



STATION #4



**SANDWICH SOUTH
MASTER SERVICING
PLAN**

Sanitary and Storm Sewers



Sanitary Sewers

- Building on the findings of the previously completed “Sanitary Sewer Servicing Study for Lands Annexed from the Town of Tecumseh Schedule B Environmental Assessment”, this component of the study will evaluate trunk sanitary servicing strategies needed to accommodate development within the Sandwich South Area including the following:
- Evaluation of existing trunk sanitary sewer capacity based on updated City of Windsor Official Plan land use designations, including completed and pending secondary plans.
 - County Road 42 Secondary Plan (pending)
 - East Pelton Secondary Plan
 - City of Windsor Official Plan
- Establish sanitary design criteria based on updated land use designations and population densities.
- Develop trunk sanitary sewer alignments based on proposed collector and arterial roadways.



Sanitary Sewers: Possible Solutions

Option 1 - Do Nothing

Advantages:

- Lowest cost.
- Smallest construction impacts.
- Does not require upgrades to existing sewage treatment facilities.

Disadvantages

- Will not support existing and future development.
- Does not align with the Sanitary Sewer Servicing for the Annexed Lands Environmental Assessment.
- Does not utilize existing trunk sewer infrastructure.

Option 2 - Expand Trunk Sanitary Sewer Network

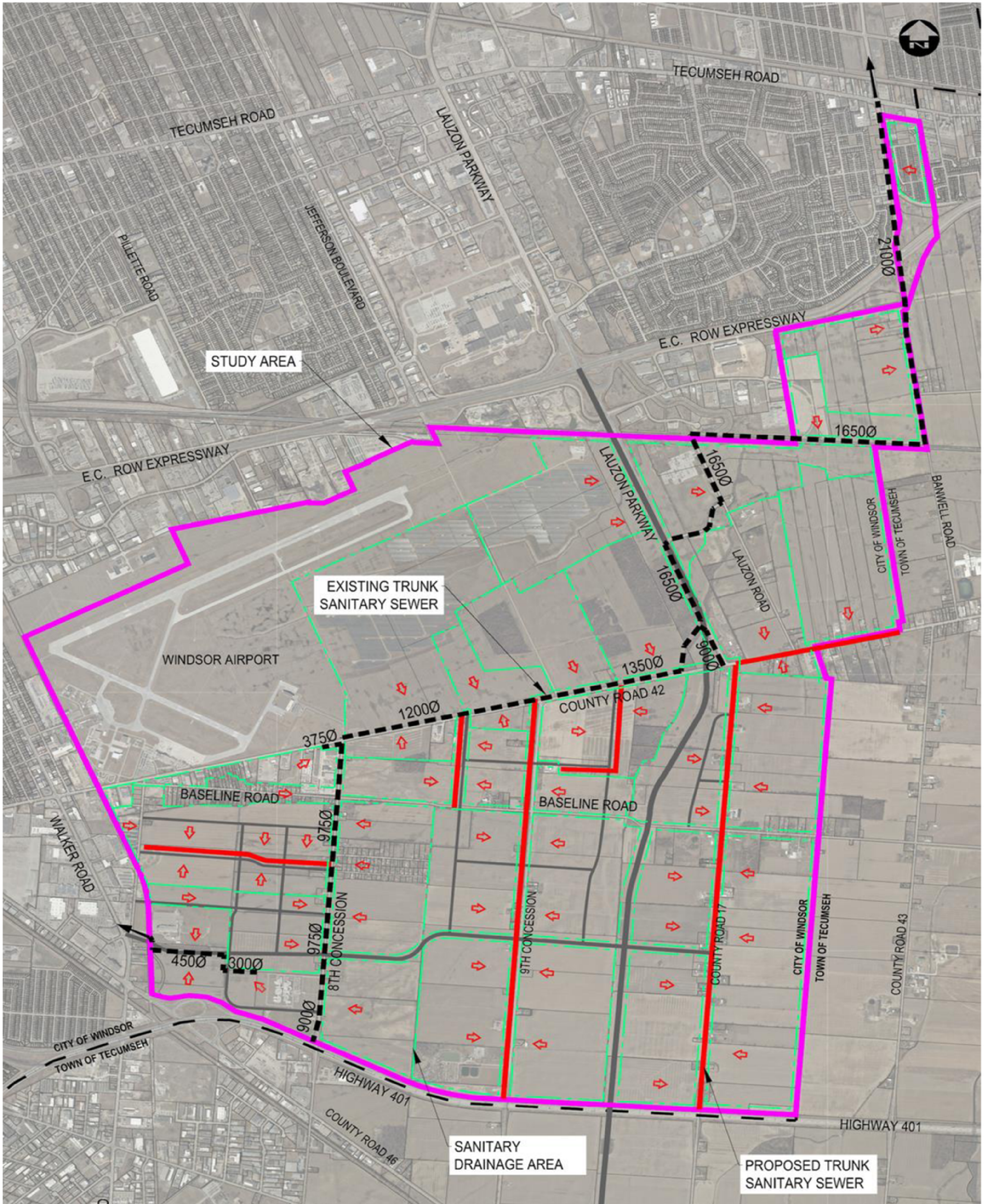
Advantages:

- Provides sanitary outlet to accommodate existing and future development.
- Aligns with the Sanitary Sewer Servicing for the Annexed Lands Environmental Assessment.
- Utilizes existing trunk sewer infrastructure

Disadvantages:

- Higher cost.
- Larger construction impacts.
- May require expansion of the Little River Pollution Control Plant to accommodate sanitary flows from new development.

Preliminary Trunk Sanitary Sewer Alignment (Option 2)



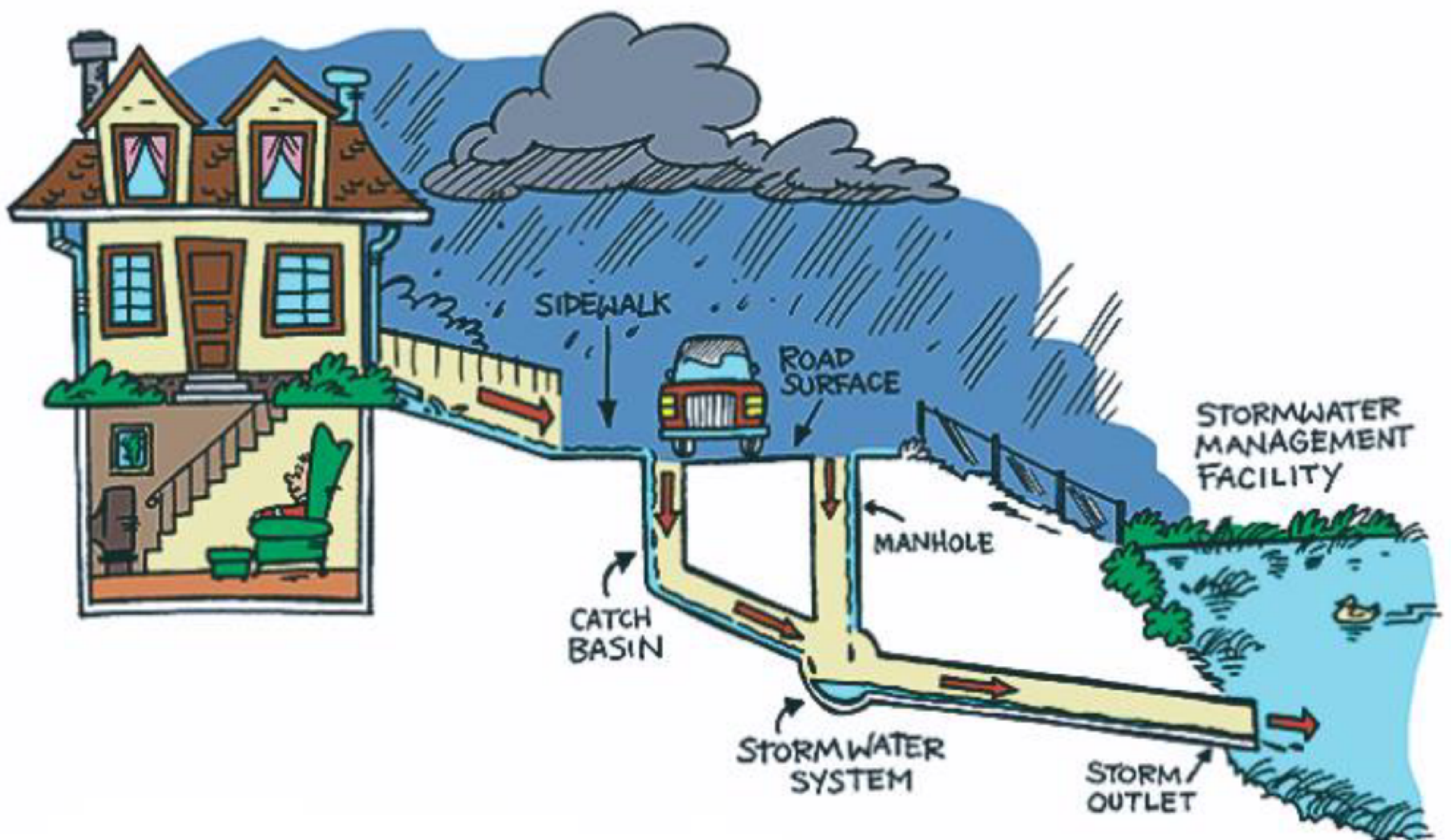
Sanitary Sewers – Next Steps

The following will be undertaken as next steps in the functional design of trunk sanitary sewers within the Sandwich South area:

- Evaluation of sanitary pumping station needs based on proposed drainage areas and existing topography.
- Refinement of sanitary drainage areas based on the findings of related municipal infrastructure analysis completed as part of this study.
- Confirmation of proposed trunk sanitary sewer alignment and sizing in coordination with other related municipal infrastructure.
- Identification of the timing for capacity improvements to the Little River Pollution Control Plant.
- Review of potential sanitary sewer conflicts with other proposed infrastructure.
- Develop costing for proposed trunk sewers.

Storm Sewers

- Storm sewer systems are proposed to be designed separate from the sanitary system and is expected to be constructed along main arterial roadways within development areas and directed toward future Stormwater Management corridors (SWM). The SWM corridors will include stormwater management facilities which will ultimately control flows into the outlet watercourse.
- Based on the Windsor/Essex Region Stormwater Management Standards Manual (December, 2018), and City of Windsor storm design standards, all storm sewers are to be designed to a 1:5 year level of service. Once the level of service of the storm sewer system is exceeded, it is expected that overland flow routes will direct runoff along roadways and designated overland flow routes to the respective development SWM facility. Together, the storm sewer and overland flow routes provide a high level of resilience against flooding.



Source: <https://www.strathcona.ca/your-property-utilities/water-and-sewer/drainage/stormwater-management-system/>

Storm Sewers: Possible Solutions

Option 1 - Do Nothing

Advantages:

- Lowest cost.
- Smallest construction impacts.

Disadvantages:

- Will not support future development.
- Does not align with the Upper Little River Master Plan servicing strategy and Stormwater Management Study.

Option 2 - Traditional Storm Sewer Network

Advantages:

- Increased land area for future development compared with Option 3
- Lower maintenance costs compared with Option 3.
- Traditional approach to development.

Disadvantages:

- Higher construction cost than other options.
- Larger construction impacts.
- Does not support natural linkage to other corridors.

Option 3 - Combined Open Drain and Storm Sewer Network

Advantages:

- Utilize existing open municipal drains for stormwater conveyance and natural linkage for development.
- Potential to incorporate active transportation facilities within open drain corridors.

Disadvantages:

- Reduced land area for future development.
- Additional maintenance costs.
- Increased property acquisition.

Storm Sewers – Next Steps

The following will be undertaken as next steps in the functional design of trunk storm conveyance systems within the Sandwich South area:

- Evaluation of storm pumping station needs based on proposed drainage areas and existing topography.
- Confirmation of proposed trunk storm sewer/open drain alignments and sizing in coordination with stormwater management solutions.
- Review of potential storm sewer/open drain conflicts with other proposed infrastructure.
- Develop costing for proposed trunk sewers/open drains.
- Compare findings of Options 1, 2, and 3 to determine recommended solution.

Feedback: Sanitary and Storm Solutions

We want to hear your thoughts!

What do you like about these sanitary and storm sewer options? What do you not like? What is missing?

You can provide your feedback by visiting the survey link:

<https://www.surveymonkey.com/r/sandwichsouth>

Or by scanning the QR code with your phone or tablet:

