



The Corporation of the Town of Tecumseh

Public Works & Environmental Services

To: Mayor and Members of Council

From: John Henderson, Manager Engineering Services

Date to Council: June 25, 2019

Report Number: PWES-2019-39

Subject: Amendment to 2019-2023 PWES Five Year Capital Works Plan
Tecumseh Road Sanitary Sewer – Lesperance Road to Southfield Drive

Recommendations

It is recommended:

That the improvements to the Tecumseh Road Sanitary Sewer - Lesperance Road to Southfield Drive project **be added** to the PWES 2019-2023 Public Works & Environmental Services Five Year Capital Works Plan.

And that, based on current development opportunities in the Tecumseh Road Community Improvement Plan area, the detailed engineering design for this project **be completed** in 2019 with construction anticipated to proceed in 2020.

And that Tecumseh Town Council authorize the expenditure of \$150,000 for the detailed engineering design from the Wastewater Sewers Reserve Fund.

And further that Dillon Consulting Ltd. **be retained** to complete the detailed design, plans, specifications and tender documents and to assist with obtaining all required approvals for the Tecumseh Road Sanitary Sewer – Lesperance Road and Southfield Drive, based on their current design work for Phases 1 & 2 of the Tecumseh Road Streetscape project.

Background

The purpose of this report is to inform Council of recent inquiries related to new private development proposals within the Tecumseh Road Community Improvement Plan (CIP) area and the need to improve the existing Tecumseh Road sanitary sewer system to accommodate

these new development opportunities. The portion of the CIP area where sanitary sewer improvements are required is on Tecumseh Road between Lesperance Road and Southfield Drive (Refer to Attachment No. 1).

The Tecumseh Road Streetscape project is a large, multi-phase project that is broken up into the following five phases:

Phase 1: Tecumseh Road (St. Anne to VIA) & Lesperance (St. Denis to Arbour)

Phase 2: Tecumseh Road (St. Anne to Shawnee)

Phase 3: Tecumseh Road (Shawnee to Southfield)

Phase 4: Tecumseh/Southfield intersection

Phase 5: Lesperance (McNorton to St. Denis)

At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled “2019-2023 Public Works & Environmental Services Five Year Capital Works Plan” which advised Council that the preparation of the 100% Tender Drawings and Specifications for Phase 1 and the 90% Design Drawings and Specifications for Phase 2 of the Tecumseh Road Streetscape project were on-going.

At the April 23, 2019 Public Meeting of Council, Council received (Motion PCM-25/19) Report No. PWES-2019-28 titled “Tecumseh Road Main Street CIP-Streetscape Plan and Design Project Update – April 2019” which provided an update on the overall project status and requested feedback from Council. The April 23, 2019 PMC included a presentation by the projects consultants, Dialog and Dillon Consulting Ltd. (Dillon). During the meeting, the need to expedite the design for improvements to the existing Tecumseh Road sanitary sewer to accommodate recent potential development proposals was identified.

Comments

The Tecumseh Road CIP area is currently serviced by a sanitary sewer collection system that includes a sub-trunk sewer on Tecumseh Road, which directs sewage flows to the Lesperance Road trunk sewer and ultimately to the Gauthier (Cedarwood) Pump Station. Over time, the Town has implemented several strategies to address sanitary servicing requirements within the Tecumseh Road CIP area as development has progressed, including the following:

- In 1980, the Town of Tecumseh constructed a sanitary relief sewer on Tecumseh Road, from Poisson Street to Lesperance Road, which intercepted flows from the Poisson Street and St. Anne Street areas to relieve the downstream reaches of the Tecumseh Road sanitary sewer.
- In 1991, twin 450 mm diameter sanitary sewers were installed at the sanitary sewer outlet of the Southfield Drive residential development, just south of Tecumseh Road. This twinned section was to provide storage for restricted sanitary flows discharging to Tecumseh Road. The local Southfield Drive sewer is restricted with a 250 mm diameter pipe downstream of the twinned section.
- Another relief sewer was constructed on Arbour Street in 1992, from Shawnee Road to

Poisson Street to intercept flows from Shawnee Road, south of Arbour Street, to Poisson Street, to relieve the sanitary sewer on Shawnee Road, north of Arbour Street.

- In 2008, an interceptor sewer and sluice gate were installed to free up capacity in the Lesperance Road sanitary sewer north of County Road 22. The sluice gate, located at Lesperance Road and County Road 22, diverts flows from the Tecumseh Hamlet area, south of County Road 22, westerly into the new interceptor sewer along County Road 22. The new interceptor sewer conveys sewage flows directly to the City of Windsor's Little River Pollution Control Centre.
- In 2016, the Arbour Street relief sewer was extended to Lesperance Road to direct flows from Carmelita Court, Poisson Street and St. Anne Street to the trunk sewer on Lesperance Road.

Tecumseh Road Community Improvement Plan Area – Draft Functional Servicing Study

Part of the original 2013 Tecumseh Road CIP draft functional servicing investigations included a review of the existing Tecumseh Road sanitary sewer under both existing development conditions and the future full build-out scenario based on future population and building density estimates. Based on these investigations, it was determined that the existing Tecumseh Road sanitary sewer did not have sufficient capacity to accommodate the flows resulting from the full build-out of the Tecumseh Road CIP area based on the conceptual development plan. It was further determined that, when improvements are warranted, the most appropriate solution would be to increase the diameter of the existing sanitary trunk sewer on Tecumseh Road, from east of Southfield Drive to Lesperance Road. Accordingly, Administration has been monitoring development within this area to determine when upgrades to the existing sanitary sewer system should be initiated.

Recent and Proposed Developments

Late last year, four potential development proposals within the CIP Streetscape area west of St. Anne Street were presented to the Town. Overall, these proposals included approximately 216 apartment/condo units and 2,635 m² of commercial space. As a result, Dillon was asked to add these potential development proposals, as well as recently completed developments, into their existing Tecumseh Road sanitary sewer assessment to determine if capacity is available in the existing sanitary system. Based on Dillon's assessment, it was determined that there is sufficient capacity within the existing sanitary sewer infrastructure for these four potential developments. With these four developments, however, the capacity of the existing sewer is maximized and any further new development will require sewer improvements.

Recently, another property owner near Southfield Drive approached Administration with a conceptual development proposal that included approximately 160 apartment units. This property is also serviced by the existing Tecumseh Road sanitary sewer. Based on the above noted sanitary sewer assessment, if the other four developments proceed, the Tecumseh Road sanitary sewer will need to be upgraded in order for this development to move forward.

Based on discussions with the landowner, it is Administration’s understanding that, if this development proceeds, sanitary servicing will be required by 2021.

In order to ensure that development opportunities are not adversely impacted by sanitary sewer capacity, Administration recommends that improvements to the Tecumseh Road sanitary sewer between Lesperance Road and Southfield Drive be added to the 2019-2023 Public Works & Environmental Services Five Year Capital Works Plan. Based on current development opportunities, it is recommended that the detailed design for this project be completed in 2019 with construction planned for 2020. As Dillon is currently undertaking related design work for Phases 1 & 2 of the Tecumseh Road Streetscape area, which includes the sanitary sewer between Lesperance Road and Shawnee Road, Administration recommends continuing with Dillon to complete the detailed design, plans, specifications and tender documents and to assist with obtaining all required approvals for the Tecumseh Road sanitary sewer between Lesperance Road and Southfield Drive.

Consultations

Planning & Building Services
Financial Services
Dillon Consulting Ltd.

Financial Implications

Improvements to the Tecumseh Road Sanitary Sewer were originally intended to proceed as part of the Tecumseh Road Streetscape project. Based on recent new development inquiries, it is now recommended to proceed with the sanitary sewer improvements as a stand-alone project to ensure sanitary capacity is available for new development. Dillon has provided engineering and construction cost estimates for this stand-alone project based on current market pricing. The project cost estimates are as follows:

Tecumseh Road Sanitary Sewer - Lesperance Road to Southfield Drive

| Infrastructure | Construction | Engineering | Contingency | Total | 2019 | 2020 |
|----------------|--------------|-------------|-------------|-------------|-----------|-------------|
| Wastewater | \$2,215,000 | \$375,000 | \$185,000 | \$2,775,000 | \$150,000 | \$2,625,000 |

Funding for the \$150,000 to complete the engineering work in 2019 is to be provided from the Wastewater Sewers Reserve Fund. As this expenditure was not approved as part of the 2019 Council-approved budget, authorization from Council is sought for this expenditure from the reserve.

Link to Strategic Priorities

| Applicable | 2017-18 Strategic Priorities |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers. |
| <input checked="" type="checkbox"/> | Ensure that the Town of Tecumseh’s current and future growth is built upon the principles of sustainability and strategic decision-making. |
| <input type="checkbox"/> | Integrate the principles of health and wellness into all of the Town of Tecumseh’s plans and priorities. |
| <input checked="" type="checkbox"/> | Steward the Town’s “continuous improvement” approach to municipal service delivery to residents and businesses. |
| <input type="checkbox"/> | Demonstrate the Town’s leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals. |

Communications

Not applicable

Website

Social Media

News Release

Local Newspaper

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

John Henderson, P.Eng.
Manager Engineering Services

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Reviewed by:

Brian Hillman, MA, MCIP, RPP
Director Planning & Building Services

Reviewed by:

Tom Kitsos, CPA, CMA, BComm
Director Financial Services & Chief Financial Officer

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

| Attachment Number | Attachment Name |
|--------------------------|---|
| 1 | Figure1_ProposedSanitaryImprov_TecumsehRd |