

AGENDA COMMITTEE of the WHOLE - 9:00 a.m.

Wednesday, February 19, 2025 Council Chambers, Wyoming

Page

1. Call to Order - Committee of the Whole

<u>Committee Members:</u> J. Agar, G. Atkinson, D. Boushy, M. Bradley, A. Broad, T. Case, D. Cook, B. Dennis, D. Ferguson, B. Hand, B. Loosley, C. McRoberts, S. Miller, D. Sageman, I. Veen, B. White, and Warden K. Marriott.

2. <u>Disclosures of Pecuniary Interest</u>
If any.

3. <u>INFRASTRUCTURE & DEVELOPMENT SERVICES DIVISION</u>

A) Correspondence to Receive and File

a) IDS 04-02-25 A letter from Jill Crosthwaite, Coordinator, Conservation Biologist – Lake Erie/Huron Region, Nature Conservancy of Canada dated February 10, 2025 regarding an upcoming one-day prescribed burn between March 2025 and May 2025 at the Karner Blue Sanctuary, located at 9900 Nipigon Street, Port Franks as well an Information Session to be held at the Port Franks Optimist Hall on Saturday, March 1, 2025 from 2:00 p.m. to 3:00 p.m.

B) Information Reports

- a) Information Report dated February 19, 2025 Regarding Emergency Management Coordinator Activities.
- b) Information Report dated February 19, 2025 Regarding 4th Quarter 2024 Building, Plumbing, Septic, By-Law.
- c) Information Report dated February 19, 2025 Regarding 4th Quarter 2024 Planning Work in Progress.
- d) Information Report dated February 19, 2025 Regarding 2024 Full Year Planning Statistics and Approval Authority Activity.
- e) Information Report dated February 19, 2025 Regarding Woodlands Annual Report 2024.

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| | | C) | Repo | orts Requiring a Motion |
|-----------|----|-------|--------------|---|
| 27 - 28 | | | a) | Report dated February 19, 2025 Regarding Update Appointment By-Law for Building Inspectors. |
| 29 - 31 | | | b) | Report dated February 19, 2025 Regarding Update Delegation of Approval Authority Under The Planning Act. |
| 32 - 118 | | | c) | Report dated February 19, 2025 Regarding County Road 19 (Michigan Avenue) Reconstruction. |
| | | D) | <u>Othe</u> | r Business |
| | 4. | | LIC HE | ALTH SERVICES DIVISION - Emergency Medical Services |
| | | No re | eports. | |
| | | A) | <u>Othe</u> | r Business |
| | 5. | CUL | TURAL | SERVICES DIVISION |
| | | A) | Infor | mation Reports |
| 119 - 144 | | | a) | Information Report dated February 19, 2025 Regarding Cultural Services Division 2024 Annual Report. |
| 145 - 158 | | | b) | Information Report dated February 19, 2025 Regarding Libraries Fourth Quarter 2024 Statistics. |
| 159 - 164 | | | c) | Information Report dated February 19, 2025 Regarding Museums, Gallery and Archives Fourth Quarter 2024 Statistics. |
| | | B) | Repo | orts Requiring a Motion |
| 165 - 166 | | - | a) | Report dated February 19, 2025 Regarding Libraries Donations, October 1 to December 31, 2024. |
| 167 - 176 | | | b) | Report dated February 19, 2025 Regarding Library Services - Township of Dawn-Euphemia. |
| 177 - 180 | | | c) | Report dated February 19, 2025 Regarding Museums, Gallery and Archives Collection Management December 2024. |
| | | C) | <u>Othe</u> | r Business |
| | 6. | LON | G-TER | M CARE DIVISION |
| | | A) | <u>Infor</u> | mation Reports |
| 181 - 194 | | | a) | Information Report dated February 19, 2025 Regarding Adult Enrichment Centre Advisory Committee Annual Report 2024. |
| 195 - 198 | | | b) | Information Report dated February 19, 2025 Regarding Long Term Care Occupancy 2024. |

B) Other Business

199 - 207

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7. CORPORATE SERVICES DIVISION

A) Correspondence to Receive and File

a) <u>CORP 04-01-25</u> A letter from Chief Nahmabin, Aamjiwnaang First Nation dated February 2, 2025 regarding conduct at the Lambton County Council meeting on November 27, 2024.

B) <u>Information Reports</u>

a) Information Report dated February 19, 2025 Regarding Court Services - 2024 4th Quarter Statistics and Activity.

C) Other Business

8. FINANCE, FACILITIES AND ACQUISITIONS DIVISION

A) Reports Requiring a Motion

a) Report dated February 19, 2025 Regarding Annual Year-End Report on Reserves and Reserve Funds.

B) Other Business

9. SOCIAL SERVICES DIVISION

A) <u>Information Reports</u>

- a) Information Report dated February 19, 2025 Regarding Ontario Works 2024 Year End Update Report.
- b) Information Report dated February 19, 2025 Regarding 10-Year Capital Asset Management and Funding Plan Update.
- c) Information Report dated February 19, 2025 Regarding Housing Services Comparative Statistics Report 2024 to 2023.
- d) Information Report dated February 19, 2025 Regarding Out of the Cold Shelter Security Services.

B) Other Business

10. Presentation of the 2025 County of Lambton Draft Budget

a) Presentation by Larry Palarchio, Treasurer, County of Lambton.

11. Recess

There will be a 15-minute recess before the Committee goes In-Camera.

12. IN-CAMERA

Recommendation

Page 3 of 239

That the Chair declare the Committee go in-camera to discuss the following:

- a) to receive a report and provide instructions regarding negotiations between the County and a third party relating to service expansion, pursuant to s. 239(2)(k) of the *Municipal Act, 2001*.
- b) to receive advice subject to solicitor-client privilege regarding correspondence received by the County, pursuant to the provisions of s. 239(2)(f) of the *Municipal Act*, 2001.
- c) to receive commercial information explicitly supplied in confidence by a third party regarding a development plan, pursuant to s. 239(2)(i) of the *Municipal Act*, 2001.

13. <u>ADJOURNMENT</u>

I&DS 04-02-25





Monday, February 10, 2025

Dear neighbour,

The Nature Conservancy of Canada (NCC) and Lambton Wildlife, Inc. (LWI) will be conducting a one-day prescribed burn between March 2025 and May 2025 at the Karner Blue Sanctuary, located at 9900 Nipigon St, Port Franks. This carefully controlled burn will be carried out by trained professionals and managed by NCC staff. A detailed burn plan, burn permit, and required insurance are obtained in advance. For your safety, public access to this property will be closed during the prescribed burn. Roads in the area should not be affected.

Prescribed burns are only conducted under specific weather conditions, which is why we are unable to provide an exact date on when the burn will occur. Both wind speed and direction must be considered to ensure a safe and successful burn, while ensuring smoke is dispersed away from developed areas as much as possible.

Why are we conducting a prescribed burn? Prescribed burns are an essential part of maintaining the biological diversity of the rare oak savannah and oak woodland habitats that are found here in Lambton Shores. Many wildlife species in this area, including several species at risk, rely on these habitats. Prescribed burns are also conducted nearby at Pinery Provincial Park regularly and help to sustain oak savannah and oak woodland habitats in the park.

Periodic ground fire helps prepare the ecosystem for natural re-growth, slows the growth of undesirable woody vegetation, and promotes the growth of fire-tolerant plants such as sundial lupin, golden puccoon and shrubs like fragrant sumac and New Jersey tea. These species require open habitat to thrive, and many of them are critical food plants for rare butterflies. Historically, fire would have naturally swept through these habitats regularly.

We encourage you to observe the burned areas throughout the season to see the natural changes that take place and the wildlife habitat that is regenerated because of the prescribed burn.

Please contact us if you would appreciate receiving information about the precise location and timing of the burn, but please note we can only provide that information when the arrangements are finalized.

We invite you to attend an information session to learn more about this project - see the included poster for more details.

Sincerely,

Jill Crosthwaite

Coordinator, Conservation Biology, Southwestern Ontario jill.crosthwaite@natureconservancy.ca

Mary Martin

President, Lambton Wildlife Inc. mmartin@lambtonwildlife.com







Join us for an information session at the Port Franks Optimist Hall!

Saturday, March 1st | 2:00pm - 3:00pm 9997 Port Franks Road, Port Franks

You're invited to join the Nature Conservancy of Canada and Lambton Wildlife, Inc. on Saturday, March 1st for an information session to learn about how we are restoring native wildlife habitat through prescribed burning at the Karner Blue Sanctuary this spring.

The Nature Conservancy of Canada is Canada's largest environmental charity. We protect and care for nature to slow species loss and counter climate change. Together with our partners, we've conserved more than 15 million hectares.

Lambton Wildlife, Inc. is Lambton County's leading not-for-profit naturalist organization. Founded in 1966, we are a registered charity dedicated to the conservation, preservation, and protection of the natural environment in Lambton County.

For more information, contact jill.crosthwaite@natureconservancy.ca.

| INFRASTRUCTURE & DEVELOPMENT SERVICES DIVISION | | | | |
|--|---|--|--|--|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS | | | |
| DEPARTMENT: | DEVELOPMENT SERVICES | | | |
| PREPARED BY: | Jay vanKlinken, Emergency Management Coordinator | | | |
| REVIEWED BY: | Corrine Nauta, Manager Jason Cole, P. Eng., General Manager Stéphane Thiffeault, Chief Administrative Officer | | | |
| MEETING DATE: | February 19, 2025 | | | |
| INFORMATION ITEM: | Emergency Management Coordinator Activities Report | | | |

The following is a summary of recent activities related to emergency management.

DISCUSSION

Modernization of the Emergency Management & Civil Protection Act

In December, the Deputy Minister and Commissioner of Emergency Management, Emergency Management Ontario outlined proposed amendments to the *Emergency Management and Civil Protection Act* ("**EMCPA**") by introducing the *Emergency Management Modernization Act* ("**EMMA**"). Draft changes include allowing municipalities to join together for the development and implementation of an emergency management program, new requirements for Heads of Council related to declared emergencies, and requirements for critical infrastructure entities to develop emergency management programs. The legislation passed first reading in the provincial legislature.

Legacy Oil & Gas Wells Funding

Through funding from the Ministry of Natural Resources ("MNR") the County is strengthening its ability to respond to oil and gas emergencies, among other hazards. The County is using the 2024-25 funding to improve the technological, communications, and energy equipment in its primary and alternate Emergency Operation Centre ("EOC") locations.

In addition, the County Emergency Management Coordinator ("**CEMC**") is working with the Geographic Information System ("**GIS**") team to develop a web-based situational awareness tool through which to chart and evaluate the impacts of various emergency scenarios, including oil and gas incidents.

Emergency Management Coordinator Activities Report (page 2)

February 19, 2025

The CEMC is working with the Oil Museum of Canada to develop a virtual exhibit related to legacy oil and gas wells in the community and the related public safety recommendations of the MNR.

Finally, funds are being used to help purchase emergency shelter supplies, public education materials, and portable variable messaging signs to assist in road closure events.

Cobalt Magnet 2025

In March, local, provincial, state, and federal organizations from Canada and the United States ("U.S.") will participate in a cross-border emergency exercise that focuses on managing the off-site consequences of a radiological or nuclear incident. Cobalt Magnet 2025 is an exercise in a series of exercises led by the Department of Energy/National Nuclear Security Administration ("NNSA") in the U.S. The CEMC will be participating in the exercise at the County of Essex EOC as an evaluator.

Emergency Preparedness Day

The CEMC continues to be part of the Emergency Preparedness Day planning committee, organized by Lambton BASES. The event is to be held Saturday, May 10, 2025 at Lambton College and will include emergency preparedness displays, workshops, demonstrations, and family-oriented activities. Emergency Preparedness Day presents an opportunity to fulfill the County's responsibility to inform the public about risks in our community and individuals' own personal preparedness.

Year-End Reporting

The County's Emergency Management Program Committee met late in 2024 to review the components of the County's emergency management program. The required year-end review looks at program elements such as local hazards, critical infrastructure, emergency training and exercises, public education, and the County emergency response plan to ensure the County is compliant with the EMCPA and O. Reg. 380/04.

FINANCIAL IMPLICATIONS

None.

CONSULTATIONS

Consultations have occurred as follows:

- **EMMA**: Emergency Management Program Committee, Emergency Management Ontario, local CEMCs and those from around the province.
- Legacy Oil & Gas Wells: Emergency Management Program Committee, Information Technology Department, Oil Museum of Canada, Alternate CEMCs,

Emergency Management Coordinator Activities Report (page 3)

February 19, 2025

Lambton Public Health, MNR, Homelessness Prevention and Social Planning Department, Emergency Medical Services Department

- Cobalt Magnet 25: Essex County CEMC, Emergency Management Ontario
- Emergency Preparedness Day: Lambton BASES, local CEMCs
- **Year-End Reporting**: Emergency Management Program Committee, Emergency Management Ontario

STRATEGIC PLAN

Application of Area of Effort #3: Community Development – The County is committed to capitalizing on opportunities that enrich the quality of life and future prospects of the community by:

 Strengthening the County's advocacy and lobbying efforts with other levels of government to raise the profile of the County and its needs to secure improved senior government supports, funding, grants, and other resources to meet emergency infrastructure and service needs.

Application of Area of Effort #5: Partnerships – The County is committed to developing strong relationships with community partners, municipalities, and First Nations by:

• Exploring public-private partnerships aimed at benefitting the community.

CONCLUSION

Through its emergency management program, the County continues to investigate and pursue all available opportunities to build the capacity of emergency response plans in the community, including its own.

| INFRASTRUCTURE & DEVELOPMENT SERVICES DIVISION | | |
|--|---|--|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS | |
| DEPARTMENT: | DEVELOPMENT SERVICES | |
| PREPARED BY: | Corrine Nauta, Manager | |
| REVIEWED BY: | Jason Cole, P. Eng., General Manager Stéphane Thiffeault, Chief Administrative Officer | |
| MEETING DATE: | February 19, 2025 | |
| INFORMATION ITEM: | 4 th Quarter 2024 – Building, Plumbing, Septic, By-Law | |

The Development Services Department (the "**Department**") provides building and planning services to 10 of the 11 member municipalities in the County of Lambton (the "**County**"). In addition, Department staff conduct plumbing and septic system inspections for all 11 member municipalities in the County. Property standards services are also supplied for nine member municipalities in the County and the Department is also responsible for weed inspections. Additionally, the City of Sarnia and Walpole Island First Nations have contracted for inspection services for 2025, on an as-needed basis. The Department also assists the Housing Services Department with the Lambton Renovates program, as required.

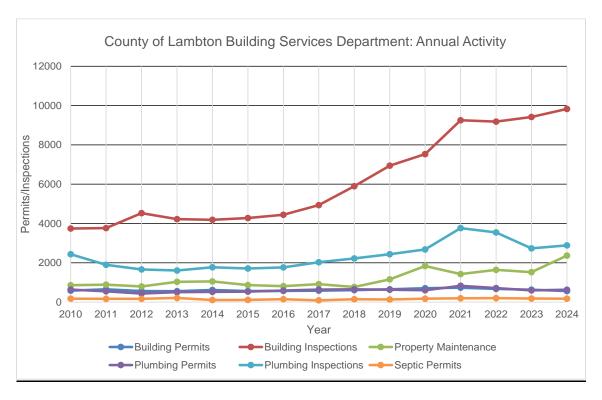
DISCUSSION

In 2024, the Department provided effective and efficient services to the local and contracted municipalities. Communication lines continue to be maintained and strengthened. Good working relationships exist between the County and the City of Sarnia. Department staff recognize the importance of property file completeness and actively close files.

Year-over-year the total number of building permits (new homes, renovations, storage sheds, etc.) decreased by 81. New dwelling starts at 137 and decreased by 11 over the same period last year. The number of building permit inspections increased by 562. Property standards inspections increased by 190, while plumbing permit issuance remained consistent at 124 with inspections increasing by 17. In total, the number of septic reports prepared for planning applications (severances, minor variances), backfill permits, inquiries, and assessment requests has maintained a steady trend. The number of septic permits issued has increased by nine.

4th Quarter 2024 - Building, Plumbing, Septic, By-Law (page 2)

February 19, 2025



The Department statistics are attached to this report and include building statistics for the City of Sarnia and the Municipality of Lambton Shores.

FINANCIAL IMPLICATIONS

Statistical numbers are consistent with expectations for permit issuance and inspection.

CONSULTATIONS

The Building Department at the City of Sarnia was consulted in the preparation of this report.

STRATEGIC PLAN

Area of Effort #2 - Services and Communications - The County is focused on the provision of responsive services and programs, independently and through partnerships, and is committed to progressive and effective communications in promoting the same, by:

 Anticipating and aligning service delivery to emerging needs and expectations (including changing demographics); 4th Quarter 2024 – Building, Plumbing, Septic, By-Law (page 3)

February 19, 2025

- Engaging and informing residents, stakeholders, and municipal partners of the County's services, programs, opportunities, and challenges; and
- Advocating Lambton County's perspective on provincial and federal programs and legislative amendments.

Application of Area of Effort #5: Partnerships – The County is committed to developing strong relationships with community partners, municipalities, and First Nations by:

 Cultivating sustainable relationships that include strategies to improve communication and understanding, and provide mutual assistance on projects.

CONCLUSION

The Department remains optimistic with regards to another successful year in the County for building, plumbing, septic, property standards, and weed inspection. Department staff will continue to maintain open communication lines with all municipalities and their respective building departments.

Department staff will also continue with the timely completion and closing of property files while keeping our member municipalities updated on the progress with respect to building services issues.

Overall, the Department remains dedicated to providing essential services, effectively and efficiently to our local and contracted municipalities.

4th Quarter Building Statistics Year to Date Comparison - 2024 vs 2023

| Number of Permits | | | Value of Construction | |
|-------------------|-----------|-----|-----------------------|---------------|
| | 2024 2023 | | 2024 | 2023 |
| Residential | 387 | 438 | \$87,926,312 | \$114,545,439 |
| Commercial | 52 | 42 | \$14,096,705 | \$9,923,714 |
| Industrial | 12 | 30 | \$5,502,700 | \$11,308,300 |
| Agricultural | 90 | 106 | \$35,829,606 | \$26,984,135 |
| Institutional | 18 | 14 | \$19,900,166 | \$2,186,500 |
| | | | | |
| TOTALS | 559 | 630 | \$163,255,489 | \$164,948,088 |

New Dwelling Units in the County of Lambton

| Municipality | New Dwe | lling Units |
|------------------|---------|-------------|
| | 2024 | 2023 |
| Brooke-Alvinston | 3 | 13 |
| Dawn-Euphemia | 3 | 4 |
| Enniskillen | 4 | 6 |
| Oil Springs | 3 | 4 |
| Petrolia | 11 | 10 |
| Plympton-Wyoming | 57 | 59 |
| Point Edward | 0 | 7 |
| St. Clair | 51 | 30 |
| Warwick | 5 | 15 |
| | | |
| TOTAL | 137 | 148 |

Unless otherwise noted, dwelling units are single family dwellings.

Note:

Brooke-Alvinston - one additional dwelling unit

Plympton-Wyoming - one additional unit; one duplex

Point Edward - six semi-detached units

St. Clair - 20 townhouse units, one additional dwelling unit

Warwick - one additional dwelling unit

Building Services Department 4th Quarter Statistics Comparison 2024 vs. 2023

| | 4th Qua | arter | Year-To-Date | |
|------------------------|--------------|--------------|---------------|---------------|
| Building | 2024 | 2023 | 2024 | 2023 |
| Permits | 107 | 135 | 559 | 630 |
| Inspections | 2436 | 1974 | 9830 | 9418 |
| Property & Maintenance | 629 | 439 | 2367 | 1526 |
| Amount Invoiced | \$274,705 | \$214,074 | \$1,077,627 | \$920,405 |
| Building Permit Value | \$37,872,665 | \$53,600,469 | \$163,255,489 | \$167,948,088 |

| | 4th Q | uarter | Year-To-Date | |
|----------------|----------|----------|--------------|-----------|
| Plumbing | 2024 | 2023 | 2024 | 2023 |
| | | | | |
| Permits | 124 | 124 | 628 | 597 |
| Inspections | 674 | 657 | 2883 | 2736 |
| Permit Revenue | \$38,619 | \$37,293 | \$168,399 | \$148,864 |

| | 4th Q | uarter | Year-To-Date | | |
|----------------------------|----------|----------|--------------|----------|--|
| Septic | 2024 | 2023 | 2024 | 2023 | |
| | | | | | |
| Septic Permits | 31 | 22 | 104 | 91 | |
| Septic Backfill Permits | 22 | 29 | 67 | 91 | |
| Severances | 5 | 3 | 26 | 12 | |
| Minor Variances | 4 | 7 | 15 | 34 | |
| Amendments | 3 | 0 | 9 | 3 | |
| Private Sewage Assessments | 5 | 4 | 15 | 18 | |
| Inquiry Requests | 5 | 0 | 20 | 5 | |
| Enforcement Inspections | 0 | 26 | 20 | 59 | |
| Subdivisions | 0 | 0 | 0 | 0 | |
| Septic Revenue | \$13,825 | \$11,800 | \$48,940 | \$45,825 | |

4th Quarter Building Statistics The City of Sarnia and The Municipality of Lambton Shores

The Municipality of Lambton Shores

| Type/Number of Permits | | | |
|------------------------|----|--|--|
| Residential | 33 | | |
| Commercial | 5 | | |
| Industrial | 0 | | |
| Agricultural | 7 | | |
| Institutional | 0 | | |
| Other | 2 | | |
| TOTAL | 47 | | |

The City of Sarnia

| Type/Number of F | Permits |
|------------------|---------|
| All Categories | 86 |
| TOTALS | 86 |

Year-End Comparison 2023 vs 2024

All Permit Categories

| 7 m r on me outogones | | | | | |
|-----------------------|--------------|-----------------------|--------------|-----------------------|--|
| Municipality | Permits 2023 | Value of Construction | Permits 2024 | Value of Construction | |
| Lambton Shores | 142 | \$41,358,068 | 211 | \$48,737,972 | |
| Sarnia | 459 | \$126,412,486 | 429 | \$168,127,644 | |

New Dwelling Units

| Municipality | New Dwelling Units 2023 | New Dwelling Units 2024 | |
|----------------|----------------------------|-------------------------|--|
| Lambton Shores | 28* | 37~ | |
| Sarnia | 172** | 199~~ | |

* 2 of 28 Multiple Family Dwelling Units

** 122 of 172 Multiple Family Dwelling Units, including 118 Apartments

5 of 37 Multiple Family Dwelling Units
 30 of 199 Additional Dwelling Units

147 of 199 Multiple Family Dwelling Units, including 132 Apartments

| INF COUNTY OF LAMBTON | RASTRUCTURE & DEVELOPMENT SERVICES DIVISION |
|-----------------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | DEVELOPMENT SERVICES |
| PREPARED BY: | Corrine Nauta, Manager |
| REVIEWED BY: | Jason Cole, P. Eng., General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | 4 th Quarter 2024 Planning Work in Progress |

The Development Services Department (the "**Department**") provides building and planning services for 10 of the 11 member municipalities in the County of Lambton. In addition, the Department administers the functions of Emergency Management, 9-1-1/Municipal Addressing, and Woodlands Conservation County-wide.

DISCUSSION

Individual local municipalities continue to deal with various planning and land use applications. Lambton County planners work alongside local administrative staff to respond to daily inquiries and manage proposals through the planning process. More detailed information regarding work in each municipality is provided as follows.

Municipality of Brooke-Alvinston

Work continues on a Zoning By-law Amendment ("ZBLA") and the accompanying plan of subdivision involving approximately 244 mixed-use residential units on 109 lots.

Township of Dawn-Euphemia

Reports and/or By-Laws were prepared for four severances, three ZBLAs, and two site plans ("SP") were approved. No appeals were received. Four zoning infractions are currently being investigated and four minimum distance separation ("MDS") reviews were completed in association with new livestock facilities and/or adjacent property rural residential development.

Township of Enniskillen

Three severances and one minor variance were approved. No appeals were received.

4th Quarter 2024 Planning Work in Progress (page 2)

February 19, 2025

Municipality of Lambton Shores

Reports and/or By-Laws were prepared for five minor variances, one severance, five ZBLA, one Official Plan Amendment ("**OPA**"), three SP's and one temporary use bylaw (dwelling). An information report to Council was also provided on Additional Residential Unit ("**ARU**") regulations and subsequent amendments by the Province.

One appeal to the Ontario Land Tribunal ("**OLT**") has been filed for a minor variance regarding a top-of-bank setback for a deck on the bank of Lake Huron. The appeal is to be consolidated with an appeal of Ausable Bayfield Conservation Authority decisions regarding the same matter. Staff is focused on a review of the Zoning By-Law ("**ZBL**") which is to be completed in-house.

Village of Oil Springs

One severance and one ZBLA were approved, with no appeals received. A new laneway/roadway proposal for existing development and one MDS livestock building expansion are being reviewed.

Town of Petrolia

One minor variance was approved. One subdivision public meeting took place in January 2025. Two SPs have been circulated for agency review and comment. Two draft plans of subdivision, three SPs, one severance, and two minor variances were reviewed. Various business licenses and sign permits were issued. Work on the development of the "East Sector Lands" continues in conjunction with the applicants and the Town, regarding issues of joint servicing and easements.

Town of Plympton-Wyoming

High numbers of inquiries have been received related to surplus farm dwelling severances, proposals for infill lots, and new housing developments, including subdivision and condominium projects. Additionally, reports have been prepared regarding recent legislative changes, such as Bill 185, the 2024 Provincial Planning Statement ("PPS"), the Minister's Regulation regarding ARU, and initiatives for affordable housing for Council.

Work continues with NPG Planning Solutions ("NPG") to review and update the Town's comprehensive ZBL, with plans to present a report to Council and conduct public open houses and meetings in 2025.

4th Quarter 2024 Planning Work in Progress (page 3)

February 19, 2025

Village of Point Edward

One concurrent severance and minor variance were approved, and one minor variance was denied. One OPA, ZBLA, and SP were finalized. No appeals were received. Additionally, OLT mediation has been completed for a townhouse development of 136 units that is under appeal.

Work continues with NPG to review and update the Town's comprehensive ZBL, with plans to present a report to Council and conduct public open houses and meetings in 2025.

St. Clair Township

Overall, land use development is very active, with several proposals at various stages of the process. The draft Official Plan ("**OP**") was adopted by Township Council in December. The OP is being reviewed by the County approval authority which is the final review for approval.

Two SPs have been finalized and another is currently under review. Committee of Adjustment activity continues to remain extremely busy which includes three severances requiring ZBLAs in 2025. Four draft plans of subdivision applications are at various stages of the review process, with two finally approved.

Warwick Township

Several draft plans of subdivision are progressing through various stages of the approval process. A high volume of MDS reviews for livestock barns and residences in the agricultural area were completed this quarter. One minor variance was approved, with another under review. Similarly, one severance application was finalized with approval, with another pending.

Work continues with NPG to review and update the Town's comprehensive ZBL, with plans to present a report to Council and conduct public open houses and meetings in 2025.

The County of Lambton

The County's OP update and associated consultation with member municipalities is underway. Draft population projections and data compilations are being prepared and will be provided at appropriate junctures. Further, the Department has been participating in many educational and training webinars, which include MDS, PPS, ARUs, risk management, mental health awareness, management/supervisor certifications, media relations, minute-taking, and planner's forums.

4th Quarter 2024 Planning Work in Progress (page 4)

February 19, 2025

FINANCIAL IMPLICATIONS

None.

CONSULTATIONS

Ongoing consultations regarding the various projects are held with municipalities, review agencies, the public as well as community and interest groups as part of the planning application process.

STRATEGIC PLAN

Area of Effort #2 - Services and Communications - The County is focused on the provision of responsive services and programs, independently and through partnerships, and is committed to progressive and effective communications in promoting the same, by:

- Anticipating and aligning service delivery to emerging needs and expectations (including changing demographics);
- Engaging and informing residents, stakeholders, and municipal partners of the County's services, programs, opportunities, and challenges; and
- Advocating Lambton County's perspective on provincial and federal programs and legislative amendments.

CONCLUSION

The Department will continue to provide quarterly updates for statistics and Approval Authority activity.

| INFRASTRUCTURE & DEVELOPMENT SERVICES DIVISION | | | | | |
|--|---|--|--|--|--|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS | | | | |
| DEPARTMENT: | DEVELOPMENT SERVICES | | | | |
| PREPARED BY: | Corrine Nauta, Manager | | | | |
| REVIEWED BY: | Jason Cole, P. Eng., General Manager Stéphane Thiffeault, Chief Administrative Officer | | | | |
| MEETING DATE: | February 19, 2025 | | | | |
| INFORMATION ITEM: | 2024 Full Year Planning Statistics and Approval Authority Activity | | | | |

The Development Services Department (the "**Department**") provides planning services for 10 of the 11 member municipalities in the County of Lambton. In addition, the Department administers the functions of Emergency Management, 9-1-1/ Municipal Addressing, and Woodlands Conservation County-wide.

DISCUSSION

The following table sets out the number of applications that the Department received and processed for the full year of 2024 and 2023, by category.

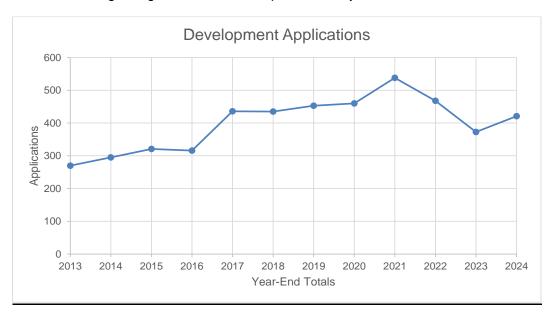
| Applications | 2024 | 2023 |
|---|------|------|
| Committee of Adjustment | 160 | 161 |
| Site Plan Control | 18 | 7 |
| Zoning By-Law Amendments | 57 | 43 |
| Official Plan Amendments | 12 | 6 |
| Woodlot Applications | 0 | 0 |
| Woodlot Notice of Intent to Cut | 97 | 58 |
| Woodlot Reviews | 29 | 41 |
| Letters of Compliance (Zoning Confirmations) | 38 | 39 |
| Plan of Subdivision/Condominium Applications | 4 | 4 |
| Plan of Subdivision/Condominium Extensions | 1 | 2 |
| Part Lot Control | 1 | 0 |
| Final Plan of Subdivision/Condominium Approvals | 2 | 2 |
| Draft Plan of Subdivision/Condominium Approvals | 2 | 2 |
| Plan of Subdivision/Condominium Amendments | 0 | 2 |
| Official Plan Amendment Approvals | 15 | 6 |
| Totals | 421 | 373 |

2024 Full Year Planning Statistics and Approval Authority Activity (page 2)

February 19, 2025

Application Volumes

Application volumes for 2024 have demonstrated an increased level of activity. Applications continue to be received and processed for a wide range of applications and remain in the high range of historic development activity.



Official Plan Amendments ("OPA")

A total of 15 OPAs occurred in 2024. Each quarterly update has noted OPA approvals. The following OPAs were approved in the final quarter of 2024:

- OPA #7 for the City of Sarnia, to incorporate site and area-specific policies to the City of Sarnia Official Plan.
- OPA #12 for the Municipality of Lambton Shores to add a special policy to the Lambton Shores Official Plan.

2024 Full Year Planning Statistics and Approval Authority Activity (page 3)

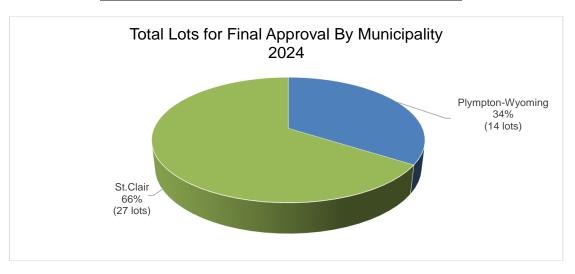
February 19, 2025

Final Approval - Plan of Subdivision/Condominium

2024 saw 41 lots registered, which is a typical number of final approvals sent to be registered. For comparison, 2022 represented a peak year with 496 lots sent for registration.

Below is a table detailing the 41 lots sent to the registry for 2024:

| Municipality | Total Lots | Percentage (%) |
|------------------|------------|----------------|
| Plympton-Wyoming | 14 | 34 |
| St. Clair | 27 | 66 |
| Total | 41 | 100 |



Draft Approval - Plans of Subdivision/Condominium

Two Draft Plans of Subdivision were granted conditional approval in 2024, both being in The Town of Plympton-Wyoming (38T-23001 and 38T-24001). Applicants are working to address conditions to allow lots to be registered for final approval.

FINANCIAL IMPLICATIONS

None.

CONSULTATIONS

Municipalities, the public as well as provincial and other regulatory agencies are routinely consulted in the planning and approval processes.

2024 Full Year Planning Statistics and Approval Authority Activity (page 4)

February 19, 2025

STRATEGIC PLAN

Area of Effort #2 - Services and Communications - The County is focused on the provision of responsive services and programs, independently and through partnerships, and is committed to progressive and effective communications in promoting the same, by:

- Anticipating and aligning service delivery to emerging needs and expectations (including changing demographics);
- Engaging and informing residents, stakeholders, and municipal partners of the County's services, programs, opportunities, and challenges; and
- Advocating Lambton County's perspective on provincial and federal programs and legislative amendments.

CONCLUSION

The Department will continue to provide quarterly updates for statistics and Approval Authority activity.

| INF | RASTRUCTURE & DEVELOPMENT SERVICES DIVISION |
|-------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | DEVELOPMENT SERVICES |
| PREPARED BY: | Tim Payne, Woodlands Conservation Officer |
| REVIEWED BY: | Corrine Nauta, Manager Jason Cole, P. Eng., General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Woodlands Annual Report 2024 |

The Rules of Procedure for the Woodlands Hearings Board require staff to prepare an annual report for consideration by Committee A.M. (now Committee of the Whole) and County Council:

The Board shall, after the close of each calendar year, make an annual report upon the affairs of the Board to the Committee A.M. and thereafter to County Council. The Board, at its own discretion, may delegate this task to the General Manager of the Infrastructure & Development Services Division or the Manager of the Planning & Development Services Department.

This report will outline the 2024 administrative and enforcement activities under Woodlands Conservation By-Law No. 4 of 2012.

DISCUSSION

Activity under the Woodlands Conservation By-Law in 2024 year demonstrated a 53% increase in harvesting activities throughout the County, which include harvesting notice of intents and exemption approvals, when compared to 2023. Typical fall and winter temperatures assisted with the contractor's ability to access woodlands and completed scheduled work.

Woodlands promotion and education is always discussed with contacted landowners, contractors, and the public. In 2024, public complaints were received regarding the removal of woodlands or parts of woodlands, frequently expressing the importance of woodlands and environmental concerns.

Woodlands Annual Report 2024 (page 2)

February 19, 2025

The table presented in Appendix "A" provides a summary of the applications received by the Woodlands Conservation Officer in 2024.

FINANCIAL IMPLICATIONS

Costs associated with management of the Woodlands Conservation By-Law are included in the approved County of Lambton Budget, including revenues associated with the collection of Notice of Intent fees. In-lieu funds from exemption applications are used to continue a no net loss approach to the forest cover of Lambton County.

CONSULTATIONS

The St. Clair Region Conservation Authority ("SCRCA") was consulted in the preparation of this report.

STRATEGIC PLAN

Area of Effort #6: Corporate Sustainability - The County is committed to ensuring long-term environmental and financial sustainability in all its operations, by:

- Adopting and promoting environmentally sustainable practices in the face of climate change; and
- Undertaking environmental initiatives that protect and enhance woodlots and the County's natural heritage features, and target waste reduction, energy conservation, lower fuel consumption, and the use of sustainable technologies and processes.

CONCLUSION

Staff will continue to administer the Woodlands Conservation By-Law through the SCRCA. Landowner engagement to educate residents about the importance of woodlands is always a priority and discussed in all communication.

APPENDIX "A"

| | Types of Application 2024 | | | | | | | | | | | | | | | |
|-----------------------|---------------------------|------------------------|------------|-----------------|-------|-------------------------|----------------|---------------|---|--------------|---------|---------------|-------------|--------------------|-----|------|
| Municipality | For | ood estry esting | Li | nference mit | Во | rings ard options | Appro Exemp | | | nption | Investi | gations** | Pipeline*** | General Inquiry | TC | TAL |
| Brooke - | i iai v | esting | Harvesting | | LXGII | iptions | LXemp | ALIOI IS | | iie – | IIIVESI | gations | Преше | inquiry | | |
| Alvinston | | | | | | | 1 | | • | 1 | | | | 1 | 3 | 2% |
| Dawn - Euphemia | | 1 | 4 | 41 | | | | | | | | | | | 42 | 34% |
| Enniskillen | | | 20 | | | | 5 | | | | | | 1 | 26 | 21% | |
| Lambton Shores | | | , | 15 | | | 5 | ; | | | | 1 | | | 21 | 17% |
| Plympton - Wyoming | | 2 5 | | | | | | | | | | 2 | 2 | 11 | 9% | |
| Sarnia | | 1 | | | 1 | | | | | 2 | | 4 | 3% | | | |
| St. Clair | | 2 9 | | | 3 | | 1 2 | | | | 15 | 12% | | | | |
| Warwick | | 1 | | | | | | | | | 1 | | | 2 | 2% | |
| TOTAL | 5 | 18.1 acres | 92 | 1548.3 acres | 0 | 0.0 acres | 15 | 33.0 acres | 2 | 2.2 acres | 4 | 4.92 acres | 4 | 4 | 124 | 100% |

Approved Exemptions*

- Agriculture edge maintenance between the agriculture lands and the woodland
- Small scale squaring and straightening of woodland edges
- Areas that do not meet the definition of a woodland based on number of trees per acre or size of the woodland (hawthorn/ old pasture)

Investigations**

- One legal case currently before the court.
- Other matters have been settled through the Woodlands Conservation By-Law Officer or not a chargeable offence

AGENDA ITEM #e,

Pipeline Exemptions***

• Utility and pipeline right-of-way maintenance and installations

| INF COUNTY OF LAMBTON | FRASTRUCTURE & DEVELOPMENT SERVICES DIVISION |
|-----------------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | DEVELOPMENT SERVICES |
| PREPARED BY: | Corrine Nauta, Manager |
| REVIEWED BY: | Jason Cole, P. Eng., General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| SUBJECT: | Update Appointment By-Law For Building Inspectors |

The current Building Services Department By-Law No. 24 of 2024 being "A By-Law to Appoint a Chief Building Official and Inspectors for the County of Lambton" needs to be updated to reflect recent personnel changes.

DISCUSSION

A revised By-Law will be presented to County Council reflecting the following revisions:

1. Inclusion of Mr. Connor McEachen, Building Inspector.

FINANCIAL IMPLICATIONS

None.

CONSULTATIONS

The General Manager, Corporate Services, County Solicitor and Clerk was consulted as part of the preparation of this report.

STRATEGIC PLAN

Application of Area of Effort #5: Partnerships – The County is committed to developing stronger relationships with community partners, municipalities, and First Nations by:

 Cultivating sustainable relationships that include strategies to improve communication and understanding, and provide mutual assistance on projects.

| Lindete Appeintment Du Loui For Duilding Incorporary (2000 2) | Fahruari 40, 2025 |
|---|-------------------------|
| Update Appointment By-Law For Building Inspectors (page 2) | February 19, 2025 |
| CONCLUSION | |
| By-Law No. 24 of 2024 requires updating to reflect housekeeping within the Building Services Department. The appointments under required for the County to meet its obligations under the <i>Building</i> | er this By-Law are |
| RECOMMENDATION | |
| That Mr. Connor McEachen be appointed as Building Inspec 24 of 2024 be updated to reflect such changes. | tor and that By-Law No. |
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| COUNTY OF LAMBTON | INFRASTRUCTURE & DEVELOPMENT SERVICES DIVISION | | | |
|-------------------|---|--|--|--|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS | | | |
| DEPARTMENT: | DEVELOPMENT SERVICES | | | |
| PREPARED BY: | Corrine Nauta, Manager | | | |
| REVIEWED BY: | Jason Cole, P. Eng., General Manager Stéphane Thiffeault, Chief Administrative Officer | | | |
| MEETING DATE: | February 19, 2025 | | | |
| SUBJECT: | Update Delegation of Approval Authority under the Planning Act | | | |

By-Law No. 12 of 2023 being "A By-Law to Delegate the Authority to Approve Applications for Official Plans and Official Plan Amendments of Local Municipalities" and By-Law No. 67 of 1996 "A By-Law to delegate Approval Authority in respect of applications for approval of Plans of Subdivision and Condominium Descriptions", as amended by By-Law No. 20 of 2020, must be updated to reflect recent changes.

DISCUSSION

Effective January 2, 2025, the Building Services and Planning & Development Services Departments were merged into one, namely Development Services Department ("**Department**"). As part of this restructuring, the newly created Senior Planning Official will lead professional advisory and review roles within the Department.

To align with these changes, updates to the By-Laws are necessary to reflect revised position titles and designate an additional alternate for delegated planning approvals, which include: plans of subdivision and condominium, locally adopted official plans and associated amendments. This initiative aims to ensure departmental resilience and uninterrupted service in scenarios of planned or unexpected absences in the primary position.

Revised By-Laws will be presented to County Council for consideration reflecting the following revisions:

1. Changing the position title "Manager of Planning and Development Services" to "Senior Planning Official" in By-Law No. 12 of 2023.

Update Delegation of Approval Authority under the *Planning Act* (page 2)

February 19, 2025

2. Designating the "Manager of Development Services" as an additional alternate in both By-Law No. 12 of 2023 and By-Law No. 67 of 1996, as amended by By-Law No. 20 of 2020.

FINANCIAL IMPLICATIONS

None.

CONSULTATIONS

The General Manager, Corporate Services, County Solicitor and Clerk was consulted as part of the preparation of this report.

STRATEGIC PLAN

Application of Area of Effort #5: Partnerships – The County is committed to developing stronger relationships with community partners, municipalities, and First Nations by:

 Cultivating sustainable relationships that include strategies to improve communication and understanding, and provide mutual assistance on projects.

CONCLUSION

By-Law No. 12 of 2023 and By-Law No. 67 of 1996, as amended by No. 20 of 2020 require updating, following the establishment of the Development Services Department. These revisions, which include redefining position titles and appointing an additional alternate for delegated authority are essential steps to ensuring operational continuity and supporting effective service delivery. By aligning the By-Laws with current organizational structures, the County will fulfil its obligations as required by the *Planning Act*.

RECOMMENDATIONS

- a) That By-Law No. 12 of 2023 be amended as follows:
 - i. replace the Manager of Planning and Development Services with the Senior Planning Official; and
 - ii. include the Manager of Development Services as an additional alternate in fulfilling the delegated approval authority functions of the Senior Planning Official; and
- b) That By-Law No. 67 of 1996 and 20 of 2020 be amended to include the Manager of Development Services as an additional alternate in fulfilling the delegated

AGENDA ITEM #b)

| Up | odate Delegation of Approval Authority under the <i>Planning Act</i> (page 3) February 19, 2025 |
|----|---|
| | approval authority functions of the General Manager of Infrastructure and Development Services. |
| c) | That the By-Laws contemplated in paragraph a and b above be presented to County Council for consideration and approval. |
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| COUNTY OF LAMBTON | INFRASTRUCTURE & DEVELOPMENT SERVICES DIVISION |
|-------------------|--|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | PUBLIC WORKS |
| PREPARED BY: | Matt Deline, P.Eng., Manager |
| REVIEWED BY: | Jason Cole, P.Eng., General Manager Stephane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| SUBJECT: | County Road 19 (Michigan Avenue) Reconstruction |

County Road 19 (Michigan Avenue) in the City of Sarnia is under the jurisdiction of the County of Lambton from Christina Street to County Road 27 (Modeland Road).

As part of the 2025 Roads Construction Program, a stretch of Michigan Avenue from Colborne Road to County Road 29 (Indian Road) is scheduled to be fully reconstructed in a partnership project with the County and City. The scope of the project also includes replacement of a sanitary forcemain and watermain.

The County of Lambton Public Works Department endeavors to have a proactive approach to all projects and evaluate realistic alternatives where opportunities exist. As such, the County and the City have identified the project as cost-effective opportunity to consider continuation of the active transportation network which exists at the west limit of the project at Michigan Avenue and Colborne Road.

A traffic study was completed that concluded a four-lane cross section is not required for the current volume of traffic and the road can be reduced to a three-lane cross section while still maintaining a high level of service. The section of road is located along the Lambton County Regional Trail Network ("LCRTN") and is identified in the City of Sarnia Active Transportation Master Plan. Re-configuring the road provides the opportunity to enhance active transportation infrastructure and improve overall safety.

Following a December 11, 2024 public meeting, City of Sarnia Council endorsed the attached report at their January 20, 2025 Council meeting.

County Road 19 (Michigan Avenue) Reconstruction (page 2)

February 19, 2025

DISCUSSION

County Road 19 (Michigan Avenue), between Colborne Road and Indian Road is currently a four-lane undivided road. As part of the county arterial road network, the main purpose of Michigan Avenue is to efficiently move traffic through the City.

As acknowledged in the Roads Construction Program, the County Public Works Department identified County Road 19 (Michigan Avenue) from Colborne to Indian Road, as a section of road requiring reconstruction. Through discussions with the City regarding local infrastructure needs through the corridor, the possibility of implementing a 'road-diet', as well as accessibility improvements, was investigated. A recent traffic study confirms there is sufficient road capacity to implement a road-diet configuration.

A 'road-diet' can be broadly defined as a technique utilized to reduce the number of lanes on a roadway cross-section. One of the most common applications of a 'road-diet' is to improve safety and provide space for other modes of travel. In this scenario, Michigan Avenue is currently a two-way, four-lane road that will be revised to one travel lane in each direction, dedicated left-turn lanes, and bicycle lanes on either side of the roadway.

Road-diets can be successfully implemented on roads with Average Annual Daily Traffic (AADT) up to 15,000 vehicles, and in some cases up to 20,000. The proposed land configuration is presented in Figure 1.



Figure 1: Michigan Avenue Proposed Lane Configuration

County Road 19 (Michigan Avenue) Reconstruction (page 3)

February 19, 2025

The proposed reduction of travelled lanes and introduction of bike lanes through this corridor may subject the project to recent amendments to the *Highway Traffic Act* ("**HTA**").

The Ontario provincial government recently introduced <u>Bill 212</u>, which received Royal Assent on November 25, 2024. The legislation identifies amendments to the Highway Traffic Act, including that 'Municipalities are required, in certain circumstances, to obtain the Minister's approval before constructing bicycle lanes or to provide the Minister with information relating to existing bicycle lanes'.

The circumstances under which municipalities must seek permission from the Minister apply if the design for the bicycle lane would reduce the number of marked lanes available for travel by motor vehicle traffic along any portion of or on either side of the highway where the bicycle lane is to be located.

Based on the information currently available, the proposed project could be subject to these conditions and may need to be submitted to the Minister for approval. The detailed criteria and evaluation process have not been finalized by the province. City and County staff have contacted the Minister's office to obtain further details regarding evaluation criteria. No response or information has been provided as of the time of writing this report.

At this time, staff are comfortable with the level of study that has been completed to support the proposed design. The traffic safety improvements also provide significant justification to support the road design changes. Once the criteria referred to in the legislation has been released, or more information becomes available from the province on how applications will be received, staff will follow that direction. When received, the provincial direction may require documentation be authorized by Council. This report identifies in the recommendations that the Warden and Clerk be authorized to sign any associated documentation associated under Bill 212, as required.

FINANCIAL IMPLICATIONS

The costs associated with the County of Lambton's portion of the project to reconstruct County 19 (Michigan Avenue) is presented in the 2025 Tangible Capital Asset Budget as part of Project RDS-30401.

CONSULTATIONS

A public consultation, led by the City, was held at Northern Collegiate Institute and Vocational School on December 11, 2024 for members of the public. Residents on Michigan Avenue between Colborne Road and Indian Road were directly notified of the meeting in advance and notice was sent to media outlets as well.

A traffic study was completed by BT Engineering prior to engaging in design work to direct efforts towards the most appropriate solutions for the corridor.

County Road 19 (Michigan Avenue) Reconstruction (page 4)

February 19, 2025

Engineering staff from the City of Sarnia and County of Lambton were also consulted in preparation of this report.

STRATEGIC PLAN

Area of Effort #3 – Community Development, Health, and Wellness - The County's divisions follow various Council-approved strategic planning documents that provide direction in respect to Community Development, Health and Wellness. The County is committed to capitalizing on opportunities that enrich the quality of life and future prospects of the community, by:

 Strengthening the County's advocacy and lobbying efforts with other levels of government to raise the profile of the County and its needs to secure improved senior government supports, funding, grants, and other resources to meet emerging infrastructure and service needs.

Area of Effort #6 - Corporate Sustainability - The County is committed to ensuring long-term environmental and financial sustainability in all its operations, by:

- Continuing to implement strong financial plans, policies, and practices that bolster and safeguard municipal services and infrastructure;
- Adopting and promoting environmentally sustainable practices in the face of climate change; and
- Undertaking environmental initiatives that protect and enhance woodlots and the County's natural heritage features, and target waste reduction, energy conservation, lower fuel consumption, and the use of sustainable technologies and processes.

CONCLUSION

As part of the 2025 Roads Construction Program, a stretch of Michigan Avenue from Colborne Road to County Road 29 (Indian Road) is scheduled to be fully reconstructed in a partnership project between the County and City.

A recent traffic study confirms there is sufficient road capacity to implement a road-diet configuration, therefore as part of the reconstruction project the existing four-lane cross section will be reduced to a three-lane cross section, with bike lanes, while still maintaining a high level of service. Re-configuring the road provides the opportunity to enhance active transportation infrastructure and improve overall safety.

With the amendments to the *Highway Traffic Act* through Bill 212, staff will continue to collaborate with the City and pursue the necessary direction from the province as it relates to the criteria and approval for this project and others of this nature. The provincial direction may require documentation be authorized by Council. This report identifies in the recommendations that the Warden and Clerk be authorized to sign any associated

| County Road 19 (Michigan Avenue) Reconstruction (page 5) February 19, 2025 |
|--|
| documentation associated under Bill 212, as required. |
| RECOMMENDATION |
| That County Council authorize County staff to submit the County Road 19 (Michigan Avenue) reconstruction project to the province and authorize the Warden and Clerk to sign any associated documentation under Bill 212, if so required. |
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THE CORPORATION OF THE CITY OF SARNIA

People Serving People

ENGINEERING AND OPERATIONS DIVISION OPEN SESSION REPORT

TO: Mayor and members of Council

FROM: David Jackson, General Manager of Engineering and Operations

DATE: January 20, 2025

SUBJECT: Michigan Avenue Reconstruction and Road Diet

Recommendation:

It is recommended:

- That Sarnia City Council direct staff to proceed with the proposed road diet and bicycle lanes on Michigan Avenue between Colborne Road and Indian Road; and
- 2. That Sarnia City Council direct staff to implement a protected intersection design at the intersection of Colborne Road and Michigan Avenue; and
- 3. That Sarnia City Council authorizes City staff to submit this project to the province and authorize the mayor and clerk to sign any associated documentation under Bill 212, if so required.

Executive Summary:

Michigan Avenue will be reconstructed from Colborne Road to Indian Road this year. The project provides a cost-effective opportunity to consider continuation of the active transportation network and connection of the existing bicycle lanes on Colborne Road and Indian Road. The types of road changes proposed have also proven to improve safety and we have seen a significant reduction in collisions on recent projects of similar scope in the area. The 2018 road diet on Colborne Road has resulted in a 35% reduction in collisions along the corridor. The intersection of Michigan/Colborne averaged 6.3 collisions per year prior to the road diet and in recent years has averaged only 2.6 collisions per year, this is while experiencing an increase in traffic volume.

This section of Michigan Avenue is identified as a cycling route in the Transportation Master Plan (TMP) and Active Transportation Master Plan (ATMP) and would connect with existing bicycle lanes on Colborne Road and Michigan

Avenue, creating the first complete intersection that includes on-street bicycle infrastructure within the City.

A public meeting was held on December 11, 2024, to present information on the project, which includes a reduction of the four lane road two lanes with a center turn lane and dedicated bicycle lanes, removal of on-street parking, protected intersection design and accessibility improvements at Colborne Road as well as safety improvements at the Indian Road intersection.

Challenges of the proposed design based on public feedback include the loss of on-street parking, public concerns about potential traffic congestion and disruptions to residents during the construction period.

Staff recommend proceeding with the proposed design, subject to minor adjustments and based on further information from the Ministry of Transportation (MTO) regarding bicycle lane approvals.

Background:

The County of Lambton and City of Sarnia intend to jointly reconstruct County Road 19 (Michigan Avenue) between Colborne Road and Indian Road in 2025. The project scope includes full reconstruction of the road and replacement of a sanitary forcemain and watermain. Sarnia City Council has approved \$4 million for the re-construction of Michigan Avenue as part of the 2025 capital budget. The existing curb lane widths on Michigan Avenue are very narrow, while the current 4-lane configuration is overdesigned for the typical daily traffic. A traffic study was completed that concluded a 4-lane cross section is not required for the volume of traffic and the road can be reduced to a 3-lane cross section while still maintaining a high level of service. Re-configuring the road provides the opportunity to enhance active transportation infrastructure and improve overall safety.

At the February 2024 regular meeting, council <u>adopted the City of Sarnia Active Transportation Master Plan</u> and provided direction to staff to synergize the recommendations of the plan with planned capital investments.

Comments:

Road Diets

Currently Michigan Avenue, between Colborne Road and Indian Road is a 4-lane undivided road. As part of the county arterial road network, the main purpose of Michigan Avenue is to efficiently move traffic through the city.

The middle lane width is generally consistent at 3.0m and the substandard curb lane varies between 2.6 and 2.8m. On street parking is currently permitted in both directions, but under-utilized due to the road characteristics and adjacent land uses along the corridor. There is a sidewalk on the entirety of the north side

of Michigan Avenue which varies between 1.2m and 1.5m, and a sidewalk on the south side of Michigan Avenue from Indian Road to Briarfield Avenue which is 1.2m wide.

The City consulted the County of Lambton on the possibility of implementing a road diet as well as accessibility improvements on Michigan Avenue in conjunction with the infrastructure work that was needed along the corridor to recognize cost efficiencies. The road diet has already been completed on Michigan Avenue beginning in the Village of Point Edward and extending through to Colborne Road. The County of Lambton was supportive, with the demonstration that vehicular traffic would not be negatively impacted by any proposed changes.

A number of alternatives were reviewed with a 3-lane road configuration emerging as the preferred, balanced option for optimizing current and future traffic as well as providing appropriate space for other modes of transportation. Although the centre turning lane is not necessarily required from a volume perspective, the lack of a left turn lane would mean that when residents are waiting to turn left into their homes they would block through traffic. Providing infrastructure that supports active transportation is a key priority identified within the City's Official Plan, TMP and ATMP. Installing dedicated cycling infrastructure improves safety for cyclists and reduces barriers to active transportation for residents that are not comfortable cycling in vehicle lanes. High quality alternative modes of transportation make our city more attractive and livable.

One controversial aspect of implementing road diets and/or installing bike lanes is the reduction of on-street parking. This section of Michigan Avenue includes the cemeteries on the north and south side of the street for a significant portion resulting in less residential driveways than most streets. There is an opportunity to maintain some on street parking, though there would be disadvantages to the flow of through traffic with that option.

Road diets were completed on Colborne Road in 2018 and Michigan Avenue, west of Colborne Road in 2019. Both projects included the addition of bicycle lane infrastructure. Staff previously provided a report to council summarizing pre and post traffic information related to the Colborne and Michigan road diets. At the time of the report request, it was acknowledged that most of the post construction data would be impacted by differing traffic patterns during 2020 and 2021. Some key metrics from that report have been revisited for the section of Colborne Road that was dieted, excluding construction years (2018 and 2019) as well as those potentially impacted by the pandemic (2020-2021). The data includes the collisions at the intersection of Colborne/Michigan so the remainder of Michigan to Christina was not reviewed as the sample size is small. The results show that average number of reported collisions have decreased

along Colborne Road following the changes, while worth noting that traffic volumes have increased through the corridor between five and nine percent over the same period.

Table 1: Annual Average Collision Data Summary Pre/Post Road Diet

| Location | 2016-2017 | 2022-2024 | % Change |
|----------------|-----------|-----------|----------|
| Colborne Road* | 12 | 7.7 | -35.8% |
| Citywide Data | 1444 | 1515 | +4.91% |

^{*} Traffic volumes along Colborne Road increased between 5-9% between 2016/2017 and 2022/2024.

Other studies on road diets have concluded that following a road diet, collision rates generally decline between nineteen and forty-seven percent, which is consistent with this data.

Bicycle Lanes

The Ontario provincial government recently introduced <u>Bill 212</u>, which received Royal Assent on November 25, 2024. The legislation identifies amendments to the Highway Traffic Act, including that 'Municipalities are required, in certain circumstances, to obtain the Minister's approval before constructing bicycle lanes or to provide the Minister with information relating to existing bicycle lanes'.

The circumstances under which municipalities must seek permission from the minister apply if the design for the bicycle lane would reduce the number of marked lanes available for travel by motor vehicle traffic along any portion of or on either side of the highway where the bicycle lane is to be located.

Based on the information currently available, the Michigan Avenue Road diet could be subject to these conditions and may need to be submitted to the minister for approval. The detailed criteria and evaluation process have not been finalized by the province. Staff have contacted the minister's office on multiple occasions in order to obtain further details with respect to what information or metrics will need to be provided with the project information and application as well as how applications will be received. No response or information has been provided as of the time of writing this report.

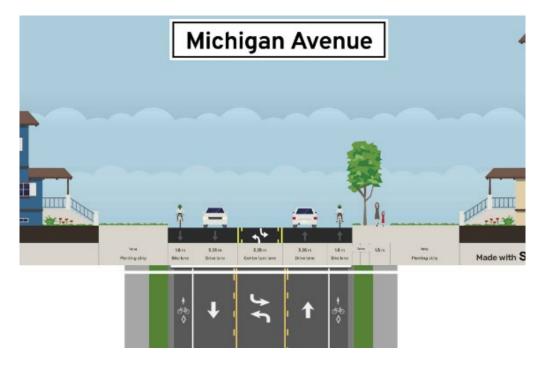
Staff are comfortable with the level of study that has been completed to support the proposed design on the basis of its demonstration that the road is over-designed for current and future volumes. The traffic safety improvements also provide significant justification to support the road design changes. Once the criteria referred to in the legislation has been released, or more information becomes available from the province on how applications will be received, staff will follow that direction. The project is currently planned for spring/summer

construction. In the absence of further direction from the province, it would be recommended that the project proceed as planned.

Proposed Design Changes

Following the study completion, the preferred solution incorporates a change from 4-lanes to 2-lanes with a centre turn lane and uni-directional cycling lanes, similar to the current design on Colborne Road. It was summarized that reducing the number of travel lanes of traffic will improve traffic safety and reduce higher vehicle speeds along the corridor, with the bicycle lanes providing safer infrastructure for active transportation in accordance with the City's ATMP.

Figure 1: Michigan Avenue Proposed Lane Configuration



The design presented at the December 11 public meeting proposes a number of changes to the corridor and intersections, in addition to the infrastructure repairs that are needed. Key items of change within the design include the following:

 Widening of the road platform - this would be recommended regardless of whether the existing configuration was maintained or the proposed configuration advances

- Reduction of four lane cross section to two lanes with centre turn lane and bicycle lanes
- Removal of on-street parking on Michigan Avenue
- Removal of right-hand slip lane at intersection of Michigan and Colborne.
- Protected intersection design at intersection of Michigan and Colborne
- Accessibility improvements at intersections at Colborne Road and Indian Road
- Adjustment of signal timing and sequence at intersection of Michigan and Colborne
- Addition of dedicated left hand turning lanes and signals at intersection of Michigan and Indian
- Widening of existing sidewalks to meet accessibility standards
- Extension of sidewalk on south side of Michigan Avenue

Intersection and Collision History

The intersections of Michigan Avenue at Colborne Road and Michigan Avenue at Indian Road have historically been higher collision frequency per volume intersections within the City, as the 5th and 28th rated intersections, respectively. During the 2018 road diet on Colborne Road, a reconfiguration was completed to align all left-hand turning movements at this intersection. A noted decrease in the number of intersection collisions, and in particular collisions related to left-hand turning movements has been observed at this location.

Modifications at intersections that restrict or reduce the intersection can be contentious due to the perceived negative impacts. The City has proposed and implemented a number of intersection changes in the past few years both permanent and temporary, which have resulted in a reduction of the number of collisions at each. A summary of this information is provided below.

Table 2: Intersection collision data for comparable improvements

| Intersection | Average Annual Collisions Prior to Improvements | Year Modified | Average Annual Collisions post improvement |
|----------------|---|------------------|--|
| Colborne & | 6.3 | 2018 | 2.6 |
| Michigan | | | |
| Indian & Errol | 2.6 | 2022 | 0.33 |
| Murphy & | 2.6 | 2023 | 0.5 |
| Cathcart | | | |
| Brock & | 3.5 | 2024 |]* |
| George | | | |

| Intersection | Average Annual Collisions Prior to Improvements | Year Modified | Average Annual Collisions post improvement |
|--------------|---|------------------|--|
| Michigan and | 4.5 | N/A | N/A |
| Indian | | | |

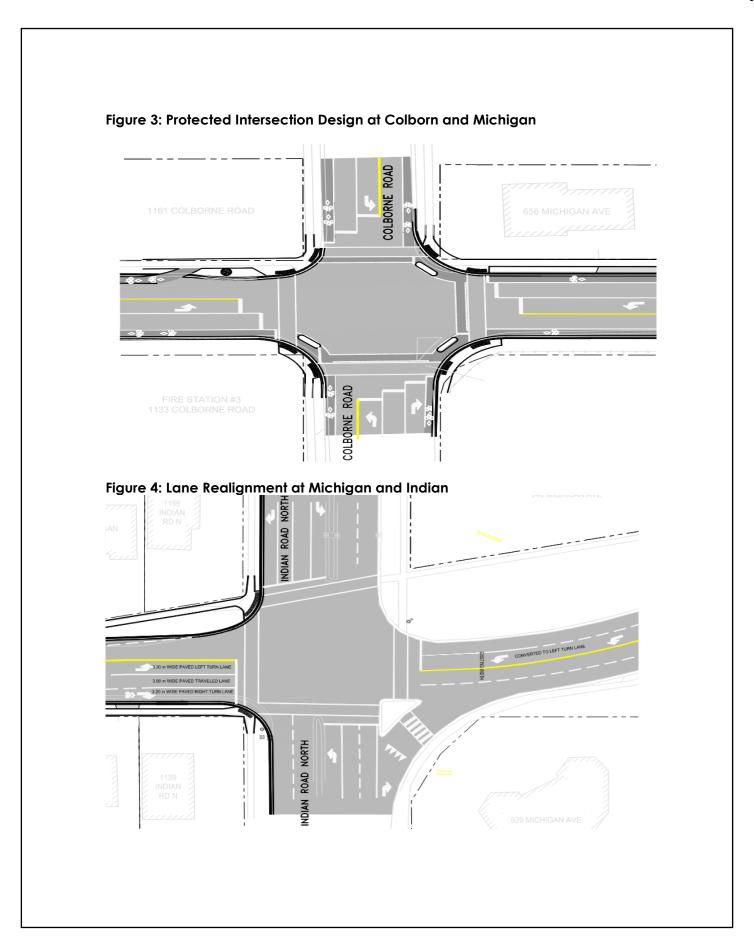
Average annual collisions prior to improvement reflect period from 2010 until the improvement was completed, excluding construction period, while post-improvement period is from project completion to December 2024. Resultingly, the sample sizes vary for each improvement.

The proposed design offers further safety improvements at the intersection of Colborne and Michigan, targeting the trend of collisions that are still happening there, as well as the similar improvement of aligning left hand turning at the Michigan/Indian intersection combined with the isolation of vehicles making the turning movements.

Figure 2: Existing NB Approach at Colborne and Michigan



^{*}Limited data period and reduced traffic due to construction



Public Consultation

A public consultation meeting was held on December 11, 2024 at Northern Collegiate Institute and Vocational School, to display the proposed plans for Michigan Avenue to the public and provide an opportunity for feedback and discussion with staff from the City of Sarnia and County of Lambton. Residents on Michigan Avenue between Colborne and Indian were provided with direct written notice of the meeting, while the general public was notified through print, radio and social media. Twenty-eight members of the public attended over the course of the meeting and took the opportunity to review plans, discuss the project with staff and leave feedback. An additional fourteen individuals contacted the engineering department by email following the meeting. 62% were in favour of the proposed design, 21% were opposed and 17% had general comments or construction related inquiries. Staff from Lambton Public health also provided written comments following the meeting, which are appended to this report.

A general summary of the comments received specific to the proposed plans is included below, including a highlight of changes being applied to the original plans as a result of the feedback.

In Favour

- Approval of road widening
- Support for reducing to 2 lanes of traffic with turning lanes
- Support for the inclusion of bicycle lanes
- Alignment of left hand turning moves at Indian Road will improve intersection safety
- Support for reduction in speeding
- Support for the removal of parking
- Extending active transportation network is good, should go beyond Indian Road
- They will help improve the image of our city and attract new residents, many people are looking for these types of amenities when choosing where to live
- Plans will improve safety for kids travelling to schools in the area
- Advanced green at Indian Road is supported
- Signal timing changes at Colborne Road are supported
- Pedestrian and cyclist safety improvements supported at Colborne Road
- Curb lane is not heavily used due to poor condition and narrow width
- Turning cars often result in weaving/delays so having dedicated turning space is supported

Opposed

- Removing traffic lanes in favour of bicycle lanes is not supported
- Concern with loss of boulevard space

- Loss of parking is not ideal

Loss of parking is typically the main objection to a road diet. On Michigan Avenue, on street parking is permitted on the curb lane in both directions between Colborne Road and Indian Road. There is limited uptake observed on this, with the exception being the easterly portion, approaching Indian Road. Staff regularly receive complaints about allowing on-street parking on four-lane roads in the City. The proposed road diet recommends the removal of all on-street parking, which is also supported by the County of Lambton, however some limited on-street parking can be incorporated into a compromised version of the road plan, if so directed.

- Backing in trailer would be more difficult
- Concern with driveway access and traffic volumes
- Reducing lanes would cause congestion
- Bicycle Lanes should be added behind curb, not on road

This concept was considered as one of the options, but space is already limited so this could not be accomplished without reducing the road width permanently. The proposed plans allow for the opportunity to revert at a low cost should traffic volumes drastically increase and force a demand for more vehicle lanes in the future.

- Concerns with disruption during construction noise, vibration and driveway access
- Sidewalks should have more separation from the road
- Concerns with centre turning lane and cars meeting in this lane
- Bicycle lanes should be consistent throughout the City different facility types are confusing for drivers
- Side streets off Michigan Avenue in need of asphalt resurfacing
- Fire hydrant too close to driveway
- Plan does not extend sidewalk on south side of Michigan
- No data to support the installation of bicycle lanes specifically
- Dangerous because cars speed on this road and it has lots of collisions
- Could have a negative impact on emergency response times

 Police and Fire have both indicated their support for the previous
 road diet proposals and did not indicate concerns about impact to
 their response times.
- Not a good use of tax dollars and funds could be better used elsewhere Road Dieting is a low cost compliment to the budget approved reconstruction project. The additional spending on signage and paint will represent a significant benefit for a minor cost relative to the overall upgrades. Studies indicate, and local data verifies, that road diets reduce collisions which ultimately reduces costs to society related to those.

Changes to original proposal following engagement

- Extension sidewalk on south side of Michigan, west of Briarfield
- Relocation of hydrant
- Advanced left hand turn signal at Indian Road
- Crosswalk improvements North side at Indian Road

Consultation:

A public consultation was held at Northern Collegiate Institute and Vocational School on December 11, 2024 for members of the public. Residents on Michigan Avenue between Colborne Road and Indian Road were directly notified of the meeting in advance.

A traffic study was completed by BT Engineering prior to engaging in design work to direct efforts towards the most appropriate solutions for the corridor.

Engineering staff from the City of Sarnia and County of Lambton were also consulted in preparation of this report.

Financial Implications:

The 2025 approved budget for the Michigan Avenue reconstruction is \$4 million. This includes the replacement of the sanitary forcemain and watermain.

The cost of marking and signage for the road diet will have a negligible impact on the overall budget as both line painting and signage would form part of the original reconstruction costs. Additional signage and painting for the proposed bicycle lanes would be approximately 10k beyond a re-design without the proposed bicycle lanes.

The cost of the signalization and lane modifications at intersections, protected intersection design, and accessibility improvements for this project, including the wider sidewalk and accessible pedestrian signals at each intersection is estimated at 150k, or 3.75% of the total project cost. These funds have been approved as part of the 2025 Active Transportation Budget.

Reviewed by: Approved by:

David Jackson Chris Carter

General Manager of Engineering and Chief Administrative Officer

Operations

This report was prepared by Alister Brown, Manager of Development and Transportation.

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| Attachment(s): | |
| Letter from Lambton Public Health | |
| i. Letter from Lampion Fublic nealth | |
| 2. Plans Presented at Public Meeting | |
| 2. Trans trosomod art oblic wooming | |
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Lambton Public Health 162 Lochiel Street, Suite 100 Sarnia, ON N7T 7W5 Telephone: 519-383-8331 Toll-free: 1-800-387-2882 www.lambtonpublichealth.ca

December 17, 2024

Mr. Alister Brown Manager of Development/Transportation The City of Sarnia 255 Christina Street North Sarnia, ON N7T 7N2

Dear Mr. Brown:

Re: Michigan Avenue Bike Lanes

Lambton Public Health is supportive of the proposed bike lanes along Michigan Avenue as we believe the addition of bicycle lanes will support safer east-west travel options for persons cycling for active transportation or recreation purposes.

The protected intersection measures identified at the Colborne Road and Michigan Avenue intersection will benefit cyclists by increasing their visibility to drivers and help separate the cyclist from turning vehicles.

While understanding that this bike lane development is being phased in over time as Michigan Avenue undergoes resurfacing/underground infrastructure upgrades, we believe additional measures, such as <u>protected intersections</u>, are needed to reduce conflict at the Indian Road and Michigan Avenue intersection. Measures to maintain the separation of bicycles and vehicles approaching the intersection are especially important to protect elementary and high school students who may use the bike lane for school travel. Bicycle signals with leading bicycle interval could also help improve cyclist safety.

Cycling lanes with protected intersection measures along Michigan Avenue can help increase child and youth physical activity levels by providing active travel connections for students attending nearby schools (Northern Collegiate, St. Thomas, Rosedale, Les Rapides). Children 5-17 years of age need at least 60 minutes per day of moderate to vigorous physical activity with several hours of light physical activity to achieve optimal health. Further, since more active children tend to do better in school increasing cycling to school rates can contribute to improved learning.

Cycling for active transportation or recreation can also help adults reach the 150 minutes of physical activity per weekⁱⁱ needed for optimal health. This important east-west connection can make cycling for errands, commuting or recreation a safer, more enjoyable option for residents.

While understanding concerns related to loss of parking, many of the homes on Michigan Avenue have driveways that can accommodate multiple vehicles and most side street parking is

www.lambtononline.ca



only a 1–4-minute walk (~100-370 m). Prioritizing transportation equity and the health benefits and environmental benefits of cycling infrastructure over additional parking desires is important to improve population health.

Thank you in advance for your consideration.

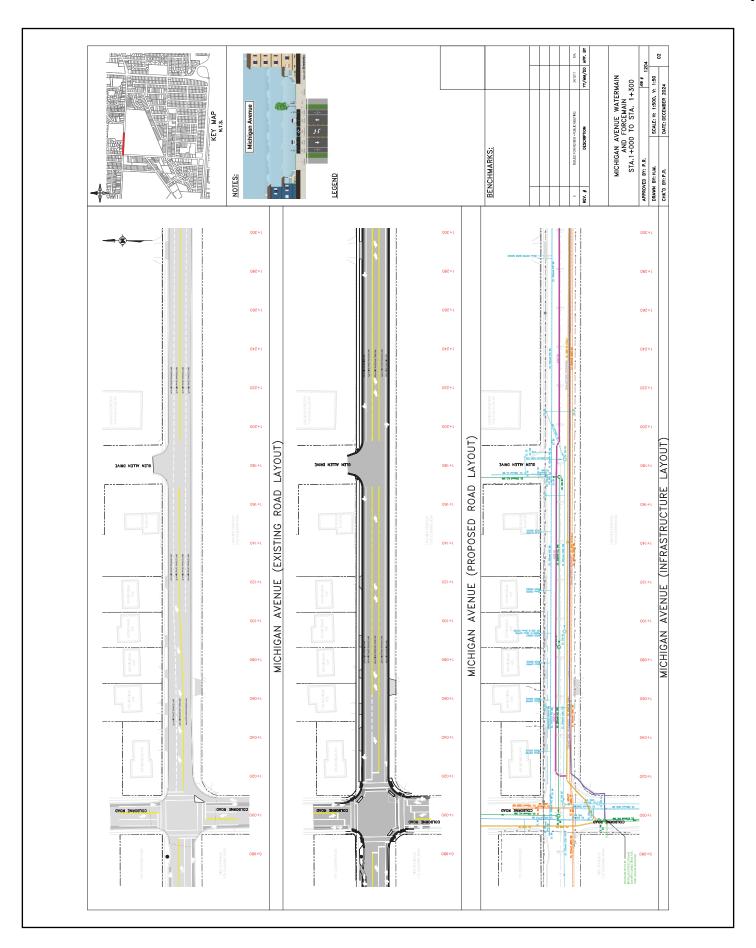
Sincerely,

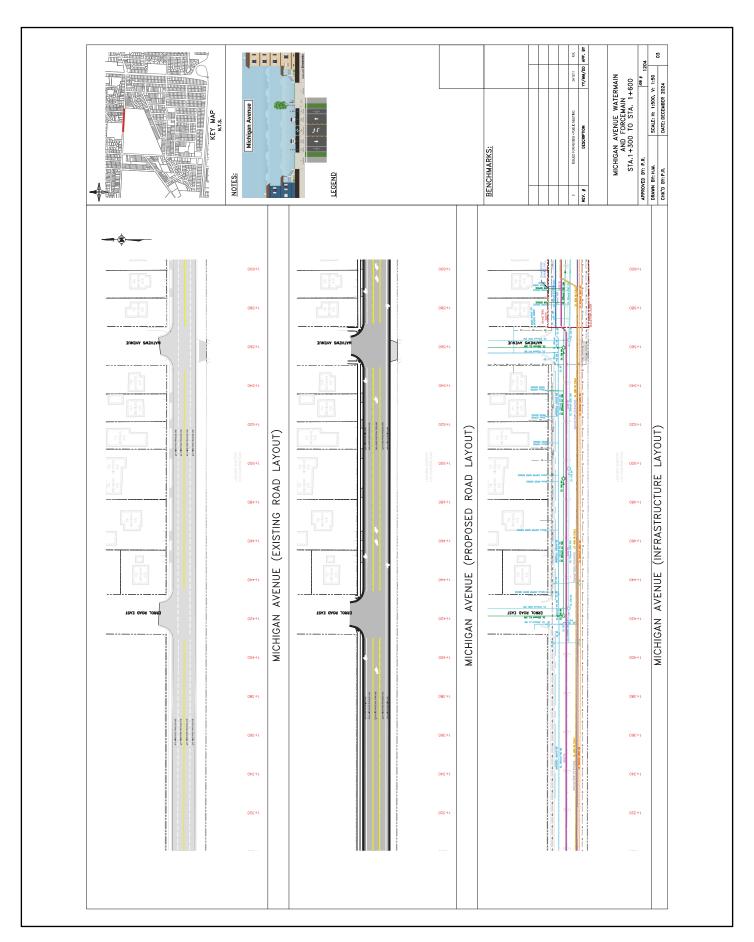
Kelley Elliott Health Promoter

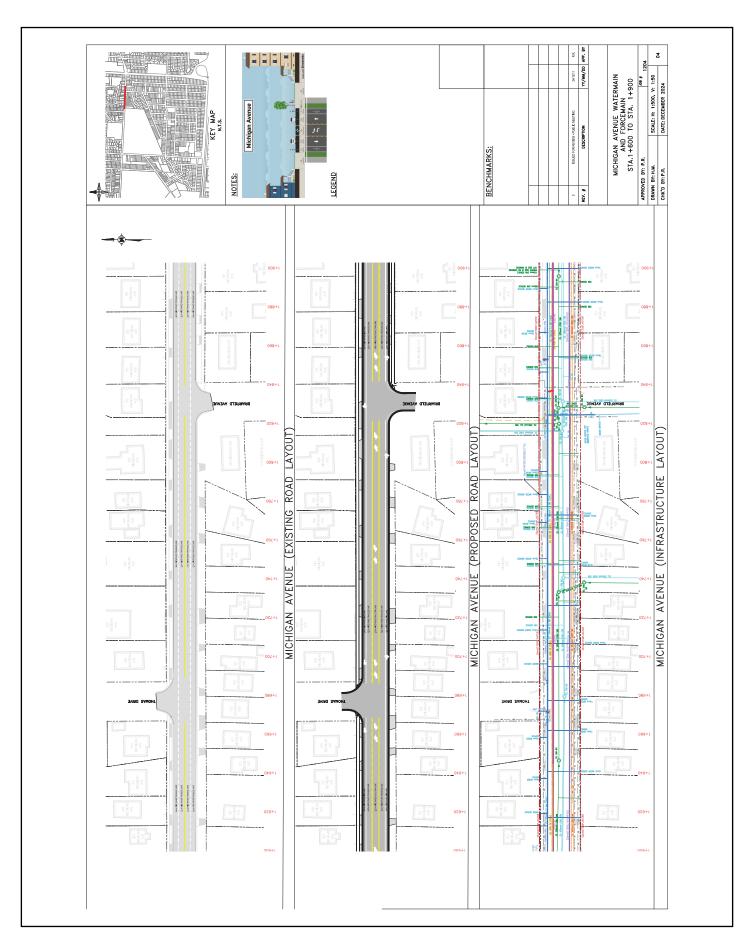
Kelley Elliott

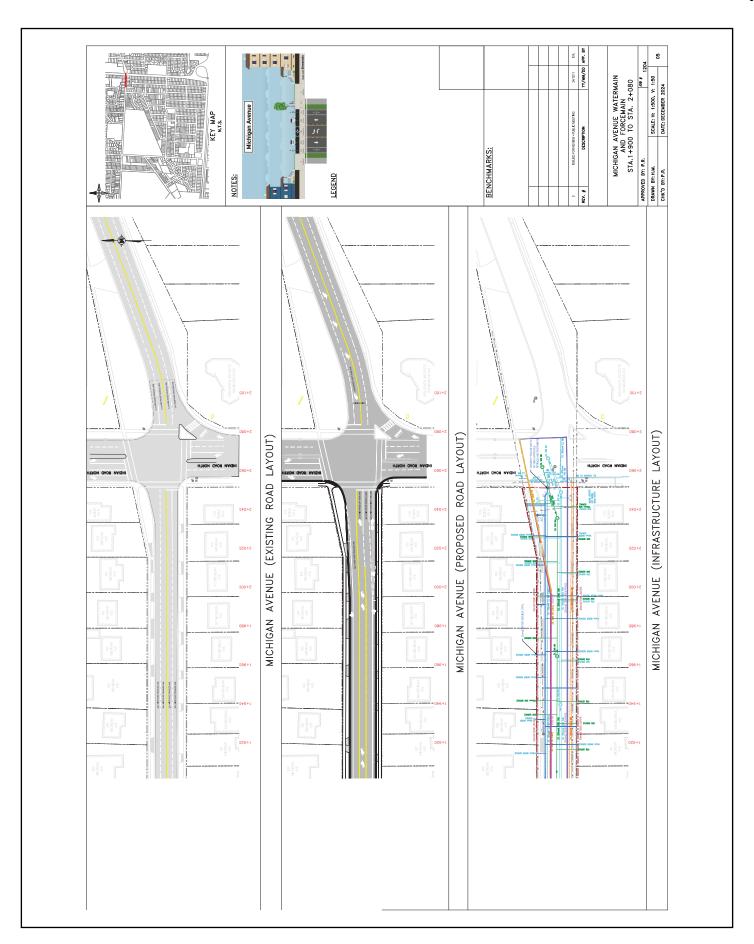
¹ The Canadian 24-hour movement guidelines for adults ages 5-17 years. https://csepguidelines.ca/guidelines/children-youth/ (Accessed December 13, 2024)

ⁱⁱ The Canadian 24-hour movement guidelines for adults ages 18-64 years. https://csepguidelines.ca/guidelines/adults-18-64/ (Accessed Dec 13, 2024













Traffic Calming and Road Diet StudyMichigan Road (Colborne Road to Blackwell Road) Sarnia, Ontario

January 2025, Revision 2

Submitted by:

BT Engineering Inc. 509 Talbot Street London, ON N6A 2S5 519-672-2222





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1.0 INTRODUCTION

The City of Sarnia retained BTE to examine the feasibility of implementing a road diet on Michigan Avenue from Colborne Road to Blackwell Road. A road diet is a reduction in the number of travel lanes or road width for motor vehicles and use of this space for other users/travel modes. Reducing the road width available for motor vehicles (road diet) can also be an effective traffic calming measure.

This study reviewed existing traffic operation and intersection capacity to determine the feasibility of reducing Michigan Avenue from 4 to 3 lanes. This included an evaluation of benefits/impacts to help in defining a recommended plan. The goal of the study was to identify a suitable cross section that will best accommodate active transportation (i.e. pedestrians/cyclists), parking, transit and vehicular traffic. The draft Traffic Calming and Road Diet Study report recommendations have been updated with site specific adjustments and summarized in this Final Report.

1.1 Study Area

The Study Area is located within Lambton County in the City of Sarnia and is illustrated in **Figure 1.** The Study Area includes approximately 2.6 km of Michigan Avenue from Colborne Road to Blackwell Road.

Michigan Avenue (County Road 19), through the Study Area, is a 4-lane east-west arterial road providing access to residential, commercial and institutional properties. The study area includes three signalized intersections (Colborne Road, Indian Road and Murphy Road) and several intersections where the side streets are stop controlled. The existing County Road right-of-way varies, but is typically 26.2 m through the Study Area with a posted speed limit of 50 km/h.





Figure 1: Study Area

1.2 Background Information

As part of the plan to promote cycling, the City of Sarnia Transportation Master Plan (June 2014) identified Michigan Avenue from Front Street to Modeland Road as a long-term route that forms part of the Lambton Regional Trail Network. The goal of this connection is to "encourage development of bikeways as opportunities arise over the long term" (Transportation Master Plan, 2014).

The land use in the area is predominantly Urban Residential and Open Space with a Commercial Hub located at Murphy Road/Michigan Avenue with several schools also located along the corridor. Existing land uses and constraints are illustrated on **Figure 2**.

As identified on **Figure 2**, Elementary School Les Rapides (located southeast of Michigan Avenue/Murphy Road) has a bus loading zone on the south curb lane of Michigan Avenue, and Alexander Mackenzie Secondary School (located east of Murphy Road on the south side of Michigan Avenue) has a Bus Loading Zone Bay adjacent to Michigan Avenue.





Figure 2: Existing Land Uses and Constraints

1.3 Road Diets

This Study has evaluated the feasibility of a lane reduction (road diet) on Michigan Avenue. A Road Diet refers to the removal of travel lanes and utilization of the space for non vehicular alternative uses/travel modes including bike lanes, transit uses, parking etc. One of the most common road diets is the conversion of a 4-lane road to a 3-lane road with 2 through lanes, a centre-turn lane and bicycle lanes.

Examples of road diets previously implemented within the City of Sarnia include:

- Michigan Avenue west of Colborne Road. The cross section was reduced from a 4-lane undivided roadway to a 2-lane road with bicycle lanes, with turn lanes at key locations and on-street parking restricted to one side in specific midblock locations, as shown in Photo 1.
- Colborne Road from Cathcart Boulevard to Exmouth Street. The cross section was
 reduced from a 4-lane undivided roadway to a 3-lane road with a two-way left-turn lane
 and bicycle lanes, as shown in Photo 2.





Photo 1: Michigan Avenue West of Colborne Road



Photo 2: Colborne Road South of Errol Road West

As outlined in the US Department of Transportation Federal Highway Administration's Road Diet Informational Guide, road diets and the reallocation of space have the potential to improve safety for all users. The reallocation of the existing roadway width can often be done with changes to the pavement markings, without physical changes to the existing road structure. Typical benefits of a road diet include:

- Ability to provide a dedicated space within the right-of-way for cyclists;
- Reduction in operating speeds and the speed differential of vehicles between lanes;



- Reduction in the frequency and severity of vehicle-vehicle, vehicle-pedestrian, and vehicle-cyclist collisions (reduction in conflict points); and
- Greater separation between vehicular travel lanes and pedestrians, cyclists and residences/businesses.

2.0 EXISTING CONDITIONS

2.1 Active Transportation

Pedestrians are accommodated with 1.2 m sidewalks throughout the Study Area. A sidewalk is provided on the north side of the road between Colborne Road and Briarfield Avenue and on the north and south side of the road between Briarfield Avenue and Blackwell Road. There are portions of curb-faced sidewalk on the south side of Michigan Avenue between Murphy Road and Blackwell Road.

There are currently no provisions to accommodate cyclists.

2.2 Transit Service

Sarnia Transit Routes 5A, 5B and 7 serve the Study Area with bus stops provided periodically along the corridor. Elementary School Les Rapides, located on the west side of Murphy Road, currently uses the east bound curb lane as a loading zone for school buses.

2.3 Other Issues

A primary objective of a potential roadway diet is to create a more pedestrian and cyclist friendly environment along a corridor. This is consistent with the objectives identified along Michigan Avenue as part of the Transportation Master Plan. The right-turn channelization that exists on northbound Colborne Street and Indian Road N at Michigan Avenue improves the flow of vehicle traffic but represent an additional hazard for pedestrians and the attention of motorists is often directed towards the on-coming traffic to their left reducing their awareness of pedestrians to their right.



3.0 ROADWAY CROSS SECTION

3.1 Existing Cross Section

Michigan Avenue (County Road 19) through the Study Area is a 4-lane arterial road. The existing 4-lane cross section generally provides 12.6 m pavement width with one 3.2 m lane and one 3.1 m lane (2.8 m lane plus 0.3 m gutter) in each direction. The typical cross section within the Study Area is illustrated in **Figure 3**.

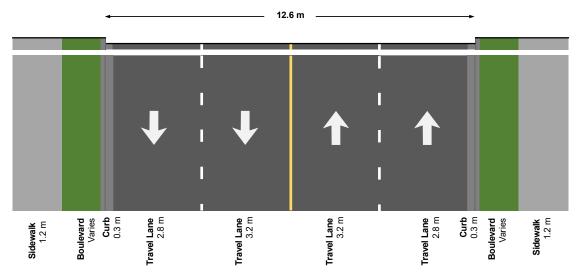


Figure 3: Existing Cross Section

3.2 Road Diet Cross Section Alternatives

Cross section alternatives were developed for potential road diets on Michigan Avenue utilizing the space available within the right-of-way. These alternatives were developed based on the TAC Geometric Design Guide and OTM Book 18, and are described as follows:

Alternative 1: 4-Lane Cross Section (Existing Configuration)

This alternative represents a "do-nothing" scenario and provides a baseline for comparison. This alternative would maintain the existing 4-lane cross section with no provisions for cyclists. Parking would be permitted along the curb lanes of Michigan Avenue unless otherwise posted.

Alternative 2: 2-Lane Cross Section with Bike Lanes and a Parking Lane

This alternative includes two 3.2 m travel lanes, two 1.5 m bike lanes and a 2.7 m parking lane. This alternative is illustrated in **Figure 4.** Parked cars will reduce the visibility of cyclists and doors opening on cars parked adjacent to the bike lane is recognised to represent a potential



hazard for cyclists. A 0.5 m buffer would therefore be proposed between the parking lane and bike lane. The location (north vs. south side) of the parking lane could be selected based on adjacent land uses. Directional turn lanes (similar to Alternative 4) could be provided for access at key side streets.

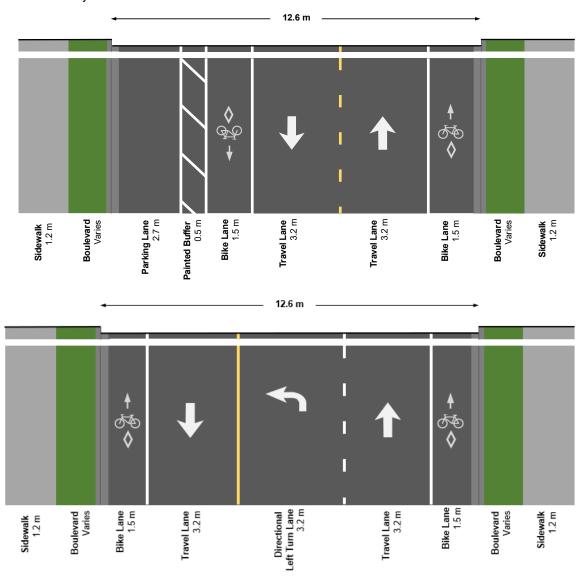


Figure 4: Alternative 2 Cross Section (2 Lanes with Parking / Directional Left Turn Lanes and Bike Lanes)



Alternative 3: 3-Lane Cross Section with Multi-Use Path

This alternative includes a 3-lane cross section with: two 3.2 m travel lanes; a 3.6 m two-way left-turn lane; and a 4.0 multi-use path located in the boulevard. This alternative, illustrated in **Figure 5**, would require roadway reconstruction to relocate the curb line and catch basins along one side of the existing road.

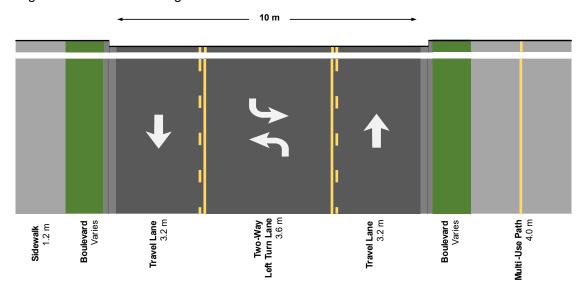


Figure 5: Alternative 3 Cross Section (3 Lanes with Multi-Use Path)

Alternative 4: 3-Lane Cross Section with Bike Lanes

This alternative includes a 3-lane cross section with: two 3.0 m travel lanes; a 3.6 m two-way left-turn lane; and two 1.5 m bike lanes. This alternative is illustrated in **Figure 6.**



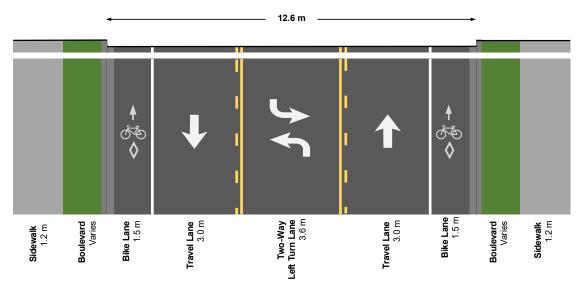


Figure 6: Alternative 4 Cross Section (3 Lanes with Bike Lanes)

Alternative 5: 3-Lane Cross Section with Raised Cycle Track

This alternative includes a 3-lane cross section with: two 3.2 m travel lanes; a 3.6 m two-way left-turn lane; and two 1.5 m raised cycle tracks. This alternative, illustrated in **Figure 7**, would require reconstruction of the existing road including the relocation of the existing curbs.

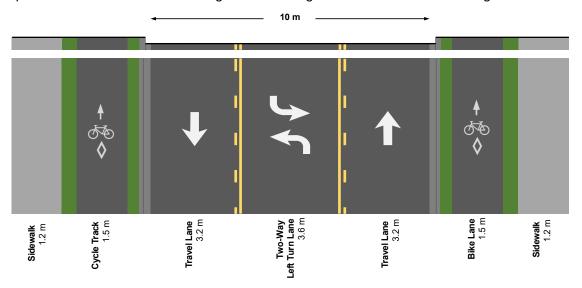


Figure 7: Alternative 5 Cross Section (3 Lanes with Cycle Track)



4.0 TRAFFIC VOLUMES AND OPERATION

4.1 Existing Traffic

Existing traffic demands at key intersections were obtained from peak period traffic counts provided by the City. Additionally, Automatic Traffic Recorder (ATR) counts were completed on segments of Michigan Avenue. A list of the intersections / segments and the counts obtained is presented in **Table 1**.

Table 1: Turning Movement Count Location and Source

| Intersection | Source | Date |
|--|----------------------|--------------------|
| Michigan Avenue at Colborne Road | City of Sarnia | September 13, 2018 |
| Michigan Avenue at Indian Road | City of Sarnia | June 15, 2022 |
| Michigan Avenue at Murphy Road | City of Sarnia | June 23, 2022 |
| Segment | Source | Date |
| Michigan Avenue between Colborne Road and Indian Road | Ontario Traffic Inc. | June 15, 2022 |
| Michigan Avenue between Indian Road and Murphy Road | Ontario Traffic Inc. | June 15, 2022 |
| Michigan Avenue between Murphy Road and Blackwell Road | Ontario Traffic Inc. | June 15, 2022 |

4.1.1 Daily Traffic Volumes

The traffic counts determined the daily traffic volumes on Michigan Avenue to be:

- Between Colborne Road and Indian Road: 12,100 vehicles
- Between Indian Road and Murphy Road: 12,800 vehicles
- Between Murphy Road and Blackwell Road: 12,500 vehicles

4.1.2 Traffic Volumes (Intersection Turning Movements)

Existing lane configurations are shown in **Figure 8**, and peak hour traffic demands are shown in **Figure 9**.



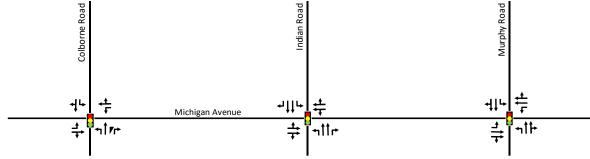


Figure 8: Existing Lane Configurations

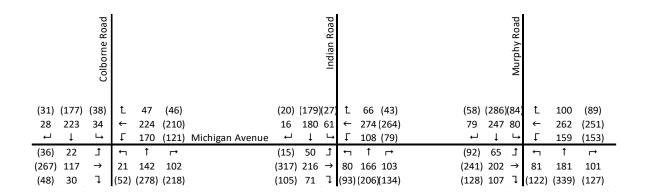


Figure 9: Existing (2022) Traffic Volumes

The existing roadway capacity in the area was analysed using Synchro 11 and is summarized in **Table 2.** Detailed analysis reports are provided in **Appendix A**.

The analysis found that all existing intersections operated well within their capacity, at a high level of service during the peak hours.



Table 2: Existing Traffic Operations

| | | | AM Pe | ak Hou | ır | | PM Pe | ak Hou | ır |
|---|----------|------|-------|--------|-------|------|-------|--------|-------|
| | | | | | 95th | | | | 95th |
| | | | Delay | | Queue | | Delay | | Queue |
| Intersection | Movement | V/C | (s) | LOS | (m) | V/C | (s) | LOS | (m) |
| | EBL | 0.08 | 16.5 | В | 6.8 | 0.13 | 16.6 | В | 9.5 |
| | EBTR | 0.31 | 16.3 | В | 26.0 | 0.65 | 24.2 | С | 57.6 |
| | WBL | 0.33 | 10.1 | В | 21.2 | 0.30 | 8.6 | Α | 15.1 |
| Michigan | WBTR | 0.35 | 10.7 | В | 34.0 | 0.33 | 8.4 | Α | 28.4 |
| Avenue at | NBL | 0.07 | 15.0 | В | 6.4 | 0.17 | 16.4 | В | 12.3 |
| Colborne | NBT | 0.27 | 16.7 | В | 25.9 | 0.54 | 21.3 | С | 50.0 |
| Road | NBR | 0.19 | 3.8 | Α | 7.9 | 0.37 | 4.5 | Α | 13.3 |
| | SBL | 0.10 | 15.2 | В | 8.8 | 0.14 | 16.4 | В | 9.9 |
| | SBTR | 0.47 | 18.9 | В | 43.4 | 0.41 | 17.6 | В | 35.6 |
| | | | 13.6 | В | | | 15.4 | В | |
| | EBLTR | 0.46 | 13.8 | В | 21.1 | 0.36 | 18.9 | В | 37.6 |
| | WBLTR | 0.65 | 18.9 | В | 31.6 | 0.39 | 12.7 | В | 25.8 |
| | NBL | 0.16 | 9.9 | Α | 13.5 | 0.20 | 14.0 | В | 15.3 |
| Michigan | NBT | 0.11 | 8.6 | Α | 11.1 | 0.14 | 12.5 | В | 12.6 |
| Avenue at | NBR | 0.14 | 3.0 | Α | 7.4 | 0.17 | 3.8 | Α | 8.2 |
| Indian Road | SBL | 0.12 | 9.5 | Α | 10.7 | 0.07 | 12.4 | В | 6.6 |
| | SBT | 0.12 | 8.6 | Α | 11.8 | 0.15 | 12.5 | В | 13.5 |
| | SBR | 0.02 | 0.4 | Α | 0.5 | 0.04 | 1.3 | Α | 1.3 |
| | | | 12.8 | В | | | 13.8 | В | |
| | EBL | 0.17 | 12.6 | В | 12.4 | 0.23 | 13.2 | В | 16.3 |
| | EBTR | 0.37 | 15.1 | В | 23.3 | 0.44 | 15.9 | В | 27.6 |
| Michigan | WBL | 0.40 | 15.5 | В | 26.3 | 0.41 | 15.7 | В | 25.3 |
| Michigan Avenue at Murphy Road | WBTR | 0.40 | 18.2 | В | 31.1 | 0.38 | 18.3 | В | 29.6 |
| | NBL | 0.20 | 12.9 | В | 14.7 | 0.30 | 14.0 | В | 20.7 |
| | NBTR | 0.31 | 14.1 | В | 21.3 | 0.52 | 20.6 | С | 41.8 |
| | SBL | 0.19 | 12.8 | В | 14.5 | 0.25 | 13.5 | В | 15.2 |
| | SBTR | 0.36 | 18.5 | В | 28.8 | 0.39 | 20.5 | С | 32.5 |
| | | | 16.0 | В | | | 17.9 | В | |



4.2 Future Traffic

Traffic analysis was completed for a 20-year planning horizon (2042). As a worst-case scenario, a 1.5% growth rate per year was assumed and applied to existing traffic. The resulting 2042 future traffic volumes are presented in Figure 10.

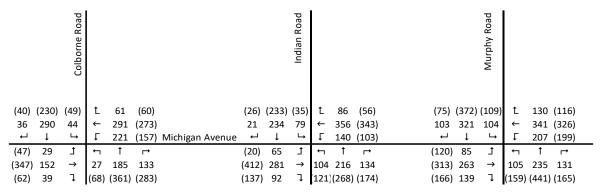


Figure 10: 2042 Projected Traffic Volumes - AM Peak (PM Peak)

4.2.1 Future Traffic Operation (Existing Lane Configuration)

Table 3 provides a summary of the future traffic operations in 2042 maintaining the existing lane configurations. The intersections under study are anticipated to continue to operate well within their capacity. During the PM peak hour, some movements will have longer queue lengths, but the movements continue to have a reasonable level of service (LOS) and delay.

Table 3: Future Traffic Operations (Existing Lane Configurations)

| | | AM Pe | ak Hou | ır | PM Pe | ak Hour | • |
|--|-------|-------|--------|-------|---------|---------|---|
| | | | | 95th | | | |
| | | Delay | | Queue | Delay | | (|
| | 1 | , , | | | , , | | |

| | | AM Peak Hour | | | | PM Pe | eak Hou | ır | |
|--------------|----------|--------------|-------|-----|-------|-------|---------|-----|-------|
| | | | | | 95th | | | | 95th |
| | | | Delay | | Queue | | Delay | | Queue |
| Intersection | Movement | V/C | (s) | LOS | (m) | V/C | (s) | LOS | (m) |
| | EBL | 0.11 | 16.6 | В | 8.4 | 0.18 | 17.6 | В | 11.8 |
| | EBTR | 0.39 | 17.5 | В | 32.8 | 0.84 | 36.5 | D | #93.6 |
| | WBL | 0.43 | 10.6 | В | 28.6 | 0.52 | 14.6 | В | 19.8 |
| Michigan | WBTR | 0.45 | 12.1 | В | 46.5 | 0.43 | 11.3 | В | 41.8 |
| Avenue at | NBL | 0.12 | 16.2 | В | 7.7 | 0.26 | 18.2 | В | 15.8 |
| Colborne | NBT | 0.36 | 18.1 | В | 33.3 | 0.70 | 26.5 | С | #74.9 |
| Road | NBR | 0.25 | 4.6 | Α | 10.4 | 0.45 | 4.7 | Α | 15.0 |
| | SBL | 0.14 | 16.0 | В | 10.7 | 0.25 | 19.1 | В | 12.7 |
| | SBTR | 0.64 | 23.2 | С | 58.8 | 0.53 | 20.0 | С | 47.0 |
| | | | 15.3 | В | | | 20.4 | С | |



| | | | AM Pe | ak Hou | ır | | PM Pe | ak Hou | ır |
|--------------------|----------|------|-------|--------|-------|------|-------|--------|-------|
| | | | | | 95th | | | | 95th |
| | | | Delay | | Queue | | Delay | | Queue |
| Intersection | Movement | V/C | (s) | LOS | (m) | V/C | (s) | LOS | (m) |
| | EBLTR | 0.42 | 15.9 | В | 36.0 | 0.48 | 20.7 | С | m45.0 |
| | WBLTR | 0.60 | 15.0 | В | 41.3 | 0.56 | 15.4 | В | 36.8 |
| | NBL | 0.29 | 16.2 | В | 20.2 | 0.33 | 16.0 | В | 22.7 |
| Michigan | NBT | 0.19 | 13.5 | В | 16.3 | 0.23 | 13.1 | В | 19.2 |
| Avenue at | NBR | 0.23 | 3.8 | Α | 9.6 | 0.27 | 3.5 | Α | 10.6 |
| Indian Road | SBL | 0.22 | 15.0 | В | 15.9 | 0.22 | 14.4 | В | 15.5 |
| | SBT | 0.21 | 13.6 | В | 17.5 | 0.20 | 12.9 | В | 17.0 |
| | SBR | 0.04 | 1.5 | Α | 1.5 | 0.04 | 1.4 | Α | 1.5 |
| | | | 13.9 | В | | | 15.1 | В | |
| | EBL | 0.24 | 13.4 | В | 15.3 | 0.33 | 14.5 | В | 20.4 |
| | EBTR | 0.48 | 17.1 | В | 31.2 | 0.57 | 19.4 | В | 38.7 |
| Michigan | WBL | 0.57 | 20.0 | В | 33.9 | 0.61 | 21.8 | С | #33.0 |
| Michigan Avenue at | WBTR | 0.51 | 21.0 | С | 41.7 | 0.49 | 20.4 | С | 39.7 |
| | NBL | 0.48 | 17.4 | В | 26.3 | 0.48 | 17.4 | В | 26.3 |
| Murphy Road | NBTR | 0.67 | 24.4 | С | 57.5 | 0.67 | 24.4 | С | 57.5 |
| Ruau | SBL | 0.38 | 15.8 | В | 18.7 | 0.38 | 15.8 | В | 18.7 |
| | SBTR | 0.56 | 23.9 | С | 42.9 | 0.56 | 23.9 | С | 42.9 |
| | | | 20.9 | С | | | 21.2 | С | |

- 95^{th} percentile traffic exceeds capacity, actual queue lengths may be longer

m - 95th percentile queue is metered by an upstream signal

4.2.2 Future Traffic Operation (With Road Diet)

A summary of future (2042) traffic operations at key locations with implementation of a road diet is provided in **Table 4**. The analysis assumed that a shared through/right-turn lane and left-turn lane would be provided at all intersections on Michigan Avenue The intersections under study are anticipated to operate similar to the future traffic with the existing lane configuration scenario. The road network will continue to operate well within its capacity with some minor delays during the PM peak hour. The greatest impact is projected to be experienced at the intersection with Murphy Road where, by 2042, although the over-all level-of-service would remain reasonable implementation of the roadway diet would increase the projected pm peak hour traffic delays by over 50%.



Table 4: Future Traffic Operations (with Road Diet)

| | | AM Peak Hour | | | | PM Peak Hour | | | |
|-----------------------------|----------|--------------|-------|-----|-------|--------------|-------|-----|--------|
| | | | | | 95th | | | | 95th |
| | | | Delay | | Queue | | Delay | | Queue |
| Intersection | Movement | V/C | (s) | LOS | (m) | V/C | (s) | LOS | (m) |
| | EBL | 0.11 | 16.6 | В | 8.4 | 0.18 | 17.6 | В | 11.8 |
| | EBTR | 0.39 | 17.5 | В | 32.8 | 0.84 | 36.5 | D | #93.6 |
| | WBL | 0.43 | 10.6 | В | 28.6 | 0.52 | 14.6 | В | 19.8 |
| Michigan | WBTR | 0.45 | 12.1 | В | 46.5 | 0.43 | 11.3 | В | 41.8 |
| Avenue at | NBL | 0.12 | 16.2 | В | 7.7 | 0.26 | 18.2 | В | 15.8 |
| Colborne | NBT | 0.36 | 18.1 | В | 33.3 | 0.70 | 26.5 | С | #74.9 |
| Road | NBR | 0.25 | 4.6 | Α | 10.4 | 0.45 | 4.7 | Α | 15.0 |
| | SBL | 0.14 | 16.0 | В | 10.7 | 0.25 | 19.1 | В | 12.7 |
| | SBTR | 0.64 | 23.2 | С | 58.8 | 0.53 | 20.0 | С | 47.0 |
| | | | 15.3 | В | | | 20.4 | С | |
| | EBL | 0.33 | 15.5 | В | 12.6 | 0.07 | 8.8 | Α | 4.4 |
| | EBTR | 0.63 | 16.5 | В | 48.9 | 0.82 | 22.1 | С | 79.0 |
| | WBL | 0.55 | 20.8 | С | 25.5 | 0.60 | 26.2 | С | 23.4 |
| | WBTR | 0.75 | 21.0 | С | 62.5 | 0.60 | 14.5 | В | 50.7 |
| Michigan | NBL | 0.27 | 15.0 | В | 21.4 | 0.36 | 18.6 | В | 26.3 |
| Avenue at | NBT | 0.18 | 12.1 | В | 17.4 | 0.25 | 14.4 | В | 22.3 |
| Indian Road | NBR | 0.21 | 4.0 | Α | 10.2 | 0.29 | 4.5 | Α | 12.3 |
| | SBL | 0.21 | 14.0 | В | 16.8 | 0.11 | 15.2 | В | 9.4 |
| | SBT | 0.19 | 12.1 | В | 18.6 | 0.22 | 14.5 | В | 19.6 |
| | SBR | 0.04 | 1.7 | Α | 1.6 | 0.05 | 2.5 | Α | 2.6 |
| | | | 15.5 | В | | | 16.5 | В | |
| | EBL | 0.26 | 12.3 | В | 15.0 | 0.39 | 15.2 | В | 21.3 |
| | EBTR | 0.69 | 29.6 | С | 98.6 | 0.86 | 42.2 | D | #142.8 |
| Michigan | WBL | 0.55 | 16.2 | В | 33.6 | 0.69 | 24.8 | С | #39.8 |
| Michigan | WBTR | 0.70 | 27.3 | С | 114.0 | 0.73 | 30.8 | С | 108.8 |
| Avenue at Murphy Road | NBL | 0.39 | 23.8 | С | 26.2 | 0.58 | 28.3 | С | 36.4 |
| | NBTR | 0.46 | 23.4 | С | 38.3 | 0.79 | 37.4 | D | #76.0 |
| | SBL | 0.35 | 22.9 | С | 26.1 | 0.51 | 26.7 | С | 25.9 |
| | SBTR | 0.56 | 30.5 | С | 52.5 | 0.59 | 32.0 | С | 55.6 |
| | | | 25.7 | С | | | 33.2 | С | |

^{# - 95}th percentile traffic exceeds capacity, actual queue lengths may be longer



5.0 EVALUATION OF ALTERNATIVES

5.1 Cross Section Analysis and Evaluation

The alternatives were evaluated using a qualitative assessment methodology to compare the performance and effects of the alternatives. This method considers the advantages and disadvantages of the alternatives using the evaluation criteria to measure the relative differences between the alternatives.

The evaluation is summarized in **Table 5**. The alternatives were ranked on a scale of Good,

Fair and Poor (represented by the following symbols respectively: lacktriangle lacktrian



| | Tal | ble 5: Evaluation of R | Road Diet Cross Sect | ion | |
|--------------------|--|---|--|--|--|
| Criteria | Alternative 1 Do Nothing | Alternative 2 2 Lanes with Bike Lanes and Parking | Alternative 3 3 Lanes with MUP | Alternative 4 3 Lanes with Bike Lanes | Alternative 5 3 Lanes with Cycle Track |
| Traffic Operations | Fair. Traffic operations would continue to operate under existing conditions at a good level of service. Delays for through vehicles can result from the combination of left-turning motorists in the left lane and vehicles parked in | Fair. Reducing the road to 2 travel lanes along the full length of the corridor has the potential to result in significant delays to the flow of traffic. | Good. Providing a two-way left-turn lane allows through traffic to avoid delays from left-turning vehicles. | Good. Providing a two-way left-turn lane allows through traffic to avoid delays from left-turning vehicles. | Good. Providing a two-way left-turn lane allows through traffic to avoid delays from left-turning vehicles. |
| Safety | Poor. 4-lane roads inherently have a greater risk of collisions because of speed differentials within the lanes, left- | Fair. Reducing Michigan Avenue to 2 lanes will increase the potential for rear- end collisions with left-turning vehicles | Good. Road diets typically result in speed reductions, reduction in speed variability and a decrease of potential conflict | Good. Road diets typically result in speed reductions, reduction in speed variability and a decrease of conflict | Good. Road diets typically result in speed reductions, reduction in speed variability and a decrease of conflict |



| | Та | ble 5: Evaluation of R | Road Diet Cross Sect | ion | |
|--------------------|--|---|--|---|--|
| Criteria | Alternative 1 Do Nothing | Alternative 2 2 Lanes with Bike Lanes and Parking | Alternative 3 3 Lanes with MUP | Alternative 4 3 Lanes with Bike Lanes | Alternative 5 3 Lanes with Cycle Track |
| | turning vehicles sharing a through lane and increased risk of motor vehicle / cyclist collisions. | sharing the single through lane. This could be partially mitigated with the provision of left turn lanes at key locations and a buffer area separating the bike lanes from parked vehicles to limit to potential for a motorist to open their door in front of a cyclist. | points between vehicles. | points between vehicles. | points between vehicles. |
| Cyclist Facilities | 0 | • | • | • | • |
| | Poor. Michigan Avenue does not include any provisions for cyclists. Good. This alternative would include on-street bike lanes and would provide continuity with the existing facilities | | Fair. This alternative would include a MUP behind the curb. Physically separating cyclists from vehicular traffic would better | Good. This alternative would include on-street bike lanes and would provide continuity with the existing facilities | Good. This alternative would include cycle tracks behind the curb. Physically separating cyclists from motor vehicle |



| | Та | ble 5: Evaluation of R | load Diet Cross Secti | ion | |
|-----------------------|---|--|---|--|--|
| Criteria | Alternative 1 Do Nothing | Alternative 2 2 Lanes with Bike Lanes and Parking | Alternative 3 3 Lanes with MUP | Alternative 4 3 Lanes with Bike Lanes | Alternative 5 3 Lanes with Cycle Track |
| | | west of the study area. | accommodate less experienced cyclists (All Ages and Abilities) . A MUP would not however, provide continuity for cyclists along the corridor. | west of the study area. | and pedestrian traffic. is preferred. |
| Adjacent Land Uses | Poor. Allows for | ● Fair. Improves | Good. The two- | Good. The two- | Good. The two- |
| | parking along Michigan Avenue but it fails to provide a more | access for cyclists and allows for parking along Michigan Avenue to | way left-turn lane accommodates left- turning vehicles travelling to/from | way left-turn lane accommodates left- turning vehicles travelling to/from | way left-turn lane accommodates left- turning vehicles travelling to/from |
| | pedestrian and cyclist friendly access for the adjacent neighbourhoods. | be maintained but does not accommodate left-turning vehicle movements to/from driveways. | driveways but the removal of all parking from Michigan Avenue would impact area residents. | driveways but the removal of all parking from Michigan Avenue would impact area residents. | driveways but the removal of all parking from Michigan Avenue would impact area residents. |
| Construction Cost | • | • | 0 | • | 0 |
| | Good | Good | Poor. | Good | Poor. |



| | Та | ble 5: Evaluation of R | Road Diet Cross Sect | ion | |
|-----------------|--|--|---|--|---|
| Criteria | Alternative 1 Do Nothing | Alternative 2 2 Lanes with Bike Lanes and Parking | Alternative 3 3 Lanes with MUP | Alternative 4 3 Lanes with Bike Lanes | Alternative 5 3 Lanes with Cycle Track |
| Recommendations | This alternative is not recommended. It fails to provide a more pedestrian and bicycle friendly environment. | This alternative is physically viable but not preferred. This is an improvement to better accommodate pedestrians and cyclists consistent with the improvements that have been previously implemented west of Colborne Road but would have the greatest impact on traffic flow without the provision of a left turn lane. | This alternative is not recommended. Although it accommodates both vehicular traffic and active transportation, a MUP is not consistent with active transportation facilities provided to the west of the Study Area. | Recommended as the preferred alternative. This alternative improves safety by accommodating vehicular and active transportation uses. The provision of bike lanes is consistent with Michigan Avenue to the west but the removal of all onstreet parking will increase the impact on adjacent residences. | Recommended as a potential longer-term improvement. The provision of a raised cycle track separates motor vehicular traffic and cyclists, improving safety but removal of all on-street parking will increase the impact on adjacent residences. Although it is not consistent with the facilities provided to the west of the study area, the existing bike lanes can be transitioned to cycle tracks. |



6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the traffic analysis for 2024 future traffic conditions, a road diet is feasible on Michigan Avenue between Colborne Road and Blackwell Road. BTE's recommended cross section for the road diet is Alternative 4. This alternative includes a 3-lane cross section (2 through lanes and a two-way left-turn lane) with bike lanes. This cross section can be implemented in the short term by maintaining the existing curb line and revising the pavement markings to suit the proposed configuration. Eliminating two through lanes for motor vehicles with the implementation of the proposed roadway diet should also provide an effective traffic calming measure to reduce travel speeds and improve safety.

Alternative 2 represents an option that would be physically viable but is less preferred. It also could predominantly be implemented with revised pavement markings while maintaining the existing curb lines. It would include segments with 2-lane (2 through lanes with on-street parking on one side) and 3-lane (2 through lanes and directional left-turn lanes at key intersections along the corridor) cross sections with bike lanes. If implemented, the length of any 2 lane segments, which would have the greatest adverse impact on the roadway capacity (delay) and safety, should be limited. Parking lanes should also be buffered from adjacent bike lanes. Without the provision of a left turn lane, the safety of cyclists in the bicycle lanes would be at an increased risk if motorists encroach on the adjacent bicycle lane to pass left-tuning vehicles stopped in the through lane.

At the intersection with Murphy Road, where the projected impact of a roadway diet would have the greatest impact on the level-of-service and delay for motorists consideration should be given to signage and pavement markings to transition the bike lanes to shared lanes through the intersection, allowing existing turn lanes to be maintained at the intersection as represented in **Figure 11**. In addition, the road diet will also need to accommodate the existing bus loading zones for Elementary School Les Rapides and Alexander Mackenzie Secondary School. Alternatives for the bus loading zone at Elementary School Les Rapides include:

- Designation of a shared lane past the loading zone and through the intersection with Murphy Road.
- Minor widening of Michigan Avenue within the area of the bus loading zone to
 accommodate a bus bay on the south side of Michigan Avenue. This alternative would
 result in property impacts to the school but will allow the existing concrete median to
 remain. This alternative would need to be further investigated to confirm if property is
 available. It is noted that the existing School Bus Loading Zone extends approximately
 50 m beyond the limit of the school site.
- Modify the adjacent traffic signals, shifting the median islands on Michigan Avenue to the north (within the existing pavement width) to allow a bus bay to be created in the existing curb lane.



• Creation of a bus lane on the school's property. **Photo 3** depicts a bus lane at the Knoxdale Public School in Nepean, ON.



Figure 11: Westbound Michigan Avenue - East of Murphy Road

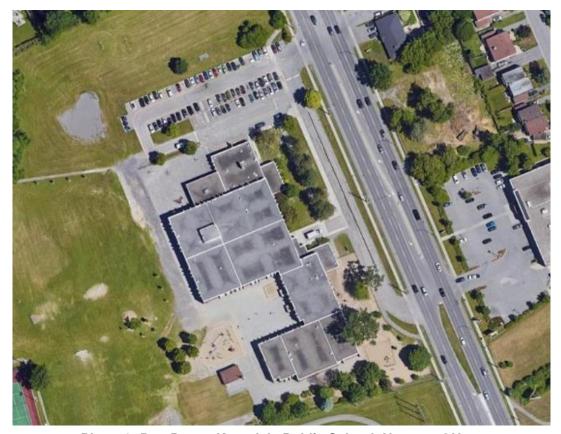


Photo 3: Bus Bay at Knoxdale Public School, Nepean, ON



When full reconstruction of Michigan Avenue is required in the future, the City could consider modifications to buffer the bicycle lanes or narrowing the pavement width and constructing a raised cycle track (Alternative 5) to further separate modes of travel.

Additional improvements that should be implemented as part of the road diet include:

- Replacement of the catch basin grates to an angled grate to prevent cyclists from catching their wheels.
- Adjustments to the signal timing plans to accommodate the road diet lane configuration and future traffic volumes.
- Consideration of buffered bike lanes where property is available.
- Intersection improvements to remove the northbound right-turn channelization that exist on Colborne Road and Indian Road N. at Michigan Avenue, replacing them with rightturn lanes.

To better accommodate pedestrians, consideration should be given to widening the existing sidewalks to a minimum of 1.5–1.8 m. Implementation of a road diet will improve mobility and safety for all road users by providing designated space for cyclists and better accommodating pedestrians. Traffic analysis shows that there would be some increase in vehicular queuing, but overall operations are projected to remain good. The City can proceed with preliminary/detailed design of a road diet as a Schedule A+ EA. The design should include consideration for:

- Design of the transition from the road diet cross section to the existing cross section east of Blackwell Road.
- Design of bus loading zones at Elementary School Les Rapides and Alexander Mackenzie Secondary School.

| Appendix A Synchro Traffic Analysis Outputs | |
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| BIE | |

| Appendix A |
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| Synchro Traffic Analysis Outputs |
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Lanes, Volumes, Timings 2: Indian Road & Michigan Avenue

10-06-2022

| Z. IIIulali Ruau & Ivii | orngar | 7 (1011) | | | | | | | | | | 00-2022 |
|-------------------------|----------------|----------|------|---------|-------|------|---------|----------|---------|---------|----------|---------|
| | ۶ | - | • | • | • | • | 1 | † | 1 | 1 | ļ | 1 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | 4T+ | | | 414 | | * | ^ | 7 | * | ^ | 7 |
| Traffic Volume (vph) | 50 | 216 | 71 | 108 | 274 | 66 | 80 | 166 | 103 | 61 | 180 | 16 |
| Future Volume (vph) | 50 | 216 | 71 | 108 | 274 | 66 | 80 | 166 | 103 | 61 | 180 | 16 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 55.0 | | 0.0 | 50.0 | | 40.0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | • | 7.5 | | • |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | 0.00 | 0.968 | 0.00 | 0.00 | 0.978 | 0.00 | | 0.00 | 0.850 | 1100 | 0.00 | 0.850 |
| Flt Protected | | 0.993 | | | 0.988 | | 0.950 | | 0.000 | 0.950 | | 0.000 |
| Satd. Flow (prot) | 0 | 3223 | 0 | 0 | 3240 | 0 | 1676 | 3353 | 1500 | 1676 | 3353 | 1500 |
| Flt Permitted | | 0.810 | | | 0.773 | | 0.629 | 0000 | 1000 | 0.638 | 0000 | 1000 |
| Satd. Flow (perm) | 0 | 2629 | 0 | 0 | 2535 | 0 | 1110 | 3353 | 1500 | 1126 | 3353 | 1500 |
| Right Turn on Red | | 2020 | Yes | | 2000 | Yes | 1110 | 0000 | Yes | 1120 | 0000 | Yes |
| Satd. Flow (RTOR) | | 66 | 100 | | 39 | 100 | | | 112 | | | 55 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | 112 | | 50 | 00 |
| Link Distance (m) | | 1065.5 | | | 822.8 | | | 529.1 | | | 497.9 | |
| Travel Time (s) | | 76.7 | | | 59.2 | | | 38.1 | | | 35.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 54 | 235 | 77 | 117 | 298 | 72 | 87 | 180 | 112 | 66 | 196 | 17 |
| Shared Lane Traffic (%) | J 1 | 200 | - 11 | 111 | 200 | 12 | 01 | 100 | 112 | 00 | 100 | 17 |
| Lane Group Flow (vph) | 0 | 366 | 0 | 0 | 487 | 0 | 87 | 180 | 112 | 66 | 196 | 17 |
| Turn Type | Perm | NA | U | Perm | NA | U | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | I GIIII | 4 | | I GIIII | 8 | | i Giiii | 2 | I GIIII | i Giiii | 6 | i Giiii |
| Permitted Phases | 4 | 7 | | 8 | U | | 2 | 2 | 2 | 6 | U | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | 7 | 7 | | U | U | | | 2 | 2 | U | U | U |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 50.0% | 50.0% | | 50.0% | 50.0% | | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% |
| Maximum Green (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 2.0 | 0.0 | | 2.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | | | Max | Max | | Max | Max |
| | 7.0 | 7.0 | | 7.0 | 7.0 | | Max | 7.0 | | Max | | 7.0 |
| Walk Time (s) | | | | | | | 7.0 | | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effet Green (s) | | 14.3 | | | 14.3 | | 24.1 | 24.1 | 24.1 | 24.1 | 24.1 | 24.1 |
| Actuated g/C Ratio | | 0.28 | | | 0.28 | | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| v/c Ratio | | 0.46 | | | 0.65 | | 0.16 | 0.11 | 0.14 | 0.12 | 0.12 | 0.02 |
| Control Delay | | 13.8 | | | 18.9 | | 9.9 | 8.6 | 3.0 | 9.5 | 8.6 | 0.4 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 13.8 | | | 18.9 | | 9.9 | 8.6 | 3.0 | 9.5 | 8.6 | 0.4 |

AM Existing 11:54 am 07-20-2022 Existing

| EBL 20.8 | EBT B 13.8 | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------|-------------------------------------|---|---|---|---|--|--|--|---|--|---|
| | В | LDIX | WDL | | WOIL | | | | | | SBR |
| 20 B | | | | В | | Α | A | A | A | A | A |
| 20 B | | | | 18.9 | | , , | 7.2 | , , | | 8.3 | , |
| 20 B | В | | | В | | | Α | | | Α | |
| 20.0 | 20.8 | | 20.8 | 20.8 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Hold | Hold | | Gap | Gap | | MaxR | MaxR | MaxR | MaxR | MaxR | MaxR |
| 16.2 | 16.2 | | 16.2 | 16.2 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Hold | Hold | | Gap | Gap | | MaxR | MaxR | MaxR | MaxR | MaxR | MaxR |
| 14.0 | 14.0 | | 14.0 | 14.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| | | | | | | | | | | | MaxR |
| | | | | | | | | | | | 24.0 |
| | | | | | | | | | | | MaxR 24.0 |
| | | | | | | | | | | | MaxR |
| i ioiu | | | Oup | | | | | | | | 0.0 |
| | | | | | | | | | | | 0.5 |
| | | | | | | | | | | | |
| | | | | | | 55.0 | | | 50.0 | | 40.0 |
| | 1291 | | | 1232 | | 530 | 1603 | 775 | 538 | 1603 | 745 |
| | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | - | | | | 0 |
| | 0.28 | | | 0.40 | | 0.16 | 0.11 | 0.14 | 0.12 | 0.12 | 0.02 |
| 53.7% | <u>Michigan</u> | Avenue | | CU Level o | f Service | a A | | | | | |
| | | | | 1 | 18 | | | | | | 99 |
| | | | | 30 s | ,,, | | | | | | |
| | Hold 12.0 Hold 9.4 Hold | Hold Hold 12.0 12.0 Hold Hold 9.4 9.4 Hold Hold 11.8 21.1 1041.5 1291 0 0 0.28 | Hold Hold 12.0 12.0 Hold Hold 9.4 9.4 Hold Hold 11.8 21.1 1041.5 1291 0 0 0 0.28 | Hold Hold Gap 12.0 12.0 12.0 Hold Hold Gap 9.4 9.4 9.4 Hold Hold Gap 11.8 21.1 1041.5 1291 0 0 0 0.28 | Hold Hold Gap Gap 12.0 12.0 12.0 12.0 Hold Hold Gap Gap 9.4 9.4 9.4 9.4 Hold Hold Gap Gap 11.8 19.1 21.1 31.6 1041.5 798.8 1291 1232 0 0 0 0 0 0 0 0.28 0.40 Intersection 1CU Level o | Hold Hold Gap Gap 12.0 12.0 12.0 12.0 Hold Hold Gap Gap 9.4 9.4 9.4 9.4 Hold Hold Gap Gap 11.8 19.1 21.1 31.6 1041.5 798.8 1291 1232 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 0 | Hold Hold Gap Gap MaxR 12.0 12.0 12.0 12.0 24.0 Hold Hold Gap Gap MaxR 9.4 9.4 9.4 9.4 24.0 Hold Hold Gap Gap MaxR 11.8 19.1 4.2 21.1 31.6 13.5 1041.5 798.8 55.0 1291 1232 530 | Hold Hold Gap Gap MaxR MaxR 12.0 12.0 12.0 12.0 12.0 24.0 24.0 24.0 Hold Hold Gap Gap MaxR MaxR 9.4 9.4 9.4 9.4 9.4 24.0 24.0 Hold Hold Gap Gap MaxR MaxR 11.8 19.1 4.2 4.4 21.1 31.6 13.5 11.1 1041.5 798.8 505.1 55.0 1291 1232 530 1603 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Hold Hold Gap Gap MaxR MaxR MaxR MaxR 12.0 12.0 12.0 12.0 24.0 24.0 24.0 24.0 12.0 12.0 12.0 12.0 24.0 24.0 24.0 24.0 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 | Hold Hold Gap Gap MaxR MaxR MaxR MaxR MaxR 12.0 12.0 12.0 12.0 24.0 24.0 24.0 24.0 24.0 24.0 Hold Hold Gap Gap MaxR MaxR MaxR MaxR MaxR 9.4 9.4 9.4 9.4 9.4 24.0 24.0 24.0 24.0 24.0 Hold Hold Gap Gap MaxR MaxR MaxR MaxR MaxR 11.8 19.1 4.2 4.4 0.0 3.1 21.1 31.6 13.5 11.1 7.4 10.7 1041.5 798.8 505.1 55.0 505.1 50.0 1291 1232 530 1603 775 538 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Hold Hold Gap Gap MaxR MaxR MaxR MaxR MaxR MaxR 12.0 12.0 12.0 24.0 24.0 24.0 24.0 24.0 24.0 24.0 2 |

Lanes, Volumes, Timings

3: Murphy Road & Michigan Avenue

10-06-2022

| o. Marphy Road & | • • • • • • • • • • • • • • • • • • • | 800 | _ | | + | 4 | • | † | <i>></i> | _ | | 1 |
|-----------------------------------|---------------------------------------|------------|----------|----------|------------|---------|-------|------------|-------------|-------|------------|------|
| | 150 | | T | ▼ | MOT | - 14/00 | 1 | I NOT | / | 001 | ▼ | 000 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | † | 40= | * | † | 100 | ሻ | ↑ ↑ | 101 | * | ↑ } | |
| Traffic Volume (vph) | 65 | 202 | 107 | 159 | 262 | 100 | 81 | 181 | 101 | 80 | 247 | 79 |
| Future Volume (vph) | 65 | 202 | 107 | 159 | 262 | 100 | 81 | 181 | 101 | 80 | 247 | 79 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | | 0.0 | 60.0 | | 0.0 | 70.0 | | 0.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.948 | | | 0.959 | | | 0.946 | | | 0.964 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 3179 | 0 | 1676 | 3215 | 0 | 1676 | 3172 | 0 | 1676 | 3232 | 0 |
| Flt Permitted | 0.519 | | | 0.511 | | | 0.540 | | | 0.565 | | |
| Satd. Flow (perm) | 916 | 3179 | 0 | 902 | 3215 | 0 | 953 | 3172 | 0 | 997 | 3232 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 116 | | | 77 | | | 110 | | | 60 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 822.8 | | | 381.2 | | | 580.9 | | | 348.0 | |
| Travel Time (s) | | 59.2 | | | 27.4 | | | 41.8 | | | 25.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 71 | 220 | 116 | 173 | 285 | 109 | 88 | 197 | 110 | 87 | 268 | 86 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 71 | 336 | 0 | 173 | 394 | 0 | 88 | 307 | 0 | 87 | 354 | 0 |
| Turn Type | pm+pt | NA | • | pm+pt | NA | | pm+pt | NA | • | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | • | • | | | | | | _ | | • | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (%) | 15.7% | 34.3% | | 15.7% | 34.3% | | 15.7% | 34.3% | | 15.7% | 34.3% | |
| Maximum Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | |
| Lead/Lag | Lead | | | Lead | | | Lead | | | Lead | | |
| Lead-Lag Optimize? | Yes | Lag Yes | | Yes | Lag Yes | | Yes | Lag Yes | | Yes | Lag Yes | |
| | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Vehicle Extension (s) Recall Mode | | | | | | | | | | | | |
| | None | Max | | None | Max | | None | C-Max | | None | C-Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 22.2 | 0 | | 07.0 | 0 | | 07.0 | 0 | | 07.0 | 0 | |
| Act Effct Green (s) | 26.6 | 18.1 | | 27.9 | 20.3 | | 27.8 | 20.3 | | 27.8 | 20.3 | |
| Actuated g/C Ratio | 0.38 | 0.26 | | 0.40 | 0.29 | | 0.40 | 0.29 | | 0.40 | 0.29 | |
| v/c Ratio | 0.17 | 0.37 | | 0.40 | 0.40 | | 0.20 | 0.31 | | 0.19 | 0.36 | |
| Control Delay | 12.6 | 15.1 | | 15.5 | 18.2 | | 12.9 | 14.1 | | 12.8 | 18.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 12.6 | 15.1 | | 15.5 | 18.2 | | 12.9 | 14.1 | | 12.8 | 18.5 | |

AM Existing 11:54 am 07-20-2022 Existing

| Lane Group LOS Approach Delay Approach LOS 90th %ile Green (s) 90th %ile Term Code 70th %ile Term Code 50th %ile Green (s) 50th %ile Term Code 30th %ile Term Code 30th %ile Green (s) 30th %ile Green (s) 40th %ile Term Code 40th %ile Term Code 40th %ile Green (s) 40th %ile Term Code 40th %ile Green (s) 40th %ile Term Code | BBL 7.0 Max 7.0 Max 7.0 Max 6.4 Gap | B 14.7 B 18.0 MaxR 18.0 MaxR 18.0 MaxR | EBR | WBL B 7.0 Max 7.0 | WBT B 17.4 B 18.0 MaxR | WBR | NBL B | NBT B 13.9 B | NBR | SBL B | ♦ SBT B 17.4 | SBR |
|--|--|--|----------|-------------------------------|-------------------------------|-----|------------|-----------------------|-----|------------|---------------------|-----|
| Approach Delay Approach LOS 90th %ile Green (s) 90th %ile Green (s) 90th %ile Term Code 70th %ile Green (s) 70th %ile Green (s) 50th %ile Green (s) 50th %ile Green (s) 30th %ile Green (s) 30th %ile Green (s) 10th %ile Green (s) | 7.0 Max 7.0 Max 7.0 Max 6.4 Gap | B 14.7 B 18.0 MaxR 18.0 MaxR 18.0 | EBR | 7.0 Max | B 17.4 B 18.0 | WBR | В | B 13.9 B | NBR | | B 17.4 | SBR |
| Approach Delay Approach LOS 90th %ile Green (s) 90th %ile Term Code 70th %ile Green (s) 70th %ile Term Code 50th %ile Green (s) 50th %ile Green (s) 50th %ile Green (s) 80th %ile Green (s) 80th %ile Green (s) 10th %ile Green (s) | 7.0 Max 7.0 Max 7.0 Max 6.4 Gap | 14.7 B 18.0 MaxR 18.0 MaxR 18.0 | | 7.0 Max | 17.4 B 18.0 | | _ | 13.9 B | | В | 17.4 | |
| Approach LOS 20th %ile Green (s) 20th %ile Green (s) 20th %ile Term Code 20th %ile Green (s) | Max 7.0 Max 7.0 Max 6.4 Gap | B 18.0 MaxR 18.0 MaxR 18.0 | | Max | B 18.0 | | 7.0 | В | | | | |
| 20th %ile Green (s) 20th %ile Term Code 20th %ile Green (s) 20th %ile Term Code 20th %ile Term Code 20th %ile Term Code | Max 7.0 Max 7.0 Max 6.4 Gap | 18.0 MaxR 18.0 MaxR 18.0 | | Max | 18.0 | | 7.0 | | | | | |
| 20th %ile Term Code 20th %ile Green (s) 20th %ile Green (s) 20th %ile Green (s) 20th %ile Term Code 20th %ile Green (s) 20th %ile Term Code 20ueue Length 50th (m) | Max 7.0 Max 7.0 Max 6.4 Gap | MaxR 18.0 MaxR 18.0 | | Max | | | | 18.0 | | 7.0 | B 18.0 | |
| 70th %ile Term Code 50th %ile Green (s) 50th %ile Term Code 80th %ile Green (s) 80th %ile Term Code 10th %ile Green (s) 10th %ile Term Code Queue Length 50th (m) | 7.0 Max 7.0 Max 6.4 Gap | MaxR 18.0 | | | | | Max | Coord | | Max | Coord | |
| 50th %ile Green (s) 50th %ile Term Code 50th %ile Green (s) 50th %ile Term Code 10th %ile Green (s) 10th %ile Term Code Queue Length 50th (m) | 7.0 Max 6.4 Gap | 18.0 | | | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| 50th %ile Term Code 50th %ile Green (s) 50th %ile Term Code 10th %ile Green (s) 10th %ile Term Code Queue Length 50th (m) | Max 6.4 Gap | | | Max | MaxR | | Max | Coord | | Max | Coord | |
| 30th %ile Green (s) 30th %ile Term Code 10th %ile Green (s) 10th %ile Term Code Queue Length 50th (m) | 6.4 Gap | MaxR | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| 80th %ile Term Code Oth %ile Green (s) Oth %ile Term Code Queue Length 50th (m) | Gap | 18.0 | | Max 7.0 | MaxR 18.6 | | Max 6.7 | Coord 18.3 | | Max 6.7 | Coord 18.3 | |
| 10th %ile Green (s) 10th %ile Term Code Queue Length 50th (m) | | MaxR | | Max | MaxR | | Gap | Coord | | Gap | Coord | |
| 10th %ile Term Code Queue Length 50th (m) | 0.0 | 18.3 | | 6.7 | 29.0 | | 0.0 | 29.0 | | 0.0 | 29.0 | |
| | Skip | MaxR | | Gap | MaxR | | Skip | Coord | | Skip | Coord | |
| Jugua Langth Q5th (m) | 5.4 | 12.7 | | 14.1 | 18.9 | | 6.8 | 11.3 | | 6.7 | 17.4 | |
| | 12.4 | 23.3 | | 26.3 | 31.1 | | 14.7 | 21.3 | | 14.5 | 28.8 | |
| nternal Link Dist (m) | 75.0 | 798.8 | | 60.0 | 357.2 | | 70.0 | 556.9 | | 50.0 | 324.0 | |
| Furn Bay Length (m) Base Capacity (vph) | 430 | 906 | | 437 | 987 | | 451 | 996 | | 464 | 978 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.17 | 0.37 | | 0.40 | 0.40 | | 0.20 | 0.31 | | 0.19 | 0.36 | |
| ctuated Cycle Length: 70 Offset: 0 (0%), Referenced to p latural Cycle: 70 Control Type: Actuated-Coordin daximum v/c Ratio: 0.40 otersection Signal Delay: 16.0 otersection Capacity Utilization | nated | | 6:SBTL, | lr | Green ntersection CU Level o | | A | | | | | |
| Analysis Period (min) 15 | | | | | | | | | | | | |
| \ | 1940 | & Michiga | n Avenue | ! | 33 (% | | | A | | | | 35 |
| vo₁ • √o2 | (R) | | | | 10 | 3 | | Ø4 | | | | 77 |
| 11 s 24 s | | | | | 11 s | | 24 | S | | | | |
| ↑ ø5 • ø6 | (R) | | | | - | 7 | 1 | ▼ Ø8 | | | | |
| 11s 24s | and a | | | | 11 s | | 24 | S | | | | |
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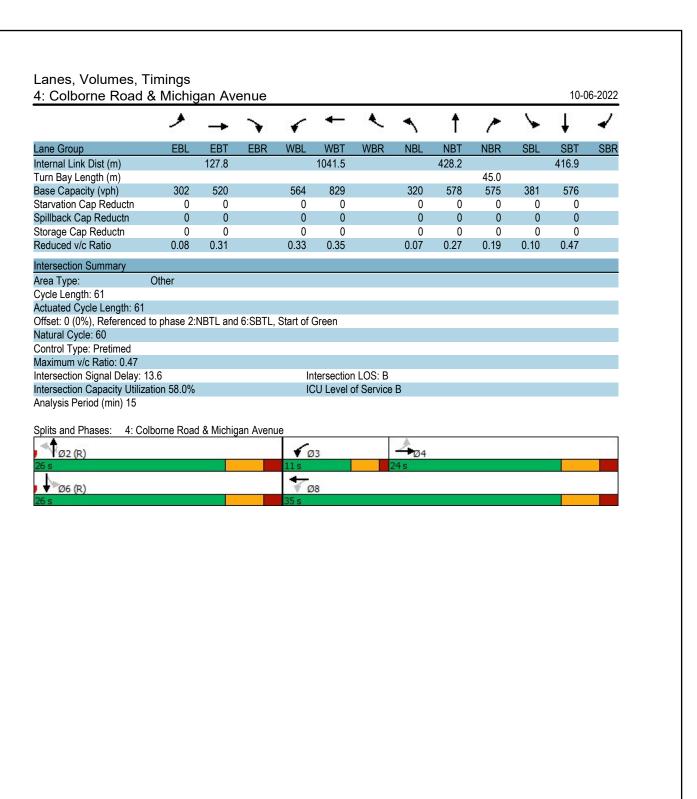
Lanes, Volumes, Timings

4: Colborne Road & Michigan Avenue

10-06-2022

| 4. Colbonic Road | ٦ | 86929 | _ | | — | 4 | • | + | | _ | | 1 |
|-------------------------|-------|--------|------|-------|----------|------|-------|----------|-------|-------|-------|------|
| | 150 | 90.000 | ¥ | • | 222222 | | -7 | | 7 | | * | |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | 4 | | Ť | ĵ» | | * | ↑ | 7 | 7 | f) | |
| Traffic Volume (vph) | 22 | 117 | 30 | 170 | 224 | 47 | 21 | 142 | 102 | 34 | 223 | 28 |
| Future Volume (vph) | 22 | 117 | 30 | 170 | 224 | 47 | 21 | 142 | 102 | 34 | 223 | 28 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 45.0 | 0.0 | | 0.0 |
| Storage Lanes | _ 1 | | 0 | _ 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.969 | | | 0.974 | | | | 0.850 | | 0.983 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 1710 | 0 | 1676 | 1719 | 0 | 1676 | 1765 | 1500 | 1676 | 1735 | 0 |
| Flt Permitted | 0.580 | | _ | 0.536 | | _ | 0.554 | | | 0.659 | | |
| Satd. Flow (perm) | 1024 | 1710 | 0 | 946 | 1719 | 0 | 978 | 1765 | 1500 | 1163 | 1735 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 24 | | | | 125 | | 11 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 151.8 | | | 1065.5 | | | 452.2 | | | 440.9 | |
| Travel Time (s) | | 10.9 | | | 76.7 | | | 32.6 | | | 31.7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 24 | 127 | 33 | 185 | 243 | 51 | 23 | 154 | 111 | 37 | 242 | 30 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 24 | 160 | 0 | 185 | 294 | 0 | 23 | 154 | 111 | 37 | 272 | 0 |
| Turn Type | Perm | NA | | pm+pt | NA | | Perm | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | |
| Minimum Split (s) | 24.0 | 24.0 | | 11.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | 24.0 | | 11.0 | 35.0 | | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | |
| Total Split (%) | 39.3% | 39.3% | | 18.0% | 57.4% | | 42.6% | 42.6% | 42.6% | 42.6% | 42.6% | |
| Maximum Green (s) | 18.0 | 18.0 | | 7.0 | 29.0 | | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 1.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 4.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lag | | Lead | | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | | | | | | |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 18.0 | 18.0 | | 31.0 | 29.0 | | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | |
| Actuated g/C Ratio | 0.30 | 0.30 | | 0.51 | 0.48 | | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | |
| v/c Ratio | 0.08 | 0.31 | | 0.33 | 0.35 | | 0.07 | 0.27 | 0.19 | 0.10 | 0.47 | |
| Control Delay | 16.5 | 16.3 | | 10.1 | 10.7 | | 15.0 | 16.7 | 3.8 | 15.2 | 18.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 16.5 | 16.3 | | 10.1 | 10.7 | | 15.0 | 16.7 | 3.8 | 15.2 | 18.9 | |
| LOS | В | В | | В | В | | В | В | Α | В | В | |
| Approach Delay | | 16.3 | | | 10.5 | | | 11.6 | | | 18.5 | |
| Approach LOS | | В | | | В | | | В | | | В | |
| Queue Length 50th (m) | 2.0 | 12.4 | | 11.1 | 18.5 | | 1.9 | 13.1 | 0.0 | 3.0 | 23.9 | |
| Queue Length 95th (m) | 6.8 | 26.0 | | 21.2 | 34.0 | | 6.4 | 25.9 | 7.9 | 8.8 | 43.4 | |
| | | | | | | | | | | | | |

AM Existing 11:54 am 07-20-2022 Existing



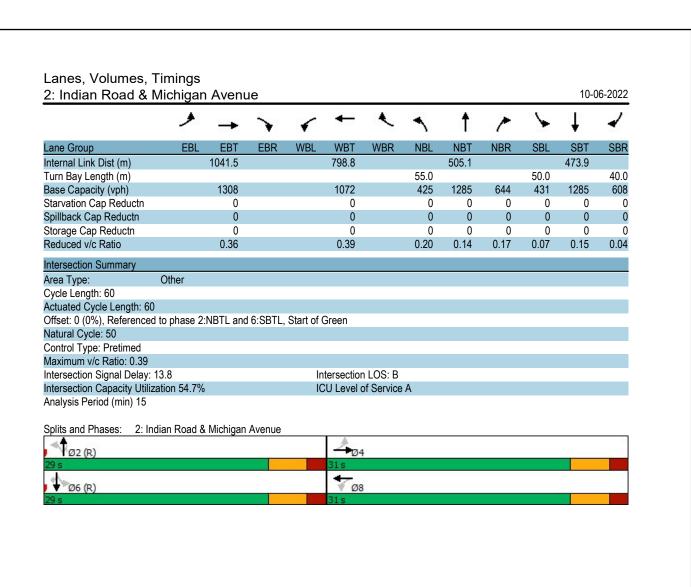
AM Existing 11:54 am 07-20-2022 Existing

Lanes, Volumes, Timings 2: Indian Road & Michigan Avenue

10-06-2022

| Lane Group | Z. Malan Road & N | nioiniga. | ., ., ., | | | | | | | | | | |
|--|---------------------------------------|-----------|----------|------|--------|------|------|--------|----------|--------|--------|----------|--------|
| Lane Configurations | | ۶ | - | * | 1 | - | • | 1 | † | 1 | 1 | ţ | 4 |
| Traffic Volume (vph) | Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | Lane Configurations | | 413 | | | 473 | | 7 | ^ | 7 | 7 | ^ | 7 |
| Future Volume (vph) | | 15 | | 105 | 79 | | 43 | | | 103 | | | _ |
| Ideal Flow (rphip) | | | 317 | | 79 | 264 | 43 | 80 | 166 | 103 | 27 | 179 | 20 |
| Storage Length (m) | , | | | | 1800 | 1800 | 1800 | 1800 | | | 1800 | 1800 | |
| Storage Lanes | , | | | | | | | | | | | | |
| Taper Length (m) | | | | | | | | | | | | | |
| Lane Util. Factor | | | | • | | | | | | - | | | - |
| Fith | | | 0.95 | 0.95 | | 0.95 | 0.95 | | 0.95 | 1.00 | | 0.95 | 1.00 |
| File Proficeted | | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | | | 0.00 | |
| Satd. Flow (prort) | | | | | | | | 0.950 | | 0.000 | 0.950 | | 0.000 |
| Fit Permitted | | 0 | | 0 | 0 | | 0 | | 3353 | 1500 | | 3353 | 1500 |
| Satd. Flow (perm) | | | | | | | | | 0000 | 1000 | | 0000 | 1000 |
| Right Turn on Red Yes Yes 112 55 Satd. Flow (RTOR) 86 28 112 55 Link Speed (kh) 50 50 50 50 Link Distance (m) 1065.5 822.8 529.1 497.9 Fravel Time (s) 76.7 59.2 38.1 35.8 Peak Hour Factor 0.92 | | 0 | | 0 | 0 | | 0 | | 3353 | 1500 | | 3353 | 1500 |
| Satid Flow (RTOR) 86 | | | 0010 | | | 2000 | | 1110 | 0000 | | 1120 | 0000 | |
| Link Speed (k/h) 50 50 50 497.9 Link Distance (m) 1065.5 822.8 529.1 497.9 Travel Time (s) 76.7 59.2 38.1 35.8 Peak Hour Factor 0.92 | | | 86 | 100 | | 28 | 100 | | | | | | |
| Link Distance (m) 1065.5 822.8 529.1 497.9 Travel Time (s) 76.7 59.2 38.1 35.8 Peak Hour Factor 0.92 1.96 | | | | | | | | | 50 | 112 | | 50 | |
| Travel Time (s) | | | | | | | | | | | | | |
| Peak Hour Factor 0.92 | . , | | | | | | | | | | | | |
| Adj. Flow (vph) 16 345 114 86 287 47 87 180 112 29 195 22 Shared Lane Traffic (%) Lane Group Flow (vph) 0 475 0 0 420 0 87 180 112 29 195 22 Turn Type Perm NA Perm NA Perm NA Perm NA Perm NA Perm Perm NA Perm NA Perm Perm NA | | 0.02 | | 0.02 | 0.02 | | 0.02 | 0.02 | | 0.02 | 0.02 | | 0.02 |
| Shared Lane Traffic (%) Lane Group Flow (vph) 0 475 0 0 420 0 87 180 112 29 195 22 22 6 6 7 7 7 7 7 7 7 7 | | | | | | | | | | | | | |
| Lane Group Flow (vph) 0 475 0 0 420 0 87 180 112 29 195 22 Turn Type Perm NA Perm | | 10 | 343 | 114 | 00 | 201 | 47 | 01 | 100 | 112 | 23 | 190 | 22 |
| Turn Type | | ٥ | 175 | ٥ | ۸ | 420 | ٥ | 07 | 100 | 110 | 20 | 105 | 22 |
| Protected Phases | | | | U | | | U | | | | | | |
| Permitted Phases | | reiiii | | | reiiii | | | reiiii | | reiiii | reiiii | | reiiii |
| Minimum Split (s) 24.0 29.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0 20.0 20.0 <td></td> <td>1</td> <td>4</td> <td></td> <td>0</td> <td>0</td> <td></td> <td>2</td> <td>2</td> <td>2</td> <td>6</td> <td>U</td> <td>6</td> | | 1 | 4 | | 0 | 0 | | 2 | 2 | 2 | 6 | U | 6 |
| Total Split (s) 31.0 31.0 31.0 31.0 29.0 28.0 28.3 48.3% 48.3 | | | 24.0 | | | 24.0 | | | 24.0 | | | 24.0 | |
| Total Split (%) 51.7% 51.7% 51.7% 51.7% 51.7% 48.3% | | | | | | | | | | | | | |
| Maximum Green (s) 25.0 25.0 25.0 25.0 23.0 <td></td> | | | | | | | | | | | | | |
| Yellow Time (s) 4.0 2.0 | | | | | | | | | | | | | |
| All-Red Time (s) 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 | | | | | | | | | | | | | |
| Lost Time Adjust (s) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0. | | | | | | | | | | | | | |
| Total Lost Time (s) 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 | | 2.0 | | | 2.0 | | | | | | | | |
| Lead/Lag Lead-Lag Optimize? Walk Time (s) 7.0< | | | | | | | | | | | | | |
| Lead-Lag Optimize? Walk Time (s) 7.0 0.0 0.0 0 0 0 0 0 0 0 0 0 0 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 <t< td=""><td>. ,</td><td></td><td>6.0</td><td></td><td></td><td>6.0</td><td></td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td></t<> | . , | | 6.0 | | | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Walk Time (s) 7.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 < | | | | | | | | | | | | | |
| Flash Dont Walk (s) 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11. | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Pedestrian Calls (#hr) 0 | | | | | | | | | | | | | |
| Act Effct Green (s) 25.0 25.0 23.0 | | | | | | | | | | | | | |
| Actuated g/C Ratio 0.42 0.42 0.38 0.03 0.0 <td></td> <td>Ü</td> <td></td> <td></td> <td>U</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> | | Ü | | | U | | | | | | | | - |
| v/c Ratio 0.36 0.39 0.20 0.14 0.17 0.07 0.15 0.04 Control Delay 18.9 12.7 14.0 12.5 3.8 12.4 12.5 1.3 Queue Delay 0.0 | . , | | | | | | | | | | | | |
| Control Delay 18.9 12.7 14.0 12.5 3.8 12.4 12.5 1.3 Queue Delay 0.0 0 | · · · · · · · · · · · · · · · · · · · | | | | | | | | | | | | |
| Queue Delay 0.0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<> | | | | | | | | | | | | | |
| Total Delay 18.9 12.7 14.0 12.5 3.8 12.4 12.5 1.3 LOS B B B B B B B B A B B A B B A B B A B B A B C 0.0 2.1 7.5 0.0 0.0 | | | | | | | | | | | | | |
| LOS B B B B A B B A Approach Delay 18.9 12.7 10.3 11.5 Approach LOS B B B B Queue Length 50th (m) 21.6 15.6 6.5 6.8 0.0 2.1 7.5 0.0 | | | | | | | | | | | | | |
| Approach Delay 18.9 12.7 10.3 11.5 Approach LOS B B B B Queue Length 50th (m) 21.6 15.6 6.5 6.8 0.0 2.1 7.5 0.0 | | | | | | | | | | | | | |
| Approach LOS B B B B B Queue Length 50th (m) 21.6 15.6 6.5 6.8 0.0 2.1 7.5 0.0 | | | | | | | | В | | A | В | | Α |
| Queue Length 50th (m) 21.6 15.6 6.5 6.8 0.0 2.1 7.5 0.0 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Queue Length 95th (m) 37.6 25.8 15.3 12.6 8.2 6.6 13.5 1.3 | | | | | | | | | | | | | |
| | Queue Length 95th (m) | | 37.6 | | | 25.8 | | 15.3 | 12.6 | 8.2 | 6.6 | 13.5 | 1.3 |

PM Existing 2:29 pm 07-20-2022 Existing



PM Existing 2:29 pm 07-20-2022 Existing

Lanes, Volumes, Timings

3: Murphy Road & Michigan Avenue

10-06-2022

| | ٦ | - | _ | _ | — | • | 4 | † | <i>></i> | - | 1 | 7 |
|---|-------|------------|------|--------------|------------|------|-------|------------|-------------|-------|----------|------|
| | 5 | 903460 | - ▼ | . ▼ . | 14/0= | ं | 1 | % N | / | 0.5 | • | |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ↑ ₽ | 100 | 7 | ↑ } | | 122 | ↑ } | 40= | * | † | |
| Traffic Volume (vph) | 92 | 241 | 128 | 153 | 251 | 89 | 122 | 339 | 127 | 84 | 286 | 58 |
| Future Volume (vph) | 92 | 241 | 128 | 153 | 251 | 89 | 122 | 339 | 127 | 84 | 286 | 58 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | | 0.0 | 60.0 | | 0.0 | 70.0 | | 0.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.948 | | | 0.961 | | | 0.959 | | | 0.975 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 3179 | 0 | 1676 | 3222 | 0 | 1676 | 3215 | 0 | 1676 | 3269 | 0 |
| Flt Permitted | 0.532 | | | 0.463 | | | 0.521 | | | 0.393 | | |
| Satd. Flow (perm) | 939 | 3179 | 0 | 817 | 3222 | 0 | 919 | 3215 | 0 | 694 | 3269 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 134 | | | 69 | | | 75 | | | 33 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 822.8 | | | 381.2 | | | 580.9 | | | 348.0 | |
| Travel Time (s) | | 59.2 | | | 27.4 | | | 41.8 | | | 25.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 100 | 262 | 139 | 166 | 273 | 97 | 133 | 368 | 138 | 91 | 311 | 63 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 100 | 401 | 0 | 166 | 370 | 0 | 133 | 506 | 0 | 91 | 374 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | _ | _ | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (%) | 15.7% | 34.3% | | 15.7% | 34.3% | | 15.7% | 34.3% | | 15.7% | 34.3% | |
| Maximum Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | Max | | None | Max | | None | C-Max | | None | C-Max | |
| Walk Time (s) | INOHE | 7.0 | | NOHE | 7.0 | | NOHE | 7.0 | | NOHE | 7.0 | |
| | | 11.0 | | | 11.0 | | | 11.0 | | | 11.0 | |
| Flash Dont Walk (s) Pedestrian Calls (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Act Effet Green (s) | 26.8 | 18.1 | | 27.8 | 20.2 | | 27.8 | 20.2 | | 27.8 | 20.2 | |
| | 0.38 | 0.26 | | 0.40 | 0.29 | | | | | 0.40 | 0.29 | |
| Actuated g/C Ratio | | | | | | | 0.40 | 0.29 | | | | |
| v/c Ratio | 0.23 | 0.44 | | 0.41 | 0.38 | | 0.30 | 0.52 | | 0.25 | 0.39 | |
| Control Delay | 13.2 | 15.9 | | 15.7 | 18.3 | | 14.0 | 20.6 | | 13.5 | 20.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 13.2 | 15.9 | | 15.7 | 18.3 | | 14.0 | 20.6 | | 13.5 | 20.5 | |

PM Existing 2:29 pm 07-20-2022 Existing

| 3: Murphy Road & | Micriga | ın Aver | iue | | | • | | • | | | 10-0 |)6-2022 • |
|--|-----------|-----------|-----|----------|-------------------------------------|-----------|----------|-----------------|-----|----------|-----------|--------------|
| | | - | * | 1 | 200/2009 | _ | 7 | T | - | | + | * |
| ane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| LOS | В | B | | В | B | | В | C | | В | C | |
| Approach Delay Approach LOS | | 15.4 B | | | 17.5 B | | | 19.3 B | | | 19.1 B | |
| Oth %ile Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| 90th %ile Term Code | Max | MaxR | | Max | MaxR | | Max | Coord | | Max | Coord | |
| 70th %ile Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| Oth %ile Term Code | Max | MaxR | | Max | MaxR | | Max | Coord | | Max | Coord | |
| 50th %ile Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| 0th %ile Term Code | Max | MaxR | | Max | MaxR | | Max | Coord | | Max | Coord | |
| 80th %ile Green (s) | 6.9 | 18.0 | | 7.0 | 18.1 | | 7.0 | 18.2 | | 6.8 | 18.0 | |
| 30th %ile Term Code | Gap | MaxR | | Max | MaxR | | Max | Coord | | Gap | Coord | |
| 0th %ile Green (s) | 0.0 | 18.4 | | 6.6 | 29.0 | | 0.0 | 29.0 | | 0.0 | 29.0 | |
| 10th %ile Term Code | Skip | MaxR | | Gap | MaxR | | Skip | Coord | | Skip | Coord | |
| Queue Length 50th (m) | 7.8 | 15.6 | | 13.5 | 17.8 | | 10.6 | 26.8 | | 7.1 | 20.4 | |
| Queue Length 95th (m) | 16.3 | 27.6 | | 25.3 | 29.6 | | 20.7 | 41.8 | | 15.2 | 32.5 | |
| nternal Link Dist (m) | 0 | 798.8 | | 22.2 | 357.2 | | =0.0 | 556.9 | | =0.0 | 324.0 | |
| Turn Bay Length (m) | 75.0 | 000 | | 60.0 | 070 | | 70.0 | 000 | | 50.0 | 007 | |
| Base Capacity (vph) Starvation Cap Reductn | 436 | 920 0 | | 410 0 | 979 0 | | 441 0 | 982 0 | | 373 0 | 967 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.23 | 0.44 | | 0.40 | 0.38 | | 0.30 | 0.52 | | 0.24 | 0.39 | |
| ntersection Summary | 0.20 | 0.11 | | 0.10 | 0.00 | | 0.00 | 0.02 | | 0.21 | 0.00 | |
| \ | ordinated | | | lr IC | of Green Intersection CU Level of | f Service | 24 | Ø4 +s ▼ø8 | | | | |

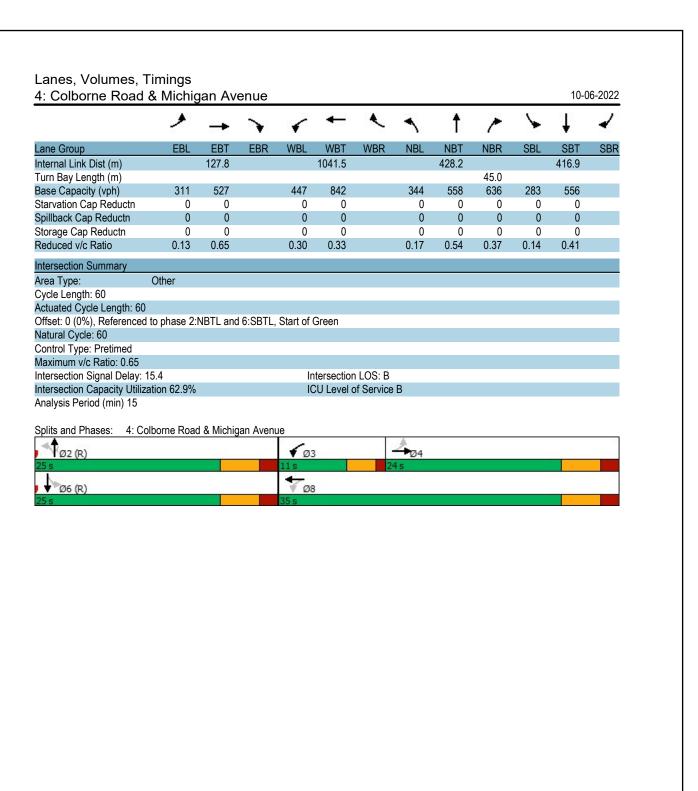
Lanes, Volumes, Timings

4: Colborne Road & Michigan Avenue

10-06-2022

| 4. Colbottic Road | • | | ` | _ | — | • | 4 | † | <i>></i> | - | 1 | 1 |
|--|-------|----------------|------|-------|------------------|------|----------|-----------------|-------------|----------|----------|------|
| Lane Group | EBL | EBT | EBR | ₩BL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| | T CDL | | EDI | WDL | | WDK | NDL | ND I | NDK | SDL 1 | | SDR |
| Lane Configurations Traffic Volume (vph) | 36 | 1 → 267 | 48 | 121 | 1 | 46 | 52 | T 278 | 218 | 38 | } | 31 |
| (, , | | | | | | 46 | 52 52 | | | | 177 | |
| Future Volume (vph) | 36 | 267 | 48 | 121 | 210 | | | 278 | 218 | 38 | 177 | 31 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 45.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | 4.00 | 4.00 | 7.5 | 4.00 | 4.00 | 7.5 | 4.00 | 4.00 | 7.5 | 4.00 | 4.00 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.050 | 0.977 | | 0.050 | 0.973 | | 0.050 | | 0.850 | 0.050 | 0.977 | |
| Flt Protected | 0.950 | 4704 | _ | 0.950 | 4747 | _ | 0.950 | 4705 | 4500 | 0.950 | 4704 | |
| Satd. Flow (prot) | 1676 | 1724 | 0 | 1676 | 1717 | 0 | 1676 | 1765 | 1500 | 1676 | 1724 | 0 |
| Flt Permitted | 0.589 | 4=04 | | 0.357 | | | 0.617 | 4-0- | 4=00 | 0.507 | 4=0.4 | |
| Satd. Flow (perm) | 1039 | 1724 | 0 | 630 | 1717 | 0 | 1089 | 1765 | 1500 | 895 | 1724 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 15 | | | 25 | | | | 237 | | 16 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 151.8 | | | 1065.5 | | | 452.2 | | | 440.9 | |
| Travel Time (s) | | 10.9 | | | 76.7 | | | 32.6 | | | 31.7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 39 | 290 | 52 | 132 | 228 | 50 | 57 | 302 | 237 | 41 | 192 | 34 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 39 | 342 | 0 | 132 | 278 | 0 | 57 | 302 | 237 | 41 | 226 | 0 |
| Turn Type | Perm | NA | | pm+pt | NA | | Perm | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | |
| Minimum Split (s) | 24.0 | 24.0 | | 11.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | 24.0 | | 11.0 | 35.0 | | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | |
| Total Split (%) | 40.0% | 40.0% | | 18.3% | 58.3% | | 41.7% | 41.7% | 41.7% | 41.7% | 41.7% | |
| Maximum Green (s) | 18.0 | 18.0 | | 7.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 1.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 4.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lag | | Lead | | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | | | | | | |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 18.0 | 18.0 | | 31.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Actuated g/C Ratio | 0.30 | 0.30 | | 0.52 | 0.48 | | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | |
| v/c Ratio | 0.13 | 0.65 | | 0.30 | 0.33 | | 0.17 | 0.54 | 0.37 | 0.14 | 0.41 | |
| Control Delay | 16.6 | 24.2 | | 8.6 | 8.4 | | 16.4 | 21.3 | 4.5 | 16.4 | 17.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 16.6 | 24.2 | | 8.6 | 8.4 | | 16.4 | 21.3 | 4.5 | 16.4 | 17.6 | |
| LOS | В | C | | A | A | | В | C | A | В | В | |
| Approach Delay | | 23.4 | | , , | 8.5 | | | 14.1 | , , | | 17.4 | |
| Approach LOS | | 23.4 C | | | 0.5 A | | | В | | | В | |
| Queue Length 50th (m) | 3.3 | 32.4 | | 6.4 | 13.1 | | 4.7 | 28.4 | 0.0 | 3.4 | 18.6 | |
| Queue Length 95th (m) | 9.5 | 57.6 | | 15.1 | 28.4 | | 12.3 | 50.0 | 13.3 | 9.9 | 35.6 | |
| Quous Longin John (III) | ٥.٥ | 51.0 | | 10.1 | 20. 1 | | 12.0 | 50.0 | 10.0 | 9.9 | 55.0 | |

PM Existing 2:29 pm 07-20-2022 Existing



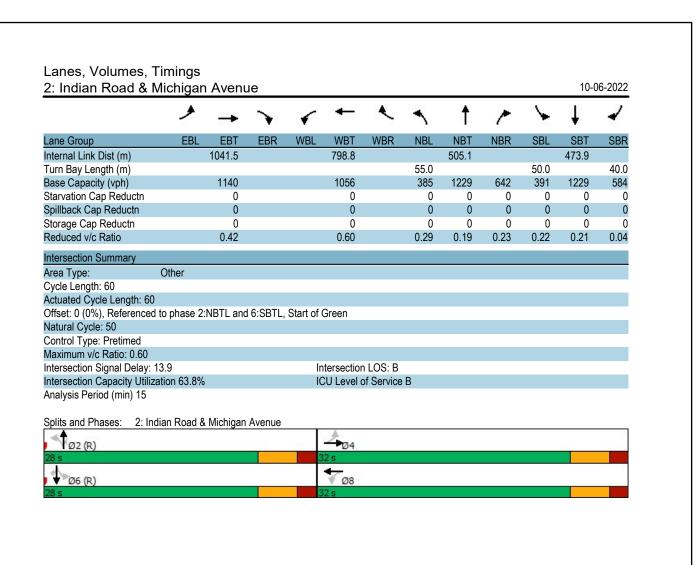
PM Existing 2:29 pm 07-20-2022 Existing

Lanes, Volumes, Timings 2: Indian Road & Michigan Avenue

10-06-2022

| | | AVCIIC | | | | | | | | | | |
|-------------------------|-------|-----------|------|---------|-----------|------|---------|----------|---------|---------|----------|---------|
| | • | - | 7 | 1 | • | * | 1 | † | 1 | 1 | Ţ | 4 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | 414 | | | 413 | | 7 | ^ | 7 | 7 | ^ | 7 |
| Traffic Volume (vph) | 65 | 281 | 92 | 140 | 356 | 86 | 104 | 216 | 134 | 79 | 234 | 21 |
| Future Volume (vph) | 65 | 281 | 92 | 140 | 356 | 86 | 104 | 216 | 134 | 79 | 234 | 21 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 55.0 | | 0.0 | 50.0 | | 40.0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.968 | | | 0.978 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.993 | | | 0.988 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3223 | 0 | 0 | 3240 | 0 | 1676 | 3353 | 1500 | 1676 | 3353 | 1500 |
| Flt Permitted | | 0.783 | | | 0.727 | | 0.595 | | | 0.605 | | |
| Satd. Flow (perm) | 0 | 2541 | 0 | 0 | 2384 | 0 | 1050 | 3353 | 1500 | 1068 | 3353 | 1500 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 70 | | | 41 | | | | 146 | | | 55 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 1065.5 | | | 822.8 | | | 529.1 | | | 497.9 | |
| Travel Time (s) | | 76.7 | | | 59.2 | | | 38.1 | | | 35.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 71 | 305 | 100 | 152 | 387 | 93 | 113 | 235 | 146 | 86 | 254 | 23 |
| Shared Lane Traffic (%) | 7 1 | 000 | 100 | 102 | 001 | 30 | 110 | 200 | 170 | 00 | 204 | 20 |
| Lane Group Flow (vph) | 0 | 476 | 0 | 0 | 632 | 0 | 113 | 235 | 146 | 86 | 254 | 23 |
| | Perm | NA | U | Perm | NA | U | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | Cilli | 4 | | 1 Cilii | 8 | | 1 Cilli | 2 | 1 Cilli | 1 Cilli | 6 | 1 Cilli |
| Permitted Phases | 4 | 7 | | 8 | U | | 2 | 2 | 2 | 6 | U | 6 |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 32.0 | 32.0 | | 32.0 | 32.0 | | 28.0 | 28.0 | 28.0 | 28.0 | 28.0 | 28.0 |
| | 53.3% | 53.3% | | 53.3% | 53.3% | | 46.7% | 46.7% | 46.7% | 46.7% | 46.7% | 46.7% |
| Maximum Green (s) | 26.0 | 26.0 | | 26.0 | 26.0 | | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 2.0 | 0.0 | | 2.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 0 | | 11.0 | 11.0 0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | U | | | U | 26.0 | | 22.0 | 22.0 | | 22.0 | 22.0 | 0 |
| Act Effet Green (s) | | 26.0 | | | | | | | 22.0 | | | 22.0 |
| Actuated g/C Ratio | | 0.43 | | | 0.43 | | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 |
| v/c Ratio | | 0.42 | | | 0.60 | | 0.29 | 0.19 | 0.23 | 0.22 | 0.21 | 0.04 |
| Control Delay | | 15.9 | | | 15.0 | | 16.2 | 13.5 | 3.8 | 15.0 | 13.6 | 1.5 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 15.9 | | | 15.0 | | 16.2 | 13.5 | 3.8 | 15.0 | 13.6 | 1.5 |
| LOS | | В | | | В | | В | В | Α | В | В | Α |
| Approach Delay | | 15.9 | | | 15.0 | | | 11.2 | | | 13.2 | |
| Approach LOS | | В | | | В | | | В | | | В | |
| Queue Length 50th (m) | | 19.8 | | | 26.0 | | 9.0 | 9.4 | 0.0 | 6.7 | 10.3 | 0.0 |
| Queue Length 95th (m) | | 36.0 | | | 41.3 | | 20.2 | 16.3 | 9.6 | 15.9 | 17.5 | 1.5 |

AM Future (No Road Diet) 2:47 pm 07-20-2022



AM Future (No Road Diet) 2:47 pm 07-20-2022

Lanes, Volumes, Timings

3: Murphy Road & Michigan Avenue

10-06-2022

| Lane Configurations 1 | √ |
|---|------------|
| Lane Configurations | _ |
| Traffic Volume (vph) 85 263 139 207 341 116 159 441 165 109 372 Future Volume (vph) 85 263 139 207 341 116 159 441 165 109 372 Ideal Flow (vphpl) 1800 1800 1800 1800 1800 1800 1800 180 | SBR |
| Traffic Volume (vph) 85 263 139 207 341 116 159 441 165 109 372 Future Volume (vph) 85 263 139 207 341 116 159 441 165 109 372 Ideal Flow (vphpl) 1800 1800 1800 1800 1800 1800 1800 180 | |
| Future Volume (vph) | 75 |
| Ideal Flow (vphpl) | 75 |
| Storage Length (m) 75.0 0.0 60.0 0.0 70.0 0.0 50.0 Storage Lanes 1 0 1 0 1 0 1 Taper Length (m) 7.5 7.5 7.5 7.5 7.5 Lane Util. Factor 1.00 0.95 0.95 1.00 0.95 0.95 0.95 0.95 Fit Protected 0.950 | 1800 |
| Storage Lanes 1 0 1 0 1 0 1 Taper Length (m) 7.5 7.5 7.5 7.5 7.5 Lane Util. Factor 1.00 0.95 0.95 1.00 0.95 < | 0.0 |
| Lane Util. Factor 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 Frt 0.948 0.962 0.959 0.950 0.975 Flt Protected 0.950 0.950 0.950 0.950 Satd. Flow (port) 1676 3179 0 1676 3226 0 1676 3215 0 1676 3269 Flt Permitted 0.443 0.427 0.372 0.287 0.287 Satd. Flow (perm) 782 3179 0 754 3226 0 656 3215 0 506 3269 Right Turn on Red Yes Yes Yes Yes Yes Satd. Flow (RTOR) 132 64 74 33 Link Speed (k/h) 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 5 | 0 |
| Lane Util. Factor 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 0.95 1.00 0.95 Frt 0.948 0.962 0.959 0.950 0.975 Flt Protected 0.950 0.950 0.950 0.950 Satd. Flow (port) 1676 3179 0 1676 3226 0 1676 3215 0 1676 3269 Flt Permitted 0.443 0.427 0.372 0.287 0.287 Satd. Flow (perm) 782 3179 0 754 3226 0 656 3215 0 506 3269 Right Turn on Red Yes Yes Yes Yes Yes Satd. Flow (RTOR) 132 64 74 33 Link Speed (k/h) 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 5 | |
| Fit Protected 0.950 0.950 0.950 0.950 Satd. Flow (prot) 1676 3179 0 1676 3226 0 1676 3215 0 1676 3269 Fit Permitted 0.443 0.427 0.372 0.287 Satd. Flow (perm) 782 3179 0 754 3226 0 656 3215 0 506 3269 Right Turn on Red Yes Yes Yes Yes Yes Yes Yes Yes Section 10 3369 3360 360 3360 360 360 360 360 < | 0.95 |
| Satd. Flow (prot) 1676 3179 0 1676 3226 0 1676 3215 0 1676 3269 Flt Permitted 0.443 0.427 0.372 0.287 Satd. Flow (perm) 782 3179 0 754 3226 0 656 3215 0 506 3269 Right Turn on Red Yes Yes Yes Yes Yes Yes Sectled 74 33 33 33 348.0 33 348.0 33 348.0 | |
| Fit Permitted 0.443 0.427 0.372 0.287 Satd. Flow (perm) 782 3179 0 754 3226 0 656 3215 0 506 3269 Right Turn on Red Yes Yes Yes Yes Yes Yes Section 1 33 1 33 1 1 33 1 1 33 1 1 33 1 1 33 1 1 33 1 1 3 3 1 3 3 1 3 < | |
| Satd. Flow (perm) 782 3179 0 754 3226 0 656 3215 0 506 3269 Right Turn on Red Yes Yes Yes Yes Yes Section 1 33 33 33 33 33 34 33 34 33 34 33 34 | 0 |
| Right Turn on Red Yes | |
| Satd. Flow (RTOR) 132 64 74 33 Link Speed (k/h) 50 50 50 50 Link Distance (m) 822.8 381.2 580.9 348.0 Travel Time (s) 59.2 27.4 41.8 25.1 Peak Hour Factor 0.92< | 0 |
| Link Speed (k/h) 50 50 50 50 Link Distance (m) 822.8 381.2 580.9 348.0 Travel Time (s) 59.2 27.4 41.8 25.1 Peak Hour Factor 0.92 <td>Yes</td> | Yes |
| Link Distance (m) 822.8 381.2 580.9 348.0 Travel Time (s) 59.2 27.4 41.8 25.1 Peak Hour Factor 0.92 | |
| Travel Time (s) 59.2 27.4 41.8 25.1 Peak Hour Factor 0.92 0 | |
| Peak Hour Factor 0.92 | |
| Adj. Flow (vph) 92 286 151 225 371 126 173 479 179 118 404 Shared Lane Traffic (%) Lane Group Flow (vph) 92 437 0 225 497 0 173 658 0 118 486 Turn Type pm+pt NA pm+pt NA pm+pt NA Protected Phases 7 4 3 8 5 2 1 6 | |
| Shared Lane Traffic (%) Lane Group Flow (vph) 92 437 0 225 497 0 173 658 0 118 486 Turn Type pm+pt NA pm+pt NA pm+pt NA pm+pt NA Protected Phases 7 4 3 8 5 2 1 6 | 0.92 |
| Lane Group Flow (vph) 92 437 0 225 497 0 173 658 0 118 486 Turn Type pm+pt NA pm+pt NA pm+pt NA pm+pt NA Protected Phases 7 4 3 8 5 2 1 6 | 82 |
| Turn Typepm+ptNApm+ptNApm+ptNAProtected Phases74385216 | |
| Protected Phases 7 4 3 8 5 2 1 6 | 0 |
| | |
| Parmitted Phases 4 8 2 6 | |
| F G I I I I I I I I I I I I I I I I I I | |
| Detector Phase 7 4 3 8 5 2 1 6 | |
| Switch Phase | |
| Minimum Initial (s) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 | |
| Minimum Split (s) 11.0 24.0 11.0 24.0 11.0 24.0 11.0 24.0 24.0 | |
| Total Split (s) 11.0 24.0 11.0 24.0 11.0 24.0 | |
| Total Split (%) 15.7% 34.3% 15.7% 34.3% 15.7% 34.3% 15.7% 34.3% | |
| Maximum Green (s) 7.0 18.0 7.0 18.0 7.0 18.0 7.0 18.0 | |
| Yellow Time (s) 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 | |
| All-Red Time (s) 1.0 2.0 1.0 2.0 1.0 2.0 1.0 2.0 | |
| Lost Time Adjust (s) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 | |
| Total Lost Time (s) 4.0 6.0 4.0 6.0 4.0 6.0 4.0 6.0 | |
| Lead/Lag Lead Lag Lead Lag Lead Lag | |
| Lead-Lag Optimize? Yes Yes Yes Yes Yes Yes | |
| Vehicle Extension (s) 3.0 | |
| Recall Mode None Max None C-Max None C-Max | |
| Walk Time (s) 7.0 7.0 7.0 7.0 | |
| Flash Dont Walk (s) 11.0 11.0 11.0 | |
| Pedestrian Calls (#/hr) 0 0 0 | |
| Act Effct Green (s) 26.7 18.0 27.8 20.2 27.8 20.2 26.8 18.1 | |
| Actuated g/C Ratio 0.38 0.26 0.40 0.29 0.40 0.29 0.38 0.26 | |
| v/c Ratio 0.24 0.48 0.57 0.51 0.48 0.67 0.38 0.56 | |
| Control Delay 13.4 17.1 20.0 21.0 17.4 24.4 15.8 23.9 | |
| Queue Delay 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 | |
| Total Delay 13.4 17.1 20.0 21.0 17.4 24.4 15.8 23.9 | |

AM Future (No Road Diet) 2:47 pm 07-20-2022

| Lane Group LOS Approach Delay Approach LOS 90th %ile Green (s) 90th %ile Term Code 70th %ile Term Code 50th %ile Term Code 50th %ile Green (s) 50th %ile Green (s) 50th %ile Green (s) 50th %ile Green (s) 60th %ile Green (s) 80th %ile Green (s) 90th %ile Term Code 10th %ile Green (s) 10th %ile Green (s) 10th %ile Term Code Queue Length 50th (m) Queue Length 95th (m) Internal Link Dist (m) Turn Bay Length (m) Base Capacity (vph) Starvation Cap Reductn Spillback Cap Reductn Storage Cap Reductn | FEBL B 7.0 Max 7.0 Max 7.0 Max 7.0 Max 7.0 Skip 7.2 15.3 | B16.4 B18.0 MaxR 18.0 | EBR | WBL B 7.0 Max 7.0 Max 7.0 Max 7.0 Max 7.0 Max 7.0 | WBT C 20.7 C 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 | WBR | NBL B 7.0 Max 7.0 Max | NBT C 22.9 C 18.0 Coord 18.0 Coord | NBR | SBL B 7.0 Max 7.0 | SBT C 22.3 C 18.0 Coord | SBR |
|--|--|---|-----|---|---|-----------|--------------------------------------|---|-----|-------------------------------|---------------------------------|-----|
| Approach Delay Approach LOS Oth %ile Green (s) Oth %ile Term Code Oth | 7.0 Max 7.0 Max 7.0 Max 6.8 Gap 0.0 Skip 7.2 15.3 | B 16.4 B 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 | EBR | 7.0 Max 7.0 Max 7.0 Max 7.0 Max 7.0 | C 20.7 C 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 | WBR | 7.0 Max 7.0 | C 22.9 C 18.0 Coord 18.0 | NBR | 7.0 Max | C 22.3 C 18.0 Coord | SBR |
| Approach Delay Approach LOS 30th %ile Green (s) 30th %ile Term Code 70th %ile Term Code 50th %ile Term Code 50th %ile Term Code 50th %ile Term Code 50th %ile Green (s) 50th %ile Term Code 60th %ile Green (s) 60th %ile Term Code 60th %ile Term Cod | 7.0 Max 7.0 Max 7.0 Max 6.8 Gap 0.0 Skip 7.2 15.3 | 16.4 B 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.1 31.2 | | 7.0 Max 7.0 Max 7.0 Max 7.0 | 20.7 C 18.0 MaxR 18.0 MaxR 18.0 MaxR | | 7.0 Max 7.0 | 22.9 C 18.0 Coord 18.0 | | 7.0 Max | 22.3 C 18.0 Coord | |
| Approach LOS 20th %ile Green (s) 20th %ile Term Code 70th %ile Term Code 70th %ile Term Code 50th %ile Term Code 50th %ile Term Code 80th %ile Term Code 80th %ile Term Code 10th %ile Green (s) 80th %ile Term Code 10th %ile Ter | Max 7.0 Max 7.0 Max 6.8 Gap 0.0 Skip 7.2 15.3 | B 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.1 31.2 | | 7.0 Max 7.0 Max 7.0 Max 7.0 | C 18.0 MaxR 18.0 MaxR 18.0 MaxR | | Max 7.0 | C 18.0 Coord 18.0 | | Max | C 18.0 Coord | |
| Oth %ile Green (s) Oth %ile Term Code Oth %ile Green (s) Oth %ile Term Code Oth %ile Term | Max 7.0 Max 7.0 Max 6.8 Gap 0.0 Skip 7.2 15.3 | 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.1 31.2 | | 7.0 Max 7.0 Max 7.0 Max 7.0 | 18.0 MaxR 18.0 MaxR 18.0 MaxR | | Max 7.0 | 18.0 Coord 18.0 | | Max | 18.0 Coord | |
| Oth %ile Term Code Oth %ile Green (s) Oth %ile Green (s) Oth %ile Term Code Oth %ile Green (s) Oth %ile Term Code Oth %ile Term Code Oth %ile Green (s) Oth %ile Term Code Oth %ile Term | Max 7.0 Max 7.0 Max 6.8 Gap 0.0 Skip 7.2 15.3 | MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.1 31.2 | | 7.0 Max 7.0 Max 7.0 Max 7.0 | MaxR 18.0 MaxR 18.0 MaxR | | Max 7.0 | Coord 18.0 | | Max | Coord | |
| Oth %ile Green (s) Oth %ile Term Code Oth %ile Term Code Oth %ile Term Code Oth %ile Term Code Oth %ile Green (s) Oth %ile Term Code Oth %ile Term | 7.0 Max 7.0 Max 6.8 Gap 0.0 Skip 7.2 15.3 | 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.1 31.2 | | 7.0 Max 7.0 Max 7.0 Max | 18.0 MaxR 18.0 MaxR | | 7.0 | 18.0 | | | | |
| 70th %ile Term Code 60th %ile Green (s) 60th %ile Term Code 60th %ile Term Code 60th %ile Green (s) 60th %ile Term Code 60th % | Max 7.0 Max 6.8 Gap 0.0 Skip 7.2 15.3 | MaxR 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.1 31.2 | | Max 7.0 Max 7.0 Max | MaxR 18.0 MaxR | | | | | 7.0 | | |
| 60th %ile Green (s) 60th %ile Term Code 60th % | 7.0 Max 6.8 Gap 0.0 Skip 7.2 15.3 | 18.0 MaxR 18.0 MaxR 18.0 MaxR 18.1 31.2 | | 7.0 Max 7.0 Max | 18.0 MaxR | | iviax | | | | 18.0 | |
| Oth %ile Term Code Oth %ile Green (s) Oth %ile Green (s) Oth %ile Term Code Oth %ile Green (s) Oth %ile Term Code Queue Length 50th (m) Queue Length 95th (m) Othernal Link Dist (m) Ot | Max 6.8 Gap 0.0 Skip 7.2 15.3 | MaxR 18.0 MaxR 18.0 MaxR 18.1 31.2 | | Max 7.0 Max | MaxR | | 7.0 | 18.0 | | Max 7.0 | Coord 18.0 | |
| 80th %ile Green (s) 80th %ile Term Code 10th %ile Term Code 10th %ile Term Code 20ueue Length 50th (m) 20ueue Length 95th (m) 50th Mile Term Code 20ueue Length (m) 50th Mile Term Code 20ueueueueueueueueueueueueueueueueueueue | 6.8 Gap 0.0 Skip 7.2 15.3 | 18.0 MaxR 18.0 MaxR 18.1 31.2 | | 7.0 Max | | | Max | Coord | | Max | Coord | |
| Oth %ile Term Code Oth %ile Green (s) Oth %ile Term Code Queue Length 50th (m) Queue Length 95th (m) Internal Link Dist (m) Furn Bay Length (m) Starvation Cap Reducth Storage Cap Reductn | Gap 0.0 Skip 7.2 15.3 | MaxR 18.0 MaxR 18.1 31.2 | | Max | 10.2 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| Oth %ile Green (s) Oth %ile Term Code Queue Length 50th (m) Queue Length 95th (m) Internal Link Dist (m) Furn Bay Length (m) Starvation Cap Reductn Storage Cap Reductn | 0.0 Skip 7.2 15.3 | 18.0 MaxR 18.1 31.2 | | | MaxR | | Max | Coord | | Max | Coord | |
| Oth %ile Term Code Queue Length 50th (m) Queue Length 95th (m) Internal Link Dist (m) Furn Bay Length (m) Base Capacity (vph) Starvation Cap Reductn Spillback Cap Reductn Storage Cap Reductn | Skip 7.2 15.3 | MaxR 18.1 31.2 | | | 29.0 | | 6.7 | 29.0 | | 0.0 | 18.3 | |
| Queue Length 50th (m) Queue Length 95th (m) Internal Link Dist (m) Furn Bay Length (m) Base Capacity (vph) Starvation Cap Reductn Spillback Cap Reductn Storage Cap Reductn | 7.2 15.3 75.0 | 18.1 31.2 | | Max | MaxR | | Gap | Coord | | Skip | Coord | |
| Queue Length 95th (m) Internal Link Dist (m) Furn Bay Length (m) Base Capacity (vph) Starvation Cap Reductn Spillback Cap Reductn Storage Cap Reductn | 15.3 75.0 | 31.2 | | 19.1 | 27.0 | | 14.1 | 38.8 | | 9.3 | 28.3 | |
| nternal Link Dist (m) Furn Bay Length (m) Base Capacity (vph) Starvation Cap Reductn Spillback Cap Reductn Storage Cap Reductn | 75.0 | | | 33.9 | 41.7 | | 26.3 | 57.5 | | 18.7 | 42.9 | |
| Furn Bay Length (m) Base Capacity (vph) Starvation Cap Reductn Spillback Cap Reductn Storage Cap Reductn | | | | 00.0 | 357.2 | | 20.0 | 556.9 | | 10.1 | 324.0 | |
| Base Capacity (vph) Starvation Cap Reductn Spillback Cap Reductn Storage Cap Reductn | | | | 60.0 | 001.12 | | 70.0 | 000.0 | | 50.0 | 020 | |
| Starvation Cap Reductn Spillback Cap Reductn Storage Cap Reductn | | 915 | | 392 | 978 | | 362 | 980 | | 312 | 868 | |
| Spillback Cap Reductn Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio (| 0.24 | 0.48 | | 0.57 | 0.51 | | 0.48 | 0.67 | | 0.38 | 0.56 | |
| offset: 11 (16%), Referenced to platural Cycle: 70 control Type: Actuated-Coordinal Aximum v/c Ratio: 0.67 htersection Signal Delay: 20.9 htersection Capacity Utilization 6 halysis Period (min) 15 plits and Phases: 3: Murphy F | Road (| | | lr I(| ntersection | f Service | C - 24 | Ø4 s Ø8 s | | | | |

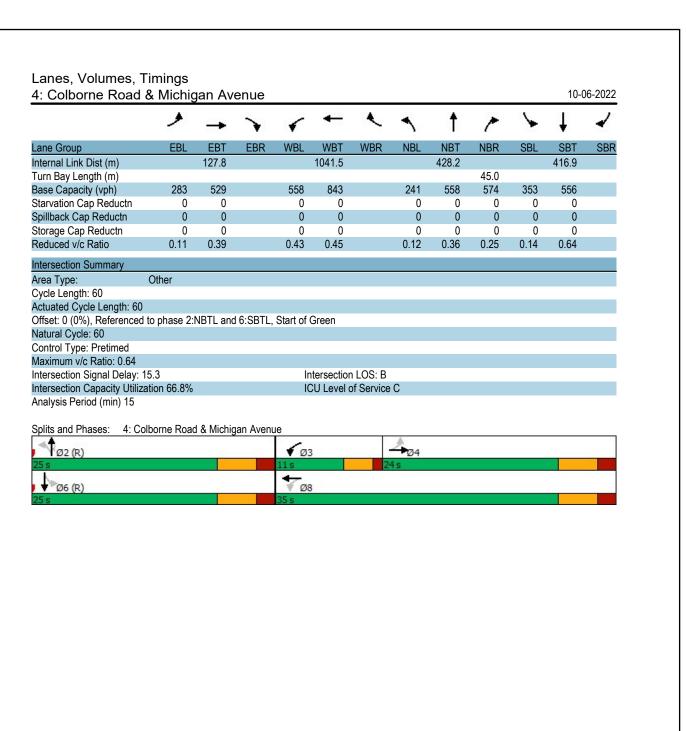
Lanes, Volumes, Timings

4: Colborne Road & Michigan Avenue

10-06-2022

| | ٠ | → | • | • | + | • | 1 | † | ~ | / | Ţ | ✓ |
|-------------------------|------------|-----------|------|-------|-----------|------|-------|-----------|-------|-------|-------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | 1 | | × | 1 | | 7 | ^ | 7 | 7 | 1 | |
| Traffic Volume (vph) | 29 | 152 | 39 | 221 | 291 | 61 | 27 | 185 | 133 | 44 | 290 | 36 |
| Future Volume (vph) | 29 | 152 | 39 | 221 | 291 | 61 | 27 | 185 | 133 | 44 | 290 | 36 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 45.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.970 | | | 0.974 | | | | 0.850 | | 0.983 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 1712 | 0 | 1676 | 1719 | 0 | 1676 | 1765 | 1500 | 1676 | 1735 | 0 |
| Flt Permitted | 0.535 | | | 0.514 | | | 0.432 | | | 0.632 | | |
| Satd. Flow (perm) | 944 | 1712 | 0 | 907 | 1719 | 0 | 762 | 1765 | 1500 | 1115 | 1735 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 22 | | | 24 | | | | 145 | | 11 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 151.8 | | | 1065.5 | | | 452.2 | | | 440.9 | |
| Travel Time (s) | | 10.9 | | | 76.7 | | | 32.6 | | | 31.7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 32 | 165 | 42 | 240 | 316 | 66 | 29 | 201 | 145 | 48 | 315 | 39 |
| Shared Lane Traffic (%) | V = | .00 | .= | | 0.0 | | | | | .0 | 0.0 | |
| Lane Group Flow (vph) | 32 | 207 | 0 | 240 | 382 | 0 | 29 | 201 | 145 | 48 | 354 | 0 |
| Turn Type | Perm | NA | • | pm+pt | NA | • | Perm | NA | Perm | Perm | NA | J |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | . • | | 6 | |
| Permitted Phases | 4 | | | 8 | • | | 2 | _ | 2 | 6 | • | |
| Minimum Split (s) | 24.0 | 24.0 | | 11.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | 24.0 | | 11.0 | 35.0 | | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | |
| Total Split (%) | 40.0% | 40.0% | | 18.3% | 58.3% | | 41.7% | 41.7% | 41.7% | 41.7% | 41.7% | |
| Maximum Green (s) | 18.0 | 18.0 | | 7.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 1.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 4.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lag | | Lead | | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | | | | | | |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 18.0 | 18.0 | | 31.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Actuated g/C Ratio | 0.30 | 0.30 | | 0.52 | 0.48 | | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | |
| v/c Ratio | 0.11 | 0.39 | | 0.43 | 0.45 | | 0.12 | 0.36 | 0.25 | 0.14 | 0.64 | |
| Control Delay | 16.6 | 17.5 | | 10.6 | 12.1 | | 16.2 | 18.1 | 4.6 | 16.0 | 23.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 16.6 | 17.5 | | 10.6 | 12.1 | | 16.2 | 18.1 | 4.6 | 16.0 | 23.2 | |
| LOS | В | В | | В | В | | В | В | Α. | В | C | |
| Approach Delay | | 17.4 | | | 11.5 | | | 12.7 | , , | | 22.3 | |
| Approach LOS | | 17.4 B | | | 11.3 B | | | 12.7 B | | | ZZ.3 | |
| Queue Length 50th (m) | 2.7 | 16.6 | | 12.2 | 23.1 | | 2.4 | 17.6 | 0.0 | 3.9 | 33.4 | |
| Queue Length 95th (m) | 8.4 | 32.8 | | 28.6 | 46.5 | | 7.7 | 33.3 | 10.4 | 10.7 | 58.8 | |
| Casas Longar Sour (III) | 0.4 | 02.0 | | 20.0 | 70.0 | | 1.1 | 50.0 | 10.7 | 10.7 | 50.0 | |

AM Future (No Road Diet) 2:47 pm 07-20-2022



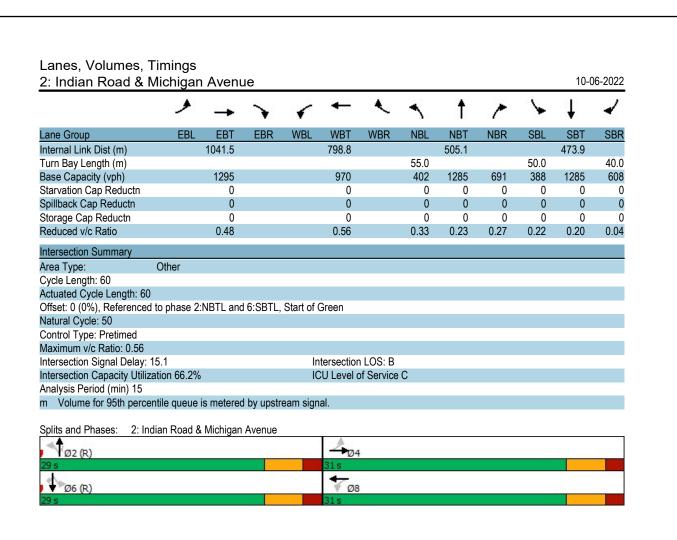
AM Future (No Road Diet) 2:47 pm 07-20-2022

Lanes, Volumes, Timings 2: Indian Road & Michigan Avenue

10-06-2022

| Z. IIIulali Roau & IV | nicingai | Aven | uC | | | | | | | | 10 | 00-2022 |
|-------------------------|----------|----------|------|--------------|--------------|------|--------|----------|--------|--------|----------|---------|
| | ٠ | → | • | • | ← | * | 1 | † | - | - | ļ | 1 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | 414 | | | 414 | | 7 | ^ | 7 | 7 | ^ | 7 |
| Traffic Volume (vph) | 20 | 412 | 137 | 103 | 343 | 56 | 121 | 268 | 174 | 79 | 234 | 21 |
| Future Volume (vph) | 20 | 412 | 137 | 103 | 343 | 56 | 121 | 268 | 174 | 79 | 234 | 21 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 55.0 | | 0.0 | 50.0 | | 40.0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | • | 7.5 | | | 7.5 | | | 7.5 | | - |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.964 | | | 0.983 | | | | 0.850 | ,,,,, | | 0.850 |
| Flt Protected | | 0.998 | | | 0.990 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 3226 | 0 | 0 | 3263 | 0 | 1676 | 3353 | 1500 | 1676 | 3353 | 1500 |
| Flt Permitted | | 0.924 | | | 0.695 | | 0.595 | | | 0.574 | - | |
| Satd. Flow (perm) | 0 | 2987 | 0 | 0 | 2291 | 0 | 1050 | 3353 | 1500 | 1013 | 3353 | 1500 |
| Right Turn on Red | | 2001 | Yes | | ZZO! | Yes | 1000 | 0000 | Yes | 1010 | 0000 | Yes |
| Satd. Flow (RTOR) | | 87 | 100 | | 28 | 100 | | | 189 | | | 55 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | 100 | | 50 | 00 |
| Link Opeca (km) | | 1065.5 | | | 822.8 | | | 529.1 | | | 497.9 | |
| Travel Time (s) | | 76.7 | | | 59.2 | | | 38.1 | | | 35.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 22 | 448 | 149 | 112 | 373 | 61 | 132 | 291 | 189 | 86 | 254 | 23 |
| Shared Lane Traffic (%) | 22 | 440 | 143 | 112 | 313 | O I | 132 | 231 | 109 | 00 | 254 | 23 |
| Lane Group Flow (vph) | 0 | 619 | 0 | 0 | 546 | 0 | 132 | 291 | 189 | 86 | 254 | 23 |
| Turn Type | Perm | NA | U | Perm | NA | U | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | reiiii | 1NA 4 | | reiiii | NA 8 | | reiiii | 2 | reiiii | reiiii | 6 | reiiii |
| Permitted Phases | 4 | 4 | | 8 | 0 | | 2 | 2 | 2 | 6 | O | 6 |
| | | 24.0 | | | 24.0 | | | 24.0 | 24.0 | 24.0 | 24.0 | |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 31.0 | 24.0 31.0 | | 24.0 | 24.0 | 29.0 | | 24.0 | 24.0 |
| Total Split (s) | 31.0 | 31.0 | | | | | 29.0 | 29.0 | | 29.0 | 29.0 | 29.0 |
| Total Split (%) | 51.7% | 51.7% | | 51.7% | 51.7% | | 48.3% | 48.3% | 48.3% | 48.3% | 48.3% | 48.3% |
| Maximum Green (s) | 25.0 | 25.0 | | 25.0 | 25.0 | | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | | 25.0 | | | 25.0 | | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Actuated g/C Ratio | | 0.42 | | | 0.42 | | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 |
| v/c Ratio | | 0.48 | | | 0.56 | | 0.33 | 0.23 | 0.27 | 0.22 | 0.20 | 0.04 |
| Control Delay | | 20.7 | | | 15.4 | | 16.0 | 13.1 | 3.5 | 14.4 | 12.9 | 1.4 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 20.7 | | | 15.4 | | 16.0 | 13.1 | 3.5 | 14.4 | 12.9 | 1.4 |
| LOS | | С | | | В | | В | В | Α | В | В | Α |
| Approach Delay | | 20.7 | | | 15.4 | | | 10.8 | | | 12.5 | |
| Approach LOS | | С | | | В | | | В | | | В | |
| Queue Length 50th (m) | | 30.8 | | | 22.8 | | 10.4 | 11.5 | 0.0 | 6.5 | 10.0 | 0.0 |
| Queue Length 95th (m) | | m45.0 | | | 36.8 | | 22.7 | 19.2 | 10.6 | 15.5 | 17.0 | 1.5 |
| | | | | | | | | | | | | |

PM Future (No Road Diet) 3:12 pm 07-20-2022



PM Future (No Road Diet) 3:12 pm 07-20-2022

Lanes, Volumes, Timings

3: Murphy Road & Michigan Avenue

10-06-2022

| o. Marphy Road & | | | | | | | | | | | | |
|-------------------------|-------|----------|------|-------|-------------|------|-------|----------|------|-------|----------|------|
| | ٠ | - | 7 | 1 | - | • | 1 | † | 1 | 1 | ţ | 4 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | † | | * | † 1> | | * | † | | * | † | |
| Traffic Volume (vph) | 120 | 313 | 166 | 199 | 326 | 116 | 159 | 441 | 165 | 109 | 372 | 75 |
| Future Volume (vph) | 120 | 313 | 166 | 199 | 326 | 116 | 159 | 441 | 165 | 109 | 372 | 75 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | | 0.0 | 60.0 | | 0.0 | 70.0 | | 0.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.948 | | | 0.961 | | | 0.959 | | | 0.975 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 3179 | 0 | 1676 | 3222 | 0 | 1676 | 3215 | 0 | 1676 | 3269 | 0 |
| Flt Permitted | 0.459 | | | 0.355 | | | 0.372 | | | 0.287 | | |
| Satd. Flow (perm) | 810 | 3179 | 0 | 626 | 3222 | 0 | 656 | 3215 | 0 | 506 | 3269 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 133 | | | 69 | | | 74 | | | 33 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 822.8 | | | 381.2 | | | 580.9 | | | 348.0 | |
| Travel Time (s) | | 59.2 | | | 27.4 | | | 41.8 | | | 25.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 130 | 340 | 180 | 216 | 354 | 126 | 173 | 479 | 179 | 118 | 404 | 82 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 130 | 520 | 0 | 216 | 480 | 0 | 173 | 658 | 0 | 118 | 486 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (%) | 15.7% | 34.3% | | 15.7% | 34.3% | | 15.7% | 34.3% | | 15.7% | 34.3% | |
| Maximum Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | Max | | None | Max | | None | C-Max | | None | C-Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Act Effct Green (s) | 26.8 | 18.0 | | 27.8 | 20.2 | | 27.8 | 20.2 | | 26.8 | 18.1 | |
| Actuated g/C Ratio | 0.38 | 0.26 | | 0.40 | 0.29 | | 0.40 | 0.29 | | 0.38 | 0.26 | |
| v/c Ratio | 0.33 | 0.57 | | 0.61 | 0.49 | | 0.48 | 0.67 | | 0.38 | 0.56 | |
| Control Delay | 14.5 | 19.4 | | 21.8 | 20.4 | | 17.4 | 24.4 | | 15.8 | 23.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 14.5 | 19.4 | | 21.8 | 20.4 | | 17.4 | 24.4 | | 15.8 | 23.9 | |

PM Future (No Road Diet) 3:12 pm 07-20-2022

| | • | → | • | 6 | - | • | 4 | † | <u></u> | \ | Ţ | 4 |
|--|-----------|-----------|-----------|--------------|---------------------------------------|-----|------|------------|---------|----------|-------|-----|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| _OS | В | В | | C | C | | В | C | | В | C | |
| Approach Delay | | 18.4 | | | 20.9 | | = | 22.9 | | _ | 22.3 | |
| Approach LOS | | В | | | С | | | С | | | С | |
| 90th %ile Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| 90th %ile Term Code | Max | MaxR | | Max | MaxR | | Max | Coord | | Max | Coord | |
| 70th %ile Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| 70th %ile Term Code | Max | MaxR | | Max | MaxR | | Max | Coord | | Max | Coord | |
| 50th %ile Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| 50th %ile Term Code | Max | MaxR | | Max | MaxR | | Max | Coord | | Max | Coord | |
| 30th %ile Green (s) | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | | 7.0 | 18.0 | |
| 30th %ile Term Code | Max | MaxR | | Max | MaxR | | Max | Coord | | Max | Coord | |
| 10th %ile Green (s) | 0.0 | 18.0 | | 7.0 | 29.0 | | 6.7 | 29.0 | | 0.0 | 18.3 | |
| 10th %ile Term Code | Skip | MaxR | | Max | MaxR | | Gap | Coord | | Skip | Coord | |
| Queue Length 50th (m) | 10.3 | 23.7 | | 18.2 | 25.4 | | 14.1 | 38.8 | | 9.3 | 28.3 | |
| Queue Length 95th (m) | 20.4 | 38.7 | | #33.0 | 39.7 | | 26.3 | 57.5 | | 18.7 | 42.9 | |
| nternal Link Dist (m) Furn Bay Length (m) | 75.0 | 798.8 | | 60.0 | 357.2 | | 70.0 | 556.9 | | 50.0 | 324.0 | |
| Base Capacity (vph) | 399 | 916 | | 353 | 978 | | 362 | 980 | | 312 | 868 | |
| Starvation Cap Reductn | 399 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.33 | 0.57 | | 0.61 | 0.49 | | 0.48 | 0.67 | | 0.38 | 0.56 | |
| ntersection Summary | | | | | | | | | | | | |
| Cycle Length: 70 Actuated Cycle Length: 70 Offset: 11 (16%), Referenced Natural Cycle: 70 Control Type: Actuated-Coord Maximum v/c Ratio: 0.67 Intersection Signal Delay: 21.4 Intersection Capacity Utilizatio Analysis Period (min) 15 | dinated | | nd 6:SB | lr | of Green Itersection CU Level o | | С | | | | | |
| 95th percentile volume ex- Queue shown is maximum | after two | | | | r. | | | | | | | |
| · \ | 0.0000 | a michiga | II AVEIIU | - | 7/ | | 100 | A | | | | 35 |
| 01 Tø | 2 (R) | | | | 11 s | 03 | 24 | Ø4 s | | | | |
| 4 | | | | | | | | - | | | | |
| Ø5 * Ø | 6 (R) | | | | ٠, | 07 | | Ø 8 | | | | |
| 11 s 24 s | | | | | 11 s | | Z- | S | | | | |

Lanes, Volumes, Timings

4: Colborne Road & Michigan Avenue

10-06-2022

| | ٠ | | 1 | | + | • | 4 | † | * | - | 1 | J |
|-------------------------|-------|------------|------------|-----------|----------|------|-------|----------|-------|----------|----------|------|
| | 150 | EDT | TDD | ▼ M/DI | MOT | WDD | ND. | NDT | / | ODI | ODT | 000 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | } | 00 | 457 | } | 00 | 7 | 1004 | 7 | ^ | 1 | 40 |
| Traffic Volume (vph) | 47 | 347 | 62 | 157 | 273 | 60 | 68 | 361 | 283 | 49 | 230 | 40 |
| Future Volume (vph) | 47 | 347 | 62 | 157 | 273 | 60 | 68 | 361 | 283 | 49 | 230 | 40 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 45.0 | 0.0 | | 0.0 |
| Storage Lanes | _ 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.977 | | | 0.973 | | | | 0.850 | | 0.978 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 1724 | 0 | 1676 | 1717 | 0 | 1676 | 1765 | 1500 | 1676 | 1726 | 0 |
| Flt Permitted | 0.545 | | | 0.225 | | | 0.520 | | | 0.379 | | |
| Satd. Flow (perm) | 962 | 1724 | 0 | 397 | 1717 | 0 | 918 | 1765 | 1500 | 669 | 1726 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 15 | | | 25 | | | | 308 | | 15 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 151.8 | | | 1065.5 | | | 452.2 | | | 440.9 | |
| Travel Time (s) | | 10.9 | | | 76.7 | | | 32.6 | | | 31.7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 51 | 377 | 67 | 171 | 297 | 65 | 74 | 392 | 308 | 53 | 250 | 43 |
| Shared Lane Traffic (%) | | | | | | | | | | | | - |
| Lane Group Flow (vph) | 51 | 444 | 0 | 171 | 362 | 0 | 74 | 392 | 308 | 53 | 293 | 0 |
| Turn Type | Perm | NA | • | pm+pt | NA | | Perm | NA | Perm | Perm | NA | • |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | • | | 8 | • | | 2 | = | 2 | 6 | | |
| Minimum Split (s) | 24.0 | 24.0 | | 11.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | 24.0 | | 11.0 | 35.0 | | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | |
| Total Split (%) | 40.0% | 40.0% | | 18.3% | 58.3% | | 41.7% | 41.7% | 41.7% | 41.7% | 41.7% | |
| Maximum Green (s) | 18.0 | 18.0 | | 6.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 5.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lag | | | Lead | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Lead-Lag Optimize? | Yes | Lag Yes | | Yes | | | | | | | | |
| | | | | 165 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 20.0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 18.0 | 18.0 | | 30.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Actuated g/C Ratio | 0.30 | 0.30 | | 0.50 | 0.48 | | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | |
| v/c Ratio | 0.18 | 0.84 | | 0.52 | 0.43 | | 0.26 | 0.70 | 0.45 | 0.25 | 0.53 | |
| Control Delay | 17.6 | 36.5 | | 18.7 | 11.9 | | 18.2 | 26.5 | 4.7 | 19.1 | 20.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 17.6 | 36.5 | | 18.7 | 11.9 | | 18.2 | 26.5 | 4.7 | 19.1 | 20.0 | |
| LOS | В | D | | В | В | | В | С | Α | В | С | |
| Approach Delay | | 34.6 | | | 14.1 | | | 17.0 | | | 19.9 | |
| Approach LOS | | С | | | В | | | В | | | В | |
| Queue Length 50th (m) | 4.3 | 45.9 | | 12.2 | 22.1 | | 6.3 | 39.3 | 0.0 | 4.5 | 25.8 | |
| Queue Length 95th (m) | 11.8 | #93.6 | | 28.5 | 45.9 | | 15.8 | #74.9 | 15.0 | 12.7 | 47.0 | |

PM Future (No Road Diet) 3:12 pm 07-20-2022

Lanes, Volumes, Timings 4: Colborne Road & Michigan Avenue 10-06-2022 NBT **NBR** Lane Group **EBT WBT** SBT Internal Link Dist (m) 127.8 1041.5 428.2 416.9 Turn Bay Length (m) 45.0 842 288 527 326 290 211 556 Base Capacity (vph) 558 685 Starvation Cap Reductn 0 0 0 0 0 0 0 0 0 Spillback Cap Reductn 0 0 0 0 0 0 0 0 0 Storage Cap Reductn 0 0 0 0 0 0 0 0 0 Reduced v/c Ratio 0.18 0.84 0.52 0.43 0.26 0.70 0.45 0.25 0.53 Intersection Summary Other Area Type: Cycle Length: 60 Actuated Cycle Length: 60 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green Natural Cycle: 60 Control Type: Pretimed Maximum v/c Ratio: 0.84 Intersection LOS: C Intersection Signal Delay: 20.8 Intersection Capacity Utilization 75.8% ICU Level of Service D Analysis Period (min) 15 # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. Splits and Phases: 4: Colborne Road & Michigan Avenue Tø2 (R) Ø3 ₹ø8 Ø6 (R)

PM Future (No Road Diet) 3:12 pm 07-20-2022

Lanes, Volumes, Timings 2: Indian Road & Michigan Avenue

10-06-2022

| Z. IIIdiaii Noad & N | | ., ., ., | | | | | | | | | | |
|-------------------------|-------|----------|------|-------|-------|------|-------|----------|-------|-------|----------|-------|
| | ۶ | - | • | 1 | - | * | 1 | † | 1 | 1 | ţ | 4 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | 1 | | * | 1 | | 7 | ^ | 7 | 7 | ^ | 7 |
| Traffic Volume (vph) | 65 | 281 | 92 | 140 | 356 | 86 | 104 | 216 | 134 | 79 | 234 | 21 |
| Future Volume (vph) | 65 | 281 | 92 | 140 | 356 | 86 | 104 | 216 | 134 | 79 | 234 | 21 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | | 0.0 | 70.0 | | 0.0 | 55.0 | | 60.0 | 50.0 | | 40.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.963 | | | 0.971 | | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 1699 | 0 | 1676 | 1714 | 0 | 1676 | 3353 | 1500 | 1676 | 3353 | 1500 |
| Flt Permitted | 0.337 | | | 0.428 | | | 0.595 | | | 0.605 | | |
| Satd. Flow (perm) | 595 | 1699 | 0 | 755 | 1714 | 0 | 1050 | 3353 | 1500 | 1068 | 3353 | 1500 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 37 | | | 27 | | | | 146 | | | 55 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 1065.5 | | | 822.8 | | | 529.1 | | | 497.9 | |
| Travel Time (s) | | 76.7 | | | 59.2 | | | 38.1 | | | 35.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 71 | 305 | 100 | 152 | 387 | 93 | 113 | 235 | 146 | 86 | 254 | 23 |
| Shared Lane Traffic (%) | | | | | | | | | | | _* | |
| Lane Group Flow (vph) | 71 | 405 | 0 | 152 | 480 | 0 | 113 | 235 | 146 | 86 | 254 | 23 |
| Turn Type | Perm | NA | - | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 34.0 | 34.0 | | 34.0 | 34.0 | | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 |
| Total Split (%) | 56.7% | 56.7% | | 56.7% | 56.7% | | 43.3% | 43.3% | 43.3% | 43.3% | 43.3% | 43.3% |
| Maximum Green (s) | 28.0 | 28.0 | | 28.0 | 28.0 | | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | | Max | Max | Max | Max | Max | Max |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Act Effct Green (s) | 18.5 | 18.5 | | 18.5 | 18.5 | | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 |
| Actuated g/C Ratio | 0.36 | 0.36 | | 0.36 | 0.36 | | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 |
| v/c Ratio | 0.33 | 0.63 | | 0.55 | 0.75 | | 0.27 | 0.18 | 0.21 | 0.20 | 0.19 | 0.04 |
| Control Delay | 15.5 | 16.5 | | 20.8 | 21.0 | | 15.0 | 12.1 | 4.0 | 14.0 | 12.1 | 1.7 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.5 | 16.5 | | 20.8 | 21.0 | | 15.0 | 12.1 | 4.0 | 14.0 | 12.1 | 1.7 |
| | | | | | | | | | | | | |

AM Future (With Road Diet) 3:12 pm 07-20-2022

Lanes, Volumes, Timings 2: Indian Road & Michigan Avenue 10-06-2022 t **EBL** WBT NBT Lane Group **EBT WBL NBL NBR** SBL **SBT SBR** В В Approach Delay 16.3 21.0 10.3 11.9 Approach LOS C В 4.7 11.0 6.8 5.0 0.0 Queue Length 50th (m) 27.3 35.9 7.1 0.0 7.7 48.9 12.6 25.5 62.5 21.4 10.2 16.8 18.6 Queue Length 95th (m) 17.4 1.6 Internal Link Dist (m) 1041.5 798.8 505.1 473.9 70.0 55.0 60.0 50.0 40.0 Turn Bay Length (m) 75.0 Base Capacity (vph) 331 962 420 966 417 1333 684 1333 629 424 Starvation Cap Reductn 0 0 0 0 0 0 0 0 0 Spillback Cap Reductn 0 0 0 0 0 0 0 0 0 0 Storage Cap Reductn 0 0 0 0 0 0 0 0 0 0 0.21 0.36 0.20 0.19 Reduced v/c Ratio 0.42 0.50 0.27 0.18 0.21 0.04 Intersection Summary Other Area Type: Cycle Length: 60 Actuated Cycle Length: 51 Natural Cycle: 50 Control Type: Semi Act-Uncoord Maximum v/c Ratio: 0.75 Intersection LOS: B Intersection Signal Delay: 15.5 Intersection Capacity Utilization 62.6% ICU Level of Service B Analysis Period (min) 15 Splits and Phases: 2: Indian Road & Michigan Avenue ₩ Ø8 Ø6 AM Future (With Road Diet) 3:12 pm 07-20-2022 Synchro 11 Report Page 2

Lanes, Volumes, Timings

3: Murphy Road & Michigan Avenue

10-06-2022

| | ٦ | → | • | • | + | • | 4 | † | ~ | 1 | ţ | 1 |
|-------------------------|-------|----------|------|-------|-------|------|--------|--------------|------|--------|----------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | 7 | | 7 | 1> | | 7 | † } | | * | † | |
| Traffic Volume (vph) | 85 | 263 | 139 | 207 | 341 | 130 | 105 | 235 | 131 | 104 | 321 | 103 |
| Future Volume (vph) | 85 | 263 | 139 | 207 | 341 | 130 | 105 | 235 | 131 | 104 | 321 | 103 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | | 50.0 | 60.0 | | 50.0 | 70.0 | | 0.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.948 | | | 0.959 | | | 0.946 | | | 0.964 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 1673 | 0 | 1676 | 1692 | 0 | 1676 | 3172 | 0 | 1676 | 3232 | 0 |
| Flt Permitted | 0.335 | | | 0.290 | | | 0.373 | | | 0.440 | | |
| Satd. Flow (perm) | 591 | 1673 | 0 | 512 | 1692 | 0 | 658 | 3172 | 0 | 776 | 3232 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 33 | | | 25 | | | 109 | | | 44 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 822.8 | | | 381.2 | | | 580.9 | | | 348.0 | |
| Travel Time (s) | | 59.2 | | | 27.4 | | | 41.8 | | | 25.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 92 | 286 | 151 | 225 | 371 | 141 | 114 | 255 | 142 | 113 | 349 | 112 |
| Shared Lane Traffic (%) | VL | 200 | 101 | | 0.1 | | | 200 | | 110 | 010 | – |
| Lane Group Flow (vph) | 92 | 437 | 0 | 225 | 512 | 0 | 114 | 397 | 0 | 113 | 461 | 0 |
| Turn Type | pm+pt | NA | U | pm+pt | NA | 0 | pm+pt | NA | U | pm+pt | NA | U |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | • | | 8 | | | 2 | - | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | • | • | | | | | _ | _ | | - | _ | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 11.0 | 38.0 | | 15.0 | 42.0 | | 11.0 | 26.0 | | 11.0 | 26.0 | |
| Total Split (%) | 12.2% | 42.2% | | 16.7% | 46.7% | | 12.2% | 28.9% | | 12.2% | 28.9% | |
| Maximum Green (s) | 7.0 | 32.0 | | 11.0 | 36.0 | | 7.0 | 20.0 | | 7.0 | 20.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | Max | | None | Max | | None | C-Max | | None | C-Max | |
| Walk Time (s) | 1100 | 7.0 | | | 7.0 | | 110110 | 7.0 | | 110110 | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | | 0 | | | 0 | |
| Act Effct Green (s) | 41.5 | 32.7 | | 48.8 | 38.2 | | 29.8 | 22.2 | | 29.8 | 22.2 | |
| Actuated g/C Ratio | 0.46 | 0.36 | | 0.54 | 0.42 | | 0.33 | 0.25 | | 0.33 | 0.25 | |
| v/c Ratio | 0.26 | 0.69 | | 0.55 | 0.70 | | 0.39 | 0.46 | | 0.35 | 0.56 | |
| Control Delay | 12.3 | 29.6 | | 16.2 | 27.3 | | 23.8 | 23.4 | | 22.9 | 30.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 12.3 | 29.6 | | 16.2 | 27.3 | | 23.8 | 23.4 | | 22.9 | 30.5 | |
| Total Dolay | 12.0 | 20.0 | | 10.2 | 21.0 | | 20.0 | 20.7 | | 22.3 | 50.5 | |

AM Future (With Road Diet) 3:12 pm 07-20-2022

AGENDA ITEM #c)

Lanes, Volumes, Timings 3: Murphy Road & Michigan Avenue 10-06-2022 t **EBL** WBT NBT **NBR** Lane Group **EBT WBL NBL SBL SBT** LOS C C Approach Delay 26.6 23.9 23.5 29.0 Approach LOS С C C C 7.6 20.2 74.0 13.9 13.8 Queue Length 50th (m) 62.6 23.7 36.0 15.0 98.6 33.6 114.0 26.2 38.3 26.1 52.5 Queue Length 95th (m) Internal Link Dist (m) 798.8 357.2 556.9 324.0 75.0 60.0 70.0 50.0 Turn Bay Length (m) Base Capacity (vph) 358 629 421 732 297 864 327 830 Starvation Cap Reductn 0 0 0 0 0 0 0 0 Spillback Cap Reductn 0 0 0 0 0 0 0 0 Storage Cap Reductn 0 0 0 0 0 0 0 0 0.26 0.46 0.35 Reduced v/c Ratio 0.69 0.53 0.70 0.38 0.56 Intersection Summary Other Area Type: Cycle Length: 90 Actuated Cycle Length: 90 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green Natural Cycle: 75 Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.70 Intersection LOS: C Intersection Signal Delay: 25.7 Intersection Capacity Utilization 71.3% ICU Level of Service C Analysis Period (min) 15 3: Murphy Road & Michigan Avenue Splits and Phases: **√** Ø3 Ø2 (R) 04 ₩ Ø8 Ø7 Ø6 (R) AM Future (With Road Diet) 3:12 pm 07-20-2022 Synchro 11 Report Page 4

Lanes, Volumes, Timings

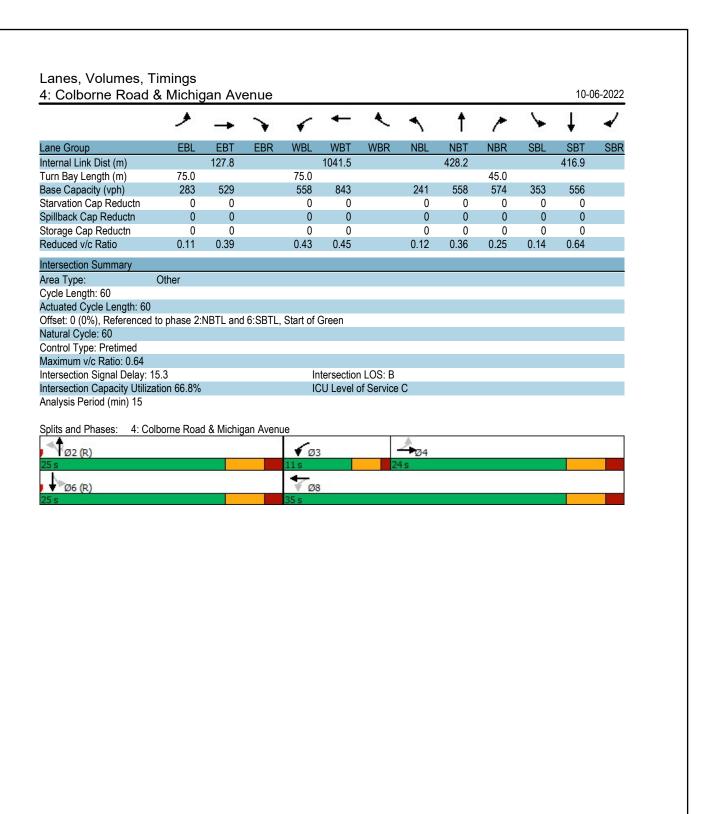
4: Colborne Road & Michigan Avenue

10-06-2022

| 4. Colborne Road C | ٠ | → | ` | - | ← | • | 4 | † | / | \ | Ţ | √ |
|---------------------------------|-------|----------|------|-------|------------|------|----------|------------|----------|----------|----------|----------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | T T | 1> | LDIX | YVDL | ₩ <u>₽</u> | WDIX | NDL 1 | <u>ND1</u> | TADIX |) N | <u> </u> | ODIN |
| Traffic Volume (vph) | 29 | 152 | 39 | 221 | 291 | 61 | 27 | 185 | 133 | 44 | 290 | 36 |
| Future Volume (vph) | 29 | 152 | 39 | 221 | 291 | 61 | 27 | 185 | 133 | 44 | 290 | 36 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | 1000 | 0.0 | 75.0 | 1000 | 0.0 | 0.0 | 1000 | 45.0 | 0.0 | 1000 | 0.0 |
| Storage Lanes | 13.0 | | 0.0 | 15.0 | | 0.0 | 1 | | 45.0 | 1 | | 0.0 |
| Taper Length (m) | 7.5 | | U | 7.5 | | U | 7.5 | | 1 | 7.5 | | U |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.970 | 1.00 | 1.00 | 0.974 | 1.00 | 1.00 | 1.00 | 0.850 | 1.00 | 0.983 | 1.00 |
| Flt Protected | 0.950 | 0.970 | | 0.950 | 0.974 | | 0.950 | | 0.000 | 0.950 | 0.903 | |
| | 1676 | 1712 | 0 | 1676 | 1719 | 0 | 1676 | 1765 | 1500 | 1676 | 1735 | 0 |
| Satd. Flow (prot) Flt Permitted | 0.535 | 1712 | U | 0.514 | 17 19 | U | 0.432 | 1700 | 1500 | 0.632 | 1733 | 0 |
| | 944 | 1712 | 0 | 907 | 1719 | 0 | 762 | 1765 | 1500 | 1115 | 1735 | 0 |
| Satd. Flow (perm) | 944 | 1712 | Yes | 907 | 17 19 | Yes | 702 | 1700 | Yes | 1115 | 1735 | Yes |
| Right Turn on Red | | 20 | res | | 24 | res | | | | | 11 | res |
| Satd. Flow (RTOR) | | 22 50 | | | 24 | | | Ε0. | 145 | | 11 | |
| Link Speed (k/h) | | | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 151.8 | | | 1065.5 | | | 452.2 | | | 440.9 | |
| Travel Time (s) | 0.00 | 10.9 | 0.00 | 0.00 | 76.7 | 0.00 | 0.00 | 32.6 | 0.00 | 0.00 | 31.7 | 0.00 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 32 | 165 | 42 | 240 | 316 | 66 | 29 | 201 | 145 | 48 | 315 | 39 |
| Shared Lane Traffic (%) | | | | 0.10 | 000 | | | 224 | | 10 | 0=4 | |
| Lane Group Flow (vph) | 32 | 207 | 0 | 240 | 382 | 0 | 29 | 201 | 145 | 48 | 354 | 0 |
| Turn Type | Perm | NA | | pm+pt | NA | | Perm | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | _ | 2 | | | 6 | |
| Permitted Phases | 4 | 24.2 | | 8 | 24.2 | | 2 | 24.2 | 2 | 6 | 24.2 | |
| Minimum Split (s) | 24.0 | 24.0 | | 11.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | 24.0 | | 11.0 | 35.0 | | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | |
| Total Split (%) | 40.0% | 40.0% | | 18.3% | 58.3% | | 41.7% | 41.7% | 41.7% | 41.7% | 41.7% | |
| Maximum Green (s) | 18.0 | 18.0 | | 7.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 1.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 4.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lag | | Lead | | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | 24.0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 18.0 | 18.0 | | 31.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Actuated g/C Ratio | 0.30 | 0.30 | | 0.52 | 0.48 | | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | |
| v/c Ratio | 0.11 | 0.39 | | 0.43 | 0.45 | | 0.12 | 0.36 | 0.25 | 0.14 | 0.64 | |
| Control Delay | 16.6 | 17.5 | | 10.9 | 11.7 | | 16.2 | 18.1 | 4.6 | 16.0 | 23.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 16.6 | 17.5 | | 10.9 | 11.7 | | 16.2 | 18.1 | 4.6 | 16.0 | 23.2 | |
| LOS | В | В | | В | В | | В | В | Α | В | С | |
| Approach Delay | | 17.4 | | | 11.4 | | | 12.7 | | | 22.3 | |
| Approach LOS | | В | | | В | | | В | | | С | |
| Queue Length 50th (m) | 2.7 | 16.6 | | 14.3 | 25.2 | | 2.4 | 17.6 | 0.0 | 3.9 | 33.4 | |
| Queue Length 95th (m) | 8.4 | 32.8 | | 26.3 | 44.7 | | 7.7 | 33.3 | 10.4 | 10.7 | 58.8 | |

AM Future (With Road Diet) 3:12 pm 07-20-2022

AGENDA ITEM #c)



AM Future (With Road Diet) 3:12 pm 07-20-2022

Lanes, Volumes, Timings 2: Indian Road & Michigan Avenue

10-06-2022

| | • | 8000 | _ | | — | • | 4 | † | * | _ | 1 | 1 |
|-----------------------------------|-------|--------|------|------------|----------|------|-------|----------|----------|-------|----------|-------|
| | 68 | 90.000 | ▼ | · V | | | 1 | NI. | / | 0.5 | • | |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | 4 | | 7 | 1 | | 7 | ^ | 7 | ሻ | ^ | 7 |
| Traffic Volume (vph) | 20 | 412 | 137 | 103 | 343 | 56 | 121 | 268 | 174 | 35 | 233 | 26 |
| Future Volume (vph) | 20 | 412 | 137 | 103 | 343 | 56 | 121 | 268 | 174 | 35 | 233 | 26 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | | 0.0 | 70.0 | | 0.0 | 55.0 | | 60.0 | 50.0 | | 40.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.963 | | | 0.979 | | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 1699 | 0 | 1676 | 1728 | 0 | 1676 | 3353 | 1500 | 1676 | 3353 | 1500 |
| Flt Permitted | 0.425 | | | 0.255 | | | 0.595 | | | 0.574 | | |
| Satd. Flow (perm) | 750 | 1699 | 0 | 450 | 1728 | 0 | 1050 | 3353 | 1500 | 1013 | 3353 | 1500 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 40 | | | 20 | | | | 189 | | | 55 |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 1065.5 | | | 822.8 | | | 529.1 | | | 497.9 | |
| Travel Time (s) | | 76.7 | | | 59.2 | | | 38.1 | | | 35.8 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 22 | 448 | 149 | 112 | 373 | 61 | 132 | 291 | 189 | 38 | 253 | 28 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 22 | 597 | 0 | 112 | 434 | 0 | 132 | 291 | 189 | 38 | 253 | 28 |
| Turn Type | Perm | NA | | Perm | NA | • | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | • | | 8 | • | | 2 | _ | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | • | • | | | | | _ | _ | _ | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (%) | 60.0% | 60.0% | | 60.0% | 60.0% | | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Vehicle Extension (s) Recall Mode | | | | None | | | Max | Max | Max | Max | Max | Max |
| | None | None | | | None | | | | | | | |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | 10.3 | 10.3 | 10.3 | 10.3 | 10.2 | 10.2 |
| Act Effet Green (s) | 21.6 | 21.6 | | 21.6 | 21.6 | | 18.3 | 18.3 | 18.3 | 18.3 | 18.3 | 18.3 |
| Actuated g/C Ratio | 0.41 | 0.41 | | 0.41 | 0.41 | | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| v/c Ratio | 0.07 | 0.82 | | 0.60 | 0.60 | | 0.36 | 0.25 | 0.29 | 0.11 | 0.22 | 0.05 |
| Control Delay | 8.8 | 22.4 | | 26.2 | 14.5 | | 18.6 | 14.4 | 4.5 | 15.2 | 14.2 | 2.5 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.8 | 22.4 | | 26.2 | 14.5 | | 18.6 | 14.4 | 4.5 | 15.2 | 14.2 | 2.5 |

PM Future (With Road Diet) 3:29 pm 07-20-2022

AGENDA ITEM #c)

Lanes, Volumes, Timings 2: Indian Road & Michigan Avenue 10-06-2022 t **EBL** WBT NBT Lane Group **EBT WBL NBL NBR SBT SBR** В В Approach Delay 21.9 16.9 12.2 13.3 Approach LOS C 1.2 8.0 9.4 2.5 0.0 Queue Length 50th (m) 45.0 29.1 10.4 0.0 8.9 4.4 79.0 23.4 50.7 26.3 22.3 12.3 9.4 19.6 2.6 Queue Length 95th (m) Internal Link Dist (m) 1041.5 798.8 505.1 473.9 75.0 70.0 55.0 60.0 50.0 40.0 Turn Bay Length (m) Base Capacity (vph) 438 1009 263 1018 368 1175 648 1175 561 355 Starvation Cap Reductn 0 0 0 0 0 0 0 Spillback Cap Reductn 0 0 0 0 0 0 0 0 0 0 Storage Cap Reductn 0 0 0 0 0 0 0 0 0 0 0.05 0.22 Reduced v/c Ratio 0.59 0.43 0.43 0.36 0.25 0.29 0.11 0.05 Intersection Summary Other Area Type: Cycle Length: 60 Actuated Cycle Length: 52.1 Natural Cycle: 60 Control Type: Semi Act-Uncoord Maximum v/c Ratio: 0.82 Intersection LOS: B Intersection Signal Delay: 16.5 Intersection Capacity Utilization 71.6% ICU Level of Service C Analysis Period (min) 15 Splits and Phases: 2: Indian Road & Michigan Avenue ₩ Ø8 Ø6 PM Future (With Road Diet) 3:29 pm 07-20-2022 Synchro 11 Report Page 2

Lanes, Volumes, Timings

| 3: Murphy | Road & | Michigan | Avenue |
|-----------|--------|----------|--------|
| | | | |

10-06-2022

| | ٦ | → | • | • | + | • | 4 | † | ~ | 1 | ţ | 1 |
|-------------------------|-------|------------------|------|-------|-------|------|-------|----------|------|-------|----------|------|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | 7 | | 7 | 7 | | 7 | † | | 7 | † | |
| Traffic Volume (vph) | 120 | 313 | 166 | 199 | 326 | 116 | 159 | 441 | 165 | 109 | 372 | 75 |
| Future Volume (vph) | 120 | 313 | 166 | 199 | 326 | 116 | 159 | 441 | 165 | 109 | 372 | 75 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | | 50.0 | 60.0 | | 50.0 | 70.0 | | 0.0 | 50.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.948 | | | 0.961 | | | 0.959 | | | 0.975 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 1673 | 0 | 1676 | 1696 | 0 | 1676 | 3215 | 0 | 1676 | 3269 | 0 |
| Flt Permitted | 0.307 | | | 0.187 | | - | 0.361 | <u> </u> | | 0.215 | | |
| Satd. Flow (perm) | 542 | 1673 | 0 | 330 | 1696 | 0 | 637 | 3215 | 0 | 379 | 3269 | 0 |
| Right Turn on Red | V | | Yes | | | Yes | | 02.0 | Yes | 0.0 | 0200 | Yes |
| Satd. Flow (RTOR) | | 32 | . 00 | | 23 | | | 57 | . 00 | | 25 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 822.8 | | | 381.2 | | | 580.9 | | | 348.0 | |
| Travel Time (s) | | 59.2 | | | 27.4 | | | 41.8 | | | 25.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 130 | 340 | 180 | 216 | 354 | 126 | 173 | 479 | 179 | 118 | 404 | 82 |
| Shared Lane Traffic (%) | 100 | J + 0 | 100 | 210 | JJ-1 | 120 | 175 | 413 | 113 | 110 | 707 | 02 |
| Lane Group Flow (vph) | 130 | 520 | 0 | 216 | 480 | 0 | 173 | 658 | 0 | 118 | 486 | 0 |
| Turn Type | pm+pt | NA | U | pm+pt | NA | U | pm+pt | NA | U | pm+pt | NA | U |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | 7 | | 8 | U | | 2 | 2 | | 6 | U | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | 1 | 7 | | J | U | | 3 | 2 | | | U | |
| Minimum Initial (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | |
| Minimum Split (s) | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | | 11.0 | 24.0 | |
| Total Split (s) | 11.0 | 37.0 | | 14.0 | 40.0 | | 11.0 | 28.0 | | 11.0 | 28.0 | |
| Total Split (%) | 12.2% | 41.1% | | 15.6% | 44.4% | | 12.2% | 31.1% | | 12.2% | 31.1% | |
| Maximum Green (s) | 7.0 | 31.0 | | 10.0 | 34.0 | | 7.0 | 22.0 | | 7.0 | 22.0 | |
| Yellow Time (s) | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | | 3.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | | 1.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | | 4.0 | 6.0 | |
| Total Lost Time (s) | | | | | | | | | | | | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| Recall Mode | None | Max | | None | Max | | None | C-Max | | None | C-Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | 40.0 | 0 | | 4== | 0 | | 0.1.0 | 0 | | 0.4.0 | 0 | |
| Act Effct Green (s) | 40.3 | 31.3 | | 45.7 | 34.0 | | 31.0 | 22.0 | | 31.0 | 22.0 | |
| Actuated g/C Ratio | 0.45 | 0.35 | | 0.51 | 0.38 | | 0.34 | 0.24 | | 0.34 | 0.24 | |
| v/c Ratio | 0.39 | 0.86 | | 0.69 | 0.73 | | 0.58 | 0.79 | | 0.51 | 0.59 | |
| Control Delay | 15.2 | 42.2 | | 24.8 | 30.8 | | 28.3 | 37.4 | | 26.7 | 32.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 15.2 | 42.2 | | 24.8 | 30.8 | | 28.3 | 37.4 | | 26.7 | 32.0 | |

PM Future (With Road Diet) 3:29 pm 07-20-2022

AGENDA ITEM #c)

Lanes, Volumes, Timings 3: Murphy Road & Michigan Avenue 10-06-2022 t WBT NBT Lane Group **EBL EBT WBL NBR** SBL **SBT** LOS D Approach Delay 36.8 28.9 35.5 30.9 Approach LOS D C D C 20.4 21.0 13.9 Queue Length 50th (m) 11.6 82.8 70.4 54.3 39.1 #39.8 21.3 #142.8 108.8 36.4 #76.0 25.9 55.6 Queue Length 95th (m) Internal Link Dist (m) 798.8 357.2 556.9 324.0 60.0 70.0 50.0 Turn Bay Length (m) 75.0 Base Capacity (vph) 331 603 318 655 300 828 231 817 Starvation Cap Reductn 0 0 0 0 0 0 0 0 Spillback Cap Reductn 0 0 0 0 0 0 0 0 Storage Cap Reductn 0 0 0 0 0 0 0 0 0.39 Reduced v/c Ratio 0.86 0.68 0.73 0.58 0.79 0.51 0.59 Intersection Summary Other Area Type: Cycle Length: 90 Actuated Cycle Length: 90 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green Natural Cycle: 80 Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.86 Intersection LOS: C Intersection Signal Delay: 33.2 Intersection Capacity Utilization 81.2% ICU Level of Service D Analysis Period (min) 15 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. Splits and Phases: 3: Murphy Road & Michigan Avenue **√**Ø3 **Ø**4 Ø2 (R) ₹ Ø8 Ø7 Ø6 (R) PM Future (With Road Diet) 3:29 pm 07-20-2022 Synchro 11 Report Page 4

Lanes, Volumes, Timings

| 4: C | olborne | Road | & | Michigan | Avenue |
|------|---------|------|---|----------|--------|
| | | | | | |

10-06-2022

| T. COIDOITIC TOdd (| | <u> </u> | | | | | | | | | | |
|-------------------------|-------|----------|------|-------|--------|------|-------|----------|-------|-------|-------|------|
| | • | - | * | 1 | ← | • | 1 | 1 | 1 | 1 | Ţ | 1 |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | 1 | | 1 | 1 | | 1 | † | 7 | 7 | 1 | |
| Traffic Volume (vph) | 47 | 347 | 62 | 157 | 273 | 60 | 68 | 361 | 283 | 49 | 230 | 40 |
| Future Volume (vph) | 47 | 347 | 62 | 157 | 273 | 60 | 68 | 361 | 283 | 49 | 230 | 40 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 75.0 | | 0.0 | 75.0 | | 0.0 | 0.0 | | 45.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (m) | 7.5 | | | 7.5 | | | 7.5 | | | 7.5 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.977 | | | 0.973 | | | | 0.850 | | 0.978 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 1724 | 0 | 1676 | 1717 | 0 | 1676 | 1765 | 1500 | 1676 | 1726 | 0 |
| Flt Permitted | 0.545 | | | 0.236 | | | 0.520 | | | 0.379 | | |
| Satd. Flow (perm) | 962 | 1724 | 0 | 416 | 1717 | 0 | 918 | 1765 | 1500 | 669 | 1726 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 15 | | | 25 | | | | 308 | | 15 | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 151.8 | | | 1065.5 | | | 452.2 | | | 440.9 | |
| Travel Time (s) | | 10.9 | | | 76.7 | | | 32.6 | | | 31.7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 51 | 377 | 67 | 171 | 297 | 65 | 74 | 392 | 308 | 53 | 250 | 43 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 51 | 444 | 0 | 171 | 362 | 0 | 74 | 392 | 308 | 53 | 293 | 0 |
| Turn Type | Perm | NA | | pm+pt | NA | | Perm | NA | Perm | Perm | NA | |
| Protected Phases | | 4 | | 3 | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | |
| Minimum Split (s) | 24.0 | 24.0 | | 11.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | |
| Total Split (s) | 24.0 | 24.0 | | 11.0 | 35.0 | | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | |
| Total Split (%) | 40.0% | 40.0% | | 18.3% | 58.3% | | 41.7% | 41.7% | 41.7% | 41.7% | 41.7% | |
| Maximum Green (s) | 18.0 | 18.0 | | 7.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 3.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 1.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | | 4.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lag | | Lead | | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | | | | | | | | |
| Walk Time (s) | 7.0 | 7.0 | | | 7.0 | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | | | 11.0 | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 18.0 | 18.0 | | 31.0 | 29.0 | | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | |
| Actuated g/C Ratio | 0.30 | 0.30 | | 0.52 | 0.48 | | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | |
| v/c Ratio | 0.18 | 0.84 | | 0.47 | 0.43 | | 0.26 | 0.70 | 0.45 | 0.25 | 0.53 | |
| Control Delay | 17.6 | 36.5 | | 12.5 | 11.3 | | 18.2 | 26.5 | 4.7 | 19.1 | 20.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 17.6 | 36.5 | | 12.5 | 11.3 | | 18.2 | 26.5 | 4.7 | 19.1 | 20.0 | |
| LOS | В | D | | В | В | | В | С | Α | В | С | |
| Approach Delay | | 34.6 | | | 11.7 | | | 17.0 | | | 19.9 | |
| Approach LOS | | С | | | В | | | В | | | В | |
| Queue Length 50th (m) | 4.3 | 45.9 | | 9.7 | 23.3 | | 6.3 | 39.3 | 0.0 | 4.5 | 25.8 | |
| Queue Length 95th (m) | 11.8 | #93.6 | | 19.0 | 41.8 | | 15.8 | #74.9 | 15.0 | 12.7 | 47.0 | |

PM Future (With Road Diet) 3:29 pm 07-20-2022

AGENDA ITEM #c)

Lanes, Volumes, Timings 4: Colborne Road & Michigan Avenue 10-06-2022 NBT **NBR** Lane Group **EBT WBL WBT** SBT Internal Link Dist (m) 127.8 1041.5 428.2 416.9 Turn Bay Length (m) 75.0 75.0 45.0 842 290 211 556 Base Capacity (vph) 288 527 361 558 685 Starvation Cap Reductn 0 0 0 0 0 0 0 0 0 Spillback Cap Reductn 0 0 0 0 0 0 0 0 0 Storage Cap Reductn 0 0 0 0 0 0 0 0 0 Reduced v/c Ratio 0.18 0.84 0.47 0.43 0.26 0.70 0.45 0.25 0.53 Intersection Summary Other Area Type: Cycle Length: 60 Actuated Cycle Length: 60 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green Natural Cycle: 60 Control Type: Pretimed Maximum v/c Ratio: 0.84 Intersection LOS: C Intersection Signal Delay: 20.2 Intersection Capacity Utilization 75.0% ICU Level of Service D Analysis Period (min) 15 # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. Splits and Phases: 4: Colborne Road & Michigan Avenue Tø2 (R) Ø3 ₹ø8 Ø6 (R)

PM Future (With Road Diet) 3:29 pm 07-20-2022

| COUNTY OF LAMBTON | CULTURAL SERVICES DIVISION |
|-------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | CULTURAL SERVICES DIVISION |
| PREPARED BY: | Andrew Meyer, General Manager |
| REVIEWED BY: | Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Cultural Services Division 2024 Annual Report |

BACKGROUND

The Cultural Services Division 2024 Annual Report (attached) evaluates the work accomplished during the past year in the context of the *Cultural Services Division Strategic Plan* (2022 to 2026) that was approved by Council. The following six strategic areas of focus were identified within the plan, informing how the Division will measure its progress each year:

- Enhancing Access, Inclusion & Community Engagement;
- Creating & Delivering Great Experiences;
- Developing Partnerships that Increase Participation in Culture;
- Maximizing the Value of Our Collections & Spaces;
- Building Cultural Capacity & Raising Lambton's Profile; and
- Managing Our Resources Efficiently & Effectively.

DISCUSSION

2024 marked the 175th anniversary of the County, an important milestone in the history of local government. Many of the projects, programs and activities that took place across the Division in 2024 helped to support this celebration, while also advancing the strategic actions associated with each of the six areas of focus. The Annual Report captures the 175th anniversary activities and evaluates the Division's progress related to its planning objectives through the compilation of statistical information and divisional achievements. This report is utilized for the annual provincial operating grant reporting obligations of the Libraries Department, and the Museums, Gallery and Archives Department.

Further, the 2024 Annual Report demonstrates the effectiveness of the Division with respect to service delivery and standards compliance to satisfy the requirements of

Cultural Services Division 2024 Annual Report (page 2)

February 19, 2025

Provincial funding partners. The report highlights the Division's ability to innovate and adapt its services to meet the needs and expectations of the communities that we serve.

The report is also used when submitting applications to funding agencies with the goal of identifying alternative revenue sources to support our planning objectives.

FINANCIAL IMPLICATIONS

Not applicable.

CONSULTATIONS

The compilation of the Cultural Services Division Annual Report involved consultation with various levels of staff across the Division to ensure the document provides a complete overview of cultural services and programs, and accurately reflects the strategic priorities of The County of Lambton. The document was compiled by the Division's Community Engagement / Communications Supervisor, with support from the Division's management team.

STRATEGIC PLAN

The development of an annual report document responds to the strategic direction found in the *County of Lambton Strategic Plan*, *Area of Effort 2, Services and Communications*, related to engaging and informing residents, stakeholders, and municipal partners of the County's services and programs. *The Cultural Services Division Strategic Plan* (2022 to 2026) also identifies that annual reports be provided to council to ensure continuous engagement and evaluation.

CONCLUSION

The 2024 Annual Report outlines several significant achievements in support of the Division's planning objectives. Divisional staff strive to deliver services which are responsive to the needs and expectations of the community. Senior management of the Cultural Services Division is grateful for the ongoing support of County Council, supporting Divisions, and the dedicated efforts of the entire Division's staff team. The Division looks forward to working with members of Council, the community, government agencies, and our local municipal partners in the year ahead to further enhance services to residents.



2024 Annual Report





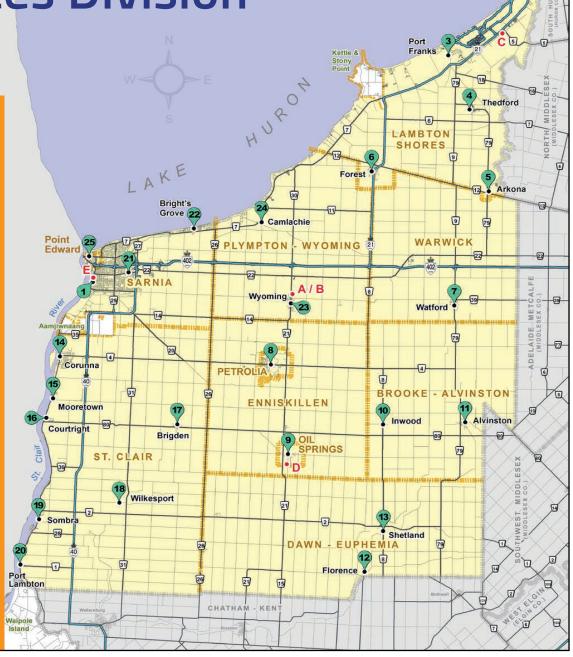




Clearwater Library, 1400 Wellington St., Sarnia

| | ID | LOCATION | WEBSITE | TELEPHONE | ADDRESS |
|---|----|---|------------------------|--------------|---------------------|
| [| | | | | |
| | Α | Library Headquaters | www.lclibrary.ca | 519-845-3324 | 787 Broadway Street |
| | В | Lambton County Archives | www.lambtonarchives.ca | 519-845-5426 | 787 Broadway Street |
| | С | Lambton Heritage Museum | www.heritagemuseum.ca | 519-243-2600 | 10035 Museum Road |
| | D | Oil Museum of Canada National Historic Site | www.oilmuseum.ca | 519-834-2840 | 2423 Kelly Road |
| | E | Judith & Norman Alix Art Gallery | www.jnaag.ca | 519-336-8127 | 147 Lochiel Street |

| - Judici | 0.14011110 | THIR FITE Gallery | vvvv.jnaag.ca | 313 330 0127 | 147 EDETHET STICEE |
|----------|------------|------------------------|---------------|-----------------------|--------------------|
| | | | | | |
| REGION | ID | LIBRARY LOCATION | TELEPHONE | ADDRESS | MUNICIPALITY |
| Region 1 | 1 | Courie Liberto | 519-337-3291 | 124 Christina Street | S. Sarnia |
| region i | • | Sarnia Library | 519-337-3291 | 124 Unristina Street | S. Sarnia |
| Region 2 | 2 | Grand Bend Library | 519-238-2067 | 15 Gill Road | Lambton Shores |
| | 3 | Port Franks Library | 519-243-2820 | 9997 Port Franks Ro | d. Lambton Shores |
| | 4 | Thedford Library | 519-296-4459 | 16 Allen Street | Lambton Shores |
| | 5 | Arkona Library | 519-828-3406 | 16 Smith Street | Lambton Shores |
| | 6 | Forest Library | 519-786-5152 | 61 King Street West | Lambton Shores |
| | 7 | Watford Library | 519-876-2204 | 5317 Nauvoo Road | Warwick |
| Region 3 | 8 | Petrolia Library | 519-882-0771 | 4200 Petrolia Line | Petrolia |
| | 9 | Oil Springs Library | 519-834-2670 | 4596 Oil Springs Line | e Oil Springs |
| | 10 | Inwood Library | 519-844-2491 | 6504 James Street | Brooke-Alvinston |
| | 11 | Alvinston Library | 519-898-2921 | 3251 River Street | Brooke-Alvinston |
| | 12 | Florence Library | 519-692-3213 | 6213 Mill Street | Dawn-Euphemia |
| | 13 | Shetland Library | 519-695-3330 | 1279 Shetland Road | Dawn-Euphemia |
| Region 4 | 14 | Corunna Library | 519-862-1132 | 417 Lyndoch Street | St. Clair |
| | 15 | Mooretown Library | 519-867-2823 | 1166 Emily Street | St. Clair |
| | 16 | Courtright Library | 519-867-2712 | 1533 Fourth Street | St. Clair |
| | 17 | Brigden Library | 519-864-1142 | 1540 Duncan Street | St. Clair |
| | 18 | Wilkesport Library | 519-864-4000 | 1349 Wilkesport Lin | e St. Clair |
| | 19 | Sombra Library | 519-892-3711 | 3536 St. Clair Parkw | ay St. Clair |
| | 20 | Port Lambton Library | 519-677-5217 | 507 Stoddard Street | St. Clair |
| Region 5 | 21 | Clearwater Library | 519-542-2580 | 1400 Wellington Str | eet Sarnia |
| | 22 | Bright's Grove Library | 519-869-2351 | 2618 Hamilton Road | d Sarnia |
| | 23 | Wyoming Library | 519-845-0181 | 536 Niagara Street | Plympton-Wyoming |
| | 24 | Camlachie Library | 519-899-2202 | 6745 Camlachie Roa | d Plympton-Wyoming |
| | 25 | Point Edward Library | 519-336-3291 | 220 Michigan Avenu | e Point Edward |
| | | | | | |



Grand

Contents



A young patron makes a popsicle out of LEGO at Clearwater Library's Community Open House.



Teens play with light and photography at the Judith & Norman Alix Art Gallery as practice for the Teen Photo Contest.



Visitors look at the Canatara Cabin at Lambton Heritage Museum during the reconstruction stage.

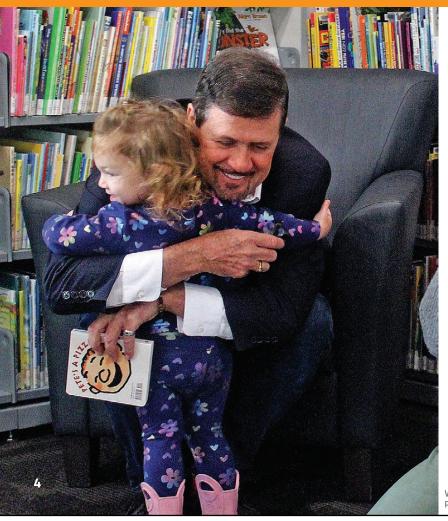
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COVER IMAGES: Clockwise from bottom left - 1) Enbridge employees stand outside the Dawn Ontario Underground Natural Gas Storage Exhibit at the Oil Museum of Canada after planting trees as part of the 175th anniversary celebrations. 2) Lambton County Councillor and Plympton-Wyoming Mayor, Gary Atkinson reads to patrons at Camlachie Library during Local Government Week. 3) Kathy Hill poses with her portrait of Thomas Crooke next to one on display at Lambton Heritage Museum. 4) Archivist / Supervisor, Nicole Aszalos, gives a tour of the Lambton County Archives' vault to the Heritage Champions as part of the 175th Anniversary Celebrations. 5) Young visitor, Claire Allen, paints as part of the Family Saturday programming at the Judith & Norman Alix Art Gallery.

Cultural Services Division Profile

The County of Lambton Cultural Services Division's mandate is to provide leadership and support to advance cultural development for economic, social and broader community benefit in Lambton County. In support of this mandate, the Division assumes responsibilities in the areas of cultural planning and policy development, capacity building, program delivery, strategic investment and resource development.



Lambton County Library

Lambton County Library manages a network of 25 libraries, provides courier service to all County Divisions and partner agencies Tourism Sarnia-Lambton and Sarnia-Lambton Economic Partnership, and operates a mobile library outreach service. Services offered to its 25,510 active cardholders include the ability to borrow traditional items like books, audio books, and magazines and non-traditional items like video games, snow shoes, telescopes and more. Patrons can participate in story hours, hear from guest speakers, access reference service and access the Internet through public computer workstations. Library cardholders also have access to a range of convenient eLibrary services available on any device connected to the Internet, 24 hours a day, seven days a week. These services include electronic books, magazines, newspapers, digital media (such as music and movies) educational courses and electronic databases and research resources.

Judith & Norman Alix Art Gallery

Judith & Norman Alix Art Gallery is a free public art gallery located in downtown Sarnia. The Judith & Norman Alix Art Gallery engages the community through a wide-range of exhibitions, tours, lectures and programs for all ages. The Gallery's collection is comprised of 1,200 primarily Canadian historical and contemporary works of both local and national significance. The Gallery holds the distinction of Category 'A' designation from the Department of Canadian Heritage. As such, the Gallery meets and maintains a range of strict building, operational and professional standards.

AGENDA ITEM #a,

Warden Kevin Marriott returns the hug of a young patron after helping lead the Toddler Tales program at Petrolia Library during Local Government Week.

Oil Museum of Canada - National Historic Site

Oil Museum of Canada is a designated National Historic Site, situated on the world's first commercial oil field. The ten-acre site features four historic buildings with reconstructed spring-pole and three-pole derricks dotting the property. A series of jerker lines, pumping stations, storage tanks and oil wagons combine with the material in the museum collection to bring the fascinating story of the oil industry to life. The main exhibition centre, constructed in 1960, houses over 9,000 artifacts that interpret the international influence of Lambton's proud oil heritage.

Lambton County Archives

Lambton County Archives serves as an active genealogical and local history resource centre. The archives preserves significant local material including census records, birth, marriage and death records, local newspapers, corporate records, Land Registry records and a vast historical photograph collection. The archives offers seminars and information sessions to help individuals develop their historical and genealogical research skills, as well as educate Lambton's residents about their past.

Lambton Heritage Museum

Lambton Heritage Museum is entrusted with the care of over 25,000 historic artifacts which preserve the history of Lambton County. Situated on 30 acres, the museum maintains six historic buildings, two display buildings and one main exhibition centre. The museum is open year round, and provides picnic grounds and a 1km Woodland Heritage Trail. Lambton Heritage Museum has evolved from a passive museum site to an active experiential tourism destination.

Sarnia Library Theatre

Sarnia Library is home to the Sarnia Library Theatre, which features special Cultural Services Division programming and also plays host to many events by community organizations and cultural groups. With a capacity of just over 300 and projection, sound and lighting equipment, the theatre space is available for rent to accommodate concerts, lectures, celebrations, film screenings and more.

Creative County Grant Program

The Creative County Grant Program invests matching funds (up to 50% of the total cost) in new and innovative projects that build cultural capacity, strengthen the creative community, define Lambton's unique identity and enrich the quality of life of all residents. Projects led by or in partnership with local Indigenous communities are also encouraged.





Lambton County Celebrates 175 Years



AGENDA ITEM #a

Local bag piper, Griffin McGregor, leads Lambton County Council into Council Chambers ahead of the 175th Anniversary Ceremony.



Erin Dee-Richard, Curator / Supervisor of the Oil Museum of Canada, National Historic Site, stands with the Lambton 175 Exhibit featured at the Legislative Assembly of Ontario in Oueen's Park.



Lambton County Warden Kevin Marriott and Indigenous Historian and Author David Plain stand in the newly named Ottissippi Room at Lambton Shared Services Centre.

Lambton County celebrated its 175th anniversary in 2024 with several milestone initiatives led by the Cultural Services Division. A ceremony during the June County Council meeting, attended by past and present council members and led by a piper's procession, honored 27 Heritage Champions for their dedication to preserving local history. Museums, archives and gallery sites offered free admission to residents throughout the year.

Environmental stewardship marked the celebrations with 600 native trees planted at the Oil Museum of Canada, including 175 commemorative tulip trees. The Show & Tell program preserved family histories through digitization, while Doors Open drew 2,000 visitors to architectural and cultural landmarks county wide.

The Lambton Heritage Museum featured *Hockey*, a Canadian Museum of History exhibition enhanced with local artifacts. The county's heritage reached Queen's Park through an exhibit at the Legislative Assembly, while the Virtual Wardens Exhibit digitized leadership records from 1852 onward. Museums enhanced access to their collections by launching Past Perfect, a digital database of items, photographs and artifacts.

The naming of the Ottissippi Room at the Lambton Shared Services Centre honoured Indigenous heritage. With support from Aamjiwnaang historian and author David Plain, this space—named for the Ojibwe term for "Clear Water"—features interpretive panels sharing the region's Indigenous history. To mark the conclusion of the anniversary year, a time capsule curated by Museums and Archives staff was placed in the Administration Building Lobby during the Warden's election.

These initiatives not only celebrated Lambton County's rich heritage but also strengthened community connections and showcased its commitment to preserving history for future generations. By blending traditional storytelling with modern innovation, the 175th-anniversary celebrations ensured that Lambton's legacy will continue to inspire and educate for years to come.



History in Action

6,396 Lambton residents enjoyed free admission to cultural sites to celebrate Lambton's 175th anniversary year.

Stories Preserved

Over **435** minutes of oral histories recorded at Show & Tell events.

New Treasures

Over 25,000 unique artifacts added to our archives and museums, including portraits, photographs, equipment, deeds and more.

Growing Together

600 native trees planted to create interpretive trails at the Oil Museum of Canada blending history and sustainability.

Doors Opened

33 historic sites featured, celebrating Lambton's architectural and cultural heritage.

Heritage Champions

27 individuals and groups honoured for their dedication to preserving Lambton's history.

Lambton County Archives Archivist / Supervisor, Nicole Aszalos browses photos with a resident at the Mooretown at Show & Tell.

Enhancing Access, Inclusion & Community Engagement



Welcoming Our Community

22,108 people visited museums, gallery and archives sites with 60% of walk-in visitors being Lambton residents.

Beyond Our Walls

Cultural Services reached

17,409 people outside of our physical spaces through outreach efforts.

Digital Growth

601,785 eLibrary items accessed by cardholders, representing an increase of about **14%** in digital circulation.

A Million Stories Shared

Over **1.1 million** items were borrowed by 25,510 active library cardholders.

AGENDA ITEM #a)

8



Promoting Lambton County Library at the Sarnia Lambton Chamber of Commerce's Business Showcase.



Patrons browsing the microfilm at Lambton County Archives for research.



Young visitors explore exhibits at Lambton Heritage Museum.

The Cultural Services Division strives to promote and enhance awareness of cultural opportunities across Lambton County, and provide access to relevant and engaging exhibitions, programming and services for residents at all phases of life.

Valentines for Long-Term Care

Lambton County Library distributed blank Valentine's Day cards across its locations for patrons to create messages for residents in the County of Lambton's three municipally operated long-term care homes. In 2024, 2,635 valentines were distributed to long-term care residents and the story was featured on London's CTV primetime news.

Community Outreach Success

In 2024, our cultural sites participated in events across Lambton County, bringing resources and information directly to the community. The Oil Museum of Canada joined 41 community events, connecting with 1,531 people. Lambton County Library staff took part in 26 local events, reaching 11,776 people. Lambton Heritage Museum engaged with 212 community members through various local gatherings, while the Lambton

County Archives participated in five events that reached 3,544 people. The Judith & Norman Alix Art Gallery connected with 346 people at community events. All five of our cultural sites actively supported community events throughout the year, helping us reach people where they gather and share our community's resources, stories, art, and history beyond our walls.

Connecting with Visitors

Lambton's cultural sites (excluding libraries) attracted 22,108 total visitors in 2024. The Judith & Norman Alix Art Gallery welcomed over 6,916 visitors, while the Oil Museum of Canada attracted 4,612. Lambton County Archives supported 930 researchers and Lambton Heritage Museum welcomed 9,650.

Library Circulation and Cardholders Rise

Library services saw significant growth in 2024, with 601,785 e-service items accessed by cardholders online, representing about a 14% increase from 2023. Patrons borrowed 545,688 items through in-person service, bringing the total circulation of items to 1,147,473, representing a 9% increase from the previous year. In 2024, the library saw an increase in its active cardholders by 22%, with 25,510 people currently holding active library memberships.



Elders at Lambton Meadowview Villa look at Valentines made for them by library patrons.



Young patrons browse through a picture book at Clearwater Library.





Isidore DiRezze stands beside his mother, Adelina's, dress, on display in the feature exhibit II Cammino: From Italy to Sarnia at Lambton Heritage Museum.



Celebrating Lambton 175 curated by Lambton County Archives and Lambton Heritage Museum on display in Lambton County Council Chambers in Wyoming.



Jon Sasaki's Homage, showcasing the Group of Seven's tools, on display at the Judith & Norman Alix Art Gallery. The Tom Thomson and Group of Seven exhibit offers a glimpse through the doorway, inviting visitors to explore further.



Lambton Heritage Museum's featured Hockey exhibit on



A drum circle ceremony taking place in Lambton Heritage Museum's featured exhibit, S.H.E. is Healing.

Exhibitions that Inspire

Lambton Heritage Museum presented several significant exhibitions throughout the year. // Cammino: From Italy to Sarnia-Lambton explored the immigration experience of Italian families to Sarnia-Lambton, documenting their journey, settlement, and cultural preservation. The Hockey exhibition, in partnership with the Canadian Museum of History, offered an interactive experience showcasing the sport's history enhanced with curated artifacts and stories of local significance. S.H.E. Is Healing by local artist Suellen Evoy-Oozeer presented spirit portraits exploring themes of Spirit, Humanity, and Earth, while Hope and Healing Canada featured an outdoor installation by Métis artist Tracey-Mae Chambers.

The Archives presented several exhibitions celebrating local history, including Celebrating Lambton 175, which highlighted early County governance, and Petrolia 150, exploring 150 years of Petrolia history. The collaborative exhibition with Lambton Heritage Museum From District to County: Celebrating Lambton 175 showcased artifacts and documents spanning the county's administrative history was on display at the County of Lambton's

> Part of the exhibition In the Garden of Exquisite Unknown by Siobhán Humston at the Judith & Norman Alix Art Gallery.

Administration Building then Sarnia Library.

The Judith & Norman Alix Art Gallery hosted diverse exhibitions throughout the year, including Sculpting Life, featuring the gallery's Inuit carving collection, and Dark Ice, examining climate change impact through the work of Leslie Reid and Robert Kautuk. The Gallery also presented Lambton Through the Lens, a juried teen photography exhibition, and several installations in the *ReView* series celebrating the gallery's tenth anniversary in its current location. Notable exhibitions included *Through* sunset, slow dusk, and gathering dawn by Natalie Hunter, *In the Garden of Exquisite Unknown* by Siobhán Humston, and Homage by Jon Sasaki, along with a special display of *Tom Thomson* and the Group of Seven with works from the permanent collection.





Collections / Preparator, Shelly Mallon, leads a vault tour at Judith & Norman Alix Art Gallery..

Behind the Scenes

In 2024, museums and gallery made special efforts to share our spaces and collections with the public. Beyond our regular open hours, we gave special behind-the-scenes tours that let visitors peek into our vaults and see how we prepare exhibitions. Lambton County Archives welcomed 112 visitors for tours, while the Oil Museum of Canada hosted 512 people. Lambton Heritage Museum gave tours to 342 visitors, and the Judith & Norman Alix Art Gallery showed 146 people around their spaces. These tours helped people learn more about what happens behind the scenes such as how items are stored and setting up new exhibits. They got to ask questions and learn directly from our staff about how we preserve and share our community's history and art.



Archivist / Supervisor, Nicole Aszalos gives a tour of the Lambton County Archives' vault.

Mobile Library

The Mobile Library brings books and other materials directly to people across Lambton County who might find it hard to visit our buildings. In 2024, our Mobile Library made 192 visits to participating long-term care homes and retirement complexes throughout the county, serving 1,638 people. This service helps ensure more people in our community can access library materials, regardless of their ability to visit our locations.



The mobile library van parked in front of Albany Retirement Village in Petrolia where it delivers library service directly to residents.

Digital Impact



733,470 website views.



250,534 website users.



1,672,825 screens reached through social



960 hours of video watched.



Email campaigns received approximately **298,617** engagements.

Representing three websites, twelve social media channels, and five email newsletters.

Creating & Delivering Great Experiences



The Cultural Services

unique experiences

Division aims to provide





Visitors explore art literacy and *Through sunset, slow dusk, and gathering dawn* by Natalie Hunter during Family Literacy Day at the Judith & Norman Alix Art Gallery.



Young patrons create interesting shapes at a Pixel Art program at Forest Library.



that engage and inspire visitors. This is achieved through the presentation of exhibitions and interpretive displays, programs and activities, tours and events, and the use of emergent technologies to enhance the visitor experience.

Library in Action

Our libraries offered a vibrant array of activities throughout 2024, with programs drawing 59,901 participants across Lambton County. This strong attendance shows how our libraries serve as active community hubs, bringing people together for learning and entertainment throughout our branches.

Celebrating Literacy

The coordinated Family Literacy Day celebration in January across Sarnia Library and the Judith & Norman Alix Art Gallery attracted 726 participants, driving notable increases in library circulation and new memberships. This event strengthened our role as a literacy hub for families across Lambton County.

Winter Reading Program

Lambton County Library engaged community members through its seasonal reading initiative, providing opportunities to encourage literacy during the winter months. This challenge resulted in 14,732 books read by 467 participants.

AGENDA ITEM #a)

Patrons play retro video games on the Super Nintendo at Petrolia Library.



Joel Armstrong, Director of Artificial Intelligence at Dig Insights, lead a session on understanding AI at the Sarnia Library Theatre for Ontario Public Library Week - Media Literacy.



A young patron prepares to race the zucchini car he built at the Petrolia Library as part of One Seed Lambton.



Dan the Music Man performs songs on the Sarnia Library Theatre stage as part of the Family Literacy Day Festival.

Art & Books Club

The Judith & Norman Alix Art Gallery and Lambton County Library team up for special book clubs. Readers discus books that connect with art exhibitions at the gallery, then tour the exhibitions to see these connections come to life.

Local Beats with Rhythms of Lambton

The Rhythms of Lambton free concert series continued through 2024, showcasing local music groups. The series attracted 544 attendees across seven shows, enriching the community's cultural experience.

Ontario Public Library Week – Media Literacy

October's Ontario Public Library Week focused on Media Literacy, highlighting the essential role of libraries in providing access to trustworthy information. The initiative emphasized resources and programs designed to help community members navigate today's information-driven world.

Growing Together With One Seed Lambton

The 2024 program featured Dark Green Zucchini Squash as the selected seed variety. This initiative promoted sustainable gardening and seed saving across the community, making seeds freely available to all participants regardless of gardening experience. The program's success was demonstrated through the distribution of 2,748 seed packets and the participation of 100 individuals in related on-site library programming between May and October.

Summer Reading Challenge Sets Records

The Library's Summer Reading Challenge played a vital role in maintaining students' literacy skills during the summer break. With record breaking participants and books read, the *Tales Through Time* theme also connected young readers with local heritage. Through partnerships with Lambton County Museums, participants explored historical sites while completing their reading goals. The program by encouraging children to discover Lambton's stories not just through books, but through visits to heritage sites across the county.

Summer Reading Challenge



3,682 participants.



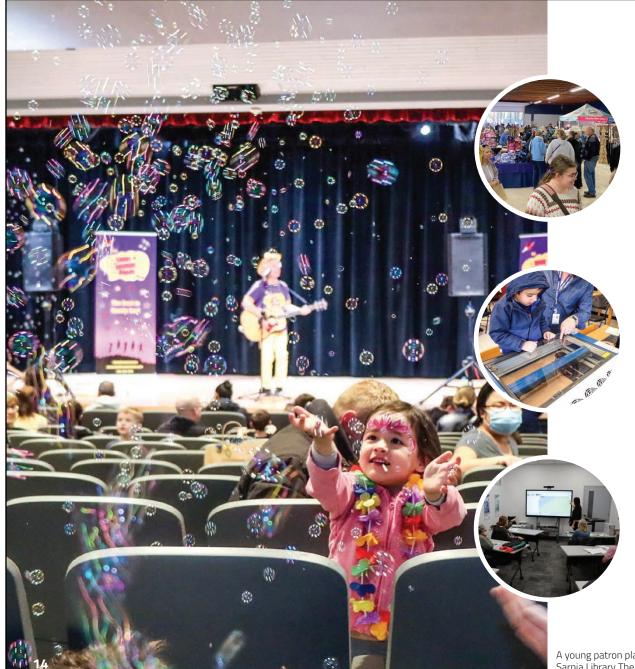
42,346 books read by children and adults.



107,605 minutes read by teens.



3,388 book prizes earned.



A Colourful Contribution

The Lambton Fall Colour & Craft Festival **raised \$20,517** to support ongoing exhibit development, collections work and education program costs.

Celebrating Literacy Together

726 people came together to celebrate literacy for the Family Literacy Day festival at Sarnia Library and Judith & Norman Alix Art Gallery.

Learning through Culture

3,504 people participated in educational programming in museums, archives and gallery spaces.

A young patron plays with bubbles as Dan the Music Man performs at the Sarnia Library Theatre as part of the Family Literacy Day Festival.

GENDA ITEM #a

Museums, Gallery & Archives Bring History to Life

The Museums, Gallery and Archives department delivered educational and engaging programming across its sites. The Judith & Norman Alix Art Gallery reached 2,263 people, while Lambton County Archives served 98 participants. Lambton Heritage Museum engaged 961 people, and the Oil Museum of Canada connected with 479 participants through various programs for schools, community groups, and the public.

Black Gold Fest

The Oil Museum of Canada welcomed 453 people to Black Gold Fest, its signature community celebration of local oil heritage, featuring historical blacksmithing demonstrations throughout the day. A historical interpreter brought James Miller Williams to life through multiple daily performances, sharing the story of North America's first commercial oil well established in 1858. The event successfully combined educational elements with family entertainment, including crafts, demonstrations, and face painting, while local food and drink vendors and live music enhanced the visitor experience.

Group of Seven Day

On Sunday, July 7, the Judith & Norman Alix Art Gallery marked the first Group of Seven Day, a day to celebrate Canada's iconic painters. Visitors enjoyed guided 30-minute tours throughout the day to learn about the artists' techniques and importance. The exhibition *Homage* by Jon Sasaki added to the celebration by showing the Group's original paintboxes and tools, along with artworks from the Gallery's collection.

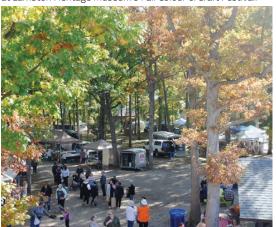
Fall Colour & Craft Festival

Lambton Heritage Museum's largest fundraising event, welcomed 3,422 visitors. The festival featured over 65 vendors, maintaining its position as one of the largest craft festivals in the Lambton Shores area. It raised \$20,517 to support ongoing exhibit development, collections work and education program costs.

Visitors participate in an art activity at the Oil Museum of Canada's Black Gold Fest.



Visitors shop beneath the fall canopy of oak trees at Lambton Heritage Museum's Fall Colour & Craft Festival.



Visitors take an in depth tour of the exhibition *Tom Thomson* and *The Group of Seven* during Group of Seven Day.



Developing Partnerships that Increase Participation in Culture

As a guiding principle of the County of Lambton Cultural Plan, the Cultural Services Division seeks to build partnerships and work collaboratively with the private, public and volunteer sectors to identify and seize shared challenges and opportunities.

Literacy Showdown with *Clash of the Classrooms*

The second annual Clash of the Classrooms partnership between Lambton County Library and Chatham-Kent Public Library brought 53 schools together for literacy challenges from February 5 to March 8. A total of 171 classrooms participated across Lambton and Chatham-Kent, reading an impressive 2,005,942 minutes collectively.

This initiative underscores a shared commitment to improving literacy and learning opportunities within school boards, while strengthening collaboration between bordering library systems that share district school boards.

Capturing Lambton with the *Teen Photo Contest*

The Teen Photo Contest, a collaboration between Lambton County Library and Judith & Norman Alix Art Gallery, encouraged youth to enhance their artistic skills and connect with their community. In 2024, teens were invited to capture "Lambton Through The Lens." Over 122 photographs were submitted by 42 participants.

A panel of jurors—including Arden Mailhiot (music and portrait photographer), Richard Beland (renowned music photographer), and Sonya Blazek (Curator / Supervisor, Judith & Norman Alix Art Gallery)—selected 25 photographs for an exhibit. These selections highlighted excellence across the categories of local icons, abstract imagery, and the romance of ruin.

This contest provided a vital platform for young artists to share their perspectives, develop visual literacy skills, and contribute to Lambton's cultural narrative.

Hockey in Lambton County

In 2024, Lambton Heritage Museum and Lambton County Archives aligned resources to gather community stories, documents, and artifacts on the history of hockey in Lambton County. This initiative resulted in 180 donations and contributions, enhancing the museum's feature exhibit, *Hockey*, on loan from the Canadian Museum of History from July to November.

Additionally, Lambton Heritage Museum partnered with Tourism Sarnia-Lambton for the World U17 Hockey Challenge, hosting the tournament cup on-site during the exhibit.

Baby Bookworm

Lambton County Library supported Literacy Lambton's Baby Bookwork initiative. Each Baby Bookwork Bag included materials and information to encourage early reading habits, fostering literacy from birth. Through partnership with Literacy Lambton, we helped to provide information to approximately 1,200 new families at Bluewater Health in 2024.



Classroom Reading Champions

Students read over **2 million** minutes during Clash of the Classrooms.

Community Powered Hockey History

180 community donations and

loans helped form a local feature in *Hockey* loaned from the Canadian Museum of History at Lambton Heritage Museum.

Moments of Inspiration

121 participants living with Alzheimer's or dementia connected through art.

Celebrating Oil Heritage

10 episodes developed with Cogeco showcasing the rich oil history in Lambton County.

Connecting Through Transit

163 free trips taken on the Huron Shores Area Transit system by library patrons.

17

AGENDA ITEM #a)

Oil Museum of Canada's Educational Program Coordinator, Christina Sydorko is filmed by YourTV for an episode of *Drilling into History* at OMC.



Lambton County Library distributed free eclipse glasses for April's historic solar eclipse, southwestern Ontario's first in the path of totality in 99 years.



Lambton Heritage Museum's Curator / Supervisor, Dana Thorne, browses through items with community members at Show & Tell at Florence Library.



Lambton County Warden Kevin Marriott shows Laurie Webb, Manager, Museums, Archives, Gallery and Meagan Sinclair, Archives Assistant his family artifacts as part of Show & Tell.

Free Travel With a Library Card

In partnership with Huron Shores Area Transit and the Municipality of Lambton Shores, Lambton County Library launched an innovative program offering free, unlimited travel on the Huron Shores Area Transit system with a library card. Patrons could borrow transit passes for up to five days. In 2024, these passes were borrowed 79 times and resulted in 163 free trips, supporting inter-community connections across Lambton Shores, South Huron, North Middlesex, Bluewater, Kettle & Stony Point First Nation, Sarnia, London, Goderich, and Strathroy.

EarlyON Pop-Up

Lambton County Library partnered with EarlyON to provide weekly pop-up programs at the Sarnia Library. These pop-up sessions offered parents and caregivers of children aged 0 to 6 various engaging activities and learning experiences.

A Festive Touch: NuSarnia Nutcracker

The Judith & Norman Alix Art Gallery participated in the NuSarnia Nutcracker initiative from November 18 to December 27, displaying a festive nutcracker named Papa Parol, painted by artist Cynthia Fay. The nutcrackers were displayed along Christina Street and auctioned to benefit the Women's Interval Home of Sarnia-Lambton. Proceeds from the initiative helped raise over \$1,700.

Expanding Access With Employment Ontario

A new collaboration with the County of Lambton's, Lambton Works Centre established drop-in employment support services at six library locations in 2024. This initiative connects job seekers with local employers and resources, expanding access to employment opportunities and fostering community resilience.

Show & Tell: Uncovering Lambton's History

In 2024, our Museums, Archives, and Library staff joined forces to deliver Show & Tell to celebrate the 175th anniversary. They visited communities across Lambton County to collect and preserve local history. Staff met with residents who shared their stories, family heirlooms, documents, historical objects, and photographs while connecting them with resources to help them continue to research and preserve their own history. These visits resulted in 435 minutes of recorded oral histories and helped us document thousands of images and items. This project helped us gather and preserve important pieces of our community's history that future generations will be able to explore.

Drilling into History with YourTV

The Oil Museum of Canada collaborated with Cogeco to create "Drilling into History," a 10-episode series that aired on YourTV Sarnia exploring Lambton County's oil history and its worldwide impact.

Steve Gauthier, Key Account Manager, Call2Recycle Canada and Greer Macdonell, Community Library Supervisor, Lambton County Library recycle batteries at Sarnia Library.

Maximizing the Value of Our Collections & Spaces

The Cultural Services Division strategically manages and strengthens Lambton County's collections and associated research, developing and enhancing the important museum, gallery and library collections entrusted to the County.

Library Collections

The library system demonstrated robust engagement across both physical and digital platforms in 2024. Our community of 25,510 active cardholders, including 5,696 new patrons, reflected strong growth in library usage. Among these, 14,070 unique patrons actively borrowed materials throughout the year, demonstrating an increase in unique patrons of about 6% from 2023.

Our commitment to maintaining a comprehensive collection was evident with a total of 185,467 physical items. The digital collection saw significant expansion with the addition of 4,235 new titles (27,494 copies) to the Libby platform. Public computers were used 20,741 times

throughout the year. Our efforts to bridge the digital divide continued with our new wi-fi hotspot lending program, which recorded 134 loans. Our in-building wi-fi service numbers demonstrate a continued need for public internet access.

Enhanced Online Access to the Museum & Archives Collections

January 2024 marked a milestone with the launch of the Museums and Archives' collections database public-facing features. This digital initiative provided public access to 14,669 records from our museums and archives collections. The system's success was evident in the 21,273 searches conducted throughout the year, demonstrating strong public engagement with our digital resources. Ongoing additions to the database will increase the items available for search each year.

New Acquisitions and Research

The Museums, Gallery and Archives collections experienced significant growth in 2024, receiving over 200 donations that contributed thousands of individual items to the permanent collection. The

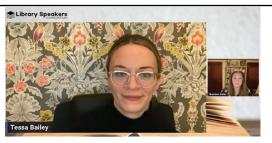
Show & Tell series proved instrumental in promoting our preservation and collection efforts while generating valuable oral histories for our archives. Our commitment to supporting research was demonstrated through the fulfillment of 627 research requests and by welcoming 930 local researchers to our facilities.

One Book Lambton

The 2024 edition of One Book Lambton featured Miriam Toews' novel "Women Talking," a work of fiction inspired by actual events that occurred between 2005 and 2009 in Manitoba Colony, a remote Mennonite community in Bolivia. The program was enriched through a partnership with Larry Towell, a locally-based, national award-winning photographer, who shared his extensive work documenting Mennonite communities.

Library's Battery Recycling Impact

Through its partnership with Call2Recycle Canada, Lambton County Library has helped divert 324 kg of batteries from landfills by hosting battery recycle bins in 12 locations.



Award winning author, Tessa Bailey delivers a virtual author talk, available to Lambton County Library cardholders.



Hope and Healing Canada by Tracey-Mae Chambers on display at Lambton Heritage Museum.



Visitors exploring $r'd \, ^5 \! P^5 \! \sigma^{-5} r' \! L^{-1} = 1$ | Dark Ice | Glaces obscures exhibit at the Judith & Norman Alix Art Gallery.



Sarnia Legionnaires Board of Directors Members, Lloyd Dicker (left) and Jeff Percival (right) stand next to items from Sarnia's hockey history in Lambton Heritage Museum's *Hockey* exhibition.



Young patrons play with a Yoto Player, a new addition to Lambton County Library's collection in 2024.

Feature Exhibits

Following the 2023 renovation of the Lambton Gallery at Lambton Heritage Museum, which created flexible exhibition space, distinctive exhibits were presented throughout 2024. Three were housed in the interior gallery space: *S.H.E. is Healing, Il Cammino: From Italy to Sarnia-Lambton*, and *Hockey* the latter on loan from the Canadian Museum of History. Additionally, we utilized our outdoor space during the summer months to present *Hope and Healing Canada*.

Increased Use of Community Meeting Rooms

Our community meeting rooms across seven locations - Alvinston, Clearwater, Corunna, Forest, Sombra, Thedford, and Watford - demonstrated substantial community engagement with 464 bookings, accumulating 1,683.5 hours of use and serving 1,041 attendees. The Connection Cube at Sarnia Library separately recorded 290 bookings, totaling 497.5 hours of use and serving 338 users.

Lending Beyond Books

In 2024, Lambton County Library significantly expanded our lending collection beyond traditional materials, introducing various items to allow cardholders the opportunity to learn new skills or hobbies, or access more information. New additions included wi-fi hotspots, sports equipment kits (featuring pickleball, basketball, baseball, and soccer equipment), telescopes, radon testing kits, projector kits, and Yoto players. These additions reflect our commitment to evolving alongside our community's needs and interests, transforming the traditional concept of library services.

Enhanced Virtual Services

The Library expanded its digital offerings with two significant additions in 2024. Virtual Author Talks provided costeffective access to bestselling authors, engaging 146 patrons in live sessions and reaching 3,117 patrons through recorded presentations. The Library also became a Family Search Affiliate, providing patrons with enhanced access to over 2 billion digitized genealogical records.

(Left to Right) The Honourable Stan Cho, Minister of Tourism, Culture and Gaming, Bob Bailey, M.P.P. Sarnia-Lambton, Warden Kevin Marriott, Deputy Warden Brian White, Darlene Coke, Manager, Library Services, Laurie Webb, Manager, Museums, Gallery and Archives, Michael Rikley-Lancaster, Vice-President, Ontario Museum Association, Andrew Meyer, General Manager, Cultural Services at the AMO Conference.

Building Cultural Capacity & Raising Lambton's Profile



The Cultural Services Division endeavours to pursue opportunities that raise our profile at the provincial, national and international level, while maximizing our ability to contribute to the cultural, social and economic vitality of Lambton County.

Oil Museum Hosts Ministry

The Oil Museum of Canada welcomed Deputy Minister Drew Vanderduim from the Ontario Ministry of Natural Resources, along with the Ministry's Petroleum Operations Section (POS) staff, for an insightful tour of the museum. The delegation explored exhibits highlighting Ontario's rich oil heritage, providing them with a comprehensive understanding of the industry's evolution. Given their role in overseeing the Oil, Gas and Salt Resources Act, the visit offered valuable context to the advancements within the sector.

Showcasing Lambton's Culture

In March, Lambton Heritage Museum and the Judith & Norman Alix Art Gallery hosted hundreds of tourism professionals attending the Southwestern Ontario

Tourism Corporation (SWOTC) Conference in Sarnia. Participants enjoyed guided tours and curated activities, offering an immersive experience of Lambton's vibrant cultural scene.

Lending Lambton's Legacy

Judith & Norman Alix Art Gallery's Spring Lower Canada (Maples, Early Spring) by A.Y. Jackson was featured at the McMichael Canadian Art Collection for their Jackson's Wars: A.Y. Jackson before the Group of Seven exhibition. Throughout the year our museums and archives supported education through artifact loans: eight from the Oil Museum of Canada, five from Lambton Heritage Museum and five displays from Lambton County Archives.

Advocating for Cultural Services

Senior management from Cultural Services, accompanied by the Warden and Deputy Warden, engaged in a discussions with The Honourable Stan Cho, Minister of Tourism, Culture & Gaming. The delegation at the Association of Municipality of Ontario (AMO) Conference, advocated for increased provincial operating funding to support

Lambton County's libraries, museums, and archives, emphasizing the critical role these institutions play in preserving and promoting local culture.

A Sweet Collaboration with Global Donuts & Deli

During Ontario Public Library Week (October 20-26, 2024), Lambton County Library partnered with Global Donuts & Deli to promote media literacy. A special library-themed donut was offered at the popular Sarnia coffee shop, connecting with its diverse customer base and introducing library services to new audiences, effectively broadening outreach and creating awarenss of Lambton's library service.

Sharing Our Heritage

Staff delivered engaging presentations about Lambton's 175-year history at the Lambton County Municipal Association Banquet, a Lambton Historical Society meeting and the Lambton Agricultural Hall of Fame connecting local leaders with our rich cultural heritage.

Managing Our Resources Efficiently & Effectively



49,049 visits to the new Clearwater Library in the first nine months of operation.

Lambton County Warden Kevin Marriott and City of Sarnia Mayor Mike Bradle cut a ribbon to mark the opening of the new Clearwater Library located at Clearwater Arena. *Photo provided by City of Sarnia*.

As a guiding principle, the Cultural Services Division ensures the most efficient and effective use of County resources, and strives for continuous innovation in addressing the needs of the community.

Clearwater Library

Clearwater Library opened its doors on April 8, 2024, marking the successful transformation of a former Community Hall on the second floor of the Clearwater Arena into a public library space. This facility represents the effective collaboration between the County of Lambton and the City of Sarnia to address library space needs in the Sarnia community. The library's impact was immediately evident, recording 41,049 visitors and 69,747 physical loans between April and December 2024, demonstrating strong community adoption of this new resource. Partners, the City of Sarnia (building owner) and the County of Lambton (service provider) hosted a ribbon cutting celebration on April 8, and the library hosted a community open house on June 15, 2024.

Point Edward Library

December 2024 saw the completion of improvements at Point Edward Library with the installation of new flooring, reflecting the commitment of the municipality to maintain and upgrade its facilities in partnership with the County of Lambton to advance shared goals for library facility standards.

Patrons read a book together overlooking Clearwater Arena's ice pad at Clearwater Library.



Updated flooring at Point Edward Library.



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The restored roof is lowered onto Canatara Cabin at Lambton Heritage Museun

108 logs put back in place as the 200 year old Canatara Cabin is restored at Lambton Heritage Museum.

Canatara Cabin

The restoration of Canatara Cabin progressed significantly in 2024, following a methodical approach to preserve this historic structure. The project began with the installation of a concrete foundation and a comprehensive assessment of the original logs. This evaluation led to the strategic sourcing of periodappropriate replacement logs where necessary, ensuring both structural integrity and historical authenticity.

Construction proceeded systematically, with the log walls rising progressively from the foundation. The completion of the second story and installation of new cedar shingles marked significant milestones in the restoration process. Following the roof installation and window placement, the structure was carefully winterized to protect the work completed thus far, with work scheduled to resume in the spring.

The project received substantial support through a \$60,000 grant from FedDev, complementing ongoing community fundraising efforts which have raise \$65,221 of the \$100,000 goal to date. This combination of federal support and community engagement demonstrates a collaborative approach to preserving our cultural heritage.





Judith & Norman

Alix Art Gallery

147 Lochiel Street

519-336-8127

Sarnia, ON

www.jnaag.ca

N7T 0B4

Lambton Heritage

Museum

NOM 1TO

10035 Museum Road

www.heritagemuseum.ca

Grand Bend, ON

519-243-2600

Lambton County Library Headquarters Archives

787 Broadway Street Wyoming, ON NON 1TO 519-845-3324 www.lclibrary.ca

Lambton County

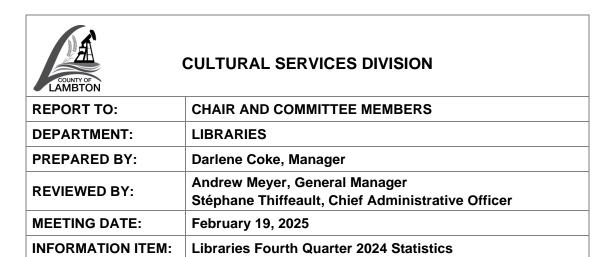
787 Broadway Street Wyoming, ON NON 1TO 519-845-5426 www.lambtonarchives.ca

2423 Kelly Road Oil Springs, ON NON 1PO 519-834-2840 www.oilmuseum.ca



AGENDA ITEM #a)

BACK COVER IMAGES: Clockwise from top left - 1) Retired NHL player Bill Lochead sits behind the penalty box door that was salvaged from the Forest Arena after it was demolished in summer 2024. Part of Lambton Heritage Museum's "Hockey" exhibit. 2) Warden Kevin Marriott, Darlene Coke, Manager, Library Services, and Judi Sowerbutts, Hostess, Global Donuts & Deli show off the special library donuts for Ontario Public Library Week. 3) Vanitia Campbell, Public Services Coordinator - Youth Programs & Outreach, teen photographer Alexis Brown, and Sonya Blazek, Curator / Supervisor, Judith & Norman Alix Art Gallery pose with a winning entry for the teen photo contest. 4) Heritage Champions pose with Warden Kevin Marriott after the council ceremony honouring them at a June Lambton County Council Meeting.



BACKGROUND

Lambton County Library provides services to the public through 25 libraries and a mobile library service. In-library services include books, audio books, magazines, audio-visual materials, story hours, guest speakers, reference services, and internet access. The Sarina Library is also home to the Sarnia Library Theatre which is used for library programming and available to the community for rent, hosting many concerts, celebrations, film screenings and more.

Lambton County also offers an eLibrary which provides access to electronic books, magazines, newspapers, digital media such as music and movies, and educational courses from any device connected to the internet, along with a library card. Lambton County also operates a Makerspace at the Sarnia Library and offers a Mobile Makerspace service to the remaining 24 branch libraries by circulating maker equipment on a rotating basis. Makerspaces offer opportunities for innovation and creation through the use of technology such as 3D printers which are not typically available in most households.

Statistics on the usage of various programs and services are maintained throughout the year and reported to Lambton County Council quarterly. Detailed fourth quarter 2024 statistics for the Libraries Department are attached.

DISCUSSION

Once again this year, Lambton County Library surpassed its previous year usage statistics, circulating over 1.1 million items. Physical circulation increased approximately 3 percent over the previous year, and electronic circulation increased 15 percent over the previous year.

Libraries Fourth Quarter 2024 Statistics (page 2)

February 19, 2025

It is of interest to note, that for the first time since the pandemic, more than half of the circulation activity (52.4 percent) accounted for electronic circulation, with 47.6 percent of the circulation activity accounting for physical circulation.

In-library computer usage matched last year's levels, and Lambton County Library ended the year with 792 more cardholders than at the start of the year, with 25,510 total cardholders.

The number of library programs increased by 6 percent over last year, and program attendance was 14 percent higher than last year, with almost 60,000 people taking part in the library's programs throughout the year.

The decision to invest in the creation of private meeting spaces in libraries with available floorspace has proven to provide benefits to communities across Lambton. In 2024, data was collected from seven libraries (Alvinston, Corunna, Forest, Thedford, Wyoming, Watford and the Connection Cube at the downtown Sarnia location) which revealed that 754 bookings were placed to use these spaces which accommodated 1,337 users and accounted for 2,223.5 hours of time spent in the meeting spaces. The spaces are outfitted with a telephone and ipad and have been used for a variety of purposes including accessing health services, employment services, judicial services, legal services, and education opportunities. In the later portion of 2024, private meeting space was added to both Watford and Sombra Libraries; once the spaces have been fully equipped with necessary technology, staff will actively promote these additional meeting spaces.

External bookings of the Sarnia Library Theatre remain relatively consistent over the previous year.

A number of literacy initiatives took place during the fourth quarter of 2024 including:

- The library added Yoto Player Kits to its collection. Yoto players are screen-free portable audio devices that can be used by children aged 3 to 12. The players use physical, plastic content cards that contain digital music and stories. The device does not require a wi-fi connection. These players benefit children develop early literacy skills. By listening to stories and music, children develop language, pattern recognition and memory skills, in addition to attention skills. Listening to these stories also allows children to build new vocabulary and critical thinking skills.
- Children were encouraged to write letters to Santa once again this year; however, the labour disruption at Canada Post did not give Santa enough time to reply to children's letters and Canada Post was unable to offer this service in 2024.
- The library added Radon Initial Screening Kits into its collection at the beginning of November. These kits include a digital radon monitor for measuring the presence of radon in the home. Initially, the library purchased ten kits to add to its collection; however, once launched, demand far surpassed expectations with over 150 reservations in the first few hours. An additional ten kits were purchased and

Libraries Fourth Quarter 2024 Statistics (page 3)

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added to the circulation. The kits have been borrowed approximately 43 times and there are currently 270 reservations for the kits.

- In November, Lambton County Library became a FamilySearch Affiliate Library.
 FamilySearch is a free genealogical research resource anyone can use, but as an Affiliate Library, library patrons using County of Lambton networks can gain access to over two billion digitized records, including 400 million exclusive images. To access these resources, patrons must use a public workstation, or use their own device connected to the public wi-fi at any Lambton County Library location.
- The library added Projector Kits into its collection which allows library cardholders
 to borrow a portable projector that can be used for presentations, home movie
 nights, special events, or displaying video games or content on a computer.
- Watford Library extended its hours to celebrate the village's Moonlight Madness evening in December. Around 140 people visited the library with many taking advantage of crafts and activities like karaoke and photographs using the green screen.
- Planning work for 2025 is well underway including a second Family Literacy
 Festival at Sarnia Library and the Judith and Norman Alix Art Gallery in January,
 the annual Winter Reading Challenge and Clash of the Classrooms Competition
 and Valentine's for Long-Term Care. Meetings have also taken place with Service
 Canada to initiate a pilot to offer federal government services in the library's private
 meeting rooms in early 2025.

From November 17 to 23, 2024, Lambton County Library conducted its Typical Survey Week, which provides some of the statistics required for Lambton's annual submission to the Ministry of Tourism, Culture and Gaming as part of the Annual Survey of Public Libraires. During this typical week, data such as in-person visits, in-library material use, and reader's advisory transactions are counted and recorded for reporting purposes.

In an effort to address the increasing presence of individuals who are homeless and in need of supports or who are in need of health services, Lambton County Library partnered with the County's Community Health Integrated Care Team (**CHIC**). The CHIC team consists of a paramedic and a substance use counsellor. The CHIC team regularly drops into Sarnia Library to talk to visitors who may benefit from the team's knowledge, skill set, and access to community health resources.

FINANCIAL IMPLICATIONS

None.

Libraries Fourth Quarter 2024 Statistics (page 4)

February 19, 2025

CONSULTATIONS

The Technical Services Supervisor, the Community Library Supervisor and the Facilities Supervisor were consulted in the preparation of this report.

STRATEGIC PLAN

The array of library services offered in Lambton align with the County of Lambton's mission statement to provide residents with "an enhanced quality of life through the provision of responsive and efficient services. Such provision is accomplished by working with municipal and community partners."

CONCLUSION

Lambton County Library can take pride in its results in 2024 and specifically, the 1.1 million items circulated across the Library's 25 branches and electronic services. This year, Lambton County Library also continued its work to achieve its strategic goals set forth in the *Cultural Services Division Strategic Plan 2022-2026*. This has resulted in new and ongoing partnerships with service partners within the County of Lambton and external to the County of Lambton, ongoing improvements to the physical layouts and appearances of the libraries with lower-tier municipal partners, and strategic linkages with divisional partners to grow attendance and awareness of cultural sites.

Literacy is a fundamental component of a community's physical, mental and economic health and there is no shortage of research linking high rates of literacy – the ability to read, write, count, create, comprehend, and critically evaluate information – with improved community outcomes measured by lower unemployment rates, greater levels of entrepreneurship, greater educational attainment and higher household incomes. Lambton County Library continues to serve an important and critical role in Lambton County by helping grow and nurture a literate community at all ages and stages of life.

Libraries Fourth Quarter 2024 Statistics

| | N | lumber of Valid Lik | orary Card Holders | |
|----------------|---------|---------------------|--------------------|---------|
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 |
| General | 0 | 0 | 0 | 0 |
| Alvinston | 362 | 370 | 373 | 358 |
| Arkona | 150 | 149 | 144 | 145 |
| Books by Mail | 11 | 14 | 14 | 13 |
| Brigden | 335 | 339 | 355 | 369 |
| Bright's Grove | 1,424 | 1,444 | 1,459 | 1,472 |
| Camlachie | 233 | 227 | 234 | 239 |
| Clearwater | 2,912 | 3,163 | 3,489 | 3,656 |
| Corunna | 1,421 | 1,455 | 1,435 | 1,425 |
| Courtright | 102 | 104 | 101 | 100 |
| Florence | 86 | 88 | 86 | 80 |
| Forest | 1,736 | 1,744 | 1,778 | 1,777 |
| Grand Bend | 1,525 | 1,564 | 1,585 | 1,597 |
| Headquarters | 155 | 82 | 83 | 84 |
| Inwood | 83 | 88 | 88 | 86 |
| Mallroad | 0 | 0 | 0 | 0 |
| Mobile Library | 153 | 149 | 141 | 135 |
| Mooretown | 86 | 96 | 94 | 90 |
| Oil Springs | 133 | 138 | 141 | 145 |
| Petrolia | 2,113 | 2,131 | 2,088 | 2,082 |
| Pt. Edward | 509 | 538 | 551 | 552 |
| Pt. Franks | 254 | 247 | 245 | 239 |
| Pt. Lambton | 199 | 208 | 228 | 226 |
| Sarnia | 8,855 | 8,858 | 8,722 | 8,774 |
| Shetland | 56 | 57 | 59 | 56 |
| Sombra | 151 | 144 | 150 | 147 |
| Thedford | 159 | 144 | 152 | 156 |
| Watford | 603 | 602 | 594 | 582 |
| Wilkesport | 52 | 52 | 49 | 47 |
| Wyoming | 860 | 852 | 877 | 878 |
| TOTALS | 24,718 | 25,047 | 25,315 | 25,510 |

| | | | | Circulation | | | |
|----------------|---------|---------|---------|-------------|---------|------------|-------|
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 | YTD | 2023 Total | YTD % |
| General | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Alvinston | 1,496 | 1,639 | 1,847 | 1,596 | 6,578 | 7,197 | 91% |
| Arkona | 1,656 | 1,623 | 1,616 | 1,203 | 6,098 | 5,485 | 111% |
| Books by Mail | 45 | 32 | 28 | 49 | 154 | 18 | 856% |
| Brigden | 6,416 | 3,727 | 2,485 | 3,937 | 16,565 | 13,683 | 121% |
| Bright's Grove | 7,430 | 9,567 | 11,271 | 8,985 | 37,253 | 40,103 | 93% |
| Camlachie | 1,504 | 1,430 | 1,782 | 1,482 | 6,198 | 5,909 | 105% |
| Clearwater | 2,487 | 20,752 | 25,834 | 20,674 | 69,747 | 0 | 0% |
| Corunna | 5,946 | 6,376 | 7,503 | 5,934 | 25,759 | 24,831 | 104% |
| Courtright | 646 | 777 | 724 | 494 | 2,641 | 3,449 | 77% |
| Florence | 790 | 642 | 957 | 686 | 3,075 | 3,129 | 98% |
| Forest | 10,064 | 9,862 | 12,816 | 10,497 | 43,239 | 37,506 | 115% |
| Grand Bend | 6,900 | 6,561 | 6,544 | 6,368 | 26,373 | 27,740 | 95% |
| Headquarters | 2,753 | 2,501 | 1,447 | 1,188 | 7,889 | 7,299 | 108% |
| Inwood | 709 | 573 | 748 | 523 | 2,553 | 2,914 | 88% |
| Mallroad | 40 | 9 | 10 | 2 | 61 | 83,037 | 0% |
| Mobile Library | 2,097 | 2,057 | 1,754 | 2,042 | 7,950 | 6,844 | 116% |
| Mooretown | 864 | 577 | 415 | 620 | 2,476 | 2,871 | 86% |
| Oil Springs | 884 | 969 | 1,280 | 939 | 4,072 | 3,579 | 114% |
| Petrolia | 11,458 | 11,382 | 13,174 | 11,403 | 47,417 | 45,585 | 104% |
| Pt. Edward | 8,021 | 6,973 | 7,573 | 5,973 | 28,540 | 19,486 | 146% |
| Pt. Franks | 1,439 | 1,425 | 1,862 | 1,248 | 5,974 | 5,516 | 108% |
| Pt. Lambton | 926 | 918 | 1,233 | 969 | 4,046 | 4,102 | 99% |
| Sarnia | 43,419 | 32,014 | 36,279 | 29,072 | 140,784 | 127,234 | 111% |
| Shetland | 150 | 221 | 214 | 275 | 860 | 986 | 87% |
| Sombra | 710 | 839 | 1,241 | 639 | 3,429 | 3,674 | 93% |
| Thedford | 1,012 | 714 | 760 | 895 | 3,381 | 3,858 | 88% |
| Watford | 3,263 | 2,924 | 3,264 | 2,944 | 12,395 | 13,009 | 95% |
| Wilkesport | 486 | 647 | 871 | 505 | 2,509 | 2,090 | 120% |
| Wyoming | 7,422 | 6,564 | 7,747 | 5,939 | 27,672 | 27,915 | 99% |
| TOTALS | 131,033 | 134,295 | 153,279 | 127,081 | 545,688 | 529,049 | 103% |

Page 2

| e-circulation* | | | | | | | | | | |
|----------------|-------------------------|---------|---------|---------|------------|-------|--|--|--|--|
| Q1-2024 | Q1-2024 Q2-2024 Q3-2024 | | | YTD | 2023 Total | YTD % | | | | |
| 156,049 | 143,442 | 150,243 | 152,051 | 601,785 | 524,248 | 115% | | | | |

*Note: e-circulation for Q1-2024 was underreported on previous 2024 reports. This Q4 report includes the correct data for Q1.

| Inter-library Loans | | | | | | | | | | | |
|---------------------|--|-----|-----|-----|-------|-------|-------|--|--|--|--|
| | Q1-2024 Q2-2024 Q3-2024 Q4-2024 YTD 2023 Total | | | | | | YTD % | | | | |
| Items Borrowed | 435 | 349 | 397 | 240 | 1,421 | 1,802 | 79% | | | | |
| Items Loaned | 359 | 331 | 366 | 151 | 1,207 | 1,258 | 96% | | | | |

| | | | Refe | erence Que | ries | | |
|----------------|---------|---------|---------|------------|--------|------------|-------|
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 | YTD | 2023 Total | YTD % |
| General | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Alvinston | 38 | 64 | 86 | 29 | 217 | 147 | 148% |
| Arkona | 163 | 114 | 144 | 72 | 493 | 412 | 120% |
| Books by Mail | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Brigden | 122 | 137 | 151 | 214 | 624 | 644 | 97% |
| Bright's Grove | 305 | 363 | 400 | 332 | 1,400 | 1,742 | 80% |
| Camlachie | 82 | 73 | 73 | 16 | 244 | 185 | 132% |
| Clearwater | 0 | 845 | 1,201 | 847 | 2,893 | 0 | 0% |
| Corunna | 861 | 1,098 | 965 | 832 | 3,756 | 1,808 | 208% |
| Courtright | 30 | 21 | 22 | 22 | 95 | 140 | 68% |
| Florence | 11 | 5 | 12 | 3 | 31 | 31 | 100% |
| Forest | 578 | 587 | 900 | 713 | 2,778 | 2,109 | 132% |
| Grand Bend | 241 | 386 | 388 | 380 | 1,395 | 1,462 | 95% |
| Headquarters | 68 | 61 | 73 | 48 | 250 | 136 | 0% |
| Inwood | 74 | 64 | 63 | 43 | 244 | 262 | 93% |
| Mallroad | 0 | 0 | 0 | 0 | 0 | 7,693 | 0% |
| Mobile Library | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Mooretown | 153 | 103 | 38 | 110 | 404 | 887 | 46% |
| Oil Springs | 8 | 24 | 39 | 25 | 96 | 41 | 234% |
| Petrolia | 418 | 395 | 336 | 306 | 1,455 | 1,066 | 136% |
| Pt. Edward | 163 | 179 | 302 | 295 | 939 | 604 | 155% |
| Pt. Franks | 70 | 70 | 79 | 61 | 280 | 340 | 82% |
| Pt. Lambton | 71 | 64 | 68 | 119 | 322 | 421 | 76% |
| Sarnia | 857 | 1,219 | 489 | 541 | 3,106 | 2,106 | 147% |
| Shetland | 6 | 12 | 8 | 8 | 34 | 12 | 283% |
| Sombra | 17 | 21 | 45 | 40 | 123 | 117 | 105% |
| Thedford | 34 | 48 | 71 | 55 | 208 | 379 | 55% |
| Watford | 154 | 160 | 134 | 119 | 567 | 727 | 78% |
| Wilkesport | 49 | 76 | 67 | 69 | 261 | 245 | 107% |
| Wyoming | 303 | 209 | 267 | 160 | 939 | 897 | 105% |
| TOTALS | 4,876 | 6,398 | 6,421 | 5,459 | 23,154 | 24,613 | 94% |

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| | | | Intern | et / Compute | er Use | | |
|----------------|---------|---------|---------|--------------|--------|------------|-------|
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 | YTD | 2023 Total | YTD % |
| General | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Alvinston | 148 | 149 | 181 | 175 | 653 | 844 | 77% |
| Arkona | 8 | 6 | 15 | 5 | 34 | 20 | 170% |
| Books by Mail | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Brigden | 17 | 19 | 18 | 16 | 70 | 148 | 47% |
| Bright's Grove | 156 | 169 | 172 | 201 | 698 | 609 | 115% |
| Camlachie | 9 | 9 | 13 | 12 | 43 | 58 | 74% |
| Clearwater | 0 | 577 | 842 | 723 | 2,142 | 0 | 0% |
| Corunna | 452 | 457 | 365 | 372 | 1,646 | 1,499 | 110% |
| Courtright | 24 | 22 | 13 | 14 | 73 | 45 | 162% |
| Florence | 11 | 12 | 14 | 7 | 44 | 30 | 147% |
| Forest | 434 | 423 | 414 | 406 | 1,677 | 1,882 | 89% |
| Grand Bend | 302 | 406 | 268 | 228 | 1,204 | 969 | 124% |
| Headquarters | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Inwood | 21 | 32 | 86 | 44 | 183 | 115 | 159% |
| Mallroad | 0 | 0 | 0 | 0 | 0 | 3,095 | 0% |
| Mobile Library | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Mooretown | 8 | 8 | 0 | 17 | 33 | 38 | 87% |
| Oil Springs | 9 | 6 | 13 | 12 | 40 | 34 | 118% |
| Petrolia | 480 | 426 | 580 | 518 | 2,004 | 1,820 | 110% |
| Pt. Edward | 112 | 72 | 64 | 75 | 323 | 221 | 146% |
| Pt. Franks | 13 | 12 | 12 | 12 | 49 | 49 | 100% |
| Pt. Lambton | 11 | 6 | 13 | 5 | 35 | 27 | 130% |
| Sarnia | 2,438 | 2,115 | 1,793 | 2151 | 8,497 | 7,996 | 106% |
| Shetland | 28 | 36 | 8 | 8 | 80 | 85 | 94% |
| Sombra | 55 | 60 | 65 | 56 | 236 | 221 | 107% |
| Thedford | 29 | 18 | 43 | 32 | 122 | 80 | 153% |
| Watford | 80 | 66 | 98 | 93 | 337 | 333 | 101% |
| Wilkesport | 32 | 31 | 38 | 16 | 117 | 112 | 104% |
| Wyoming | 101 | 100 | 110 | 90 | 401 | 408 | 98% |
| TOTALS | 4,978 | 5,237 | 5,238 | 5,288 | 20,741 | 20,738 | 100% |

| | Wireless Internet Usage | | | | | | | | | | | | |
|--|-------------------------|-------|-------|-----|--------|--------|-----|--|--|--|--|--|--|
| Q1-2024 Q2-2024 Q3-2024 Q4-2024 YTD 2023 Total | | | | | | | | | | | | | |
| Daily Clients | 170 | 180 | 162 | N/A | 512 | 649 | 79% | | | | | | |
| Daily Sessions | 74 | 88 | 70 | N/A | 232 | 346 | 67% | | | | | | |
| Total Clients | 4,446 | 4,579 | 4,765 | N/A | 13,790 | 17,512 | 79% | | | | | | |
| Total Sessions | 6,641 | 7,948 | 4,320 | N/A | 18,909 | 26,169 | 72% | | | | | | |

| | Electronic Information Sources | | | | | | | | | | | | |
|--|--------------------------------|--------|--------|--------|--------|--------|------|--|--|--|--|--|--|
| Q1-2024 Q2-2024 Q3-2024 Q4-2024 YTD 2023 Total | | | | | | | | | | | | | |
| Electronic Databases | 8,394 | 15,153 | 6,838 | 8,781 | 39,166 | 28,029 | 140% | | | | | | |
| Early Literacy Stations | 4,120 | 3,250 | 3,317 | 2,200 | 12,887 | 6,550 | 197% | | | | | | |
| NextReads | 3,409 | 3,225 | 3,337 | 3,700 | 13,671 | 14,503 | 94% | | | | | | |
| TOTAL | 15,923 | 21,628 | 13,492 | 14,681 | 70,186 | 49,082 | 143% | | | | | | |

| | Website Visits** | | | | | | | | | | | |
|------------------|------------------|---------|---------|---------|---------|------------|-------|--|--|--|--|--|
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 | YTD | 2023 Total | YTD % | | | | | |
| Library | 121,748 | 116,474 | 119,851 | 103,362 | 461,435 | 320,848 | 144% | | | | | |
| Theatre | 763 | 619 | 609 | 1,101 | 3,092 | 1,911 | 162% | | | | | |
| TOTAL | 122,511 | 117,093 | 120,460 | 104,463 | 464,527 | 322,759 | 144% | | | | | |
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 | | | | | | | | |
| Facebook Friends | 3,675 | 3,743 | 3,874 | 3,918 | | | | | | | | |
| X Followers | 1,007 | 1,021 | 1,036 | 1,031 | | | | | | | | |

^{**}Note: Library website statistics were underreported in previous reports in 2024. The data has been updated and is correctly recorded in this report.

| | | | Libra | ry Program | ns (#) | | |
|--------------------------|---------|---------|---------|------------|--------|---------------|-------|
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 | YTD | 2023 Total | YTD % |
| General | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Alvinston | 76 | 64 | 35 | 48 | 223 | 274 | 81% |
| Arkona | 34 | 38 | 30 | 20 | 122 | 107 | 114% |
| Brigden | 35 | 68 | 57 | 85 | 245 | 286 | 86% |
| Bright's Grove | 110 | 111 | 74 | 55 | 350 | 278 | 126% |
| Camlachie | 31 | 41 | 46 | 36 | 154 | 128 | 120% |
| Clearwater | 0 | 113 | 160 | 142 | 415 | 0 | 0% |
| Corunna | 131 | 115 | 95 | 106 | 447 | 286 | 156% |
| Courtright | 24 | 25 | 31 | 27 | 107 | 132 | 81% |
| EarlyON Centres | 117 | 121 | 101 | 94 | 433 | 398 | 0% |
| Florence | 47 | 42 | 24 | 19 | 132 | 166 | 80% |
| Forest | 134 | 106 | 110 | 89 | 439 | 379 | 116% |
| Grand Bend | 85 | 71 | 65 | 54 | 275 | 170 | 162% |
| Headquarters | 9 | 16 | 28 | 21 | 74 | 35 | 211% |
| Inwood | 52 | 46 | 53 | 41 | 192 | 193 | 99% |
| Makerspace (Independent) | 162 | 175 | 162 | 212 | 711 | 654 | 0% |
| Mallroad | 0 | 0 | 0 | 0 | 0 | 430 | 0% |
| Mobile Library | 45 | 51 | 48 | 48 | 192 | 186 | 103% |
| Mooretown | 42 | 36 | 17 | 23 | 118 | 152 | 78% |
| Oil Springs | 44 | 43 | 43 | 35 | 165 | 152 | 109% |
| Petrolia | 204 | 192 | 192 | 177 | 765 | 690 | 111% |
| Pt. Edward | 56 | 38 | 38 | 18 | 150 | 168 | 89% |
| Pt. Franks | 20 | 17 | 22 | 20 | 79 | 86 | 92% |
| Pt. Lambton | 33 | 32 | 21 | 28 | 114 | 121 | 94% |
| Sarnia | 358 | 352 | 359 | 316 | 1385 | 1364 | 102% |
| Shetland | 21 | 27 | 18 | 19 | 85 | 53 | 160% |
| Sombra | 24 | 23 | 24 | 20 | 91 | 117 | 78% |
| Thedford | 32 | 32 | 33 | 37 | 134 | 96 | 140% |
| Watford | 67 | 59 | 56 | 47 | 229 | 212 | 108% |
| Wilkesport | 41 | 28 | 17 | 15 | 101 | 113 | 89% |
| Wyoming | 122 | 122 | 86 | 86 | 416 | 442 | 94% |
| TOTALS | 2,156 | 2,204 | 2,045 | 1,938 | 8,343 | 7,868 | 106% |

| | | | Library Pro | ograms (at | tendance) | 1 | |
|--------------------------|---------|---------|-------------|------------|-----------|------------|-------|
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 | YTD | 2023 Total | YTD % |
| General | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Alvinston | 506 | 320 | 493 | 248 | 1,567 | 1,800 | 87% |
| Arkona | 222 | 286 | 241 | 125 | 874 | 751 | 116% |
| Brigden | 87 | 244 | 2868 | 1998 | 5,197 | 3,888 | 134% |
| Bright's Grove | 1076 | 1253 | 444 | 308 | 3,081 | 1,920 | 160% |
| Camlachie | 139 | 69 | 145 | 47 | 400 | 361 | 111% |
| Clearwater | 0 | 479 | 976 | 423 | 1878 | 0 | 0% |
| Corunna | 1631 | 1372 | 617 | 996 | 4,616 | 2,665 | 173% |
| Courtright | 102 | 102 | 110 | 74 | 388 | 558 | 70% |
| EarlyON Centres | 2,267 | 2020 | 1863 | 1,350 | 7,500 | 6,648 | 113% |
| Florence | 67 | 51 | 24 | 15 | 157 | 243 | 65% |
| Forest | 695 | 785 | 1342 | 527 | 3,349 | 3,881 | 86% |
| Grand Bend | 340 | 286 | 380 | 155 | 1,161 | 846 | 137% |
| Headquarters | 479 | 739 | 1931 | 679 | 3,828 | 1,117 | 343% |
| Inwood | 161 | 125 | 226 | 76 | 588 | 707 | 83% |
| Makerspace (Independent) | 162 | 230 | 186 | 217 | 795 | 682 | 117% |
| Mallroad | 0 | 0 | 0 | 0 | 0 | 2,161 | 0% |
| Mobile Library | 335 | 472 | 360 | 471 | 1,638 | 1,673 | 98% |
| Mooretown | 452 | 305 | 167 | 227 | 1,151 | 1,838 | 63% |
| Oil Springs | 59 | 183 | 101 | 66 | 409 | 513 | 80% |
| Petrolia | 1057 | 1300 | 1365 | 1,097 | 4,819 | 3,730 | 129% |
| Pt. Edward | 448 | 269 | 189 | 101 | 1,007 | 1,105 | 91% |
| Pt. Franks | 93 | 73 | 129 | 79 | 374 | 330 | 113% |
| Pt. Lambton | 253 | 268 | 171 | 280 | 972 | 734 | 132% |
| Sarnia | 2,915 | 2,227 | 2390 | 1,669 | 9,201 | 10,422 | 88% |
| Shetland | 9 | 26 | 5 | 19 | 59 | 86 | 69% |
| Sombra | 20 | 28 | 137 | 37 | 222 | 336 | 66% |
| Thedford | 101 | 43 | 92 | 221 | 457 | 282 | 162% |
| Watford | 296 | 263 | 269 | 347 | 1,175 | 1,156 | 102% |
| Wilkesport | 36 | 31 | 68 | 55 | 190 | 245 | 78% |
| Wyoming | 831 | 825 | 843 | 349 | 2,848 | 1,759 | 162% |
| TOTALS | 14,839 | 14,674 | 18,132 | 12,256 | 59,901 | 52,437 | 114% |

| | | Commu | ınity Mee | eting Space - | - Lambton | County Lil | orary | |
|----------------------|---------------|---------|-----------|------------------------------|-----------|------------|---------|-------|
| | Alvinsto n | Corunna | Forest | Sarnia Connection Cube | Thedford | Wyoming | Watford | Total |
| Q1 - 2024 Bookings | 4 | 12 | 29 | 42 | 12 | 9 | 0 | 108 |
| Q1 - 2024 Hours | 12 | 38 | 101 | 82 | 25 | 24 | 0 | 282 |
| Q1 - 2024 Attendance | 4 | 21 | 54 | 47 | 22 | 31 | 0 | 179 |
| | | | | | | | | |
| Q2 - 2024 Bookings | 10 | 34 | 38 | 88 | 15 | 22 | 13 | 220 |
| Q2 - 2024 Hours | 31 | 147 | 178 | 163 | 38 | 79 | 40 | 678 |
| Q2 - 2024 Attendance | 10 | 72 | 74 | 107 | 30 | 107 | 26 | 426 |
| | T | | | | | | | |
| Q3 - 2024 Bookings | 13 | 28 | 42 | 70 | 12 | 19 | 12 | 196 |
| Q3 - 2024 Hours | 46 | 114 | 193 | 116 | 43 | 59 | 37 | 610 |
| Q3 - 2024 Attendance | 16 | 61 | 73 | 78 | 24 | 42 | 24 | 318 |
| | | | | | | | | |
| Q4 - 2024 Bookings | 16 | 29 | 42 | 90 | 11 | 19 | 23 | 207 |
| Q4 - 2024 Hours | 62 | 133 | 175 | 135 | 20 | 63 | 63 | 590 |
| Q4 - 2024 Attendance | 20 | 58 | 78 | 106 | 26 | 80 | 46 | 368 |
| YTD Bookings | 43 | 103 | 151 | 290 | 50 | 69 | 48 | 754 |
| YTD Hours | 152 | 433 | 648 | 497 | 127 | 225 | 140 | 2,223 |
| YTD Attendance | 50 | 212 | 279 | 338 | 102 | 260 | 96 | 1,337 |

| Sarnia Library Theatre & Meeting Room Rentals | | | | | | | |
|---|---------|----------|----------|----------|----------|------------|-------|
| | Q1-2024 | Q2-2024 | Q3-2024 | Q4-2024 | YTD | 2023 Total | YTD % |
| Internal Bookings | | | | | | | |
| Bookings | 1 | 3.00 | 1.00 | 3.00 | 8.0 | 23 | 35% |
| Hours | 3.0 | 9.50 | 3.00 | 10.50 | 26.0 | 60.3 | 43% |
| Attendance | 11.0 | 8.00 | 110.00 | 36.00 | 65.0 | 359 | 46% |
| External Bookings | | | | | | | |
| Bookings | 73 | 100.00 | 48.00 | 103.00 | 324.0 | 345 | 94% |
| Hours | 232.25 | 331.75 | 138.50 | 416.25 | 1,118.8 | 1,053.55 | 106% |
| Attendance | 3,773 | 5,609.00 | 1,649.00 | 6,417.00 | 17,448.0 | 18,054 | 97% |
| Library Bookings | | | | | | | |
| Bookings | 63.00 | 47.00 | 54.00 | 51.00 | 215.0 | 173 | 124% |
| Hours | 165.50 | 122.25 | 144.75 | 146.50 | 579.0 | 509.75 | 114% |
| Total Bookings | 137 | 150 | 103.00 | 157.00 | 547.0 | 541 | 101% |
| Total Hours | 400.75 | 463.50 | 286.25 | 573.3 | 1,723.75 | 1,623.55 | 106% |

| Total Number of Volunteers | | | | | | | |
|----------------------------|---------|---------|---------|-----|------------|-------|--|
| Q1-2023 | Q2-2023 | Q3-2023 | Q4-2023 | YTD | 2023 Total | YTD % | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0% | |

| COUNTY OF LAMBTON | CULTURAL SERVICES DIVISION |
|-------------------|--|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | MUSEUMS, GALLERY AND ARCHIVES |
| PREPARED BY: | Laurie Webb, Manager |
| REVIEWED BY: | Andrew Meyer, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Museums, Gallery and Archives Fourth Quarter 2024 Statistics |

BACKGROUND

Lambton Heritage Museum (**LHM**) and Oil Museum of Canada National Historic Site (**OMC**) manage collections of over 35,000 artifacts that serve to interpret the settlement and development of the area and celebrate Lambton's oil heritage. Lambton County Archives (**LCA**) preserves family genealogical records, local newspapers, land records, historic images, maps, and community histories. Judith & Norman Alix Art Gallery (**JNAAG**) collection contains over 1,200 Canadian paintings, drawings, and sculptures that represent significant Canadian art history with many considered national treasures, including 43 works by the Group of Seven.

The <u>Cultural Services Division Strategic Plan 2022-2026</u> adopted by County Council outlines the Strategic Direction of Cultural Services which identifies the actions to be taken, criteria it must meet, or performance indicators it must strive to reach to achieve success with plan implementation. As an outcome of extensive consultation, six areas of focus are relevant in setting direction and evaluating the progress of the Division. The discussion section of this report outlines the progress made in these six areas of strategic priority in relation to activity in the fourth quarter of 2024.

DISCUSSION

This quarter's analysis highlights efforts to engage and enrich the community through several initiatives.

Enhancing Access, Inclusion and Community Engagement

The quarter showed significant progress in community engagement, highlighted by the successful conclusion of the Show & Tell series with Best of Show & Tell at the Sarnia Library Theatre. This joint program between Lambton County Archives, Lambton Heritage

Museums, Gallery and Archives Fourth Quarter 2024 Statistics (page 2)

February 19, 2025

Museum and Lambton County Library effectively preserved community voices through oral histories, now available on the Lambton County Archives YouTube channel.

The Fall Colour & Craft Sale at Lambton Heritage Museum was a particular highlight, drawing thousands of community members and artisans together for this cherished annual tradition. The Craft Sale is the museum's largest fundraiser, and it raised \$20,517 to support ongoing exhibit development, collections work and education program costs.

A notable achievement was the creation of a time capsule for the 175th Anniversary celebrations compiled by Museum and Archives staff. In addition to important documents and photographs it also included a historically significant piece of the 200-year-old Canatara Cabin currently under restoration at Lambton Heritage Museum.

Creating and Delivering Great Experiences

Exhibitions and programs drive attendance to the Museums, Gallery and Archives sites and create meaningful cultural experiences. The chart below summarizes visitation to each site including general attendance, in person educational offerings, and participation in special events in the fourth quarter.

| | JNAAG | | LCA | | LHM | | ОМС | |
|------------------------------|-------|-------|------|------|-------|-------|------|------|
| | 2024 | 2023 | 2024 | 2023 | 2024 | 2023 | 2024 | 2023 |
| Visitors | 552 | 838 | 139 | 102 | 554 | 324 | 249 | 273 |
| Tour Participants | 82 | 130 | 0 | n/a | 101 | 599 | 187 | 255 |
| Special Event Participants | 229 | 131 | 0 | n/a | 3,422 | 2,509 | 263 | 235 |
| On-Site Program Participants | 488 | 376 | 48 | 0 | 808 | 56 | 147 | 46 |
| Site Use Attendees | 0 | n/a | 0 | n/a | 8 | n/a | 0 | n/a |
| Fourth Quarter TOTAL | 1,351 | 1,475 | 187 | 102 | 4,893 | 3,488 | 846 | 809 |

Museums, Gallery and Archives Fourth Quarter 2024 Statistics (page 3)

February 19, 2025

The following table outlines the exhibitions at each site available to the community during the fourth quarter of 2024:

Fourth Quarter Exhibits

| JNAAG Dark Ice October 4, 2024 to March 15, 2025. Sculpting Life November 1, 2024 to July 6, 2025. Lambton Through The Lens August 2 to October 12, 2024 | Petrolia 150 th Anniversary on display until 2025. From District to County: Celebrating Lambton 175 on display at Sarnia Library until late 2025. |
|--|--|
| LHM Hockey July 17 to November 9, 2024 Lambton Gallery Permanent Exhibit. Collections Centre Permanent Exhibit. From District to County: Celebration Lambton 175 on display at Sarnia Library until late 2025. | Main Gallery Permanent Exhibit. |

Developing Partnerships That Increase Participation in Culture

The partnership between Lambton Heritage Museum and Tourism Sarnia Lambton proved especially effective during the U17 World Hockey Challenge. The collaboration maximized engagement by connecting the traveling "Hockey" exhibition from the Canadian Museum of History with the contemporary sporting event. This strategic alignment successfully showcased both national hockey history and local cultural heritage, demonstrating the value of coordinated promotional efforts.

The Judith & Norman Alix Art Gallery partnered with nuSarnia for The Festive Nutcracker Tour. This fundraising initiative showcased the talents of local artists who creatively painted 5-foot-tall nutcrackers which were on display at participating downtown businesses. This initiative drew new audiences to the gallery over holiday season. Visitors were able to engage by casting votes for their favourites and complete an art activity. The nutcrackers were auctioned, raising \$1,700 for the Women's Interval Home of Sarnia-Lambton.

Maximizing the Value of Collections and Spaces

The Museums, Gallery & Archives all use online resources to further the reach of their

Museums, Gallery and Archives Fourth Quarter 2024 Statistics (page 4)

February 19, 2025

collections. Purposeful and targeted social media usage, engaging websites that showcase collections, educational offerings and visitor information and an online collections database provide access to Lambton's history and art collections for those who are unable to visit, eliminating a barrier to accessing Lambton's history while also raising Lambton's profile through online research. The chart below outlines ways the public accessed Lambton's history and collections materials, along with their engagement this quarter.

| | JNAAG | | LCA | | LH | IM | ОМС | |
|---------------|-------|--------|---------|---------|--------|--------|--------|--------|
| | 2024 | 2023 | 2024 | 2023 | 2024 | 2023 | 2024 | 2023 |
| Website | | | | | | | | |
| Visits* | 4,652 | 7,173 | 37,376 | 31,167 | 37,376 | 31,167 | 37,376 | 31,167 |
| Social Media | | | | | | | | |
| Reach** | | | | | | | | |
| (Collections | | | | | | | | |
| Content only) | 3,096 | 33,327 | 168,446 | 142,221 | 26,909 | 20,394 | 8,314 | 3,641 |
| Social Media | | | | | | | | |
| Engagement ** | | | | | | | | |
| (Collections | | | | | | | | |
| Content only) | 308 | 1,614 | 15,537 | 15,618 | 1,663 | 407 | 608 | 434 |
| Collections | | | | | | | | |
| Database* | | | | | | | | |
| (Past | | | | | | | | |
| Perfect) | n/a | n/a | 3,518 | n/a | 3,518 | n/a | 3,518 | n/a |
| Virtual Tour | | | | | | | | |
| Engagement | 16 | n/a | n/a | n/a | 31 | n/a | 24 | n/a |

^{*}Lambton Heritage Museum, the Oil Museum of Canada and Lambton County Archives share a single website and online database. Work is currently underway at the Judith & Norman Alix Art Gallery to make the collection available online.

Building Cultural Capacity and Raising Lambton's Profile

Museums, Gallery and Archives continuously explore ways to engage with the community and raise Lambton's profile on a larger scale. Offsite outreach events provide opportunity to promote the department collections and services and connect to new audiences. The department continues to offer virtual programming to schools and local community groups. Although the number of virtual programs peaked during the COVID-19 pandemic and have been in decline as more groups return to in-person programming, they are still an important offering to reach those schools or groups who are unable to visit the sites due to financial or transportation barriers. Below are numbers for the fourth quarter of 2024.

^{**} Social Media Reach is the number of screens a post appeared on, while Social Media Engagement is the number of times a person interacted with a post.

Museums, Gallery and Archives Fourth Quarter 2024 Statistics (page 5)

February 19, 2025

| | JNAAG | | LCA | | LHM | | OMC | |
|---|-------|------|------|------|------|------|------|------|
| | 2024 | 2023 | 2024 | 2023 | 2024 | 2023 | 2024 | 2023 |
| Offsite Outreach Participants | 0 | 0 | 12 | 36 | 23 | 215 | 337 | 244 |
| Virtual Education Program Participants | 0 | 420 | 0 | 83 | 0 | 0 | 0 | 101 |

Managing Resources Efficiently and Effectively

This quarter's metrics demonstrate the department's ability to maintain community connections even during a traditionally quieter period, while laying groundwork for expanded programming in the coming spring and summer months. This measured approach to winter programming allows for efficient resource allocation while maintaining essential community touchpoints throughout the year.

FINANCIAL IMPLICATIONS

None.

CONSULTATIONS

None.

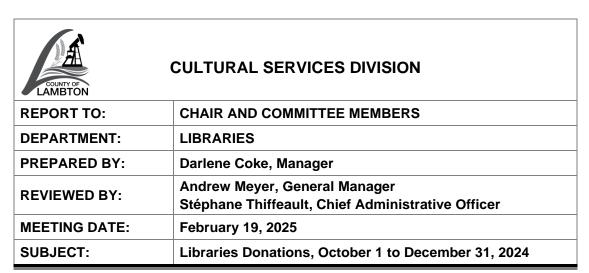
STRATEGIC PLAN

The exhibitions, programs and outreach of the Museums, Gallery and Archives supports the strategic directions and actions outlined in the Cultural Services Strategic Plan as follows:

- 1. Enhancing access, inclusion & community engagement,
- 2. Creating & delivering great experiences,
- 3. Developing partnerships that increase participation in culture,
- 4. Maximizing the value of collections & spaces,
- 5. Building cultural capacity & raising Lambton's profile, and
- 6. Managing resources efficiently & effectively

AGENDA ITEM #c)

| Museums, Ga | llery and Archives Fourth Quarter 2024 | Statistics (page 6) | February 19, 2025 |
|------------------------|---|--|--------------------------|
| CONCLUSI | <u>ON</u> | | |
| advanced the engagemen | quarter statistics emphasize that Meir strategic priorities through innut, and collaborative partnerships. cultural engagement patterns whi | novative programming, comm These results reflect succes | unity sful adaptation |
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BACKGROUND

Lambton County Library receives occasional donations from patrons, individuals, community organizations and local businesses.

DISCUSSION

The following donations were received for the period October 1 to December 31, 2024:

- \$900 from a donor who wishes to remain anonymous for the purchase of children's materials.
- \$25 from Julie L. Miles for the purchase of children's materials.
- \$1,000 from a donor who wishes to remain anonymous for the library's general use.
- \$5,000 from a donor who wishes to remain anonymous for the library's general use.
- \$500 from Leah Klompstra, for the library's use to deliver programs.
- \$116.55 from donation boxes.
- One copy of "Military Service Recognition Book, Vol. XI" by the Royal Canadian Legion, Ontario Command, from the Royal Canadian Legion, Ontario Command.

FINANCIAL IMPLICATIONS

Financial donations are recorded as revenue in the Department's budget each year, and any unspent dollars at year-end are placed in a donations reserve to fund special projects or equipment, not funded through the levy.

Libraries Donations, October 1 to December 31, 2024 (page 2)

February 19, 2025

CONSULTATIONS

The Executive Assistant / Administrative Services Supervisor assisted in the completion of the report.

STRATEGIC PLAN

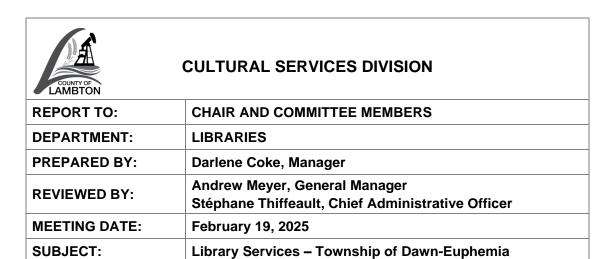
Any monetary donations contribute to the operation of Lambton's library service which support the strategic plan's principles and values including: services and communications, community development, health and wellness and partnerships.

CONCLUSION

Lambton County Library is fortunate to receive occasional support from individuals and community organizations.

RECOMMENDATION

That the Libraries donations, October 1 to December 31, 2024, report be accepted.



BACKGROUND

At the January 15, 2025 Committee of the Whole meeting, Committee received a progress update report concerning the implementation of the recommendations of the council-approved Joint Libraries Facility Review study (2023), and the ongoing evaluation of Lambton County Library's 25 branch libraries against the Facility Standards Policy (also approved in 2023).

The committee report outlined the results of an evaluation of each library location in consultation with lower-tier municipal staff. The evaluation noted future planning considerations for each library location to bring them in alignment with the Facility Standards Policy and the Administrators of Rural and Public Libraries of Ontario (ARUPLO) Guidelines that the Policy endorses.

Within the Township of Dawn-Euphemia, this review identified several areas for improvement related to Shetland Library to be addressed in collaboration with the municipality to support future library service delivery. These include addressing the challenges of an undersized footprint for program delivery and other community services (an increase of 1,622 to 4,122 square feet is needed to meet ARUPLO Guidelines). The review also identified that the entrance at Shetland Library, the washroom and service desk require barrier-free improvements to meet the accessibility standards identified in the Accessibility for Ontarians with Disabilities Act (AODA). Further, the absence of any parking at the site was also identified as a health and safety concern for patrons, who must park along the gravel shoulder of the roadway.

The report and its recommendations were approved by the County's Committee of the Whole at its January 15, 2025 meeting, and subsequently endorsed by County Council at its meeting of February 5, 2025. The report included the following recommendation pertaining to Shetland Library:

Library Services – Township of Dawn-Euphemia (page 2)

February 19, 2025

#6: Veen/Ferguson:

e) That Lambton County Council directs staff to engage the Township of Dawn-Euphemia in discussions about the current state of Shetland Library and potential options for the future that may include an expansion to the site, the closure of the site, or a new library service point in the Township.

Carried.

DISCUSSION

At the end of January, representatives from the County of Lambton met with representatives from the Township of Dawn-Euphemia to discuss the status of Shetland Library with the goal of defining a path toward to improving library service delivery to the residents of the municipality.

The group reviewed usage statistics to understand how any service level changes may impact the local community. The library is located in a catchment area with an estimated population of 501 people (based on the most current available census data), bordered by Lambton Line and Euphemia Line to the south, McAuslan and McCutcheon Roads to the west, Aberfeldy Line to the north and Watterworth and Limerick Roads to the east. While the library's patron records reveal that there are 56 patrons who have selected Shetland Library as their 'home' library branch, in the last year, only 17 of these patrons borrowed physical items from the library. The remaining users either use the electronic library exclusively, or pickup items from other branch libraries within the county's system that may be more convenient to access because of location or greater hours of operation, or have not accessed library services within the last year.

While there were only 17 patrons with Shetland Library listed as their home library who borrowed physical items from Shetland Library last year, an additional 36 library card holders picked up material at Shetland Library in 2024. Examining that data reveals that:

- 11 of those cardholders are also employees of Lambton County Library and often elect to pick up items following their work day from the library where they work;
- eight of the remaining cardholders have Florence Library set as their home library branch:
- seven of the remaining cardholders have Alvinston Library set as their home library branch; and
- three of the remaining cardholders have Petrolia set as their home library branch. The balance of the users have a mix of other library locations set as their home library branch including: Inwood, Watford, Thedford, Forest and Corunna. In 2024, public computer workstations were used by 17 unique users at Shetland Library.

A review of circulation data over a ten-year period reveals that total circulation at Shetland Library has declined significantly year after year. Annual circulation statistics are as follows:

Library Services - Township of Dawn-Euphemia (page 3)

February 19, 2025

| Year | Circulation |
|------|-------------|
| 2015 | 8,974 |
| 2016 | 9,666 |
| 2017 | 9,391 |
| 2018 | 6,428 |
| 2019 | 3,525 |
| 2020 | 677 |
| 2021 | 340 |
| 2022 | 880 |
| 2023 | 986 |
| 2024 | 860 |

Program attendance is also significantly lower than in previous years, noting that the capacity to deliver public programs is limited by the available floor space of the library. Annual program attendance is as follows:

| Year | Program Attendance |
|------|--------------------|
| 2017 | 666 |
| 2018 | 454 |
| 2019 | 652 |
| 2020 | 104 |
| 2021 | 0 |
| 2022 | 61 |
| 2023 | 86 |
| 2024 | 59 |

Through discussions with the Township of Dawn-Euphemia representatives, the group reached consensus that there is insufficient land on the library's existing property to expand its footprint to increase its size, or to allow for a renovation that would create an accessible entrance and washroom. Representatives from the Township noted they had approached the adjacent property owner to acquire additional land and was not able to secure the transfer of ownership. As a result, expansion and / or a renovation were ruled out as possibilities at the current location. Following this report is an aerial view of Shetland Library for reference (see *Appendix 'A' – Shetland Library Property Boundary*).

The group then discussed the availability of Florence Library, located 6.9 to 8.6 kilometres to the south (depending on the route taken). The group noted that Florence is a newer building, offering full accessibility for residents as it was designed to meet the standards of the AODA when constructed in 2010 as part of the Florence Community Centre. Discussion then focused on the possibility of expanding access at Florence Library to ensure there is no net loss of library service to the municipality, should Shetland Library be removed from the library system.

Library Services - Township of Dawn-Euphemia (page 4)

February 19, 2025

Currently, Florence Library is located in a catchment area with an estimated population of 888 people bordered by the Chatham-Kent Boundary Line to the south, Mandaumin Road to the west, Bentpath Line to the north and McCutcheon and Florence Roads to the east. When evaluated against the library's Facility Standards Policy and ARUPLO Guidelines, the library has a shortfall of 1,347 to 3,847 square feet of floor space for the delivery of library and community services. This shortfall in space results in an undersized collection of 2,924 to 8,924 items, and an absence of a dedicated maker space, program room, private meeting space and study room. Based on ARUPLO Guidelines, the Library should also have one additional public computer workstation, and space should be identified for a staff room and library storage.

Township representatives re-affirmed that the community room is available for library use in the adjoining community centre which would help meet the library's needs for programming space or private meeting space. Representatives also suggested that hours presently allocated to Shetland could be transferred to Florence, allowing Florence to double its hours of access from 12 hours (currently) to 24 hours per week, over five days of the week. This would ensure no loss of library service hours to the residents of the municipality and enhance convenience for patrons.

Should Shetland Library be removed from the system, the total catchment area of Florence Library would grow from 888 people to 1,389 and Florence Library would remain a Small category library according to ARUPLO Guidelines.

Representatives from Lambton County Library visited Florence Library in early February to examine how it might be able to better utilize its existing footprint and take advantage of available shared space to arrive closer to achieving the guidelines set out by ARUPLO. The following observations were made:

- The existing bathroom inside the library's footprint is not fully barrier-free and requires a push button door opener. The Township is receptive to making this change to create a barrier-free washroom.
- The smaller community room, located immediately outside of the kitchen, could be booked for library programming during library hours of operation when not in use by rental users. With program space made available within this community room space, additional space would be available within the library for additional shelving to increase the library's collection size and improve the children's area.
- The library could make improvements to the children's area including the installation of an Early Literacy Station, a computer that is child-sized and preprogrammed with literacy games and lessons.
- Investments in improved storage solutions would also be required by the library to find efficiencies in space.

Library Services – Township of Dawn-Euphemia (page 5)

February 19, 2025

The floor plan of Florence Library, identifying the library space and dedicated library washroom, community room and foyer areas referenced above, following this report as *Appendix 'B' – Florence Community Centre and Library Floor Plan*, to provide a visual aid for reference.

Shetland Library's material collection (books, DVDs, audiobooks, etc.) would be redistributed throughout the library system, including Florence Library. One of the public computer workstations at Shetland would be re-directed to Florence Library, provided floor space and electrical capacity exists for an additional workstation. There is a possibility that two shelving units from Shetland Library could also be re-used in other libraries.

For patrons of Shetland Library who may face transportation barriers with travelling the additional 6.9 to 8.6 kilometers to Florence Library, Lambton County Library has piloted a "Library by Mail" service that it intends to implement permanently. Through this service anyone can self-declare to be categorized as an 'accessible borrower' and with this borrowing category, a library patron could order selected library materials to be delivered by mail. The delivery would include return mailing envelopes with stamped addresses and postage paid to allow the patron to return to the items to the library on the due date.

Florence Library currently sees stronger usage than Shetland Library. Last year, there were 78 users who identified Florence Library as their home library branch. Thirty-five of those users did not borrow any physical items from Florence Library in the last year, using their membership for electronic resources, or perhaps picking up items at other libraries that may have more accessible hours, or a more convenient location. In addition to the 43 people who were visiting Florence Library to borrow physical items, an additional 15 people picked up items at Florence Library despite having another library set as their home library branch. Five people have identified Shetland as their home library branch. Three have Petrolia as their home library branch. Two have Alvinston set as their home library branch, and the balance have other libraries set as their home branches including Oil Springs, Sarnia, Watford and Wyoming.

An examination of usage statistics reveals that Florence Library's physical circulation and program attendance is stronger than Shetland Library's. This most likely reflects the larger number of active library cardholders, the larger collection size and a more desirable location that includes a paved parking lot, and a modern interior.

Florence Library's circulation is as follows:

| Year | Circulation |
|------|-------------|
| 2015 | 10,986 |
| 2016 | 10,593 |
| 2017 | 11,041 |
| 2018 | 9,992 |
| 2019 | 6,750 |
| 2020 | 3,672 |

Library Services – Township of Dawn-Euphemia (page 6)

February 19, 2025

| 2021 | 2,828 | |
|------|-------|--|
| 2022 | 3,288 | |
| 2023 | 3,129 | |
| 2024 | 3,075 | |

Florence Library's program attendance is as follows:

| Year | Program Attendance |
|------|--------------------|
| 2017 | 1,322 |
| 2018 | 826 |
| 2019 | 944 |
| 2020 | 111 |
| 2021 | 0 |
| 2022 | 66 |
| 2023 | 243 |
| 2024 | 157 |

With stronger usage, a more modern building envelope, and the capacity to serve more patrons within the Small library category, it would be possible to contemplate the closure of Shetland Library and the expansion of hours at Florence Library. With changes to the space at Florence Library and better utilization of available shared space, service enhancements would also be possible, such as the availability of private meeting space to allow for more outreach by other government and non-profit services, and the introduction of an Early Literacy Station for children.

As set out in the *Lambton County Library Branch Closures Policy* (H01.01), both the lower-tier and upper-tier municipality must be in agreement to permanently close a Library facility. Recommendations to permanently close a library must be presented to upper-and lower-tier governments for their consideration. As such, it would be the intention of staff to share this report and information with the Council of the Township of Dawn-Euphemia for its consideration and direction, as noted in the recommendations section of this report.

FINANCIAL IMPLICATIONS

The provision of library services is set out in the 1989 *Division of Responsibilities Between the County of Lambton and Lower-Tier Municipalities in Lambton County*. Should the Township support the permanent closure of Shetland Library, the County of Lambton would be responsible under this agreement for the costs of moving the collection and dismantling the interior furnishings and equipment to remove County operations from the site. The County owns a communications tower on the property to facilitate library internet service, and would also be responsible for removing it from the site, or making suitable arrangements in cooperation with the Township to repurpose this tower for municipal or community use. The Township has expressed an interest in maintaining the tower for other purposes, which will require a transfer in ownership. The Township would hold

Library Services – Township of Dawn-Euphemia (page 7)

February 19, 2025

responsibility for making a determination regarding the future use of the vacated facility in Shetland, and addressing any costs related to ongoing maintenance and future use.

With respect to Florence Library, costs for additional shelving and mobile furnishings will be required and would be the responsibility of the County of Lambton. The County would also be responsible for costs incurred for the purchase of any additional equipment and site-specific signage. These costs can be covered through available library reserve funds or the library's donation reserves, if required.

The permanent closure of the Shetland Library would provide minor operational savings for the County, related to monthly internet, phone and copier expenses, consolidation of collection and programming material costs, as well as contracted service expenses related to cleaning, floor mat service, and pest control.

CONSULTATIONS

Mayor Alan Broad and senior staff at the Township of Dawn-Euphemia were consulted in the creation of this report, along with the library's Community Library Supervisor, the Technical Services Supervisor, and the General Manager, Cultural Services.

STRATEGIC PLAN

The partnership between two levels of local government to deliver library service reflects a guiding principle of the County of Lambton's Strategic Plan related to collaboration and partnerships. An investment in public libraries also results in an enhanced quality of life for residents. Public libraries contribute to the community's economic growth by providing informational and educational resources, technology, training, and spaces to meet and innovate.

CONCLUSION

Lambton County Library strives to strengthen library service delivery in communities and is not supportive of closing any of its branch locations when it would result in reducing its Council approved goal of 0.7 square feet of library space per capita. However, the limitations of Shetland Library's physical space and accessibility concerns, along with changing societal demographics and the review of library usage reports, indicate that it may be in the interest of both the Township and County to end the delivery of library service in the community of Shetland, and expand the accessibility of library service in the community of Florence. Lambton County Library is confident that this will create new opportunities for community programming and service outreach, and result in enhanced library service delivery to the residents of the Municipality.

Library Services - Township of Dawn-Euphemia (page 8)

February 19, 2025

RECOMMENDATIONS

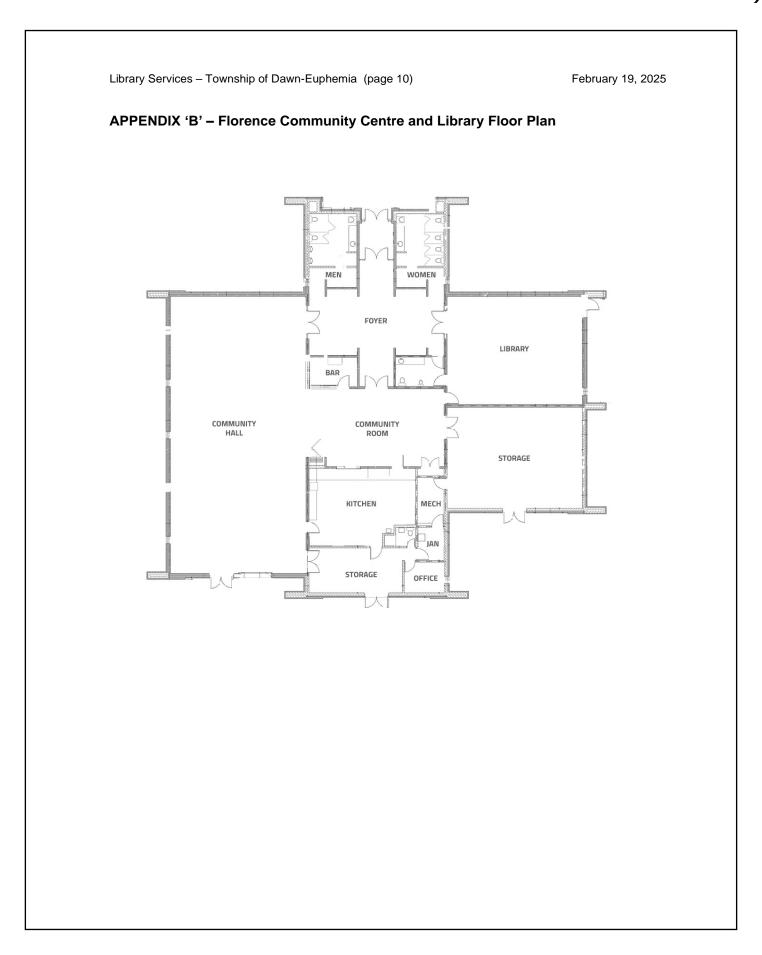
- a) That if the Township of Dawn-Euphemia consents to the closure of the Shetland Library, Staff be authorized to close the Shetland Library by such date and time in 2025 as mutually agreed upon with the Township of Dawn-Euphemia.
- b) That if the Township of Dawn-Euphemia consents to the action authorized in paragraph a) above, Staff work collaboratively with the Township of Dawn-Euphemia on all reasonably necessary actions required to move the Shetland Library operations to the Florence Community Centre to enhance service delivery at Florence Library for the benefit of the community and to communicate the closure thereof to all affected stakeholders.
- c) That subject to recommendations a), b) above being realized, Staff be authorized to increase the public hours of operation at Florence Library from 12 hours over three days per week to 24 hours over five days per week, consisting of a range of morning / afternoon, weekend and evening service.
- d) That Staff report back to County Council on recommendations a) and b) above once direction from the Township of Dawn-Euphemia has been received and an action plan has been established, as applicable.

Library Services – Township of Dawn-Euphemia (page 9)

February 19, 2025

APPENDIX 'A' - Shetland Library Property Boundary





| COUNTY OF LAMBTON | CULTURAL SERVICES DIVISION |
|-------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | MUSEUMS, GALLERY AND ARCHIVES |
| PREPARED BY: | Laurie Webb, Manager |
| REVIEWED BY: | Andrew Meyer, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| SUBJECT: | Museums, Gallery and Archives Collections Management December 2024 |

BACKGROUND

The Manager, Museums, Gallery and Archives reviews donations to Lambton Heritage Museum (**LHM**), Oil Museum of Canada (**OMC**), Judith & Norman Alix Art Gallery (**JNAAG**), and Lambton County Archives (**LCA**) to ensure they align with the mandate of each facility and serve to enhance the respective collections of each site.

As the governing body of the Museums, Gallery and Archives, Committee must review all artifact and art donations offered to these facilities and approve their acceptance into the permanent collection, after consideration of the recommendations of the Manager, Museums, Gallery and Archives. The following list of donations is from the month of December 2024.

DISCUSSION

Recommended for Acceptance

Attached are items recommended for acceptance that have been offered for donation to Lambton Heritage Museum, Oil Museum of Canada, Judith & Norman Alix Art Gallery, and Lambton County Archives in the month of December 2024.

Attachment A - Museums and Archives Donations

Recommended for Refusal

Many items are offered the Museums, Gallery and Archives for donation. Items are reviewed for fit within the collecting mandate at the respective site, whether they are already represented in the collection and what condition the object is in prior to

Museums, Gallery and Archives Collection Management December 2024 (page 2)

February 19, 2025

acceptance into the permanent collection. The list below outlines objects were offered for donation in the month December 2024 and are recommended for refusal.

| Institution | Details | Reason for Refusal | Donor |
|----------------------------|--|---|--------------------------|
| Lambton County Archives | Hymn books and select archival material. | No local provenance. Referred to London Room. | Dunlop United Church. |
| Lambton Heritage Museum | Papers related to Pierre Trudeau and the Royal Family. | No local provenance. | Name not given. |

Recommended for Deaccession

On an ongoing basis, the Curators at each facility review the collection for objects that are duplicates, in poor condition, are not relevant to the museum mandate, or are better suited at another institution. As these items are identified for removal from the collection (deaccessioned), they are brought before committee for approval. Below is a list of objects identified for deaccession.

| Institution | Accession Number | Object | Rationale |
|-------------------------|---------------------|--|--|
| Oil Museum of Canada | R 004.01.01 | Book - The Inventors: Great Ideas in Canadian Enterprise by J.J. Brown | Duplicate of item already in collection. |

FINANCIAL IMPLICATIONS

The cost associated with the acceptance of items into the permanent collection and commitment to ongoing stewardship of material culture is incorporated into the annual operating budgets of the department.

CONSULTATIONS

This report involved consultation with collections and curatorial staff of the Museums, Gallery and Archives department.

Museums, Gallery and Archives Collection Management December 2024 (page 3)

February 19, 2025

STRATEGIC PLAN

The ongoing collection and preservation of local heritage artifacts and Canadian art supports the County of Lambton Strategic Plan's Principles and Values of a Healthy Community by "providing a host of cultural and lifestyle services while understanding and respecting the environment."

CONCLUSION

Artifact donations to the Museums, Gallery and Archives demonstrate ongoing public support of the facilities and a keen interest in preserving the local and community history of Lambton County through our various facilities. Ongoing review of the collection and removal of items not relevant to the collection mandate, in poor condition, or duplicates follow good collection management practices, ensure the collection is reflective of the community at large, and provide space for ongoing artifact donations.

RECOMMENDATION

That the Museums, Gallery and Archives Collections Management December 2024 Report be accepted, and items recommended for acceptance to, or deaccession from, the collection be approved for inclusion in or removal from, the respective permanent collections.

AGENDA ITEM #c)

| Museums and Archives Donations December 2024 | | | | |
|--|--|---------------------------------|--------|--|
| Institution | Council Report Information | Contact | City | |
| Lambton County Archives | 12 boxes plus one oversized box of Central United Church minutes, identified photos, certificates, and committee material. | Dunlop Central United Church | Sarnia | |
| Lambton County Archives | 22 postcards, album of 1930s news receipts collected by Lorenze Street, book - Sarnia Riding Club History and book - Sarnia Yacht Club 75th. | Kip Cuthbert | Sarnia | |
| Lambton County Archives | Material pertaining to the education and Chemical Valley career of William Simpson, funeral cards for family friends ca. 1900s. | Carole Simpson | Sarnia | |

| COUNTY OF LAMBTON | LONG-TERM CARE DIVISION |
|-------------------|--|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | ADMINISTRATION |
| PREPARED BY: | Matthew Butler, Manager, Performance, Innovation and Strategy |
| REVIEWED BY: | Michael Gorgey, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Adult Enrichment Centre (AEC) Advisory Committee Annual Report 2024 |

BACKGROUND

The County of Lambton, through the Long-Term Care Division, has been providing Adult Day Programs through the Adult Enrichment Centres ("AEC") for seniors and people with disabilities for over 45 years. These programs are 100% funded by Ontario Health West and participant fees.

The Adult Day Programs are offered from three sites: one adjacent to Lambton Meadowview Villa in Petrolia, one adjacent to Marshall Gowland Manor in Sarnia, and the Travelling Day Program is offered from the Forest Agricultural building in Lambton Shores.

The AEC Advisory Committee is a committee of community members and stakeholders who convene to identify community needs for services for adults with cognitive and/or physical frailties and their families. The Committee then advocates and fundraises for the needs identified. The Council appointed Chairperson for the 2025/2026 term is Councillor Bev Hand.

The 2024 Annual Report is attached.

DISCUSSION

Throughout 2024 the Adult Day Program continued to provide support for the participants with the goal of allowing people to age at home and decreasing the demand on the broader health care system.

To accomplish this the Adult Day Programs implemented several improvements to its services. This includes the expansion of the registered practical nursing supports offered

Adult Enrichment Centre (AEC) Advisory Committee Annual Report 2024 (page 2)

February 19, 2025

at all three sites. This allows residents to access critical medical care while attending the program.

By providing access to this medical support, the Day Program can serve participants with a higher degree of medical needs during the day. This can also help identify potential health concerns early and provide the appropriate community referral. This, in combination with the broader health system, can allow participants the opportunity to age at home.

The Adult Day Program also continued efforts to further establish a site at the Forest Agricultural building in Lambton Shores in 2024. This site is currently operating two days a week, and in 2024 there have been a total of 15 participants who made 468 visits (Table 2. 2024 Adult Enrichment Centre Site Summary). Efforts continue to increase operating hours and participation at the Forest site. The expansion of this site allows for greater access to Adult Day Program services in the County. The goal of the expansion is to reach individuals who may be isolated from the other program sites or community services.

Providing meaningful recreational experiences to the participants is also a priority of the program. Highlights of the programming in 2024 include a pen pal program in partnership with Lambton College's Therapeutic Recreation students, a horticultural program that allows participants to plant and care for gardens, and a partnership with the Library Outreach Program, which brings exciting activities and offers books for participants to borrow.

In addition, the Adult Day program increased overall operating days in 2024 allowing the program to serve more unique residents when compared to 2023. An annual summary of the participants in included in Appendix A.

The Adult Day Program also continued to offer Lambton County Connects program in 2024. This is a virtual and telephone program operated by volunteers that helps provide programming for isolated individuals who are unable to attend in-person programming. This program allows participants to learn new skills and socialize with others.

Of note, referrals received from community partners were lower in 2024 when compared to 2023. Referrals continue to be received from the partnership with Ontario Health atHome and other community organizations. Efforts are ongoing to work with community partners to increase the number of referrals received for the program to continue the growth in participant numbers. Building and maintaining these community partnerships is important for continued success and helps the program identify and respond to the evolving needs of the community.

FINANCIAL IMPLICATIONS

The AECs are funded by Ontario Health West with no impact on the levy. Participants pay a nominal fee to attend the programs.

Adult Enrichment Centre (AEC) Advisory Committee Annual Report 2024 (page 3)

February 19, 2025

CONSULTATIONS

The Community Services Supervisor, AEC Advisory Chairperson and Committee members as well as many community stakeholders were consulted in the preparation of this report.

STRATEGIC PLAN

Lambton County AEC provides affordable, individualized supports that are responsive to the needs of community participants and caregivers in order to encourage and maintain independence.

CONCLUSION

The work of the AEC Advisory Committee is crucial to the provision of services. The Committee provides guidance and direction that assist with the provision of services for people who are frail and/or living with dementia throughout Lambton County.

Efforts are ongoing to find opportunities to expand the reach of the Adult Day Programs to increase participants in 2025. This will include working with health system partners to ensure the appropriate supports are available for individuals to age at home and increase program accessibility to serve individuals with more complex needs.

The work of Councillor Bev Hand, Advisory Committee Chairperson, on behalf of the Adult Enrichment Centre, is greatly appreciated.

Appendix A Adult Enrichment Centre (AEC) Advisory Committee Annual Report 2024 Statistics

Adult Day Program Participant Summary

| | Adult Day Program Annual Sum | mary |
|------|------------------------------|------|
| | # of Days Open | 685 |
| | Number Served | 134 |
| 2023 | Referrals | 150 |
| 20 | Admissions | 66 |
| | Discharges | 41 |
| | # of Program Visits | 6682 |
| | # of Days Open | 753 |
| | Number Served | 141 |
| 2024 | Referrals | 86 |
| | Admissions | 52 |
| | Discharges | 52 |
| | # of Program Visits | 7827 |

Adult Enrichment Centre Site Summary

Sarna Site

| Adult Enrichment Centre: Sarnia Site | | |
|--------------------------------------|---------------------|------|
| 2024 | # of Days Open | 301 |
| | Number Served | 66 |
| | Referrals | 38 |
| | Admissions | 22 |
| | Discharges | 30 |
| | # of Program Visits | 3411 |

Appendix A - Adult Enrichment Centre (AEC) Advisory Committee Annual Report 2024 Statistics (page 2)

Forest Site

| Adult Enrichment Centre: Forest Site | | |
|--------------------------------------|---------------------|-----|
| 2024 | # of Days Open | 98 |
| | Number Served | 15 |
| | Referrals | 12 |
| | Admissions | 9 |
| | Discharges | 6 |
| | # of Program Visits | 468 |

Petrolia Site

| Adult Enrichment Centre: Petrolia Site | | |
|--|---------------------|------|
| 2024 | # of Days Open | 354 |
| | Number Served | 60 |
| | Referrals | 36 |
| | Admissions | 21 |
| | Discharges | 16 |
| | # of Program Visits | 3948 |

LAMBTON COUNTY

Long-Term Care Division



Adult Enrichment Centre
Advisory Committee
Annual Report 2024











www.LambtonCares.ca

AEC Advisory

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AEC Advisory Members 2024

Bev Hand, Committee Chairperson
Christine Wright, Member
John Hus, Member
Jennifer Salaris, Member
John Fairbairn, Member
Michelle Miller, Member
Peggy Davis, Member





OUR MISSION OUR VALUES

Lambton County Adult Enrichment Centre (AEC) provides affordable, individualized supports that are responsive to the needs of community participants and caregivers in order to encourage and maintain independence.

As a professional support service, we believe in:

- Service excellence
- Quality of life for all people
- Courtesy, respect, dignity and consideration for all people



Our Commitment:

- Provide a secure and safe environment
- Offer fun, enjoyable and meaningful activities which are tailored to the unique needs of each participant and their caregiver
- Provide an accessible and barrier free environment
- Encourage and sustain independence to allow people to remain in their homes as long as possible
- Maintain and promote dignity and respect
- Help build self-esteem
- Promote education about our services throughout the community
- Collaborate with community partners



REPORT FROM THE CHAIRPERSON

Over the past year, the Adult Day Program has experienced continued growth and success, primarily due to the strategic use of additional one-time funding. This funding has allowed the programs to enhance services, expand the reach, and continue providing essential support to participants. The results of these efforts have been incredibly positive. The funding has also allowed the program to offer nursing services to the participants who attend.

In addition to securing one-time funding, the success of the 2nd Annual Car Show serves as a reminder that our sustainability is not solely reliant on government funding. This fundraising event demonstrated our ability to engage the community and generate support outside of traditional funding streams. The event not only raised funds but also helped raise awareness about the Adult Day Program and the services that are available. With the Adult Day Program being located at Lambton Meadowview Villa the Car Show was a wonderful opportunity for the Elders of the Home to experience and participate in this community event. Over 400 people attended the event to support the Adult Day Program.

The past year has been a period of tremendous growth and success for the Adult Day Programs. The one-time funding has played a pivotal role in allowing the expansion of our services and the addition of the critical medical support through the inclusion of Registered Practical Nurses.

We remain committed to ensuring the continued success of the program and are optimistic about future opportunities to further develop and meet the needs of the community.

Submitted by: Bev Hand, Advisory Chairperson







ADULT ENRICHMENT CENTRE 2024 STATISTICS

Sarnia Site

| • | # of days open | 301 |
|---|---------------------|------|
| • | Number served | 66 |
| • | Referrals | 38 |
| • | Admissions | 22 |
| • | Discharges | 30 |
| • | # of program visits | 3411 |

Forest Site

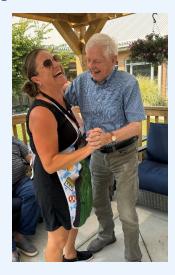
| • | # of days open | 98 |
|---|---------------------|-----|
| • | Number served | 15 |
| • | Referrals | 12 |
| • | Admissions | 9 |
| • | Discharges | 6 |
| • | # of program visits | 468 |

2023

| • | # of days open | 685 |
|---|---------------------|------|
| • | Number served | 134 |
| • | Referrals | 150 |
| • | Admissions | 66 |
| • | Discharges | 41 |
| • | # of program visits | 6682 |
| | | |

Petrolia Site

| • | #of days open | 354 |
|---|---------------------|------|
| • | Number served | 60 |
| • | Referrals | 36 |
| • | Admissions | 21 |
| • | Discharges | 16 |
| • | # of program visits | 3948 |



2024

| • | # of days open | 753 |
|---|---------------------|------|
| • | Number served | 141 |
| • | Referrals | 86 |
| • | Admissions | 52 |
| • | Discharges | 52 |
| • | # of program visits | 7827 |

REPORT FROM THE SUPERVISOR

The County of Lambton Adult Enrichment Centres (AEC) provides essential Adult Day Programs to support the health and well-being of individuals in the community. In 2024, the Adult Day Programs in Lambton County received additional one-time funding to continue providing the same level of service as in 2023. This enabled the Adult Day Programs to continue operating as follows:

- 7 days a week in Sarnia
- 6 days a week in Petrolia
- 2 days a week in Forest

The additional funding also facilitated the continuation of the Registered Practical Nurse (RPN) program, ensuring that each location had a RPN available every operating day. This provided participants with essential nursing support, including ongoing health monitoring, assessments, and referrals. The availability of nursing services made it possible for individuals with higher medical needs to attend the programs. Funding for this initiative is secured through March 2025.

The Adult Day Programs offer participants a wide variety of engaging activities and events that make each day special. Over the past year, we've celebrated themes like the Olympics, Fall Fairs, Oktoberfest, and Mardi Gras, creating funfilled moments that participants always look forward to. In addition to games, exercise, and daily activities that keep everyone active, we also foster meaningful community connections.

Participants enjoy a pen pal program with Lambton College's Therapeutic Recreation students, exchanging letters and building friendships. Our horticultural program allows participants to plant and care for gardens, nurturing seeds into vibrant plants and later enjoying the harvest in homemade delicious meals. We also partner with the Library Outreach Program, which brings exciting activities and offers books for participants to borrow. These programs not only enrich the day but also build a sense of community and purpose.

Submitted by;

Lee Ann Woollings Community Services Supervisor



2024 COMMITTEE **MEMBERSHIP LIST**

2024 Committee Chairperson - Bev Hand

| Members | Date Joined |
|------------------|------------------|
| Christine Wright | January 23, 2012 |
| John Hus | May 7, 2012 |
| Jennifer Salaris | January 17, 2022 |
| Bev Hand | January 9, 2017 |
| John Fairbairn | Aug 12, 2024 |
| Michelle Miller | Aug 12, 2024 |
| Peggy Davis | January 4, 2021 |

Term Ending

7th term ending Dec. 2026 2nd term ending Dec. 2026 4th term ending Dec. 2025 1st term ending Dec 2026 1st term ending Dec 2026 2nd term ending Dec. 2025

7th term ending Dec. 2026

2024 Staff Resources

S. Jane Joris/ Michael Gorgey, General Manager Lee Ann Woollings, Community Services Supervisor Laura Beauvais, RPN/Day Program Coordinator Tara Pounds, Revenue Development Officer

Advisory Committee Meeting Dates

January 11, 2024 March 11, 2024 August 12, 2024 November 18, 2024



Fundraising Event



Quotes from Participants

- I'm really happy when I'm here. It's the highlight of my week!
- I feel really good coming to the Day Program. I like meeting new people and developing friendships.
- I like to come here to relax and have good conversations.
- Day Camp is my life. I come alive on Tuesday and Thursday!
- I enjoy coming to Day Program for the casualness and socialization. It also allows us to achieve trust. The structured activities affect us cognitively and we do exercises daily. It's excellent.
- I like coming to the Day Program for good food and good friends!







| COUNTY OF LAMBTON | LONG-TERM CARE DIVISION |
|-------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | ADMINISTRATION |
| PREPARED BY: | Michael Gorgey, General Manager |
| REVIEWED BY: | Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Long-Term Care Occupancy – 2024 |

BACKGROUND

The Long-Term Care Division ("**Division**") manages and operates three Long-Term Care Homes ("**LTCH**") within Lambton County: Marshall Gowland Manor in Sarnia, Lambton Meadowview Villa in Petrolia, and North Lambton Lodge in Forest. Together, these homes have a total of 341 beds.

The Division's financial model is directly linked to its occupancy rates, with the provincial funding policy stipulating that each LTCH must maintain an average annual occupancy rate of 97% to optimize funding. This threshold is crucial for sustaining operational budgets and ensuring that adequate resources are available to meet the care needs of residents.

DISCUSSION

The Fixing Long-Term Care Act, 2021 ("FLTCA") governs the operational and funding policies of long-term care homes in Ontario. Under this Act, the Level of Care Per Diem Funding Policy outlines the financial structure, including specific rules and conditions under which LTCHs receive daily funding based on the level of care provided (Level of Care Per Diem). The funding an LTCH receives is determined by the number of approved beds and the percentage of those beds that are occupied throughout the year.

To receive 100% of the Level of Care ("**LOC**") per diem funding, LTCHs must maintain a minimum occupancy rate of 97%. If this target is not met, the home receives funding based only on actual "resident days" (the days beds are physically occupied by residents), as per the conditions outlined in the policy. This structure makes maintaining high occupancy rates essential for LTCHs to access full funding, thus ensuring optimal operation.

The attached occupancy report details each County LTCH's performance in meeting the funding thresholds in 2023 compared to 2024. It is worth noting that all three LTCHs have

Long-Term Care Occupancy – 2024 (page 2)

February 19, 2025

experienced strong demand, with significant waitlists across all levels of accommodation. However, achieving these occupancy targets can be challenging, particularly when admissions are paused due to outbreak protocols being activated in response to infectious disease events.

Lambton County LTCHs are actively working to fill all available beds as quickly as possible. The ongoing demand for long-term care, as indicated by the significant waitlists across all three LTCHs, highlights the increasing need for such services in the community.

Admissions can be delayed for various reasons, such as pending assessments by Ontario Health atHome, delays in bed offer acceptance, or the need to accommodate internal waitlists for residents wishing to transfer between different levels of accommodation within the same LTCH. However, by continuing to closely manage factors affecting admissions and bed availability, the County's LTCHs are well-positioned to maintain full funding, meet the growing needs of the aging population, and provide consistent, high-quality care to our elders.

FINANCIAL IMPLICATIONS

Maintaining occupancy rates is critical to the financial stability of LTCHs, as it directly impacts revenue generated through the 'Other Accommodation' funding envelope. Several factors contribute to fluctuations in revenue, primarily the ability to sustain high occupancy levels.

Delays in admissions, stemming from external assessments, infection control measures, and resident preferences, can create short-term revenue shortfalls. For instance, during outbreaks, admissions are temporarily halted, reducing the number of resident days that can be counted toward the occupancy target. Additionally, multiple bed offers may be made before a prospective resident accepts placement, further prolonging vacancy periods.

To manage these fluctuations, each LTCH within the Division maintains internal waitlists to ensure swift transfers between accommodation levels, maximizing bed utilization and mitigating financial risks associated with vacancies.

CONSULTATIONS

None.

STRATEGIC PLAN

In keeping with the Mission Statement of the County of Lambton, the programs provided by this Division contribute to the enhanced quality of life in Lambton County through building a community where residents are safe and healthy; feel a sense of belonging, pride, and purpose; and care for one another. Long-Term Care Occupancy – 2024 (page 3)

February 19, 2025

CONCLUSION

All three County of Lambton Long-Term Care Homes (LTCHs) are currently operating at full capacity, meeting the Ministry of Health and Ministry of Long-Term Care's requirement for at least 97% occupancy to receive full LOC per diem funding. This achievement ensures the homes are maximizing their funding, which is critical to maintaining high standards of care. Despite challenges such as outbreaks and delayed admissions, effective management has allowed the homes to fill beds and sustain occupancy targets.

The ongoing demand for long-term care, as indicated by the significant waitlists across all three LTCHs, highlights the increasing need for such services in the community. By continuing to closely manage factors affecting admissions and bed availability, the County's LTCHs are well-positioned to maintain full funding, meet the growing needs of the aging population, and provide consistent, high-quality care to our Elders.

COUNTY OF LAMBTON - LONG TERM CARE DIVISION 2024 OCCUPANCY REPORT

| Period: Jan to Dec | | | | | | | | | | | | | |
|--------------------------------|--------|------------|--------------|-------|--------|-------------|-------------|-------|---------------------|-------|--------|-------|--|
| YTD Days = 366 | L | ambton Mea | dowview Vill | а | | Marshall Go | wland Manor | | North Lambton Lodge | | | | |
| Approved Beds | 125 | | | | 127 | | | | 89 | | | | |
| Total Occupancy | 20: | <u>24</u> | <u>20</u> | 23 | 2024 | | 2023 | | 2024 | | 2023 | | |
| (Based on Beds) | # | % | # | % | # | % | # | % | # | % | # | % | |
| Long Term Care | 122 | 98% | 122 | 98% | 125 | 98% | 125 | 98% | 88 | 99% | 87 | 98% | |
| Year-to-Date | | | | | | | | | | | | | |
| Total Available Elder Days | 45,750 | | 45,625 | | 46,482 | | 45,990 | | 32,574 | | 32,120 | | |
| *Ministry Funding Target (97%) | 44,3 | 378 | 44,256 | | 45,088 | | 44,6 | 310 | 31,597 | | 31,156 | | |
| Actual YTD | 44,828 | 98.0% | 44,544 | 97.6% | 45,698 | 98.3% | 45,495 | 98.1% | 32,143 | 98.7% | 31,799 | 97.9% | |
| Bed Breakdown | | | | | | | | | | | | | |
| Private Beds | 59 | 48% | 57 | 47% | 48 | 38% | 49 | 39% | 33 | 38% | 34 | 39% | |
| Semi-Private Beds | 12 | 10% | 12 | 10% | 25 | 20% | 25 | 20% | 18 | 20% | 16 | 19% | |
| Ward Beds | 51 | 42% | 53 | 43% | 52 | 41% | 50 | 40% | 37 | 42% | 37 | 43% | |

AGENDA ITEM #b)

^{*}Based on Long Term Care beds

CORP 04-01-25



Aamjiwnaang First Nation

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February 2, 2025

VIA EMAIL

Warden Kevin Marriott Lambton County Council 789 Broadway Street, Box 3000 Wyoming, ON NON 1T0 Mayor Mike Bradley Sarnia City Council 255 N. Christina Street, Box 3018 Sarnia, ON N7T 7N2

Dear Warden Marriott and Mayor Bradley:

RE: <u>Councillor Bill Dennis' Disparaging Remarks Directed towards Aamjiwnaang First</u>

<u>Nation and its Chief during Lambton County Council Meeting of November 27, 2024.</u>

I am writing to express my deep concern and disappointment regarding inappropriate, untrue and disparaging comments from a member of both the Lambton County Council and Sarnia City Council that were made during a recent meeting of the County Council. These comments, directed at myself, the Chief of Aamjiwnaang First Nation, and indeed the membership of Aamjiwnaang more broadly, are not only deeply disrespectful but also undermine the principles of mutual respect and reconciliation that should guide the relationship between Lambton County, the City of Sarnia and Aamjiwnaang First Nation.

On November 5, 2024, I delivered a letter to then-Deputy Warden Brian White of the Lambton County Council regarding fines that were collected by the government of Ontario from Imperial Oil after the company caused a spill of "slop oil" to occur near Aamjiwnaang in April of 2021. The discharge of slop oil into the natural environment caused adverse effects for members of Aamjiwnaang First Nation.

In September 2024, Aamjiwnaang was informed that fines from the Imperial Oil incident were being given to Lambton County. In my letter of November 5, 2024, I requested that Lambton County transfer these fine monies directly to Aamjiwnaang, as Aamjiwnaang members were the people directly impacted by this incident.

My letter of November 5, 2024, was discussed by Lambton County Council during its meeting of November 27, 2024. During this meeting, Councillor Bill Dennis, who also sits as a Municipal

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Councillor for the City of Sarnia, made the following remarks, which are not only untrue, but insulting and disparaging towards myself and the members of Aamjiwnaang First Nation:

- (i) "The new Chief I wish her all the success in the world but she has shown, through her own actions, that she is very, very anti Chemical Valley." 1
- (ii) "She has gone to Toronto and spoke at Queen's Park. She's used words like, or terms like, 'environmental terrorism.'"²
- (iii) "She's mentioned about the end game is to get rid of Chemical Valley."³
- (iv) "She went to Japan just recently for a plastics conference and she talked about 'environmental terrorism.' "4
- (v) "They have an end-goal to get rid of Chemical Valley."5
- (vi) "They've already put INEOS out of business."6
- (vii) "We cannot keep on being weak to these people. We can't. We have to show some backbone."

Each and every one of the above-noted remarks is untrue, offensive and tarnishes the dignity of the office held by the Chief as well as the broader community of Aamjiwnaang First Nation. These comments also disregard and undermine the substantial amount of time, effort and resources that Aamjiwnaang devotes to developing constructive relationships with neighbouring industry. Such statements are contrary to the spirit of collaboration, inclusion, and reconciliation, which are essential to building strong and respectful relationships with Indigenous communities.

¹ Lambton County Council (OPEN SESSION) - 27 Nov 2024 at 33:54.

² Lambton County Council (OPEN SESSION) - 27 Nov 2024 at <u>34:05</u>.

³ Lambton County Council (OPEN SESSION) - 27 Nov 2024 at <u>34:27</u>.

⁴ Lambton County Council (OPEN SESSION) - 27 Nov 2024 at <u>34:33</u>.

Lambton County Council (OPEN SESSION) - 27 Nov 2024 at 34:41.
 Lambton County Council (OPEN SESSION) - 27 Nov 2024 at 35:01.

⁷ Lambton County Council (OPEN SESSION) - 27 Nov 2024 at 35:04.

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In addition to being offensive, Councillor Dennis' remarks are all untrue, as:

- (i) I have never indicated that my, or Aamjiwnaang's, end-goal is to "get rid of Chemical Valley." Rather, as noted above, our community devotes an exceptional amount of time and resources to developing constructive relationships with neighbouring industry;
- (ii) I have never used the term "environmental terrorism" generally, or in reference to Sarniaarea industry specifically; and
- (iii) Aamjiwnaang did not "put INEOS out of business." The Ontario Ministry of the Environment, Conservation and Parks ("MECP") issued a number of orders against INEOS as the MECP determined that discharges of benzene from INEOS' facilities exceeded provincial health-based benchmarks for benzene. Environment and Climate Change Canada ("ECCC") also issued an order against INEOS "to help ensure the protection of public health and safety in the Sarnia area."

It is incumbent upon members of County and City Council to refrain from making disparaging remarks about members of the public, to avoid aggressive, offensive and abusive conduct, and to speak with accuracy and honesty on all matters for which Councils are called upon to deliberate. This is especially so where those matters have a direct and substantial impact on the public, including on Aamjiwnaang First Nation. Indeed, Lambton County's *Code of Conduct for Members of Council*⁹ provides as follows:

- 5.1 It shall be the duty of all Members to abide by all applicable legislation, policies and procedures pertaining to their position as a Member.
- 5.3 Members will conduct their dealings with each other in ways that maintain public confidence in the position to which they have been elected or appointed. Members will be open and honest, focus on issues rather than personalities, and avoid aggressive, offensive or abusive conduct.

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⁸ See: https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/publications/update-interim-order-benzene-emissions-sarnia.html

⁹ A By-Law to Establish a Code of Conduct for Members of Council of The Corporation of the County of Lambton, By-Law No. 7 of 2019



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- 5.4 Members shall refrain from making disparaging remarks about other Members, members of the public or about Council's decisions.
- 8.1 Members have a duty to treat members of the public, each other and staff with respect and dignity and without abuse, bullying or intimidation;
- 11.3 Members shall refrain from making disparaging remarks about other Members, members of the public, Employees or Council's process and decisions.

The City of Sarnia's Code of Conduct for Council¹⁰ also provides:

- 1.2 This Code of Conduct is intended to set a high standard of conduct for Members in order to provide good governance and an enhanced level of public confidence in the administration of the City by its Members as duty elected public representatives to ensure that they each operate from a foundation of integrity, justice, truth, honesty and courtesy.
- 12.1 Members have a duty to treat members of the public, one another and staff with respect and without abuse, bullying, coercion or intimidation and to ensure that their work environment is free from discrimination and harassment.
- 12.2 A Member shall not use any words, phrases, expressions or behave in a way that is indecent, abusive or insulting toward any member of the public, another Member or staff. A Member shall not make any comments or conduct themselves in any manner that is discriminatory to any individual on the grounds of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, age, disability, sexual orientation, marital status, or family status and any other grounds identified under the Ontario *Human Rights Code*.

Councillor Dennis' remarks were untrue, reckless, offensive, disparaging and abusive towards me personally as well the community of Aamjiwnaang as a whole, and represent an attempt to bully and intimidate Aamjiwnaang and its members. Members of Aamjiwnaang, like all members of the public, have a right to engage with municipal governments without fear of being smeared,

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 $^{^{10}}$ A By-Law to Establish a Code of Conduct for Council (By-Law Number 24 of 2020 of the City of Sarnia).



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discriminated against or harassed by elected officials. His conduct violated both the Lambton County's Code of Conduct for Members of Council as well as the City of Sarnia's Code of Conduct for Council.

Although Councillor Dennis made these remarks during a Lambton County Council meeting, he sits on the County Council as a representative of the Sarnia City Council, and when acting in his official capacity, remains bound by Sarnia's Code of Conduct for Council.

Lambton County also has an Acknowledgement of Ancestral Lands published on its website¹¹ which was also adopted by County Council through its Land Acknowledgement Policy (L.15.01). Section 4(a) of the Policy provides "This Policy shall be interpreted and enforced in a manner consistent with the objective of the Policy set out in the subject-heading Policy Statement above and, specifically, in a manner that advocates for a respectful, constructive acknowledgement of the history of First Nations and First Nations Peoples on the lands within Lambton County."

The Land Acknowledgement also includes the following statement:

We acknowledge that we are all treaty people, with our own set of rights and responsibilities. Treaties are a foundational part of our society, and the settlement of Lambton County within a treaty area was made possible through the treaty process. The existence of treaties is proof that the first settlers of what is now Canada acknowledged First Nations as sovereign people and negotiated Nation to Nation. By understanding the colonial history of Canada we can renew our relationships with each other and move towards meaningful reconciliation.

Councillor Dennis' remarks do not reflect a "respectful, constructive acknowledgement of the history of First Nations and First Nations Peoples on the lands within Lambton County" nor do they serve to renew the relationship between Lambton County, the City of Sarnia and Aamjiwnaang in a move towards meaningful reconciliation. Rather, these remarks betray an ignorance of the colonial history of Canada, including the history of Aamjiwnaang and its people, and undermine efforts towards meaningful reconciliation.

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¹¹ https://www.lambtononline.ca/en/county-government/acknowledgement-of-ancestral-lands.aspx? mid =91411



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Indeed, Councillor Dennis completely ignores the historical record of environmental harm which has been inflicted upon Aamjiwnaang members. This tragic legacy has been continuously recognized by the Environmental Commissioner of Ontario, non-government environmental organizations and the United Nations Special Rapporteur on Toxins who specifically stated:

The situation of the Aamjiwnaang First Nation in Sarnia is profoundly unsettling. Deeply connected with their land, residents on the reservation invaded by industry as far back as the 1940s are now surrounded on three sides by over 60 industrial facilities that create the physiological and mental stress among community members regarding the risk of impending explosions or other disasters, and health impacts from unquestionably poisonous chronic exposures. It is one of the most polluted places in Canada, dubbed "chemical valley." 12

The City of Sarnia has also established the United Nations Declaration on the Rights of Indigenous Peoples ("UNDRIP") Working Group, whose mandate is to "develop a plan to advance the implementation of the [UNDRIP] within the City of Sarnia" "in good faith and cooperation with guidance from local Indigenous communities." The Working Group includes, among others, members of Sarnia's City Council, Aamjiwnaang's Council and the Councils of other local First Nations. The Working Group makes recommendations to City Council to advance the implementation of the UNDRIP within the City of Sarnia.

The UNDRIP includes the following provisions which should inform the City's response to Aamjiwnaang's concerns regarding Councillor Dennis. The UNDRIP should also inform the response of those City/County Councillors who are called upon to consider Aamjiwnaang's original underlying request to receive the fine monies paid by Imperial Oil:

Article 9:

Indigenous peoples and individuals have the right to belong to an indigenous community or nation, in accordance with the traditions and customs of the community or nation concerned. No discrimination of any kind may arise from the exercise of such a right.

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¹² Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes; A/HRC/45/12/Add.1 (27 November 2020) at paragraph 39.



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Article 15(2):

States shall take effective measures, in consultation and cooperation with the indigenous peoples concerned, to combat prejudice and eliminate discrimination and to promote tolerance, understanding and good relations among indigenous peoples and all other segments of society.

Article 19:

States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them.

Article 29(1):

Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination.

Article 32(3):

States shall provide effective mechanisms for just and fair redress for any such activities [development projects], and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.

In light of the historical harms to our community, and the City and County's stated commitments to meaningful reconciliation, I urge Councillor Dennis to retract his false and offensive statements made during the November 27, 2024, meeting of Lambton County Council, and to issue a formal and public apology to the Chief of Aamjiwnaang First Nation and the community as a whole. I also urge the Lambton County Council and Sarnia City Council to also take the following actions:

- Issue a public apology to Aamjiwnaang First Nation for Councillor Dennis' remarks;
- Hold Councillor Bill Dennis accountable for his inappropriate remarks, ensuring that such behavior is not repeated; and

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 Commit to sensitivity and cultural awareness training for all Lambton County Council members to foster a better understanding of Indigenous communities and their leadership.

It is imperative that Lambton County and the City of Sarnia take immediate and meaningful action to address this matter, as failure to do so could significantly harm relations between the County, the City and Aamjiwnaang First Nation.

Additionally, please be advised that I have submitted formal complaints regarding this incident to both the County of Lambton's Integrity Commissioner and the City of Sarnia's Integrity Commissioner. I understand, however, that many Ontario integrity commissioners may decline to investigate code of conduct complaints regarding events that occur during Council meetings, unless the Council formally asks them to.

Should this be the case, I would urge both County Council and City Council to direct their respective Integrity Commissioners to fully investigate these complaints. Additionally, should the Integrity Commissioners substantiate these complaints, I would urge both the County Council and City Council to impose penalties on Councillor Dennis in accordance with their respective bylaws, rules, policies and procedures.

Finally, because of Councillor Dennis' comments, Lambton County Council did not vote on the substance of Aamjiwnaang's request, but simply marked the correspondence as "received and filed." We would also request, therefore, that my letter of November 5, 2024 (#CORP 11-13-24) be again placed before the Lambton County Council for reconsideration at its next regularly scheduled meeting, along with a copy of my letter of today's date. I would also request these documents be placed before City Council at its next regularly scheduled meeting.

We would welcome the opportunity to meet with the Lambton County Council and Sarnia City Council to discuss these matters further, as well as the relationship between the County, City and Aamjiwnaang more broadly.

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Thank you for your attention to this serious matter. I look forward to a prompt response outlining the steps that will be taken to address this issue. Should you require any further information, please contact the undersigned.

Yours sincerely,

Chief Janelle Nahmabin Aamjiwnaang First Nation

T: 519-336-8410 ext. 216 E: chief@aamjiwnaang.ca

cc. Council, Aamjiwnaang First Nation.

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| COUNTY OF LAMBTON | CORPORATE SERVICES DIVISION |
|-------------------|--|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | COURT SERVICES |
| PREPARED BY: | Kelly Wiebenga, Supervisor |
| REVIEWED BY: | Olivia Leger, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Court Services – 2024 4th Quarter Statistics and Activity |

BACKGROUND

The Court Services Department (the "**Department**") maintains statistical data regarding the number, type, and value of fines assessed and paid through the County's *Provincial Offences Act* (POA) court. Staff provides Council with summary and analysis of this data at the end of each guarter.

DISCUSSION

Total Charges Received

In the fourth quarter of 2024, the Department recorded a total of 3,017 charges received, representing a decrease of 3009 charges or 50% from the previous quarter¹. In comparison to the fourth quarter in 2023, total charges received remained steady with a slight increase of 32 or 1%.

Despite the decrease from the previous quarter, the total charges received in 2024 is 18,301 which marks an increase of 4,397 charges or 35% compared to 2023. This volume of charges has not been recorded since 2013.

Charges Laid by Enforcement Agency

The Ontario Provincial Police ("**OPP**") has recorded a 52% decrease in this quarter with a total of 1,207 charges laid, down by 1302 charges from the previous quarter. However, in comparison to the fourth quarter of 2023, charges laid by OPP have remained steady with a slight increase of 14 charges.

¹ This is a typical trend between third and fourth quarter of each year, as we enter winter months that often see less tourists and enforcement activities.

Court Services – 2024 4th Quarter Statistics and Activity (page 2)

February 19, 2025

With a total of 1,140 charges, Sarnia Police Service has recorded an increase of 99 charges since last quarter or 9%. Compared to the fourth quarter of 2023, Sarnia Police has recorded an increase of 566 charges or 49%.

The Ministry of Transportation ("MTO") continued to record a decrease in the fourth quarter of 2024 with 430 charges or 51% decrease when compared to the previous quarter. In comparison to the same quarter in 2023, MTO charges have decreased by a total of 270 or 39%. Despite the decrease, the annual total amount of MTO charges have continued to rise each year since 2021. In comparison to 2023, the total amount of MTO charges laid in 2024 increased by 35%.

Charges laid by Municipalities decreased in the fourth quarter by 1,303 or 88%. When compared to the fourth quarter of 2023, charges decreased by 204 or 54%. However, it should be noted that many of the total charges laid by municipalities are parking tickets submitted to the court for conviction. Due to the postal disruption, an order was made by the Ontario Court of Justice, extending specific time limits prescribed under the *Provincial Offences Act* by 20 days following the resumption of normal mail service. As a result, municipalities were unable to submit parking tickets to the court for conviction between November 15, 2024, and January 5, 2025.

In this fourth quarter of 2024, charges laid by all other enforcement agencies decreased by 73 or 50% since last quarter. When compared to the same quarter in 2023, total charges laid decreased by 74 or 50%.

Charges Laid by Act

In this fourth quarter, 80% of the total charges laid were under the *Highway Traffic Act*. Municipal By-Laws made up 7% of the total charges laid.

Courtroom Activity

In the fourth quarter of 2024, the Department had 8 days of court closures to accommodate the annual fall conference dates attended by Justice of the Peace as well as the Christmas holiday. There were a total of 18 regular court dates operating as well as a 7-day special trial. In addition, there were 3 judicial pre-trial dates held in this fourth quarter.

The Department is no longer experiencing a backlog of trial requests.

Early Resolution Meetings

The Municipal Prosecutor held a total of 6 1/2 days of Early Resolution Meetings in this third quarter. Similar to the third quarter, the MTO Prosecutor held a total of 1 full day (2 half days) of Early Resolution Meetings in this quarter.

The Department continues to address a backlog of Early Resolution Meeting requests.

Court Services – 2024 4th Quarter Statistics and Activity (page 3)

February 19, 2025

New Fines Ordered

New fines ordered totaled \$722,903 in this fourth quarter. This marks a decrease from the third quarter by \$1,120,903, however the third quarter total included a one-time large fine under the *Environmental Protection Act* of \$1,125,005. In comparison to the fourth quarter of 2023, new fines ordered increased by \$148,922.

New fines ordered in 2024 increased by a total of \$1,640,265 compared to 2023.

Enforcing Payment of Defaulted Fines

During this reporting period, \$139,716 was collected in-house, with third party collections recording \$29,105; an increase of \$14,549 and a decrease of \$24,793, respectively, over the previous quarter. In total, defaulted fines collected in the fourth quarter decreased by \$10,244 from the third quarter.

In preparation for the 3rd party collection agency agreements expiring on December 1, 2024, and finalizing new agreements to begin January 1, 2025, all defaulted fines were retracted from third party collections on November 18, 2024, and thus contributed to the decrease in third party fine collection.

In addition, the postal disruption beginning on November 15, 2024 and continuing until January 5, 2025 further contributed to the decrease in defaulted fines collection in comparison to last quarter, as Final Notices could not be mailed, enforcement activities were paused and fine due dates were extended for an additional 35 days following the resumption of normal mail service, as a result of the order made by the Ontario Court of Justice.

FINANCIAL IMPLICATIONS

The postal disruption beginning on November 15, 2024, and subsequent order made by the Ontario Court of Justice, delayed payment of fines and collection and enforcement of defaulted fines in the fourth quarter. Notwithstanding this, the Department is projecting a favorable year end position.

CONSULTATIONS

Not applicable.

STRATEGIC PLAN

In keeping with the principles and values of the County of Lambton through leadership and accountability, the County's current efforts employ reasonable and sound decision-making and is accountable to ratepayers for the appropriate stewardship of their tax dollars.

AGENDA ITEM #a)

| Court Services – 2024 4th Quarter Statistics and Activity (page 4) | February 19, 2025 | | | | | | | | | | |
|---|-------------------|--|--|--|--|--|--|--|--|--|--|
| CONCLUSION | | | | | | | | | | | |
| As a result of the resumption of full court operations in June, the increase in charges received and new fines ordered, the Department is projecting a favorable year end position. | | | | | | | | | | | |
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FINANCE, FACILITIES AND ACQUISITIONS DIVISION

| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
|---------------|---|
| DEPARTMENT: | FINANCIAL ADMINISTRATION SERVICES |
| PREPARED BY: | Lori Titus, CPA, Manager |
| REVIEWED BY: | Larry Palarchio, CPA, CMA, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| SUBJECT: | Annual Year-End Report on Reserves and Reserve Funds |

BACKGROUND

The County's annual budget sets out expected contributions and dispositions for Reserves and Reserve Funds proposed for the current year. Financial Administration Services staff monitor these transactions throughout the year and annually present Council with this report which summarizes:

- the activity that occurred for fiscal 2024;
- additional allocations that are now being requested; and
- a projection of what additions/dispositions can be expected during the coming year.

DISCUSSION

The Summary & Continuity schedule (see attached) provides a listing of all currently known transactions involving Reserves and Reserve Funds during fiscal 2024 as well as projected additions and dispositions for the 2025 budget.

Prior to preparing this report, an expanded and more in-depth version of this schedule was distributed to General Managers and Managers to review and identify any errors, omitted or additional transactions. This additional information was then incorporated into the attached summary.

Notable transactions during 2024 were:

- \$9.6 million from Contingencies & Opportunities and LSSC reserves to finance the Lambton Shared Services Centre acquisition.
- \$6.8 million added to amortization reserves and utilized to fund the replacement or rehabilitation of existing tangible capital assets.

Annual Year-End Report on Reserves and Reserve Funds (page 2)

February 19, 2025

- \$3.0 million addition to the Affordable Housing reserve to support initiatives to address homelessness issues.
- \$1.35 million from the Contingencies & Opportunities reserve to fund the additional grant to The County of Lambton Community Development Corporation.

FINANCIAL IMPLICATIONS

The County began 2024 with a combined balance in Reserves and Reserve Funds of \$87.8 million. Based on activity reported to December 31, 2024, it is anticipated that the combined balance of these funds will be approximately \$77.7 million. Adjusting for prior year commitments which exist against several reserves for ongoing capital projects and affordable housing initiatives, the revised balance of available reserves is projected at \$63.14 million.

Projections of 2025 budget activity result in an anticipated 2025 year-end combined balance of Reserves and Reserve Funds at \$63.6 million.

CONSULTATIONS

General Managers and Managers were consulted in the preparation of this report.

STRATEGIC PLAN

The ability of the County to both arrange financing and minimize its borrowing costs is dependent on how its financial health is rated. Any degradation of the County's credit worthiness will increase its cost of borrowing and therefore take away from the funds available to Council to provide services.

CONCLUSION

Reserves and Reserve Funds are primarily used to provide a sustainable source of funding for capital reinvestment requirements, as well as support the attainment of the County's broader strategic objectives. They also provide Council with the means to moderate the impact of large or unexpected costs on its tax base.

It has been the long-term policy of Council to build and then maintain the County's Reserves and Reserve Funds at levels comparable to its peers and acceptable to its credit rater and the Province. In its 2023 analysis of the County's financial indicators, the Province noted that while Lambton's results have continued to improve, its level of reserves at December 31, 2023 continues to be low.

This also continues to be identified as a weak point in the otherwise sound fiscal position of the County as rated by S&P Global in its annual credit review.

AGENDA ITEM #a)

| Annual Year-End Report on Reserves and Reserve Funds (page 3) | February 19, 2025 |
|--|--|
| Significant additional contributions to Reserves/Reserve Funds will and beyond to ensure asset management planning initiatives are p efficient and financially prudent manner. | be necessary in 2026 repared in a cost |
| RECOMMENDATION | |
| That the attached Summary Report on Reserves and Reserve I recommendations be accepted as presented. | Funds and its |
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COUNTY OF LAMBTON SUMMARY & CONTINUITY OF RESERVES & RESERVE FUNDS

RESERVES

| RESERVES | Dec.31, 2023 2024 Estimated Activity | | Dec.31, 2024 | Previously | Available | 2025 B | udget | Dec.31, 2025 | |
|-------------------------------|--------------------------------------|---------------|---------------|---------------|--------------|---------------|--------------|--------------|-------------------|
| Name | Actual Balance | Dispositions | Additions | Est. Balance | Approved | Balance | Dispositions | Additions | Projected Balance |
| Working Funds | 3,280,181,70 | 283,900.00 | 477,921.00 | 3.474.202.70 | 0.00 | 3,474,202.70 | 325,000 | 475,000 | 3,624,202.70 |
| Contingencies & Opportunities | 10,587,962.67 | 9,850,000.00 | 1,816,884.02 | 2,554,846.69 | 453,392.04 | 2,101,454.65 | 710,000 | 1,900,000 | 3,291,454.65 |
| Stabilization | 3,352,208.35 | 185,000.00 | 625,318.00 | 3,792,526.35 | 340,000.00 | 3,452,526.35 | 1,157,705 | 0 | 2,294,821.35 |
| HR Operating | 1,310,635.80 | 725,318.00 | 0.00 | 585,317.80 | 0.00 | 585,317.80 | 63,000 | 0 | 522,317.80 |
| IT Capital | 1,424,684.55 | 1,204,032.00 | 1,056,495.00 | 1,277,147.55 | 10,900.00 | 1,266,247.55 | 262,700 | 54,000 | 1,057,547.55 |
| Lambton Public Health | 1,122,770.24 | 0.00 | 0.00 | 1,122,770.24 | 7,014.00 | 1,115,756.24 | 72,000 | 0 | 1,043,756.24 |
| Children Services | 3,611,746.79 | 184,853.00 | 811,896.00 | 4,238,789.79 | 2,250,323.00 | 1,988,466.79 | 134,853 | 0 | 1,853,613.79 |
| LTC Capital | 2,710,249.73 | 2,321,000.00 | 2,975,800.00 | 3,365,049.73 | 0.00 | 3,365,049.73 | 1,676,200 | 2,070,200 | 3,759,049.73 |
| Housing Capital | 1,705,889.15 | 3,666,551.00 | 3,704,389.00 | 1,743,727.15 | 0.00 | 1,743,727.15 | 50,229 | 160,738 | 1,854,236.15 |
| Housing Restructuring | 78,043.17 | 11,589.00 | 0.00 | 66,454.17 | 0.00 | 66,454.17 | 50,000 | 0 | 16,454.17 |
| Housing Development | 1,098,105.01 | 0.00 | 73,689.00 | 1,171,794.01 | 0.00 | 1,171,794.01 | 0 | 0 | 1,171,794.01 |
| EMS Operating | 1,031,723.89 | 303,755.00 | 0.00 | 727,968.89 | 0.00 | 727,968.89 | 0 | 0 | 727,968.89 |
| EMS Capital | 2,566,916.24 | 747,033.00 | 819,055.00 | 2,638,938.24 | 0.00 | 2,638,938.24 | 1,109,250 | 873,000 | 2,402,688.24 |
| Library Capital | 443,262.85 | 230,719.46 | 112,000.00 | 324,543.39 | 10,635.33 | 313,908.06 | 10,000 | 46,000 | 349,908.06 |
| Museum Capital | 279,356.54 | 36,278.89 | 48,261.00 | 291,338.65 | 135,794.29 | 155,544.36 | 0 | 0 | 155,544.36 |
| Roads Equipment | 1,554,300.52 | 960,000.00 | 955,000.00 | 1,549,300.52 | 209,167.41 | 1,340,133.11 | 845,000 | 950,000 | 1,445,133.11 |
| Roads Capital | 6,428,071.26 | 110,000.00 | 110,000.00 | 6,428,071.26 | 1,662,534.27 | 4,765,536.99 | 105,000 | 0 | 4,660,536.99 |
| Facility Services | 138,677.27 | 0.00 | 100,000.00 | 238,677.27 | 0.00 | 238,677.27 | 145,000 | 0 | 93,677.27 |
| Sub-Total General Reserves | 42,724,785.73 | 20,820,029.35 | 13,686,708.02 | 35,591,464.40 | 5,079,760.34 | 30,511,704.06 | 6,715,937 | 6,528,938 | 30,324,705.06 |
| Amortization | 7,683,238.04 | 4,714,682.61 | 4,700,000.00 | 7,668,555.43 | 836,029.33 | 6,832,526.10 | 4,343,265 | 5,000,000 | 7,489,261.10 |
| Economic Development | 692,320.36 | 0.00 | 0.00 | 692,320.36 | 0.00 | 692,320.36 | 0 | 0 | 692,320.36 |
| Environmental Initiative | 360,711.00 | 0.00 | 90,000.00 | 450,711.00 | 0.00 | 450,711.00 | 0 | 26,000 | 476,711.00 |
| SWIFT | 252,000.00 | 0.00 | 0.00 | 252,000.00 | 0.00 | 252,000.00 | 0 | 0 | 252,000.00 |
| Energy Efficiency | 100,000.00 | 0.00 | 0.00 | 100,000.00 | 0.00 | 100,000.00 | 0 | 0 | 100,000.00 |
| WSIB | 515,591.96 | 0.00 | 0.00 | 515,591.96 | 0.00 | 515,591.96 | 0 | 0 | 515,591.96 |
| S.S. LSSC | 1,960,873.17 | 1,217,543.18 | 632,226.00 | 1,375,555.99 | 0.00 | 1,375,555.99 | 916,572 | 1,208,773 | 1,667,756.99 |
| Bayside Acquisition | 1,500,000.00 | 2,000,000.00 | 500,000.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0.00 |
| National Child Care Benefit | 3,608,772.67 | 734,000.00 | 494,000.00 | 3,368,772.67 | 0.00 | 3,368,772.67 | 1,035,000 | 494,000 | 2,827,772.67 |
| Ontario Works | 588,629.08 | 100,500.00 | 0.00 | 488,129.08 | 0.00 | 488,129.08 | 0 | 0 | 488,129.08 |
| Social Planning | 226,557.12 | 0.00 | 0.00 | 226,557.12 | 0.00 | 226,557.12 | 0 | 0 | 226,557.12 |
| Circles | 280,560.66 | 0.00 | 0.00 | 280,560.66 | 0.00 | 280,560.66 | 0 | 0 | 280,560.66 |
| Affordable Housing | 6,555,687.01 | 2,194,786.00 | 3,623,620.00 | 7,984,521.01 | 7,588,054.79 | 396,466.22 | 4,100,000 | 4,000,000 | 296,466.22 |
| AEC (Adult Enrichment Centre) | 13,514.43 | 0.00 | 178,462.71 | 191,977.14 | 0.00 | 191,977.14 | 0 | 0 | 191,977.14 |
| LTC Operating | 1,115,268.26 | 200,000.00 | 0.00 | 915,268.26 | 0.00 | 915,268.26 | 0 | 0 | 915,268.26 |
| Library Special Projects | 354,040.26 | 20,184.00 | 0.00 | 333,856.26 | 0.00 | 333,856.26 | 20,500 | 0 | 313,356.26 |
| Library Operating | 590,125.59 | 0.00 | 0.00 | 590,125.59 | 33,000.00 | 557,125.59 | 25,000 | 0 | 532,125.59 |
| Library Donations | 303,197.16 | 0.00 | 1,898.00 | 305,095.16 | 75,000.00 | 230,095.16 | 5,000 | 7,800 | 232,895.16 |
| Library Schuldt Donation | 346,182.82 | 0.00 | 0.00 | 346,182.82 | 0.00 | 346,182.82 | 0 | 0 | 346,182.82 |
| Creative County | 21,538.18 | 0.00 | 0.00 | 21,538.18 | 0.00 | 21,538.18 | 0 | 0 | 21,538.18 |
| Lambton Room | 138,632.48 | 0.00 | 4,116.00 | 142,748.48 | 0.00 | 142,748.48 | 0 | 1,600 | 144,348.48 |
| Art Gallery | 348,304.34 | 12,811.41 | 74,853.00 | 410,345.93 | 0.00 | 410,345.93 | 55,000 | 0 | 355,345.93 |
| Roads Expansions | 63,956.94 | 0.00 | 0.00 | 63,956.94 | 0.00 | 63,956.94 | 0 | 0 | 63,956.94 |
| Philip Waste Reduce/Educate | 735,916.91 | 401,060.84 | 93,821.00 | 428,677.07 | 140,000.00 | 288,677.07 | 95,642 | 95,642 | 288,677.07 |

AGENDA ITEM #a)

COUNTY OF LAMBTON SUMMARY & CONTINUITY OF RESERVES & RESERVE FUNDS

RESERVES

| | Dec.31, 2023 | 2024 Estimated Activity | | Dec.31, 2024 | Previously | Available | 2025 Budget | | Dec.31, 2025 |
|-------------------------------|----------------|-------------------------|---------------|---------------|---------------|--------------------------------|--------------|------------|-------------------|
| Name | Actual Balance | Dispositions | Additions | Est. Balance | Approved | Balance | Dispositions | Additions | Projected Balance |
| Part VIII EAP (Bldg Services) | 12,610.76 | 2,752.66 | 0.00 | 9,858.10 | 0.00 | 9,858.10 | 0 | 0 | 9,858.10 |
| P&D | 166,107.55 | 144,792.00 | 2,000.00 | 23,315.55 | 0.00 | 23,315.55 | 0 | 7,000 | 30,315.55 |
| Emergency Rescue | 1,089.64 | 292.00 | 0.00 | 797.64 | 0.00 | 797.64 | 267 | 0 | 530.64 |
| Land Management | 58,063.47 | 30,300.00 | 9,114.00 | 36,877.47 | 0.00 | 36,877.47 | 30,300 | 5,000 | 11,577.47 |
| Lambton Tree Legacy | 115,368.00 | 0.00 | 0.00 | 115,368.00 | 0.00 | 115,368.00 | 0 | 0 | 115,368.00 |
| Woodlands In-lieu Fees | 91,902.79 | 0.00 | 0.00 | 91,902.79 | 0.00 | 91,902.79 | 0 | 0 | 91,902.79 |
| Sub-Total Specific Reserves | 28,800,760.65 | 11.773.704.70 | 10,404,110.71 | 27,431,166.66 | 8,672,084.12 | 18,759,082.54 | 10,626,546 | 10,845,815 | 18,978,351.54 |
| · | | , -, - | | | | · · · | , , | , , | |
| Subtotal Reserves | 71,525,546.38 | 32,593,734.05 | 24,090,818.73 | 63,022,631.06 | 13,751,844.46 | 18,759,082.54 49,270,786.60 | 10,626,546 | 10,845,815 | |

RESERVE FUNDS

| | Dec.31, 2023 | 23 2024 Estimated Activity | | Dec.31, 2024 | Previously | Available | 2025 Budget | | Dec.31, 2025 |
|--------------------------------|----------------|----------------------------|--------------|---------------|------------|---------------|--------------|-----------|-------------------|
| Name | Actual Balance | Dispositions | Additions | Est. Balance | Approved | Balance | Dispositions | Additions | Projected Balance |
| Capital Reserve Fund | 7,857,006.42 | 2,143.00 | 897,249.68 | 8,752,113.10 | 487,360.00 | 8,264,753.10 | 143,022 | 475,000 | 8,596,731.10 |
| Housing Reserve Fund | 458,672.84 | 0.00 | 26,271.89 | 484,944.73 | 0.00 | 484,944.73 | 0 | 0 | 484,944.73 |
| Senior Services Reserve Fund | 5,553,869.08 | 3,790,727.00 | 1,376,677.00 | 3,139,819.08 | 0.00 | 3,139,819.08 | 490,617 | 755,000 | 3,404,202.08 |
| LHM Capital Reserve Fund | 234,987.45 | 113,813.00 | 43,834.38 | 165,008.83 | 0.00 | 165,008.83 | 1,000 | 19,990 | 183,998.83 |
| OM Capital Reserve Fund | 99,949.51 | 0.00 | 13,189.64 | 113,139.15 | 0.00 | 113,139.15 | 0 | 2,800 | 115,939.15 |
| Gallery Lambton Reserve Fund | 215,174.61 | 0.00 | 17,324.45 | 232,499.06 | 0.00 | 232,499.06 | 0 | 5,000 | 237,499.06 |
| R.T.Bradley Award Reserve Fund | 13,161.19 | 0.00 | 753.39 | 13,914.58 | 0.00 | 13,914.58 | 0 | 0 | 13,914.58 |
| Waste Management Reserve Fund | 1,849,856.38 | 160,242.00 | 103,601.57 | 1,793,215.95 | 390,638.00 | 1,402,577.95 | 187,685 | 0 | 1,214,892.95 |
| Subtotal Reserve Funds | 16,282,677.48 | 4,066,925.00 | 2,478,902.01 | 14,694,654.49 | 877,998.00 | 13,816,656.49 | 822,324 | 1,257,790 | 14,252,122.49 |
| | | | | | | | | | · |

Total Reserves & Reserve Funds 87,808,223.86 36,660,659.05 26,569,720.74 77,717,285.55 14,629,842.46 63,087,443.09 18,164,807 18,632,543 63,555,179.09

net to/from 467,736

| COUNTY OF LAMBTON | SOCIAL SERVICES DIVISION |
|-------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | ONTARIO WORKS |
| PREPARED BY: | Melissa Fitzpatrick, Manager |
| REVIEWED BY: | Valerie Colasanti, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Ontario Works 2024 Year End Update |

BACKGROUND

Ontario Works ("**OW**") is a mandatory program that provides legislated income and person-centred support ensuring people have access to the financial, stability, and employment supports they need to build their independence and an enhanced quality of life.

There is collaboration between internal staff and community partners across service sectors such as housing, homelessness prevention, health, and education to support people's needs and to assist them in achieving their goals.

In 2023, as part of Phase 2 of employment services transformation, the County of Lambton was chosen as an Employment Ontario ("EO") provider by the City of Windsor, the newly appointed Service System Manager for Windsor-Lambton catchment area. Within the OW Department, this led to the establishment of a new employment services program and team which began delivery of services on January 2, 2024.

This report seeks to provide Council with an update of a few key initiatives and outcomes within the OW Department, including the EO program, during 2024.

DISCUSSION

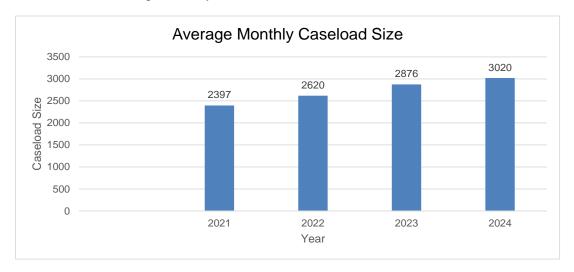
Caseload Statistics

The OW average caseload from January 1, 2024, to December 31, 2024, was 3,020 households per month including temporary care assistance cases. The OW average caseload for the same period in 2023 was 2,876. This represents a 5% increase compared to the same period in 2023. The Provincial average caseload increased 15.2% in 2024 over 2023.

Ontario Works 2024 Year End Update (page 2)

February 19, 2025

A caseload increase is consistent with the provincial experience and is primarily due to continued high cost of living as well as inflation and increasing complex needs of people. The Ministry of Children, Community and Social Services ("MCCSS") projects a 9% increase in the average monthly caseload for 2025.



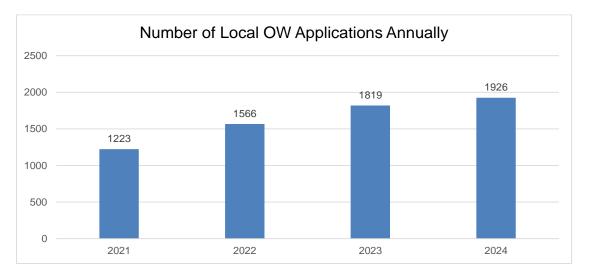
Centralized Intake ("CI"), introduced in late 2022 in Lambton County, is a provincial modernization initiative with provincial staff completing certain OW applications. The intent of CI is to streamline service delivery and increase the time OW staff need to focus on providing stability supports to clients. As part of the work to complete CI, in the Fall of 2024, the ministry made a regulatory change that designated the MCCSS as the OW delivery agent and the Consolidated Municipal Service Manager, the County of Lambton, a delivery partner. The ministry is responsible for initial eligibility decisions, including authorization of initial payment and notifying applicants. Lambton County transitioned to the complete CI model in December 2024. It is expected all municipalities will be transitioned to the new intake model by the end of March 2025.

The CI model is intended to promote a "digital first" experience, reducing time consuming and manual tasks allowing municipalities to focus more on providing impactful, personcentred supports. However, the experience across the province and locally has been that there remain significant workload challenges for local offices related to post-grant follow up including verification requirements and file corrections. Many of these concerns relate to incorrect entitlement calculations or undeclared information that resulted in a change to eligibility. We continue to monitor file status from the provincial database and are equipped to assess eligibility for Emergency Assistance ("EA") for urgent situations.

As expected with a caseload increase, application levels also increased. Lambton experienced a 5.9% increase in applications in 2024 over 2023. Provincially, a 22.5% increase in applications was experienced from 2023 to 2024.

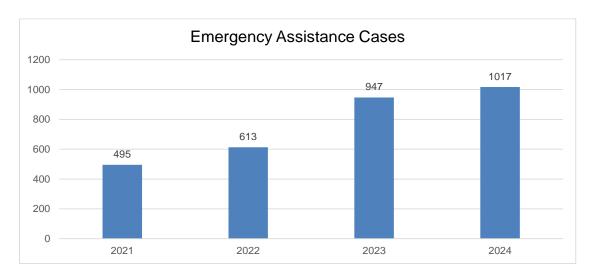
Ontario Works 2024 Year End Update (page 3)

February 19, 2025



EA is provided in crisis or emergency situations such as eviction, utility arrears, or pending Employment Insurance income.

There was a slight overall increase of 7.5% in EA cases in 2024 compared to the same period in 2023. Overall, the Province experienced approximately a 41% decrease in EA.



Person-Centred Stability Supports

OW staff provide direct, person-centred support to people with a wide range of needs, including those experiencing trauma, homelessness, mental health and addiction challenges. People need longer term more intense support to reach goals, increase their independence and quality of life. The most recent MCCSS data for 2024 indicates that the

Ontario Works 2024 Year End Update (page 4)

February 19, 2025

average number of months on assistance in Lambton is 44, reflecting that people being supported have complex needs that require longer term support. Of note, families with children account for 31% of the caseload where low-income employment and lack of child care spaces contribute to a families' inability to exit social assistance.

In 2024, staff training focused on working collaboratively with individuals and maintaining a person-centred approach to make meaningful and effective referrals to community resources and services. Workshops were held for staff aimed at learning how to engage others in productive conversations. In addition, as many continue to struggle with mental health, SafeTALK learning sessions were held to provide staff with information on how to have safe discussions regarding mental health and thoughts of suicide. Staff also attended workshops on the importance of trauma-informed care where training is based on the premise that to effectively help others we must make sure to help ourselves first. Topics included self-compassion, boundaries, trauma, motivation, and resilience.

Through 2024, OW continued to partner and fund the Brief Counselling Program with the Family Counselling Centre Sarnia. This program offers up to 5 sessions to individuals in receipt of OW who want to participate in counselling services and require counselling to assist them in creating a stable life environment, in reaching their goals, including moving forward and gaining employment. In 2024, over 90 OW recipients were supported through a private counselling program, and 92% of those surveyed reported an increase in hopefulness and overall mental health and wellbeing following their counselling sessions, strengthening their commitment and ability to achieve their goals.

The Mental Health and Social Services Team ("MHASST") is an integrated team approach, where OW staff work collaboratively with staff from the Canadian Mental Health Association ("CMHA") to support individuals in receipt of OW, where mental health and/or addiction appear to be impacting their quality of life. In 2024, MHASST accepted just over 100 new referrals and discharged 102 participants, showcasing it as a rapid, results-driven program with quick successes and lasting benefits. Discharge reasons include the granting of Ontario Disability Support Program ("ODSP"), registration in post-secondary education, and being connected to ongoing services at CMHA. Since the program began in 2020, 421 people have benefited from the program, having been connected to meaningful supports that enrich their well-being and life satisfaction.

The Youth Wellness Hub Ontario ("YWHO") provides comprehensive mental health and addiction services for youth aged 12 to 25, including counselling, peer support, crisis intervention, and specialized care. As part of a collaborative initiative, an OW caseworker is available as needed at the Hub to foster connections and support youth in accessing essential services, such as financial assistance, housing resources, and ODSP application guidance. Since the partnership began, OW has supported a total of 110 youth at YWHO. Approximately 42 youth have engaged in consultations addressing housing, ODSP, child care, or Developmental Services Ontario ("DSO") services. Of these, 14 youth were referred to the OW caseworker to complete financial assistance applications. Furthermore, five DSO applications have been successfully approved following referrals from YWHO to

Ontario Works 2024 Year End Update (page 5)

February 19, 2025

OW. Additionally, 10 youth have participated in consultations for St. Clair Child and Youth services.

With transformation and the increased focus on stabilization efforts for OW, in 2024 MCCSS performance outcomes are meant to more reflect stabilization and the integrated nature of social assistance and employment services. The County of Lambton's OW team trended on par or slightly above the provincial average in four outcome areas.

| Performance Outcome | Target | Lambton Actuals | Provincial Actuals |
|--|--------|--------------------|--------------------|
| OW adults and ODSP non-disabled adults with | 100% | 88% | 77% |
| participation requirements have an Action Plan | | | |
| OW adults and ODSP non-disabled adults with | 39% | 31% | 27% |
| participation requirements referred to Employment | | | |
| Ontario | | | |
| OW cases exit to employment | 19% | 9.1% | 8.6% |
| Cases that exit OW that do not return to the program | 38% | 59% | 67% |
| within one year | | | |

Employment Services

Employment services and supports provided by OW staff aim to serve the unique needs of those receiving OW services at the forefront of service delivery. Clients experienced positive employment outcomes in 2024 with Lambton exceeding the provincial average in three of four outcomes.

| Employment Outcome | Lambton County 2024 Outcome | Provincial 2024 Outcome |
|---|--------------------------------------|-------------------------------|
| % of Caseload with Earnings | 9.4% | 7.34% |
| Average Monthly Earnings per Case | \$857 | \$873 |
| % of Terminations Exiting to Employment | 26% | 21.5% |
| % of Caseload Exiting to Employment | 1.09%* | 1.0% |

^{*378} Individuals

In 2024, Lambton Works Centre ("**LWC**") experienced an average of 374 monthly visits for services. This is anticipated to grow through 2025 as Lambton's Employment Ontario team increases its maturity and becomes more established. LWC staff increase employment readiness, provide job search strategies, and link people to employment opportunities. Increasing community capacity and nurturing strong collaborative partnerships directly impacts the success of the people we support. To build on this, the LWC has hosted several employment and community service providers at our resource centre to offer wrap-around support for job seekers. These organizations include Service Canada, Community Futures Lambton, the Sarnia Lambton Workforce Development Board, the ECE Workforce Development Group, Volunteer Coordinators Association of

Ontario Works 2024 Year End Update (page 6)

February 19, 2025

Sarnia Lambton, Lambton Kent District School Board, Inn of the Good Shepherd, Rebound, Contact North, SWAC, Literacy Lambton, John Howard Society, Lambton College, and the Canadian Coast Guard.

Integrated Employment Services and Employment Ontario

Throughout 2024, the Integrated Employment Services ("IES") team focused on building a strong foundation rooted in industry best practices, technology integration, and alignment with EO guidelines to ensure effective service delivery. Programs and services were designed to meet local labour market needs, incorporating strategies to support both job seekers and employers. The adoption of new technologies, including a job seeker portal, AI tools, and virtual service platforms, has enhanced efficiency and engagement. A solid understanding of funder expectations and program guidelines remains crucial to maintaining compliance with reporting requirements, performance metrics, and service standards.

Some key achievements of the newly formed team through 2024 include:

- Holistic Client Support: Wrap-around services include customized job matching, pre-employment support, and community service referrals, recognizing that stability is key to long-term employment success.
- Strategic Partnerships: Collaborations with the Lambton Kent District School Board and the Family Counselling Centre have introduced innovative soft skills training and mental health supports, addressing key employment barriers identified by local employers.
- Labour Market Integration: Real-time data is used to create targeted job training and placement programs. The Tech Talks series addressed digital literacy gaps identified by employers, demonstrating responsiveness to workforce needs.
- Driving Community and Economic Impact: Support for newcomer integration, Indigenous engagement, and innovative workforce solutions, such as Bayshore's Home Support Worker program which has helped address the local demand for healthcare workers.

| IES Outcomes (January 2024 to December 2024) | | |
|---|-----------|--|
| Number of Intakes Completed | 568 | |
| Number of Job Starts | 112 | |
| Average weekly work hours | 33 | |
| Average hourly wage | \$22.00 | |
| Percentage employed at one month checkpoint | 81% | |
| Percentage employed at three-month checkpoint | 71% | |
| Percentage employed at six-month checkpoint | 78% | |
| Percentage of Satisfied Job Seekers | 100% | |
| Performance Based Funding Earned | \$5961.00 | |

Ontario Works 2024 Year End Update (page 7)

February 19, 2025

By combining best practice strategies with personalized support, we continue to drive positive outcomes for individuals, employers, and the broader community. Our commitment to innovation has led to transformative approaches that enhance client outcomes, foster meaningful relationships, and address local labour market needs. By continuously evolving our services based on client feedback, data analysis, and emerging trends, we ensure our programs remain relevant, inclusive, and effective.

FINANCIAL IMPLICATIONS

There are no anticipated financial impacts to the Ontario Works budget related to this report.

CONSULTATIONS

Not Applicable.

STRATEGIC PLAN

Ontario Works is a legislated program delivered in keeping with the County's Mission County's Mission to promote an enhanced quality of life through the provision of responsive and efficient services accomplished by working with municipal and community partners. The activities of the Division support the Community Development Area of Effort #3 in the County of Lambton's Strategic Plan, specifically:

- Strengthening the County's advocacy and lobbying efforts with other levels of government to raise the profile of the County and its needs to secure improved senior government supports, funding, grants, and other resources to meet emerging infrastructure and service needs;
- Consulting with the community and stakeholders on ways to increase housing options and affordability, and innovative programs and initiatives that focus on poverty reduction and promote social belonging;
- Supporting the development of a variety of affordable housing to meet demand;
- Implementing, monitoring and updating community health and wellness-related plans and priorities, including, but not limited to, the Housing and Homelessness Plan, Community Safety & Well-Being Plan, the Long-Term Care division's mission, vision, and values, Age Friendly Community Planning framework, Lambton Public Health's strategic priorities, Lambton Drug & Alcohol Strategy, Lambton EMS Master Plan, and Child Care and Early Years 5-Year Service System Plan; and
- Advocating for, and supporting access to, mental health and addiction services.

Ontario Works 2024 Year End Update (page 8)

February 19, 2025

CONCLUSION

As the demand for social assistance support within the community grows, staff remain dedicated to delivering integrated, person-centred services. They focus on building meaningful relationships with the individuals they support, while collaborating with community partners to create connections and pathways for accessing stability services. These services cover essential areas like food security, housing, income sources, mental health, addiction support, and primary care.

Stability needs vary, as does each person's readiness for employment services. Through the new integrated employment services model, staff are working to develop personalized action plans to prepare individuals for referrals to employment service providers, helping them explore employment options and resources. Employment Services and Ontario Works staff work together to assist individuals in achieving greater stability and employment readiness, with the goal of fostering independence, allowing individuals to succeed in reaching their goals.

| COUNTY OF LAMBTON | SOCIAL SERVICES DIVISION |
|-------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | HOUSING SERVICES |
| PREPARED BY: | Melisa Johnson, Manager |
| REVIEWED BY: | Valerie Colasanti, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | 10-Year Capital Asset Management and Funding Plan Update |

BACKGROUND

Lambton County Council, at its meeting on November 18, 2015, approved a 10-Year Capital Asset Management and Funding Plan for Housing Services.

This report provides an update regarding the implementation of the ninth year of the 10-Year Capital Asset Management and Funding Plan.

DISCUSSION

The 10-Year Capital Asset Management and Funding Plan identified the capital needs of the 830 County owned social housing units. Work is required for each of the major building components including substructure, shell, common area interiors, services (mechanical, electrical, plumbing, HVAC), site work and unit interiors.

Staff prepared the scope of work and solicited bids as appropriate through the County's procurement process for the 2024 capital work. This included requests for quotation, requests for tender and requests for proposals. Staff also completed the 2023 carry-over projects.

In 2024, a total of \$4.9 million was spent on capital repairs. Additional capital repair work was able to be completed by leveraging the annual funding under the 10-Year Capital Asset Management and Funding Plan to receive federal funding under the National Housing Co-Investment Fund which requires cost matching of funds. In addition, 7 unit renovations completed were largely funded by insurance as a result of fire damage in 2022 and 2023.

The following provides a summary of the \$4.9 million in capital projects completed in 2024.

10-Year Capital Asset Management and Funding Plan Update (page 2)

February 19, 2025

2023 Carry-Over Projects

Unit Interiors \$765,000

- Architectural services for unit interiors, complete unit refurbishment
- Locations: Alvinston, Sarnia (230 Capel Street, 700 Cathcart Boulevard, 914 Confederation Street, 125 Euphemia Street, Kathleen Avenue, 124 Queen Street, Roger Street)

2024 Completed Projects

Balcony Rails and Coating Replacement \$358,000

- · Replace guard rails and balcony coating
- Locations: Sarnia (125 Euphemia Street, 993 Maxwell Street)

Bathrooms, Flooring and Kitchens \$401,000

- Upgrades to bathrooms, kitchens and replace flooring as needed
- · Locations: Various sites across the portfolio

Concrete Work \$186,000

- · Foundation repairs, slab-jacking, parking lots, sidewalks, and drain replacement
- Locations: Sarnia (Cardiff Acres, 914 Confederation Street, Kathleen Avenue, 150 Queen Street)

Doors & Windows \$491,000

- Replace interior doors, exterior doors and windows, passage sets, install automatic door openers, redesign of front entrance vestibule, enter phone systems
- Locations: Alvinston, Corunna, Petrolia, Point Edward, Sarnia (230 Capel Street, 700 Cathcart Boulevard, Cardiff Acres, 914 Confederation Street, 125 Euphemia Street, Kathleen Avenue, 993 Maxwell Street, 124 Queen Street, 150 Queen Street), Wyoming

Electrical & Lighting \$13,000

- Emergency lighting upgrades and replacement of light fixtures with LED technology, outdoor lighting upgrades, receptacle, switch and panel upgrades
- Locations: Alvinston, Petrolia, Sarnia (230 Capel Street, Cardiff Acres, 700 Cathcart Boulevard, 125 Euphemia Street, 150 Queen Street, Roger Street), Sombra, Thedford, Wyoming

Exterior Site Elements \$27,000

- Brick repointing and eavstroughs replacement
- Locations: Sarnia (230 Capel Street, Cardiff Acres)

Fencing \$12,000

- Replace fencing at end of useful life
- · Locations: Petrolia, Sarnia (Cardiff Acres)

10-Year Capital Asset Management and Funding Plan Update (page 3)

February 19, 2025

Interior Common Space \$111,000

- Common interior refinish
- Locations: Sarnia (125 Euphemia Street, 124 Queen Street)

Mechanical Work \$227,000

- Replacement of makeup air units, building controls, boilers, hot water tanks, cooling units and heat pumps
- Locations: Various sites across the portfolio

Unit Interiors \$2,268,000

- Architectural services for unit interiors, 37 complete unit refurbishments
- Locations: Alvinston, Forest, Petrolia, Sarnia (230 Capel Street, 700 Cathcart, 914 Confederation Street, 125 Euphemia, Kathleen Avenue, 124 Queen Street, 150 Queen Street, Roger Street), Sombra, Thedford

Projects Currently Underway

Doors & Windows \$90,000

- · Replace exterior doors and windows
- Locations: Sarnia (150 Queen Street)

Interior Common Space \$110,000

- Common interior refinish
- Locations: Forest, Sarnia (125 Euphemia Street)

Unit Interiors \$432,000

- Architectural services for unit interiors, complete unit refurbishment
- Locations: Sarnia (230 Capel Street, 14 Confederation Street, Kathleen Avenue, 124 Queen Street, Roger Street), Sombra

FINANCIAL IMPLICATIONS

In 2024, the Housing Services Department completed approximately \$4.9 million in capital repairs. This included carry-over projects from 2023. Approximately \$632,000 will be carried over in 2025 for the remaining unit interiors, interior common spaces and doors and windows.

CONSULTATIONS

The 10-Year Capital Asset Management and Funding Plan was based on the results of the 2013 Building Condition Assessment completed by Nadine International Consulting Engineers and in consultation with the CAO, General Managers, Department Managers and staff in Divisional Support Services, Housing Services and Procurement and Project Management.

10-Year Capital Asset Management and Funding Plan Update (page 4)

February 19, 2025

The Housing Services and Procurement and Project Management Departments have also retained external consultants where necessary to assist in delivering the 10-Year Capital Asset Management and Funding Plan.

STRATEGIC PLAN

Providing safe affordable housing is in keeping with the County's Mission to promote an enhanced quality of life through the provision of responsive and efficient services accomplished by working with municipal and community partners.

The activities of the Division support the Community Development Area of Effort #3 in the County of Lambton's Strategic Plan, specifically:

- Strengthening the County's advocacy and lobbying efforts with other levels of government to raise the profile of the County and its needs to secure improved senior government supports, funding, grants, and other resources to meet emerging infrastructure and service needs;
- Consulting with the community and stakeholders on ways to increase housing options and affordability, and innovative programs and initiatives that focus on poverty reduction and promote social belonging;
- Supporting the development of a variety of affordable housing to meet demand;
- Implementing, monitoring and updating community health and wellness-related plans and priorities, including, but not limited to, the *Housing and Homelessness Plan, Community Safety & Well-Being Plan*, the Long-Term Care division's mission, vision, and values, *Age Friendly Community Planning* framework, Lambton Public Health's strategic priorities, *Lambton Drug & Alcohol Strategy, Lambton EMS Master Plan*, and *Child Care and Early Years 5-Year Service System Plan*; and
- Advocating for, and supporting access to, mental health and addiction services.

CONCLUSION

In 2024, the 10-Year Capital Asset Management and Funding Plan identified \$4.9 million in work to address recognized health and safety concerns, maintain legislated requirements, resolve water infiltration issues, improve energy efficiencies, complete upgrades of unit interiors and purchase required equipment and appliances. Addressing these capital repairs and replacements ensures the County of Lambton is able to continue providing safe and affordable housing and to maintain these valuable assets.

| COUNTY OF LAMBTON | SOCIAL SERVICES DIVISION |
|-------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | HOUSING SERVICES |
| PREPARED BY: | Melisa Johnson, Manager |
| REVIEWED BY: | Valerie Colasanti, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Housing Services Comparative Statistics Report 2024 to 2023 |

BACKGROUND

The Housing Services Department provides rental assistance and support services to over 2,300 residents of Lambton County. This assistance helps some of the most vulnerable residents to acquire and maintain permanent housing that is safe and affordable.

The Housing Services Department administers legislated housing programs, numerous housing agreements, maintains a wait list for approximately 1,500 units and manages 834 housing units owned by the County of Lambton.

DISCUSSION

The attached report provides comparative statistics for 2024 and 2023.

There were 127 households that moved into rent-geared-to-income ("**RGI**") assisted housing in 2024 compared to 112 in 2023. Overall, the number of housed applicants has been consistent in recent years, however, we are currently housing approximately 50 less households per year than 2019. This overall decrease can be attributed to the lack of affordable housing and lower vacancy rates in the community. In addition to the households that moved into RGI assisted housing, there were 40 households that received a portable housing benefit through the Canada-Ontario Housing Benefit ("**COHB**") program in 2024 compared to 37 who began receiving this benefit in 2023.

Average monthly rent arrears for the 834 County of Lambton owned units decreased to \$13,808 in 2024. This saw an average of 14 households in arrears in 2024 which is approximately half the number of households in arrears in 2023. Staff continue to work with individuals to address arrears, make repayment agreements and/or access funding to assist

Housing Services Comparative Statistics Report 2024 to 2023 (page 2)

February 19, 2025

The Housing Advocacy Program is an eviction prevention program. Community Support Workers ("CSWs") within this program provide outreach and supports to tenants and their families by advocating on behalf of tenants to improve their quality of life while maintaining their housing. The CSWs have caseloads that consist of many individuals with complex needs. In 2024, the CSWs assisted an average of 133 individuals monthly and prevented evictions for an average of 20 tenancies each month. They had an average of 267 client visits per month and assisted clients in accessing over \$170,000 in funds, such as community resources related to eviction prevention and retro payments of government assistance such as pension or child tax benefits.

The average number of applicants on the wait list for rental assistance in 2024 has increased 15% to 945 from 828 in 2023. The Housing Services Department has seen an increase in the number of eligible applicants applying for RGI assistance. This is partially attributed to the lack of affordable housing and low vacancy rates in the area.

Wait times in 2024 for various sized units across the housing portfolio have been consistent with wait times in 2023. Although this rate is consistent, it represents a significant increase when compared to previous years. This increase can be attributed to the lack of affordable housing and low vacancy rates in the community.

FINANCIAL IMPLICATIONS

Not applicable.

CONSULTATIONS

Not applicable.

STRATEGIC PLAN

Providing safe affordable housing is in keeping with the County's Mission to promote an enhanced quality of life through the provision of responsive and efficient services accomplished by working with municipal and community partners.

The activities of the Division support the Community Development Area of Effort #3 in the County of Lambton's Strategic Plan, specifically:

 Strengthening the County's advocacy and lobbying efforts with other levels of government to raise the profile of the County and its needs to secure improved senior government supports, funding, grants, and other resources to meet emerging infrastructure and service needs; Housing Services Comparative Statistics Report 2024 to 2023 (page 3)

February 19, 2025

- Consulting with the community and stakeholders on ways to increase housing options and affordability, and innovative programs and initiatives that focus on poverty reduction and promote social belonging;
- Supporting the development of a variety of affordable housing to meet demand;
- Implementing, monitoring and updating community health and wellness-related plans and priorities, including, but not limited to, the *Housing and Homelessness Plan, Community Safety & Well-Being Plan*, the Long-Term Care division's mission, vision, and values, *Age Friendly Community Planning* framework, Lambton Public Health's strategic priorities, *Lambton Drug & Alcohol Strategy, Lambton EMS Master Plan*, and *Child Care and Early Years 5-Year Service System Plan*; and
- Advocating for, and supporting access to, mental health and addiction services.

CONCLUSION

Comparative statistics provide information which assists in the management of the wait list, rent arrears and eviction prevention. This information will also be helpful as the County implements the *County of Lambton Housing and Homelessness Plan 2020 - 2024*.

HOUSING SERVICES DEPARTMENT

Comparative Statistics 2024 vs. 2023

| | 2024 | 2023 |
|---|---------------------|-------------------|
| | | |
| Number of Applicants Housed | 127 | 112 |
| Number of Applicants Housed (COHB) | 40 | 37 |
| Total Applicants Housed | 167 | 149 |
| 11 | | - |
| Average monthly tenant rent arrears | \$13,808 | \$20,191 |
| Libraria a Asha | and Dung and the | |
| Housing Advo | cacy Program | |
| Average number of unique individuals receiving services per month | 133 | 141 |
| Average number of evictions prevented per month | 20 | Not available |
| Average ongoing case management | 267 | Not available |
| appointments per month | - | |
| Average funds per month obtained by | #4.4.00F | N I |
| clients including eviction prevention | \$14,285 Not Avai | Not Available |
| and retro benefit payments | | |
| | | |
| Average Number of Eligible Applicants | for Rent-Geared-to- | Income Assistance |
| Bachelor/1 Bedroom | 725 | 643 |
| 2 Bedroom | 85 | 62 |
| 3 Bedroom | 74 | 68 |
| 4 Bedroom | 57 | 53 |
| 5 Bedroom | 4 | 2 |
| Total | 945 | 828 |
| | | |
| Minimum Wait Times for Rent | -Geared-to-Income A | Assistance |
| Bachelor/1 Bedroom | 48 months | 48 months |
| 2 Bedroom | 36 months | 36 months |
| 3 Bedroom | 36 months | 36 months |
| 4 Bedroom | 36 months | 36 months |

| COUNTY OF LAMBTON | SOCIAL SERVICES DIVISION |
|-------------------|---|
| REPORT TO: | CHAIR AND COMMITTEE MEMBERS |
| DEPARTMENT: | HOMELESSNESS PREVENTION AND SOCIAL PLANNING |
| PREPARED BY: | Ian Hanney, Manager |
| REVIEWED BY: | Valerie Colasanti, General Manager Stéphane Thiffeault, Chief Administrative Officer |
| MEETING DATE: | February 19, 2025 |
| INFORMATION ITEM: | Out of the Cold Shelter Security Services |

BACKGROUND

At its meeting on February 5, 2025, County Council supported the following motion:

#4: McRoberts/Dennis: That County Council direct staff to contact Sarnia Police Service to inquire into the cost of hiring a Sarnia Police officer to provide additional security at the overflow shelter and report back to Council at the February 19, 2025 Committee of the Whole meeting.

Carried.

This report provides background information regarding this request, including relevant empirical evidence, third-party expert insight, and costing.

DISCUSSION

Accessing Out of the Cold Shelter and the Housing and Homelessness Resource Centre

The Housing and Homelessness Resource Centre ("HHRC") and the Out of the Cold Shelter provide essential housing and health services to the most vulnerable members of our community. Accessing any fixed-site institutional service for this subpopulation can take months or even years of trust-building with highly trained, specialized staff. Utilizing best-practices such as trauma-informed care and strength-based case management, social service staff have made tremendous gains to support unsheltered individuals to access shelter and the HHRC. The more stable environment, multidisciplinary services, and housing-focused practices at these fixed sites have enabled our community to realize housing outcomes at a scale that has stabilized our By-Name List for more than a year despite unprecedented demand for service.

Out of the Cold Shelter Security Services (page 2)

February 19, 2025

Using multiple iterations of standardized surveys and semi-structured interviews, the large majority of HHRC participants report that the low-barrier practices taken by social service staff at the site offers a safe space free of judgement where even the hardest to serve feel comfortable in enacting productive case plans. The regular presence of consistent security guards who take a non-judgmental approach in supporting a safe environment is also cited as a prominent reason for participants to access the site. The current composition and approach to service delivery taken at the Out of the Cold Shelter and HHRC are directly responsible for the increased access to shelter, the decrease in unsheltered homelessness, and the long-term housing obtained by hundreds of individuals previously experiencing homelessness.

The central goal of local homelessness services is progressing individuals experiencing homelessness along the housing continuum, from unsheltered, to shelter, and into more permanent housing. Since inception, the County of Lambton outreach team has progressed 88 individuals directly into more permanent housing from an experience of unsheltered homelessness. This team also focuses on supporting households to access shelter, in strong partnership with other local outreach teams including the Lambton EMS Community Health Integrated Care ("CHIC") team, the North Lambton Community Health Centre outreach team, Lambton Public Health, and Sarnia Police Services Integrated Mobile Police and Community Team ("IMPACT").

Use of Police Services at Shelter

Within the Community Support Division of Sarnia Police Services, IMPACT has served as a valuable partner with Social Services in developing rapport with priority populations, utilizing a community policing approach to promote local safety and security. Over many months, this unique team has earned the trust of individuals that reside in either emergency housing or unsheltered settings with a focus on relationship building in place of enforcement. Clients readily recognize this team and report to social service staff that they have greater trust in working with IMPACT compared to other police services. However, in general, there exists strong empirical evidence that various vulnerable populations, including those with mental health and addictions, have increased mistrust of police services. [1][2][3][4][5][6]

Recently, social service staff engaged individuals currently residing in emergency housing and those still not accessing emergency housing to ask their perceptions of this potential intervention. Specifically, individuals were asked if a regular scheduled police presence would affect their accessing emergency housing. Many individuals, both currently in care and residing unsheltered, reported that this would impact their access to emergency housing. This included numerous individuals saying they would leave shelter to live unsheltered, or that they would not access shelter at all in this instance. Resultantly, it can be reasoned that utilizing pay duty police officers in place of even a portion of the existing security services would limit the number of individuals accessing service, decrease the number of housing placements, and increase unsheltered homelessness and encampments.

Out of the Cold Shelter Security Services (page 3)

February 19, 2025

The Canadian Shelter Transformation Network ("CSTN") is a national collaborative of homelessness leaders and organizations that facilitates the promotion of evidence-informed best practices to emergency housing providers across Canada. The Canadian Alliance to End Homelessness ("CAEH") is one of the foremost national agencies on homelessness content expertise, including its Built For Zero Canada branch that promotes the implementation of proven practices and continuous improvement directly with communities. In response to the motion in question, individual communication was sought from these leading agencies to gather the best available evidence and expert recommendations for this potential intervention. In both cases, these expert agencies strongly recommended against the use of police services as part of regular ongoing shelter operations. Specifically, the CAEH offered a letter detailing how this potential measure directly challenges numerous established shelter operation best practices (see Appendix Item A).

In consultation with Sarnia Police Services, utilizing duty officer services rather than the security guard would increase current costs by \$8,274 per week. This would result in an additional annual increased cost of \$430,253. The annual cost to hire one duty officer for 8 hours a day for an entire year would be \$681,158, compared to \$250,905 for the existing security guard.

Staff will continue to work with Sarnia Police Services on potential alternative preventative measures, such as, potentially point-in-time patrols if it is determined that such measures will assist with deterring unwanted/unwelcome behaviours, community relations and safety. Recently the Police completed a Crime Prevention Through Environmental Design (CPTED) review and all suggestions have been implemented at the site. Staff also engage regularly with the Sarnia Police IMPACT both at the site and at various encampment sites.

FINANCIAL IMPLICATIONS

The homelessness prevention budget is fully allocated. Any additional costs from the introduction of this new intervention would be supported through an increase to the municipal levy.

CONSULTATIONS

Consultations have taken place with leadership at the Inn of the Good Shepherd, the Canadian Alliance to End Homelessness, Built For Zero Canada, the Canadian Shelter Transformation Network, Sarnia Police Services, the internal Social Services Division team, a significant number of service users, and numerous social service agencies in the community.

Out of the Cold Shelter Security Services (page 4)

February 19, 2025

STRATEGIC PLAN

Delivering emergency housing and the multidisciplinary health and housing services at HHRC is in keeping with the County's Mission to promote an enhanced quality of life through the provision of responsive and efficient services accomplished by working with municipal and community partners.

The activities of the Division support the Community Development Area of Effort #3 in the County of Lambton's Strategic Plan, specifically:

- Strengthening the County's advocacy and lobbying efforts with other levels of government to raise the profile of the County and its needs to secure improved senior government supports, funding, grants, and other resources to meet emerging infrastructure and service needs.
- Consulting with the community and stakeholders on ways to increase housing options and affordability, and innovative programs and initiatives that focus on poverty reduction and promote social belonging.
- Supporting the development of a variety of affordable housing to meet demand.
- Implementing, monitoring and updating community health and wellness-related
 plans and priorities, including, but not limited to, the Housing and Homelessness
 Plan, Community Safety & Well-Being Plan, the Long-Term Care division's mission,
 vision, and values, Age Friendly Community Planning framework, Lambton Public
 Health's strategic priorities, Lambton Drug & Alcohol Strategy, Lambton EMS
 Master Plan, and Child Care and Early Years 5-Year Service System Plan; and
- Advocating for, and supporting access to, mental health and addiction services.

CONCLUSION

The use of hired police services at the Overflow Shelter goes against various best practices that have contributed to the success of existing services. Information gathered directly from service users indicate that it would decrease the number of individuals that utilize the shelter and HHRC. This would increase the number of individuals residing outside and limit the ability of our community to address local encampments. Staff recommend proceeding with the current use of security and the broad multidisciplinary health and human service partner agencies that operate the Overflow Shelter and HHRC, in addition to further consultations with the Sarnia Police Services regarding the site.

REFERENCES

[1] Lipperman-Kreda S, Wilson I, Hunt GP, Annechino R, Antin TM. Substance use among sexual and gender minorities: Association with police discrimination and police mistrust. Sexuality, gender & policy. 2020 Nov;3(2):92-104.

[2] Van Craen M. Explaining majority and minority trust in the police. Justice quarterly. 2013 Dec 1;30(6):1042-67

Out of the Cold Shelter Security Services (page 5)

February 19, 2025

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- [5] Holmes MD, Painter MA, Smith BW. Citizens' perceptions of police in rural US communities: a multilevel analysis of contextual, organisational and individual predictors. Policing and society. 2017 Feb 17;27(2):136-56.
- [6] Stotzer RL. Law enforcement and criminal justice personnel interactions with transgender people in the United States: A literature review. Aggression and violent behavior. 2014 May 1;19(3):263-77.

APPENDIX

Item A: Canadian Alliance to End Homelessness Letter

Appendix Item A



February 7, 2025

Lambton County Council 789 Broadway Street, Box 3000 Wyoming ON NON 1T0 Canada

Dear Members of Council,

On behalf of the Canadian Alliance to End Homelessness (CAEH), a national charitable organization committed to ending homelessness, I am writing to express our support for the County of Lambton's recommendation against use of police to staff emergency shelters.

CAEH understands that the County of Lambton is facing challenges maintaining safety in emergency shelter and is actively seeking a solution. From our own experience working in communities across the country, backed by credible research and data, we know that police staffing in shelters poses significant challenges, and there are more effective ways forward to achieve safe and effective solutions to homelessness.

Police presence in emergency shelter presents the following challenges:

- Trust: Many individuals experiencing homelessness may have had negative interactions with law
 enforcement in the past. The presence of police can be distressing, unwelcome, and may deter
 people from accessing shelter.
- Increase in Encampments: Lack of adequate low-barrier shelter options is a common cause of
 unsheltered homelessness including encampments. People who feel unsafe or unwelcome in
 shelter may have no option but to sleep rough. This in turn displaces concerns around safety
 rather than resolves them as well as increases risk to those that would otherwise seek shelter
 indoors.
- Training: It is best practice that emergency shelter staff are trained in trauma-informed service
 delivery. Police often lack the specialized training needed to effectively deliver supportive
 services that meet the complex needs of people experiencing homelessness.
- Criminalization of Homelessness: Criminalizing homelessness is ineffective, causes more
 harm, is very expensive. Employing police at emergency shelters places individuals at risk of
 arrest or other legal issues, rather than focusing on moving them into permanent housing
 solutions.

PO Box 811, Cochrane STN Main, Cochrane, AB T4C 1A9 | www.caeh.ca



Best practice in emergency shelter service delivery are programs that are housing-focused and as low-barrier as possible, as demonstrated by other communities in Canada, such as <u>St. Thomas-Elgin</u>. The ultimate objective of connecting people experiencing homelessness with permanent housing solutions is best met by adequately trained staff that are equipped to provide support, rather than enforcement.

The County of Lambton has been participating in CAEH's Built for Zero Canada program since 2020, during which time they have actively worked toward data-driven system improvements. The community has been recognized by CAEH for having Quality By-Name Data (2022) and a quality Coordinated Access System (2023). These milestones serve as evidence that the community has a system equipped to respond to homelessness in a housing-focused manner.

We are excited to offer our full support and expertise to the County as you move forward with your work on ending homelessness. We stand ready to collaborate with your team to provide the resources and guidance needed to ensure that the emergency sheltering response is not only effective, but sustainable and compassionate.

Sincerely,

Anna McGregor

Senor Director, Community Impact

A Mc Cregor

anna@caeh.ca

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