THE CORPORATION OF THE CITY OF WINDSOR
POLICY

Service Area:	**Office of the City Engineer**	Policy No.:	
Department:	**Engineering**	Approval Date:	**TBD**
Division:	**Design and Development**	Approved By:	
		Effective Date:	**IMMEDIATE**
Subject:	**Local Improvement Policy Consolidation**	Procedure Ref.:	
Review Date:	**TBD**	Pages:	**Replaces: S 60/2020**
Prepared By:	**Janelle Coombs/Adam Mourad**	Date:	**TBD**

1. PURPOSE

1.1 To present a cost-sharing policy setting forth special assessments for municipal infrastructure such as storm and sanitary sewers, street lighting, sidewalks, pavements, and curbs and gutters, and private drain connections constructed under the provisions of the Local Improvement Regulation, O. Reg. 586/06.

1.2 To address the situation where there are no sanitary or storm sewers in an existing neighbourhood of the City. Some areas of the City are still serviced by septic tanks with no sanitary sewers. Elimination of the remaining septic tanks within the City is considered a high priority to reduce environmental issues and improve water quality in the municipal drainage system and receiving water bodies.

1.3 To address streets that may have a sanitary sewer and roadside ditches, but no storm sewer. In order to close the roadside ditches, the ditches would need to be replaced with a storm sewer.

1.4 To ammend and replace the existing Council Resolution regarding local improvements and the correlated cost sharing policies.

- S 60/2020 – Local Improvement Policy Consolidation

1.5 To encourage the construction of municipal infrastructure where current municipal infrastructure is deficient.

2. SCOPE

This Policy applies to all roads and highways within the municipal boundaries of the City of Windsor. This policy does not apply to lands without any municipal infrastructure, such as greenfield developments.

3. DEFINITIONS

3.1 Approved Rate – for the purpose of this policy, refers to the rate set out in the Fees and Charges By-law 392-2002 for a 250mm diameter sanitary

sewer and a 300mm diameter storm sewer.

3.2 Oversizing – for the purpose of this policy, refers to any sewer larger than a 250mm diameter sanitary sewer and a 300mm diameter storm sewer.

3.3 Frontage – the property line along or abutting the municipal roadway. On a corner lot, the frontage shall be considered to be the shorter of the property lines regardless of the direction the building on the property faces.

3.4 Flankage – for the purpose of this policy, refers to the longest dimension of the corner lot that abuts the local improvement, typically the full depth of the lot.

3.5 Private Drain Connection – for the purpose of this policy, refers to the sewer pipe length from the centre line of the right-of-way to the private property line.

3.6 Boulevard Restoration – for the purpose of this policy, means the installation of sod (or seed if approved) and topsoil up to a maximum of 2 metres from the back of curb or edge of pavement. Property owners will be assessed for the full frontage of the lot. Any additional restoration is to be paid by the City.

3.7 GENERAL ASSESSMENTS

3.7.1 All local improvements are subject to applicable fees for engineering, project administration, interest charges, and applicable taxes.

3.7.2 All existing approved local improvements will be governed by the policy in place at the time of their approval.

3.7.3 The costs for abutting property owners will be based on the assessable property frontage which excludes intersections and City owned properties.

3.7.4 Unless noted for lot flankage (side lot), all costs are assessed according to the property frontage (front or rear yard width) adjacent to the works.

3.7.5 In the case of irregular shaped lots, adjustments to the assessment are made on a case-by-case basis to mitigate over/under assessing an irregular lot.

4. POLICY

In accordance with the described purpose and scope, this policy specifies cost-sharing arrangements for the construction of storm and sanitary sewers, pavements, curbs and gutters, sidewalks, private drain connections, alley lighting, and street lighting as local improvements, implemented under the provisions of Ontario Regulation 586/06, made under the Municipal Act, 2001.

4.1 SEWERS

Where:

- A storm and/or sanitary sewer does not exist; and,
- Abutting property owners have requested in writing a storm and/or sanitary sewer be installed as a local improvement; or,
- The City initiates the installation of a storm and/or sanitary sewer as a local improvement.

The abutting property owners will be assessed for:

- The cost at the approved rate, per metre of frontage, of a new storm and/or sanitary sewer;
- The full cost for the construction of a private drain connection and cleanout extending from the centre line of the right-of-way to the property line of the benefiting property;
- 100% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the approved rate, per metre of flankage, for the construction of a storm sewer and boulevard restoration for the first 45 metres of lot flankage;
- 100% of the cost for any remaining works over and above the first 45 metres of lot flankage, at the approved rate.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

4.2 PAVEMENTS

Where:

- Unpaved alleys or roads, including residential or local industrial roads, exist within the City right-of-way; and,
- Abutting property owners have requested in writing these unpaved alleys and/or roads be paved; or,
- The City initiates the installation of road pavement as a local improvement.

The abutting property owners will be assessed for:

- 100% of the cost, per metre of frontage, for the construction of the road base and asphalt and/or concrete pavements up to 8.6 metres in width;
- 100% of the cost for the construction of curb and gutter, if applicable;
- 100% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the cost, per metre of flankage, for construction of the road base and pavement for the first 45 metres of lot flankage;
- 25% of the cost for boulevard restoration for the first 45 metres of lot flankage;
- 100% of the cost for any remaining works over and above the first 45 metres of lot flankage.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

Pavements will be designed to such structural and geometric standards as the City Engineer determines to be appropriate, having regard for subsoil conditions, vehicular loads, and other relevant matters.

Residential pavements will be constructed to a minimum width of 8.6 metres measured face to face of curbs.

Where, at the City's option, a pavement is constructed of greater width or structural strength than is required, the City shall assume the cost of the additional work. In the case of residential streets, "a greater width" will mean in excess of 8.6 metres.

This policy applies only to pavements constructed on rights-of-way assumed by the City.

4.2.1 RURAL PAVED ROADS

For the rehabilitation of badly deteriorated rural paved roads where the majority of the abutting properties are side lot properties, the City may undertake the following:

- That, where the percentage of side lot properties are greater than or equal to 50% of the total frontage for the street segment, reconstruct the roadway with or without the addition of curbs and gutters at no cost to the abutting residents (local improvements will not apply).

- That where this applies, proceed without the provisions of Ontario Regulation 586/06 for Local Improvements.

4.3 CURBS AND GUTTERS

Where:

- A paved road is currently without curbs and gutters; and,
- Pavement rehabilitation/reconstruction is to be undertaken by the City; and,
- Abutting property owners have requested in writing curbs and gutters be installed; or,
- The City initiates the installation of curbs and gutters as a local improvement in conjunction with a pavement rehabilitation project

The abutting property owners will be assessed for:

- 100% of the cost, per metre of frontage, for the construction of concrete curbs and gutters;
- 100% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the cost, per metre of flankage, for the construction of concrete curbs and gutters and boulevard restoration for the first 45 metres of lot flankage;
- 100% of the cost for any remaining works over and above the first 45 metres of lot flankage.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

The curbs and gutters, and rehabilitated/reconstructed pavements will be of geometric design, as the City Engineer determines to be appropriate.

4.4 SIDEWALKS: RESIDENTIAL AND PEDESTRIAN GENERATOR POLICY

Where:

- A paved road is currently without sidewalks; and,
- Abutting property owners have requested in writing sidewalks be installed; or,
- The City initiates the installation of sidewalks as a local improvement.

The abutting property owners will be assessed for:

- 100% of the cost, per metre of frontage, for the construction of concrete sidewalks;
- 100% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the cost, per metre of flankage, for the construction of sidewalks and boulevard restoration for the first 45 metres of lot flankage;
- 100% of the cost for any remaining works over and above the first 45 metres of lot flankage.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

New sidewalks will be constructed to meet the Accessibility for Ontarians with Disabilities Act (AODA) requirements, except where the safety of pedestrians warrants a greater width, or the City Engineer determines a greater width is necessary and/or desirable.

Where a residential sidewalk is constructed wider than the AODA standard, the abutting property owners will only be assessed for a standard AODA width sidewalk. The City will pay the balance of the cost in addition to the amounts set out above.

Where a sidewalk meets the conditions of the Pedestrian Generator Policy, the total cost of the sidewalk and boulevard restoration will be paid by the City.

Where a sidewalk is constructed on a transit route, the total cost of the sidewalk and boulevard restoration will be paid by the City.

4.5 STREET LIGHTING

Where:

- A municipal right-of-way is currently without street lighting; and,
- Abutting property owners have requested in writing street lighting be installed; or,
- The City initiates the installation of street lights as a local improvement.

The abutting property owners will be assessed for:

- 50% of the cost for standard street lighting;

- 50% of the cost for boulevard restoration.

In addition, where flankage properties exist, those property owners will be assessed for:

- 25% of the cost for street lighting and boulevard restoration along the first 45 metres of lot flankage;
- 100% of the cost of any remaining works over and above the first 45 metres of lot flankage.

The City will pay:

- The remainder of the total cost of the work, as outlined in section 4.6.

If ornamental street lighting is requested by the property owners, then the owners will be responsible for 100% of the cost difference between standard street lighting and ornamental street lighting.

4.5.1 ALLEY LIGHTING

Where:

- A municipally owned alley is currently unlit; and,
- One or more abutting property owners have requested in writing that alley lighting be installed; or,
- The City initiates the installation of alley lighting as a local improvement.

The abutting property owners will be assessed for:

- 100% of the cost for alley lighting;

The City will pay:

- 0% of the costs associated with the installation of alley lighting; and,
- 100% of the costs associated with power, ongoing maintenance, and replacement.

The number, type, and location of the lighting, and the properties to be included in the local improvement will be at the sole discretion of the City Engineer. These requests will be received by the Design and Development group, and processed though Traffic Operations, with assistance by Design and Development as required.

4.6 CITY'S SHARE FOR LOCAL IMPROVEMENT WORK

For all local improvement work implemented under this policy, the City's share of the cost will consist of the following:

- The cost for the work at intersections;
- The cost for the work in front of city owned property and alleys;
- The cost related to road drainage;
- The cost of additional road width greater than 8.6 metres;
- The cost of oversizing sewers larger than the diameter set out in the approved rate;
- The remainder of the total cost that is not defined in the assessable local improvement work under this policy.

5. RESPONSIBILITY

5.1 The responsibilities of the City, City Council, the Committee of Revision, the Commissioner of Infrastructure, the Commissioner of Corporate Services, CFO/City Treasurer, the City Clerk, and the abutting property owners, are set out in the Municipal Act, 2001 - Ontario Regulation 586/06.

5.2 The responsibilities are as follows:

5.2.1 City Council may authorize the work be done as a local improvement by passing a Local Improvement Charges By-law for such work.

5.2.2 Once the local improvement work is completed, Council shall pass a Special Charges By-law to impose charges on abutting property owners.

5.2.3 The Committee of Revision shall hear objections to the local improvement roll and make decisions to finalize the Local Improvement Roll.

5.2.4 The Commissioner of Infrastructure shall implement the work as a local improvement and follow the provisions of the O. Reg. 586/06.

5.2.5 The Commissioner of Corporate Services, CFO/City Treasurer shall certify the Local Improvement Roll.

5.2.6 The City Clerk shall receive petitions for or against local improvement work, appeals to the assessment notice; and shall certify the sufficiency of such petitions.

5.2.7 The abutting property owners may petition for or against a local improvement work. After the Special Charges by-law is passed, the owners are obligated to pay their share of the local improvement charges by lump sum or through their property taxes over 10 years.

5.2.8 The Local Improvement Roll, or Record of Assessment, shall be maintained by the City Clerk office and City Treasurer.

6. GOVERNING RULES AND REGULATIONS

The Municipal Act, 2001 - Ontario Regulation 586/06 is the governing legislation.

7. RECORDS, FORMS AND ATTACHMENTS

7.1 The Local Improvement Roll, or Record of Assessment, shall be maintained by the City Clerk and City Treasurer. Local improvement booklets, which outline the local improvements generated in any given year and the statement of the work costs, are maintained by the Clerk's office and Office of Commissioner of Infrastructure.

7.2 The related forms include:

- The Petition form;
- Notice of Local Improvement Charges By-law;
- Notice of Local Improvement Special Charges By-law.

THE CORPORATION OF THE CITY OF WINDSOR
POLICY

Service Area:	**Office of the City Engineer**	Policy No.:	
Department:	**Public Works - Operations**	Approval Date:	**April 2021**
Division:	Traffic Operations	Approved By:	
		Effective Date:	**April 2021**
Subject:	**Street Lighting Policy**	Procedure Ref.:	
Review Date:		*Pages:*	Replaces: City of Windsor Street Lighting Policy
Prepared By:	Shawna Boakes		Date: 2021

1. POLICY

1.1 The Corporation of the City of Windsor ("City") is committed to outline effective policy for street lighting as it relates to lighting levels, installation of decorative fixtures, safety concerns, replacement of fixtures, and request for improved lighting through Local Improvements and capital projects for residential and commercial areas.

2. PURPOSE

2.1 To ensure consistency and uniformity for the existing and future street lighting design and installation throughout the city.
2.2 To ensure the policies of the City's Official Plan are followed.
2.3 To provide a consistent approach for the selection, installation, maintenance, and replacement of decorative street and/or pedestrian light fixtures.
2.4 To ensure that city streets and rights-of-way are illuminated to the City's standard lighting levels (most current revision of ANSI/IESNA RP-8).
2.5 To ensure streetlight funding is for the installation, maintenance, and replacement of street lighting and associated infrastructure within roadways.
2.6 To ensure that City approved lighting equipment is utilized.

3. SCOPE

3.1 This policy applies to any City of Windsor Department approving, certifying, designing, installing and/or maintaining streetlights and associated infrastructure within the roadway.
3.2 Other applicable policies are the Local Improvement Policy and the Alleyway Lighting Policy.

4. RESPONSIBILITY

4.1 City Council is responsible for:
- **4.1.1** The final approval and any amendments of the Street Lighting Policy.
- **4.1.2** The approval of funding to continue to maintain and

improve the citywide street lighting system.

4.2 Standing Committees are responsible for:

4.2.1 Reviewing and recommending the Street Lighting Policy and any amendments to City Council for approval.

4.3 The Chief Administrative Officer (CAO) is responsible for:

4.3.1 Providing approval of the Street Lighting Policy and any amendments thereto, and associated reports and sending these to the Standing Committee.

4.3.2 Supporting the Street Lighting Policy including providing guidance and/or direction on issues that may arise.

4.4 Corporate Leadership Team (CLT) is responsible for:

4.4.1 Providing approval of the development of the Street Lighting Policy and any amendments thereto and associated reports prior to sending these to the CAO for approval.

4.4.2 Supporting Street Lighting Policy including providing guidance and/or direction on issues that may arise.

4.5 City Engineer, Manager or Supervisor is responsible for:

4.5.1 Reviewing the Street Lighting Policy to determine whether updates are required.

4.5.2 Consult with relevant stakeholders.

4.5.3 Forward the proposed policy and accompanying report to the CLT for approval.

4.5.4 Overseeing the street lighting portfolio including budget, selection, installation, maintenance, replacement and capital projects for the streetlight system.

4.5.5 Supporting Street Lighting Policy including providing guidance and/or direction on issues that may arise.

4.5.6 Payment of invoices for related to street lighting (i.e. maintenance).

4.6 Engineer II (Engineering Department) is responsible for:

4.6.1 Managing requests for lighting through the Local Improvement process

4.7 Engineer I (Operations Department) is responsible for:

4.7.1 Overseeing the daily operations of the street lighting portfolio.

4.7.2 Communicating any changes or issues related to street lighting, which may include new technology, request for lighting for Capital projects.

4.7.3 Maintaining and updating service requirements for the street lighting.

4.7.4 Overseeing street lighting capital projects.

4.7.5 Reviewing and approving street lighting levels and electrical designs related to street lighting.

4.8 City Planner, Manager or Supervisor is responsible for:

4.8.1 Reviewing the Street Lighting Policy to determine whether updates are required.

4.8.2 Ensuring that the budget for streetscaping projects that result in the

installation of decorative lights is in accordance with 5.3.6.

4.8.3 Consult with relevant stakeholders about the selection of Decorative Fixtures and Pedestrian Fixtures.

4.8.4 In conjunction with the City Engineer Forward the proposed policy and accompanying report to the CLTfor approval.

4.8.5 Supporting Street Lighting Policy including providing guidance and/or direction on issues that may arise.

4.9 Subdivision Planner is responsible for:

4.9.1 Implementing this policy through the review and approval of subdivisions.

5. GOVERNING RULES AND REGULATIONS

5.1 DEFINITIONS

5.1.1 ANSI/IESNA RP-8 – is short form for American National Standard Institute/Illuminating Engineering Society of North America with RP-8 as the American National Standard Practice for Roadway Lighting, last amended in 2014.

5.1.2 BIAs – is a Business Improvement Area as described by the *Municipal Act, 2001*.

5.1.3 City Engineer-means the City's City Engineer from time to time or their designate

5.1.4 City Planner-means the City's City Planner from time to time or their desginate

5.1.5 Civic Ways - are municipal roads that are defined as a "Civic Way" on Schedule G: Civic Image of the City's Official Plan.

5.1.6 Colour Temperature – All standard street lighting is to have a colour temperature of 4000k unless otherwise directed by the City Engineer or designate. All new decorative light fixtures are to have a colour temperature of 3000k or less.

5.1.7 Decorative Fixture – consists of the pole, light fixture, mast arm, bracket and associated wiring.

5.1.8 Developer – is the individual, group or entity that undertakes the development of land, which may include all of the associated activities to prepare and service the land for construction.

5.1.9 Fixture – is the light source used to provide lighting for the roadway.

5.1.10 Heritage Area – an area or neighbourhood that is identified in the City's Official Plan as a "heritage area" or an area or neighbourhood that has been designated under the *Ontario Heritage Act.*

5.1.11 LED Fixture – is a streetlight fixture that utilizes light emitting diode technology.

5.1.12 Lighting Levels – The amount of light measured on a roadway with a photometric device.

5.1.13 Mainstreet – are municipal roads that are defined as a "Mainstreet" on Schedule G: Civic Image of the City's Official Plan.

5.1.14 New Residential Area – a residential area where streetlights will be installed after April 19, 2021.

5.1.15 Pedestrian Lighting – Any lighting designed to illuminate the

sidewalk/walkway. A pedestrian fixture is usually decorative in nature and can be attached to the streetlight pole over hanging the sidewalk/walkway or on its own pole.

5.1.16 Photocell or Shorting Cap – Photocell is a light sensory control device that turns on or off a fixture. Shorting Caps are mainly associated with fixtures on EC Row, which are connected to a master photocell(s).

5.1.17 Pole – is any wooden, steel or concrete structure, which may or may not have a fixture attached to it and is connected by wire for the operation of the street lighting system. Poles can be either city-owned poles or poles owned by other utilities, mainly EnWin Utilities. There are approximately 16,000 city-owned poles.

5.1.18 Residential Area – is an area of the city that consists mostly of residential dwellings units.

5.1.19 Standard Street Lighting – consist of the approved 30 foot gray concrete pole, NXT style roadway fixture, elliptical mast arm, bracket and associated wiring.

5.1.20 Street Lighting System –in Windsor is composed of approximately 24,000 streetlight fixtures, the associated wiring, poles, controls, meters,transformers, conduits and photocells/shorting caps.

5.2 LIGHTING LEVELS

5.2.1 Lighting levels for city roadways are to meet ANSI/IESNA RP-8 as approved by CR 146/2015 for all new construction or installation of streetlight fixtures and poles. The glare factor **for decorative poles only** may be exempt from the lighting calculation results in order to keep with the existing height and spacing of poles within a residential area.

5.2.2 Lighting levels for all roadways with existing poles that are less than required lighting levels as outlined in ANSI/IESNA RP-8 will be updated to the current standard at the time of replacement.

5.3 USE OF DECORATIVE FIXTURES

5.3.1 Decorative fixtures are generally reserved for installation on Mainstreets, Civic Ways, and Heritage Areas.

5.3.2 Decorative fixtures may be considered for installation in Residential Areas and New Residential Areas.

5.3.3 Decorative fixtures may be selected based on the area/location they are installed;

- **5.3.2.1** Heritage Area areas may have decorative fixtures. The fixture will be selected based on consultation between the residents, City Planner and City Engineer
- **5.3.2.2** Mainstreets and Civic Ways may have decorative fixtures. The fixture will be selected based on consultation between the City Planner and the City Engineer.
- **5.3.2.3** Residential areas may have decorative fixtures, where agreed upon by the City Planner and City Engineer. The fixture must be selected from the list of the City's approved fixture list.

5.3.4 Decorative fixtures may be installed in New Residential Areas

where the cost of street lighting is included with the cost of developing the lands. However, when an existing Residential Area would like to upgrade the street lighting to decorative fixtures, the costs of such lighting will be allocated in accordance with the provisions of the Local Improvement Policy. A minimum of one (1) block is required to be upgraded.

5.3.5 Capital budgets for projects that include Decorative Fixtures shall include the replacement costs for a minimum of (4) full component replacement for the Decorative Fixture assembly.

5.3.6 For New Residential Areas developers are required to pay for the initial installation of street lighting, standard or decorative. Developers that choose to install decorative lighting shall provide the City an additional 100% of the cost of one (1) full replacement cycle of the decorative lighting. The funds shall be placed into a reserve account to be utilized for street lighting maintenance or future replacement of the decorative lights. After funding has been exhausted, the City will take responsibility of the maintenance of such decorative street lights.

5.4 DESIGN AND INSTALLATION OF STREET LIGHTING FOR ROADWAYS

5.4.1 All new design for street lighting of city roadways must meet ANSI/IESNA RP-8.

5.4.2 All designs must utilize LED fixtures. Fixture types are to be from pre-approved list or additional approval is required from City Engineer.

5.4.3 Designs shall consider pedestrian traffic, location of sidewalks, location of existing or proposed driveways/egresses.

5.4.4 Photometrics of the streetlight design must be submitted and approved by City Engineer prior to any installation.

5.4.5 As-builts which are to include the serial number of each fixture installed are to be submitted to the City Engineer prior to EnWin connection.

5.5 REQUEST FOR NEW OR IMPROVEMENT STREET LIGHTING ON EXISTING ROADWAYS

5.5.1 Funding for new or improved street lighting on expressway, arterial and collector roadways will be through the City's Capital budget.

5.5.2 To request street lighting on roadway without any lighting, property owners are required to follow the Local Improvement Policy.

5.5.3 To request decorative street lighting on a roadway with existing standard lighting, propertyowners are required to follow the Local Improvement Policy.

5.5.4 As part of a road rehabilitation project, allowances are to be made to improve the street lighting to city standards and to improve the street lighting infrastructures (i.e. poles, wiring, etc.) where street lighting currently exists.

5.6 REQUEST FOR ALLEY LIGHTING

5.6.1 To request lighting in alleys without any lighting, propertyowners are required to follow the Local Improvement Policy.

5.6.2 Alley lighting levels are not required to meet the uniformity

requirements of ANSI RP-8, however average levels shall be required to meet local/residential levels in the area of the light.

5.7 REQUEST FOR LIGHTING DUE TO SAFETY CONCERNS

5.7.1 In special circumstances, lighting may be installed to deter criminal activities. A history of previous criminal activities must be confirmed by Windsor Police Services, who recommend that lighting will assistwith crime deterrence, prior to the installation of lighting. This lighting shall be approved by the City Engineer and willbe funded from the City's capital budget.

5.7.2 There may be requests to light walkways to deter criminal activities and to promote safe travel areas. Each requestwill be reviewed on its merit and if approved, will be funded by other means (i.e. ward fund) unless directed by the City Engineer.

5.8. REPLACEMENT OF EXISTING LIGHTING DUE TO END OF LIFE OR FAILURE

5.8.1 Standard street lighting will be replaced with the City's current standard concrete poles, luminaires, mast arms and brackets in accordance with 5.7.2., 5.7.3., and 5.7.4..

5.8.2 If two or less lights in consecutive spacing are to be replaced at the same time, a like for like replacement of the fixture size, type and wattage shall be utilized. These replacements shall be coordinated and paid for through the City's operating budget.

5.8.3 If more than two lights in consecutive spacing are to be replaced at the same time, a lighting calculation shall be performed to ensure the correct size, type and wattage are used to complete the replacement. These replacements shall be coordinated through the City's capital budgets and shall be scheduled based on available budgets. Emergency replacements shall be made temporarily where required.

5.8.4 Non-LED Luminaires shall be replaced with LED. Where an area is still non-LED, a minimum of 1 block or four (4) luminaires in a row (whichever is less) shall be replaced with LED in order to maintain consistency of lighting.

5.8.5 Where decorative fixtures are to be replaced, similar decorative fixtures shall be utilized as per the following;

5.7.5.1 In Heritage Areas, existing decorative fixtures shall be replaced with similar make and model if available from the original manufacturer in accordance with 5.7.2., 5.7.3., and 5.7.4. Where the similar make and model are no longer available, the City shall select the closest replacement in size, colour, material, and distribution, etc. and that shall be the new decorative fixture standard moving forward.

5.7.5.2 In Heritage Areas, if residents prefer an alternative fixture, or wish to attempt to re-furbish the existing lighting, this may be considered through the Local Improvement Process. The costs funded in accordance with the Local Improvement Process should be limited to the difference between the costs for the City's recommended alternative and the refurbishment or another alternative. Alternative

fixture selection must be agreed upon by the City Planner and City Engineer.

5.7.5.3 In Mainstreets and Civic Ways, existing decorative lighting shall be replaced with similar make and model if available from the original manufacturer in accordance with 5.7.2, 5.7.3., and 5.7.4. Where the similar make and model are no longer available, the City shall select the closest replacement in size, colour, material, and distribution, etc. and that shall be the new decorative lighting standard moving forward

5.7.5.4 The City Planner and City Engineer will ensure that the budget for capital projects that result in the installation of decorative fixtures in Mainstreets and Civic Ways includes additional funding consistent with 5.3.6.

5.7.5.5 In Residential Areas with existing decorative fixtures, where individual replacements are required streetlights shall be replaced with similar make and model if available from the original manufacturer in accordance with 5.7.2, 5.7.3., and 5.7.4. Where the similar make and model are no longer available, the City shall select the closest replacement in size, colour, material, and distribution, etc.

5.7.5.6 In Residential Areas with existing decorative fixtures that have reached the end of life and large scale replacements are required, street lights shall be replaced with the City's current approved decorative pole and luminaire.

5.8 FESTIVAL/HOLIDAY LIGHTING

5.8.1 Holiday/Festival lighting may be attached to streetlight poles. Requests will be reviewed with input from other departments, i.e. Planning, Development, Projects and ROW. All funding for the installation, general maintenance and energy of festive/holiday lighting is to come from other sources unless otherwise directed.

5.9 PEDESTRIAN LIGHTING

5.9.2 Pedestrian lighting may be installed in specific areas, i.e. BIAs or high pedestrian generators. The street lighting levels will be calculated separate from the pedestrian lighting levels. The street lighting must meet ANSI/IESNA RP-8 requirements without including the pedestrian lighting. Any installation of pedestrian lighting is to be through a capital project.

5.9.3 The fixture will be selected in consultation between the City Planner and the City Engineer.

6 RECORDS, FORMS AND ATTACHMENTS

6.1.1 All records in relation to this policy will be kept in accordance with *RecordsRetention By-Law 21-2013*.

PILLETTE VILLAGE BIA

STREETSCAPE IMPROVEMENTS PLAN

Pillette Village Northeast Corner

Daytime view

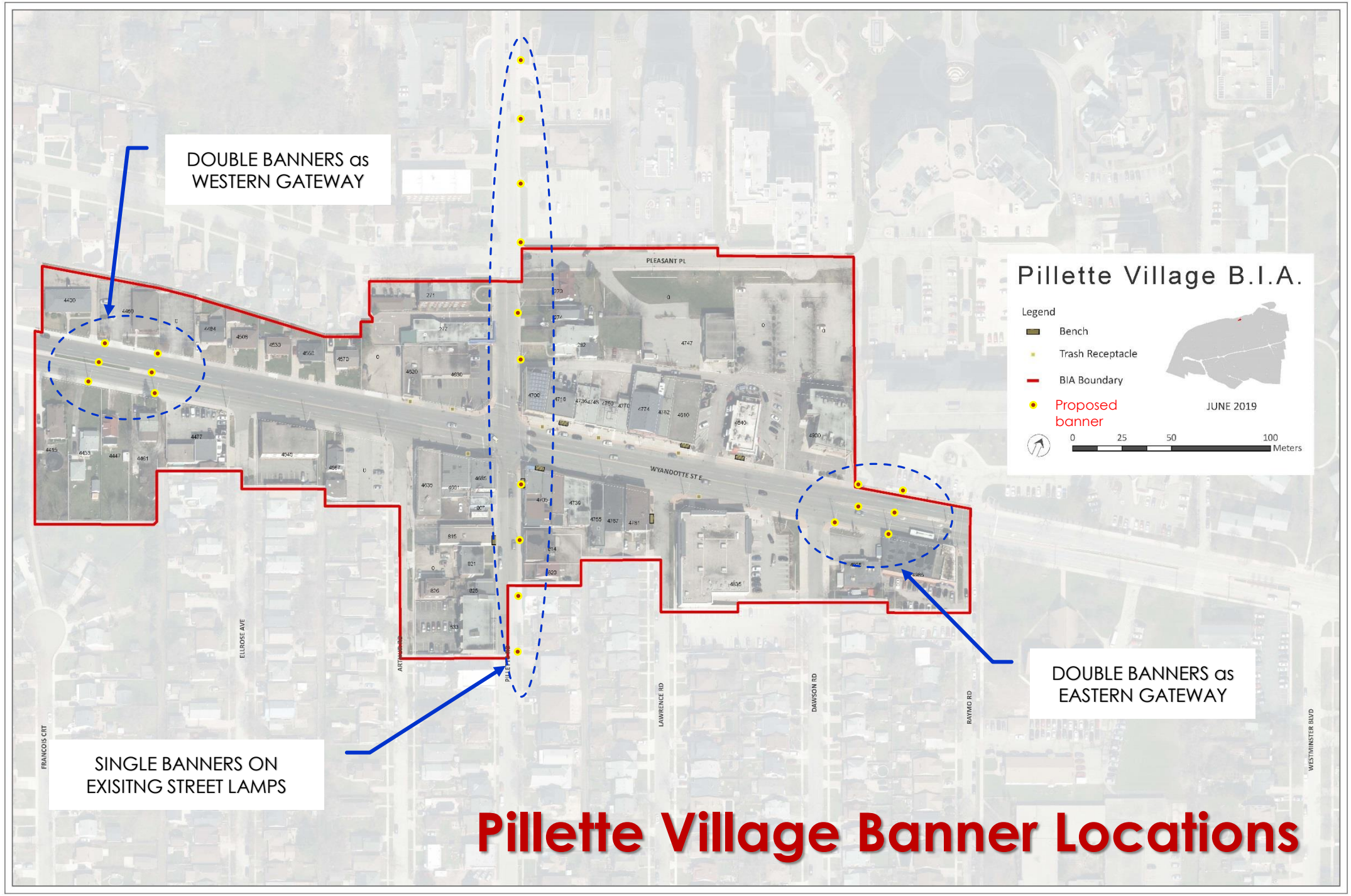
Pillette Village Southwest Corner

Pillette Village Southeast Corner

Pillette Village Northwest Corner

Pillette Village Western Gateway

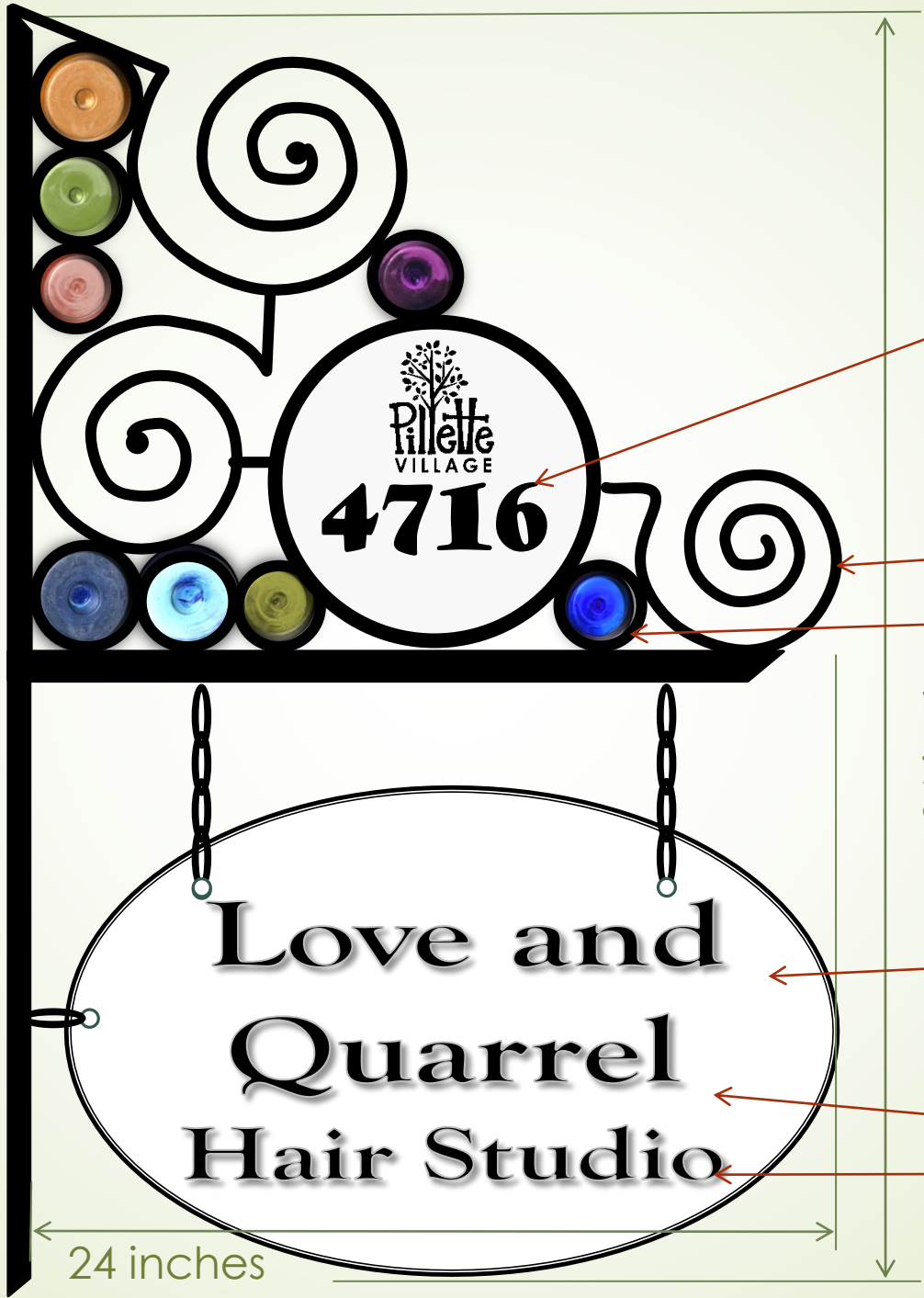
Pillette Village Eastern Gateway



Pillette Village Banner Locations

Pillette Village North-South Gateways

Address & Business Name SIGNS



2 inch Black Numbers and Pillette Village logo applied on an White Tile

Aluminium Scroll work

2.25 inch & 3 inch diam. Colour glass rondels inserts characteristic of the Catalon Modernista Art Nouveau Style

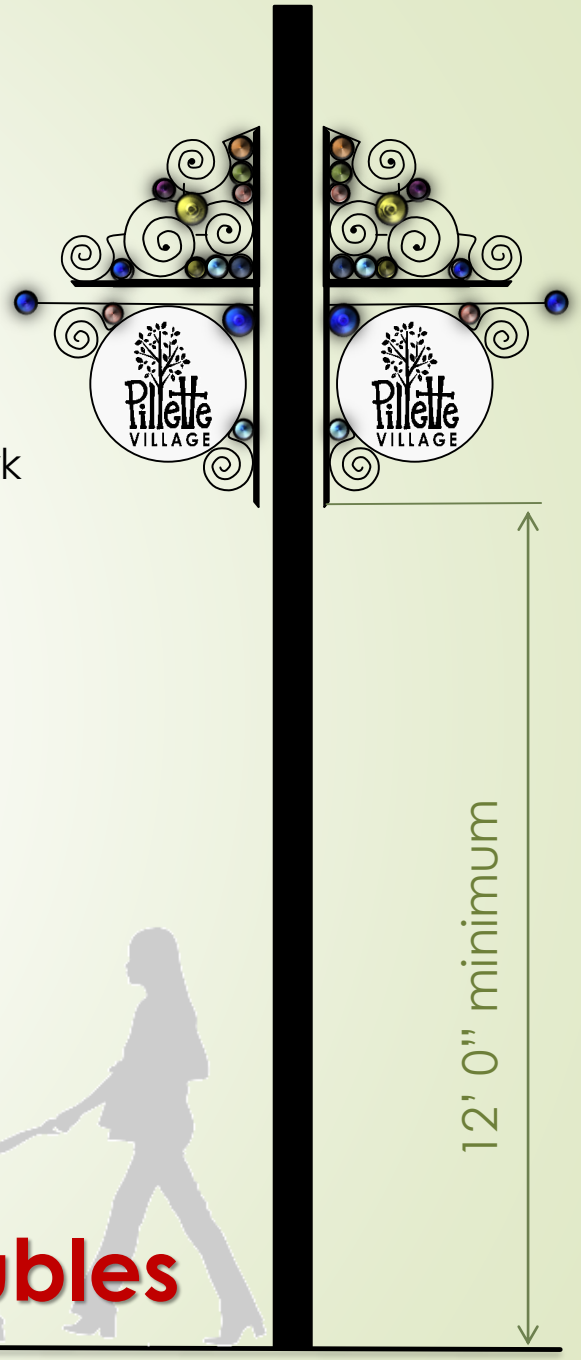
White Tile with Black lettering of business name sign
- Replaceable on new tenants

4 inch Letters

3 inch Letters

Banner Pole Tops

Singles



Doubles

Planters

Optional, self-watering flower planters for businesses

Standard City of Windsor, self-watering Tree Planter insert

Custom exterior frame by Wishbone to match Trash Receptacles.

Waste Receptacles

Beselt Round
Model Number : BTRR-24

Total Height	33.5 inches / 851mm
Width	24 inches / 609mm
Depth	24inches / 609mm
Capacity	20.5 Gal / 75L
Weight	90lbs / 41kg

Designer Notes
This traditional top-load waste receptacle was designed to go alongside the Beselt Park Bench at the request of a customer. The cast aluminum construction, vertical slats, foot design, and overall aesthetic compliment the Beselt Bench nicely. The round lid is intentionally designed with a small opening to restrict the type and size of garbage that can go in it. The lid is secured to the base to prevent it being stolen or taking off in high winds and to allow for easy replacement due to damage or vandalism. On the durability side, aluminum is not as corrosive as steel and will last longer and look better with years of use.

Wishbone Ltd. provides an extended 10 year limited warranty from the date of invoice.

100% Canadian Made

Essex-Windsor Solid Waste Authority
360 Fairview Ave. West, Suite 211 Essex, ON N8M 3G4
ph: 519-776-6441 f: 519-776-6370
tf: 1-800-563-3377 / tty: 1-877-624-4832
email: ask@ewswa.org / web: www.ewswa.org

January 27, 2022

City of Windsor
350 City Hall Square West
Room 530
Windsor, Ontario N9A 6S1

Attn: Mr. Jason Reynar
Chief Administrative Officer
jreynar@citywindsor.ca

Mr. Steve Vlachodimos
City Clerk & Senior Manager of Council Services
svlachodimos@citywindsor.ca

RE: Resolution of the Essex-Windsor Solid Waste Authority Board - Regional Food and Organics and Biosolids Waste Management Project

The following letter has been prepared to inform the City of Windsor of recent developments regarding the Food and Organic Waste Management Project.

Further to the following resolution adopted by County of Essex Council on October 20, 2021:

> **THAT** the Essex County Council consider a Regional approach to the Food and Organics Waste Management Project as it relates to participation from municipalities and report its decision back to the Essex-Windsor Solid Waste Authority no later than December 31, 2021.

The Essex-Windsor Solid Waste Authority Board, at its Wednesday, January 12, 2022 meeting, adopted the following resolution:

Resolution 7-2022
Moved by Kieran McKenzie
Seconded by Jim Morrison

1. That the Food and Organic Waste Management Oversight Committee **BE DIRECTED** to continue to work through the various steps outlined in the Roadmap, and report back with progress updates, and;

2. That the Food and Organic Waste Management Oversight Committee **BE DIRECTED** to proceed with a short-term organic waste processing contract(s) RFP that meets the following minimum criteria:

   a. That the RFP **BE REQUIRED** to accept, at a minimum, source separated organics from Windsor and any other of the municipalities choosing to participate at the onset, and allows for changes to quantities of source separated organics, and;
   b. That industry standards **BE EXCEEDED** regarding odour control measures implemented at the facility and the end product, and;

c. That the RFP **BE REQUIRED** to provide service for a 5-year term with options for extensions.

3. That the EWSWA send correspondence to the County of Essex and all **municipalities** in the region who have yet to respond to indicate whether or not their members or those municipalities will participate in the EWSWA led organics program and to indicate that response is required by March 31, 2022.

On January 19, 2022, communication was sent via email to the Chief Administrative Officer and Clerk of all seven (7) County of Essex municipalities requesting that responses from municipalities be received no later than March 7, 2022 in order for the correspondence to be placed on the March 16, 2022 County Council meeting agenda. Ms. Mary Birch, Director of Council and Community Services/Clerk for the County of Essex was included on the correspondence to each municipality. The EWSWA requests that Essex County Council will provide a response to the EWSWA by March 31, 2022.

The EWSWA is also requesting that the City of Windsor Council provide a response to the EWSWA to indicate whether or not they will participate in the EWSWA led organics program by March 31, 2022.

Please contact me if you require further information at 519-776-6441 ext. 1225 or email at mbishop@ewswa.org.

Michelle Bishop, General Manager

MEMO

Date: **January 6, 2022**

To: EWSWA Board Members

From: Regional Food and Organics Oversight Committee

Meeting Date: January 12, 2022

Subject: Regional Food and Organics and Biosolids Waste Management Project – Facility Ownership and Recommended Next Steps

1. Purpose

The purpose of this report is to inform the Essex Windsor Solid Waste Authority ("EWSWA") Board of numerous issues that have been identified as the Regional Food and Organics Oversight Committee ("Oversight Committee") works towards the preparation of a Request for Qualification (RFQ). The consultant (GHD Limited (GHD)) has prepared a roadmap of recommended steps to assist EWSWA, the City of Windsor and County municipalities (collectively referred to as the "Regional Partners") to navigate through the various issues and decision points required to achieve the final goal of establishing a long-term organics collection and processing program that meets compliance obligations. The Oversight Committee has presented recommendations to initiate the first phase of an organics program.

It is intended that the EWSWA Board provide direction based on these recommendations during the January 12, 2022 board meeting.

2. Background

At the October 5, 2021 EWSWA Board meeting, administration was directed to proceed with the development of a procurement plan for an organic waste management and processing project that would be as unrestrictive as possible to allow the private sector to propose innovative and cost-effective solutions.

During the development of the RFQ, it has become apparent that an RFQ, and subsequent Request for Proposal (RFP) that allows for both municipally-owned and privately-owned models carries significant risks. The absence of information on components of the long term organics management program, such as organics quantity and composition, has also been identified as an infrastructure procurement risk. These risks should be brought to the attention of the Board prior to proceeding with a procurement process for this project.

3. Discussion

The development of the RFQ, and subsequent RFP, can in broad terms be broken down into 2 sections: technology and procurement.

In terms of technology, it is relatively common to have an RFQ/RFP remain open to all technologies available. In the case of this project, there is no concern with issuing an RFQ/RFP that is open to any technology that complies with the Ontario Food and Organic Waste Policy Statement.

In terms of procurement, the type of contract (i.e., service contract with a private facility, municipal-owned asset, P3, etc.) is typically specified in the procurement documents. Although there are several different types of contracts, the two main categories of contracts are defined by contracted service delivery by a privately-owned facility and development of a municipally-owned facility. There are a number of issues with undertaking a procurement process for an organic waste management facility without first determining if the facility will be municipally-owned or privately-owned. A procurement process that is neutral on facility ownership will be complex and create an unlevel playing field for potential respondents. The following are issues that will present themselves if the procurement process does not specify facility ownership:

1. Contract and Specifications
   A procurement process that considers both municipal and private ownership will require the development of two separate contract and specification documents. The Technical Memorandum prepared by GHD (provided in Attachment A) presents a summary of how various types of contracts are typically structured. Creating two separate contracts and specifications will be both costly and time consuming.

2. Difficult Evaluation Process
   It is relatively simple to compare municipally-owned and privately owned facilities on certain important metrics such as Net Present Value (NPV) and GHG emission reduction performance. However, there are other significant aspects of the two ownership models that are not easily compared, such as construction material quality, maintenance plans, etc. A good analogy would be choosing between a custom-built home and a rental apartment. It is difficult to compare quality or value for money because the requirements and expectations are different. A procurement process that considers proposals for both municipal and private ownership will create a situation where projects that do not easily compare must be evaluated and scored using the same metrics, impacting the ability to properly compare and evaluate proposals. Complex evaluation processes or metrics also increase the risk of unsuccessful bidders to challenge the award results.

3. Cost and Effort to Participate
   The cost and level of effort required to participate in a procurement process for a municipally-owned facility are significantly greater than that for procuring a processing

service provider where the service provider has an existing facility with sufficient capacity. Costs for proponents to submit a proposal for a municipally-owned facility must include a level of design in order to accurately prepare cost estimates. The cost to go through this process is expected to be up to $1 million in effort for a facility of this nature. This creates an unlevel playing field among potential participants in the procurement process and will discourage potential participants from participating under a project delivery method for a municipally-owned facility.

4. Risk in Participation
   Potential participants in the procurement process will only participate if their perceived chance of winning is great enough. By opening up the procurement process to both municipally- and privately-owned project delivery methods, the perceived chance of winning will be lowered for all parties, but especially for potential participants delivering a municipally-owned facility. The perception in the Ontario market is that the procurement of a municipally-owned organics facility may not be able to compete with merchant capacity processors.

   A procurement process that considers both municipal and private ownership will create a situation where interest is very low for potential participants for delivering a municipally-owned facility.

   In addition to the procurement risks outlined above, GHD identified several questions, observations and processes that need to be determined prior to the development of a long-term organics solution. A key issue is that the Regional Partners have not yet designed or implemented their organics management programs, including collections and processing, and therefore do not have organics quantity or composition data to help minimize infrastructure procurement risk.

4. Mitigation Strategies

GHD has proposed various strategies that can be used to mitigate some of the procurement concerns listed in Section 3 above. These strategies are summarized below:

1. Determine Facility Ownership
   In order to receive a greater number of competitive bids, it is advised that the facility ownership model be selected prior to the issue of an RFQ/RFP. This would alleviate all of the issues identified in Section 3 above. However, as discussed in Section 5 below, other considerations in the Windsor-Essex region make this decision difficult at this time.

2. Select a Collaborative Project Delivery Model
   For proponents interested in a municipally-owned facility, there is an increased interest and preference by contractors for project delivery models that are more collaborative to reduce the cost to participate and alleviate risks taken on by contractors. A collaborative

approach includes one or more proponents retained prior to the completion of the design. The proponents work with the owner to create the design. At established design stages, the owner may select proponent(s) to proceed to the next phase. When the design is at or near completion, the proponent(s) is required to submit a fixed cost for the remainder of the project. This approach reduces costs to participate and alleviate risks taken on by the proponents, as they are reimbursed for their design efforts and are involved in the design which allows a greater amount of comfort for the proponents.

3. Provide an Honorarium
   If the ownership model is not defined in the procurement process, one way to encourage teams completing proposals for a municipally-owned facility is to provide an honorarium. It is anticipated that an honorarium of a sum greater than $1 million per compliant bid would be required to be effective. This mitigation strategy would address the issue of the imbalance of the cost to participate, but does not address the other risks outlined above.

4. Enter into a Short Term Service Delivery Contract in the Interim
   Municipalities commonly begin processing organic waste through service delivery contracts before procuring a municipally owned facility. This would allow time to gain experience with the collection program and knowledge regarding waste quantities and composition. This mitigation strategy provides compliance with provincial requirements and allows additional time to plan and gain invaluable information, however one of the other mitigation strategies will eventually need to be selected in order to proceed with a long-term organics program. It is noted that since a long-term organics program is not expected to be operational by 2025, a service delivery contract will likely be necessary to establish compliance for the municipalities required to meet organics management obligations by 2025.

5. GHD's Conclusions and Recommendations

Given the issues identified with an open procurement model, and given the magnitude of this project and timelines, GHD has recommended that one or more of the mitigation strategies be selected, and notes that ultimately a decision on facility ownership should be made. GHD further notes that at this stage of the project, there remains more questions than answers about the program components of a long-term organics solution, and is therefore recommending that the Regional Partners move forward with planning and implementing one or more short-term processing contracts. This would allow more time to develop an organics collection program, and provide data needed to form the basis of a long-term design or procurement. GHD recommends that short-term contract(s) be procured as soon as possible in order to secure capacity, and notes that many other municipalities will be working towards securing capacity in advance of the upcoming compliance deadline.

Furthermore, putting some distance between the pandemic and the large capital project of constructing a municipally-owned organic management facility could potentially save a significant amount of money.

GHD has proposed a Roadmap, provided in Table 5.1 of the attached Technical Memorandum and replicated below, to assist the Regional Partners with a path to navigate the various questions and issues that still need to be determined to support data-driven decision making. The proposed roadmap consists of 11 distinctive steps, where data obtained from previous steps may establish the basis for subsequent steps.

Item #	Steps	Description
1	Program governance	– For both processing and collections. – This is currently in progress on the processing side. Which lower-tier municipalities will participate and when? A determination is expected within the next few weeks. – Study if collections continue to be a lower-tier responsibility or are there benefits to shifting this to county level (i.e., EWSWA).
2	Short-term processing contract(s)	Procure short-term processing contracts to cover the first few years of processing needs to maintain compliance with the provincial requirements and until decisions are made regarding a long-term solution: – Start with market sounding to determine current and future available capacity and types of technology. – Roll-out of collections could be phased over this period starting with one of the municipalities that is required to implement a curb-side collection program (e.g., the City of Windsor) and then other municipalities added over time. – Planning and development for this step in the roadmap should begin early as this is a lengthy process – Some work from subsequent steps must be completed prior to establishing a processing contract, including the development of a collection program
3	Feedstock composition and forecast study	– After governance is decided, update composition and tonnage forecasts from previous studies. – This study will define how much processing is needed and when. This study would be attached to the RFP as background information. – Vines: explore options with Ontario Greenhouse Growers Association to divert this material from the landfill. This work should be completed in parallel to understand potential synergies before an opportunity is lost. – Other feedstock: Identify any other feedstocks EWSWA may want to procure and be responsible for collecting and processing. Wastewater sludges should also be considered further as planning for local wastewater infrastructure expansion and upgrades progresses in parallel; including characterizing this feedstock more fully.
4	Project risk matrix and workshop	– Complete a risk identification and quantification exercise to help inform program and project development decisions; including the question of owning or not owning a facility.
5	Environmental attributes study	– Study to determine what should be done with energy/gas and environmental attributes if attributes can be retained through a

Item #	Steps	Description
		merchant plant arrangement. Consult with Enbridge. Consult with processing plants (maybe as part of market sounding discussed under Short Term Processing Contract(s)).
6	Develop collection program	Complete study and plan for collections program roll-out including: – Review how rollouts are achieved in other municipalities (e.g., Guelph, York, Peel). – Consider how EPR will affect collection volumes and programs at the various municipalities. – How will collections be accomplished (e.g., curb-side collection or depot drop-off) – What technologies (e.g., RFID, split collection vehicles, bins, bags, automated collection) should be considered for a new program? – Consider potential collection schedule and routing – Consider timing relative to current collections contracts in the various municipalities – Develop implementation plans based on the above: • Public communication plan • Collection routing plan • Fleet management strategy • Implementation timeline This will provide a clear picture of how much processing is needed and when. Planning and development for this step in the roadmap should begin early as this is a lengthy process.
7	Essex landfill gas study	– Confirm landfill gas forecast and composition. – Confirm landfill gas ownership and determine strategic partners. – Confirm pipeline location with Enbridge.
8	Building consensus and roadmap with municipalities	- To ensure a coordinated and cohesive rollout across the Essex-Windsor region for an organics management program that includes both collection and processing, will require support for local municipal staff from the Technical Working Group and EWSWA - Communication with the municipalities should be done early and throughout the process. Each municipality will have their own financial and other planning considerations to address, which may be a lengthy process.
9	Other studies: – Form of contract – Siting	– Following completion of other studies and roll-out of collections program and short-term processing contracts. – Update of siting and form of contract work done as previous studies. An update will be required as it is anticipated that much will change in the years following the pandemic and as other provincial policies change.
10	Final report on long-term processing solution	Compile studies into a final report and recommendation to the EWSWA board for long-term processing solutions.
11	Procure long-term processing solution	Issue appropriate RFP for selected long-term processing solution.

Step 1 of the Roadmap, Program Governance, involves making decisions regarding who will be responsible for the implementation and management of each aspect of an organics program, and who will be participating and to what extent. The Oversight Committee, the Technical Working Group and the Regional Partners have been working towards a decision regarding Regional Program Governance and participation. However, collection of organic waste has not yet been evaluated. Additionally, a short-term service contract outlined in Step 2 of the Roadmap has not been initiated.

6. Conclusion

The Roadmap outlined above clearly illustrates that a significant amount of effort is still required before a long-term organics program is established. The only mitigating strategy that addresses all the procurement risks identified in Section 3 above is to select either a privately-owned facility or a municipally-owned facility. It is difficult for the Oversight Committee to recommend one or the other without first knowing which municipalities are participating and subsequently what tonnages and energy benefits can be achieved. Presentations made to local municipal councils in November and December 2021 are still being evaluated by local administration. The County of Essex has not yet scheduled the organics project on a meeting agenda and it is anticipated that once all local councils have considered this matter there will be interest to deal with the matter at the County level and the County of Essex will then be in a position to schedule the organics issue on a meeting agenda. Once program governance is established, organic waste collection will need to be evaluated in order to determine if regional or individual collection programs are recommended and identify if potential synergies and cost saving opportunities exist as a result of the implementation of an organics collection program.

Other considerations that may affect various decision points regarding an organics program include the need for the City of Windsor to have a functioning solution in place by 2029 to address the existing biosolids processing plant expected capacity overflow; which may include the construction of an anaerobic digestion facility, the expansion of the existing facility or institution of new technologies to address the capacity overflow. The timing and terms of each municipality's current collection contracts for general refuse need to be taken into consideration, including the allowance for lower tonnages in those contracts as it is expected that refuse amounts will decrease with the implementation of an organics program. The need to expand the landfill gas collection network, and options to manage the collected gas also need to be evaluated. Furthermore, equipment and material sourcing are seeing significant delays, to the point that any future needs should be requested 2 years in advance of that need, even for service contracts. Since Blue Box Extended Producer Responsibility (EPR) will be changing collection contracts in 2 years, it would be prudent to establish collection and processing programs by the 2nd quarter of 2022. This would allow proponents sufficient time to obtain collection vehicles, and increase merchant capacity as needed.

The only mitigating strategy that can be completed by the 2nd quarter of 2022 is a short term service delivery contract.

7. Oversight Committee Recommendations

The Oversight Committee is recommending that Step 2 of the Roadmap– Short Term Processing Contract(s) – be initiated as soon as possible in order to secure processing capacity, establish and maintain compliance with provincial requirements, and gather valuable information regarding organic waste within the region. The Oversight Committee, Technical Working Group and the Regional Partners will continue to work through the various steps required to reach the final step of an established long-term organics program. Therefore, based upon the conclusions and recommendations of the GHD Technical Memorandum, prepared in consultation with the Technical Working Group and the Oversight Committee, the following recommendations are proposed for the Board's consideration:

1. That the Food and Organic Waste Management Oversight Committee **BE DIRECTED** to continue to work through the various steps outlined in the Roadmap, and report back with progress updates, and;

2. That the Food and Organic Waste Management Oversight Committee **BE DIRECTED** to proceed with a short-term organic waste processing contract(s) RFP that meets the following minimum criteria:

    a. That the RFP **BE REQUIRED** to accept, at a minimum, source separated organics from Windsor and any other of the municipalities choosing to participate at the onset, and allows for changes to quantities of source separated organics, and;

    b. That industry standards **BE EXCEEDED** regarding odour control measures implemented at the facility and the end product, and;

    c. That the RFP **BE REQUIRED** to provide service for a 5-year term with options for extensions.

Technical Memorandum

January 05, 2022

To	Tracy Beadow, City of Windsor	**Tel**	519-884-0510
Copy to	Anne Marie Albidone, City of Windsor Natasha Gabbana, City of Windsor Michelle Bishop, Essex-Windsor Solid Waste Authority Sandra Zwiers, County of Essex Gavin O'Neil, GHD Michael Cant, GHD	**Email**	mike.muffles@ghd.com
From	Mike Muffels, GHD Bryce Hill, GHD	**Ref, no**	11221671
Subject	Facility Ownership		

1. Purpose

The purpose of this report is to present the risks associated with entering a procurement for an organic waste management and processing facility without first determining the ownership of the facility (municipal or private).

2. Background

At the October 5, 2021, EWSWA Board Meeting, the administration was directed to begin the development of a request for qualifications document (RFQ) for an organic waste management and processing project (Project) that would be as unrestrictive as possible to allow the private sector to propose innovative and cost-effective solutions which will assist the City of Windsor, EWSWA, and the County (collectively referred to as the "Regional Partners") in meeting local and provincial environmental policy objectives and obligations, including:

– Being open to all technologies that comply with the Ontario Food and Organic Waste Policy Statement
– Being open to a variety of project delivery models, including both privately-owned (i.e., merchant capacity or third-party processing) and publicly-owned models (i.e., traditional design-tender and public-private partnerships [P3]).

During the development of the RFQ, it has become apparent an RFQ that allows for both municipally-owned and privately-owned models carries significant risks that GHD, in consultation with the Technical Working Group and Oversight Committee, recommend be brought to the attention of the Board.

3. Discussion

3.1 Issues with not specifying facility ownership

The development of the RFQ, and subsequent RFP, can in broad terms be broken down into 2 sections: technology and procurement.

In terms of technology, it is relatively common to have an RFQ/RFP remain open to all technologies available. In the case of this project, there is no concern with issuing an RFQ/RFP that is open to any technology that complies with the Ontario Food and Organic Waste Policy Statement.

In terms of procurement, the type of contract (i.e., service contract with a private facility, municipal-owned asset, P3, etc.) is typically specified in the procurement documents. Although there are several different types of contracts, the two main categories of contracts are defined by a privately-owned facility and a municipally-owned facility. There are a number of issues with undertaking a procurement process for an organic waste management facility without first determining if the facility will be municipally-owned or privately-owned. A procurement process that is neutral on facility ownership will be complex and create an unlevel playing field for potential respondents.

The following are issues that will present themselves if the procurement process does not specify ownership:

3.1.1 Contract and specifications

A procurement process that considers both municipal and private ownership will require the development of two separate contract and specification documents. Essentially, two procurements would need to be completed simultaneously.

As summarized in Table 3.1, each project delivery model has its own contract structure. Not all contracts contain a construction component, for example, which must adhere to the requirements of the Construction Act. A service provider contract would have no requirements under the Construction Act.

To allow for multiple ownership models to be procured simultaneously, multiple contracts would need to be developed in full and attached to the RFP when it is released. Contract development is the most labour-intensive component of the procurement process, requiring legal, financial, and technical drafting.

Table 3.1 Procurement process for different project delivery methods

Delivery methods	Procurement process		
Service delivery – Non-owned facility – e.g., Regional Municipality of York	A request for expression of interest (RFEOI) is not required but can be used to develop an interest in the project	Single RFP and contract typically based on a dollar-per-tonne gate fee.	– Service provider contract based on a per-tonne gate or processing fee. Service contracts can include performance requirements, which put the processor at risk. – No design, construction, or operations contracts or contracting terms. – The contractor takes lifecycle risk. – Contracts are typically short-term for service providers to avoid long-term pricing risk. Or they will want schedule price adjustments. – Longer-term contracts (10+ years) allow capital

Delivery methods	Procurement process		
			expenditures to be amortized over more years; however, any risk premiums are compounded over more years.
Design-bid-build (DBB) – Owned facility – e.g., Transfer stations	Not typically done for the constructor. However, separate procurements would be needed for the owner's engineer and the operator (or operations team will need to be hired and built internally). There is minimal to no design work required to submit proposals and bids; the cost to submit a proposal or bid is minimal.	Once the detailed design is completed, the engineer tenders the construction contract and oversees construction on behalf of the owner. Operations are performed in-house, or separately procured by the owner.	– The design, construction and operations are separately contracted or self-performed by the owner. – Capital expenditures are paid by the owner as construction progresses. – The owner takes lifecycle risk. – This model is not typical for organics or alternative waste processing projects because the key equipment and process design are still largely proprietary; the owner retains facility design, construction, lifecycle, and performance risks that cannot be transferred to the operator.
Design-build (DB) – Owned facility	Recommended RFQ is used to pre-qualify a long list of potential teams down to a shortlist based on experience and financial capacity; before any significant design effort is required by bidders. Limiting bidding teams will encourage participation as bidders will perceive their chance of winning as being greater.	DB teams must complete significant design work to be able to submit a fixed price proposal or bid. It is expensive to participate in the RFP process and bidders will expect a DB fee or honorarium if unsuccessful. Operation is performed in-house or separately procured by the owner.	– The design and construction are contracted under a single DB contract. – The owner retains ownership of the facility. – Capital expenditures are paid by the owner as construction progresses. – Operation is separately contracted. – The owner takes lifecycle risk.
Design-build-operate (DBO) – Owned facility – Sometimes includes "maintain" in the acronym – e.g., City of Toronto	Recommended RFQ is used to pre-qualify a long list of potential teams down to a shortlist based on experience and financial capacity; before any significant design effort is required by bidders. Toronto prequalified the primary technology vendors only – not the design, construction, or operations team members. DBO teams were assembled around the prequalified technology vendors. This variation also results in a limited number	DBO teams must complete significant design work to be able to submit a fixed price proposal or bid for an RFP largely based on performance requirements. It is expensive to participate in the RFP process and bidders will expect a DB fee or honorarium. These are also lengthy processes, taking close to 2 years from the start of RFP drafting to contract award. Operations prices are typically fixed prior to the facility being designed or commissioned. There is not	– The design, construction and operations are contracted under a single design, build, and operate contract. – Capital expenditures are paid by the owner as construction progresses. – The owner retains ownership of the facility. – Typically, the owner takes or shares lifecycle risk with the contractor, though this will increase the per-tonne processing fee.

Delivery methods	Procurement process		
	of bidders as vendors typically align with one team. Limiting bidding teams will encourage participation as bidders will perceive their chance of winning as being greater.	always an operating plant with the same process to use as a basis.	• The City of Toronto assumes lifecycle risk for their facilities. • The owner shared this risk with the contractor for the cancelled Region of Peel project.
Design-build-finance-operate (DBFO) – Owned facility – P3 project delivery method – e.g., City of Surrey	Recommended RFQ is used to pre-qualify a long list of potential teams, including debt and/or equity financing team member(s), down to a shortlist based on experience and financial capacity; before any significant design effort is required by bidders. Limiting bidding teams will encourage participation as bidders will perceive their chance of winning as being greater.	DBFO is similar to DBO, but capital expenditures are financed privately, and paid by the owner over an operating period through a per-tonne gate fee. DBFO teams must complete significant design work to be able to submit a fixed price proposal or bid. It is expensive to participate in the RFP process. Operations prices are typically estimated prior to the facility being designed or commissioned. There is not always an operating plant with the same process to use as a basis.	– The design, construction, and operations are contracted under a single design, build, finance, and operate contract. – Capital expenditures are paid by the owner through per-tonne gate fees. – The owner retains ownership of the facility. – The contractor typically retains lifecycle risk for the duration of the operations period.
Design-build-own-operate-transfer (DBOOT) – Owned facility after transfer – P3 project delivery method – e.g., Windsor Biosolids Processing Facility	Recommended. RFQ is used to pre-qualify a long list of potential teams, including debt and equity financing team member(s), down to a shortlist based on experience and financial capacity; before any significant design effort is required by bidders. Limiting bidding teams will encourage participation as bidders will perceive their chance of winning as being greater.	DBOOT is similar to DBFO, except that the contractor retains ownership of the facility until the transfer date. DBOOT teams must complete significant design work to be able to submit a fixed price proposal or bid. It is expensive to participate in the RFP process. Operations prices are typically estimated prior to the facility being designed or commissioned. There is not always an operating plant with the same process to use as a basis.	– The design, construction and operations are contracted under a single design, build, finance, and operate contract. – Capital expenditures are paid by the owner through per-tonne gate fees. – The owner retains ownership of the facility. – The contractor retains lifecycle risk for the duration of the operations period.

3.1.2 Difficult evaluation process

It is relatively simple to compare municipally-owned and privately-owned facilities on certain important metrics such as net present value (NPV) and GHG emissions reductions performance; however, there are certain aspects of the two ownership models that are not easily compared. For example, construction material quality and maintenance plans are important factors in evaluating a municipally-owned facility as it is imperative to have municipal assets in good condition at the end of a contract. For a privately-owned facility, material quality and maintenance places are only important to the point that performance requirements are maintained.

A good analogy would be choosing between a custom-built home and a rental apartment. It is difficult to compare quality or value for money because the requirements and expectations are different. And it's difficult to compare on price because one option is pure cost over the short term.

A procurement process that considers both municipal and private ownership will create a situation where projects that do not easily compare must be evaluated and scored using the same metrics, impacting the ability of the Regional Partners to properly compare and evaluate proposals.

3.1.3 Cost and effort to participate

The cost and level of effort required to participate in a procurement process for a municipally-owned facility are significantly greater than that for procuring a processing service provider where the service provider has an existing facility with sufficient capacity. This creates an unlevel playing field among potential participants in the procurement process and will discourage potential participants from participating under a project delivery method for a municipally-owned facility.

3.1.4 Risk in participation

Potential participants in the procurement process will only participate if their perceived chance of winning is great enough. By opening up the procurement process to both municipally- and privately-owned project delivery methods, the perceived chance of winning will be lowered for all parties, but especially for potential participants delivering a municipally-owned facility. The perception in the Ontario market is that the procurement of a municipally-owned organics facility may not be able to compete with merchant capacity processors.

A procurement process that considers both municipal and private ownership will create a situation where interest is very low for potential participants for delivering a municipally-owned facility.

3.2 Recent experience in other jurisdictions

Table 3.2 summarizes a selection of recent projects to highlight the variety of project delivery models that have been employed by Canadian municipalities to construct organics processing facilities. There is no one clear preference for procuring organics processing capacity.

Table 3.2 Summary of recent projects

Municipality	Project delivery model
Regional Municipality of York (York)	York has an RFP out, released June 7, 2021, and closing in November 2021, for processing their organic waste using merchant capacity (i.e., service provider model). Some details of the RFP are as follows: – The Region will award one contract for 140,000 tonnes per year or two separate contracts for 70,000 tonnes per year. – The contracts will have a 20-year term. – The facilities can be new or existing. – The facilities must be within 200 km of the Region of York's transfer stations. – The chosen processing technology is anaerobic digestion (wet or dry). The possibility of two contracts lowers the risk of potential service interruptions. The long contract term length creates a more level playing field for respondents that need to expand, develop a new facility, or implement new technology such as biogas upgrading. To keep environmental stewardship as part of the procurement process, a comprehensive greenhouse gas (GHG) model is included in the RFP both for scoring and operating purposes. 25% of the scoring in the RFP is based on the respondents' GHG emissions score based on the model, and if the GHG emissions guarantee (also based on the GHG model) is not met then the balance of GHG emissions will be offset by the purchase of renewable gas certificates by the contractor.

Municipality	Project delivery model
Halifax Regional Municipality (HRM)	HRM utilized a technology-neutral DBOOT project delivery approach to procure their new composting facility. The project is in the design phase with some early civil works being completed. The technology options that were permitted in the RFP and contract were composting, anaerobic digestion, and on-farm anaerobic digestion. The technical specifications required the majority of the customization to facilitate this; however, some accommodations in the legal and financial aspects were also required. This flexibility added some complexity but, in the end, HRM received multiple compliant proposals.
City of Toronto	The City of Toronto uses a combination of service contracts and their owned facilities to process their organic waste. Their Dufferin and Disco Road facilities were delivered using a DBO approach with a 3+1+1-year operating term. With this shorter operating term, the City of Toronto decided to retain equipment lifecycle costs and risk. The City of Toronto works with the DBO contractor to identify which equipment needs major refurbishment and replacement and when. The City of Toronto initiates separate capital projects to complete the replacements in cooperation with the contractor. The third-party service contractors are used to manage the fluctuations and peaks inflows of materials as the two owned facilities do not have enough capacity to process all of the City of Toronto's organic waste. The City of Toronto is planning a third owned facility and is still deciding how to implement the project.
Regional Municipality of Peel (Peel)	Peel initiated a procurement using a DBO approach for a large anaerobic digestion facility in 2017. Aspects that were unique in the Peel contract included the fact that the lifecycle risk was on the contractor (which is different than Toronto) and the increased amount of security against performance. This latter element resulted in the project morphing into a quasi DBF-O model (similar to the Calgary composting facility) where the construction was debt-financed through third parties, but the capital expenditures were all paid out by the end of construction. Ultimately this project was cancelled by Peel Council in an in-camera session. No reason was provided for the cancellation, but high bid prices were a contributing factor.

3.2.1 Potential proponent perspective

Within the community of developers of organic waste processing infrastructure, there is a concern with the increasing cost to participate in the RFPs for DBO-style projects (more design required to mitigate risks) and the trend of increased risk being transferred to contractors. From the perspective of potential proponents, the risks outweighed the potential revenue. Generally, we are seeing an increased interest and preference by contractors for project delivery models that are more collaborative such as progressive design and integrated project delivery. This trend is resulting in the potential pool of good bidders shrinking for future DBO or DBFO type approaches.

3.3 Mitigation strategies

The following are potential strategies to mitigate the issues presented in section 3.1:

3.3.1 Determine the facility ownership

In order to receive a greater number of bids and the most competitive bids, it would be advisable to select either a municipally-owned or privately-owned facility. Table 3.3 summarizes the pros and cons of municipally-owned and privately-owned organics processing facilities.

Table 3.3 Pros and cons of municipally-owned and privately-owned organics processing facility

Ownership type	Pros	Cons
Municipally-owned	– More control over the process, including odour and nuisance risk – More access to process information – More control over future pricing – Ability to forecast future pricing and capacity availability	– Typically, higher costs, especially upfront – More facility development risk taken on
Privately-owned	– Typically, lower cost, especially upfront – Increases competition in the organics processing market – More facility development risk is transferred to the private industry – Simpler procurement process	– Less control over the process, including odour and nuisance risk – Less access to process information – Development costs can be passed on through tip fees without the benefit of ownership – Potential exposure to service disruptions that are out of the Regional Partners' control – Less control over future pricing and forecasting capacity availability – Tipping fees set by the private industry

3.3.2 Select a collaborative project delivery model

As outlined in this report, there is an increased interest and preference by contractors for project delivery models that are more collaborative. Contractors have a concern with the increasing cost to participate in the RFPs for DBO-style projects (more design required to mitigate risks) and the trend of increased risk being transferred to contractors.

There are various types of collaborative project delivery models. Generally, collaborative project delivery gets the contractor involved at an early stage of project development. After a certain level of project development, but before final design, the contractor will commit to an upset limit cost and schedule for final design and construction. This collaborative approach alleviates contractor risk by getting the contractor involved in the design and other pre-construction activities before they commit to price and schedule.

3.3.3 Provide an honorarium

As outlined in this report, an open procurement will create an unlevel playing field and likely result in only privately-owned bids. If the Regional Partners are interested in seeing both municipally-owned and privately-owned proposals, potential mitigation is an honorarium to teams completing the proposals for a municipally-owned facility option to level the playing field. It will be difficult to determine the appropriate amount for this honorarium for each proposal type, however it is anticipated that a sum greater than $1 million per compliant bid will be required to be effective.

It should be noted that this mitigation strategy only addresses the issue of cost to participate and does nothing to address the other risks outlined in this report.

3.3.4 Enter into short-term service delivery contracts in the interim

It is common for municipalities to begin processing their organic waste through service delivery contracts before procuring a municipally-owned facility. This allows a municipality to gain experience with their collection program and gain knowledge regarding organic waste amounts and composition before procuring a processing

facility. It is further noted that interim waste service delivery contracts would be necessary to provide capacity during the development of a municipally-owned facility.

This strategy does not mitigate risks associated with facility procurements but provides additional time and experience for the Regional Partners to consider the various options available for delivering a project to process the County's organic waste.

4. Conclusions

It is clear that having an open procurement model, while possible, carries a host of risks that will limit the quantity and possibly quality of responses received. It is very likely that only service delivery models will be presented. Given the magnitude of this project, and the timelines established, it is advisable to select one or more mitigating strategies. If there is a preference for municipally-owned or privately-owned models, that should be made clear prior to finalizing the RFQ. If there is no preference, given the magnitude of this project, and the timelines established, it is advisable to select one or more other mitigating strategies.

5. Recommendations

Information is fundamental to good decision-making because data allows decision makers to accurately assess risks and decide on the best mitigation strategies. At this juncture, there are more questions than answers about a long-term organics solution in the Essex-Windsor region. Municipalities are being asked if they will participate in a project and program that has not been well defined. GHD is recommending that EWSWA and its jurisdictional municipalities pause and reflect on what they need their organics program to do for their residents.

A key question is on environmental attributes. Typically, if EWSWA enters into a service contract the environmental attributes will be lost. EWSWA may be able to negotiate retention of the attributes so that they can be used to help Essex municipalities and the County with their own net-zero targets; but this is not currently common practice and will be complex to administer, requiring additional effort and cost. Residential food waste is one of the most significant opportunities for renewable energy or gas generation a municipality controls; and being deliberate in capitalizing on that opportunity is critical to achieving your own targets and goals. This includes both climate-related goals as well as financial targets.

Another fundamental aspect to understand and quantify are project and program risks. In order to be able to mitigate risks and minimize risk premiums, it is important to identify and quantify those risks in a systematic way. Project risks should be reviewed and revised regularly as the project or program develops over time.

To buy time to more fully study and plan for a long-term organics management program, GHD recommends that EWSWA move forward with planning for and implementing one or more short-term processing contracts. This will allow the collection program to be developed and provide the data needed to form the basis for future design or procurement. The organics program can be rolled out slowly and phases with data collected from previous phases informing subsequent decisions. To minimize the available capacity risk and ensure that the owner can meet the provincial timeline it would probably be best to implement the organics program and secure capacity as soon as possible.

Pausing on the procurement of an owned asset also allows EWSWA to wait for current market conditions (i.e., supply chain and pricing pressures) to settle and for more experience to be gained with collaborative contracting methods for similar infrastructure.

We have outlined an eleven-step roadmap for your consideration. This roadmap was developed based on the following observations and considerations:

- That Essex County municipalities have not yet designed or implemented their organics management programs, including collections and processing, and therefore do not have organics quantity or composition data to help minimize infrastructure procurement risk; that not all municipalities have decided if they are in or out, or to what degree (not all are required to implement a collection program)
- That EWSWA and the municipalities has not decided and agreed which materials are in or out of the collection program
- That EWSWA has not fully assessed cost vs performance requirements vs risk in deciding whether or not to own the processing asset
- That there are still questions of other feedstocks including greenhouse vine waste that should be more fully explored. For the vine waste to be incorporated and diverted from the landfill a number of technical innovations are required first that will require study and testing
- That there are a number of stakeholders and multiple “owners” and building consensus, and a roadmap to partnership will take time for the partnership to be successful; this is not something that should be rushed into
- That, at the moment there is very little data, just projections and objectives, which makes decision making difficult
- That moving forward with a complicated or uncertain procurement is likely to end in a failed procurement and project
- That the underlying premise of the roadmap below is to pause, collect more data to support better decision making by all municipalities; data-driven decision making is the best” risk mitigation strategy
- That putting some distance between the pandemic, and the market and supply chain pressures that have resulted from the pandemic, and a large capital project will save EWSWA and its member municipalities significantly. GHD has seen estimates for a “COVID” construction premium of between 15 and 40 percent

Below is the recommended organics program implementation roadmap (based on data-driven decision-making). It is noted that the roadmap is intended for consideration and planning purposes and is not intended to suggest that work already completed is required to be redone.

Table 5.1 Draft roadmap

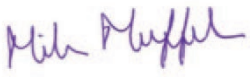
Item #	Steps	Description
1	Program governance	– For both processing and collections. – This is currently in progress on the processing side. Which lower-tier municipalities will be in and when? – Study if collections continue to be a lower-tier responsibility or are there benefits to shifting this to county level (i.e., EWSWA).
2	Short-term processing contract(s)	Procure short-term processing contracts to cover the first few years of processing needs until decisions are made regarding a long-term solution: – Start with market sounding to determine current and future available capacity and types of technology. – Roll-out of collections could be phased over this period starting with one of the municipalities that is required to implement a curb-side collection program (e.g., the City of Windsor) and then other municipalities added over time. – Planning and development for this step in the roadmap should begin early as this is a lengthy process. – Some work from subsequent steps must be completed prior to establishing a processing contract, including the development of a collection program.

Item #	Steps	Description
3	Feedstock composition and forecast study	– After governance is decided, update composition and tonnage forecasts from previous studies. – This study will define how much processing is needed and when. This study would be attached to the RFP as background information. – Vines: explore options with Ontario Greenhouse Growers Association to divert this material from the landfill. This work should be completed in parallel to understand potential synergies before an opportunity is lost. – Other feedstock: Identify any other feedstocks EWSWA may want to procure and be responsible for collecting and processing. Wastewater sludges should also be considered further as planning for local wastewater infrastructure expansion and upgrades progresses in parallel; including characterizing this feedstock more fully.
4	Project risk matrix and workshop	– Complete a risk identification and quantification exercise to help inform program and project development decisions; including on the question of owning or not owning a facility.
5	Environmental attributes study	– Study to determine what should be done with energy/gas and environmental attributes if attributes can be retained through a merchant plant arrangement. Consult with Enbridge. Consult with processing plants (maybe as part of market sounding noted below).
6	Develop collection program	Complete study and plan for collections program roll-out including: – review how rollouts are achieved in other municipalities (e.g., Guelph, York, Peel, etc.). – Consider how EPR will affect collection volumes and programs at the various municipalities. – how will collections be accomplished (e.g., curb-side collection or depot drop-off) – what technologies (e.g., RFID, split collection vehicles, bins, bags, automated collection, etc.) should be considered for a new program? – Consider potential collection schedule and routing – Consider timing relative to current collections contracts in the various municipalities – Develop implementation plans based on the above: • Public communication plan • Collection routing plan • Fleet management strategy • Implementation timeline This will provide a clear picture of how much processing is needed and when. Planning and development for this step in the roadmap should begin early as this is a lengthy process.
7	Essex landfill gas study	– Confirm landfill gas forecast and composition. – Confirm landfill gas ownership and determine strategic partners. – Confirm pipeline location with Enbridge.
8	Building consensus and roadmap with municipalities	– To ensure a coordinated and cohesive county-wide rollout of an organics management program that includes both collection and processing, will require support for local municipal staff from the Technical Working Group and EWSWA – Communication with the municipalities should be done early and throughout the process. Each municipality will have their own financial and other planning considerations to address, which may be a lengthy process.

Item #	Steps	Description
9	Other studies: – Form of contract – Siting	– Following completion of other studies and roll-out of collections program and short-term processing contracts. – Update of siting and form of contract work done as previous studies. An update will be required as it is anticipated that much will change in the years following the pandemic and as other provincial policies change.
10	Final report on long-term processing solution	Compile studies into a final report and recommendation to the EWSWA board for long-term processing solutions.
11	Procure long-term processing solution	Issue appropriate RFP for selected long-term processing solution.

Please do not hesitate to contact us, should you have any questions about the contents of this technical memorandum

Regards,



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