
 Place of Entertainment and Recreation
 Place of Worship
 Professional Studio
 Public Hall
 Repair Shop – Light
 Restaurant
 Retail Store
 Veterinary Office
 Wholesale Store
 Dwelling Units in a Combined Use Building with any one or more of the above uses
 Gas Bar Outdoor Market Parking
 Garage Public Parking Area
 Tourist Home
 Existing Automobile Repair Garage
 Existing Service Station

Any use accessory to any of the preceding uses. An Outdoor Storage Yard is prohibited, save and except, in combination with the following main uses: Outdoor Market, Existing Automobile Repair Garage.

15.2.3 PROHIBITED USES

A Gas Bar and a Service Station is prohibited on any lot located within 63.50 m of the east or west limits of Sandwich Street between Detroit Street and Brock Street or within 30.0 m of the south limit of Mill Street between Russell Street and Sandwich Street.

15.2.5 PROVISIONS

- .4 Building Height – maximum 14.0 m
- .9 Amenity Area – Per Dwelling Unit – minimum 12.0 m²
- .10 Gross Floor Area – maximum per unit Bakery or Confectionary 550.0 m
- .15 For a Combined Use Building, all dwelling units, not including entrances thereto, shall be located above the non-residential uses.
- .24 An Outdoor Market is permitted within a Business Improvement Area. An Outdoor Market is prohibited elsewhere.

SECTION 24 – PARKING, LOADING AND STACKING PROVISIONS

24.10.10 PROVISION AND MAINTENANCE

- .1 All required parking spaces, visitor parking spaces, accessible parking spaces, bicycle parking spaces, loading spaces or stacking spaces shall be provided and clearly identified and marked at the time of the erection of a building or addition thereto, expansion of a use or when there is a change of use of a lot or building and shall be subsequently maintained, identified and marked exclusively for the use for which they are required for as long as such use is in operation.

24.20 PARKING SPACE PROVISIONS

24.20.5 REQUIRED PARKING SPACES – ALL OTHER AREAS AND USES NOT LISTED IN TABLES 24.20.1.1 AND 24.20.3.1

TABLE 24.20.5.1 - REQUIRED PARKING SPACES

Multiple Dwelling containing a maximum of 4 Dwelling units: **1 for each dwelling unit**

24.20.10 SIZE OF PARKING SPACE

- .1 Each parking space shall have a minimum length of 5.5 metres and a minimum width of 2.5 metres, except where one side of the parking space is flanked by a wall or fence, each parking space shall have a minimum length of 5.5 metres and a minimum width of 3.5 metres.

SECTION 25 - PARKING AREA PROVISIONS

25.5.20 PARKING AREA SEPARATION

TABLE 25.5.20.1 – PARKING AREA SEPARATION

.1 A parking area separation shall be provided as shown in Table 25.5.20.1:

TABLE 25.5.20.1 – PARKING AREA SEPARATION		
PARKING AREA FROM		MINIMUM SEPARATION
.1	Huron Church Road between the south limit of College Avenue and the north limit of the EC Row Expressway	10.00 m
	Save and except for Parts 4 and 5, Plan 12R-12366 and Part Lots 1346 to 1360, Part Lot 1820 and Part Block A, Registered Plan 1059 (situated on the west side of Huron Church Road, north of Tecumseh Road West)	3.00 m
.2	Any other street	3.00 m
.3	An interior lot line or alley	0.90 m
.4	A rear lot line on a lot located in a Commercial District 3.9	10.00 m
.5	A building wall in which is located a main pedestrian entrance facing the parking area	2.00 m
.6	A building wall containing a habitable room window or containing both a main pedestrian entrance and a habitable room window facing the parking area where the building is located on the same lot as the parking area	4.50 m

.5 The area forming the parking area separation shall be maintained exclusively as a landscaped open space yard.

25.5.30 ACCESS AREA

.4 An access area for all other uses shall have one or more one-way lanes. Each lane shall have a minimum width of 3.50 metres and a maximum width of 4.50 metres.

.5 The width of each lane in an access area shall be measured a maximum of 3.00 metres from the lot line the access area crosses.

25.5.50 PARKING AISLE

.3 The minimum width of a parking aisle shall be as follows:

TABLE 25.5.50.3 – MINIMUM PARKING AISLE WIDTH		
ANGLE OF PARKING SPACE RELATIVE TO THE PARKING AISLE (IN DEGREES)		MINIMUM WIDTH OF A PARKING AISLE
.1	30.0°	3.50 metres
.2	45.0°	4.50 metres
.3	60.0°	5.50 metres
.4	90.0°	6.00 metres
.5	All angles and widths not indicated above are deemed to be the next highest angle and width indicated.	

5.0 PLANNING JUSTIFICATION:

5.1 Planning Act, R.S.O. 1990, c. P.13:

The proposed Zoning By-Law Amendment and Site Plan Control Applications seeks to legalize a 4 (four) unit multiple dwelling building, thereby providing affordable rental housing options and choice to the City’s population. Given the high demand for affordable rental housing, the proposed development to increase the number of dwellings units on the property from 2 to 4 is appropriate for the site, especially given its location within an urban area that is well serviced by transit and municipal infrastructure. Furthermore, design changes will be made to the parking area in the rear (delineation of parking spaces) in order to provide for a safer and more attractive development.

As such, the proposed development conforms to the Planning Act.

5.2 Provincial Policy Statement (PPS) (2020):

The proposed Zoning By-Law Amendment and Site Plan Control Applications are well-aligned with the Provincial Policy Statement (PPS) as they seek to increase the number of dwelling units on an existing lot in order to meet the long-term affordable housing needs of current and future residents (1.4.3 b) 1.). The site is easily capable of handling the proposed density of 4 (four) dwelling units given that that the proposed development will not result in an extension or exterior alteration of the existing 1 (one) storey building on the property. In addition, the 4 (four) dwelling units will all be connected to municipal services (1.1.3.3). Furthermore, the tenants of the 4 four dwelling units will help to maintain the viability and long-term economic prosperity of local business and community institutions within the surrounding area (1.7.1 d).

As such, the proposed development conforms with the policies of the Provincial Policy Statement.

5.3 City of Windsor Official Plan (2000):

In accordance with the City of Windsor Official Plan, the subject property is located within the 'Residential' Land Use Designation (**Appendix 'B'**) which allows for multiplexes with up to 8 units (**6.3.2.3 (a)**). As such, the proposed rezoning of the site from a commercial to a residential zone to allow for a 4 (four) unit multiplex is in accordance with the Official Plan. Furthermore, the 'Residential' policies of the Official Plan speak to the importance of promoting the maintenance of the existing housing stock while also encouraging a mix of housing options to allow people to remain in their neighbourhoods as they age through intensification initiatives (**6.3.1.4**) (**4.2.1.5**) (**6.3.1.3**). The proposed development accomplishes these objectives.

As such, the proposed development conforms with the policies of the Growth Plan.

5.4 Zoning By-Law 8600:

The proposed Zoning By-Law Amendment will introduce new site-specific zone under the (**RD2.2-XX**). This zone that would convert the existing building on the site into a 'multiple dwelling building' by providing 2 (two) additional legal dwelling units, thereby creating 4 (four) legal dwelling units, within the existing building. The requested site-specific zoning adjustments include the following minor deviations from the (**RD2.2**) zone as shown on Table 1 in this report:

(need to recognize the following Existing Conditions)

- Reduced Minimum Lot Width (**11.2.5 .4 .1**)
- Reduced Minimum Lot Area (**11.2.5 .4 .2**)
- Reduced Minimum Lot Coverage (**11.2.5 .4 .3**)
- Reduced Minimum Front Yard Setback (**11.2.5 .4 .5**)
- Reduced Minimum Side Yard Setback (**11.2.5 .4 .7**)

(need to allow the proposed parking area delineation)

- Reduced Minimum Parking Area Separation – From an Alley (**25.5.20 .1 .3**)
- Delete the Following Provision: "The area forming the parking area separation shall be maintained exclusively as a landscaped open space yard" (**25.5.20 .5**)

Given that no new buildings or external building renovations are being proposed on the site, the proposed Zoning By-Law Amendment will have little impact on the functionality of the site or surrounding neighbourhood, but will bring the zoning into conformity with the City's Official Plan, and allow the property to be better utilized for a more appropriate purpose. The proposed only changes to the site effect the delineation of 4 parking spaces in the rear of the property, which will improve the safety and the overall attractiveness of the property. Overall, the proposed zoning standards are well-aligned with intensification objectives of both the Provincial Policy Statement and the City of Windsor Official Plan as they permit for a higher residential density with the existing building on the subject property.

As such, the proposed development meets the general intent of Zoning By-Law 8600.

6.0 SITE SUITABILITY:

The existing building on the subject property has the capacity to easily support 4 (four) dwellings units; However, due to current zoning requirements only 2 of the 4 residential units within the building are currently recognized by the City under the 'Commercial' Zone. The proposed Site-Specific Zoning By-Law Amendment will bring the property into the correct 'Residential' (**RD2.2**) zone, which will resolve the conflict. The proposal also intends to create site specific zoning provisions that will both recognize the existing conditions of the property, but also facilitate the re-configured rear yard parking area. The zoning amendment will permit the 'Multiple Dwelling' with 4 dwellings units, and the site specific zoning provisions will facilitate the reuse of the existing building/property. These deviations are suitable for the lands based on the following merits:

1. Reduced Minimum Lot Width (18.0 m vs 12.2 m)

No new lot is being created. The purpose of this deviation is to bring the existing lot into conformity with the proposed rezoning and as such will not create a situation that is out of context for the neighbourhood. Furthermore, given the large depth of the site (30 m), there is enough space on the site for multiple dwelling building with 4 (four) residential units.

2. Reduced Minimum Lot Area (540 m² vs 371.7 m²)

Again, there is no new lot that is being created. The purpose of this deviation is to bring the existing lot into conformity with the proposed rezoning. A reduced lot area can be justified base on the premises that only allowing for 2 dwellings units on the property would constitute as an underutilization of the site especially given its location with a walkable urban area with accessible transit. Furthermore, it can be expected that many of the adjacent residential lots within the area have or will be converted in the future to accommodate multiple dwelling units especially as the demand for affordable rental housing increases.

3. Reduced Minimum Lot Coverage (45.0% vs 41.6%)

No new buildings or structures are being proposed on the site. Furthermore, there are no plans to extend the footprint of the existing building on the property. The purpose of this deviation is to bring the existing lot/building into conformity with the proposed rezoning. The proposed reduction to the minimum lot coverage requirement only represents a 3.4% difference from the required standard as such is minor in nature. The property is not overdeveloped. There are others lots within the area that maintain a similar lot coverage. Furthermore, there is ample room for parking and maneuvering in the rear yard. With respect to access to green space, the site is within comfortable walking distance to the 'Ford Test Track' which is one of the largest parks in the city.

4. Reduced Minimum Front Yard Setback (6.0 m vs 1.0 m)

The proposed development to allow 4 (four) residential dwelling units within the existing building will not result in any changes to the front yard setback situation. The purpose of this deviation is to bring the existing building into conformity with the proposed rezoning.

A reduced front yard setback of 1.0 m is appropriate for the site given the context of the existing streetscape character for Drouillard Road which sees buildings sited close to the public sidewalk in order to create a pedestrian-friendly environment that is advantageous to the mixed-use corridor. A reduced front yard setback can also be justified by the site's ability to provide for an ample amount of parking spaces in the rear via the public laneway.

5. Reduced Minimum Side Yard Setback (6.0 m vs 1.0 m)

Just like the front yard setback situation, the proposed development to allow 4 (four) residential dwelling units within the existing building and will not result in any changes the existing side yard setbacks. The interior side yard setback abutting the north lot line maintains a distance of 0.5 m, while the interior side yard setback abutting the south lot line maintains a distance of 1.5 m. Abutting both of these lot lines are parking areas for the neighbouring uses. As such, there is plenty of room in between the existing building on the subject property and the buildings on the abutting lots. Furthermore, the existing side yard setbacks are not out of character for the existing Drouillard streetscape, which maintains a relatively compact built form. The property is deep but not wide, so it is only reasonable to expect narrow side yard setbacks despite the fact there is an ample amount of space on the lot for an adequately sized building and parking area.

6. Reduced Minimum Parking Area Separation – From an Alley (0.9 m vs 0.6 m)

The proposed development seeks to improve the parking area situated in the rear of the lot by delineating 4 parking spaces. Consequently, parking space #4 fails to meet the parking area separation distance of 0.9 m from an Alley. The alternative is to reduce the parking requirement to 3 parking spaces, which is less desirable given the traditional automotive use in the area. In addition, the alley does not have a high volume of traffic, and impacts to the lane will be minimal at best (but improved from the current situation and site conditions). The proposed Zoning Amendment is intended to improve the parking situation by facilitating 4 (four) on-site parking spaces. The proposed 0.9 m separation distance from the alley will not create any added conflicts when compared to the existing situation.

7. Delete the Following Provision: “The area forming the parking area separation shall be maintained exclusively as a landscaped open space yard”

Due to the small size of the lot, there is not enough room to landscape the parking separation areas (between parking space #1 and the alley) & (between parking space #4 and mail building wall containing a pedestrian entrance) and also allow for the 4 (four) parking spaces. Despite the fact that there isn't enough room for landscaping, it is worth delineating the spaces in order to create a safer and more attractive parking area.

7.0 CONCLUSION:

Given the analysis presented in this Planning Justification Report, it is in the Author's professional planning opinion that there is merit to support the proposed Zoning By-Law Amendment and Site Plan Control Applications because they are considered to be of

'Good Planning,' in the **'Public Interest'**, and in **'Conformity'** with the Planning Act, Provincial Policy Statement and the City of Windsor Official Plan while also meeting the general intent of Zoning By-Law 8600.

I hereby certify that this Planning Justification Report was prepared and reviewed by Registered Professional Planner (RPP), within the meaning of the *Ontario Professional Planners Institute Act, 1994*.

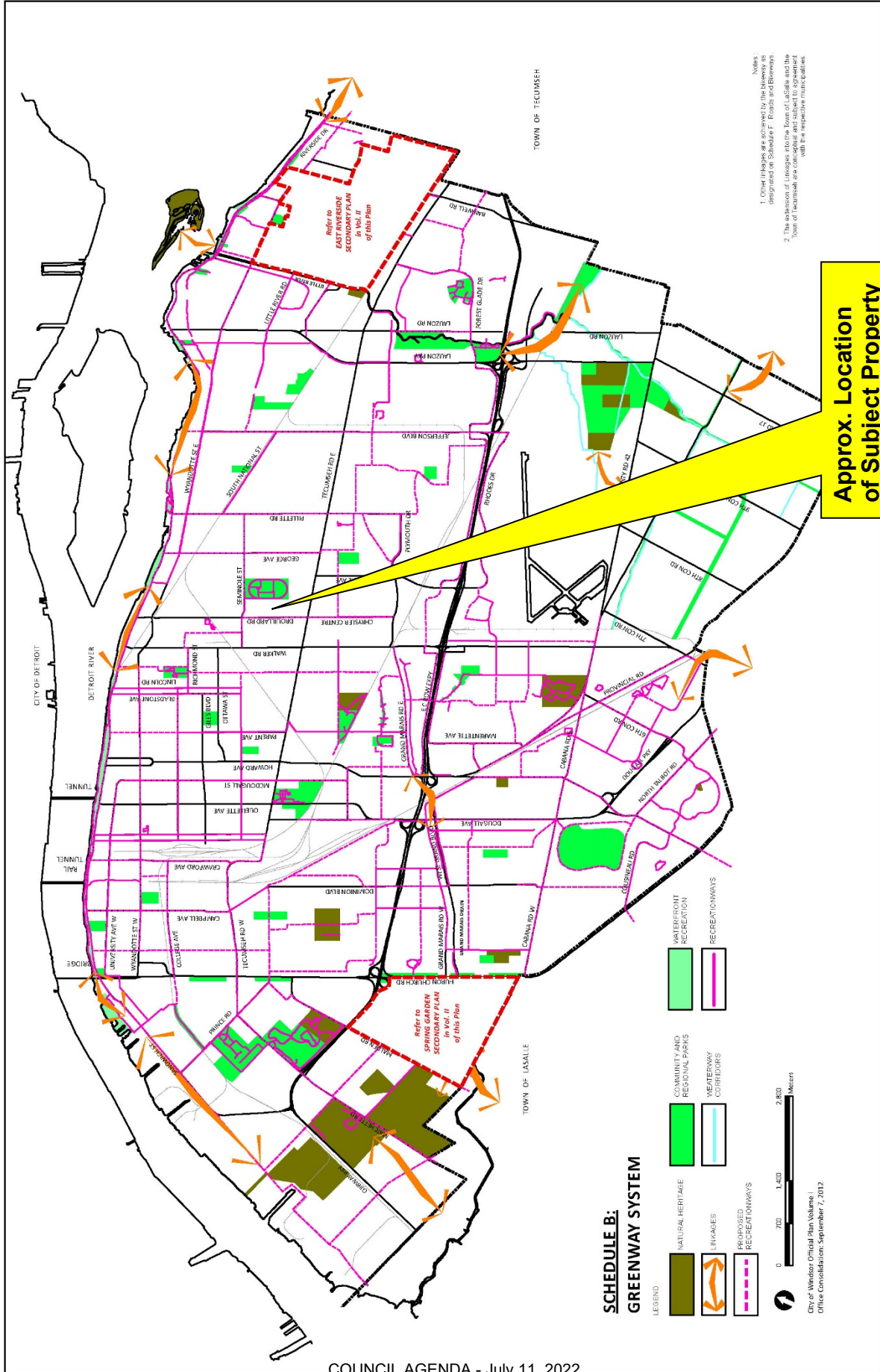


Terrance Glover, RPP, CPT
Principal
Urban in Mind,

Professional Urban Planning, Land Development & CPTED Consultants

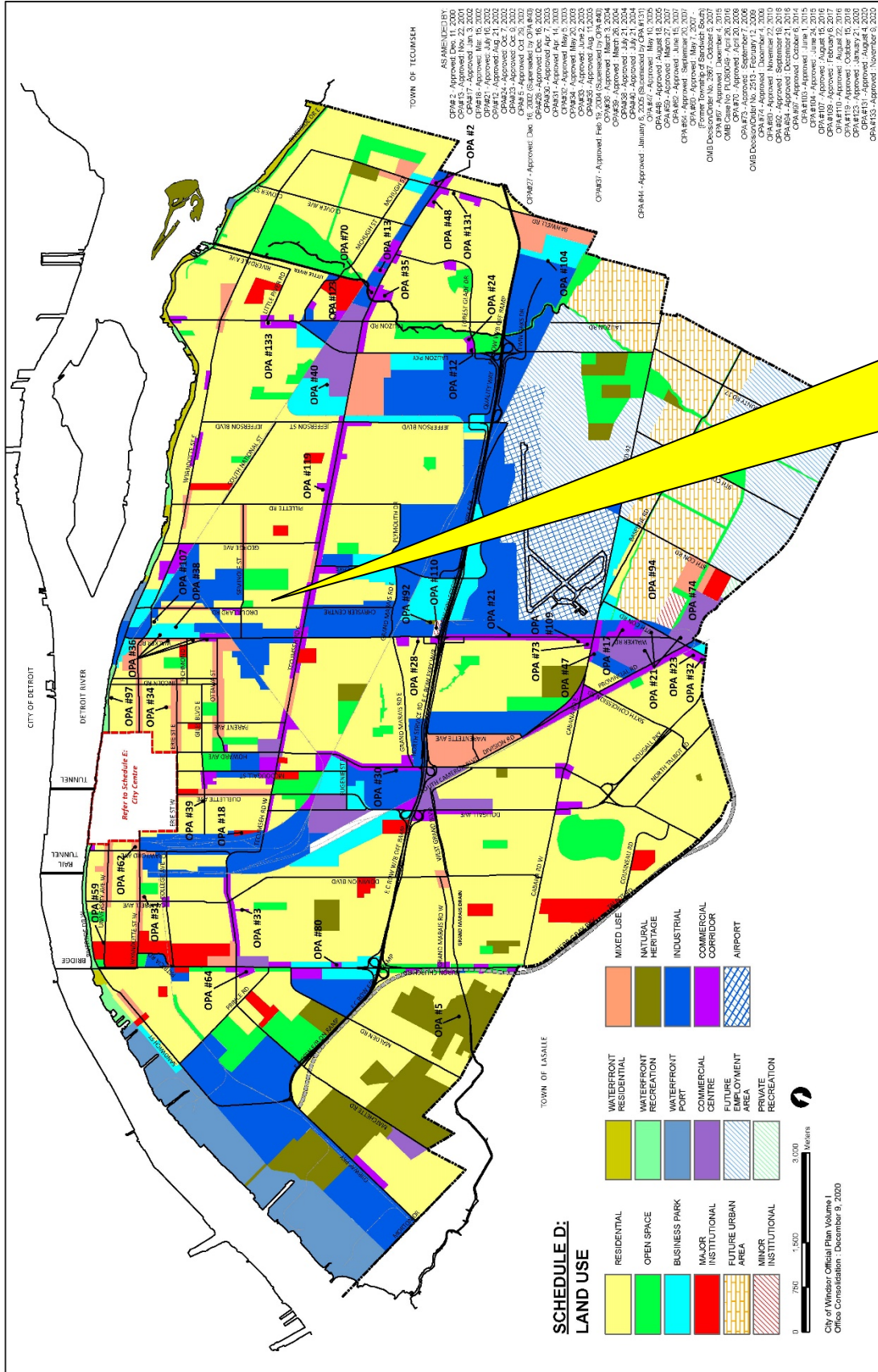


Appendix 'A'
 (City of Windsor Official Plan – Schedule B, Greenway System)



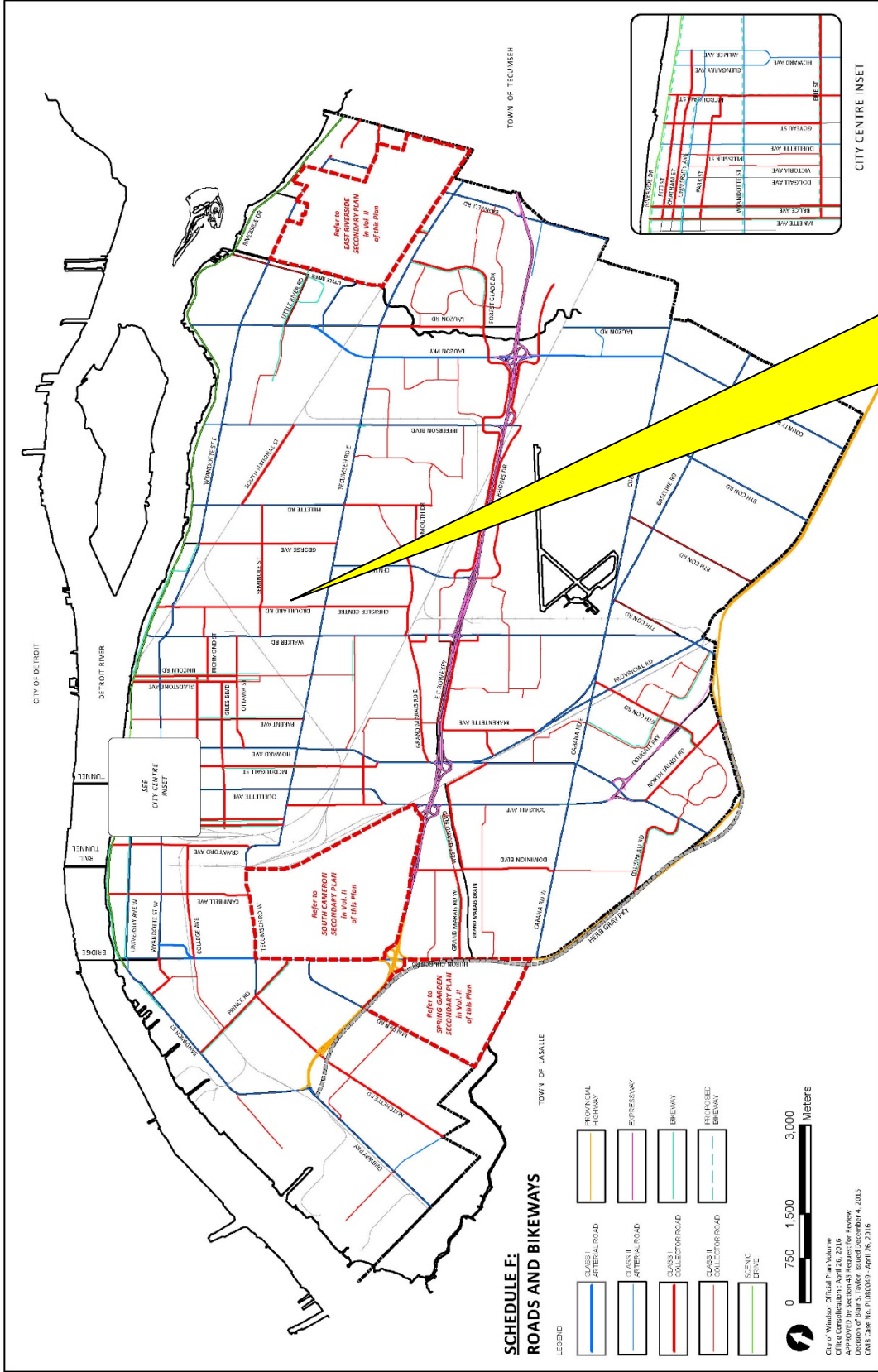
Appendix 'B'

(City of Windsor Official Plan – Schedule D, Land Use)



Approx. Location of Subject Property

Appendix 'C' (City of Windsor Official Plan – Schedule F, Roads and Bikeways)



Approx. Location of Subject Property

Appendix 'D'
(City of Windsor Official Plan – Schedule X, Right-of-Way Width)

Street ID	Segment ID	Street Name	From Street Name	To Street Name	Road Classification	Required		
						ROW Width (m)	Bike Facilities	Transit Facilities
10245	0020	DROUILLARD RD	RIVERSIDE DRE	WYANDOTTE STE	C1_COOL	26		
10245	0080	DROUILLARD RD	WYANDOTTE STE	EDNA ST	C1_COOL	29.3		
10245	0090	DROUILLARD RD	EDNA ST	TRENTON ST	C1_COOL	16.5		
10245	0095	DROUILLARD RD	TRENTON ST	WHELPTON ST	C1_COOL	16.5		
10245	0100	DROUILLARD RD	WHELPTON ST	RICHMOND ST	C1_COOL	16.5		
10245	0110	DROUILLARD RD	RICHMOND ST	ONTARIO ST	C1_COOL	24		
10245	0120	DROUILLARD RD	ONTARIO ST	DEMING ST	C1_COOL	24		
10245	0125	DROUILLARD RD	DEMING ST	FRANKLIN ST	C1_COOL	24		
10245	0130	DROUILLARD RD	FRANKLIN ST	METCALFE ST	C1_COOL	24		
10245	0135	DROUILLARD RD	METCALFE ST	METCALFE ST	C1_COOL	24		
10245	0140	DROUILLARD RD	METCALFE ST	SEMINOLE ST	C1_COOL	24		
10245	0150	DROUILLARD RD	SEMINOLE ST	REGINALD ST	C1_COOL	26	Lanes	
10245	0160	DROUILLARD RD	REGINALD ST	ALICE ST	C1_COOL	26	Lanes	
10245	0170	DROUILLARD RD	ALICE ST	MILLOY ST	C1_COOL	26	Lanes	
10245	0180	DROUILLARD RD	MILLOY ST	TECUMSEH RDE	C1_COOL	26	Lanes	

Appendix 'E'
 (Zoning By-Law 8600 – Zoning District Map 7)

Zoning District Map 7



LEGEND:

- Zone Boundary¹
- Specific Zoning Exemptions²
- S.20 (1) 267/ By-Law 127-2010
- Specific Temporary Zoning Exemptions³
- Registered Plan Parcel Limits
- Ownership Parcel Limits
- Municipal Boundary Line
- Inland Watercourse Flood Prone Area⁴
- Detroit River/Lake St.Clair Flood Prone Area⁴

NOTES:

1. Each Zoning District symbol corresponds to a zoning district set out in the text of By-law 8600 (i.e. CD1.1 - Commercial District 1.1.)

- DRD 1.1 - Development Reserve District - See Section 8
- GD1.1 - Green District - See Section 9
- RD1.1 - Residential Districts (Low Density) - See Section 10
- RD2.1 - Residential Districts (Medium Density) - See Section 11
- RD3.1 - Residential Districts (High Density) - See Section 12
- ID1.1 - Institutional District - See Section 13
- CD1.1 - Commercial Districts (Neighbourhood) - See Section 14
- CD2.1 - Commercial Districts (General) - See Section 15
- CD3.1 - Commercial Districts (Major) - See Section 16
- CD4.1 - Commercial Districts (Highway/Restricted Use) - See Section 17
- MD1.1 - Industrial District (Light/Business Park) - See Section 18
- MD2.1 - Industrial District (Heavy) - See Section 19



Subject: Rezoning – Andi Shallvari - 716 Josephine Ave - Z-011/22 ZNG/6703 - Ward 2

Moved by: Councillor Holt
Seconded by: Member Moore

Decision Number: **DHSC 401**

THAT Zoning By-law 8600 **BE AMENDED** by changing the zoning of Part of Lot 24, Registered Plan 1148 and Part of Lot 17, Registered Plan 1042, (known municipally as 716 Josephine Avenue; Roll No. 050-300-01500) situated on the east side of Josephine Avenue, between Wyandotte Street West and Rooney Street by adding a site specific exception to Section 20(1) as follows:

443. EAST SIDE OF JOSEPHINE AVENUE, BETWEEN WYANDOTTE STREET WEST AND ROONEY STREET

For the lands comprising of Part of Lot 24, Registered Plan 1148 and Part of Lot 17, Registered Plan 1042, a *semi-detached dwelling* shall be an additional permitted use and the following additional provisions shall apply to a *semi-detached dwelling*:

- a) Lot Width – minimum 12.0 m
- b) Lot Area – minimum 371.0 m²
- c) Lot Coverage – maximum 48.0%
- d) Main Building Height – maximum 10.0 m
- e) Front Yard Depth - minimum 6.0 m
- f) Rear Yard Depth – minimum 2.70 m
- g) That the rear *wall* of the *main building* shall extend eastward from Josephine Avenue a maximum of 24.5 m
- h) Side Yard Width - minimum 1.20 m

[ZDM 3; ZNG/6703]

Carried.

Report Number: S 56/2022
Clerk’s File: Z/14346

Clerk’s Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 7.5. from the Development & Heritage Standing Committee Meeting held June 6, 2022.

3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220608/-1/7334>

**Subject: Rezoning – Andi Shallvari - 716 Josephine Ave - Z-011/22
ZNG/6703 - Ward 2**

Reference:

Date to Council: June 6, 2022
Author: Adam Szymczak, MCIP, RPP
Senior Planner
519-255-6543 x6250
aszymczak@citywindsor.ca

Planning & Building Services
Report Date: May 6, 2022
Clerk's File #: Z/14346

To: Mayor and Members of City Council

Recommendation:

THAT Zoning By-law 8600 **BE AMENDED** by changing the zoning of Part of Lot 24, Registered Plan 1148 and Part of Lot 17, Registered Plan 1042, (known municipally as 716 Josephine Avenue; Roll No. 050-300-01500) situated on the east side of Josephine Avenue, between Wyandotte Street West and Rooney Street by adding a site specific exception to Section 20(1) as follows:

443. EAST SIDE OF JOSEPHINE AVENUE, BETWEEN WYANDOTTE STREET WEST AND ROONEY STREET

For the lands comprising of Part of Lot 24, Registered Plan 1148 and Part of Lot 17, Registered Plan 1042, a *semi-detached dwelling* shall be an additional permitted use and the following additional provisions shall apply to a *semi-detached dwelling*:

- | | |
|--------------------------------------------------------------------------------------------------------------------------|----------------------|
| a) Lot Width – minimum | 12.0 m |
| b) Lot Area – minimum | 371.0 m ² |
| c) Lot Coverage – maximum | 48.0% |
| d) Main Building Height – maximum | 10.0 m |
| e) Front Yard Depth - minimum | 6.0 m |
| f) Rear Yard Depth – minimum | 2.70 m |
| g) That the rear <i>wall</i> of the <i>main building</i> shall extend eastward from Josephine Avenue a maximum of 24.5 m | |
| h) Side Yard Width - minimum | 1.20 m |

[ZDM 3; ZNG/6703]

Executive Summary:

N/A

Background:

Application Information:

Location: 716 Josephine Avenue; Roll No. 050-300-01500
Part of Lot 24, Registered Plan 1148, Part of Lot 17, Registered Plan 1042

Ward: 2 **Planning District:** 16 – University **Zoning District Map:** 3

Applicant: Andi Shallvari

Owner: Andi Shallvari

Agent: Beau Wansbrough, RPP

Proposal:

The applicant is requesting an amendment to Zoning By-law 8600 to change the zoning of the subject property to permit the construction of a semi-detached dwelling and to allow a reduced minimum lot width from 15.0 m to 12.19 m, a reduced minimum lot area from 450 sq. m. to 371 sq. m, increased maximum lot coverage from 45% to 48%, and a reduced minimum rear yard setback from 7.50 m to 2.71 m.

A single unit dwelling currently occupies the lot.

The applicant intends to demolish the single unit dwelling. The applicant has submitted a conceptual plan (Appendix A).

Site Information:

OFFICIAL PLAN	ZONING	CURRENT USE	PREVIOUS USE
Residential	Residential District 1.3 (RD1.3)	Single Unit Dwelling	N/A
LOT WIDTH	LOT DEPTH	LOT AREA	LOT SHAPE
12.19 m	27.09 - 32.89 m	371.6 sq. m	Irregular
40.0 ft	88.5 – 107.9 ft	3,999.8 sq. ft.	
<i>All measurements are approximate and are for information purposes only.</i>			

Figure 1: Key Map

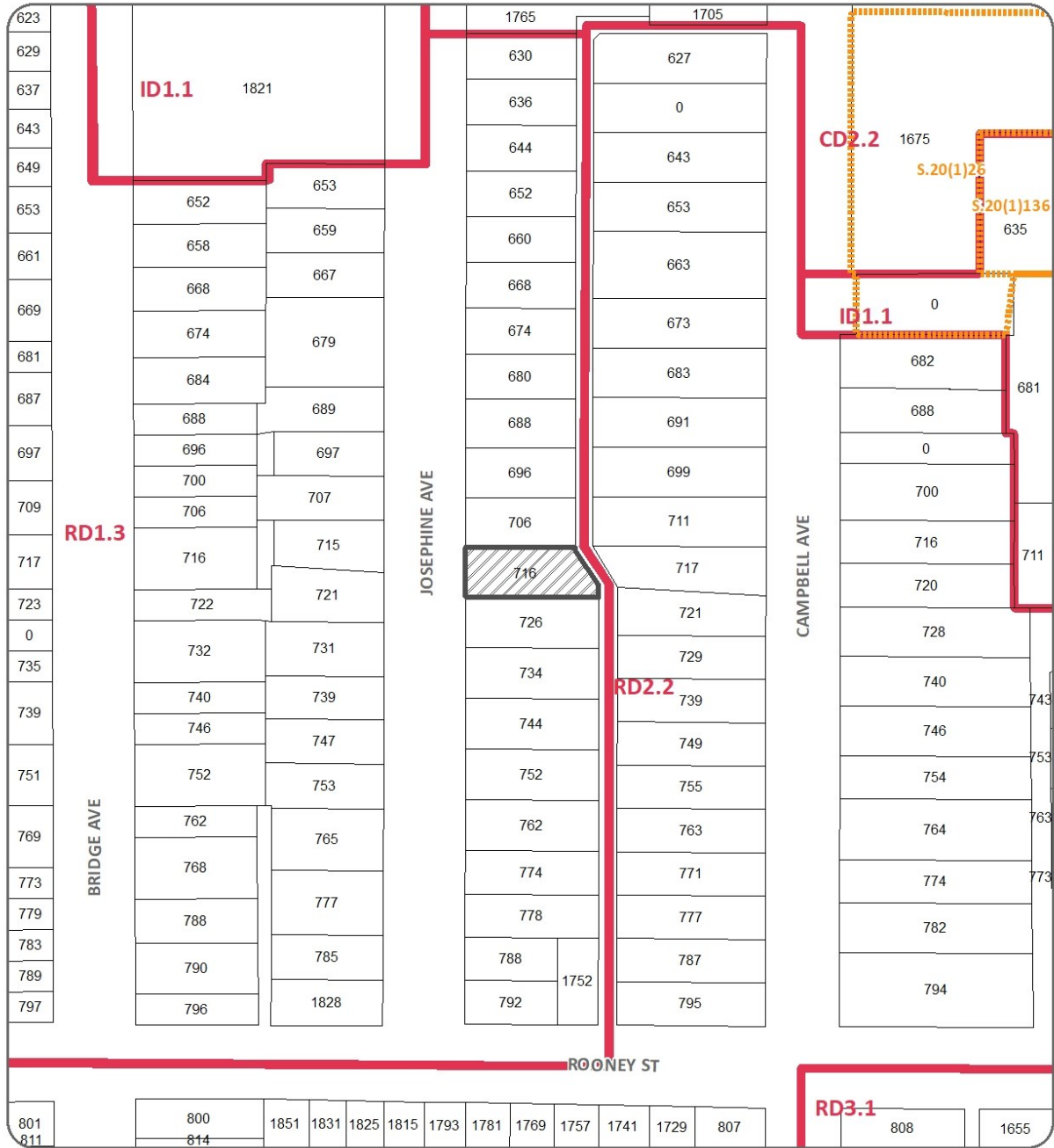


KEY MAP - Z-011/22, ZNG-6703



● SUBJECT LANDS

Figure 2: Subject Parcel - Rezoning

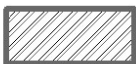


PART OF ZONING DISTRICT MAP 3

N.T.S.

REZONING

Applicant: Andi Shallvari



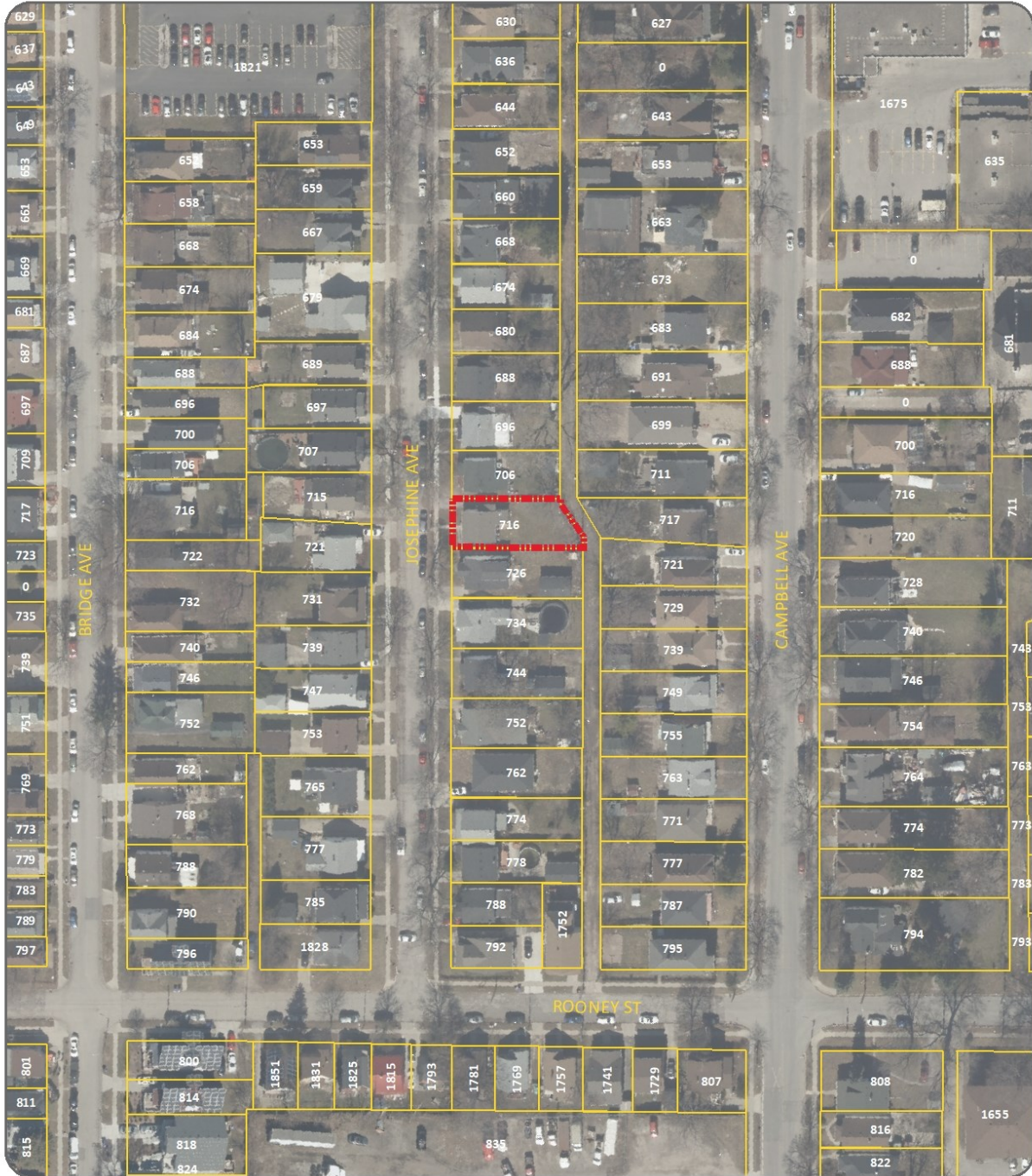
SUBJECT LANDS

PLANNING & BUILDING DEPARTMENT



DATE : MARCH, 2022
FILE NO. : Z-011/22, ZNG/6703

Figure 3: Neighborhood Map



NEIGHBOURHOOD MAP - Z-011/22, ZNG/6703



SUBJECT LANDS

Neighbourhood Characteristics:

The subject parcel is located in a residential area consisting of low to medium density dwellings. See Appendix B for site images. The University of Windsor and Ambassador Bridge are major uses in the nearby area. A mix of commercial uses are located along Wyandotte Street to the north including a Shopper's Drug Mart at Wyandotte and Campbell.

Windsor Fire Station Number 4 is located on the north side of College Avenue, west of California, approximately 1.1 km to the southwest. The City of Windsor Adie Knox Herman Recreation Complex and Wilson Park are located about 400 m to the northeast/southeast.

Josephine Avenue is classified as a Local Road, has sidewalks on both sides of the street and has alternating side on-street parking. To the north, Wyandotte Street West is classified as a Class II Arterial Road. To the south, College Avenue is classified a Class I Collector Road and a Proposed Bikeway on Schedule F: Roads and Bikeways.

Transit Windsor operates the Crosstown 2 bus route along Wyandotte Street West, approximately 270 m to the north with stops at Wyandotte and Campbell and Wyandotte and Bridge, and the Dougall 5 bus route on Campbell Avenue with stops located about 217 m to 275 m to the southeast at Rooney Street (northbound) and College Avenue (southbound). The Transit Master Plan recommends maintaining similar transit service.

A combined sewer is available in the Josephine Avenue right-of-way.

Discussion:

Provincial Policy Statement, 2020

The Provincial Policy Statement (PPS) provides direction on matters of provincial interest related to land use planning and development and sets the policy foundation for regulating the development and use of land in Ontario.

Policy 1.1.1 of the PPS states:

“Healthy, liveable and safe communities are sustained by:

- a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;*
- b) accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;*
- e) promoting the integration of land use planning, growth management, transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;”*

The semi-detached dwelling represents an efficient development that will have no adverse impact on the financial well-being of the City, land consumption, and servicing costs, accommodates an appropriate range of residential uses, and optimizes investments in transit. The zoning amendment is consistent with Policy 1.1.1.

Policy 1.1.3.1 of the PPS states:

“Settlement areas shall be the focus of growth and development.”

Policy 1.1.3.2 of the PPS states:

“Land use patterns within settlement areas shall be based on densities and a mix of land uses which:

- a) efficiently use land and resources;*
- b) are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;*
- e) support active transportation;*
- f) are transit-supportive, where transit is planned, exists or may be developed;”*

The parcel is located within the settlement area. The zoning amendment promotes a land use that makes efficient use of land and existing infrastructure. Active transportation options and transit services are located near the parcel. The zoning amendment is consistent with PPS Policies 1.1.3.1 and 1.1.3.2.

The proposed amendment to Zoning By-law 8600 is consistent with the PPS.

Official Plan:

The subject property is located within the University Planning District and is designated Residential on Schedule D: Land Use of the City of Windsor Official Plan.

Objective 6.3.1.1 supports a complementary range of housing forms and tenures in all neighbourhoods. Objective 6.3.1.2 seeks to promote compact neighbourhoods and balanced transportation systems. Objective 6.3.1.3 seeks to promote selective residential redevelopment, infill and intensification initiatives. The semi-detached dwelling represents a complementary and compact form of housing, redevelopment, and intensification that is near sources of transportation. The zoning amendment satisfies the objectives set out in Section 6.5.1 of the Official Plan.

The proposed semi-detached dwelling is classified as a small-scale Low Profile housing development under Section 6.3.2.3 (a), a permitted use in the Residential land use designation (Section 6.3.2.1). The proposed development is compatible with the surrounding land uses (Section 6.3.2.5 (c)) and no deficiencies in municipal physical services and emergency services have been identified (Section 6.3.2.5 (e)). The zoning amendment conforms to the policies in Sections 6.3.2.1 and 6.3.2.5 of the Official Plan.

The zoning amendment conforms to the Zoning Amendment Policies, Section 11.6.3.1 and 11.6.3.3, of the Official Plan.

The proposed change to Zoning By-law 8600 conforms to the general policy direction of the Official Plan.

Zoning By-Law:

Relevant excerpts from Zoning By-law 8600 are attached as Appendix C.

The applicant is requesting a change from Residential District 1.3 (RD1.3) to Residential District 2.1 (RD2.1) to allow the construction of a semi-detached dwelling. RD2.1 permits one semi-detached dwelling (two semi-detached dwelling units) on a lot with a minimum width of 15.0 m and a minimum area of 450.0 m², with a minimum front yard depth of 6.0, a minimum rear yard depth of 7.50 m and a minimum side yard width of 1.80 m. The maximum building height is 10.0 m with a maximum lot coverage of 45%.

A site specific exception for a reduction in minimum lot width from 15.0 m to 12.19 m, a reduction in minimum lot area from 450 to 371 m², increase in maximum lot coverage from 45% to 48%, and a reduction in the minimum rear yard setback from 7.50 m to 2.71 m.

The reductions in minimum lot width and minimum lot area are for the lot as existing and the increase in lot coverage is marginal; they will have no adverse impact on the proposed development or on surrounding uses. The reduction in the rear yard setback is due to the irregular lot shape along the easterly lot line. No other changes to the zoning provisions has been requested.

While the Residential District 2.1 (RD2.1) zoning district is an appropriate zoning category, given that a site specific exception is required and to avoid clutter on the zoning maps, the Planning Department recommends that the RD1.3 zoning be maintained and that applicable provisions for a semi-detached dwelling be included in the site specific exception.

The proposed semi-detached dwelling is not subject to site plan control.

Risk Analysis:

N/A

Climate Change Risks

Climate Change Mitigation:

In general, residential intensification minimizes the impact on the Community greenhouse gas emissions as these developments create complete communities and neighbourhoods while using currently available infrastructure such as sewers, sidewalks, and public transit.

Climate Change Adaptation:

The proposed construction of a new dwelling provides an opportunity to increase resiliency for the development and surrounding area.

Financial Matters:

N/A

Consultations:

Comments received from municipal departments and external agencies are attached as Appendix D.

Public Notice: Statutory notice was advertised in the Windsor Star, a local daily newspaper. A courtesy notice was mailed to property owners and residents within 120m of the subject parcel.

Planner’s Opinion:

The *Planning Act* requires that a decision of Council in respect of the exercise of any authority that affects a planning matter, “*shall be consistent with*” Provincial Policy Statement 2020. The requested zoning amendment has been evaluated for consistency with the Provincial Policy Statement 2020 and conformity with the policies of the City of Windsor Official Plan.

Based on the information presented in this report, it is my opinion that an amendment to Zoning By-law 8600 to rezone the subject parcel by adding a site specific exception to allow the proposed semi-detached dwelling is consistent with the PPS 2020, is in conformity with the City of Windsor Official Plan, and constitutes good planning.

Conclusion:

Staff recommend that Zoning By-law 8600 be amended to permit a rezoning of the subject parcel by adding a site specific exception to permit a semi-detached dwelling as an additional permitted use subject to the provisions contained in the site specific exception.

Planning Act Matters:

I concur with the above comments and opinion of the Registered Professional Planner.

Neil Robertson, MCIP, RPP
Manager of Urban Design

Thom Hunt, MCIP, RPP
City Planner

I am not a registered Planner and have reviewed as a Corporate Team Leader

JP JM

Approvals:

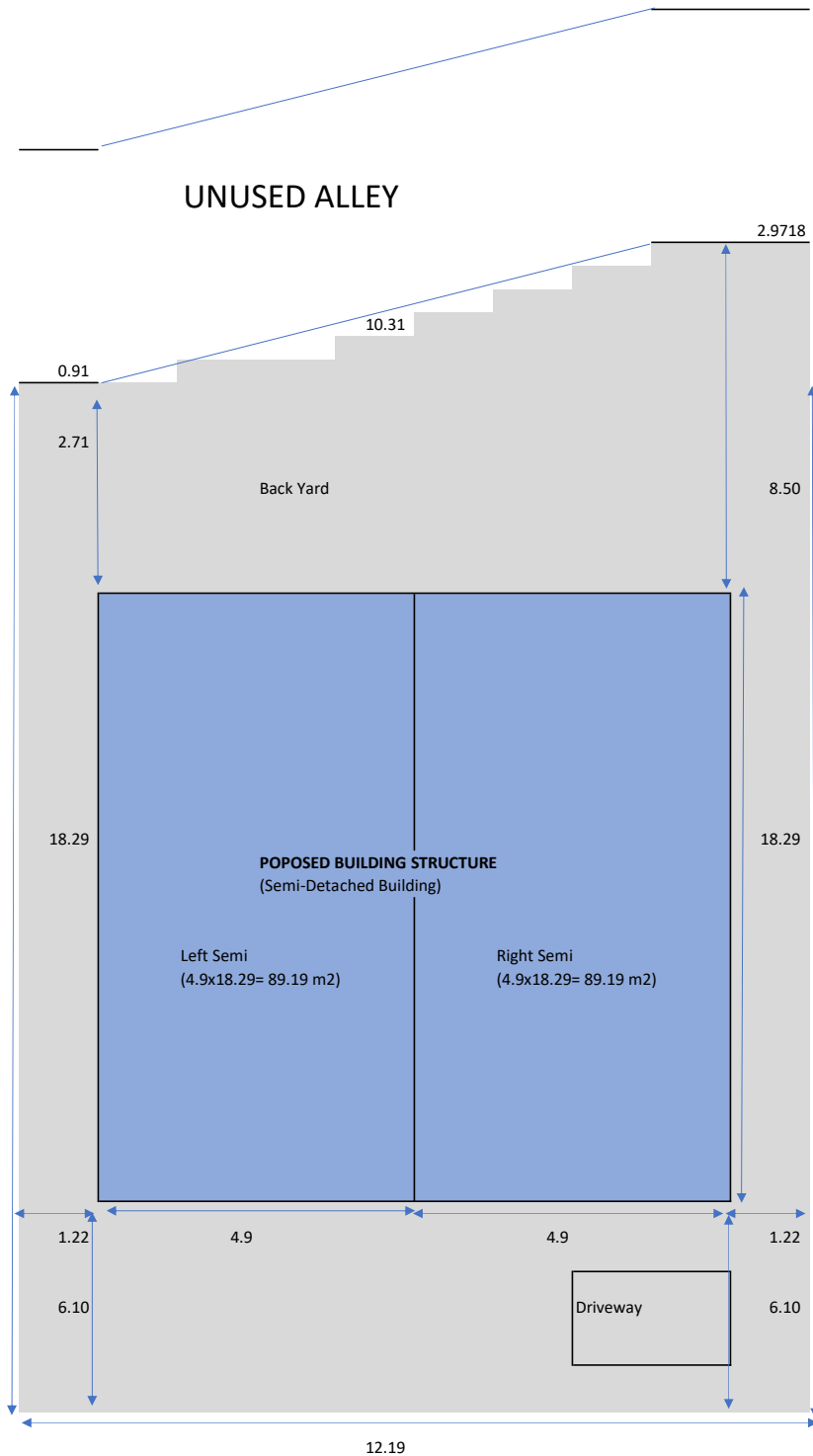
Neil Robertson	Manager of Urban Design / Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Development Services
Wira Vendrasco	Deputy City Solicitor, Legal Services & Real Estate
Jelena Payne	Commissioner, Economic Development & Innovation
Joe Mancina	Chief Administration Officer

Notifications:

Name	Address	Email
Andi Shallvari	3504 Klondike Ave Windsor ON N8W 5V5	andi.shallvari@gmail.com
Beau Wansbrough, RPP		wansbrough4@gmail.com
Councillor Costante		
Property owners and tenants within 120 m of the subject parcel		

Appendices:

- 1 Appendix A - Conceptual Site Plan
- 2 Appendix B - Site Images
- 3 Appendix C - Extracts from Zoning By-law 8600
- 4 Appendix D - Comments



(All measurements in meters. Area in blue indicates proposed building structure)

Lot size

371.60 sqm

Building size

89.19 m2 left semi +89.19 m2 right semi=178.38 m2

Lot coverage 48%

Zoning relief required:

Backyard setback to 2.77 m (irregular)

Frontage to 12.19 m

Lot coverage to 48%

Everything else: As Existing

**APPENDIX B - SITE IMAGES
(Google Street View)**



IMAGE 1

**Subject Parcel – 716 Josephine Avenue - Looking east
(706 to the left, 726 to the right)**



IMAGE 2

**Looking south on Josephine towards Rooney Street
Subject parcel is on the left side of the image**

IMAGE 3



**Looking west from subject parcel
(L to R - 731, 721, 715, 707, 689 Josephine)**

IMAGE 4



**Looking north on Josephine Street towards Wyandotte St W
Subject parcel (red brick front) is on the right side of the image**

APPENDIX C - Extracts from Zoning By-law 8600

SECTION 3 – DEFINITIONS

3.10 DEFINITIONS

DWELLING means a *building* or *structure* that is occupied for the purpose of human habitation. A *correctional institution, hotel, motor home, recreational vehicle, tent, tent trailer, or travel trailer* is not a *dwelling*.

SEMI-DETACHED DWELLING means one dwelling divided vertically into two dwelling units by a common interior wall having a minimum area above grade of 10.0 sq. m., and may include, where permitted by Section 5.99.80, up to two additional dwelling units.

SINGLE UNIT DWELLING means one *dwelling* having one *dwelling unit* or, where permitted by Section 5.99.80, one *dwelling* having two *dwelling units*. A single family dwelling is a *single unit dwelling*. A *duplex dwelling, mobile home dwelling, semi-detached dwelling unit, or townhome dwelling unit*, is not a *single unit dwelling*.

DWELLING UNIT means a unit that consists of a self-contained set of rooms located in a *building* or *structure*, that is used or intended for use as residential premises, and that contains kitchen and bathroom facilities that are intended for the use of the unit only.

SECTION 10 - RESIDENTIAL DISTRICTS 1. (RD1.)

10.3 RESIDENTIAL DISTRICT 1.3 (RD1.3)

10.3.1 PERMITTED USES

- Existing Duplex Dwelling*
- Existing Semi-Detached Dwelling*
- One Single Unit Dwelling*
- Any use accessory to the preceding uses

10.3.5 PROVISIONS

	Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.1 Lot Width – minimum	9.0 m	15.0 m	9.0 m
.2 Lot Area – minimum	360.0 m ²	450.0 m ²	270.0 m ²
.3 Lot Coverage – maximum	45.0%	45.0%	45.0%
.4 Main Building Height – maximum	10.0 m	10.0 m	10.0 m
.5 Front Yard Depth – minimum	6.0 m	6.0 m	6.0 m
.6 Rear Yard Depth – minimum	7.50 m	7.50 m	7.50 m
.7 Side Yard Width – minimum	1.20 m	1.20 m	1.20 m

SECTION 11 - RESIDENTIAL DISTRICTS 2. (RD2.)

11.1 RESIDENTIAL DISTRICT 2.1 (RD2.1)

11.1.1 PERMITTED USES

- One Duplex Dwelling*
- One Semi-Detached Dwelling*
- One Single Unit Dwelling*
- Any use accessory to the preceding uses

11.1.5 PROVISIONS

	Duplex Dwelling	Semi-Detached Dwelling	Single Unit Dwelling
.1 Lot Width – minimum	12.0 m	15.0 m	9.0 m
.2 Lot Area – minimum	360.0 m ²	450.0 m ²	270.0 m ²
.3 Lot Coverage – maximum	45.0%	45.0%	45.0%
.4 Main Building Height – maximum	10.0 m	10.0 m	10.0 m
.5 Front Yard Depth – minimum	6.0 m	6.0 m	6.0 m
.6 Rear Yard Depth – minimum	7.50 m	7.50 m	7.50 m
.7 Side Yard Width – minimum	1.20 m	1.20 m	1.20 m

APPENDIX D - COMMENTS

Windsor Mapping – Enbridge

After reviewing the provided drawing at 716 Josephine Ave and consulting our mapping system, please note that Enbridge Gas has active infrastructure in the proposed area. A PDF drawing has been attached for reference.

Please Note:

1. The shown piping locations are approximate and for information purposes only
2. The drawings are not to scale
3. This drawing does not replace field locates. Please contact Ontario One Call for onsite locates prior to excavating, digging, etc

Enbridge Gas requires a minimum separation of 0.6m horizontal and 0.3m vertical from all of our plant less than NPS 16 and a minimum separation 1.0m horizontal and 0.6m vertical between any CER-regulated and vital pipelines. For all pipelines (including vital pipelines), when drilling parallel to the pipeline, a minimum horizontal clearance measured from the edge of the pipeline to the edge of the final bore hole of 1 m (3.3 ft) is required. Please ensure that this minimum separation requirement is maintained, and that the contractor obtains locates prior to performing any work and utilizes safe excavation practices while performing any work in the vicinity.

Also, please note the following should you find any abandoned infrastructure in the area:

- Any pipe that is excavated, please assume that it is live
- If during the course of any job, any pipe is found that is not on the locate sheet and is in conflict with your work, please call our emergency number (1-877-969-0999), and one of our Union Gas representatives will respond to determine if that plant is in fact live or dead
- Please note that our Enbridge Gas representative will respond to the live or dead call within 1-4 hours, so please plan your work accordingly

Canada Post

Canada Post has no comments for the attached application.

Jason Scott – Transit Windsor

Transit Windsor has no objections to this development. The closest existing transit route to this property is with the Dominion 5. The closest existing bus stop to this property is located on Campbell at Rooney Northeast Corner. This bus stop is approximately 220 metres away from this property falling within our 400 metre walking distance guideline to a bus stop. This will be maintained with our Council approved Transit Master Plan.

ESSEX REGION CONSERVATION AUTHORITY

The applicant proposes to demolish the single unit dwelling and construct a Semi-detached Dwelling with a driveway from Josephine. The Applicant is requesting an amendment to Zoning By-law 8600 changing the zoning from RD1.3 to Residential District 2.1 (RD2.1) and site specific exceptions to allow the construction of a Semi-detached Dwelling. The applicant is requesting site specific exceptions in minimum lot width from 15.0 m to 12.19 m, minimum lot area from 450 m² to 371 m², maximum lot coverage from 45% to 48% and in minimum rear yard setback from 7.5 m to 2.71 m.

DELEGATED RESPONSIBILITY TO REPRESENT THE PROVINCIAL INTEREST IN NATURAL HAZARDS AND REGULATORY RESPONSIBILITIES ASSOCIATED WITH THE CONSERVATION AUTHORITIES ACT

The following comments reflect our role as representing the provincial interest in natural hazards as outlined by Section 3.1 of the Provincial Policy Statement of the *Planning Act* as well as our regulatory role as defined by Section 28 of the *Conservation Authorities Act*.

We have reviewed our floodline mapping for this area and it has been determined this site is not located within a regulated area that is under the jurisdiction of the ERCA (Section 28 of the *Conservation Authorities Act*). As a result, a permit is not required from ERCA for issues related to Section 28 of the *Conservation Authorities Act*, Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation under the *Conservations Authorities Act*, (Ontario Regulation No. 158/06).

WATERSHED BASED RESOURCE MANAGEMENT AGENCY

The following comments are provided in an advisory capacity as a public commenting body on matters related to watershed management.

SECTION 1.6.6.7 Stormwater Management (PPS, 2020)

We do not have any concerns or comments on the zoning by-law amendment, with regard to stormwater management. We further recommend that any stormwater management analysis, be completed to the satisfaction of the Municipality. We do not require further consultation on this file with respect to stormwater management.

PLANNING ADVISORY SERVICE TO PLANNING AUTHORITIES - NATURAL HERITAGE POLICIES OF THE PPS, 2020

The following comments are provided from our perspective as an advisory service provider to the Planning Authority on matters related to natural heritage and natural heritage systems as outlined in Section 2.1 of the Provincial Policy Statement of the *Planning Act*. The comments in this section do not necessarily represent the provincial position and are advisory in nature for the consideration of the Planning Authority.

The subject property is not within or adjacent to any natural heritage feature that may meet the criteria for significance as defined by the PPS. Based on our review, we have no objection to the application with respect to the natural heritage policies of the PPS.

FINAL RECOMMENDATION

We do not have any objections to the zoning by-law amendment at this time.

Barbara Rusan – Building Department

The Building Code Act, Section 8.(1) requires that a building permit be issued by the Chief Building Official for construction or demolition of a building. The building permit review process occurs after a development application receives approval and once a building permit application has been submitted to the Building Department and deemed a complete application.

Due to the limited Ontario Building Code related information received, review of the proposed project for compliance to the Ontario Building Code has not yet been conducted.

It is strongly recommended that the owner and/or applicant contact the Building Department to determine building permit needs for the proposed project prior to building permit submission.

The City of Windsor Building Department can be reach by phoning 519-255-6267 or, through email at buildingdept@citywindsor.ca

Patrick Winters – Engineering & ROW

The subject lands are located at 716 Josephine Ave, zoned Residential District 1.3 (RD1.3) by Zoning By-Law 8600. The applicant proposes to demolish the single unit dwelling and construct a Semi-detached Dwelling with a driveway from Josephine. The Applicant is requesting an amendment to Zoning By-law 8600 changing the zoning from RD1.3 to Residential District 2.1 (RD2.1) and site specific exceptions to allow the construction of a Semi-detached Dwelling.

SEWERS - The site may be serviced by a 375mm vitrified clay combined sewer located within Josephine Avenue. The applicant will be required to submit site servicing drawings.

RIGHT-OF-WAY – The Official Plan classifies Josephine Ave as a local road, requiring a right-of-way width of 20.1m. The current right-of-way width is 20.1m; therefore, a conveyance is not required. Permits will be required from this department for the driveway removal on the north side of the property, for a new driveway on the south side of the property and any other work that may be required in the right-of-way. The driveway is to be constructed as per AS-221 or AS-222 and BP2.2.2. Additionally, the utility pole must be a minimum of one foot from the edge of the driveway. If the proposed driveway

is in conflict with the existing utility pole then this will need to address by the applicant prior to, or during servicing.

In summary we have no objection to the proposed rezoning, subject to the following requirements (Requirements can be enforced during Building and Right-of-Way permitting):

Right-of-Way Permits – The owner agrees to obtain right-of-way permits for sewer taps, drain taps, flatworks, landscaping, curb cuts, and driveway approaches from the City Engineer, prior to commencement of any construction on the public highway.

Redundant Curb Cuts – The owner agrees to remove and replace the redundant curb cut on Josephine Ave with full height curb to the satisfaction of the City Engineer.

Video Inspection (connection) - The owner further agrees, at its entire expense and to the satisfaction of the City Engineer:

1. To undertake a video inspection, of any existing connections proposed for reuse to ensure the suitability of the connection for use in accordance with City of Windsor Standard Specifications S-32 CCTV Sewer Inspection.
2. Any redundant connections will be abandoned according to the City of Windsor Engineering Best Practice B.P.1.3.3.
3. Any new Connections to combined sewers will follow City of Windsor Engineering Best Practice B.P.1.1.1.

Kristina Tang – Heritage Planner

There is no apparent built heritage concern with this property and it is located on an area of low archaeological potential.

Nevertheless, the Applicant should be notified of the following archaeological precaution.

1. Should archaeological resources be found during grading, construction or soil removal activities, all work in the area must stop immediately and the City's Planning & Building Department, the City's Manager of Culture and Events, and the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries must be notified and confirm satisfaction of any archaeological requirements before work can recommence.
2. In the event that human remains are encountered during grading, construction or soil removal activities, all work in that area must be stopped immediately and the site secured. The local police or coroner must be contacted to determine whether or not the skeletal remains are human, and whether the remains constitute a part of a crime scene. The Local police or coroner will then notify the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries and the Registrar at the Ministry of Government and Consumer Services if needed, and notification and satisfactory confirmation be given by the Ministry of Heritage, Sport, Tourism and Culture Industries.

Contacts:

Windsor Planning & Building Department:
519-255-6543 x6179, ktang@citywindsor.ca, planningdept@citywindsor.ca

Windsor Manager of Culture and Events (A):
Michelle Staaedegaard, (O) 519-253-2300x2726, (C) 519-816-0711,
mstaadegaard@citywindsor.ca

Ontario Ministry of Heritage, Sport, Tourism and Culture Industries
Archaeology Programs Unit, 1-416-212-8886, Archaeology@ontario.ca

Windsor Police: 911

Ontario Ministry of Government & Consumer Services
A/Registrar of Burial Sites, War Graves, Abandoned Cemeteries and Cemetery Closures,
1-416-212-7499, Crystal.Forrest@ontario.ca

Enwin

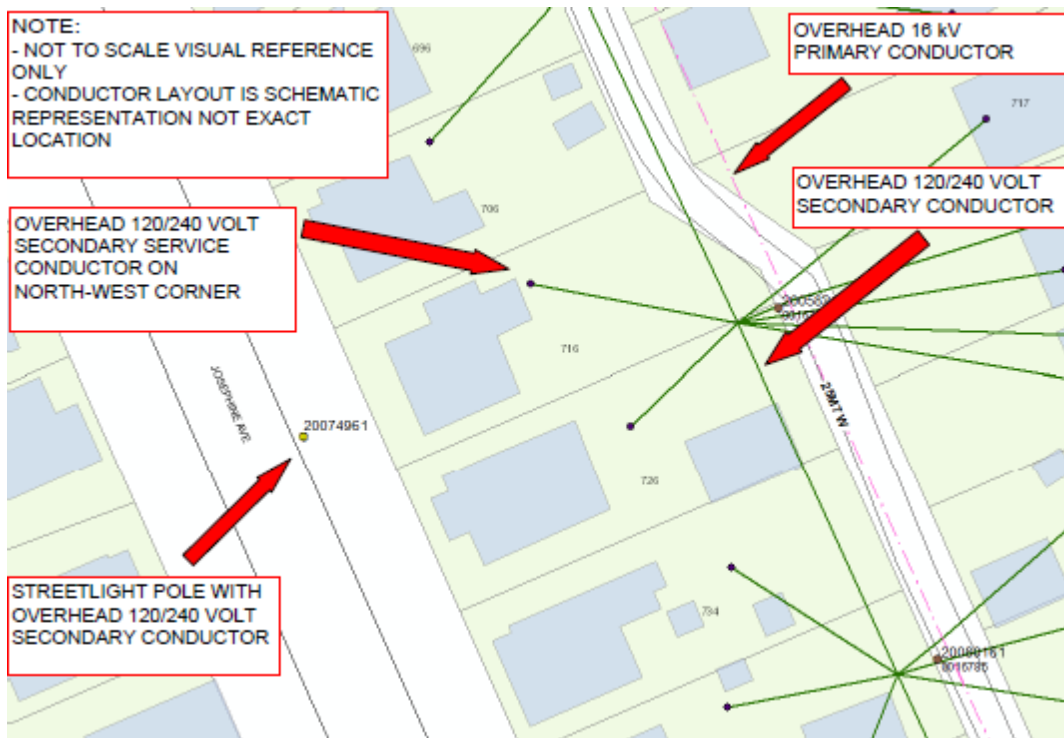
Hydro Engineering: No objection provided adequate clearances are achieved and maintained.

ENWIN has existing primary conductor at 16kV and secondary conductor at 120/240 Volts running along the East side of the property in the rear yard. There is streetlight conductor at 120/240 Volts running in front of the property on the West side.

Be advised of the overhead 120/240 Volt secondary service connected to the North side of the current building along with overhead communication cables connected to the South side of the building.

Prior to working in these areas, we suggest notifying your contractor and referring to the Occupational Health and Safety Act and Regulations for Construction Projects to confirm clearance requirements during construction. Also, we suggest referring to the Ontario Building Code for required clearances for New Building Construction.

Sketch attached for reference only. This attachment does not replace the need for utility locates.



Water Engineering: Water Engineering has no objections to the rezoning.

Rania Toufeili – Transportation Planning

- The Official Plan classifies Josephine Street as a Local Road with a required right-of-way width of 20 meters. The current right-of-way width is sufficient and therefore no conveyance is required.
- Parking supply must meet Zoning By-Law 8600 requirements.
- Driveways must comply with and be constructed to City Standards.
- All exterior paths of travel must meet the requirements of the Accessibility for Ontarians with Disabilities Act (AODA).



Committee Matters: SCM 170/2022

Subject: 1478 Kildare Road, Cunningham Sheet Metal (formerly) - Heritage Permit Request (Ward 4)

Moved by: Councillor Sleiman

Seconded by: Member Foot

Decision Number: **DHSC 403**

- I. THAT a Heritage Permit at 1478 Kildare Road, Cunningham Sheet Metal (formerly), **BE GRANTED** for removal and replacement of the wood carriage-style shop doors.
- II. THAT the City Planner or designate **BE DELEGATED** the authority to approve any further proposed changes associated with the proposed scope of work for the shop doors restoration.

Carried.

Report Number: S 60/2022

Clerk's File: MBA/12747

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.
2. Please refer to Item 10.1. from the Development & Heritage Standing Committee Meeting held June 6, 2022.
3. To view the stream of this Standing Committee meeting, please refer to:
<http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220608/-1/7334>

**Subject: 1478 Kildare Road, Cunningham Sheet Metal (formerly) -
Heritage Permit Request (Ward 4)**

Reference:

Date to Council: June 6, 2022
Author: Kristina Tang, MCIP, RPP
Heritage Planner
ktang@citywindsor.ca
519-255-6543 x 6179

Tracy Tang
Planner II- Revitalization & Policy Initiatives
ttang@citywindsor.ca
519-255-6543 x 6449
Planning & Building Services
Report Date: May 18, 2022
Clerk's File #: MBA/12747

To: Mayor and Members of City Council

Recommendation:

- I. THAT a Heritage Permit at 1478 Kildare Road, Cunningham Sheet Metal (formerly), **BE GRANTED** for removal and replacement of the wood carriage-style shop doors.
- II. THAT the City Planner or designate **BE DELEGATED** the authority to approve any further proposed changes associated with the proposed scope of work for the shop doors restoration.

Executive Summary: N/A

Background:

The property at 1478 Kildare Road is known as the former Cunningham Sheet Metal building. The one storey building was designed with Art Deco elements by McElroy & McIntosh and constructed in 1928. Cunningham Sheet Metal Ltd. had a rich history of operation in Walkerville and contribution to the construction of Windsor. In 2015, the metal fabricator company relocated to a larger facility in Oldcastle. The property at 1479 Kildare Road has since been operating as Justin's Auto Repair.

On January 5, 2009, Cunningham Sheet Metal was listed on the Windsor Municipal Heritage Register and on June 5, 2017, City Council approved the heritage designation through By-law No. 83-2017 as requested by current owners Justin and Cherleen

Lapointe. The Statement of Cultural Heritage Value or Interest from the By-law is attached as Appendix A.

In January 2022, an accidental workplace-related fire damaged the property including the heritage attribute “carriage style wooden door with multi-pane window on north side”. The doors were damaged to the extent of being considered unsafe. In February 2022, an Order to Repair was issued in response to the fire damage on the property. Consequently the exterior of the damaged wood doors was boarded for safety and weather protection. Since February 2022, the wood doors have been removed and placed into storage.

The current owner (Justin Lapointe) plans to replace the doors with new materials and finishes, replicating the style and finish by using the original damaged doors and photo documentation as template. Metal pieces will be refurbished to original state of construction if salvageable, otherwise replicated if unsalvageable.

The wooden doors are a featured heritage attribute in the Heritage Designation By-law and a Heritage Permit is required for their removal and replacement. A Heritage Permit application was submitted to the City on April 21, 2022 (Appendix B - Heritage Permit Application).

Legal Provisions:

The *Ontario Heritage Act (OHA)* requires the owner of a heritage designated property to apply to Council to alter the property. The designation by-law includes heritage attributes (see Appendix A). In accordance with the *OHA*, changes to designated property that affect heritage attributes must be considered by City Council after consulting with the municipal Heritage Committee. Council has the option of granting consent with or without terms and conditions, or refusing the application within 90 days of notice of complete application.

Discussion:

Property Description:

The building is a 1928 one-storey long rectilinear industrial building that features a buff brick facade. It was designed by McElroy & McIntosh for the Cunningham Sheet Metal business with simple elements of Art Deco style. The north-facing facade of the building has an exterior feature included in the designation by-law:

- Carriage style wooden door with multi-pane window on north side

In particular, the wooden doors have large metal hinges, a wooden bar lock, and 12-pane windows with wood muntins. The door was painted a forest green colour on the interior and a light grey on the exterior prior to the fire.

Proposal and Heritage Conservation Considerations

For the proposed scope of work, some relevant references from the *Standards & Guidelines for Conservation of Historic Places* have been considered.

- 8. Maintain *character-defining elements* on an ongoing basis. Repair character-defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving *prototypes*.

- 13. Repair rather than replace *character-defining elements* from the *restoration* period. Where character-defining elements are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.

From Section 4.3.5 Windows, Doors and Storefronts:

	Recommended	Not Recommended
3	Documenting the form, materials and condition of windows, doors and storefronts, and their elements, before undertaking an intervention. This includes the configuration, style, method of operation and materials.	Undertaking an intervention that affects windows, doors and storefronts without first documenting their existing character and condition.
4	Assessing the condition of windows, doors and storefronts, including hardware, early in the planning process so that the scope of work is based on current conditions.	
5	Determining the cause of distress, damage, or deterioration of windows, doors and storefronts through investigation, monitoring, and minimally invasive or non-destructive testing techniques.	
8	Retaining sound and repairable windows, doors and storefronts, including their functional and decorative elements, such as hardware, signs and awnings.	Removing or replacing windows, doors and storefronts that can be repaired. Peeling paint, broken glass, stuck sashes, loose hinges or high air infiltration are not, in themselves, indications that these assemblies are beyond repair.
12	Replacing in kind extensively deteriorated or missing parts of windows, doors and storefronts, where there are surviving prototypes.	Replacing an entire functional or decorative element, such as a shutter with a broken louver, or a door with a missing hinge, when only limited replacement of deteriorated or missing part is possible. Using a substitute material for the replacement part that neither conveys the same appearance as the surviving parts of the element, nor is physically or visually compatible.
16	Replacing in kind irreparable windows, doors or storefronts based on physical and documentary evidence. If using the same materials and design details is not technically or economically feasible, then compatible substitute materials or details may be considered.	Removing an irreparable window, door or storefront and not replacing it, or replacing it with a new one that does not convey the same appearance or serve the same function. Stripping storefronts of character-defining materials or covering over those materials.

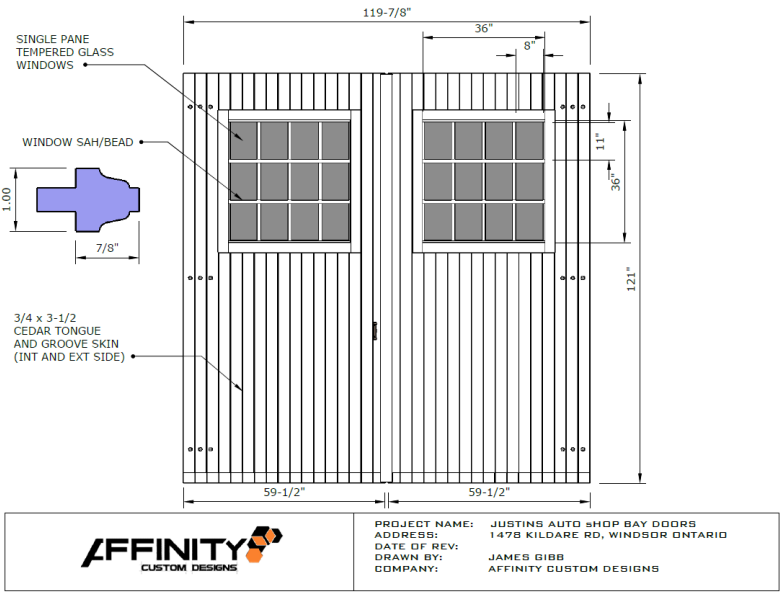
From Section 4.5.2 Wood and Wood Products:

20	Replacing in kind an irreparable wood element, based on documentary and physical evidence.	Removing an irreparable wood element and not replacing it, or replacing it with an inappropriate new element.
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From Section 4.5.5 Architectural and Structural Metals:

12	Retaining all sound and repairable metals that contribute to the heritage value of the historic place.	Replacing metals that can be repaired.
14	Repairing parts of metal elements by welding, soldering, patching, or splicing, using recognized conservation methods.	Replacing an entire metal element, when repair and limited replacement of deteriorated or missing parts is possible.
15	Replacing in kind, extensively deteriorated or missing parts of metal elements, based on physical and documentary evidence.	Replacing an entire metal element, when limited replacement of deteriorated and missing parts is appropriate. Using a substitute material that neither conveys the appearance of the surviving parts of the metal element, nor is physically or chemically compatible.
18	Replacing in kind an irreparable metal element, based on documentary and physical evidence.	Removing an irreparable metal element and not replacing it, or replacing it with an inappropriate new element.
21	Replacing in kind a metal element from the restoration period that is too deteriorated to repair, based on documentary and physical evidence. The new work should be well documented and unobtrusively dated to guide future research and treatment.	Removing an irreparable metal element from the restoration period and not replacing it, or replacing it with an inappropriate new element.

The heritage permit is for the complete removal of the fire-damaged wood doors and replacement with new materials and finishes in replication of the original. The new replicated doors are as proposed in the drawings attached within Appendix B.



Drawing of the proposed replacement wood doors



Photographs of the wood doors interior and exterior, taken September 2016



Photographs of the wood doors after fire, showing close-up detail on the interior and the exterior boarded up for safety purposes, taken February 2022. Additional photographs are provided in Appendix C.

As part of the replacement, the retained contractor is conducting investigations on the extent of the damage to the metal pieces such as the hinges. Where possible, restoration of the historic metal pieces is proposed (cleaning and repairs). It is important that heritage-sensitive approaches and materials be employed, so as not to result in unintentional harm to the historic material. Where there are areas of damage beyond repair, the retained contractor proposes to replicate the metal pieces to what was originally constructed using the remaining pieces and photograph documentation.

The proposed drawings follows the Heritage standards and based on the specified profiles and materials, samples and mock-ups from Heritage Staff will not be required for the work.

Official Plan Policy:

The Windsor Official Plan states “Council will recognize Windsor’s heritage resources by: Designating individual buildings, structures, sites and landscapes as heritage properties under the Ontario Heritage Act.” (9.3.3.1(a))

The Plan includes protection (9.3.4.1). “Council will protect heritage resources by: (c) Requiring that, prior to approval of any alteration, partial demolition, removal or change in use of a designated heritage property, the applicant demonstrate that the proposal will not adversely impact the heritage significance of the property ...”

The Windsor Official Plan includes (9.3.6.1.), “Council will manage heritage resources by: (e) providing support and encouragement to organizations and individuals who undertake the conservation of heritage resources by private means”.

Risk Analysis:

The risk of taking no action for the wood doors is their inappropriate replacement incompatible with the nature of the heritage property. At this point, the doors have been removed due to their unsafe condition and the opening in the north wall has been boarded. Risk of the inappropriate replacement is being mitigated through the heritage-cognizant proposal.

Climate Change Risks

Climate Change Mitigation: N/A

Climate Change Adaptation: N/A

Financial Matters:

The applicant has informed that their insurance company will be covering the cost of the replacement door in full.

Consultations:

The Heritage Planner has been in communication with the owner since January 2022.

Conclusion:

The heritage permit request for the removal and replacement of the wood carriage-style shop doors is recommended for approval. Delegated authority to the City Planner or designate to direct any further minor changes as needed will provide project efficiencies and confirm that the interventions proposed would not have a negative impact on the heritage attributes of the property.

Planning Act Matters: N/A

Approvals:

Name	Title
Michael Cooke	Manager of Planning Policy/Deputy City Planner
Thom Hunt	City Planner / Executive Director, Planning & Building
Dana Paladino	Acting Commissioner, Legal & Legislative Services
Jelena Payne	Commissioner, Economic Development & Innovation
Shelby Askin Hager	Chief Administrative Officer (Acting)

Notifications:

Name	Address	Email
Justin Lapointe		volvo1982@hotmail.com
James Gibb		affinitycustomdesigns@gmail.com

Appendices:

- 1 Appendix A - Statement of Cultural Heritage Value or Interest from Heritage Designation By-law 83-2017
- 2 Appendix B - Heritage Permit Application
- 3 Appendix C - Additional Photos of Cunningham Sheet Metal

Appendix A – Statement of Cultural Heritage Value or Interest

From By-Law No. 83-2017, June 5, 2017

REASONS FOR DESIGNATION / STATEMENT OF SIGNIFICANCE Cunningham Sheet Metal 1478 Kildare Road

Description of Historic Place

The Cunningham Sheet Metal building located at 1478 Kildare Road was constructed in 1928. The one storey rectilinear building was designed by McElroy & McIntosh with a buff brick facade and simple elements of the Art Deco style. Cunningham Sheet Metal has a rich history of operation in Walkerville and contribution to the construction of Windsor. It is located between residential neighbourhood and industrial uses.

Cultural Heritage Value or Interest

Design or Physical Value:

The Cunningham Sheet Metal is a long rectilinear one storey industrial building designed with simple elements of the Art Deco architectural style. The symmetrical building has a buff brick facade with brick pilasters and stone cap. The front facade retains the stone lintels and sills. A low-peaked stone pediment with scroll design at ends is positioned above the front entry, which has a small portico consisting of a flared metal deck with scroll design corbels. Large multi-pane casement windows line the sides of the building to provide natural light.

Historical or Associative Value:

Founded and established since 1908, Cunningham Sheet Metal is one of the oldest industrial businesses that existed in Walkerville. For over a century, it operated in Walkerville and specifically at the Kildare Road facility for 87 years. In the early decades, the Cunningham Sheet Metal business grew as quickly as the Border Cities. Its specialty then in sheet metal work, roofing, heating and ventilation helped to construct countless buildings/structures in the region including those with heritage value such as the Ambassador Bridge, Dillon Hall, Windsor/Detroit Tunnel and Windsor Star Building. Over the century, the business continued to be actively engaged in providing services for significant and ordinary projects in the community.

The building was designed by the firm McElroy & McIntosh. Garnet Andrew McElroy (1897-1986) and Duncan N. McIntosh (1900-1985) were staff architects of the S.S. Kresge Co. who designed or engineered (McIntosh who was also an engineer) many S.S. Kresge Co. retail stores in Canada and the United States. McElroy in particular was a Windsor architect known for his progressive designs using Art Deco and Modernist architectural styles. McElroy's other local works include the Assumption College High School and Chapel (1957), the Wilkinson Shoe Store (c.1930) on Ouellette Avenue, and the heritage designated Harris House (1948) on Ypres Avenue.

Contextual Value:

The property is located at the boundary between residential subdivisions to the north and east and industrial land uses to the south. Residential development had continued expanding southward as the former Town of Walkerville grew while industrial uses had been established in the block to utilize the Essex Terminal Railway Line. The Cunningham Sheet Metal building is a long-standing landmark in the immediate neighbourhood and a signifier of the change between the residential and industrial land uses.

Character Defining Elements:

Exterior features that contribute to the design or physical value of Cunningham Sheet Metal:

- Built in 1928
- One storey industrial building constructed of brick and concrete with simple elements of the Art Deco architectural style, including:
 - Symmetrical rectilinear massing
 - Flat roof
 - Buff brick front wall with brick pilasters and stone cap
 - Low peaked stone pediment with scroll and leaf design at ends on front elevation
 - Small front portico consisting of a flared metal deck with scroll design corbels
 - Stone lintels and sills at front
 - Awning style large multi-pane casement windows on the sides
 - Carriage style wooden door with multi-pane window on north side

Features that contribute to the historical or associative value of Cunningham Sheet Metal:

- One of the most established sheet metal shops that has contributed to the construction of numerous significant and ordinary buildings and structures in Windsor
- One of the oldest industries which operated in Walkerville for over a century
- Designed by local architect Garnet Andrew McElroy & architect/engineer Duncan N. McIntosh

Features that contribute to the contextual value of Cunningham Sheet Metal:

- Located at the boundary of the residential and industrial uses on Kildare Road in the Walkerville area
- Is a landmark to the immediate neighbourhood

CORPORATION OF THE CITY OF WINDSOR

Planning Dept., Suite 320-350 City Hall Sq W, Windsor ON N9A 6S1
519-255-6543 | 519-255-6544 (fax) | planningdept@citywindsor.ca

1. Applicant, Agent and Registered Owner Information

Provide in full the name of the applicant, registered owner and agent, the name of the contact person, and address, postal code, phone number, fax number and email address. If the applicant or registered owner is a numbered company, provide the name of the principals of the company. If there is more than one applicant or registered owner, copy this page, complete in full and submit with this application.

APPLICANT

Contact Name(s) JAMES GIBB
Company or Organization AFFINITY CUSTOM DESIGNS
Mailing Address 1479 COUNTY RD 27
LAKESHORE ONTARIO
Postal Code N0R 1A0
Email AFFINITYCUSTOMDESIGNS@GMAIL.COM Phone(s) 519-564-2878

REGISTERED OWNER IF NOT APPLICANT

Contact Name(s) Justin Lapointe
Company or Organization Justins Auto Repair
Mailing Address 1479 KILDARE RD
WINDSOR ONTARIO
Postal Code N8Y 3S3
Email justin@justinautorepair.ca Phone(s) 519-465-3708

AGENT AUTHORIZED BY REGISTERED OWNER TO FILE THE APPLICATION

Contact Name(s) JAMES GIBB
Company or Organization AFFINITY CUSTOM DESIGNS
Mailing Address 1479 COUNTY RD 27
LAKESHORE ONTARIO
Postal Code N0R 1A0
Email AFFINITYCUSTOMDESIGNS@GMAIL.COM Phone(s) 519-564-2878

Who is the primary contact?

- Applicant Registered Owner Agent

2. SUBJECT PROPERTY

Municipal Address: 1478 Kildare Road, Windsor

Legal Description (if known): CON 1; PT LOTS 94 & 95; RP 18R28138; part 1

Building/Structure Type:
 Residential Commercial Industrial Institutional

Heritage Designation:
 Part IV (Individual) Part V (Heritage Conservation District)

By-law #: 83-2017 District: _____

Is the property subject to a Heritage Easement or Agreement?
 Yes No

3. TYPE OF APPLICATION

Check all that apply:
 Demolition/Removal of heritage attributes Addition Erection Alteration*
 Demolition/Removal of building or structure Signage Lighting

*The Ontario Heritage Act's definition of "alter" means to change in any manner and includes to restore, renovate, repair or disturb.

4. HERITAGE DESCRIPTION OF BUILDING

Describe the existing design or appearance of buildings, structures, and heritage attributes where work is requested. Include site layout, history, architectural description, number of storeys, style, features, etc..

Carriage style wooden doors with multi-panel windows
on the North side.

Built in 1928 when the whole building was built

5. PROPOSED WORK

Provide a detailed written description of work to be done, including any conservation methods you plan to use. Provide details, drawings, and written specifications such as building materials, measurements, window sizes and configurations, decorative details, etc.. Attach site plans, elevations, product spec sheets, etc. to illustrate, if necessary.

COMPLETE REPLACEMENT OF DOORS WITH NEW MATERIALS. BUILT TO MATCH THE DOORS THAT HAVE BEEN DAMAGED IN SIZE STYLE & FINISH.

6. HERITAGE PERMIT RATIONALE

Explain the reasons for undertaking the proposed work and why it is necessary.

THE DOORS WERE DAMAGED DUE TO A STRUCTURE FIRE AND ARE NOT CONSIDERED SAFE.

Describe the potential impacts to the heritage attributes of the property.

THE DOORS WILL BE CONSULTED WITH ALL NEW MATERIALS AND NEW FINISHES TO REPLICATE WHAT WAS ORIGINALLY BUILT.

7. CHECKLIST OF MATERIALS SUBMITTED Check all that apply:

Required:

- Photographs (showing the current condition and context of existing buildings, structures, and heritage attributes that are affected by the application)
- Site plan/ Sketch (showing buildings on the property and location of proposed work)
- Drawings of proposed work (e.g. existing and proposed elevations, floor plans, roof plans, etc., as determined by Heritage Planning staff)
- Specifications of proposed work (e.g. construction specification details)

Potentially required (to be determined by Heritage Planning staff):

- Registered survey
- Material samples, brochures, product data sheets etc.
- Cultural Heritage Evaluation Report
- Heritage Impact Assessment (HIA)
- Heritage Conservation Plan
- Building Condition Assessment



HERITAGE PERMIT APPLICATION

Revised 12/2021

8. NOTES FOR DECLARATION

The applicant hereby declares that the statements made herein and information provided are, to the best of their belief and knowledge, a true and complete representation of the purpose and intent of this application.

The applicant agrees that the proposed work shall be done in accordance with this application, including attachments, and understands that the issuance of the Heritage Alteration Permit under the Ontario Heritage Act shall not be a waiver of any of the provisions of any By-Law of the Corporation of the City of Windsor, or the requirements of the Building Code Act, RSO 1980, c51.

The applicant acknowledges that in the event a permit is issued, any departure from the conditions imposed by the Council of the Corporation of the City of Windsor, or plans and specifications approved is prohibited and could result in the permit being revoked. The applicant further agrees that if the Heritage Alteration Permit is revoked for any cause of irregularity, in the relation to non-conformance with the said agreements, By-Laws, acts or regulations that, in consideration of the issuance of the permit, all claims against the City for any resultant loss or damage are hereby expressly waived.

APPLICANT Signature(s) _____

Date 04 20 2022

Date _____

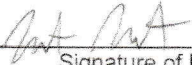
SCHEDULE A

A. Authorization of Registered Owner for Agent to Make the Application

If the applicant is not the registered owner of the land that is the subject of this application, the written authorization of the registered owner that the applicant is authorized to make the application must be included with this application form or the authorization below must be completed.

I, Justin Lapointe, am the registered owner of the land that is
name of registered owner

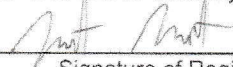
subject of this application for a Heritage Alteration Permit and I authorize
James Gibb to make this application on my behalf.
name of agent

 March 23, 2022
Signature of Registered Owner Date

If Corporation – I have authority to bind the corporation.

B. Consent to Enter Upon the Subject Lands and Premises

I, Justin Lapointe, hereby authorize the members of the Windsor
Heritage Committee and City Council and staff of the Corporation of the City of Windsor
to enter upon the subject lands and premises described in Section 3 of the application
form for the purpose of evaluating the merits of this application and subsequently to
conduct any inspections on the subject lands that may be required as condition of
approval. This is their authority for doing so.


 March 23, 2022
Signature of Registered Owner Date

If Corporation – I have authority to bind the corporation.

C. Acknowledgement of Applicant

I understand that receipt of this application by the City of Windsor Planning Department
does not guarantee it to be a complete application. Further review of the application will
occur and I may be contacted to provide additional information and/or resolve any
discrepancies or issues with the application as submitted.

I further understand that pursuant to the provisions of the Ontario Heritage Act and the
Municipal Freedom of Information and Protection of Privacy Act, this application and all
material and information provided with this application are made available to the public.

 04.20.2022
Signature of Applicant Date

DO NOT COMPLETE BELOW – STAFF USE ONLY

Approval Record

Date Received by Heritage Planner: _____

Building Permit Application Date, if needed: _____

Application Approval (City Council):

Development & Heritage Standing Committee: _____

City Council: _____

Application Approval (City Planner):

Heritage Planner: _____

Staff Decision Appealed to City Council: _____

If so, Date to City Council: _____

Council Decision Appealed: _____

Additional Notes / Conditions:

DECISION

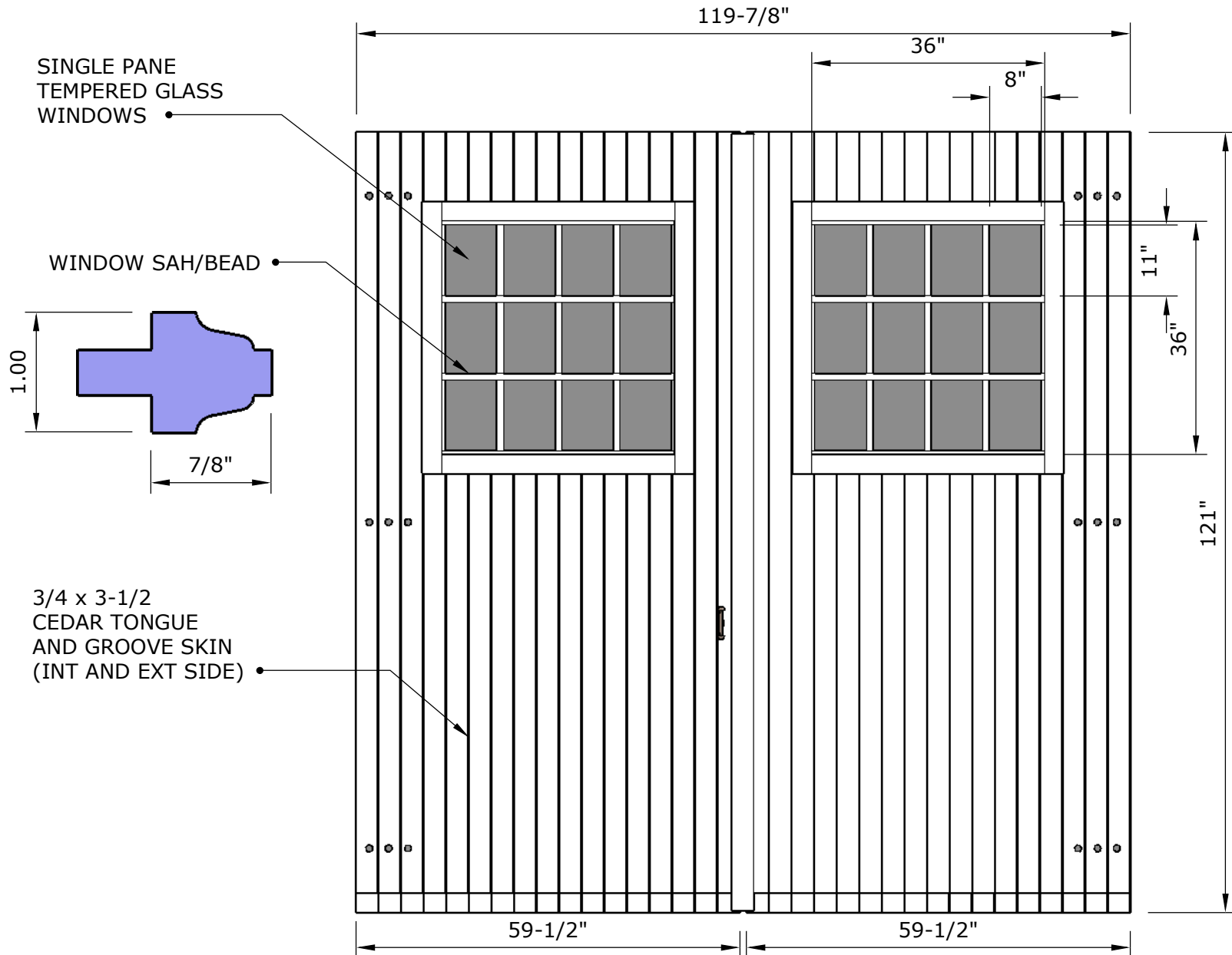
Heritage Permit No.: _____ Date: _____

Council Motion or City Planner's Signature: _____

Please contact Heritage Planning to request inspections at ktang@citywindsor.ca

CONTACT INFORMATION

Planning Department - Planning Policy
 Corporation of the City of Windsor
 Suite 320 - 350 City Hall Square West
 Windsor ON N9A 6S1
planningdept@citywindsor.ca
 519-255-6543 x 6179
 519-255-6544 (fax)
<http://www.citywindsor.ca>



PROJECT NAME: JUSTINS AUTO SHOP BAY DOORS
 ADDRESS: 1478 KILDARE RD, WINDSOR ONTARIO
 DATE OF REV:
 DRAWN BY: JAMES GIBB
 COMPANY: AFFINITY CUSTOM DESIGNS

Appendix C – Additional Photos of Cunningham Sheet Metal



Interior of the wood doors, photographed in September 2016



Exterior of the wood doors on the north facade, photographed in September 2016



Interior of the wood doors immediately following the work shop fire, photographed by owner in January 2022



Interior and exterior of the wood doors during clean-up of the surrounding area, photographed by Administration in February 2022. The exterior was boarded for safety purposes and weather protection at the time



Close-up details of the fire damage to the interior of the wood doors, photographed by Administration in February 2022

Subject: Bernard Road Subdivision – NOC Development Inc. Cost Sharing/Oversizing/Servicing - Ward 5

Reference:

Date to Council: July 11, 2022
Author: Robert Perissinotti
Development Engineer (A)
519-255-6100 ext. 6615
rperissinotti@citywindsor.ca

Report Date: June 17, 2022
Clerk's File #: Z2022

To: Mayor and Members of City Council

Recommendation:

- I. THAT Council **APPROVE** payment to NOC Development Inc. for oversizing costs to service privately owned lands (Bernard Rd Benefiting Properties shown on Appendix 'A', being Lots 62 to 69 inclusive 12M-319) as part of the Bernard Road Subdivision Development, of up to \$45,555.42 (inclusive of HST), for each of the eight (8) Bernard Rd benefitting properties totaling \$364,443.38 (inclusive of HST), to be funded from Project ID #7035119 – New Infrastructure Development. These costs are to be recovered from the Bernard Rd Benefiting Properties prior to the issuance of building permits for them, plus an annual interest applied based on the Infrastructure Ontario 5-year borrowing rate plus 1% (currently 5.27%); and,
- II. That Council **APPROVE** \$157,302.92 (inclusive of HST) to be paid to NOC Development Inc. as the City of Windsor's portion of the storm sewer oversizing costs for Bernard Road Subdivision Development and 75% of the total costs for the Central Pond improvements, to be funded from the Project ID #7035119 – New Infrastructure Development.

Background:

Bernard Road from Joinville Avenue to the south cul-de-sac (north of Plymouth Drive) was serviced in accordance with a subdivision agreement between The Corporation of the City of Windsor and NOC Development Inc. (Developer), approved by Council Direction M160-2015 and registered as CE1028950 (Subdivision Agreement). The subdivision includes the redevelopment of the former St. Maria Goretti elementary school into thirty (30) single family home sites. This development also includes services to the eight (8) privately owned lands on the east side of Bernard Rd (Bernard Benefiting Properties on Appendix 'A').

In 2020, D.C. McCloskey Engineering prepared a report (attached as Appendix 'B') on the Central Avenue Pond, located at the southeast corner of Plymouth Drive and Central Avenue to assess its use as a regional stormwater management (SWM) facility. This pond was constructed in 1995 to store and treat stormwater from the area generally bounded by Grand Marais Road East to the north, Pillette Road to the east, Central Avenue to the west and the CN railway line to the south. In 1997, to address concerns from the Windsor International Airport about the attraction of waterfowl, alterations were made to the pond to limit surface water area and create heavy vegetative cover. These alterations affected the intended design of the pond, limiting its capacity. This has resulted in a requirement for site specific water quality and quantity management requirements for new development within the catchment area.

The abovementioned report examined the potential to re-establish this regional SWM facility to provide the required quality and quantity requirements of the Ministry of the Environment, Conservation and Parks SWM design guidelines and the Windsor/Essex Regional SWM Standards Manual. The report found that the existing sewer systems in the catchment area have sufficient conveyance capacity to handle runoff from the area, including the proposed NOC development. It recommended modifications to the Central Avenue and Grand Central Business Park ponds, which if implemented, would restore the original design intent of the Central Avenue pond and provide sufficient SWM quality and quantity control for the catchment area. The Windsor International Airport was consulted throughout the process.

Additionally, the D.C. McCloskey report recommended oversizing of the proposed storm sewers on Bernard Rd as a benefit to the upstream lands as well as to construct an overland flow route along the Bernard Road right-of-way from the proposed NOC development. This would provide storm relief to the low lying area near Grand Marais Road.

Special Provision S-11 of the Servicing Agreement reads as follows:

“In the event that the Owner is required to oversize any services in order to service others lands, it is agreed that any oversizing costs to be paid by the Corporation to the Owner shall be based on a cost-sharing and tender process satisfactory to the City Engineer. Any cost-sharing agreed to will be subject to approval of the Corporation’s City Council. Benefitting landowners will be required to pay their share of servicing costs prior to the release of permits for benefitting lands.”

The Developer’s Consulting Engineer has completed detailed servicing plans for the NOC development, and together with Administration cost sharing terms acceptable to both parties have been negotiated. The purpose of this report is to bring these terms before Council for approval.

Discussion:

The existing eight (8) properties on Bernard Road were originally subdivided as part of subdivision agreement number LT165247, but were never serviced. The Developer constructed all municipal infrastructure on Bernard Road including provisions to service the eight (8) benefiting properties. This infrastructure includes:

- Sanitary mainline sewer and private drain connections
- Storm mainline sewer and private drain connections
- Water mainline, including private services
- Local road (asphalt pavement, concrete curbs and gutters, sidewalks)
- Streetlights / utilities

Additionally, as previously mentioned, the Developer installed oversized storm sewers on Bernard Rd to provide flooding relief to the upstream area. These larger sewers are connected to the existing storm sewers on Bernard Rd and will act as an overflow during larger storm events which will reduce the risk of water backup into basements.

The Developer also reinstated the Central Pond according to the recommendations of the D.C. McCloskey report to provide adequate storm water storage capacity for the entire drainage catchment area. This included:

- Adjustment to pump activation levels
- Removal of the berm which cut-off available pond storage
- Improvements to the pond outlet

A contract was awarded for the construction through public tender in accordance with the Purchasing By-Law 93-2012 and the Subdivision Agreement and the works were construction in 2021.

Risk Analysis:

There is a risk that servicing costs from the eight (8) Bernard Rd Benefiting Properties will never be recovered by the City should the property owner(s) choose not to develop. This risk is low due to the current economy and buoyant real estate prices. In addition, there is a one foot reserve in front of these lots which prevents the owners from accessing the services. This one foot reserve will not be removed until the cost of these services have been paid in full. In addition, annual interest based on Infrastructure Ontario 5-year borrowing rate will be applied on each property based on the outstanding amount owed.

Financial Matters:

As noted, the City is responsible for compensating the Developer for oversizing costs. These include storm sewer oversizing costs, a portion of the Central Pond improvement costs and full municipal services to the eight (8) benefiting properties on Bernard Road, which include their proportionate share of roads, sidewalks, streetlighting, utilities, mainline sewers and water main and private drain connections. The NOC development represents roughly 25% of the total catchment area attributable to the Central Avenue

Pond and as such the City will reimburse the Developer 75% of the cost of that portion of the work.

The Developer constructed all of these works in 2021 and is seeking payment from the City of \$521,746.30 (inclusive of HST). The table below outlines the estimated costs the City is to pay the Developer.

Description	Amount (HST included)
Total Costs to service 8 benefiting properties	\$364,443.38
Bernard Rd storm sewer oversizing costs	\$92,134.41
75% of the cost to improve the Central Pond	\$65,168.51
Amount Payable to NOC Development Inc.	\$521,746.30

The New Infrastructure Development project (ID#7035119) has previously earmarked funds within its budget for this development. This project has sufficient available funding to make the payments.

The City will continue to carry a long term receivable for the \$364,443 until such time as the eight (8) benefitting properties choose to develop their lands. The City will recover the costs from the eight (8) Benefiting Properties at the time of issuance of building permits for each lot. There is also the possibility that the City can recover a portion of the Central Pond improvement costs if other vacant lands in the Central Pond catchment area are to be developed in the future. As previously noted, there is a risk that these lots will not develop immediately and the City will not be able to recover that portion of the costs in the short term. Administration is recommending that annual interest be applied to the outstanding receivable based on the Infrastructure Ontario 5-year borrowing rate + 1% (currently 5.27%) while the amounts remain outstanding from the property owners.

Consultations:

Carrie McCrindle - Financial Planning Administrator
Linda Mancina – Financial Planning Administrator
Natasha Gabbana – Senior Manager Asset Planning
Tony Ardovini – Deputy Treasurer

Conclusion:

Administration is recommending approval for payment to NOC Development Inc. of the oversizing/servicing costs for the Bernard Road Subdivision, in accordance with the provisions of the Subdivision Agreement and recovery from benefiting properties.

Planning Act Matters:

N/A

Approvals:

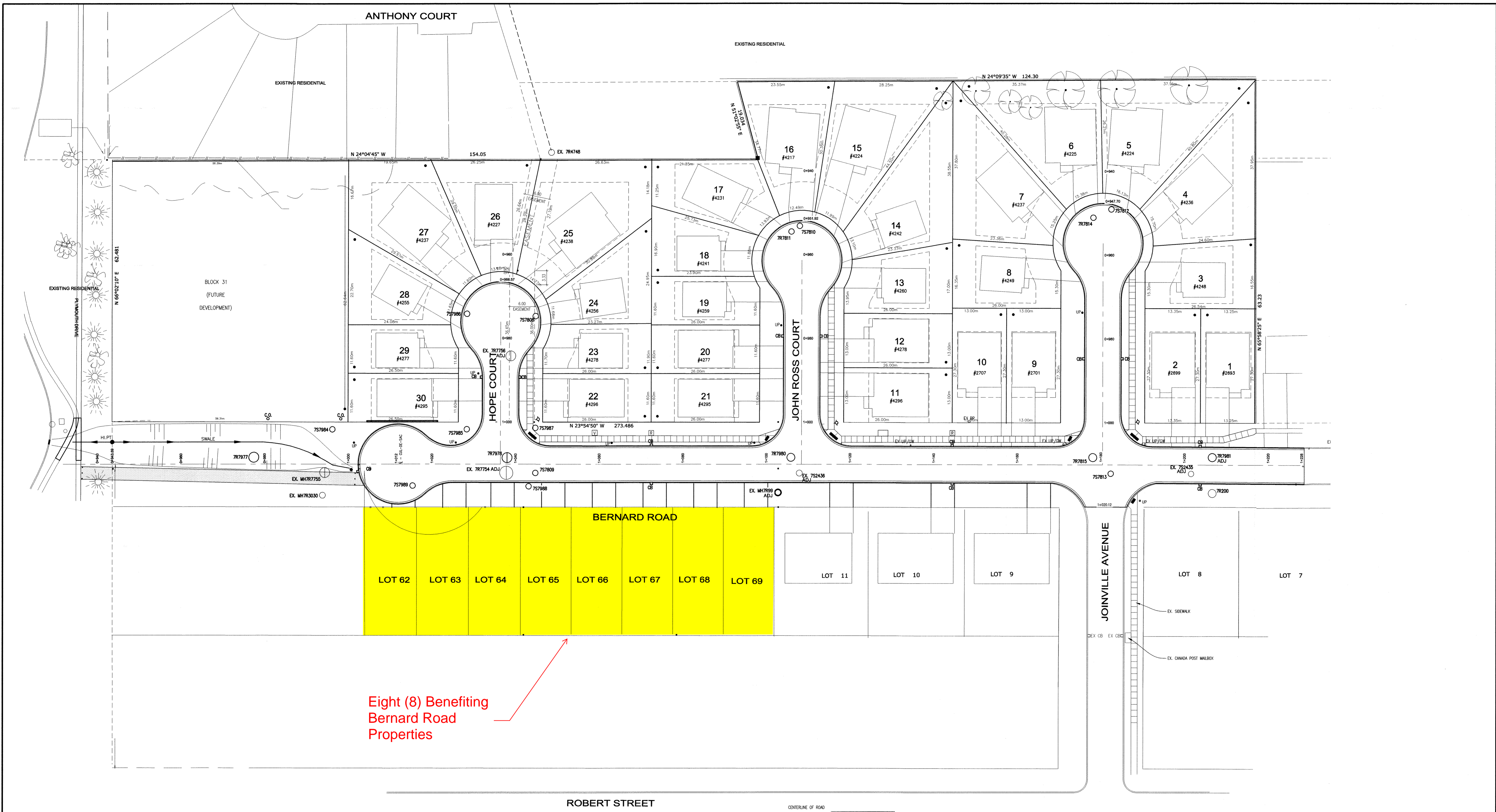
Name	Title
Stacey McGuire	Manager of Development
France Isabelle-Tunks	Executive Director Engineering/ Deputy City Engineer
Chris Nepszy	Commissioner, Infrastructure Services
Wira Vendrasco	Deputy City Solicitor, Legal, Real Estate
Joe Mancina	Commissioner, Corporate Services CFO/City Treasurer
Onorio Colucci	Acting Chief Administrative Officer

Notifications:

Name	Address	Postal Code
Danna Wang	7250 Keele St. Unit 250, Vaughan, ON	L4K 1Z8
Robert Tomas	5155 Tecumseh Road East Windsor, ON	N8T 1C3

Appendices:

- 1 Appendix 'A'
- 2 Appendix 'B'



Eight (8) Benefiting
Bernard Road
Properties

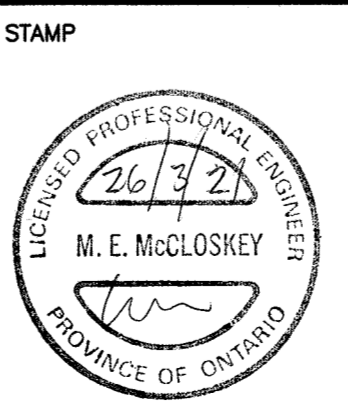
SITE PLAN
SCALE : 1:400

C.O.W. PROJECT # S-2061

APPROVED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF D.C. McCLOSKEY ENGINEERING LTD., AS TO DESIGN AND SPECIFICATIONS.

[Signature]
CITY ENGINEER
WINDSOR, ONTARIO

d.c. mcloskey engineering ltd.
200-5745 wyandotte street east, windsor, ontario n8s 1m6 tel (519) 977 8800



DATE (dd/mm/yy)	ISSUED FOR
13/08/19	C.O.W. & ERCA REVIEW
29/06/20	C.O.W. & ERCA REVIEW
21/08/20	UTILITY CO-ORDINATION
29/10/20	ECA APPROVAL
24/11/20	TENDER
21/01/21	BUILDING AND ENGINEERING PERMIT
26/03/21	FINAL APPROVAL

general notes:

- THIS PRINT IS AN INSTRUMENT OF SERVICE ONLY AND IS THE PROPERTY OF THE ENGINEER.
- DRAWINGS SHALL NOT BE SCALED.
- CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS.
- ATTENTION IS DIRECTED TO PROVISIONS IN THE GENERAL CONDITIONS REGARDING CONTRACTOR'S RESPONSIBILITIES IN REGARDS TO SUBMISSION OF SHOP DRAWINGS.
- IN THE EVENT THE ENGINEER IS REQUIRED TO REVISION SHOP DRAWINGS, SUCH REVIEW IS ONLY TO CHECK FOR CONFORMANCE WITH DESIGN CONCEPT AND WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS.
- CONTRACTORS SHALL PROMPTLY NOTIFY THE DESIGNER IN WRITING OF THE EXISTENCE OF ANY DESIRED VARIATIONS BETWEEN THE CONTRACT DOCUMENTS AND ANY APPLICABLE CODES OR BY-LAWS.
- THE DESIGNER IS NOT RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS AND OR TECHNIQUES IN THE CONSTRUCTION OF THIS FACILITY.

PROJECT
BERNARD ROAD SUBDIVISION

ADDRESS : WINDSOR, ONTARIO

CLIENT
NOC DEVELOPMENT

DRAWING TITLE
SITE PLAN

SCALE : AS NOTED

DRAWN BY : JLD

CHECKED BY : MEM

DATE : OCT 2018

PROJECT FILE NO.
M18-321

DRAWING NO.
3

CENTRAL AVENUE POND REPORT

Prepared for:

ROSATI GROUP and N.O.C. DEVELOPMENT

PREPARED BY:

D.C. McCLOSKEY ENGINEERING LTD.

200-5745 Wyandotte Street East

Windsor, ON N8S 1M6

PROJECT M18-321

09 October 2020



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ACKNOWLEDGEMENTS

Special thanks to the team at Landmark Engineering; including Mr. Daniel Krutsch, P. Eng. And Mr. Alain Michaud, P. Eng., for their assistance and technical contributions in the preparation of this report.

1.0 Introduction

1.1 Report Commissioning

D.C. McCloskey Engineering Ltd. has been retained by Rosati Group and N.O.C. Development (the owners of the property known as the Grand Central Business Park (GCBP) and the former school at the south end of Bernard Road in order to to evaluate the capacity of the Central Avenue detention pond in support of the proposed developments on each of the proponents properties and for future developments in the watershed.

1.2 Pond and Catchment Area Location Information

The Central Avenue Pond; herein referred to as “the pond”; is a regional facility located at the southwest quadrant of the intersection of Plymouth Drive and Central Avenue (photograph 1) and owned and maintained by the Corporation of the City of Windsor. This pond; including the linear pond section located on the south side of Plymouth Drive north of Grand Central Business Park (GCBP) detention pond, has a footprint of approximately 3.8 hectares and a catchment area of 108 hectares. The GCBP development located between Pillette Road, Plymouth Road, Central Avenue and the railway to the south has an area of 63 hectares. The GCBP property has an extensive internal network of large diameter storm sewers outletting to a private detention pond located in the northwest corner of the GCBP property which outlets to the Central Avenue Pond. The NOC proposed residential development on Bernard Road has an area of 2.8 hectares; including the eight building lots for Mr. Tom Tomas located on the east side of Bernard Road will outlet to the 1200mm storm sewer on Street B. A plan depicting the catchment area plan and storm sewer network is provided in Figure 1.



Photograph #1 – Central Avenue Pond – (looking east)



Figure 1 - Central Avenue Pond Catchment Area Storm Sewer Network

1.3 Historical Information of Central Pond

In 1993, MacLaren Engineers prepared a report for the Essex Region Conservation Authority (ERCA) to assess the upper Grand Marais Drain and provide recommendations for the mitigation of flooding occurring in the catchment area between Pillette Road and Walker Road. The Maclaren report; appended to the Stantec report in appendix A, provided several recommendations to prevent/reduce flooding in this area including the construction of a detention pond with a storage volume of 70,000 m³ and a maximum 2 m³/s discharge rate into the Grand Marais Drain.

The initial phase of the Central Avenue Pond was constructed in 1995 with a design having one inlet pipe from the Pillette Drain No. 2 area north of Plymouth Drive and two outlets from the Chrysler Plant (now known as GCBP), outletting into the east side of the pond at the location of the three permanent pools (figure 2). The pond was graded and bermed to route the storm water southerly along the length of the pond and loop back northerly to the outlet located at the northwest corner of this pond. The pond outlet pipe is located below Central Avenue and the parking lot on the southwest corner of Central and Grand Marias East and outlets into the open channel of the Grand Marais Drain. The original design of the pond provided substantial contact and settling time in the flow route that provided the required water quality treatment of the runoff.

Following construction, the Windsor Airport raised concerns regarding waterfowl congregating in the Central Avenue Pond, which is in fairly close proximity to the runway and glide paths at Windsor Airport. To address these concerns, the City subsequently altered the pond by installing a berm at the northerly permanent pool; effectively eliminating the conveyance of frequent flows in the clockwise loop, and directing the low flows northerly to the outlet pipe. In addition, a pump was installed to lower the water level from the design elevation of 182.6m to 182.0m.

These alterations (completed in 1997) eliminated the large expanse of open water within the pond and allowed the perimeter vegetation to grow into the channels and permanent pools. This heavy vegetation deters waterfowl, primarily Canadian Geese, from congregating in areas where predators could be hidden.

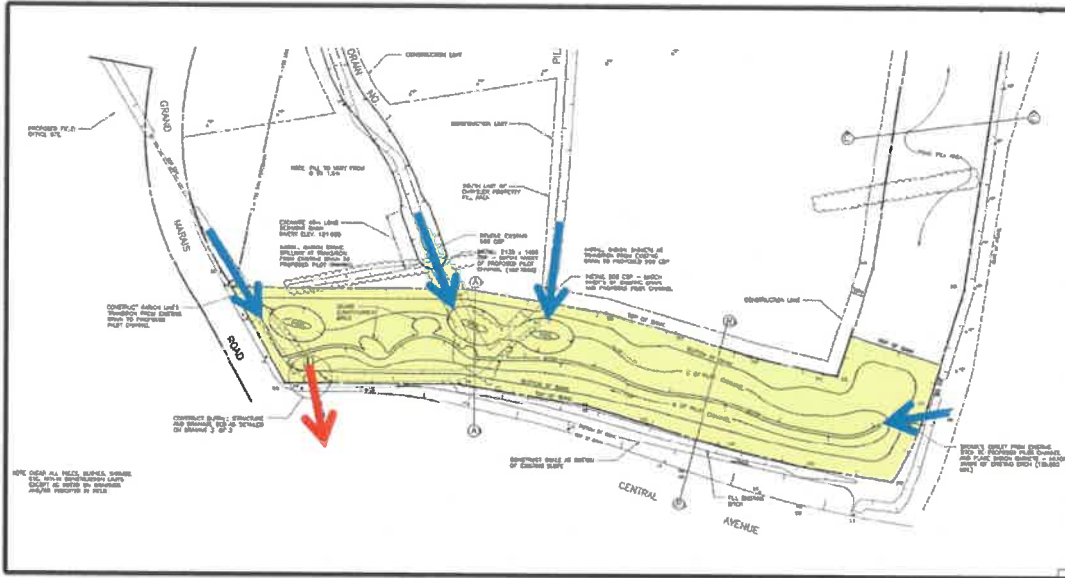


Figure 2 – Central Avenue Pond – Pond Inlet and Outlet (red arrow) Locations

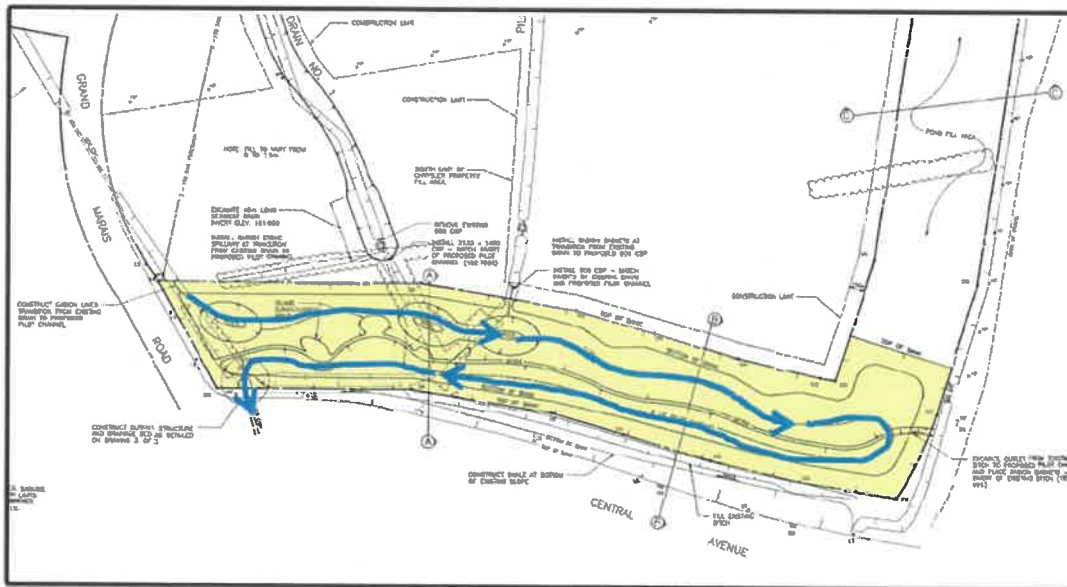


Figure 3 – Central Avenue Pond – Flow Route

1.4 Goals and Objectives of this Assessment

The goal of this assessment is to examine the potential for establishing a regional Stormwater Management (SWM) pond facility; within the existing Central Avenue Pond, to provide the required SWM quality and quantity requirements in accordance with the Ministry of the Environment, Conservation and Parks (MECP) SWM design guidelines and the Windsor/Essex Region Stormwater Management Standards Manual. This regional facility would provide the opportunity to provide SWM requirements for the entire Central Avenue Pond catchment area in lieu of more costly individual property measures.

After some initial discussion between representatives of the City of Windsor, Essex Region Conservation Authority and Landmark Engineers Inc., a preliminary meeting was held on December 4th, 2019 to discuss the potential for restoring/modifying the Central Avenue Pond to achieve some or all of the original SWM requirements for the proponent's developments and the Central Avenue Pond catchment area.

The City of Windsor and ERCA expressed their general receptiveness to the proposed initiative, subject to the proponents determining the feasibility of this initiative. This report outlines the findings of this initiative, more specifically: to assess and determine the full capabilities of the pond as a regional SWM facility; and determine the scope of improvements to be implemented to the pond and local conveyance systems to establish a properly functioning storm water system for the proposed development, as well as future development of the remaining undeveloped properties.

1.5 Report References

The preparation of this report referenced the following information:

1. Stormwater Management Report for Daimler Chrysler (currently known as Grand Central Business Park (GCBP) – prepared by Stantec dated 12 June 2000.
2. Addendum Report on the Upper Grand Marais Drain – prepared by MacLaren Engineers dated March 1993. MacLaren report included in the above Stantec report (appendix C).
3. City of Windsor; Mr. Rob Perissinotti, P. Eng., email on March 17, 2020 – confirmed overland flow routing permitted on Plymouth Drive for flows having a short duration and low flow depth.
4. Pre-Consultation Meeting - ERCA and City of Windsor Meeting - December 4, 2020. Review of the terms of reference with the City and ERCA including the overland flow conveyance routing on Plymouth Drive.
5. In addition, reference was made to the correspondence between the City, ERCA, Windsor Airport, and MacLaren Engineers prior to implementing objectives of the pond, including fulfilling the modifications to the pond in 1996.

2.0 Assessment of Conveyance Capacity

A hydrologic and hydraulic modelling analysis was performed to evaluate the conveyance capacity the existing minor system (typically sewers that convey frequent storm flows) and major system (typically all roadways, boulevards, swales or watercourses that convey infrequent flows). The analysis was performed using current PCSWMM software with a dual drainage modelling approach that accounts for minor/major system (i.e. typically sewer/roadway) interaction.

The major system (roadway or open channel conveyance) were represented as a 1D network – as conduits with representative cross-sections representing the road surface or channel. The analysis followed the standards of the Windsor / Essex Stormwater Management Standards Manual dated Dec 2018. Impervious levels were based on measured hard surfaces. The Proposed Condition model assumed the GCBP area to be fully developed at 90% impervious levels and undeveloped residential lands north of Plymouth Road to be developed as 60% impervious levels.

2.1 Minor / Major System Capacity

The analysis findings confirm that the existing storm sewer system can convey a standard 5-year minor design storm from a fully developed condition without surface ponding as shown on the hydraulic grade line (HGL) profiles in appendix B.

For the 100-year major design storm, our analyses showed that local sewers combined with overland flow along roadways can effectively convey flows to the main drainage pathway, which can convey the 100-year flows to the pond. The main drainage pathway consists of the Grand Marais Drain open channel section (former Pillette No.1 Drain) from Central Pond to Tourangeau Rd as well as a trunk storm sewer varying from 750mm to 1200 mm diameter, which runs through Robert Park and along Lovric Road (the relevant HGL profiles are provided in appendix B).

It is acknowledged that the existing road grading results in surface ponding depths that exceed a typical standard maximum 0.3m at a few catch basins. Namely, there are two sag locations on both Robert Rd and Cappelletto Rd that range from 0.31m to 0.36m.

2.2 Boundary Conditions

The hydrologic and hydraulic modelling analysis considered water levels in the Central Avenue Pond, including outflow and stage impacts from backwater conditions downstream of the pond. These impacts were considered using the recently updated modelling on the Grand Marias Drain undertaken by Landmark Engineering.

2.3 Low-Lying Area - External Flows

Additional consideration was given to the low-lying area which exists between Bernard Rd and Tourangeau Rd, immediately south of Grand Marais Rd. A review of the topography north Grand Marais Rd confirmed that a sizable external area could potentially direct overland flow towards the low-lying area. A simplified approach was taken to estimate this potential and is summarized as follows. It was assumed that the existing minor system could convey flows from a typical 5-year storm sewer design storm and that all rainfall greater than 5-year would be 100% effective surface runoff (i.e. no losses). Therefore, a rainfall hyetograph

representing the resultant 100-year minus 5-year rainfall was uniformly applied over the external area, which was bounded by Grand Marais Rd to the south, Tecumseh Rd to the north, Central Avenue to the west and Pillette Rd to the east. GeoHECRAS 2D software was used purely as a surface model to analyze the surface attenuation and surface flow over a 2D mesh derived from OMAFRA Lidar DTM 2016-2018. The model was used to capture surface flow hydrographs at specific locations, namely along the south side of Grand Marais Rd at intersection of Bernard Rd, Tourangeau Rd, Allyson Rd as well as along the south side of Plymouth Rd adjacent to the pond. These hydrographs were then inputted into the PCSWMM model as external inflows for the 100-year 4-hour Chicago storm scenarios.

2.4 Model Scenarios

The following model scenarios were evaluated to compare various conditions such as; backwater conditions versus free outfall, impact of potential external flows from outside of the Central Pond catchment area, and impact of modifications to the GCBP pond:

- Proposed Condition Scenario 1 (Pr1): Considers the Central Pond catchment area only with no consideration to potential external flows.
- Pr2: Pr1 + external flows north of Grand Marais Rd
- Pr3: Same as Pr2, except for addition of recommended 900mm dia. storm relief to route external flows to the trunk storm sewer at the south end of Bernard Rd.
- Pr4: Same as Pr3, except for Central Pond outlet changed to free outfall.
- Pr5: Same as Pr3, except for recommended 300mm dia. orifice on GCBP 900mm dia. auxiliary outlet and 750mm dia. orifice on GCBP 1200mm dia. pond outlet.
- Pr6: Same as Pr1, except for recommended 300mm dia. orifice on GCBP 900mm dia. auxiliary outlet and 750mm dia. orifice on GCBP 1200mm dia. pond outlet. This scenario applies to the larger volume / lower intensity SCS 100-year 24-hour storm and AES 100-year 12-hour storm. Given the rainfall intensities are significantly lower than typical 5-year design intensities; it is assumed that the minor system of the external area can convey the peak flows from these storms (i.e. no overland flow from the external area under these storm events).

Appendix B includes HGL profiles for various scenarios under minor and major storm events.

3.0 Assessment of Storage Capacity

The hydrologic and hydraulic modelling analysis performed for conveyance assessment were also used to evaluate the stage/storage and outflow relationship of the Central Pond under various design storms. OMAFRA LiDAR DTM 2016-2018 mapping was used to determine the as-built sizing of the pond. As illustrated below, the resolution and accuracy of the LiDAR allows for a very useful and reliable representation of the pond and its storage capacity at various stages. Figure 4 below is a depiction of the LiDAR mapping.

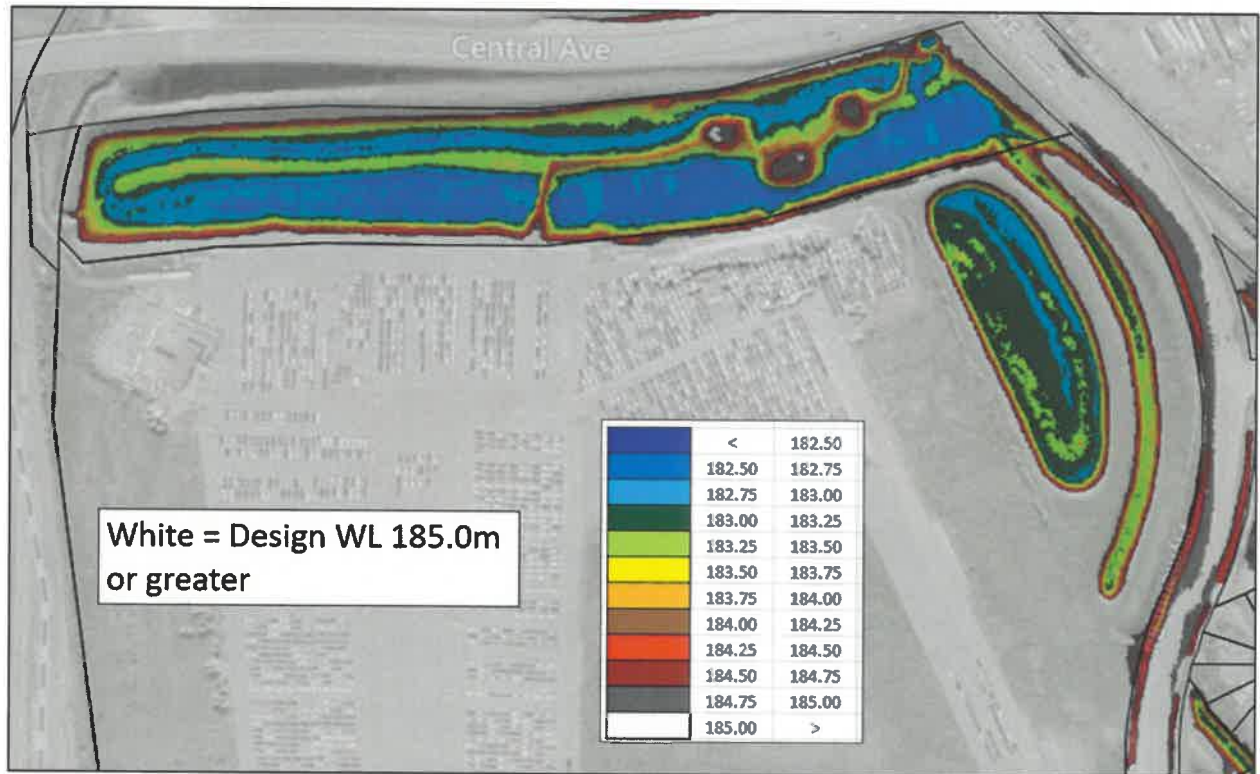


Figure 4 – LiDAR Mapping of Central Avenue Pond (top) and GCBP Pond (right side)

The assessment was undertaken based on the following original design parameters:

- Normal Water Level (NWL) = 182.6m
- High Water Level (HWL) = 185.0m
- Maximum Outflow Rate = 2.0 m³/s

As mentioned in the previous section, existing impervious levels were based on measured hard surfaces, with the GCBP area assumed to be fully developed at 90% impervious and undeveloped residential lands north of Plymouth Road assumed to be developed as 60% impervious. The pond outlet is assumed to be restored similar to its original design intent, which includes a 300mm dia. low flow pipe with invert set at the NWL of 182.6m, a 900mm dia. opening with backflow protection as a secondary outlet starting at elevation 183.4m and a 9m wide weir for high stage relief at a spill elevation of 184.8m.

3.1 Central Pond Capacity

As illustrated in Table 1, the Central Pond is sufficiently sized to handle the expected 100-year storm flow while meeting the original design intent. The table further demonstrates that the boundary condition, external flow and storm distribution have a marginal effect on the pond water level. The pond provides 47,900 m³ of storage at the 185.0m design maximum water level.

Scenario	Max. WL	Max. Volume	Peak Outflow
	m	m ³	m ³ /s
Pr1_5y4h	184.14	25,640	0.97
Pr1_100y4h	184.89	45,050	1.73
Pr2_100y4h	184.92	45,870	1.94
Pr3_100y4h	184.94	46,410	2.08
Pr4_100y4h	184.79	42,380	2.01
Pr5_100y4h	184.92	45,850	1.94
Pr6_100y12h	184.93	46,140	2.00
Pr6_100y24h	184.85	43,900	1.60

Table 1 – Central Pond Hydraulics

During scenario Pr3_100y4h the peak outflow rate of 2.08 m³/s exceeds the recommended release rate from Central Pond of 2.0 m³/s (design flow rate as per McLaren report appended to Stantec report in Appendix C).

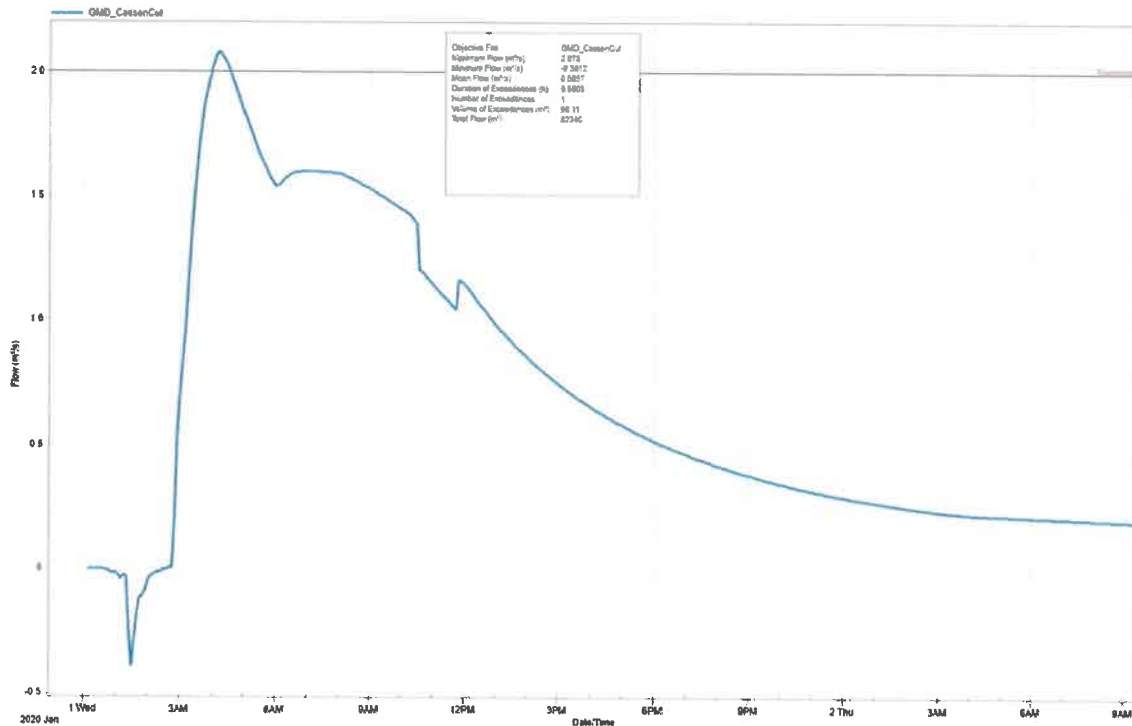


Figure 5 – Pr3 100-year 4-hour Central Pond peak outflow model scenario hydrograph.

3.2 GCBP Pond Capacity

As illustrated in the table below, the pond is sufficiently sized to handle the expected 100-year storm flows.

Scenario	Max. WL	Max. Volume	Peak Outflow
	m	m ³	m ³ /s
Pr1_5y4h	184.15	6,730	1.94
Pr1_100y4h	185.10	13,600	3.51
Pr2_100y4h	185.11	13,680	3.46
Pr3_100y4h	185.18	14,260	3.03
Pr4_100y4h	185.10	13,620	3.50
Pr5_100y4h	185.55	17,190	7.95
Pr6_100y12h	185.40	15,980	2.98
Pr6_100y24h	185.44	16,280	3.92

Table 2 – GCBP Pond Hydraulics

The GCBP pond has an available capacity of 17,300m³ at a low bank elevation of 185.6m.

Table 2 demonstrates that an additional 3,500 m³ of storage capacity can be achieved by controlling the outflow of the GCBP into the Central Pond. This recommendation proposes to install a 300mm dia. orifice on the GCBP 900mm dia. auxiliary outlet and a 750mm dia. orifice on the GCBP 1200mm dia. pond outlet. The two additional controls raise the pond 100-year maximum water level from 185.18m (Scenario Pr3) to 185.55m (Scenario Pr5). The forementioned recommendation is not required to accommodate the proposed NOC development on Bernard Road or any future development within the catchment area. As depicted in Figure 6 below, the existing berming surrounding the GCBP, as well as the topography of the GCBP lands, can accommodate a higher water level. The modifications to the GCBP outlet also include lowering the 30m wide spill weir on the west bank of the pond from +/- 185.6m to 185.3m. These modifications maximize available storage based on existing top of bank elevations without creating undue backwater on the existing storm sewer system. The modifications also keep the Central Avenue Pond levels lower reducing the potential ponding in the low-lying area between Bernard Rd and Tourangeau Rd.

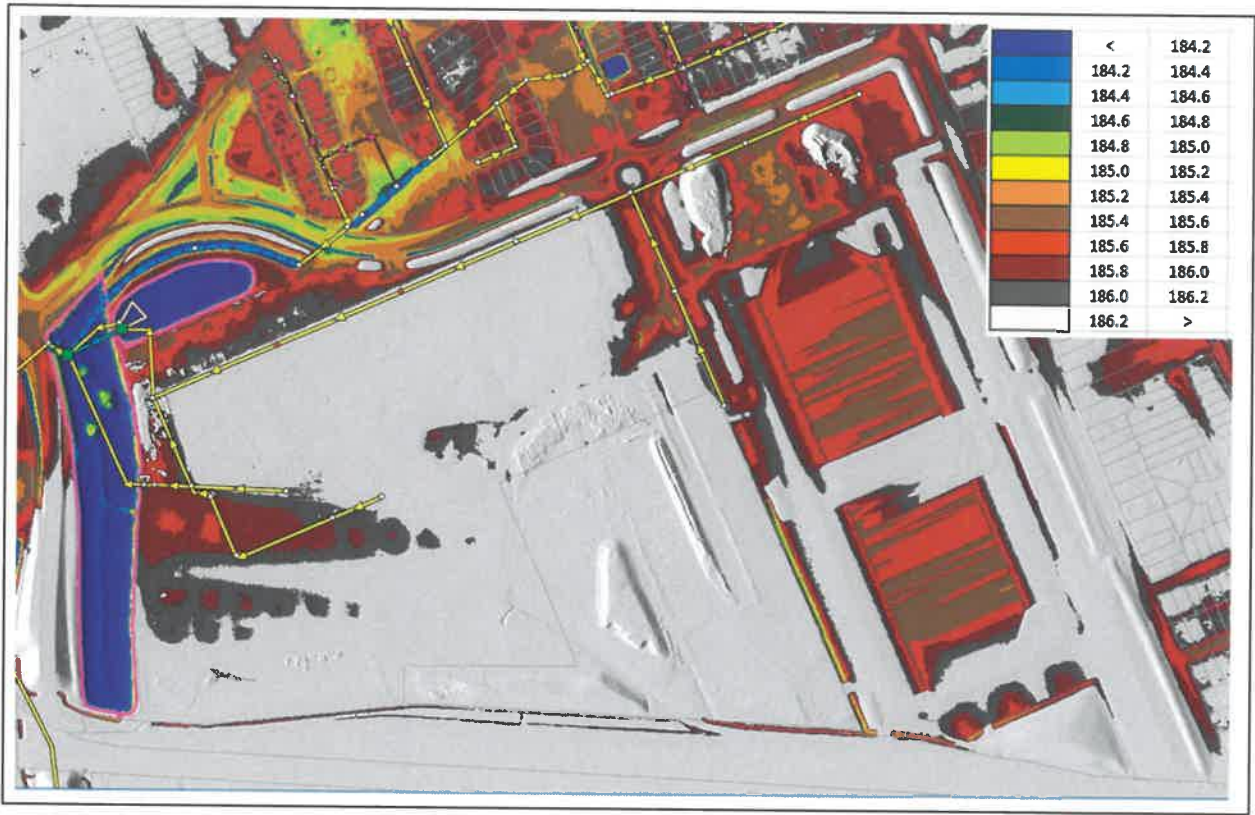


Figure 6 – GCBP Topography

4.0 Recommended Improvements

This section discusses the potential improvements to the Central Avenue Detention Pond and its upstream watershed to improve the level of service of the stormwater conveyance elements. The improvements will not only benefit the two proponents (i.e. Rosati Group and NOC Development), but will also improve function of the overall pond catchment area.

4.1 Central Pond Improvements

The temporary outlet pipes should be removed, leaving only the 300mm dia. low flow pipe, the 900mm dia secondary outlet and the weir wall. It is recommended that the 900mm diameter CSP outlet pipe shown on the left photograph below be removed. In lieu of a replacement pipe, we confirm that the existing opening in the weir wall is acceptable for flow control and that it would be preferable to modify grading downstream of the opening, including proper rock lining for erosion protection. Moreover, we recommend that a backflow prevention device be fitted on the downstream face of the existing wall or inside the opening to prevent backwater from the downstream reaches of the Grand Marais Drain from entering the pond.

Further consideration should also be given to improving other components of the outlet, such as the existing 300mm diameter low flow outlet and the existing pump station and associated plumbing. These improvements should be coordinated with the recommendations outlined in the recent report on the Grand Marais Drain, which identified the need for remedial work on the existing 2150mm dia. CSP outlet pipe which conveys flows from the pond across Central Avenue to the Grand Marais Drain.



Photograph #2 – Current Central Pond Outlet

Minor earthwork modifications to the Central pond are also recommended, including the removal of the temporary berming (circled in red below) and reinstatement of the berm identified by the white line. This will serve to restore the pond's original design intent and significantly increase the water quality function by creating a long flow path for settling and polishing through the fully-established vegetation.

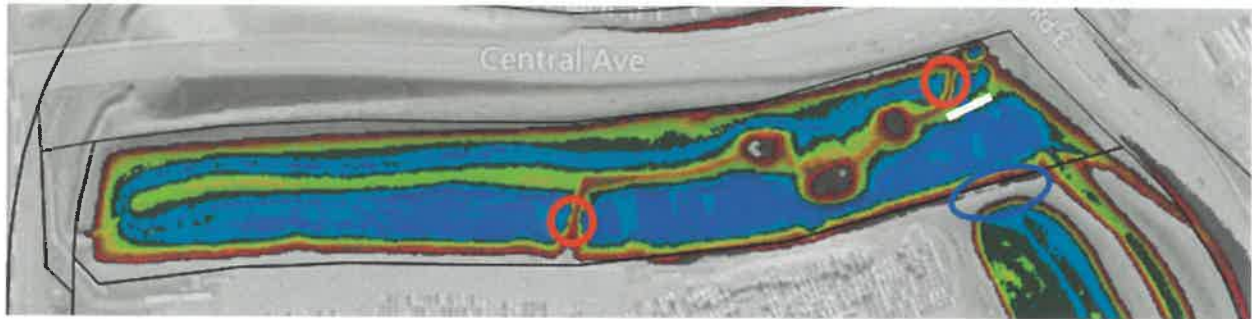


Figure 7 – Pond Modifications

4.2 Grand Central Business Park Pond Improvements

As discussed in the previous section, there is an opportunity to provide additional capacity in the GCBP pond by restricting flow from this pond into the Central Avenue Pond, thus creating a higher HWL and creating additional storage volume. As described in section 3.2, the recommended modifications include installing a 750mm diameter orifice in the existing manhole of the GCBP 1200mm diameter pond outlet as well as the lowering of the 30m wide spill weir on the west bank of the pond from +/- 185.6m to 185.3m (circled in blue on Figure 7 above).

5.0 Conclusions and Recommendations

The following conclusions from this study and recommended improvements are listed below:

5.1 Conclusions

1. The existing minor and major storm systems have sufficient conveyance capacity to handle the runoff from the study area, including assumed full building conditions of 90% impervious for the GCBP lands and 60% impervious for residential development of undeveloped lands north of Plymouth Rd.
2. The Central and GCBP ponds have sufficient storage capacity to attenuate full buildout flows to a maximum rate of 2 m³/s, which is consistent with MacLaren's original design intent. The existing topography of the GCBP lands provide an opportunity to increase flow controls and subsequently raise the HWL in the GCBP pond to gain additional storage volume without undue backwater effects on the storm sewer system.

3. Minor earthwork modifications and removal of temporary outlet pipes will restore the Central Pond to its original design intent and significantly improve water quality.
4. Install a 300mm diameter orifice on the GCBP 900mm diameter auxillary outlet.
5. The existing low-lying area south of Grand Marais Rd between Bernard Rd and Tourangeau Rd is susceptible to surface ponding, which may be exacerbated by overland flows from the north under an extreme storm event.

5.2 Recommendations

1. Implement recommended improvements outlined in section 4.
2. As an added measure of resiliency for storms exceeding the 100-year design, construct an overland flow route along the Bernard Road right-of-way from the proposed NOC development to Plymouth Road. Re-grade the north boulevard and pathway on Plymouth if required to maintain the overland flow route across Plymouth Road.
3. Maintain overland routing along the south boulevard of Plymouth Road.
4. Install an oversized 900mm dia. storm sewer along the NOC development to serve as the local storm sewer as well as to provide the opportunity for a future sewer extension that would provide storm relief to the low-lying area near Grand Marais Rd. This consideration should be coordinated with the City of Windsor's ongoing Sewer Master Plan study.
5. Mr. Mark Galvin - CEO of the Windsor Airport, has been notified of the proposed modification and function of the pond, and expressed no immediate exception to the proposed initiative to reinstate the original design function of the Central Pond. Mr. Galvin stated the Windsor Airport shall be circulated this report and requested to provide formal comments.
6. The proposed development of GCBP should provide overland routing towards the GCBP pond.

END OF REPORT

APPENDIX A

Stantec SWM Report for Daimler Chrysler Plant

M12-202

**STORMWATER MANAGEMENT REPORT
FOR THE
PILLETTE ROAD TRUCK
ASSEMBLY PLANT
DAIMLERCHRYSLER CANADA
IN THE CITY OF WINDSOR**

Prepared for:

DaimlerChrysler Canada

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12 June, 2000
Project No. 65600450



Stantec

STORMWATER MANAGEMENT REPORT
FOR THE
PILLETTE ROAD TRUCK ASSEMBLY PLANT
DAIMLERCHRYSLER CANADA
IN THE
CITY OF WINDSOR

1.0 INTRODUCTION

The DaimlerChrysler Canada Pillette Road Truck Assembly Plant (PRTAP) is located on Plymouth Road between Central Avenue and Pillette Road (Part of Lots 103 to 109), in the City of Windsor, County of Essex. As shown on Figure 1, it is generally bounded by Plymouth Road to the north, the Canadian National and Canadian Pacific Railway to the south, Central Avenue to the west and Pillette Road to the east.

There currently exists a vehicle assembly plant in the southeast quadrant of the site and a rail shipping facility in the southwest quadrant. The site drainage outlets to the Pillette Drain No. 2 which outlets into the City of Windsor's Central Avenue Storm Detention Facility and on to the Grand Marais Drain. The remainder of the site is currently undeveloped with grass cover.

Development of this site is proceeding with an expansion to the existing facility. The Rail Shipping Facility operation will be removed from this site. It is anticipated that a majority of the site will be developed with building and/or paved areas. The stormwater management plan has therefore taken into account these future conditions. The existing Pillette Drain No. 2 is being closed with agreement by the City of Windsor and will be replaced with an enclosed drainage system that will service the entire site.

Drainage of the site will be directed to the northwest corner where a storm detention facility will be located.

2.0 MODELLING APPROACH AND PARAMETERS

2.1 Modelling Software

Hydrological and hydraulic modelling was carried out using XPSWMM, a windows based program developed by WP Software and XP Software and based on the U.S. EPA's SWMM program. The XPSWMM program was selected because of its flexibility in modelling both rural and urban land uses to generate surface runoff from watersheds, ability to simulate real storm events, and sophisticated hydraulic flow routing for both open channel and closed conduits in branched and looped networks.

2.2 Parameters

Figure 1 shows the site with the existing grades. Soils information was obtained from the March 27, 2000 Geotechnical Investigation prepared by Agra Earth & Environmental Limited for the Proposed Expansion DaimlerChrysler PRTAP. The predominant soil type in this area is silty clay. The

All simulations indicated that the hydraulic grade line was contained below grade and within the detention facility with short term ponding under the 100 year storm.

4.0 PROPOSED STORMWATER MANAGEMENT PLAN

The concept for the SWM facility is shown in Figure 2. Stormwater will be directed to the storm detention pond located in the northeast corner of the site. A small sedimentation pond will be located at the storm sewer outlet to collect the larger sediment with a vegetated low flow channel from this point to the outlet into the Central Avenue pond to promote quality control. Generally quality control is addressed in the municipality's storm detention facility through the use of sedimentation ponds and a restricted outlet which provides for the 24 hour detention period. Sizing of the storm detention pond will control up to the 100 year storm with allowance made for the use of the residential component which has been designed into the Central Avenue Storm Detention Pond. The maximum outlet rate from the site has been controlled to a rate at or below the residential equivalent rate for the site (see table 1).

A wet pond has not been used because of the proximity of the Windsor Airport (1.5km) which requires that permanent wet ponds not be used for quality control to minimize the attraction of large waterfowl.

The storm sewer will have a sluice gate installed on the outlet to close the storm drainage system in the event of a spill to allow for the containment of the spill on site.

5.0 SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION

Specific sediment and erosion control measures to be implemented during the construction of the site will depend on the staging and location of construction activity. All guidelines that are in force at the time of the construction from the City, MOE, and ERCA will be consulted and followed. In general, appropriate care should be taken to ensure that sediment is kept out of the Pillette Drain Nos. 1 & 2 and Central Avenue Storm Detention Pond and sediment is not tracked off site by vehicles involved in the construction operations. Catchbasins within the site will be protected with catchbasin filters (Stream Guard Type II-S), silt fencing will be installed along the Pillette Drain Nos. 1 & 2 and other runoff routes and check dams and sediment traps will be provided in the drains.

6.0 CONCLUSION

The Stormwater Management concepts proposed within this report will meet all quantity and quality control requirements for this proposed development. The plan as outlined should be implemented.

Rainfall Intensity
Pillette Road Truck Assembly Plant
DaimlerChrysler Canada
City of Windsor

Total Rainfall: 2 Year Storm 1.31 "
 5 Year Storm 2.12 "
 100 Year Storm 3.83 "

Rainfall Intensity in mm/hour			
Time (minutes)	13 mm Storm (in/hr)	5 Year Storm (in/hr)	100 Year Storm (in/hr)
0	0.15	0.17	0.18
10	0.18	0.18	0.19
20	0.23	0.20	0.20
30	0.31	0.22	0.22
40	0.49	0.24	0.24
50	1.07	0.28	0.26
60	3.54	0.32	0.28
70	0.94	0.39	0.31
80	0.39	0.51	0.35
90	0.24	0.74	0.40
100	0.17	1.42	0.48
110	0.14	4.46	0.61
120		1.27	0.88
130		0.60	1.80
140		0.41	6.13
150		0.31	2.14
160		0.26	1.21
170		0.22	0.87
180		0.19	0.69
190		0.17	0.58
200		0.16	0.50
210			0.45
220			0.40
230			0.37
240			0.34
250			0.32
260			0.30
270			0.28
280			0.26
290			0.25
300			0.24
310			0.23
320			0.22
330			0.21
340			0.20
350			0.20
360			0.19

DaimlerChrysler PRTAP Expansion
2 Year Runoff

Table R1. S U B C A T C H M E N T D A T A #
Physical Hydrology Data #
#####

Subcatchment Number	Channel Name	Channel or inlet	Width ft	Area ac	Per- cent Imperv	Slope ft/ft	"n" mprv	"n" Perx	Deprs -sion Imprv	Deprs -sion Perx	Frcat Zero Storge -tion
1	MH 9#1	MH 9	600.00	15.760	100.00	0.005	0.014	0.030	0.100	0.250	0.00
2	MH 11#1	MH 11	900.00	36.640	95.00	0.005	0.014	0.030	0.100	0.250	0.00
3	MH 10#1	MH 10	450.00	7.2500	100.00	0.005	0.014	0.030	0.100	0.250	0.00
4	MH 8#1	MH 8	700.00	9.2300	100.00	0.005	0.014	0.030	0.100	0.250	0.00
5	MH 8#2	MH 8	300.00	3.0000	100.00	0.005	0.014	0.030	0.100	0.250	0.00
6	MH 7#1	MH 7	200.00	1.7200	100.00	0.005	0.014	0.030	0.100	0.250	0.00
7	MH 5#1	MH 5	250.00	14.600	95.00	0.005	0.014	0.030	0.100	0.250	0.00
8	MH 14#1	MH 14	400.00	7.3800	100.00	0.005	0.014	0.030	0.100	0.250	0.00
9	MH13#1	MH13	400.00	11.080	100.00	0.005	0.014	0.030	0.100	0.250	0.00
10	MH 12#1	MH 12	400.00	10.540	100.00	0.005	0.014	0.030	0.100	0.250	0.00
11	MH 4#1	MH 4	350.00	5.7900	95.00	0.005	0.014	0.030	0.100	0.250	0.00
12	MH 3#1	MH 3	800.00	9.8500	100.00	0.005	0.014	0.030	0.100	0.250	0.00
13	MH 2#1	MH 2	110.00	.28000	100.00	0.005	0.014	0.030	0.100	0.250	0.00
14	MH 1#1	MH 1	400.00	2.0000	0.00	0.005	0.014	0.030	0.100	0.250	0.00
15	RL-3#1	RL-3	450.00	3.8000	100.00	0.005	0.014	0.030	0.100	0.250	0.00
16	RL-2#1	RL-2	670.00	5.9000	100.00	0.005	0.014	0.030	0.100	0.250	0.00
17	RL-8#1	RL-8	200.00	1.6300	100.00	0.005	0.014	0.030	0.100	0.250	0.00
18	RL-7#1	RL-7	275.00	1.8900	100.00	0.005	0.014	0.030	0.100	0.250	0.00
19	RL-6#1	RL-6	500.00	3.7100	100.00	0.005	0.014	0.030	0.100	0.250	0.00

Total Number of Subcatchments... 19
 Total Tributary Area (acres).... 152.05
 Impervious Area (acres)..... 147.20
 Pervious Area (acres)..... 4.85
 Total Width (feet)..... 8355.00
 Percent Imperviousness..... 96.81

 * Table R5. CONTINUITY CHECK FOR SURFACE WATER *
 * Any continuity error can be fixed by lowering the *
 * wet and transition time step. The transition time *
 * should not be much greater than the wet time step. *

	cubic feet	Inches over Total Basin
Total Precipitation (Rain plus Snow)	7.219027E+05	1.308
Total Infiltration	9.209130E+03	0.017
Total Evaporation	1.361738E+04	0.025
Surface Runoff from Watersheds	6.394183E+05	1.156
Base Flow	0.000000E+00	0.000
Total Water remaining in Surface Storage	5.989246E+04	0.109
Infiltration over the Pervious Area...	9.209130E+03	0.523

Infiltration + Evaporation + Surface Runoff + Snow removal + Water remaining in Surface Storage + Water remaining in Snow Cover.....	7.221372E+05	1.308
Total Precipitation + Initial Storage.	7.219027E+05	1.308

The error in continuity is calculated as

* Precipitation + Initial Snow Cover *		
* + Base Flow *		
* - Infiltration - *		
*Evaporation - Snow removal - *		
*Surface Runoff from Watersheds - *		
*Water in Surface Storage - *		
*Water remaining in Snow Cover *		

* Precipitation + Initial Snow Cover *		
* + Base Flow *		

Percent Continuity Error.....		-0.032

 * Table R6. Continuity Check for Channel/Pipes *
 * You should have zero continuity error *
 * if you are not using runoff hydraulics *

	cubic feet	Inches over Total Basin
Initial Channel/Pipe Storage.....	0.000000E+00	0.000
Final Channel/Pipe Storage.....	0.000000E+00	0.000
Surface Runoff from Watersheds.....	6.394183E+05	1.156

 | Variable storage data for node | MH 1

Data Point	Depth ft	Area ft^2	Volume ft^3
1	0.0000	6.2291E+04	0.0000
2	3.333	6.9115E+04	2.1901E+05
3	6.667	7.5940E+04	4.6077E+05
4	10.00	8.2764E+04	7.2527E+05

 Table E9 - JUNCTION SUMMARY STATISTICS
 The Maximum area is only the area of the node, it does not include the area of the surrounding conduits

Junction Name	Ground Elevation feet	Uppermost Pipe Crown feet	Maximum Junction Elevation feet	Time of Occurrence Hr. Min.	Feet of Surcharge at Max Elevation	Freeboard of node feet	Maximum Junction Area ft^2
MH 1	610.00	610.00	602.63	2 1	0.00	7.37	6.951E+04
MH 2	611.00	607.23	603.50	1 22	0.00	7.50	5.000E+01
MH 4	612.00	607.01	604.98	1 21	0.00	7.02	5.000E+01
MH 5	612.00	605.58	605.20	1 21	0.00	6.80	5.000E+01
MH 7	612.00	607.20	604.15	1 22	0.00	7.85	5.000E+01
MH 8	612.00	607.43	604.53	1 21	0.00	7.47	5.000E+01
MH 9	612.00	605.72	604.80	1 20	0.00	7.20	5.000E+01
MH 10	612.00	607.00	605.26	1 19	0.00	6.74	5.000E+01
MH 11	612.00	607.37	605.76	1 16	0.00	6.24	5.000E+01
CENTRAL P	608.00	602.96	600.97	1 55	0.00	7.03	5.000E+01
RL-3	611.60	605.83	604.15	1 20	0.00	7.45	5.000E+01
RL-2	611.00	604.58	603.98	1 20	0.00	7.02	5.000E+01
RL-1	610.50	604.15	603.01	1 21	0.00	7.49	5.000E+01
RL-OUTLET	610.40	601.25	600.68	1 21	0.00	9.72	5.000E+01
RL-8	613.60	605.79	604.98	1 10	0.00	8.62	5.000E+01
RL-7	611.40	605.17	604.69	1 11	0.00	6.71	5.000E+01
RL-6	610.60	604.86	604.34	1 11	0.00	6.26	5.000E+01
RL-5	611.00	604.49	603.56	1 13	0.00	7.44	5.000E+01
MH 3	612.00	606.80	604.55	1 22	0.00	7.45	5.000E+01
MH 12	612.00	605.81	605.17	1 20	0.00	6.83	5.000E+01
MH13	612.00	605.69	605.31	1 20	0.00	6.69	5.000E+01
MH 14	613.00	605.01	605.41	1 20	0.40	7.59	5.000E+01

 Table E10 - CONDUIT SUMMARY STATISTICS
 Note: The peak flow may be less than the design flow and the conduit may still surcharge because of the downstream boundary conditions.

Name	Design Flow (cfs)	Design Velocity (ft/s)	Conduit Vertical Depth (in)	Maximum Computed Flow (cfs)	Time of Occurrence Hr. Min.	Maximum Computed Velocity (ft/s)	Time of Occurrence Hr. Min.	Ratio of Design Flow	Maximum Depth at Pipe Ends Upstream (ft)	Maximum Depth at Pipe Ends Downstream (ft)
102	1.58E+02	3.14	96.00	1.39E+02	1 23	6.19	1 24	0.88	603.50	602.63
103	86.	2.60	78.00	7.47E+01	1 21	3.56	1 20	0.87	604.55	603.50
105	32.	2.57	48.00	1.66E+01	1 17	1.57	1 5	0.52	605.20	604.98
107	1.02E+02	2.66	84.00	6.46E+01	1 21	3.63	1 9	0.63	604.15	603.50
108	1.02E+02	2.65	84.00	6.87E+01	1 14	3.63	1 11	0.67	604.53	604.15
109	41.	3.23	48.00	2.90E+01	1 11	3.18	1 8	0.71	604.80	604.53
110	67.	2.83	66.00	6.29E+01	1 15	3.87	1 14	0.94	605.26	604.53
111	65.	2.72	66.00	5.47E+01	1 12	3.35	1 10	0.85	605.76	605.26
RP-4	43.	2.71	54.00	3.26E+01	1 15	3.91	1 12	0.76	604.53	604.15
RP-3	75.	3.83	60.00	3.73E+01	1 23	2.87	2 8	0.50	604.15	603.98
RP-2	34.	1.44	66.00	4.45E+01	1 21	2.24	1 6	1.30	603.98	603.01
RP-1	27.	3.77	36.00	5.62E+01	1 21	8.44	1 21	2.11	603.01	600.68
RP-9	9.0	2.85	24.00	4.70E+00	1 10	2.63	1 6	0.53	604.98	604.69
RP-7	18.	3.73	30.00	9.94E+00	1 12	2.20	1 12	0.54	604.69	604.34
RP-6	18.	2.61	36.00	2.02E+01	1 11	3.64	1 10	1.10	604.34	603.56
RP-5	18.	2.50	36.00	1.84E+01	1 14	3.94	1 13	1.04	603.56	603.01
104	77.	2.31	78.00	6.30E+01	1 22	2.83	1 14	0.82	604.98	604.55
112	55.	2.79	60.00	4.89E+01	1 12	3.21	1 11	0.89	605.17	604.98
113	39.	2.47	54.00	3.41E+01	1 11	2.55	1 11	0.87	605.31	605.17
114	24.	2.79	39.96	1.61E+01	1 11	1.84	1 11	0.66	605.40	605.31
controlout	31.	2.49	48.00	4.45E+01	1 21	4.80	1 57	1.42	602.63	600.97
FREE # 1	Undefnd	Undefnd	Undefnd	5.62E+01	1 21					
GATE # 1	Undefnd	Undefnd	Undefnd	4.53E+01	1 55					

 Table E15 - SPREADSHEET INFO LIST
 Conduit Flow and Junction Depth Information for use in spreadsheets. The maximum values in this table are the true maximum values because they sample every time step. The values in the review results may only be the maximum of a subset of all the time steps in the run.
 Note: These flows are only the flows in a single barrel.

DaimlerChrysler PRTAP Expansion
5 Year Runoff

Table R1. S U B C A T C H M E N T D A T A #
Physical Hydrology Data #
#####

Subcatchment Number	Channel Name	Channel or inlet	Width ft	Area ac	Per- cent Imperv	Slope ft/ft	"n" mprv	"n" Perv	Deprs -sion Storage Imprv	Deprs -sion Storage Perv	Frcnt Zero Deten -tion
1	MH 5#1	MH 5	250.00	14.600	95.00	0.005	0.014	0.030	0.100	0.250	0.00
2	MH 14#1	MH 14	400.00	7.3800	100.00	0.005	0.014	0.030	0.100	0.250	0.00
3	MH13#1	MH13	400.00	11.080	100.00	0.005	0.014	0.030	0.100	0.250	0.00
4	MH 12#1	MH 12	400.00	10.540	100.00	0.005	0.014	0.030	0.100	0.250	0.00
5	MH 4#1	MH 4	350.00	5.7900	95.00	0.005	0.014	0.030	0.100	0.250	0.00
6	MH 3#1	MH 3	800.00	9.8500	100.00	0.005	0.014	0.030	0.100	0.250	0.00
7	MH 9#1	MH 9	600.00	15.760	100.00	0.005	0.014	0.030	0.100	0.250	0.00
8	MH 11#1	MH 11	900.00	36.640	95.00	0.005	0.014	0.030	0.100	0.250	0.00
9	MH 10#1	MH 10	450.00	7.2500	100.00	0.005	0.014	0.030	0.100	0.250	0.00
10	MH 8#1	MH 8	700.00	9.2300	100.00	0.005	0.014	0.030	0.100	0.250	0.00
11	MH 8#2	MH 8	300.00	3.0000	100.00	0.005	0.014	0.030	0.100	0.250	0.00
12	RL-3#1	RL-3	450.00	3.8000	100.00	0.005	0.014	0.030	0.100	0.250	0.00
13	RL-2#1	RL-2	670.00	5.9000	100.00	0.005	0.014	0.030	0.100	0.250	0.00
14	RL-8#1	RL-8	200.00	1.6300	100.00	0.005	0.014	0.030	0.100	0.250	0.00
15	RL-7#1	RL-7	275.00	1.8900	100.00	0.005	0.014	0.030	0.100	0.250	0.00
16	RL-6#1	RL-6	500.00	3.7100	100.00	0.005	0.014	0.030	0.100	0.250	0.00
17	MH 7#1	MH 7	200.00	1.7200	100.00	0.005	0.014	0.030	0.100	0.250	0.00
18	MH 2#1	MH 2	110.00	.28000	100.00	0.005	0.014	0.030	0.100	0.250	0.00
19	MH 1#1	MH 1	400.00	2.0000	0.00	0.005	0.014	0.030	0.100	0.250	0.00

Total Number of Subcatchments... 19
Total Tributary Area (acres)... 152.05
Impervious Area (acres)... 147.20
Pervious Area (acres)... 4.85
Total Width (feet)... 8355.00
Percent Imperviousness... 96.81

* Table R5. CONTINUITY CHECK FOR SURFACE WATER *
* Any continuity error can be fixed by lowering the *
* wet and transition time step. The transition time *
* should not be much greater than the wet time step. *

	cubic feet	Inches over Total Basin
Total Precipitation (Rain plus Snow)	1.169067E+06	2.118
Total Infiltration	1.048495E+04	0.019
Total Evaporation	1.372291E+04	0.025
Surface Runoff from Watersheds	1.078187E+06	1.953
Base Flow	0.000000E+00	0.000
Total Water remaining in Surface Storage	6.700382E+04	0.121
Infiltration over the Pervious Area...	1.048495E+04	0.595

Infiltration + Evaporation + Surface Runoff + Snow removal + Water remaining in Surface Storage + Water remaining in Snow Cover.....	1.169399E+06	2.119
Total Precipitation + Initial Storage.	1.169067E+06	2.118

The error in continuity is calculated as

* Precipitation + Initial Snow Cover *
* + Base Flow *
* - Infiltration - *
*Evaporation - Snow removal *
*Surface Runoff from Watersheds - *
*Water in Surface Storage - *
*Water remaining in Snow Cover *

* Precipitation + Initial Snow Cover *
* + Base Flow *

Percent Continuity Error..... -0.028

* Table R6. Continuity Check for Channel/Pipes *
* You should have zero continuity error *
* if you are not using runoff hydraulics *

	cubic feet	Inches over Total Basin
Initial Channel/Pipe Storage.....	0.000000E+00	0.000
Final Channel/Pipe Storage.....	0.000000E+00	0.000
Surface Runoff from Watersheds.....	1.078187E+06	1.953
Groundwater Subsurface Inflow.....	0.000000E+00	0.000

spreadsheets. The maximum values in this table are the true maximum values because they sample every time step. The values in the review results may only be the maximum of a subset of all the time steps in the run. Note: These flows are only the flows in a single barrel.

Conduit Name	Maximum Flow	Total Flow	Maximum Velocity	##	Junction Name	Invert Elevation	Maximum Elevation
102	249.7416	702322.0	7.588300	##	MH 1	599.1000	604.2219
103	141.1724	417745.3	4.900123	##	MH 2	599.2300	605.1049
105	35.93641	99976.84	2.852824	##	MH 4	600.5100	607.1181
107	122.3925	285720.1	3.747711	##	MH 5	601.5800	608.0723
108	125.4993	275649.1	3.783746	##	MH 7	600.0900	606.0505
109	43.28393	112439.5	3.375704	##	MH 8	600.4300	606.5742
110	97.02595	306173.4	4.273667	##	MH 9	601.7200	607.3294
111	88.68945	253903.6	3.794172	##	MH 10	601.3800	607.5530
RP-4	41.63178	231476.9	4.232961	##	MH 11	601.8700	608.2032
RP-3	46.05176	259425.7	3.039678	##	CENTRAL P	598.9600	601.4970
RP-2	57.03634	302145.0	2.359527	##	RL-3	599.9100	606.3272
RP-1	72.69639	354939.8	10.51101	##	RL-2	598.7000	606.1123
RP-9	6.068426	11752.79	2.629450	##	RL-1	598.4800	604.6330
RP-7	12.68164	25542.27	2.579062	##	RL-OUTLET	598.2500	600.9367
RP-6	25.94663	52333.05	3.788678	##	RL-8	603.7900	606.2234
RP-5	21.58526	51841.70	3.781216	##	RL-7	602.6500	605.9240
104	127.8616	348789.8	4.078230	##	RL-6	601.8600	605.6043
112	87.02078	207544.1	4.335969	##	RL-5	601.2500	605.0145
113	56.61584	132248.4	3.549373	##	MH 3	600.2300	606.5175
114	24.61951	53062.30	2.808396	##	MH 12	600.8100	607.6613
controlout	70.46332	604087.2	6.582198	##	MH13	601.1900	608.1060
FREE # 1	72.69450	355045.9	0.000000	##	MH 14	601.6800	608.5559
GATE # 1	70.46450	604369.4	0.000000	##			

Table E15a - SPREADSHEET REACH LIST
Peak flow and Total Flow listed by Reach or those conduits or diversions having the same upstream and downstream nodes.

Upstream Node	Downstream Node	Maximum Flow	Total Flow
MH 2	MH 1	249.74	7.02322E+05
MH 3	MH 2	141.17	4.17745E+05
MH 5	MH 4	35.936	99977.
MH 7	MH 2	122.39	2.85720E+05
MH 8	MH 7	125.50	2.75649E+05
MH 9	MH 8	43.284	1.12440E+05
MH 10	MH 8	97.026	3.06173E+05
MH 11	MH 10	88.689	2.53904E+05
MH 8	RL-3	41.632	2.31477E+05
RL-3	RL-2	46.052	2.59426E+05
RL-2	RL-1	57.036	3.02145E+05
RL-1	RL-OUTLET	72.696	3.54940E+05
RL-8	RL-7	6.0684	11753.
RL-7	RL-6	12.682	25542.
RL-6	RL-5	25.947	52333.
RL-5	RL-1	21.585	51842.
MH 4	MH 3	127.86	3.48790E+05
MH 12	MH 4	87.021	2.07544E+05
MH13	MH 12	56.616	1.32248E+05
MH 14	MH13	24.620	53062.
MH 1	CENTRAL P	70.463	6.04087E+05

70.604
70.463
141.172

RL-3	611.60	605.83	610.30	2	30	4.47	1.30	5.000E+01
RL-2	611.00	604.58	610.12	2	30	5.54	0.88	5.000E+01
RL-1	610.50	604.15	607.62	2	29	3.47	2.88	5.000E+01
RL-OUTLET	610.40	601.25	601.17	2	30	0.00	9.23	5.000E+01
RL-8	613.60	605.79	612.42	2	29	6.63	1.18	5.000E+01
RL-7	611.40	605.17	611.43	2	32	6.26	0.00	2.005E+04
RL-6	610.60	604.86	610.61	2	31	5.75	0.00	2.005E+04
RL-5	611.00	604.49	609.14	2	29	4.65	1.86	5.000E+01
MH 3	612.00	606.80	610.36	2	30	3.56	1.64	5.000E+01
MH 12	612.00	605.81	612.01	2	30	6.20	0.00	2.005E+04
MH13	612.00	605.69	612.60	2	37	6.91	0.00	2.005E+04
MH 14	613.00	605.01	613.36	2	29	8.35	0.00	5.000E+01

Table E10 - CONDUIT SUMMARY STATISTICS
 Note: The peak flow may be less than the design flow and the conduit may still surcharge because of the downstream boundary conditions.

Name Conduit Name	Design Flow (cfs)	Design Velocity (ft/s)	Conduit Vertical Depth (in)	Maximum Computed Flow (cfs)	Time of Occurrence Hr. Min.	Maximum Computed Velocity (ft/s)	Time of Occurrence Hr. Min.	Ratio of Max. to Design Flow	Maximum Depth Upstream (ft)	Maximum Depth Downstream (ft)
102	1.58E+02	3.14	96.00	4.40E+02	2 30	9.96	2 30	2.79	607.56	606.83
103	86.	2.60	78.00	2.23E+02	2 29	6.77	2 29	2.58	610.36	607.56
105	32.	2.57	48.00	5.07E+01	2 38	4.00	2 38	1.57	612.00	611.51
107	1.02E+02	2.66	84.00	2.44E+02	2 30	6.32	2 30	2.38	609.37	607.56
108	1.02E+02	2.65	84.00	2.43E+02	2 29	6.16	2 29	2.37	610.58	609.36
109	41.	3.23	48.00	6.91E+01	2 35	5.45	2 35	1.70	612.00	610.59
110	67.	2.83	66.00	1.49E+02	2 28	6.24	2 28	2.21	611.97	610.59
111	65.	2.72	66.00	1.26E+02	2 28	5.27	2 28	1.94	612.00	611.97
RP-4	43.	2.71	54.00	6.00E+01	3 17	4.17	4 41	1.39	610.59	610.30
RP-3	75.	3.83	60.00	6.28E+01	3 13	3.19	3 13	0.84	610.30	610.12
RP-2	34.	1.44	66.00	6.98E+01	2 52	2.90	2 48	2.04	610.12	607.63
RP-1	27.	3.77	36.00	9.71E+01	2 30	13.70	2 30	3.64	607.62	601.17
RP-9	9.0	2.85	24.00	9.78E+00	2 29	3.05	2 29	1.09	612.42	611.40
RP-7	18.	3.73	30.00	2.11E+01	2 34	4.24	2 34	1.15	611.40	610.60
RP-6	18.	2.61	36.00	3.83E+01	2 29	5.37	2 29	2.08	610.60	609.14
RP-5	18.	2.50	36.00	3.72E+01	2 29	5.23	2 29	2.10	609.14	607.62
104	77.	2.31	78.00	1.81E+02	2 29	5.36	2 29	2.37	611.51	610.36
112	55.	2.79	60.00	1.14E+02	2 28	5.77	2 28	2.08	612.00	611.51
113	39.	2.47	54.00	8.02E+01	2 46	5.00	2 46	2.04	612.00	612.00
114	24.	2.79	39.96	3.58E+01	2 30	4.16	2 30	1.51	613.36	612.00
controlout	31.	2.49	48.00	1.04E+02	3 2	8.92	3 2	3.32	606.83	602.04
FREE # 1	Undefnd	Undefnd	Undefnd	9.71E+01	2 30					
GATE # 1	Undefnd	Undefnd	Undefnd	1.04E+02	2 53					

Table E15 - SPREADSHEET INFO LIST
 Conduit Flow and Junction Depth Information for use in spreadsheets. The maximum values in this table are the true maximum values because they sample every time step. The values in the review results may only be the maximum of a subset of all the time steps in the run. Note: These flows are only the flows in a single barrel.

Conduit Name	Maximum Flow	Total Flow	Maximum Velocity	## ##	Junction Name	Invert Elevation	Maximum Elevation
102	440.3955	1132421.	9.964121	##	MH 1	599.1000	606.8296
103	222.8436	724164.6	6.765549	##	MH 2	599.2300	607.5589
105	50.72111	176525.8	3.998869	##	MH 4	600.5100	611.5112
107	244.0093	414201.5	6.317394	##	MH 5	601.5800	612.0462
108	242.5155	399713.0	6.164145	##	MH 7	600.0900	609.3570
109	69.12789	199544.2	5.453870	##	MH 8	600.4300	610.5855
110	148.7150	544081.8	6.236500	##	MH 9	601.7200	612.0784
111	125.5440	453555.6	5.267745	##	MH 10	601.3800	611.9743
RP-4	60.02718	492859.7	4.173371	##	MH 11	601.8700	613.1130
RP-3	62.78531	541443.8	3.190975	##	CENTRAL P	598.9600	602.0425
RP-2	69.76055	616919.6	2.898355	##	RL-3	599.9100	610.2998
RP-1	97.11944	709265.2	13.69969	##	RL-2	598.7000	610.1209
RP-9	9.782442	21018.49	3.053040	##	RL-1	598.4800	607.6240
RP-7	21.10667	45975.37	4.236153	##	RL-OUTLET	598.2500	601.1728
RP-6	38.33557	93919.41	5.373071	##	RL-8	603.7900	612.4203
RP-5	37.17097	93030.36	5.228590	##	RL-7	602.6500	611.4257
104	181.4053	606188.3	5.359520	##	RL-6	601.8600	610.6149
112	113.8123	364516.8	5.770677	##	RL-5	601.2500	609.1440
113	80.23139	233285.5	5.003797	##	MH 3	600.2300	610.3567
114	36.77255	94148.61	4.160080	##	MH 12	600.8100	612.0101
controlout	103.7442	939706.5	8.923007	##	MH13	601.1900	612.6005
FREE # 1	97.08273	709385.8	0.0000000	##	MH 14	601.6800	613.3601
GATE # 1	103.7579	939867.6	0.0000000	##			

Table E15a - SPREADSHEET REACH LIST
 Peak flow and Total Flow listed by Reach or those conduits or diversions having the same upstream and downstream nodes.

DaimlerChrysler PRTAP Expansion
Residential Runoff - 2 Year

Table R1. S U B C A T C H M E N T D A T A #
Physical Hydrology Data #
#####

Subcatchment Number	Channel Name	Width or inlet ft	Area ac	Per- cent Imperv	Slope ft/ft	"n" mprv	"n" Perv	Deprs -sion Storage Imprv	Deprs -sion Storage Perv	Prcnt Zero Deten -tion	
1	PRTAP Res#1	PRTAP Res	1685.0	154.80	25.00	0.005	0.014	0.030	0.100	0.250	0.00

Total Number of Subcatchments... 1
Total Tributary Area (acres).... 154.80
Impervious Area (acres)..... 38.70
Pervious Area (acres)..... 116.10
Total Width (feet)..... 1685.00
Percent Imperviousness..... 25.00

* Table R5. CONTINUITY CHECK FOR SURFACE WATER *
* Any continuity error can be fixed by lowering the *
* wet and transition time step. The transition time *
* should not be much greater than the wet time step. *

	cubic feet	Inches over Total Basin
Total Precipitation (Rain plus Snow)	7.349591E+05	1.308
Total Infiltration	4.173672E+05	0.743
Total Evaporation	1.404810E+04	0.025
Surface Runoff from Watersheds	2.564898E+05	0.456
Base Flow	0.000000E+00	0.000
Total Water remaining in Surface Storage	4.710761E+04	0.084
Infiltration over the Pervious Area...	4.173672E+05	0.990

Infiltration + Evaporation + Surface Runoff + Snow removal + Water remaining in Surface Storage + Water remaining in Snow Cover.....	7.350128E+05	1.308
Total Precipitation + Initial Storage.	7.349591E+05	1.308

The error in continuity is calculated as

* Precipitation + Initial Snow Cover *
* + Base Flow *
* - Infiltration - *
*Evaporation - Snow removal - *
*Surface Runoff from Watersheds - *
*Water in Surface Storage - *
*Water remaining in Snow Cover *

* Precipitation + Initial Snow Cover *
* + Base Flow *

Percent Continuity Error..... -0.007

* Table R6. Continuity Check for Channel/Pipes *
* You should have zero continuity error *
* if you are not using runoff hydraulics *

	cubic feet	Inches over Total Basin
Initial Channel/Pipe Storage.....	0.000000E+00	0.000
Final Channel/Pipe Storage.....	0.000000E+00	0.000
Surface Runoff from Watersheds.....	2.564898E+05	0.456
Groundwater Subsurface Inflow.....	0.000000E+00	0.000
Evaporation Loss from Channels.....	0.000000E+00	0.000
Channel/Pipe/Inlet Outflow.....	2.564898E+05	0.456
Initial Storage + Inflow.....	2.564898E+05	0.456
Final Storage + Outflow.....	2.564898E+05	0.456

* Final Storage + Outflow + Evaporation - *		
* Watershed Runoff - Groundwater Inflow - *		
* Initial Channel/Pipe Storage *		

* Final Storage + Outflow + Evaporation *		

Percent Continuity Error.....		0.000

Table R9. Summary Statistics for Subcatchments #
#####

DaimlerChrysler PRTAP Expansion
Residential Runoff - 5 Year

Table R1. S U B C A T C H M E N T D A T A #
Physical Hydrology Data #
#####

Subcatchment Number	Channel Name	Width or inlet ft	Area ac	Per- cent Imperv	Slope ft/ft	"n" mprv	"n" Perv	Storage Imprv	Deprs -sion Perv	Deprs -sion Perv	Prct Zero Deten -tion
1	PRTAP Res#1	PRTAP Res	1685.0	154.80	25.00	0.005	0.014	0.030	0.100	0.250	0.00

Total Number of Subcatchments... 1
Total Tributary Area (acres).... 154.80
Impervious Area (acres)..... 38.70
Pervious Area (acres)..... 116.10
Total Width (feet)..... 1685.00
Percent Imperviousness..... 25.00

* Table R5. CONTINUITY CHECK FOR SURFACE WATER *
* Any continuity error can be fixed by lowering the *
* wet and transition time step. The transition time *
* should not be much greater than the wet time step. *

	cubic feet	Inches over Total Basin
Total Precipitation (Rain plus Snow)	1.190211E+06	2.118
Total Infiltration	3.999051E+05	0.712
Total Evaporation	1.404810E+04	0.025
Surface Runoff from Watersheds	6.360504E+05	1.132
Base Flow	0.000000E+00	0.000
Total Water remaining in Surface Storage	1.403115E+05	0.250
Infiltration over the Pervious Area...	3.999051E+05	0.549

Infiltration + Evaporation + Surface Runoff + Snow removal + Water remaining in Surface Storage + Water remaining in Snow Cover.....	1.190315E+06	2.118
Total Precipitation + Initial Storage.	1.190211E+06	2.118

The error in continuity is calculated as

* Precipitation + Initial Snow Cover *	
* + Base Flow *	
* - Infiltration - *	
*Evaporation - Snow removal - *	
*Surface Runoff from Watersheds - *	
*Water in Surface Storage - *	
*Water remaining in Snow Cover *	
-----*	
* Precipitation + Initial Snow Cover *	
* + Base Flow *	

Percent Continuity Error.....	-0.009

* Table R6. Continuity Check for Channel/Pipes *
* You should have zero continuity error *
* if you are not using runoff hydraulics *

	cubic feet	Inches over Total Basin
Initial Channel/Pipe Storage.....	0.000000E+00	0.000
Final Channel/Pipe Storage.....	0.000000E+00	0.000
Surface Runoff from Watersheds.....	6.360504E+05	1.132
Groundwater Subsurface Inflow.....	0.000000E+00	0.000
Evaporation Loss from Channels.....	0.000000E+00	0.000
Channel/Pipe/Inlet Outflow.....	6.360504E+05	1.132
Initial Storage + Inflow.....	6.360504E+05	1.132
Final Storage + Outflow.....	6.360504E+05	1.132

* Final Storage + Outflow + Evaporation - *		
* Watershed Runoff - Groundwater Inflow - *		
* Initial Channel/Pipe Storage *		
-----*		
* Final Storage + Outflow + Evaporation *		

Percent Continuity Error.....		0.000

Table R9. Summary Statistics for Subcatchments #
#####

DaimlerChrysler PRTAP Expansion
Residential Runoff - 100 Year

Table R1. S U B C A T C H M E N T D A T A #
Physical Hydrology Data #
#####

Subcatchment Number	Channel Name or inlet	Width ft	Area ac	Per- cent Imprv	Slope ft/ft	"n" mprv	"n" Perv	Deprs -sion Imprv	Deprs -sion Perv	Prcnt Zero -tion
1	PRTAP Res#1	PRTAP Res	1685.0	154.80	25.00	0.005	0.014	0.030	0.100	0.250 0.00

Total Number of Subcatchments... 1
Total Tributary Area (acres).... 154.80
Impervious Area (acres)..... 38.70
Pervious Area (acres)..... 116.10
Total Width (feet)..... 1685.00
Percent Imperviousness..... 25.00

* Table R5. CONTINUITY CHECK FOR SURFACE WATER *
* Any continuity error can be fixed by lowering the *
* wet and transition time step. The transition time *
* should not be much greater than the wet time step. *

	cubic feet	Inches over Total Basin
Total Precipitation (Rain plus Snow)	2.134506E+06	3.799
Total Infiltration	3.948855E+05	0.703
Total Evaporation	1.404810E+04	0.025
Surface Runoff from Watersheds	1.404295E+06	2.499
Base Flow	0.000000E+00	0.000
Total Water remaining in Surface Storage	3.223353E+05	0.574
Infiltration over the Pervious Area...	3.948855E+05	0.937

Infiltration + Evaporation + Surface Runoff + Snow removal + Water remaining in Surface Storage + Water remaining in Snow Cover.....	2.135564E+06	3.800
Total Precipitation + Initial Storage.	2.134506E+06	3.799

The error in continuity is calculated as

* Precipitation + Initial Snow Cover *
* + Base Flow *
* - Infiltration - *
*Evaporation - Snow removal - *
*Surface Runoff from Watersheds - *
*Water in Surface Storage *
*Water remaining in Snow Cover *

* Precipitation + Initial Snow Cover *
* + Base Flow *

Percent Continuity Error..... -0.050

* Table R6. Continuity Check for Channel/Pipes *
* You should have zero continuity error *
* if you are not using runoff hydraulics *

	cubic feet	Inches over Total Basin
Initial Channel/Pipe Storage.....	0.000000E+00	0.000
Final Channel/Pipe Storage.....	0.000000E+00	0.000
Surface Runoff from Watersheds.....	1.404295E+06	2.499
Groundwater Subsurface Inflow.....	0.000000E+00	0.000
Evaporation Loss from Channels.....	0.000000E+00	0.000
Channel/Pipe/Inlet Outflow.....	1.404295E+06	2.499
Initial Storage + Inflow.....	1.404295E+06	2.499
Final Storage + Outflow.....	1.404295E+06	2.499

* Final Storage + Outflow + Evaporation - *		
* Watershed Runoff - Groundwater Inflow - *		
* Initial Channel/Pipe Storage *		

* Final Storage + Outflow + Evaporation *		

Percent Continuity Error.....		0.000

Table R9. Summary Statistics for Subcatchments #
#####

APPENDIX 'C'

Addendum Report on the Upper Grand Marais Drain March 1993 MacLaren Engineers

**UPPER GRAND MARAIS DRAIN
(WALKER ROAD TO TOURANGEAU ROAD)
ADDENDUM NO. 2
TO
FLOOD DAMAGE REDUCTION ALTERNATIVES
FOR THE TURKEY CREEK WATERSHED**

**March 1993
Project No. 016056**

**MacLAREN ENGINEERS
SNC • LAVALIN INC.**

**UPPER GRAND MARAIS DRAIN FLOOD CONTROLS
ADDENDUM REPORT**

1.0 INTRODUCTION

1.1 General

Recently, a report was prepared for the Essex Region Conservation Authority which outlined the investigations, predicted the flood levels and flood damages and identified measures for reducing the existing flood potential on the Turkey Creek Watershed. The report, entitled "Flood Damage Reduction Alternatives for the Turkey Creek Watershed" did not include the study of upper portion of the Grand Marais Drain east of Howard Avenue. Subsequently, the section between Howard Ave and Walker Road was subject to a study carried out for the City of Windsor.

1.2 Authorization and Terms of Reference

By a letter dated November 5, 1991, MacLaren Engineers was authorized to carry out a study and prepare an addendum report which will address only the upper portion of the Grand Marais Drain from Walker Road to Pillette Road, which lies within the Turkey Creek Watershed. The scope of the study was to determine existing flood damages; identify measures for reducing flood potential and to make recommendations in this regard which are consistent with the previous studies.

1.3 Study Area

The principal area of interest consists of the Grand Marais Drain between Walker Road and Tourangeau Road. The entire watershed, and particularly the area upstream of Howard Avenue was needed to be considered in detail in formulating our recommendations.

This section of the Grand Marais Drain is as a result of channelization, improvements and cleaning carried out in past years to improve agricultural use of the tributary land.

The catchment tributary to this reach has undergone substantial urbanization since approximately 1950, which has increased both the amount of runoff and rate at which it occurs. By comparison, no major improvements to the drain have been carried out since that time.

The area along the drain has been identified in the previous floodline study as a flood prone area. In fact, extensive flood damage has been experienced on several occasions in past years, particularly in 1981.

2.4 Sub-Catchment Areas

The study area has been divided into ten sub-catchment areas for purposes of analysis. These are shown on Figure 1 and existing land uses are summarized in Table 1.

2.5 Design Flows

Based on the sub-catchment discretization outlined above, we have carried out hydrologic/hydraulic calculations to determine 1:100 year flood flows under existing conditions having regard for the restricted outlet capacity provided for lands lying south of the Canadian Pacific rail line and of the E.C. Row Expressway.

These computed flows, using the AES 30% distribution, agree well with the flows used in computing flood elevations presented in our Addendum No. 1 Report "Floodway Analysis/Stormwater Management Guidelines".

These design flows were also used for the functional design study on the Grand Marais Drain for the section between Howard Avenue and Walker Road.

2.7 Flood Damages

One of our study tasks, was to characterize the type of development in the previously identified damage zones lying upstream of Walker Road.

We have computed flood damages using the FLDAM model developed for the Ministry of Natural Resources. All dollar values have been updated to 1992 values.

The scenarios modelled were:

- with Plymouth culvert as existing; existing Pilette No. 1; existing conditions downstream of Central;
- with Plymouth culvert enlarged and existing Pilette No. 1 deepened; existing conditions downstream of Central.

The results of these analyses are given in Table 2 which shows:

i)	Present value of flood damages prevented by replacing the Plymouth culvert and deepening the Pilette No. 1 to Tourangeau.	\$149,600
ii)	Present value of flood damage prevented by carrying out necessary channelization downstream of Central Avenue and stormwater detention upstream of Central.	<u>\$168,000</u>
	TOTAL	\$317,600

3.0 CONCLUSIONS AND RECOMMENDATIONS

The basic philosophy for Turkey Creek improvements downstream are that 1:100 year flood flows to the downstream area would be controlled to the existing 1:100 year flow which was based on the 1989 extent of development. In order to achieve this, outlet flows at Howard Avenue would need to be controlled to 17 m³/s. This flow was determined previously through use of the OTTHYMO model and is fundamental to the proposed Turkey Creek project currently being undertaken by the Authority.

This current study has determined that if the entire area upstream of Howard Avenue were allowed to discharge uncontrolled runoff, the peak 1:100 year flow at Howard Avenue (future conditions) would reach approximately 24.2 m³/s under 'regional-type' rainfall conditions and 30.9 m³/s under high-intensity, local rainfall conditions. Computed flows at selected points are given in Table 1, assuming uncontrolled and controlled conditions.

As noted in Table 1, the total area of land tributary to the Grand Marais Drain upstream of Howard is 895 ha and of which approximately 147 ha is undeveloped. Further, upstream of Central, the total tributary area is 196 ha, of which 77 ha is undeveloped.

We would note that in developing recommendations in this regard, as well as in computing flood flows, we have assumed that industrial/commercial developments will have on-site controls to limit runoff rates to those equivalent from residential land uses.

Our recommendations to reduce the outlet 1:100 year flows at Howard Avenue to 17 m³/s under full development conditions are as follows. These recommendations are not independent of one another and in particular, recommendation b) is contingent upon the implementation of recommendation c).

17 m³/s

- ii) developments that proceed and are west or east of Central would not require individual storm detention facilities.

Finally, we note that areas south of the E.C. Row Expressway/CPR would not benefit from this stormwater detention facility.

We have shown on the Plan (inside rear cover of Report) the general location and shape of the proposed pond. In Table 3, we have presented a range of width-length relationships for the proposed facility to satisfy ultimate requirements. The estimated final cost of the facility is \$400,000, exclusive of land acquisition costs.

We recommend that the initial volume of the pond be 35,000 m³ with 5,000 m³ as a permanent pond. Pond size should be increased by 350 m³/ha of development that occurs north of the E.C. Row Expressway/CPR line (104 ha) with 50 m³/ha adding to the permanent pond. Pond outflow should be controlled to a maximum of 2 m³/s at its top water elevation.

- d) The channel between Walker Road and the downstream end of the culvert through Casson Transport should be widened, deepened and graded to match the section recommended for between Howard and Walker Road as follows:

- bottom width 2.5 m
- side slopes 3:1
- grade 0.045%

The estimated cost of this work is \$300,000. The work would not entail replacement of any of the existing structures. This work is required for both flood control upstream of Central and for accommodating development for existing and future direct contributing lands.

3.2 Summary

The works recommended are as follows:

1.	Improve channel from Walker Road to Casson Transport	\$300,000
2.	Replace Plymouth Avenue Culvert	\$200,000
3.	Improve Pillette No. 1 Drain	\$130,000
4.	Construct Stormwater Retention Pond (initial capacity 35,000 m ³)	\$200,000
	TOTAL	\$830,000

The flood damage reduction benefits resulting from these works are:

a)	Replace Plymouth Avenue Culvert/improve Pillette No. 2 Drain	\$149,600
b)	Improve Channel - Walker Road to Casson Transport and initial Stormwater Detention Pond	\$168,000
	TOTAL	\$317,600

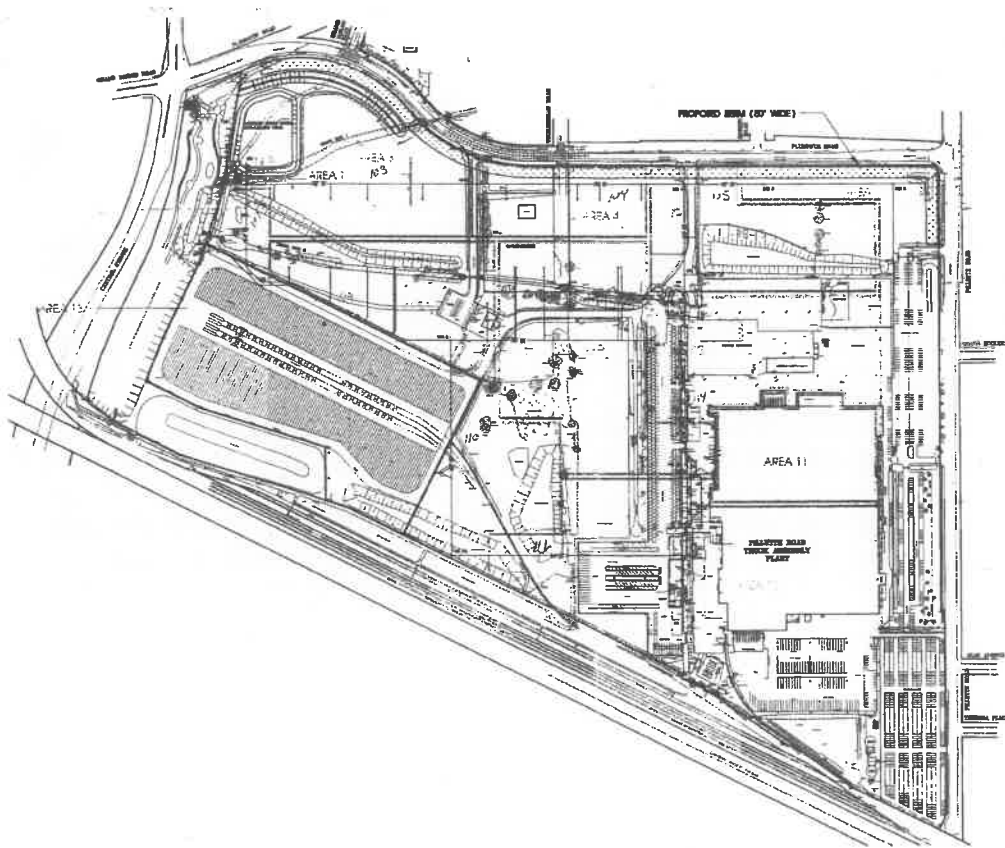
It should be noted that should the channelization works from Walker to Casson be constructed before the works from Howard and Walker, then some temporary constriction at Walker may be necessary.

These proposed works will remove from risk of flooding 74 houses under 1:100 year design flow conditions. However, the City should ensure the minor drainage system tributary to the recommended works is adequate.

TABLE 1 LAND USE AND FLOWS

LAND USE:	Residential ha	Comm/Ind ha	Undeveloped ha	Open Space ha	Totals ha
Area 1	73.1	26.9	35.5		135.5
Area 2		19.4	41.4		60.8
Area 3		57.3			57.3
Area 4A		56.0			56.0
Area 4B		20.0	29.0		49.0
Area 4A1	18.5	35.7	14.4		68.6
Area 6	144.6	4.0	3.2		151.8
Area 7	66.0	15.8	14.0	6.5	102.3
Area 8	55.1	39.2		8.0	102.3
Area 9	62.1	39.4	9.9		111.4
Totals	419.4	313.7	147.4	14.5	895.0

FLOWS: (future) Location	AES 30% 1:100 year		CHICAGO 1:100 year		DESIGN
	Uncontrolled m3/s	Controlled m3/s	Uncontrolled m3/s	Controlled m3/s	
U/S Howard	24.2	15.3	30.9	18.7	17.0
D/S Walker	19.4	10.5	24.8	12.6	13.7
D/S Casson	15.1	6.2	19.2	7.0	10.0
U/S Central	5.3	2.0	6.7	2.0	6.7



STORM WATER MANAGEMENT AREAS

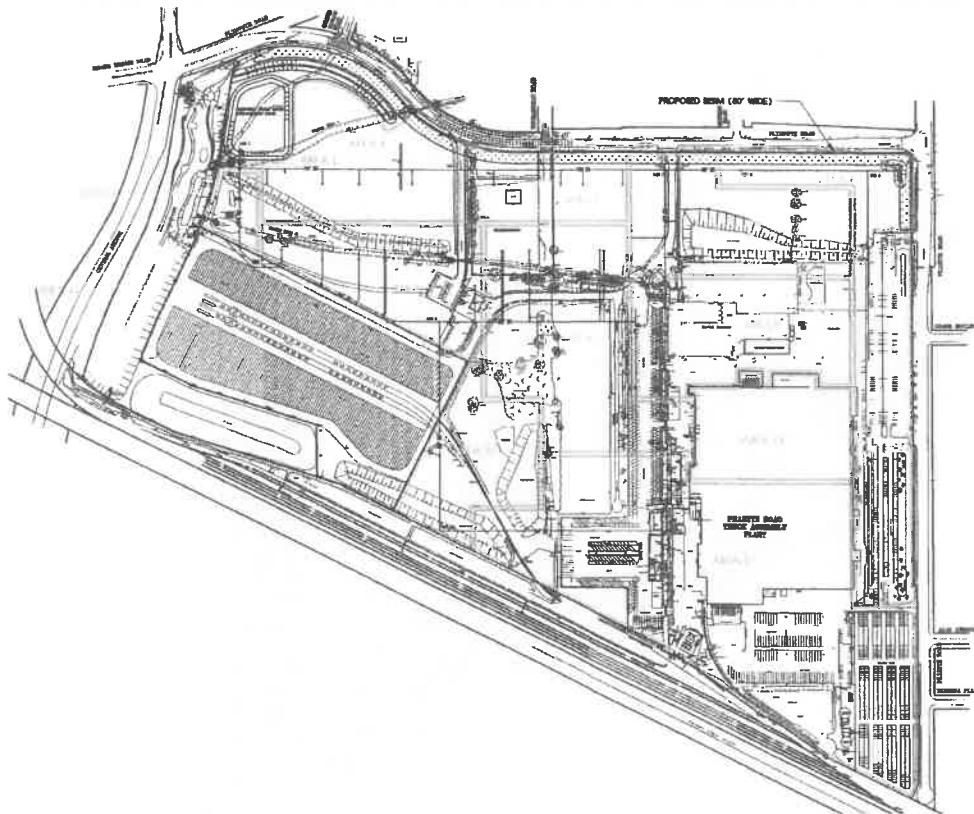
AREA 1	= 0.28 acres
AREA 2	= 1.72 acres
AREA 3	= 9.85 acres
AREA 4	= 5.79 acres
AREA 5	= 10.54 acres
AREA 6	= 14.80 acres
AREA 7	= 9.23 acres
AREA 8	= 15.76 acres
AREA 9	= 11.08 acres
AREA 10	= 7.25 acres
AREA 11	= 7.38 acres
AREA 12	= 38.64 acres
AREA 13	= 19.93 acres
POND	= 4.75 acres
TOTAL DRAINAGE AREA	= 154.80 acres
RUNOFF COEFFICIENT	= 0.95



**STORM WATER MANAGEMENT REPORT
FOR THE PILLETTE ROAD TRUCK ASSEMBLY PLANT
DAIMLERCHRYSLER CANADA**



FIGURE 3



STORM WATER MANAGEMENT AREAS

AREA 1	= 0.25 acres
AREA 2	= 1.72 acres
AREA 3	= 9.85 acres
AREA 4	= 5.79 acres
AREA 6	= 10.54 acres
AREA 6	= 14.80 acres
AREA 7	= 9.25 acres
AREA 8	= 15.76 acres
AREA 9	= 11.08 acres
AREA 10	= 7.25 acres
AREA 11	= 7.39 acres
AREA 12	= 26.04 acres
AREA 13	= 19.93 acres
FOND	= 4.75 acres
TOTAL DRAINAGE AREA	= 154.60 acres
RUNOFF COEFFICIENT	= 0.06

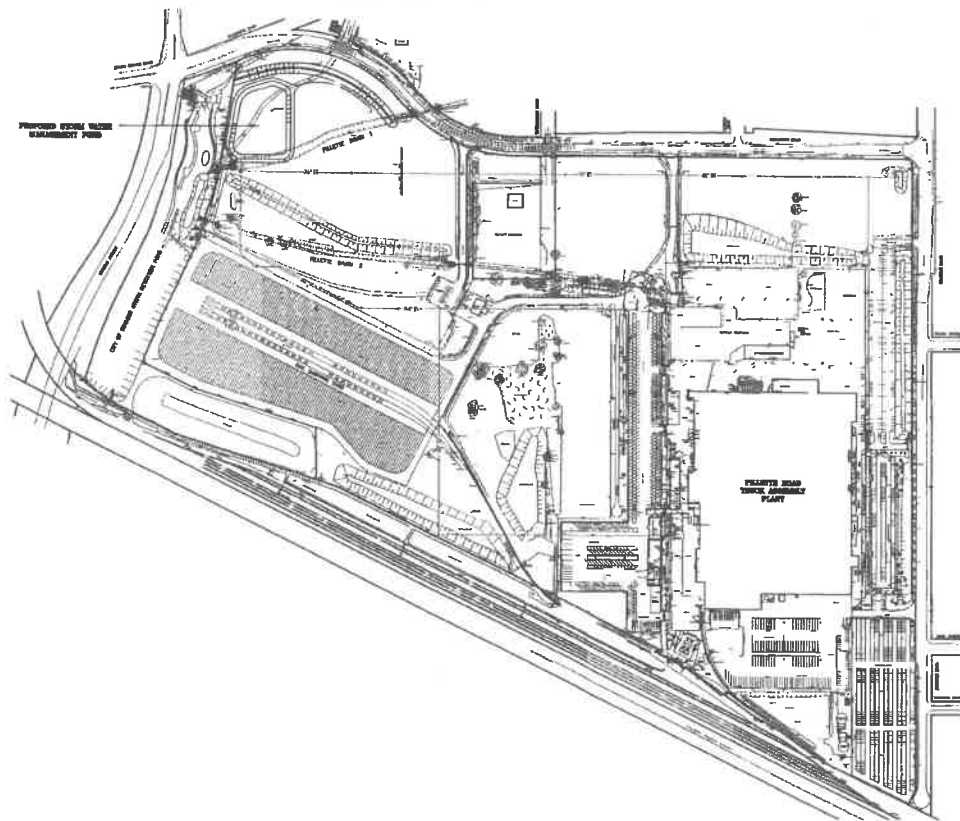


**STORM WATER MANAGEMENT REPORT
FOR THE PILLETTE ROAD TRUCK ASSEMBLY PLANT
DAIMLERCHRYSLER CANADA**

STORM DRAINAGE AREAS



FIGURE 3



STORM WATER MANAGEMENT REPORT
 FOR THE PILLETTE ROAD TRUCK ASSEMBLY PLANT
 DAIMLERCHRYSLER CANADA

PROPOSED STORM WATER DRAINAGE SYSTEM



FIGURE 2

APPENDIX B

Storm Sewer HGL Profiles

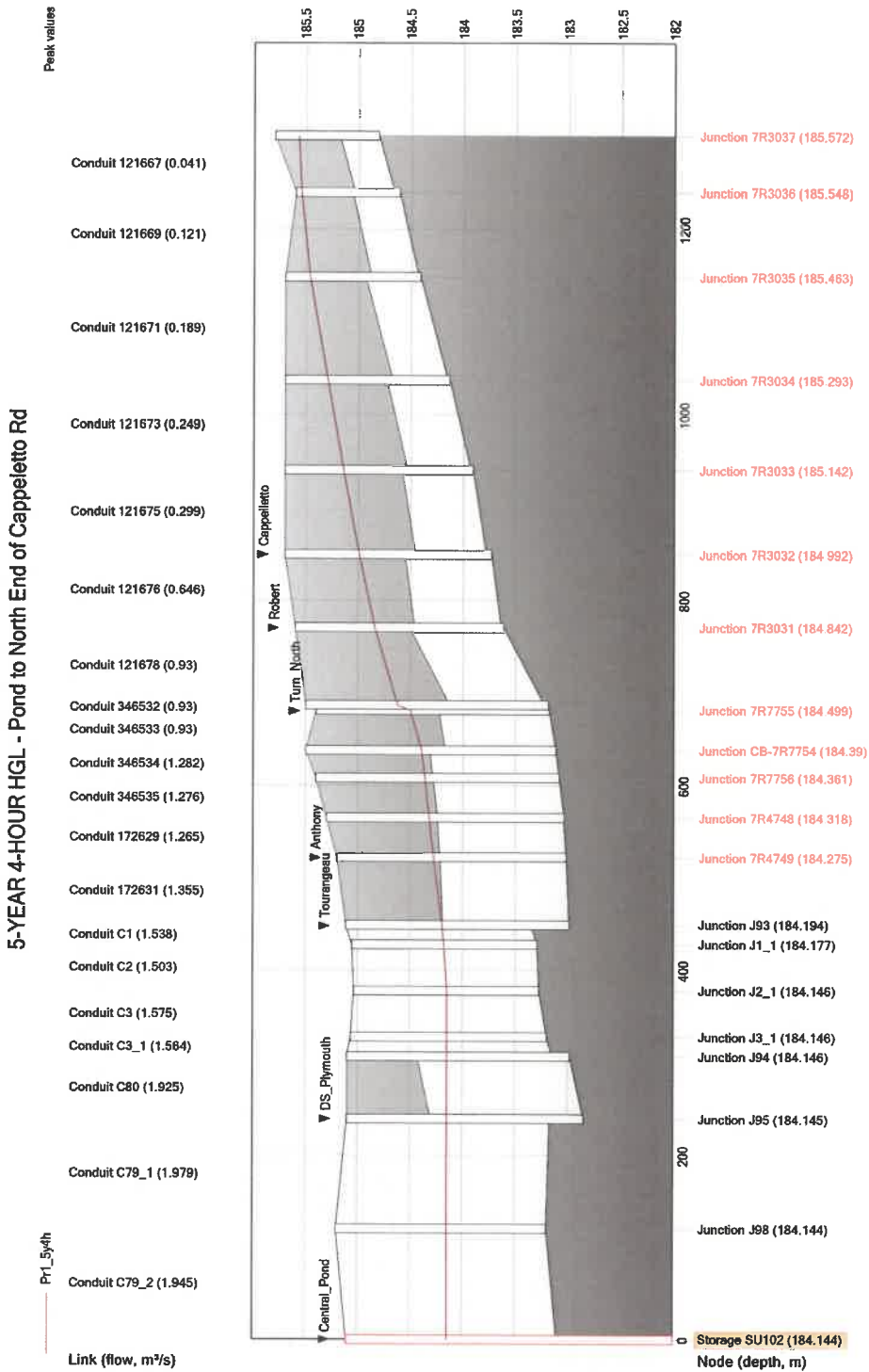


Figure B.1 – 5-year HGL Profile



APPENDIX C

Lidar Maps

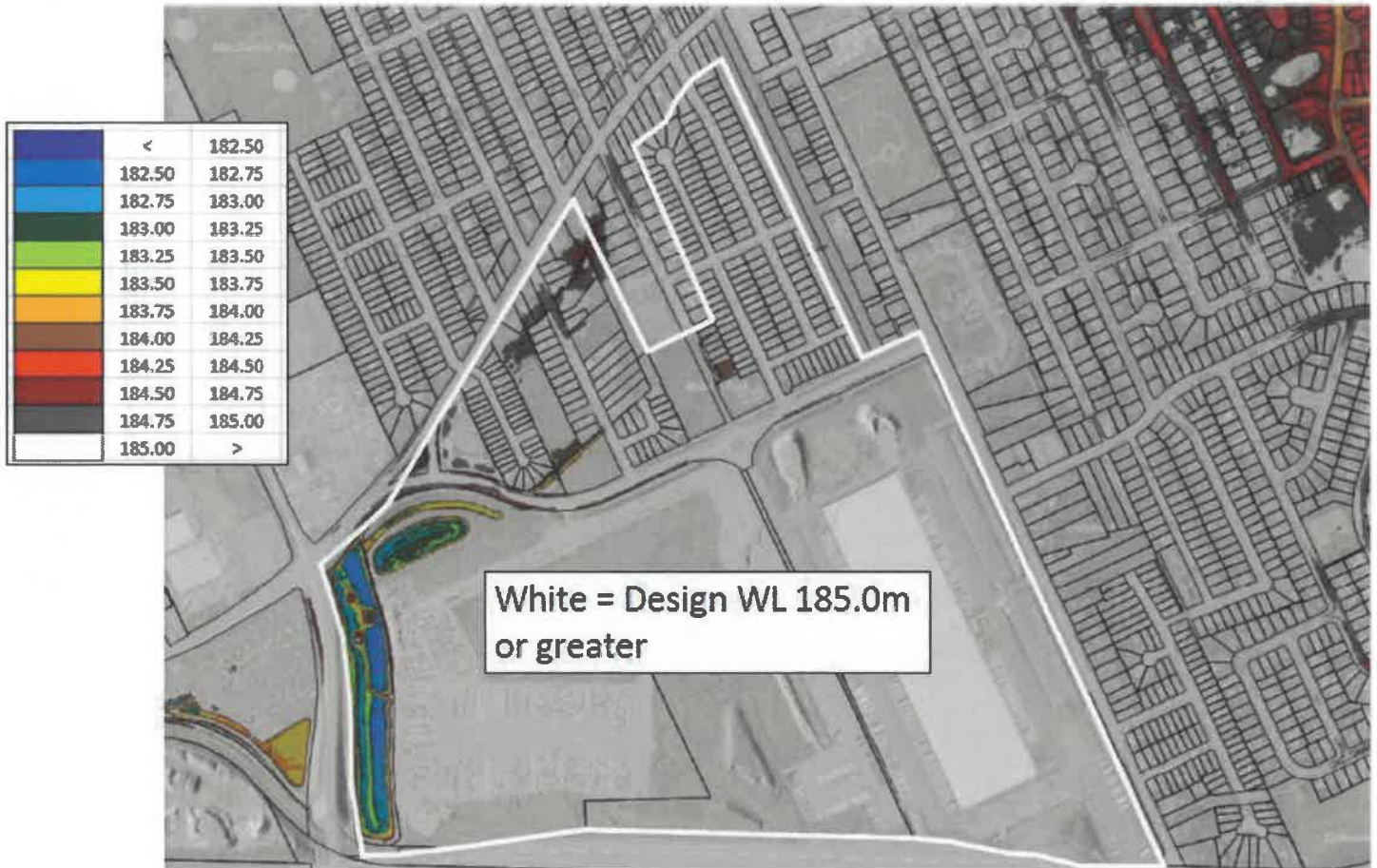


Figure C.1 – Design Water Level: 185.0 m



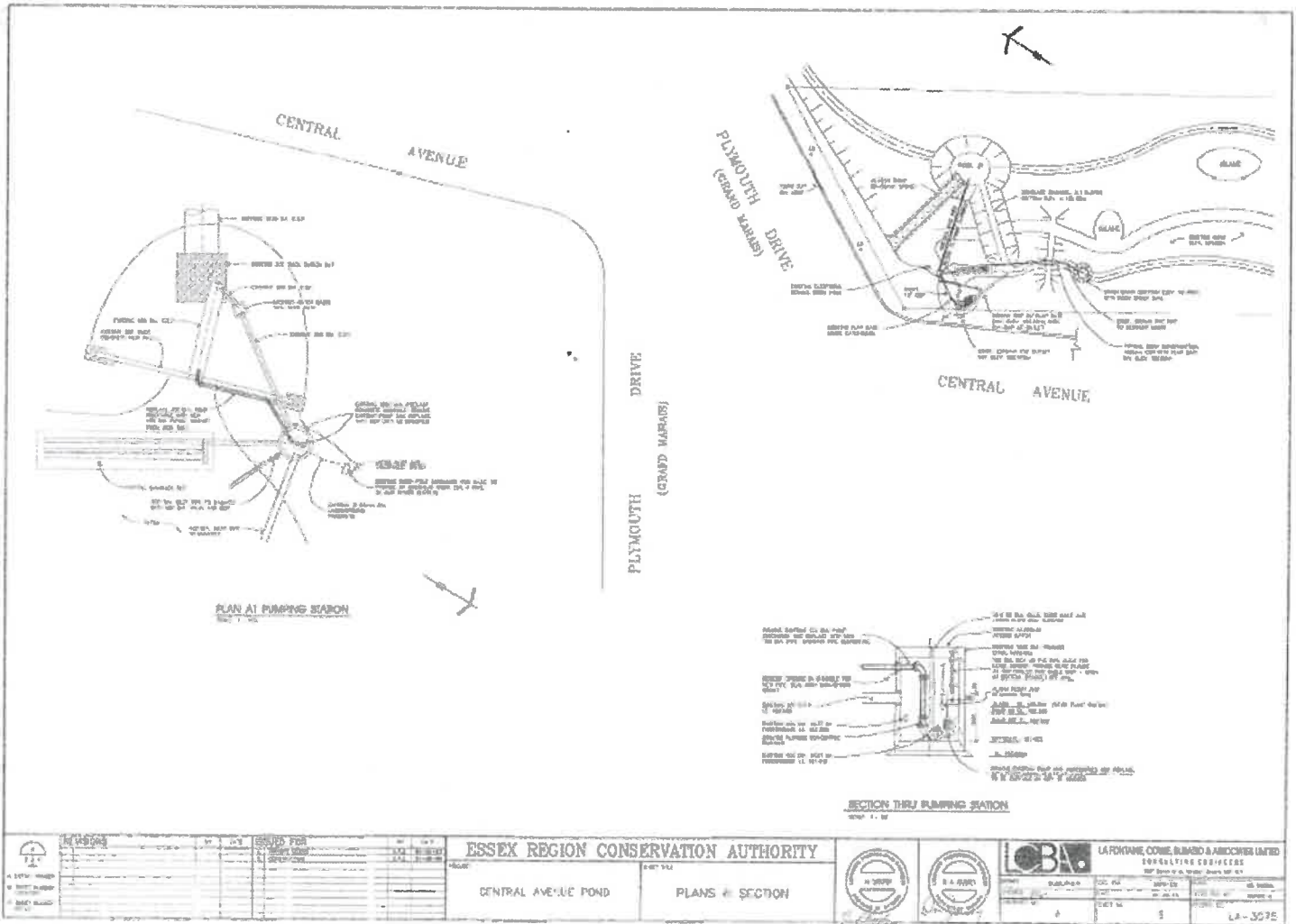


Figure C.2 – Flooding – South of Grand Marais (Tourangeau to Bernard)



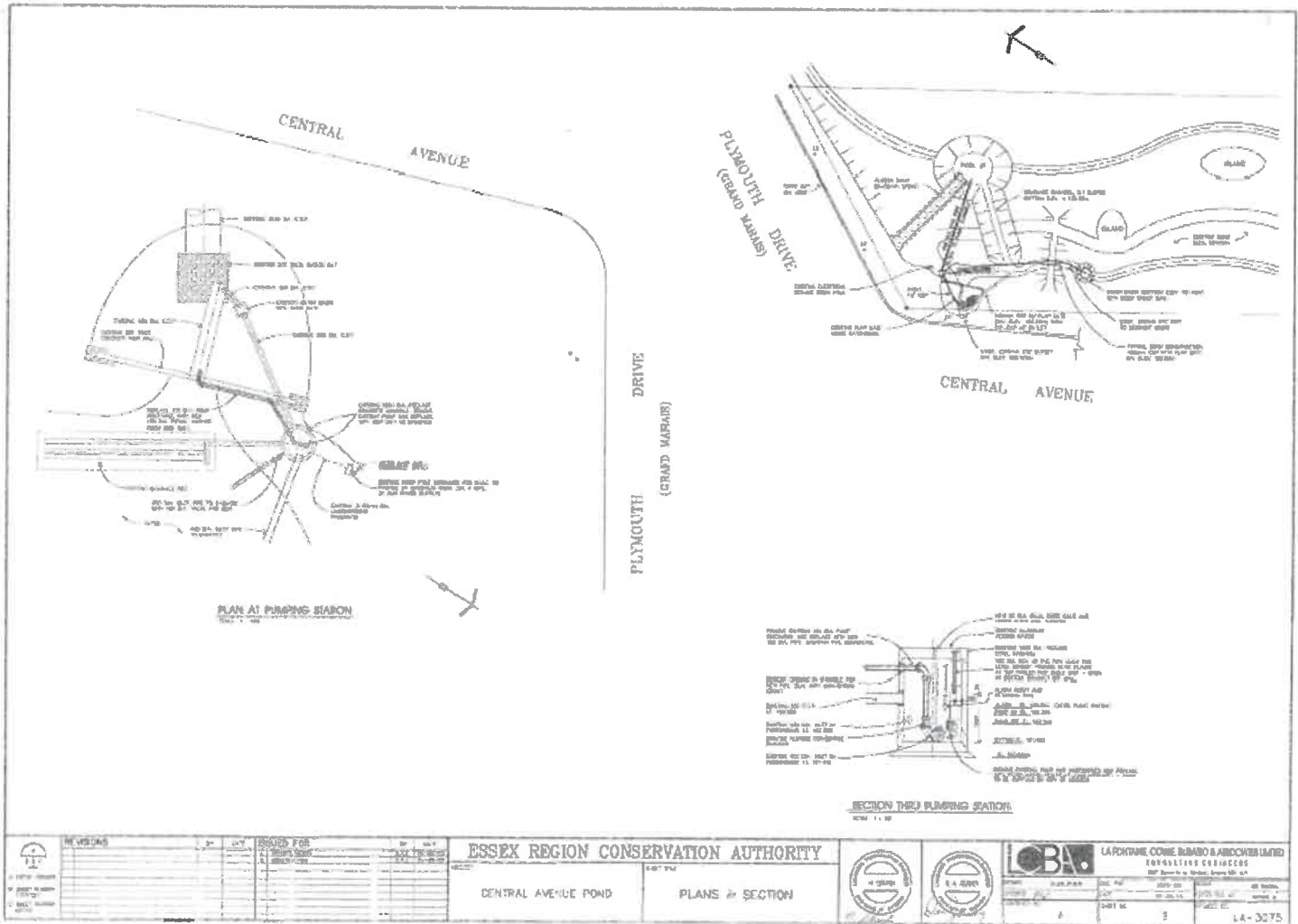
APPENDIX D

Central Pond Drawings (LCBA Plans – 1997)



LCBA Drawing – Outlet and Pumps Details

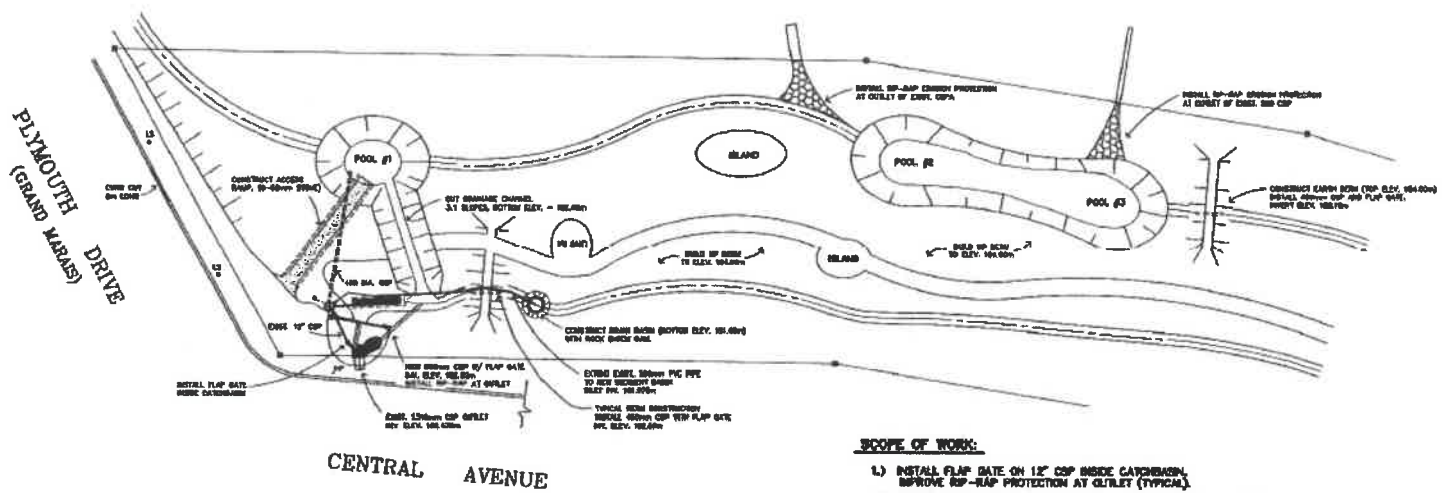




	REVISIONS NO. DATE BY 1 11/11/11 JLD	DESIGNED FOR 1.00000000 1.00000000 1.00000000	ESSEX REGION CONSERVATION AUTHORITY 600 PM					LA PENTRE CORNE BLANCO & ASSOCIES LIMITED CONSULTING ENGINEERS 800 Avenue de la Grande Rivière, Suite 100 Québec, Québec H2V 1A5 TEL: (514) 399-1111 FAX: (514) 399-1112 WWW: www.lapentre.com
	CENTRAL AVENUE POND PLANS & SECTION	SHEET NO. 2 OF 2	PROJECT NO. 14-3075					

LCBA Drawing – Plan and Sections



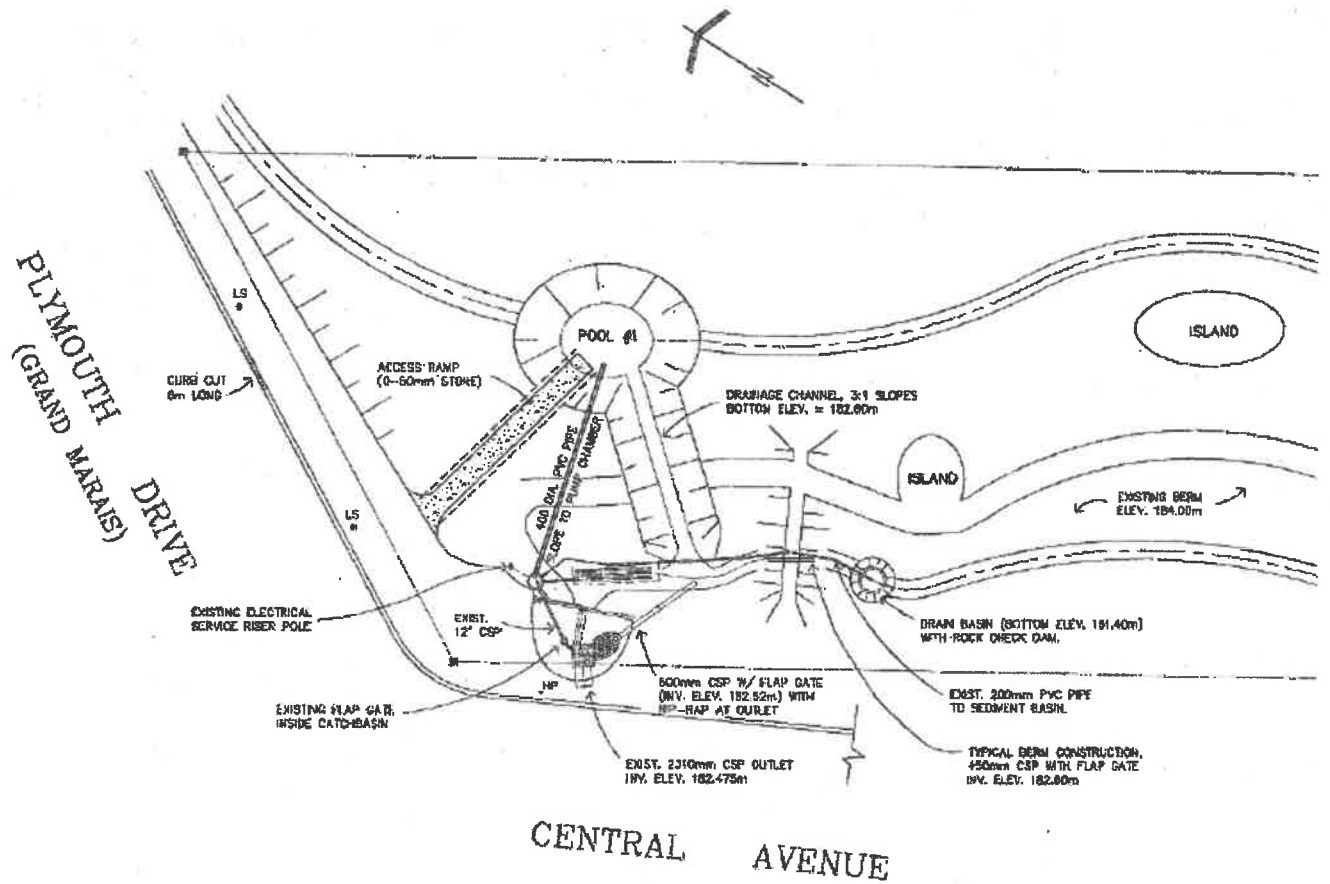


SCOPE OF WORK:

- 1.) INSTALL FLAP GATE ON 12" CSP INSIDE CATCHMENT, IMPROVE RIP-UP PROTECTION AT OUTLET (TYPICAL).
- 2.) EXTEND 300mm PVC PIPE AS SHOWN. CONSTRUCT SEDIMENT BASIN AND ROCK CHECK DAM AT PIPE INLET.
- 3.) INSTALL NEW 600mm CSP AND FLAP GATE AT NEW STRUCTURE. PLACE RIP-UP OR GEOTEXTILE AT OUTLET.
- 4.) CUT CHANNEL THROUGH BERM AT POOL #1 (AS SHOWN). BOTTOM WIDTH = 2m, GROUND ELEV. = 182.43m.
- 5.) CONSTRUCT 2 EARTH BERMS C/W 400mm CSP AND FLAP GATES. TOP BERM = 184.00m, TOP WIDTH = 2m, 3:1 SIDE SLOPES.
- 6.) FILL IN EMBANKMENT CUT AT RAILROAD DITCH INLET.
- 7.) INSTALL 400mm CSP PIPE FROM POND #1 TO BOTTOM OF PUMPING CHAMBER. INVERT = 181.47m. INSPECT CONDITION AND OPERATION OF EXIST. 200mm VBR.
- 8.) BUILD UP EXISTING BERMS TO ELEV. 184.00m.
- 9.) CONSTRUCT ACCESS RAMP TO POOL #1. GRADE & COMPACT USING 0-50mm STONE.
- 10.) CUT ENTRANCE INTO EXISTING CURB (8m LG.) ON GRAND MARAIS ROAD.
- 11.) ENDSWATE FOR AND INSTALL NATURAL VEGETATION AROUND PERIMETER OF PONDS AND ALONG LOW-FLOW CHANNEL (UNDER THE DIRECTION OF E.R.C.A.).

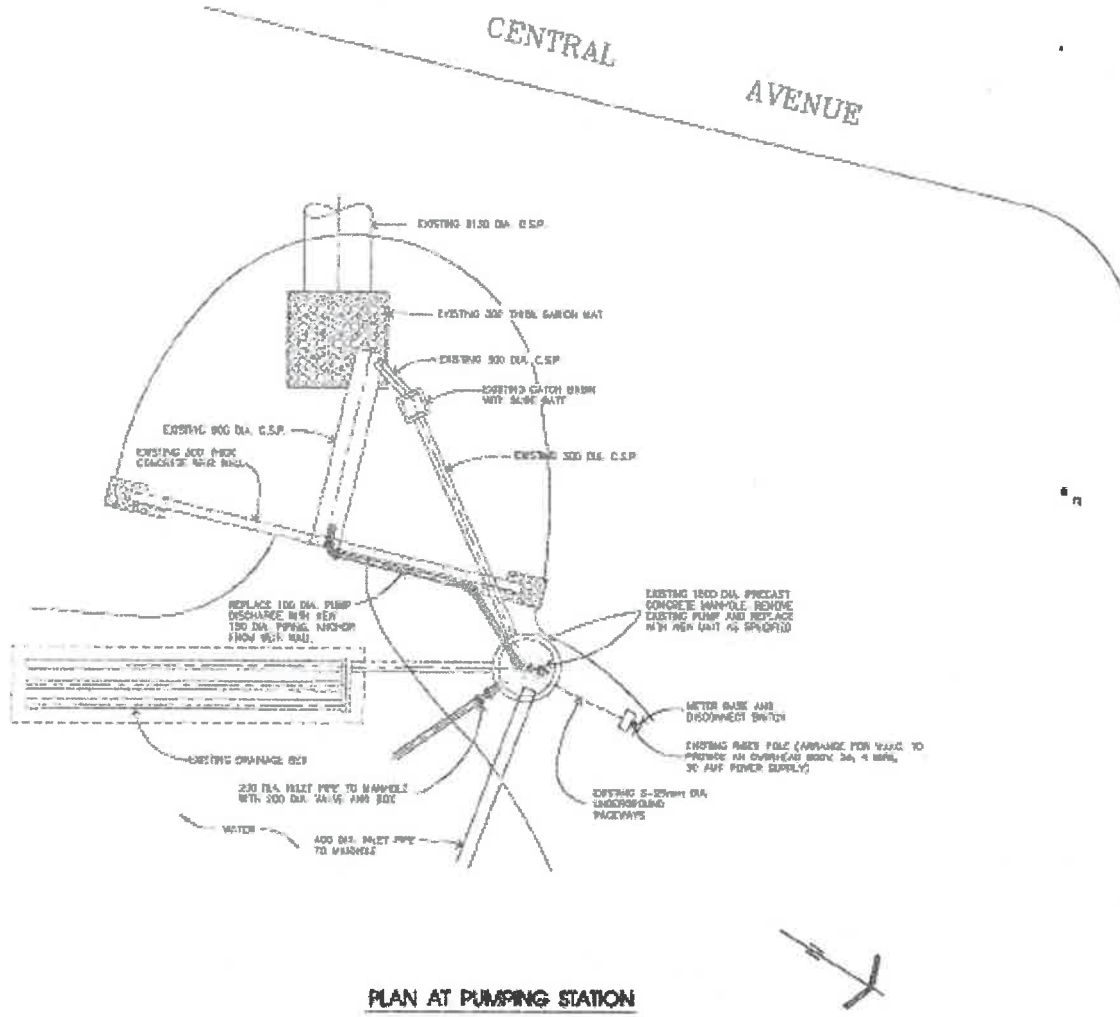
LCBA Drawing – Overall Pond Plan





LCBA Drawing – Enlarged Plan of Outlet

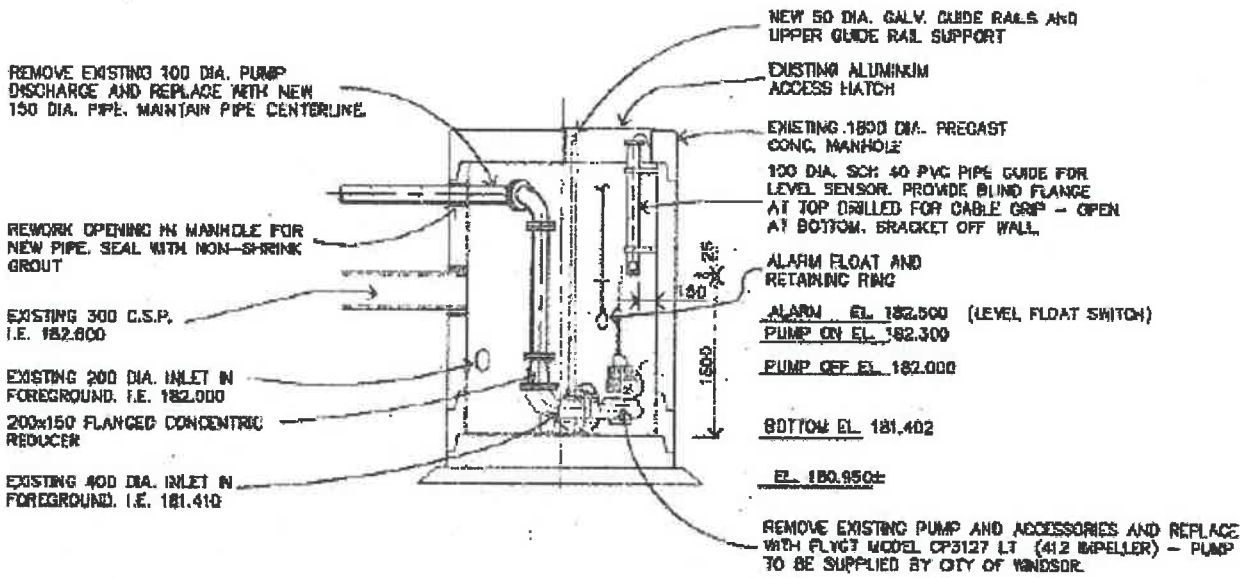




PLYMOUTH DRIVE
 (GRAND MARAIS)



LCBA Drawing – Plan and Sections



SECTION THRU PUMPING STATION

SCALE 1 : 50



APPENDIX E
Hydrographs and PCSWMM Model

IMPACT OF POTENTIAL OVERLAND FLOWS FROM EXTERNAL AREA

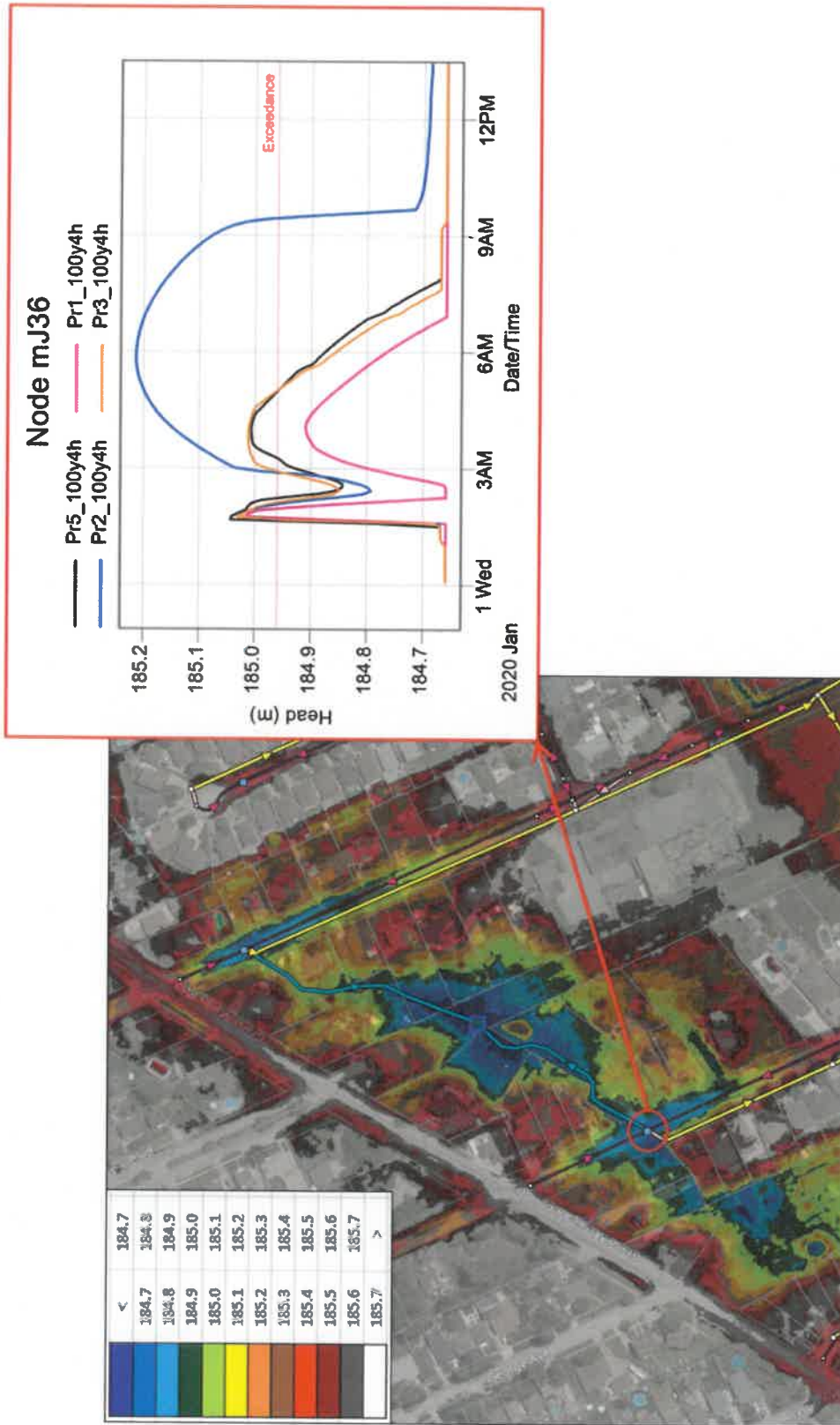


Figure E.1 – Impact of Potential Overland Flows from External Area



Link GMD_CassenCul

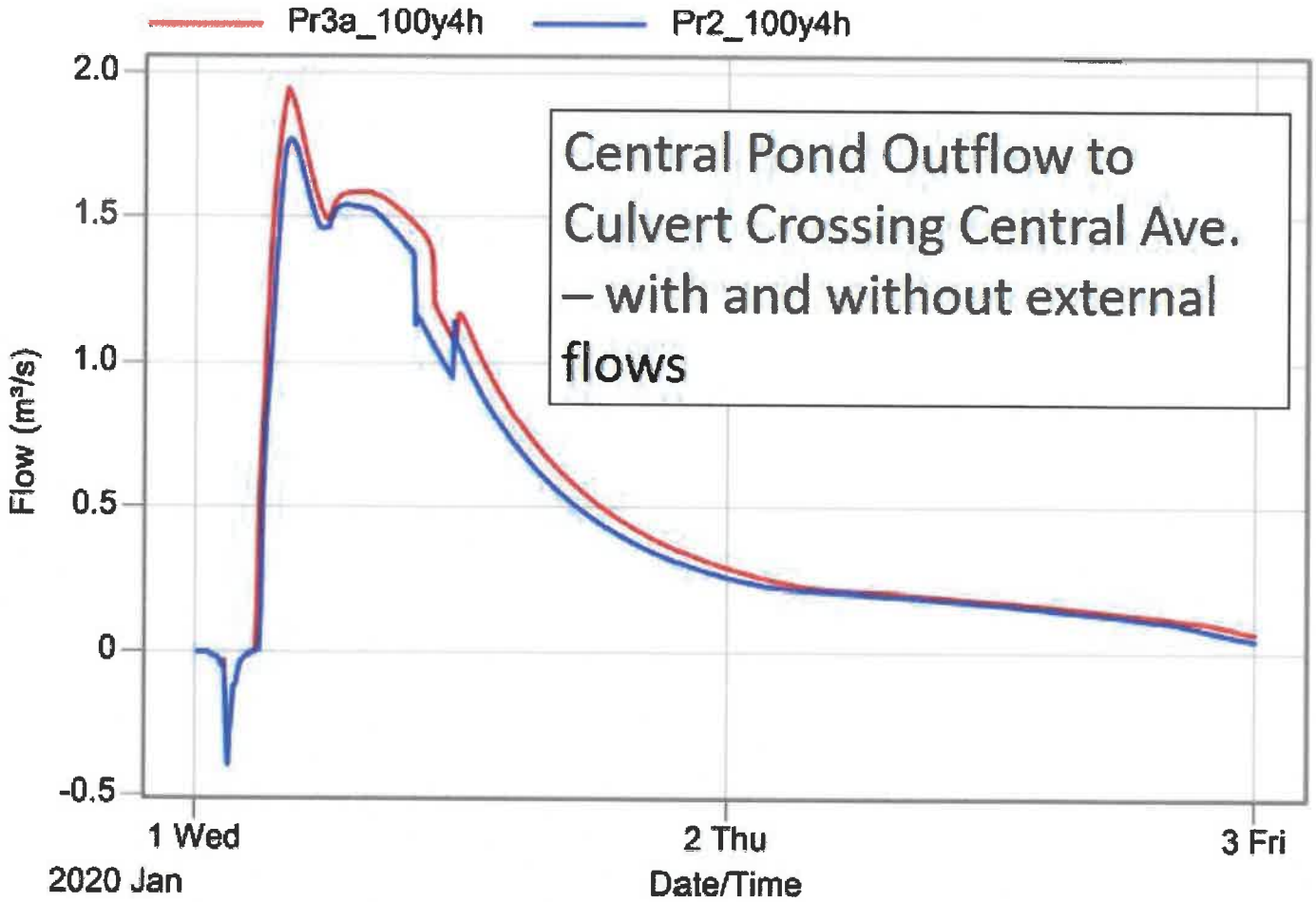


Figure E.2 – Hydrograph – Central Pond Outflow



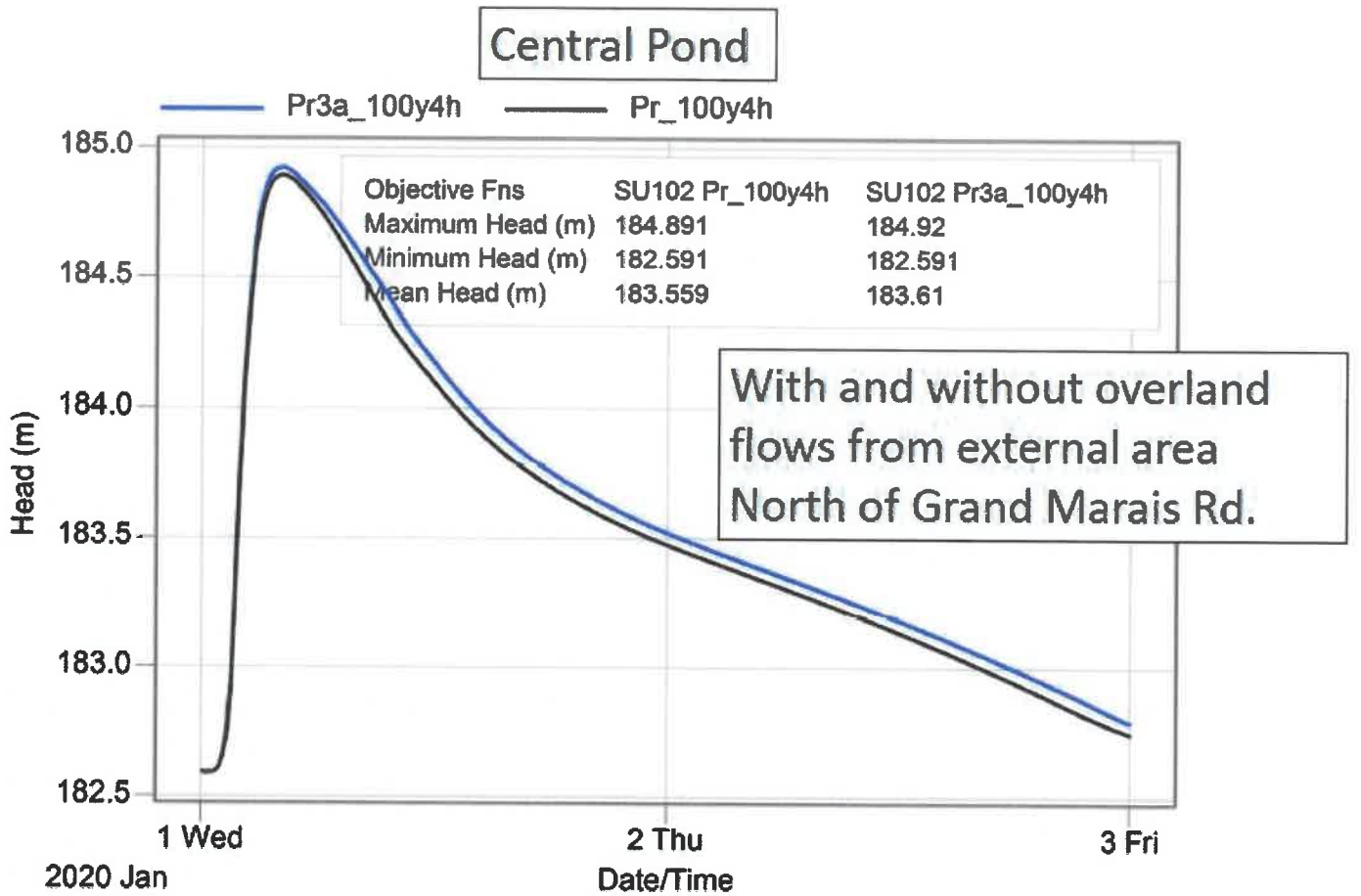


Figure E.3 – Central Pond Maximum Flood Elevation – with and without external flows (black and blue lines respectively)



GCBP Pond

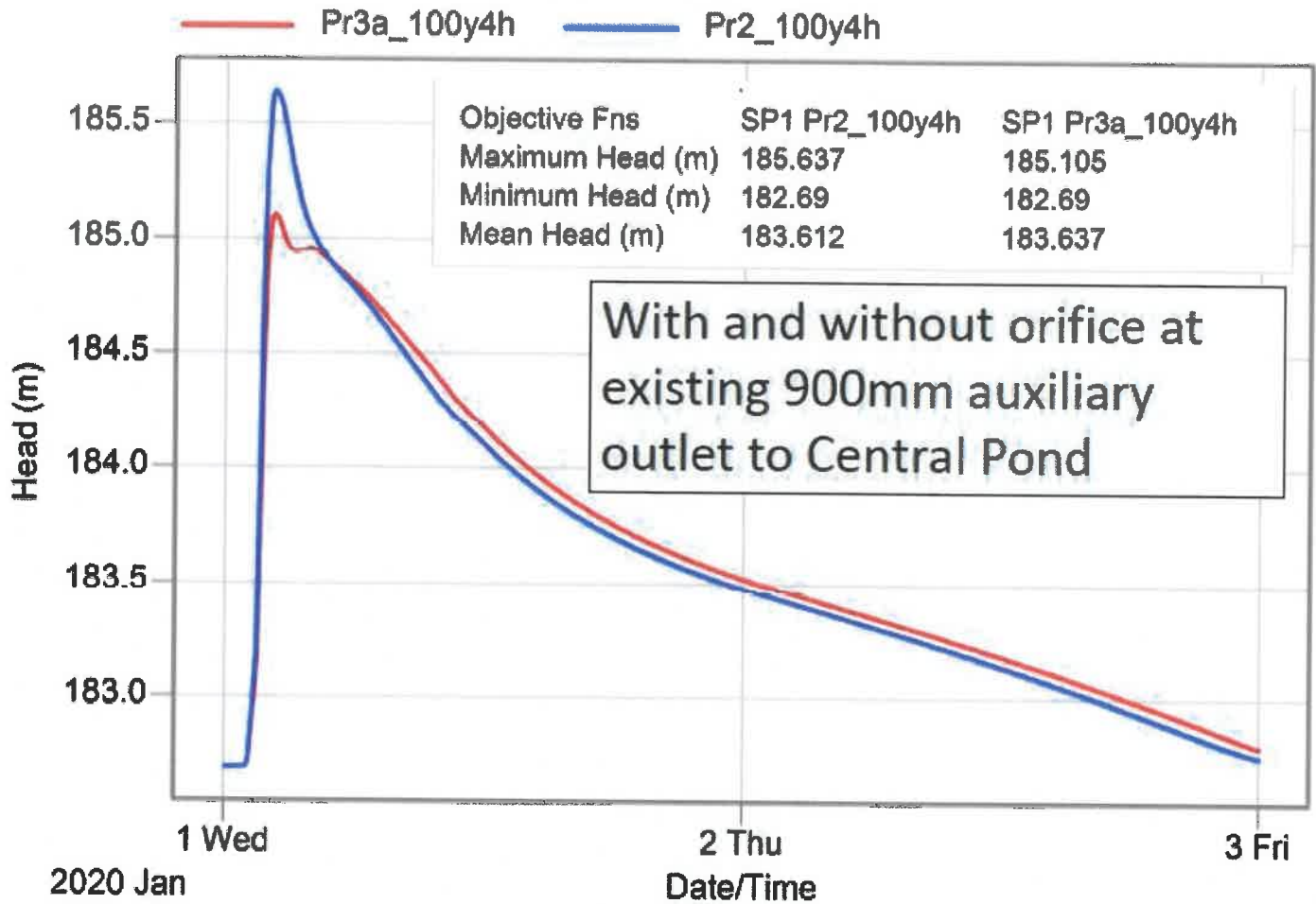


Figure E.4 – Central Pond Maximum Flood Elevation – With and Without External Auxillary Pipe form GCBP



APPENDIX F
N.O.C. Development Overall Servicing Plan



SITE PLAN
SCALE : 1:400

C.O.W. PROJECT # S-2061

APPROVED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF D.C. McCLOSKEY ENGINEERING LTD., AS TO DESIGN AND SPECIFICATIONS.

CHIEF BUILDING OFFICIAL
WINDSOR, ONTARIO

APPROVED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF D.C. McCLOSKEY ENGINEERING LTD., AS TO DESIGN AND SPECIFICATIONS.

CITY ENGINEER
WINDSOR, ONTARIO

d.c. mccluskey engineering ltd.
20-576 wyndale street east, windsor, ontario n9a 1c4

STAMP
M.E. McCLOSKEY
JUNE 29 2020

DATE (dd/mm/yy)	ISSUED FOR
13/08/19	C.O.W. & ERCA REVIEW
29/06/20	C.O.W. & ERCA REVIEW

general notes:
1. THIS PRINT IS AN INSTRUMENT OF SERVICE ONLY AND IS THE PROPERTY OF THE ENGINEER.
2. DRAWINGS SHALL NOT BE SCALED.
3. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS.
4. ATTENTION IS DIRECTED TO PROVISIONS IN THE GENERAL CONDITIONS REGARDING CONTRACTOR'S RESPONSIBILITIES IN REGARDS TO SUBMISSION OF SHOP DRAWINGS.
5. IN THE EVENT THE DESIGNER IS RETAINED TO REVIEW SHOP DRAWINGS, SUCH REVIEW IS ONLY TO CHECK FOR CONFORMANCE WITH DESIGN CONCEPT AND WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS.
6. CONTRACTORS SHALL PROMPTLY NOTIFY THE DESIGNER IN WRITING OF THE OCCURRENCE OF ANY OBSERVED VARIATIONS BETWEEN THE CONTRACT DOCUMENTS AND ANY APPLICABLE CODES OR BY-LAWS.
7. THE DESIGNER IS NOT RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS AND OR TECHNIQUES IN THE CONSTRUCTION OF THIS FACILITY.

PROJECT
BERNARD ROAD SUBDIVISION

ADDRESS : WINDSOR, ONTARIO

CLIENT
NOC DEVELOPMENT

DRAWING TITLE
LOT GRADING PLAN

SCALE :	AS NOTED
DRAWN BY :	JLD
CHECKED BY :	MEM
DATE :	OCT 2018
PROJECT FILE NO.	M18-321

DRAWING NO.
3

Subject: Declaration of a Vacant Parcel of Land Municipally Known as 0 Rockwell Boulevard Surplus and Authority to Offer for Sale - Ward 10

Reference:

Date to Council: July 11, 2022
Author: Chris Carpenter
Coordinator Real Estate Services
519 255-6100 ext. 6420
ccarpenter@citywindsor.ca
Legal Services, Real Estate & Risk Management
Report Date: June 3, 2022
Clerk's File #: APM2022

To: Mayor and Members of City Council

Recommendation:

I. THAT the following City of Windsor (the "**City**") remnant vacant parcel of land **BE DECLARED** surplus:

- Municipal address: **0 Rockwell Boulevard** – vacant land situate on the west side of Rockwell Boulevard, north of Labelle Street
- Legal Description: Part Lots 65 and 66 on Registered Plan 1353, further described as Part 3 on 12R-194
- Approximate Lot size: irregular
- Approximate Lot area: 1,938 sq ft (180 m²) (herein the "**Subject Parcel**"); and

II. THAT the Manager of Real Estate Services **BE AUTHORIZED** to offer the vacant parcel of land identified in Recommendation I for sale to the abutting property owner at 2723 Rockwell Boulevard at a price to be determined by the Manager of Real Estate Services, commensurate with an independent appraisal, as appropriate.

Executive Summary:

N/A

Background:

The City owns a remnant vacant parcel of land located on the west side of Rockwell Boulevard, immediately north of 2723 Rockwell Boulevard, legally described as Part

Lots 65 and 66 on Registered Plan 1353, further described as Part 3 on 12R-194 as shown on the aerial diagrams attached as Appendices A and B.

The Subject Parcel was acquired by the City in 1970 by instrument number R467199 to facilitate the construction of the EC Row Expressway. The zoning for the Subject Parcel is RD1.4 which requires a minimum lot area of 540 m². The Subject Parcel has an area of only 180 m². It is also incredibly narrow and triangular in shape. As a result, the Subject Parcel is not viable land.

By-Law 52-2014 establishes a policy for the disposal of Land. Section 5.1.2 of Schedule "A" attached to By-Law 52-2014 requires that City-owned lands be declared surplus and that Administration seek authority to sell the lands:

5.1.2 Notification of the intention to declare Land surplus and the authority to offer the Surplus Land for sale will be printed in the "Civic Corner" of the Windsor Star.

Discussion:

Administration was contacted by the abutting property owner to express their interest in acquiring the Subject Parcel.

The Subject Parcel was circulated to determine whether there is a municipal use for same. No municipal use was identified.

The City's Land Disposal Policy ("**LDP**") outlines the process for the sale of land which is not viable. Section 5.3.1.3 of the LDP states:

5.3.1.3 Land, which is not Viable Land and which cannot be rendered Viable Land by means of consent under the Planning Act may be sold directly to the abutting property owner(s) for lot consolidation purposes at the value established by City Real Estate Staff taking into consideration all relevant factors, but in any event for no less than on a cost-recovery basis. If more than one abutting property owner wishes to acquire the Land City Real Estate Staff will contact the abutting owners to determine whether a consensus can be arrived at in splitting the Land amongst interested abutting owners.

Should Recommendations I and II be approved, the Real Estate staff will contact the abutting property owner to negotiate a purchase price. There is just one abutting owner in this case. Should Administration successfully negotiate an acceptable price, a report will be brought to Council or under Delegation of Authority, as appropriate, seeking authority to sell the Subject Parcel.

Risk Analysis:

There are potential liability issues should someone be injured on the land. Additionally, maintenance of the land drains scarce municipal resources. Selling the Subject Parcel will remove any associated liability issues and maintenance costs for the City.

Climate Change Risks

Climate Change Mitigation:

Declaring this property surplus does not pose a climate change risk.

Climate Change Adaptation:

Redevelopment of properties will include climate change considerations during re-zoning or site plan review.

Financial Matters:

N/A

Consultations:

Fire Department: John Lee
Windsor Police Services: Barry Horrobin
Public Works: responses consolidated by Rania Toufeili
Parks: James Chacko
Facilities: Tom Graziano
Planning Department: Kevin Alexander
Housing and Children Services: Tina Moore

Conclusion:

Declaring the vacant parcel of land identified in Recommendation I surplus, and authorizing the Manager of Real Estate Services to offer the property for sale to the sole abutting property owner will allow for the orderly sale of the land that is not required for any municipal purpose.

Approvals:

Name	Title
Chris Carpenter	Coordinator of Real Estate Services
Frank Scarfone	Manager of Real Estate Services
Wira Vendrasco	Acting Commissioner of Legal and Legislative Services
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Name	Address	Email

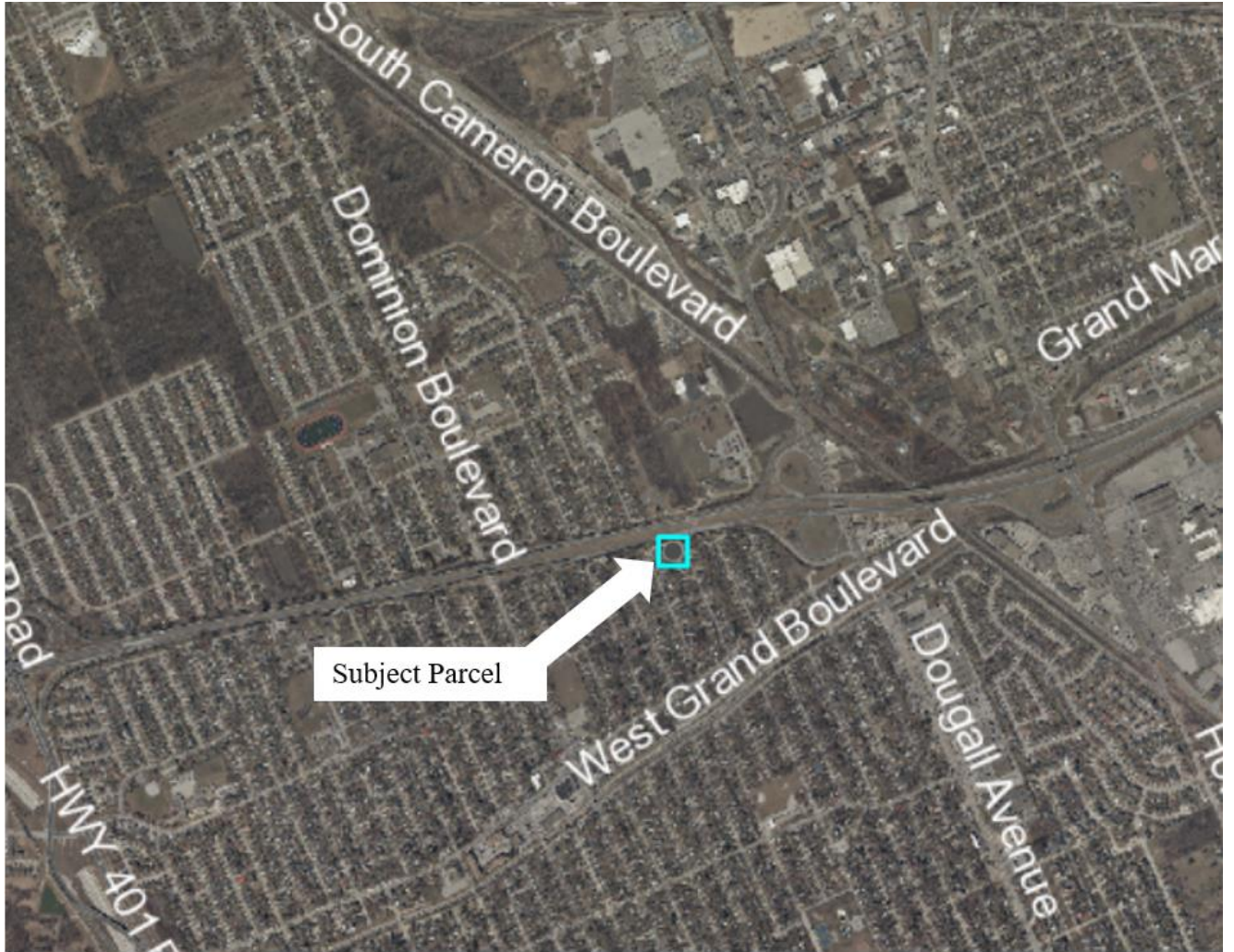
Appendices:

- 1 Aerial Image of Subject Parcel
- 2 Location of Subject Parcel

Appendix A



Appendix B



**Subject: Lanspeary Lions Outdoor Pool and Change Room
Replacement - Ward 4**

Reference:

Date to Council: July 11, 2022
Author: Jen Knights
Executive Director, Recreation & Culture
(519)253-2300 ext. 2920
jknights@citywindsor.ca
Recreation and Culture
Report Date: June 23, 2022
Clerk's File #: SR2022

To: Mayor and Members of City Council

Recommendation:

- I. THAT this report titled "Lanspeary Lions Outdoor Pool and Change Room Replacement" **BE RECEIVED**; and,
- II. THAT City Council **PRE-COMMIT** \$2,000,000 of 2025 Service Sustainability funding from the Municipal Pool Refurbishment Program project, REC-003-07, in addition to \$1,000,000 of previously approved Capital budget dollars for the replacement of Lanspeary Lions Outdoor Pool (Phase 1); and,
- III. THAT Administration **BE DIRECTED** to proceed with public consultation with respect to the design for the replacement of Lanspeary Lions Outdoor Pool and Change Rooms; and,
- IV. THAT Council **PRE-APPROVE** and **AWARD** any procurement(s) necessary that are related to the above project, provided that the procurement(s) are within approved budget amounts, pursuant to the Purchasing By-Law 93-2012 and amendments thereto; satisfactory in financial content to City Treasurer, and in technical content to the Executive Director of Recreation and Culture and Executive Director of Engineering; and,
- V. THAT the Chief Administrative Officer and the City Clerk **BE AUTHORIZED** to take any such action required to effect the recommendation noted above and sign any required documentation/agreement(s) for the project, satisfactory in legal form to the City Solicitor, in technical content to the Executive Director of Recreation and Culture and Executive Director of Engineering, and in financial content to the City Treasurer.

Executive Summary:

N/A

Background:

The Lanspeary Lions Outdoor Pool was constructed in 1950 and is a 100-foot by 50-foot (30-metre by 15-metre) pool tank ranging from 3 feet 6 inches in depth to 9 feet (1.06-metres to 2.75-metres) at the deepest point.

The original building at Lanspeary Lions Outdoor Pool and Rink, which functions as a pool change room area in the summer and outdoor ice rink dressing rooms in the winter, was constructed around 1950 and has undergone several renovations throughout its operation. It is a single storey with partial basement in the central portion of the structure primarily used to house the pool filtration equipment. The building is approximately 2,900 square feet on the main floor and 860 square feet at the basement level.

In 1993, a membrane (liner) was installed over the existing concrete pool structure to prevent the pool from leaking. Vinyl membranes of this type have a typical lifecycle of approximately 15 – 18 years in an outdoor setting. The average lifespan of an outdoor pool in Canada, depending on the environment and maintenance, can often be up to 50 years. Lanspeary Lions Outdoor Pool has been in operation for 72 years. The installation of the vinyl liner 29 years ago likely contributed to viability of the pool well beyond its normal longevity.

The current membrane is well past its lifecycle. In 2015, \$12,000 was spent to repair the liner. The work done in 2015 is no longer effective, has reverted to pre-repair condition and additional tears are present, further compromising the integrity of the liner. The liner is brittle to the touch and is no longer repairable, causing water to leak behind the membrane and contribute to the deterioration of the concrete pool tank.

In addition to the challenges with the liner, the age and ongoing deterioration of the gutter surrounding the pool has resulted in the deep end wall being lower than the rest of the pool. This redirects the majority of the surface water removal, required to maintain circulation and filtration of the pool water, to take place in the deep end, which is not compliant with the Ontario Building Code (OBC) or Ministry of Health (MOH) requirements. Mechanically, the upper filtration tank is at the end of its lifecycle. In order to meet the current required 4-hour turnover rate, mechanical lines and fixtures would all need to be replaced if any additional changes are required to the filtration system.

A recent site analysis by Facilities has also determined that there is also a leak in the return system somewhere around the perimeter of the pool, which makes maintaining adequate water levels a challenge. The bracing securing the piping that is situated in the tunnel surrounding the pool is failing, as are the walls in the tunnel. Operating the pool in its current condition is no longer possible and the ability to repair the pool is not an option due to its age.

Discussion:

Pool design has evolved since Lanspeary was built in order to maximize programmability and provide accessible options for participants. Programming at Lanspeary pool is a challenge primarily due to the depth and limited accessibility. Zero-depth or beach entry pools found at Remington Booster or Riverside Centennial are more conducive to the multi-programming environments needed in outdoor facilities with short operating seasons. They also provide shallow areas for non-swimmers to wade and swim at a water depth appropriate for their ability. The pool configuration, water depths and amenities at Remington Booster and Riverside Centennial contribute to higher participation and revenue for both recreational and learn-to-swim opportunities.

One major component in drowning prevention is providing people the opportunity to learn to swim. Learn-to-swim programming is not offered at Lanspeary Pool because of the current design of the pool. It is big with and deep and does not facilitate opportunities in water depths that provide the introduction learn-to-swim programming and expand leadership course programming would assist in the Aquatic Division's goal of drowning prevention, and would facilitate additional opportunities to train and certify the aquatic staff needed during the current aquatic staff shortage that is being experienced nation-wide.

A re-designed facility would also permit the expansion of recreational, teen and parent and tot swimming opportunities. The most heavily used time at Lanspeary Lions Pool is during recreational swims, which average 3,500 – 5,200 swimmers per summer. An accessible pool with varying water depths and amenities such as a diving board and water slide would result in a significant increase in attendance. It would also enhance the overall park amenities, contributing to park use as a family and event destination. The provision of swimming opportunities at Lanspeary was a frequent comment from residents noted as part of the recent Lanspeary Park Master Plan consultation.

In May 2018, in preparing for a grant application, the City of Windsor secured Archon Architects Incorporated (AAI), to provide a preliminary Building Program Analysis and Opinion of Probable Costs for the building at Lanspeary Lions Outdoor Pool and Rink. Through that analysis it was confirmed that the existing building is not barrier-free as it does not provide proper door widths, corridor dimensions, washrooms or change room facilities that meet the Ontario Building Code (OBC) barrier-free requirements, nor the City of Windsor Facility Accessibility Design Standard (FADS).

In considering the possible options for Lanspeary Lions Outdoor Pool, the first thought was to simply replace the liner. Unfortunately, replacing the pool liner is not a possibility due to the deterioration of the underlying pool structure. Known structural work required includes the re-coring and casting of new return inlets and the removal of the gutter interface. This would require the removal of the top of the entire pool wall to facilitate the installation of a new functioning gutter system. Administration does not recommend attempting to complete this repair for two main reasons. First, this structural repair, is likely not even possible due to the age and condition of the pool tank. Additionally, the repairs would be extensive and would not meet the current or future needs of the facility, nor would they address the Accessibility for Ontarians with Disabilities Act (AODA) or Facility Accessibility Design Standards (FADS). Based on all of the known

facts at this time, a liner replacement and/or inlet and gutter repair is not a viable solution.

In 2018, the Recreation and Culture department applied for a grant for the retrofit of Lanspeary Lions Outdoor Pool through the Enabling Accessibility Fund through the Federal Government. Condition assessments of both the pool and the change room/dressing room spaces were performed as part of the grant application. The City was not successful in obtaining a grant, but as a result allocated \$95,000 from the Municipal Refurbishment Capital Project # 7069034, to hire a consultant to proceed with conceptual design proposal options for the facility with the intent of expediting the preparatory work required, should additional grant opportunities arise.

The conceptual pool redesign plan by Archon Architects Incorporated was completed (Appendix A) and project cost estimates were generated. The new pool design and change room facilities were considered in addition to a new slide and shade structures.

The next step in the process will be to engage in public consultation and move forward with detailed drawings, create a project timeline and confirm budget details.

The conceptual pool redesign presented by Archon Architects incorporates best practices and aquatic industry safety and accessibility standards and includes:

- 5,200 square foot L-shaped pool (current pool is 5,000 square feet) that is accessible and flips the current deep end of the pool to the point furthest from the change rooms. This is an added layer of safety for when younger swimmers enter the pool area.
- One section of the L-shaped pool is zero depth/ramp entry transitioning to 1.05 metre depth and the other section offers 4 lanes and ranges from 1.05 metres to 2.75 metres including a diving board
- Waterslide with runout channel

The new accessible design will facilitate programming options including:

- Parent and tot as well as preschool programming
- Learn-to-swim programming for participants of all ages
- Deep and shallow aqua fit classes
- Aquatic leadership courses
- Opportunities for swim clubs, diving, triathlon groups
- Rental opportunities
- Speciality programming including learn-to-kayak, learn-to-snorkel and floating yoga

The concept design developed by the consultant meets or exceeds all Ontario Building Code (OBC), AODA/FADS and Ontario Health Regulations for Public Pools

requirements which include accessibility, mechanical and safety components. In addition, the design of the new pool will assist in maximizing programmability of the pool during the operating season by providing water depths as well as interactive features (water slide/diving board/shade areas) that are desired by participants. The design accommodates programming for participants of all ages, from infants/toddlers through youth, teens, adults and older adults.

The most cost effective solution is to complete the new pool and new building work at the same time. However, due to funding considerations, Administration is recommending a phased approach to complete this project which would see the pool constructed as the first step in this project.

Reconfigured Pool Project - Phased Approach

Phase 1: (approximately \$3M)

The first phase would be the pool replacement only. Pools in proximity to Lanspeary Lions Outdoor Pool including Remington Booster Outdoor Pool (3.7 km) or Gino and Liz Marcus Indoor Pool (2.4 km) can be utilized to accommodate participants while construction is underway.

Phase 2: (approximately \$3M)

The second phase would be the replacement of the building that houses the change rooms and would include a barrier free washroom, family change rooms, staff area, chemical storage and would house the pool mechanical equipment.

Phase 3 (approximately \$1M)

This phase would involve the installation of the new water slide and shade structures.

Risk Analysis:

Should City Council wish to not move forward with the replacement of either the pool or the building, another option is to permanently decommission and not rebuild the pool. The Recreation Master Plan does not recommend the construction of additional outdoor pools, but does advise that reinvestment in Lanspeary Lions Outdoor Pool would continue to ensure that residents have convenient access to swimming opportunities. It also notes that the outdoor pool renewal in Lanspeary Park would reinforce the park as a year-round recreation opportunity.

Climate Change Risks

Climate Change Mitigation:

In 2010, a solar thermal system was installed at the Lanspeary Pool. Solar thermal systems provide a sustainable alternative to electrical or natural gas heating of outdoor pools. The design of the new pool should consider renewable energy alternatives to reduce GHG emissions associated with pool heating requirements.

Climate Change Adaptation:

The City of Windsor has historically experienced 22 days with days that reach above 30C. However, climate change projections forecast that by the 2040s, the City will experience on average 40 days above 30C, with the number of very warm nights also increasing.

In 2011, Health Canada completed an assessment of vulnerability to the health impacts of extreme heat in Windsor. This study found that a strong association exists between temperature and excess mortality in Windsor with increases in excess mortality starting above 29C.

The City of Windsor outdoor pools provide an important option for residents to cool down during the hot days of summer. During the recent past, the City of Windsor has also extended pool hours and offered free public swims at times to reduce the risks of extreme heat on our residents during extended extreme heat events. Maintaining the current level of service will be important to providing options for residents to cool down during the increasing intensity and durations of heat events predicted in the coming decades.

The redesign of the Lanspeary Pool should take into consideration the increased frequency of extreme heat events and enhance protections from both extreme heat and UV. One option is to increase shade options through the use of shade structures or shade sails.

Financial Matters:

The budget estimate for Phase 1 is as follows:

Estimated Expenses (incl. Non-Recoverable Tax)	
Construction Costs for the pool (Phase 1)	\$2,000,000
Professional Fees and Project Management	\$450,000
Miscellaneous, Interim Financing and Contingency	\$550,000
GROSS ESTIMATED PHASE 1 PROJECT COSTS	\$3,000,000

Through previous resolutions, Council has pre-approved a preliminary budget totalling \$1,000,000 for construction activities pertaining to Lanspeary Outdoor Pool within the Municipal Pool Refurbishment capital project# 7069034. The remaining \$2,000,000 in project costs will be allocated from 2025 Service Sustainability funding from the Municipal Pool Refurbishment Program project, REC-003-07.

1. Construction Costs

The estimated cost for the Phase 1 (pool replacement) construction works is \$2,000,000.

2. Professional Fees and Project Management

This line item comprises the cost related to external and internal resources for engineering, design and project management.

3. Miscellaneous, Interim Financing Costs and Project Contingency

This line item includes an estimated cost for permitting fees, application fees, advertising costs, legal fees and interim financing charges as calculated in accordance with the current capital funding policy. Also included in this line-item is a project contingency allowance to cover any unforeseen expenditures which may arise.

Council should be aware that estimates contained in the table are based on current available information and are preliminary. A more accurate estimate will be available once detailed design of the improvements are finalized. Further, it should be noted that there is currently no funding identified within the existing capital budget for the noted Phase 2 or Phase 3 work at this time. Funding for future phases, along with other planned pool refurbishment work, will be subject to future capital budget approvals.

Consultations:

Valerie Robinson, Financial Planning Administrator

Emilie Dunnigan, Manager Development Revenue and Financial Administration

Michael Chantler, Manager of Aquatics

Samantha Magalas, Executive Initiatives Coordinator

Nada Tremblay, Manager Community Programming and Development

Karina Richters, Supervisor Environmental Sustainability and Climate Change

Donovan Tremblay, Supervisor Facilities

Jason Pillon, Supervisor Facilities

Michael Dennis, Financial Manager – Asset Planning

Natasha Gabbana, Senior Manager of Asset Planning

Aaron Farough, Legal Counsel

Derek Thachuk, Supervisor - Assets and Facility Projects

Colleen Middaugh, Manager of Corporate Projects

France Isabelle Tunks, Executive Director Engineering

Thom Hunt, City Planner

Conclusion:

Lanspeary Park, an 11-acre park, was developed with the assistance of the Lions Club of Windsor. It is host to Lanspeary Lions Outdoor Rink, a gazebo, picnic tables and a play structure as well as the outdoor pool.

The pool is an important part of the community and a redesigned and accessible pool and change room facility would increase programming and attendance, enhance the current park amenities and contribute to the 4-season use of the park.

Planning Act Matters:

N/A

Approvals:

Name	Title
Jen Knights	Executive Director, Recreation & Culture
James Chacko	Executive Director, Parks & Facilities
Christopher Nepszy	Commissioner, Infrastructure Services
Ray Mensour	Commissioner, Community Services
Joe Mancina	Commissioner, Corporate Services/Chief Financial Officer/City Treasurer
Wira Vendrasco for Shelby Askin Hager	Commissioner, Legal & Legislative Services
Onorio Colucci	Acting Chief Administrative Officer

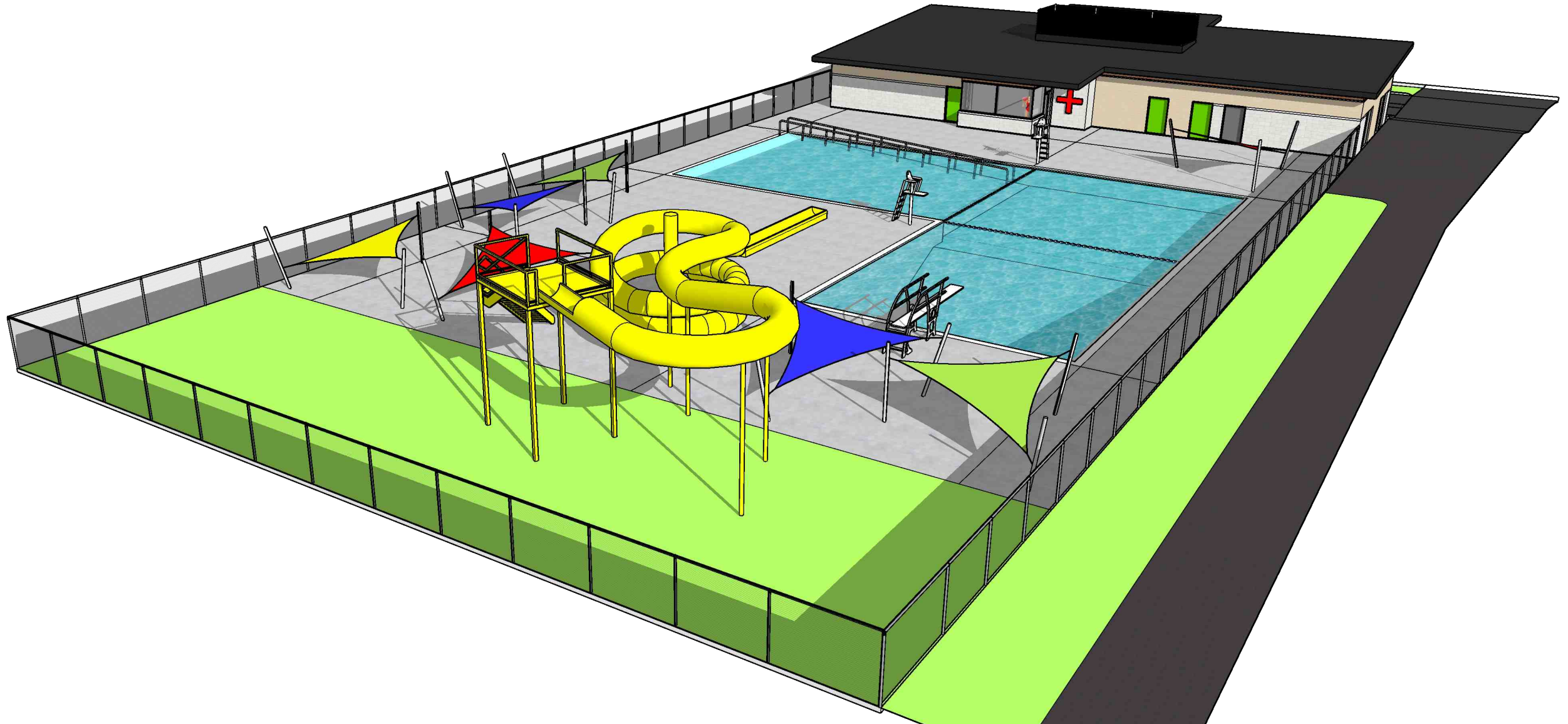
Notifications:

Name	Address	Email

Appendices:

- 1 Appendix A - conceptual pool redesign

APPENDIX A



POOL - BIRD'S EYE VIEW

21 MARCH 2022



Subject: Proposed Expropriation of lands and easements on Riverside Drive East for the Riverside Vista Road Improvements, Phase 2A- Ward 6

Reference:

Date to Council: July 11, 2022
Author: Patrick T. Brode
Phone: 519-255-6100 x6377
Email: pbrode@citywindsor.ca
Legal Services, Real Estate & Risk Management
Report Date: June 10, 2022
Clerk's File #: SW2022

To: Mayor and Members of City Council

Recommendation:

That the City Council of the City of Windsor sitting as an Expropriation Authority under the Expropriations Act **APPROVE** the taking of the lands as shown in Schedule "A" (excepting No. 2, Iris Brown property) in the City of Windsor for the Riverside Vista Road Improvements Phase 2A.

On March 21, 2022, City Council instructed the City Solicitor to commence the expropriation process for the lands described in Schedule "A." The lands proposed to be taken include a variety of road widenings as well as easements for gas mains, utility poles and telecommunications services.

The City Solicitor's office has served all persons having an interest in the land with the Notice of Application for Approval to Expropriate Land and has published the notice three times in the local newspaper. One owner, Iris Brown (represented by Mr. Dewar Laing) has requested an inquiry pursuant to section 6 of the Act into whether the taking is fair, sound and reasonably necessary.

For that reason, item No. 2 from Schedule "A" has been omitted. An inquiry will be held and will be the subject of a future report to City Council.

Executive Summary:

N/A

Discussion:

The lands and interest proposed to be expropriated are essential to the Riverside Vista Road Improvements Project Phase 2A and the installation of public utilities.

Risk Analysis:

Without these lands, the utility corridor project will not be possible.

Climate Change Risks**Climate Change Mitigation:**

The expropriation project will not pose a climate change risk.

Climate Change Adaptation:

The expropriation is part of the Riverside Vista Improvement Project which addresses climate impact.

Financial Matters:

Project 7196000 was created in 2019, to track and fund settlements regarding DMAF/SMP – Riverside Dr Vistas Phase 2A. Part of project 7196000's overall budget funds have been earmarked for property acquisitions. Currently, the project has approximately \$31.8 million in remaining funds.

Consultations:

Adam Mourad, Engineer II
Alexandra Taylor, Financial Planning Administrator

Conclusion:

That the City Council of the City of Windsor sitting as an approving authority approves the expropriation of the lands and interests in Schedule "A" with the exception of No. 2 being that interest owned by Iris Brown, and that the City Solicitor BE AUTHORIZED to file a Plan of Expropriation, proceed with a Certificate of Approval to be executed by the City Clerk and Chief Administrative Officer, and all other documents necessary to complete the transaction and to make offers of compensation under section 25 consistent with the City's appraisal of the lands.

Planning Act Matters:

N/A

Approvals:

Name	Title
Patrick Brode	Senior Legal Counsel
Wira Vendrasco	Acting Commissioner of Legal and Legislative Services
Chris Nepszy	Commissioner, Infrastructure Services
Joe Mancina	Commissioner of Corporate Services and CFO
Shelby Askin Hager	Acting Chief Administrative Officer

Notifications:

Name	Address	Email

Appendices:

Appendix A – Lands to be Expropriated

Appendix A

Municipal Address	Owner(s)	Land to be Expropriated	Type of Acquisition
1 0 Riverside Drive East	Nina Klein	(1) An approximate 36.7 m ² acquisition, being all of Block B on Registered Plan 1371 being PIN 01053-0008, further described as Part 1 on Plan 12R-28954	Fee Simple
2 0 Riverside Drive East	Iris and James Brown	(1) An approximate 64.7 m ² easement along the south boundary of Part of the Bed of the Detroit River being part of PIN 01053-0152, further described as Part 3 on Plan 12R-28954 (2) An approximate 23.8 m ² acquisition being all of Block A on Registered Plan 1371 being PIN 01053-0007, further described as Part 2 on Plan 12R-28954	Easement for Enwin, Bell, Cogeco, MNSI, Enbridge, City of Windsor Fee Simple
3 6710 Riverside Drive East	Richard Ward and Vittoria Figliuzzi-Ward	An approximate 24 m ² easement along the south boundary of Part Lot 121 on Concession 1 being part of PIN 01053-0120, further described as Part 4 on Plan 12R-28954	Easement for Enwin, Bell, Cogeco, MNSI, Enbridge, City of Windsor
4 6680 Riverside Drive East	Kenneth and Souheir Quinn, 2353935 Ontario Ltd.	An approximate 38.1 m ² easement along the south boundary of Part Lot 121 on Concession 1 being part of PIN 01053-0121, further described as Part 5 on Plan 12R-28954	Easement for Enwin, Bell, Cogeco, MNSI, Enbridge, City of Windsor
5 6660 Riverside Drive East	Kenneth and Souheir Quinn	An approximate 47.9 m ² easement along the south boundary of Part Lot 121 on Concession 1 being part of PIN 01053-0122, further described as Parts 34, 35 and 36 on Plan 12R-28954	Easement for Enwin, Bell, Cogeco, MNSI, Enbridge, City of Windsor

6	6630 Riverside Drive East	David and Elaine Morrison	An approximate 42.1 m ² easement along the south boundary of Part Lot 121 on Concession 1 being part of PIN 01053-0123, further described as Part 6 on Plan 12R-28954	Easement for Enwin, Bell, Cogeco, MNSI, Enbridge, City of Windsor
7	6610 Riverside Drive East	Kimberly Gaudette	An approximate 36.4 m ² easement along the south boundary of Part Lot 121 on Concession 1 being part of PIN 01053-0124, further described as Part 7 on Plan 12R-28954	Easement for Enwin, Bell, Cogeco, MNSI, Enbridge, City of Windsor
8	6585 Riverside Drive East	Allison and Julian Hawkins	An approximate 7 m ² easement along the north boundary of Part Lot 121 on Concession 1 being part of PIN 01080-0122, further described as Parts 8 and 9 on Plan 12R-28954	Easement for Enbridge
9	6615 Riverside Drive East	Mary and John Novosel	An approximate 6.2 m ² easement along the north boundary of Part Lot 121 on Concession 1 being part of PIN 01080-0123, further described as Parts 10 and 11 on Plan 12R-28954	Easement for Enbridge
10	6635 Riverside Drive East	Howard and Mary Pattinson	An approximate 7.4 m ² easement along the north boundary of Part Lot 121 on Concession 1 being part of PIN 01080-0124, further described as Part 12 on Plan 12R-28954	Easement for Enbridge
11	6655 Riverside Drive East	Ana Friesen	An approximate 2.7 m ² easement along the north boundary of Part Lot 121 on Concession 1 being part of PIN 01080-0125, further described as Parts 13 and 14 on Plan 12R-28954	Easement for Enbridge
12	6665 Riverside Drive East	Daniel Loiselle and Steven Brinson	An approximate 13.6 m ² easement along the north boundary of Part Lot 121 on Concession 1 being part of PIN 01080-0126, further described as Parts 15 and 16 on Plan 12R-28954	Easement for Enbridge, Bell, Cogeco, MNSI, Enwin
13	6685 Riverside Drive East	Titi and Gabriel Maggio	An approximate 8.1 m ² easement along the north boundary of Part Lot 121 on Concession 1 being part of PIN 01080-0127, further described as Part 17 on Plan 12R-28954	Easement for Enbridge, Bell, Cogeco, MNSI

14	6711 Riverside Drive East	Yousef Aghbelagh	An approximate 9.1 m ² easement along the north boundary of Part Lot 121 on Concession 1 being part of PIN 01080-0128, further described as Part 18 on Plan 12R-28954	Easement for Enbridge, Bell, Cogeco, MNSI
15	6725 Riverside Drive East	Shobha and Vikas Karnik	An approximate 6.4 m ² easement along the north boundary of Part Lots 121 and 122 on Concession 1 being part of PIN 01080-0133, further described as Part 19 on Plan 12R-28954	Easement for Enbridge, Bell, Cogeco, MNSI
16	6745/6753 Riverside Drive East	Ya Wang and Julius Matteis	An approximate 4.7 m ² easement along the north boundary of Part Lot 122 on Concession 1 being part of PIN 01080-0096, further described as Part 20 on Plan 12R-28954	Easement for Enbridge, Bell, Cogeco, MNSI
17	6811 Riverside Drive East	Kenneth and Dorothy Echlin	(1) An approximate 15.8 m ² easement along the north boundary of Part of Lot 122 on Concession 1 being part of PIN 01080-0199, further described as Part 21 on Plan 12R-28954 (2) An approximate 1.3 m ² acquisition along the north boundary of Part Lot 122 on Concession 1 being part of PIN 01080-0199, further described as Part 22 on Plan 12R-28954	Easement for Enbridge, Bell, Cogeco, MNSI Fee Simple
18	6833 Riverside Drive East	Iris and James Brown	(1) An approximate 11 m ² easement along the north boundary of Part Lot 1 on Registered Plan 1371 being part of PIN 01080-0028, further described as Part 24 on Plan 12R-28954 (2) An approximate 3.7 m ² acquisition along the north boundary of Part Lot 1 on Registered Plan 1371 being part of PIN 01080-0028, further described as Part 23 on Plan 12R-28954	Easement for Enbridge, Bell, Cogeco, MNSI Fee Simple
19	6845 Riverside Drive East	Tyler and Rachel Troup	(1) An approximate 11 m ² easement along the north boundary of Part Lot 2 on Registered Plan 1371 being part of PIN 01080-0029, further described as Part 25 on Plan 12R-28954	Easement for Enbridge, Bell,

		(2) An approximate 5.8 m ² acquisition along the north boundary of Part Lot 2 on Registered Plan 1371 being part of PIN 01080-0029, further described as Part 26 on Plan 12R-28954	Cogeco, MNSi Fee Simple
20	6867 Riverside Drive East Lisa Dewetering	(1) An approximate 22.6 m ² easement along the north boundary of Part Lot 122 on Concession 1 being part of PIN 01080-0202, further described as Part 28 on Plan 12R-28954 (2) An approximate 29.5 m ² acquisition along the north boundary of Part Lot 122 on Concession 1 being part of PIN 01080-0202, further described as Part 27 on Plan 12R-28954	Easement for Enbridge, Bell, Cogeco, MNSi Fee Simple
21	6945 Riverside Drive East Nizar Najl	An approximate 5.2 m ² easement along the north boundary of Part Lot 123 on Concession 1 being part of PIN 01071-0152, further described as Part 29 on Plan 12R-28954	Easement for Enbridge
22	6985 Riverside Drive East Drew and Heather MacNeill	An approximate 18.4 m ² easement along the north boundary of Part Lot 123 on Concession 1 being part of PIN 01071-0151, further described as Part 30 on Plan 12R-28954	Easement for Enbridge
23	7007 Riverside Drive East Charmaine and William Kunz	An approximate 15.7 m ² easement along the north boundary of Part Lot 123 on Concession 1 being part of PIN 01071-0150, further described as Part 31 on Plan 12R-28954	Easement for Enbridge
24	7025 Riverside Drive East Drazen Dobric	An approximate 15.2 m ² easement along the north boundary of Part Lot 123 on Concession 1 being part of PIN 01071-0149, further described as Part 32 on Plan 12R-28954	Easement for Enbridge
25	7045 Riverside Drive East Richard McMillan	An approximate 31.7 m ² easement along the north boundary of Part Lot 123 on Concession 1 being part of PIN 01071-0148, further described as Part 33 on Plan 12R-28954	Easement for Enbridge and Enwin