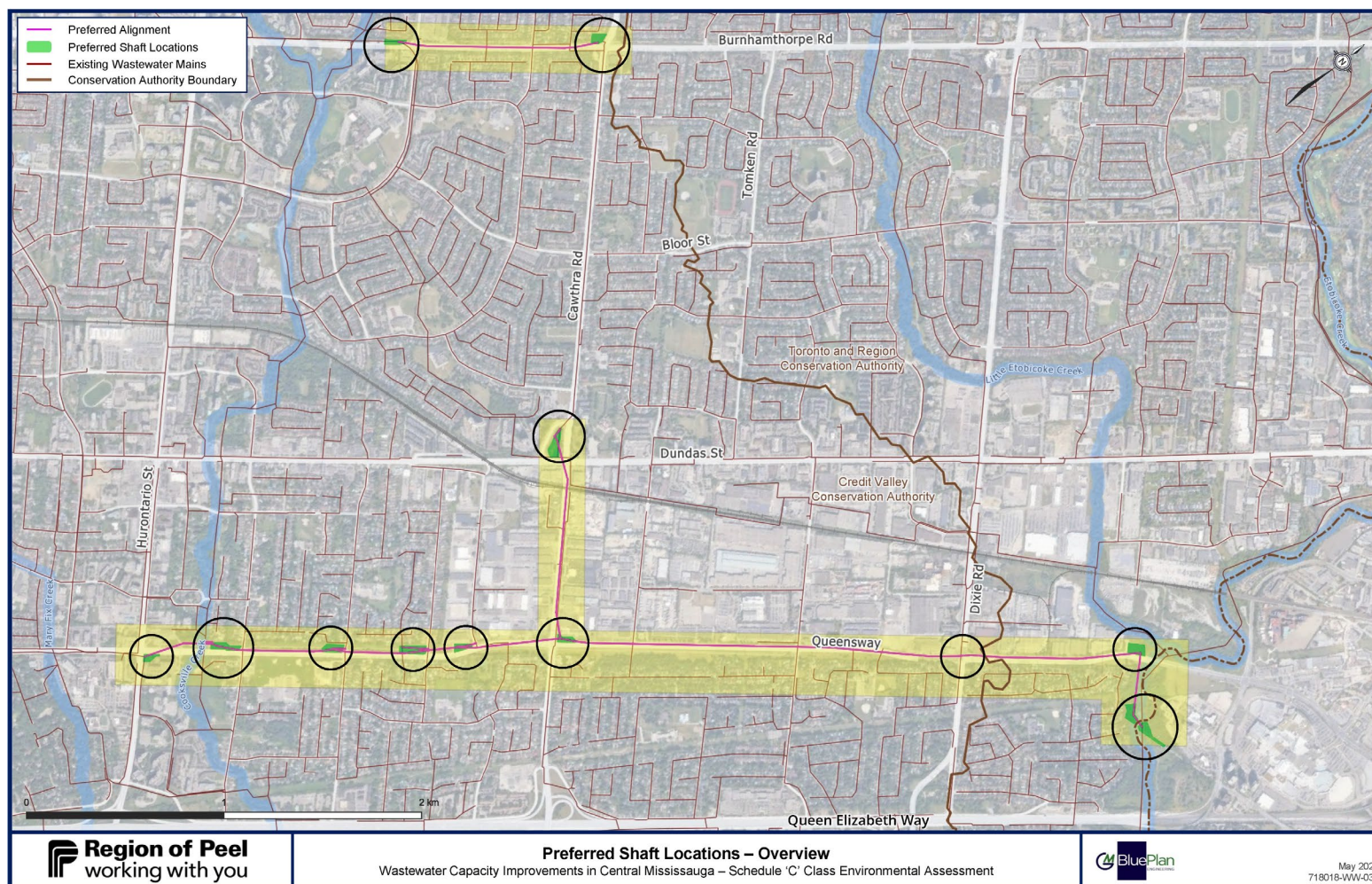


# Evaluation Process

Through completion of Phase 2 of the Study, the sewer alignments for Burnhamthorpe Road, Cawthra Road, Queensway East and Etobicoke Creek and the general sewer connecting points and shaft locations were selected. Having selected the preferred sewer routes and tunneled construction methodology, Phase 3 of the Class EA process focused on generating, evaluating and selecting design alternatives for the strategy.

- ✓ Evaluation of the shaft site alternatives – shafts provide entrance and exit sites to accommodate the tunneled underground construction and connections to the existing sewers.
- ✓ Evaluation of sewer route alternatives – sewer routes were driven by the preferred shaft sites. Not all sewer alignments had available alternative routes.



The alternatives were evaluated on the following criteria categories: Technical Constructability and Flexibility, Environmental Impacts, Social & Cultural Impacts, Financial and Legal/Jurisdictional Considerations. Each criteria category is comprised of a number of specific evaluation criteria.

<p><b>TECHNICAL CONSTRUCTABILITY</b></p> <ul style="list-style-type: none"> <li>✓ Ease of construction</li> <li>✓ Compatibility with existing / planned infrastructure</li> <li>✓ Minimize environmental and infrastructure crossings</li> <li>✓ Minimize conflicts with existing utilities</li> </ul>	<p><b>TECHNICAL FLEXIBILITY</b></p> <ul style="list-style-type: none"> <li>✓ Technical viability through ability to meet existing / future servicing needs</li> <li>✓ Ease of access to maintain</li> <li>✓ Flexibility of system operations and operational security</li> <li>✓ Maximize flow flexibility</li> </ul>	<p><b>ENVIRONMENTAL</b></p> <ul style="list-style-type: none"> <li>✓ Environmental crossing consideration</li> <li>✓ Proximity to environmental features, protected areas, and species at risk</li> <li>✓ Potential impacts to water features/resources, air quality, natural features and trees</li> <li>✓ Geology, hydrogeology, contamination considerations</li> </ul>
<p><b>SOCIO-ECONOMIC AND CULTURAL</b></p> <ul style="list-style-type: none"> <li>✓ Community and traffic considerations</li> <li>✓ Noise, vibration, dust and odour considerations</li> <li>✓ Cultural heritage resources</li> <li>✓ Archaeological resources</li> </ul>	<p><b>FINANCIAL</b></p> <ul style="list-style-type: none"> <li>✓ Capital costs</li> <li>✓ Operation and maintenance costs</li> <li>✓ Lifecycle cost consideration</li> <li>✓ Consideration of potential financial risk during construction</li> </ul>	<p><b>LEGAL / JURISDICTIONAL</b></p> <ul style="list-style-type: none"> <li>✓ Land use, land size, availability, and location</li> <li>✓ Permit requirements</li> <li>✓ Ownership, legal and jurisdictional considerations</li> <li>✓ Compliance with applicable planning and special land use policies</li> </ul>

A rating system was used to evaluate each alternative solution based on the criteria to identify the preliminary preferred design concept. The preliminary preferred concept was then further refined. The Rating System used to evaluate the alternatives is as follows:

Screening Description	Symbol
Most Preferred / Lower Impact	✓
Less Preferred / Higher impact	✗

# Shaft Alternatives: Etobicoke Creek and Sherway Drive

## Shaft Site Alternative Locations

**Shaft 1** is required to connect the new sewer into the existing trunk sewer located adjacent to Etobicoke Creek. This connection is required to support the overall strategy for diverting flows and increasing capacity within the system. Three alternatives were selected for evaluation:

- Site 1B requires open cut construction to cross the creek and connect to the existing trunk sewer located on the east side. Two shaft compounds are required to support the open cut construction segment, however long-term access will not be required on the west side.
- Site 1D does not require a creek crossing but does require a permanent bridge structure for future access to the site for maintenance and operations.
- Site 1E does not require a creek crossing but does require long-term access through residential property.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 1B	Shaft 1D	Site 1E
<b>Technical Constructability &amp; Flexibility</b>	Accessibility	✓	✗	✗
	Compatibility with existing/planned infrastructure	✓	✓	✓
	Impacts to existing utilities	✓	✓	✓
	Ease of construction	✓	✗	✗
	Flexibility of system operations and operational security	✓	✗	✗
<b>Environmental</b>	Impacts on water features / resources	✗	✓	✓
	Impact on trees	✓	✗	✓
	Impacts to Species at Risk	✓	✗	✓
<b>Socio-economic &amp; Cultural</b>	Impacts on traffic/ transit conditions	✓	✓	✗
	Cultural heritage / archaeological considerations	✓	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✓	✗
<b>Financial</b>	Capital costs	✓	✓	✓
	Operation and maintenance costs	✓	✓	✓
	Lifecycle costs	✓	✓	✓
<b>Legal &amp; Jurisdictional</b>	Property acquisition	✓	✓	✗
	Permitting and approval requirements	✓	✓	✓
<b>Overall Score</b>		<b>Most Preferred</b>	<b>Less Preferred</b>	<b>Less Preferred</b>

**Shaft 1B was selected because:**

- It enables tunnelled sewer construction to Queensway from the West side of the creek minimizing potential impact to the natural environment in the valley
- It supports the open cut construction required to connect to the Etobicoke Creek trunk sewer
- It provides an open accessible connection point to the East Trunk sewer which runs parallel to the creek
- It provides an opportunity to mitigate and remediate the existing and future sewer against erosion
- It reduces construction risk to creek due to minimized new sewer length in the valley
- It has an existing access route for construction, maintenance and operation on the east side of creek
- It enables restoration to natural area on the west side of Creek

# Shaft Alternatives: Queensway East and Etobicoke Creek

## Shaft Site Alternative Locations

Shaft 2 is required to support constructability of the tunnelled alignment along Queensway East and south to connect to the existing sewer in Etobicoke Creek valley. Two alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 2A	Shaft 2B
<b>Technical Constructability &amp; Flexibility</b>	Accessibility	✓	✗
	Compatibility with existing/planned infrastructure	✓	✓
	Impacts to existing utilities	✓	✗
	Ease of construction	✓	✗
	Flexibility of system operations and operational security	✓	✗
<b>Environmental</b>	Impacts on water features / resources	✓	✓
	Impact on trees	✓	✓
	Impacts to Species at Risk	✓	✓
<b>Socio-economic &amp; Cultural</b>	Impacts on traffic/ transit conditions	✓	✓
	Cultural heritage / archaeological considerations	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✗
<b>Financial</b>	Capital costs	✓	✗
	Operation and maintenance costs	✓	✗
	Lifecycle costs	✓	✗
<b>Legal &amp; Jurisdictional</b>	Property acquisition	✓	✗
	Permitting and approval requirements	✓	✗
<b>Overall Score</b>		<b>Most Preferred</b>	<b>Less Preferred</b>

**Shaft 2A was selected because:**

- It supports the tunnelled construction of the Queensway sewer alignment on the northside of the road
- It supports the tunnelled construction of the sewer alignment from Queensway to existing sewer in the Etobicoke Creek Valley
- It provides a good buffer between residential properties
- It avoids conflicts with hydro corridor on the southside of the road
- It provides best accessibility

# Shaft Alternatives: Queensway East and Dixie Road

## Shaft Site Alternative Locations

**Shaft 3** is required to support constructability of the tunnelled alignment along Queensway East as well as to connect into the existing trunk sewer on Dixie Road. This connection is required to support the overall strategy for diverting flows and increasing capacity within the system.

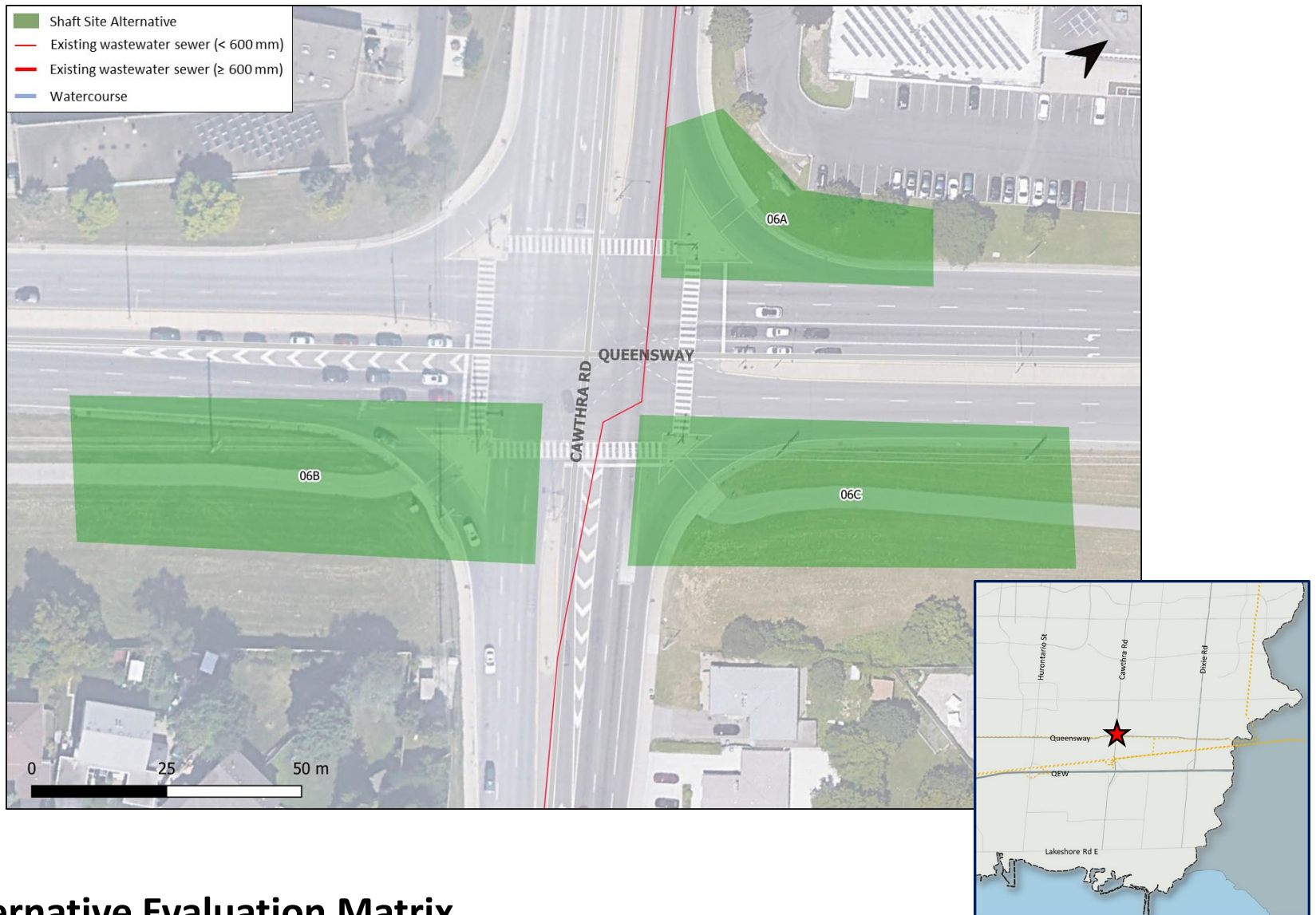
Four alternatives were selected for evaluation. **Further investigations are required at this location to evaluate and select the preferred shaft alternative.**



# Shaft Alternatives: Queensway East and Cawthra Road

## Shaft Site Alternative Locations

Shaft 6 is required to support constructability of the tunnelled alignment along Queensway East and Cawthra Road as well as to connect into the proposed trunk sewer along Cawthra Road. This connection is required to support the overall strategy for diverting flows and increasing capacity within the system. Three alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 6A	Shaft 6B	Shaft 6C
Technical Constructability & Flexibility	Accessibility	✓	✗	✗
	Compatibility with existing/planned infrastructure	✓	✓	✓
	Impacts to existing utilities	✓	✗	✗
	Ease of construction	✓	✗	✗
	Flexibility of system operations and operational security	✓	✗	✗
Environmental	Impacts on water features / resources	✓	✓	✓
	Impact on trees	✓	✓	✓
	Impacts to Species at Risk	✓	✓	✓
Socio-economic & Cultural	Impacts on traffic/ transit conditions	✗	✓	✓
	Cultural heritage / archaeological considerations	✓	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✗	✗
Financial	Capital costs	✓	✓	✓
	Operation and maintenance costs	✓	✓	✓
	Lifecycle costs	✓	✓	✓
Legal & Jurisdictional	Property acquisition	✓	✗	✗
	Permitting and approval requirements	✓	✗	✗
<b>Overall Score</b>		<b>Most Preferred</b>	<b>Less Preferred</b>	<b>Less Preferred</b>

**Shaft 6A was selected because:**

- It supports the tunnelled construction of the Queensway and Cawthra sewer alignments
- It allows for a north side sewer alignment along Queensway, avoiding road crossings
- It avoids conflicts with existing utilities
- It provides a good buffer between residential properties

# Shaft Alternatives: Queensway East and Tedlo Street

## Shaft Site Alternative Locations

Shaft 7 is required to support constructability of the tunnelled alignment along Queensway East as well as to connect into the existing local sewer along Tedlo. This connection is required to support the overall strategy for diverting flows, increasing capacity within the system and reducing wet weather issues downstream. The connection to the local sewer will require open cut construction to accommodate the shallow depth of the existing pipe. Two alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 7A	Shaft 7B
<b>Technical Constructability &amp; Flexibility</b>	Accessibility	✓	✓
	Compatibility with existing/planned infrastructure	✓	✗
	Impacts to existing utilities	✓	✗
	Ease of construction	✓	✗
	Flexibility of system operations and operational security	✓	✓
<b>Environmental</b>	Impacts on water features / resources	✓	✓
	Impact on trees	✓	✓
	Impacts to Species at Risk	✓	✓
<b>Socio-economic &amp; Cultural</b>	Impacts on traffic/ transit conditions	✓	✓
	Cultural heritage / archaeological considerations	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✗
<b>Financial</b>	Capital costs	✓	✓
	Operation and maintenance costs	✓	✓
	Lifecycle costs	✓	✓
<b>Legal &amp; Jurisdictional</b>	Property acquisition	✓	✓
	Permitting and approval requirements	✓	✓
<b>Overall Score</b>		<b>Most Preferred</b>	<b>Less Preferred</b>

**Site 7A was selected because:**

- It supports the tunnelled construction of the Queensway sewer alignment on the northside of the road
- It supports the open cut construction required to connect to the local sewer at Tedlo
- It allows for a north side sewer alignment, avoiding road crossings
- It avoids conflicts with existing utilities

# Shaft Alternatives: Queensway East and Hensall Street

## Shaft Site Alternative Locations

**Shaft 8** is required to support constructability of the tunnelled alignment along Queensway as well as to connect into the existing local sewer along Hensall and the local sewer located to the west of Hensall (Hensall West). This connection is required to support the overall strategy for diverting flows, increasing capacity within the system and reducing wet weather issues downstream. The connection to the local sewer will require open cut construction to accommodate the shallow depth of the existing pipe. Two alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 8A	Shaft 8B
<b>Technical Constructability &amp; Flexibility</b>	Accessibility	✓	✓
	Compatibility with existing/planned infrastructure	✗	✓
	Impacts to existing utilities	✓	✓
	Ease of construction	✗	✓
	Flexibility of system operations and operational security	✗	✓
<b>Environmental</b>	Impacts on water features / resources	✓	✓
	Impact on trees	✗	✗
	Impacts to Species at Risk	✓	✓
<b>Socio-economic &amp; Cultural</b>	Impacts on traffic/ transit conditions	✓	✓
	Cultural heritage / archaeological considerations	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✗	✗
<b>Financial</b>	Capital costs	✓	✓
	Operation and maintenance costs	✓	✓
	Lifecycle costs	✓	✓
<b>Legal &amp; Jurisdictional</b>	Property acquisition	✗	✗
	Permitting and approval requirements	✓	✓
<b>Overall Score</b>		<b>Less Preferred</b>	<b>Most Preferred</b>

**Site 8B was selected because:**

- It supports the tunnelled construction of the Queensway sewer alignment on the northside of the road
- It supports the open cut construction required to connect to the local sewers at Hensall and Hensall West
- It allows for a north side sewer alignment, avoiding road crossings

# Shaft Alternatives: Queensway East and Cliff Road

## Shaft Site Alternative Locations

**Shaft 9** is required to support constructability of the tunnelled alignment along Queensway East as well as to connect into the existing local sewer along Cliff. This connection is required to support the overall strategy for diverting flows, increasing capacity within the system and reducing wet weather issues downstream. The connection to the local sewer will require open cut construction to accommodate the shallow depth of the existing pipe. Three alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 9A	Shaft 9B	Shaft 9C
<b>Technical Constructability &amp; Flexibility</b>	Accessibility	✓	✗	✓
	Compatibility with existing/planned infrastructure	✗	✓	✓
	Impacts to existing utilities	✗	✓	✗
	Ease of construction	✗	✗	✓
	Flexibility of system operations and operational security	✓	✓	✓
<b>Environmental</b>	Impacts on water features / resources	✓	✓	✓
	Impact on trees	✗	✗	✗
	Impacts to Species at Risk	✓	✓	✓
<b>Socio-economic &amp; Cultural</b>	Impacts on traffic/ transit conditions	✓	✗	✓
	Cultural heritage / archaeological considerations	✓	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✗	✓
<b>Financial</b>	Capital costs	✓	✓	✓
	Operation and maintenance costs	✓	✓	✓
	Lifecycle costs	✓	✓	✓
<b>Legal &amp; Jurisdictional</b>	Property acquisition	✓	✗	✓
	Permitting and approval requirements	✓	✗	✓
<b>Overall Score</b>		<b>Less Preferred</b>	<b>Less Preferred</b>	<b>Most Preferred</b>

**Site 9C was selected because:**

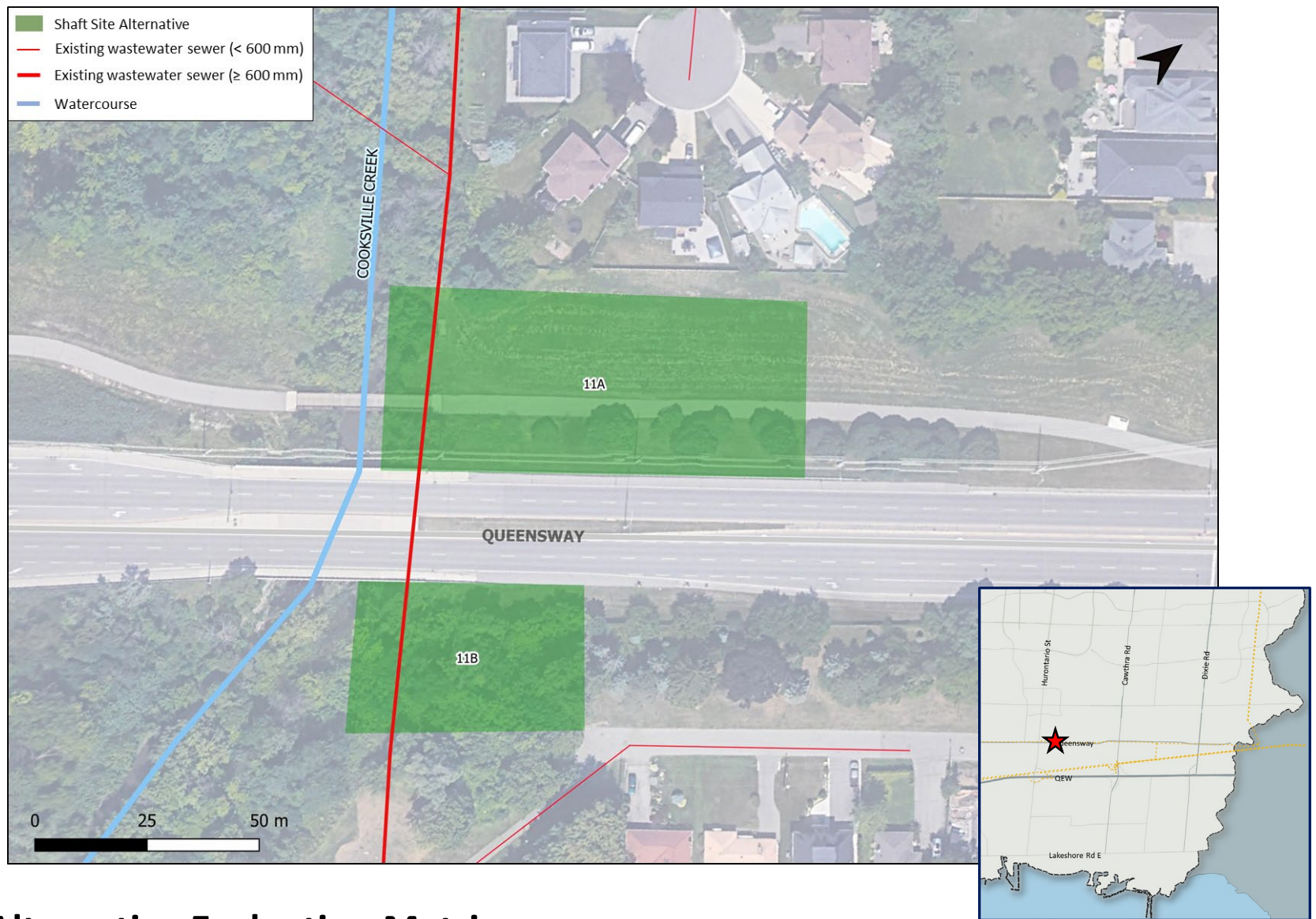
- It supports the tunnelled construction of the Queensway sewer alignment on the northside of the road
- It supports the open cut construction required to connect to the local sewer at Cliff
- It allows for a north side sewer alignment, avoiding road crossings
- It provides good accessibility
- It increases the buffer between the school (south side)



# Shaft Alternatives: Queensway East and Cooksville Creek

## Shaft Site Alternative Locations

**Shaft 11** is required to support constructability of the tunnelled alignment along Queensway East as well as to connect into the existing Cooksville Creek trunk sewer. This connection is required to support the overall strategy for diverting flows and increasing capacity within the system. A Hazard Assessment is currently underway at this location to support the construction methodology for the creek crossing and connection to the Cooksville Creek trunk sewer. Two alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 11A	Shaft 11B
<b>Technical Constructability &amp; Flexibility</b>	Accessibility	✓	✗
	Compatibility with existing/planned infrastructure	✓	✓
	Impacts to existing utilities	✓	✗
	Ease of construction	✓	✗
	Flexibility of system operations and operational security	✓	✓
<b>Environmental</b>	Impacts on water features / resources	✓	✓
	Impact on trees	✓	✗
	Impacts to Species at Risk	✓	✗
<b>Socio-economic &amp; Cultural</b>	Impacts on traffic/ transit conditions	✓	✓
	Cultural heritage / archaeological considerations	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✗
<b>Financial</b>	Capital costs	✓	✓
	Operation and maintenance costs	✓	✓
	Lifecycle costs	✓	✓
<b>Legal &amp; Jurisdictional</b>	Property acquisition	✓	✗
	Permitting and approval requirements	✓	✗
<b>Overall Score</b>		<b>Most Preferred</b>	<b>Less Preferred</b>

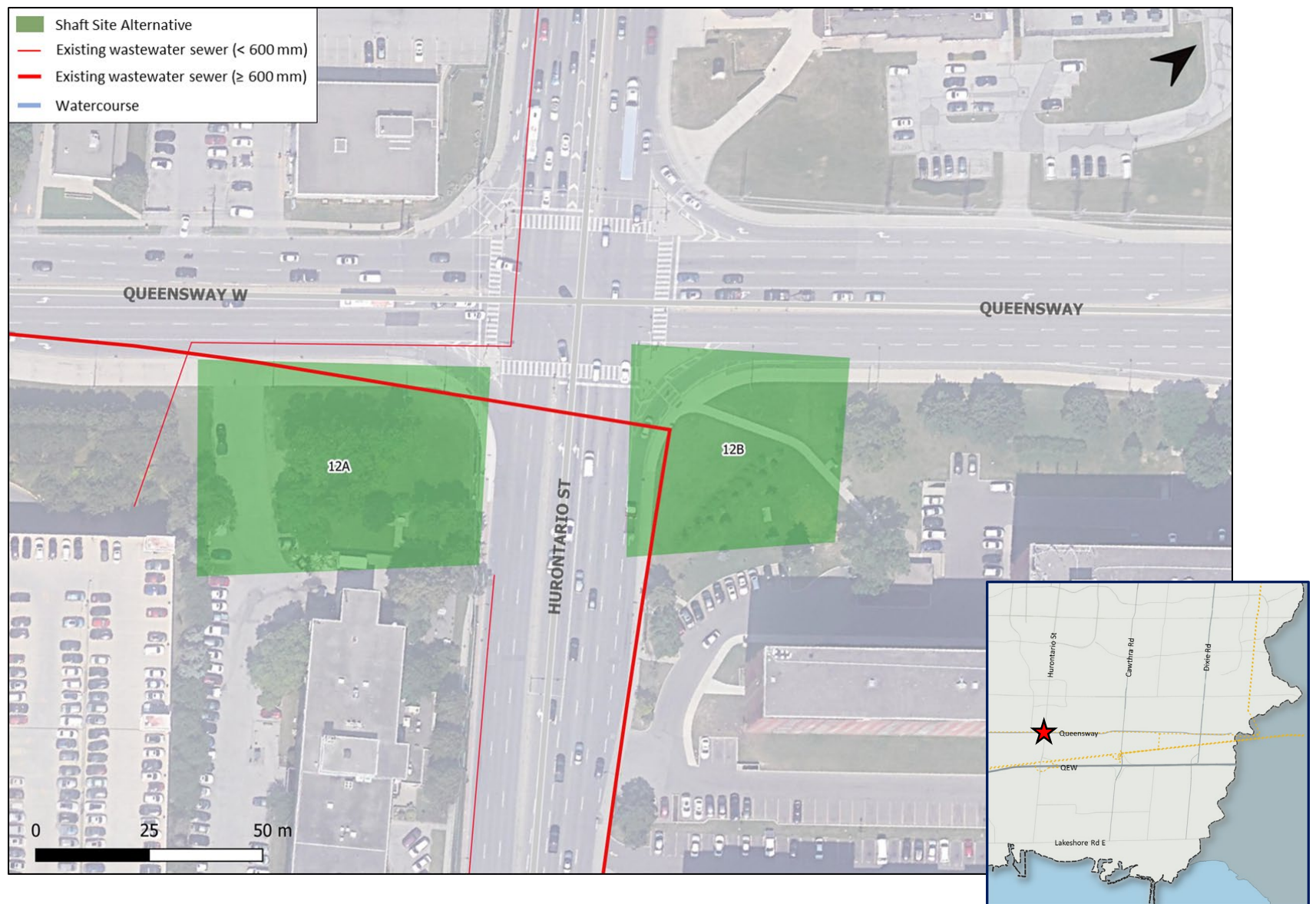
**Site 11A was selected because:**

- It supports the tunnelled construction of the Queensway sewer alignment on the northside of the road
- It provides a connection point to the Cooksville Creek trunk sewer
- It allows for a north side sewer alignment, avoiding road crossings
- It provides best availability in land
- It minimizes impacts to trees
- It is outside of City park lands

# Shaft Alternatives: Queensway East and Hurontario Street

## Shaft Site Alternative Locations

Shaft 12 is required to support constructability of the tunnelled alignment along Queensway East as well as to connect into the existing trunk sewer along Queensway. This connection is required to support the overall strategy for diverting flows and increasing capacity within the system. Two alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 12A	Shaft 12B
Technical Constructability & Flexibility	Accessibility	✗	✓
	Compatibility with existing/planned infrastructure	✗	✓
	Impacts to existing utilities	✗	✓
	Ease of construction	✗	✓
	Flexibility of system operations and operational security	✗	✓
Environmental	Impacts on water features / resources	✓	✓
	Impact on trees	✓	✓
	Impacts to Species at Risk	✓	✓
Socio-economic & Cultural	Impacts on traffic/ transit conditions	✗	✗
	Cultural heritage / archaeological considerations	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✓
Financial	Capital costs	✗	✓
	Operation and maintenance costs	✓	✓
	Lifecycle costs	✗	✓
Legal & Jurisdictional	Property acquisition	✗	✓
	Permitting and approval requirements	✓	✓
Overall Score		Less Preferred	Most Preferred

**Site 12B was selected because:**

- It supports the tunnelled construction of the Queensway sewer
- It provides the best connection point to the Queensway trunk sewer
- It avoids conflicts with planned infrastructure
- It avoids conflicts with utilities

# Shaft Alternatives: Cawthra Road and Dundas Street

## Shaft Site Alternative Locations

Shaft 14 is required to support constructability of the tunnelled alignment along Cawthra Road as well as connect into the in-construction trunk sewer along Cawthra Road. This connection is required to support the overall strategy for diverting flows and increasing capacity within the system. Three alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 14A	Shaft 14B	Shaft 14C
Technical Constructability & Flexibility	Accessibility	x	✓	x
	Compatibility with existing/planned infrastructure	x	✓	x
	Impacts to existing utilities	✓	✓	✓
	Ease of construction	x	✓	x
	Flexibility of system operations and operational security	x	✓	x
Environmental	Impacts on water features / resources	✓	✓	✓
	Impact on trees	✓	✓	✓
	Impacts to Species at Risk	✓	✓	✓
Socio-economic & Cultural	Impacts on traffic/ transit conditions	x	✓	x
	Cultural heritage / archaeological considerations	✓	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	x	✓	x
Financial	Capital costs	x	✓	x
	Operation and maintenance costs	✓	✓	✓
	Lifecycle costs	x	✓	x
Legal & Jurisdictional	Property acquisition	x	✓	x
	Permitting and approval requirements	✓	✓	✓
Overall Score		Less Preferred	Most Preferred	Less Preferred

**Site 14B was selected because:**

- It supports the tunnelled construction of the Cawthra sewer
- It is the current compound for the in-construction Cawthra Trunk sewer which is a key connection point
- It provides a good buffer between commercial and industrial areas
- It avoids potential lane closures along Dundas Street

# Shaft Alternatives: Burnhamthorpe Road and Cawthra Road

## Shaft Site Alternative Locations

Shaft 15 is required to support constructability of the tunnelled alignment along Cawthra Road and Burnhamthorpe Road as well as to connect into the in-construction trunk sewer along Cawthra Road and Burnhamthorpe Road. This connection is required to support the overall strategy for diverting flows and increasing capacity within the system. Three alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 15A	Shaft 15B	Shaft 15C
Technical Constructability & Flexibility	Accessibility	x	x	✓
	Compatibility with existing/planned infrastructure	x	x	✓
	Impacts to existing utilities	✓	✓	✓
	Ease of construction	x	x	✓
	Flexibility of system operations and operational security	x	x	✓
Environmental	Impacts on water features / resources	✓	✓	✓
	Impact on trees	✓	✓	✓
	Impacts to Species at Risk	✓	✓	✓
Socio-economic & Cultural	Impacts on traffic/ transit conditions	✓	✓	✓
	Cultural heritage / archaeological considerations	✓	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	x	x	x
Financial	Capital costs	✓	✓	✓
	Operation and maintenance costs	✓	✓	✓
	Lifecycle costs	✓	✓	✓
Legal & Jurisdictional	Property acquisition	x	x	✓
	Permitting and approval requirements	✓	✓	✓
Overall Score		Less Preferred	Less Preferred	Most Preferred

### Site 15C was selected because:

- It supports the tunnelled construction of the Burnhamthorpe sewer alignment on the northside of the road
- It is the current compound for the in-construction Cawthra trunk sewer which is a key connection point
- It allows for a north side sewer alignment, avoiding road crossings
- It minimizes impacts to trees

# Shaft Alternatives: Burnhamthorpe Road and Central Parkway

## Shaft Site Alternative Locations

Shaft 17 is required to support constructability of the tunnelled alignment along Burnhamthorpe Road as well as connect into the trunk sewer along Burnhamthorpe Road. This connection is required to support the overall strategy for diverting flows and increasing capacity within the system. Four alternatives were selected for evaluation.



## Shaft Site Alternative Evaluation Matrix

Factor	Evaluation Criteria	Shaft 17A	Shaft 17B	Shaft 17C	Shaft 17D
Technical Constructability & Flexibility	Accessibility	x	✓	✓	x
	Compatibility with existing/planned infrastructure	x	✓	✓	x
	Impacts to existing utilities	✓	✓	✓	✓
	Ease of construction	x	✓	✓	x
	Flexibility of system operations and operational security	x	✓	✓	x
Environmental	Impacts on water features / resources	✓	✓	✓	✓
	Impact on trees	✓	✓	✓	x
	Impacts to Species at Risk	✓	✓	✓	✓
Socio-economic & Cultural	Impacts on traffic/ transit conditions	✓	x	✓	x
	Cultural heritage / archaeological considerations	✓	✓	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✓	x	x
Financial	Capital costs	✓	✓	✓	✓
	Operation and maintenance costs	✓	✓	✓	✓
	Lifecycle costs	✓	✓	✓	✓
Legal & Jurisdictional	Property acquisition	x	x	✓	x
	Permitting and approval requirements	✓	✓	✓	✓
Overall Score		Less Preferred	Less Preferred	Most Preferred	Less Preferred

**Site 17C was selected because:**

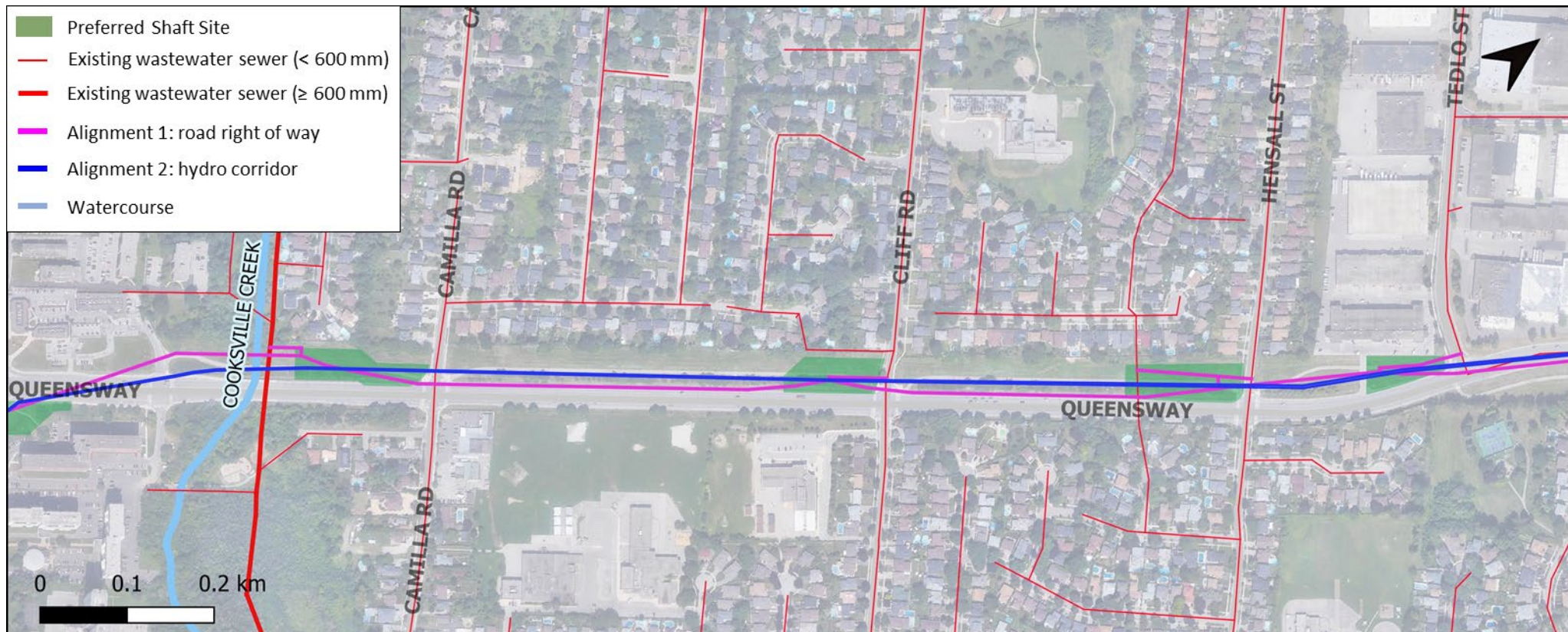
- It supports the tunnelled construction of the Burnhamthorpe sewer alignment on the northside of the road
- It provides the best connection point to the Central Parkway trunk sewer
- It allows for a north side sewer alignment, avoiding road crossings
- It minimizes impacts to trees

# Sewer Route Alternatives: Queensway East

## Sewer Route Alternative Locations

The Queensway East sewer route runs between Hurontario Street and Etobicoke Creek. This alignment supports flow flexibility and capacity increases within the system by connecting to key existing sewers including at Hurontario, Cooksville Creek, Cliff, Hensall and Hensall West, Tedlo and Cawthra. There were two sewer route alternatives available between Hurontario Street to Tedlo Street.

- Alignment 1 is within the road right of way
- Alignment 2 is within the hydro corridor



## Sewer Route Alternative Evaluation Matrix

Factor	Evaluation Criteria	Alignment 1 Road right of way	Alignment 2 Hydro corridor
<b>Technical Constructability &amp; Flexibility</b>	Accessibility	✓	✓
	Compatibility with existing/planned infrastructure	✓	✓
	Impacts to existing utilities	✓	✗
	Ease of construction	✗	✓
	Flexibility of system operations and operational security	✓	✓
<b>Environmental</b>	Impacts on water features / resources	✓	✓
	Impact on trees	✓	✓
	Impacts to Species at Risk	✓	✓
<b>Socio-economic &amp; Cultural</b>	Impacts on traffic/ transit conditions	✓	✓
	Cultural heritage / archaeological considerations	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✓
<b>Financial</b>	Capital costs	✓	✗
	Operation and maintenance costs	✓	✓
	Lifecycle costs	✓	✗
<b>Legal &amp; Jurisdictional</b>	Property acquisition	✓	✗
	Permitting and approval requirements	✓	✓
<b>Overall Score</b>		<b>Most Preferred</b>	<b>Less Preferred</b>
<b>Alignment 1 was selected because:</b> <ul style="list-style-type: none"> <li>• Less potential for conflicts with existing or future utilities</li> <li>• Construction within previously disturbed area (road ROW)</li> <li>• Lower costs for permanent easements</li> </ul>			

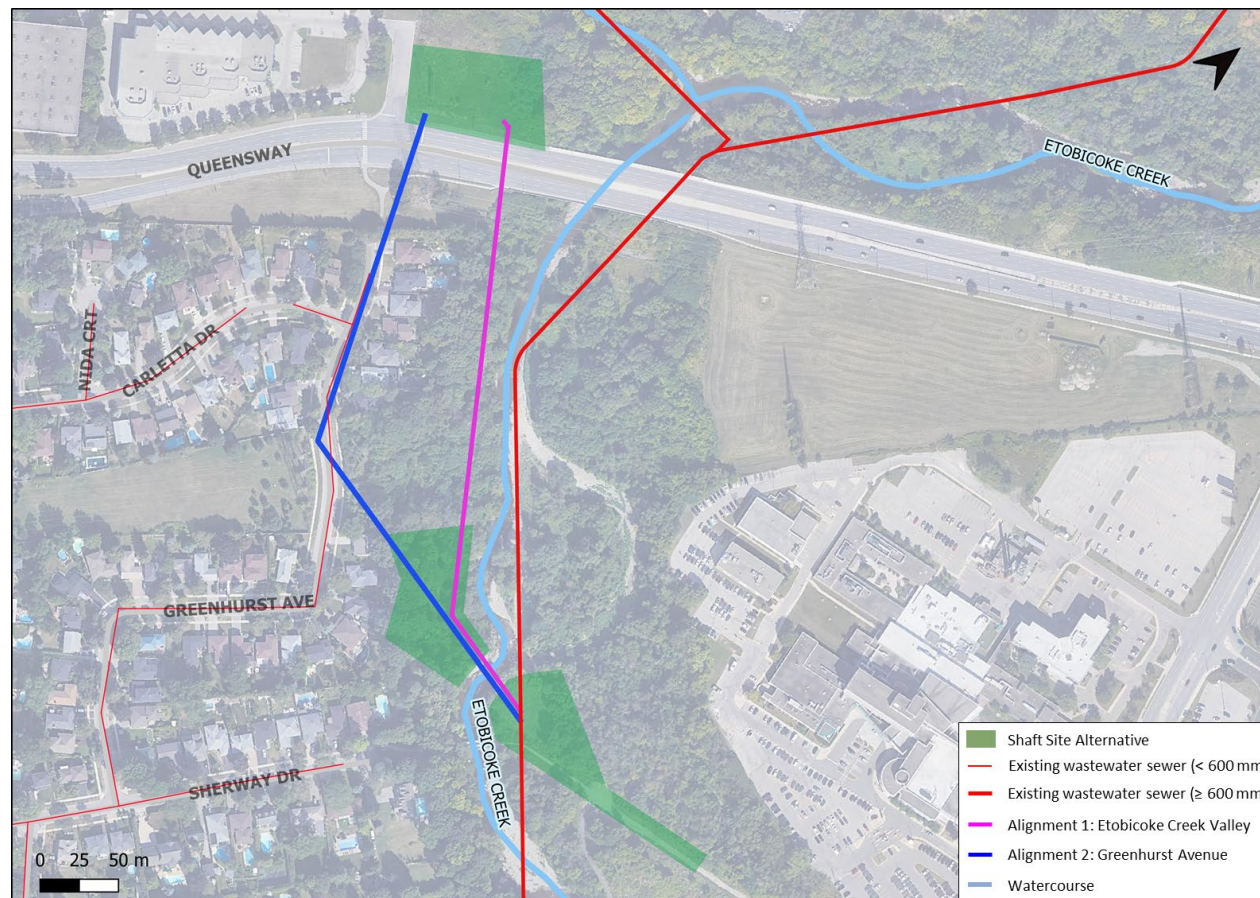
# Sewer Route Alternatives: Etobicoke Creek

## Sewer Route Alternative Locations

The Etobicoke Creek alignment provides the key connection to the downstream point of the alignment. There were two alternative sewer route alignments available along Etobicoke Creek:

- Alignment 1 is within the Etobicoke Creek valley
- Alignment 2 is along Greenhurst Avenue. This alignment requires an additional shaft and manhole located on Greenhurst Avenue

Both alternatives require open cut construction to cross Etobicoke Creek to connect to the east side shaft location at Etobicoke Creek and Sherway Drive to connect to the existing trunk sewer.



## Sewer Route Alternative Evaluation Matrix

Factor	Evaluation Criteria	Alignment 1 Etobicoke Creek Valley	Alignment 2 Greenhurst Avenue
Technical Constructability & Flexibility	Accessibility	✓	✗
	Compatibility with existing/planned infrastructure	✓	✓
	Impacts to existing utilities	✓	✗
	Ease of construction	✓	✗
	Flexibility of system operations and operational security	✓	✓
Environmental	Impacts on water features / resources	✗	✗
	Impact on trees	✗	✗
	Impacts to Species at Risk	✗	✗
Socio-economic & Cultural	Impacts on traffic/ transit conditions	✓	✗
	Cultural heritage / archaeological considerations	✓	✓
	Potential impacts on community (noise, vibration, dust and odour)	✓	✗
Financial	Capital costs	✓	✗
	Operation and maintenance costs	✓	✗
	Lifecycle costs	✓	✗
Legal & Jurisdictional	Property acquisition	✓	✗
	Permitting and approval requirements	✓	✓
<b>Overall Score</b>		<b>Most Preferred</b>	<b>Less Preferred</b>

### Alignment 1 was selected because:

- Minimizes number of required shaft sites
- Avoids construction within residential neighborhood
- Avoids construction traffic along residential roads
- Avoids conflicts with existing utilities
- Straighter alignment provides improved flow hydraulics