Bolton Water and Wastewater Capacity Improvements

Schedule ‘C’ Class Environmental Assessment

Public Information Centre (PIC) No. 3

December 12, 2024

BluePlan ENGINEERING
A GEI Company

GEI Consultants

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Public Information Centre (PIC) No. 3

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Key Dates

December 12, 2024

PIC No. 3 materials posted to project website (access via link below):

https://www.peelregion.ca/public-works/environmental-assessments/caledon/bolton.asp

December 12, 2024, to January 31, 2025

If you have any questions or wish to provide your input, please contact the Region of Peel Project Manager at **Italia.Ponce@peelregion.ca**

March 2025

Responses to questions and comments related to PIC No. 3 posted to project website.

Public Information Centre (PIC) Objectives

- **Inform the public and stakeholders of the study's project steps, schedule, and progress to date.**
- **Outline the evaluation of the design options and alternatives.**
- **Present details of the proposed shaft location options and preliminary preferred design for all study components.**
- **Provide an opportunity for public and stakeholders to ask questions and provide input.**

This is the third and final PIC for this study.

Stay Engaged!

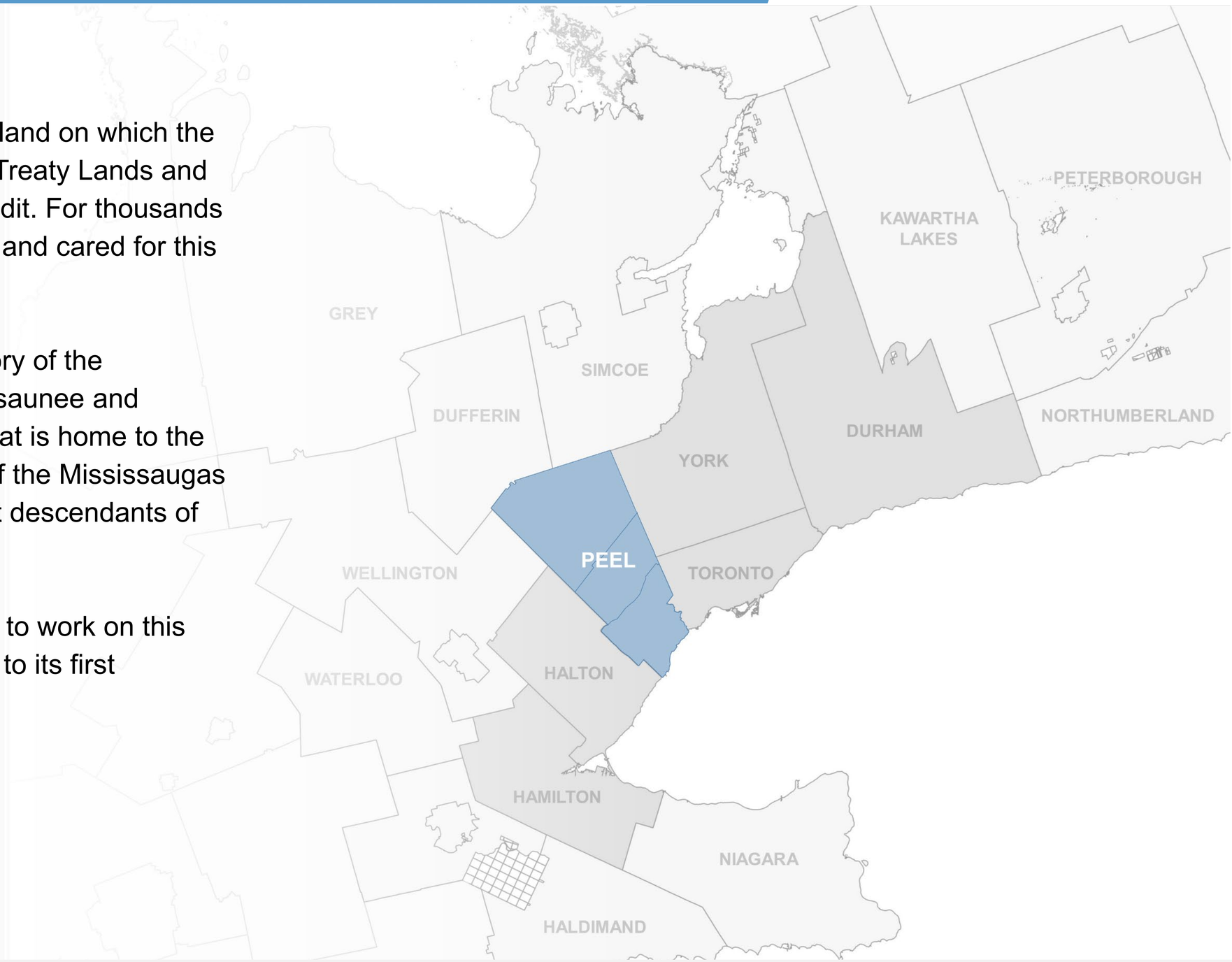
The Region welcomes your comments to provide input into the Class EA study. Input received will be taken into consideration as the study progresses. At the end of the study, the Environmental Study Report (ESR) will be available for a 45-day public review period after which the project will be filed, and the Class EA comment period will conclude.

Land Acknowledgement

We would like to acknowledge that the land on which the Region of Peel operates, is part of the Treaty Lands and Territory of the Mississaugas of the Credit. For thousands of years, Indigenous peoples inhabited and cared for this land and continue to do so today.

In particular we acknowledge the territory of the Anishinabek, Huron-Wendat, Haudenosaunee and Ojibway/Chippewa peoples; the land that is home to the Metis; and most recently, the territory of the Mississaugas of the Credit First Nation who are direct descendants of the Mississaugas of the Credit.

We are grateful to have the opportunity to work on this land, and by doing so, give our respect to its first inhabitants.



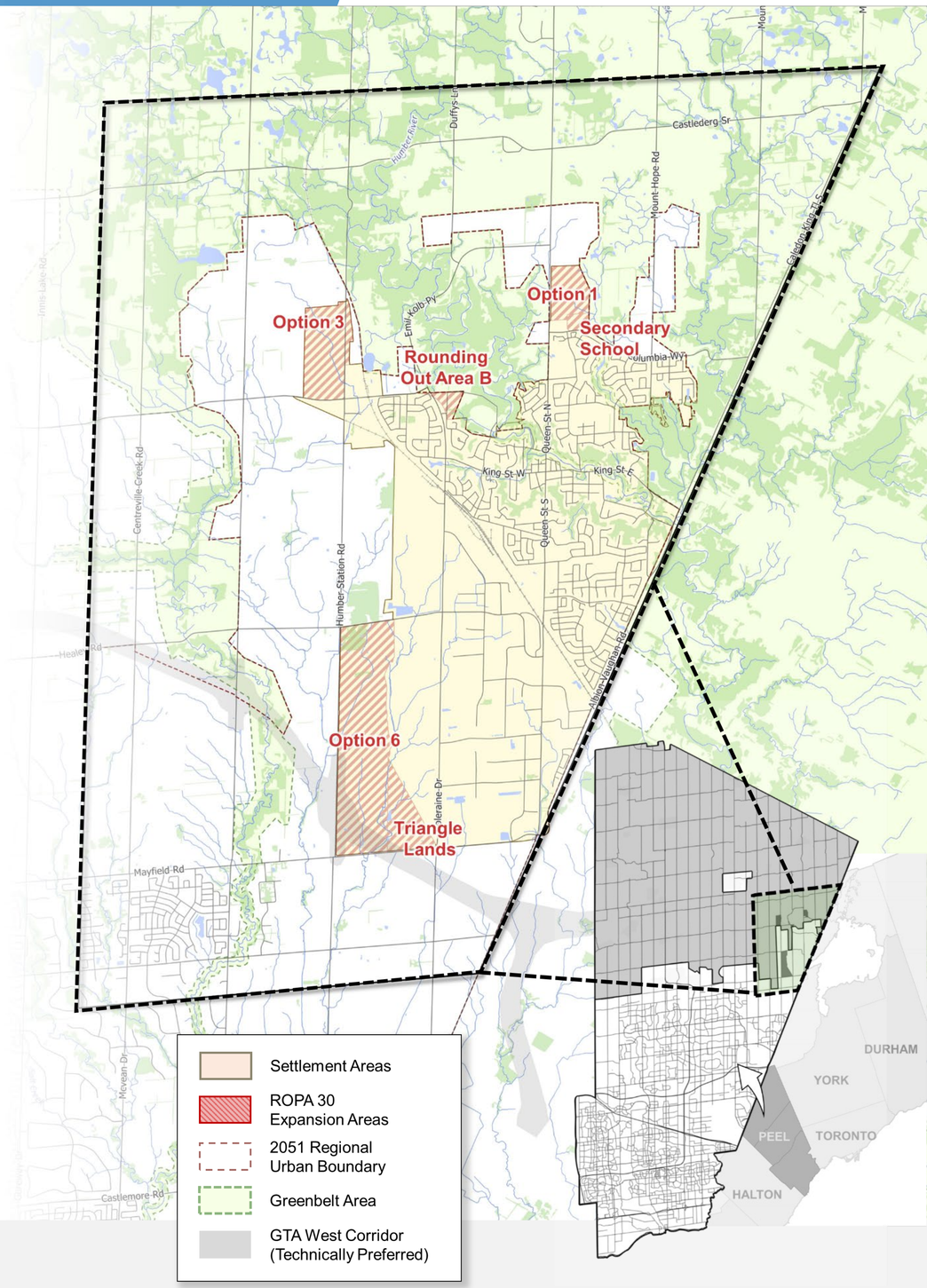
Background and Study Objectives

The Region of Peel completed a **Water and Wastewater Master Servicing Plan Update (2020)** which identified the need to construct new water and wastewater linear distribution and collection pipes and pumping facilities to service future planned population growth in the community of Bolton.

The **Bolton Water and Wastewater Capacity Improvements Schedule 'C' Class Environmental Assessment (EA)** will develop, evaluate, and identify the optimal water and wastewater servicing solutions through the Class EA process to meet existing needs and growth.

Key Strategic Goals:

1. Satisfy the Schedule 'C' Municipal Class Environmental Assessment Process.
2. Effectively engage with Indigenous Communities.
3. Consult with Stakeholders, Agencies, and the Public.
4. Ensure a balanced and informed decision-making process.
5. Review previous study recommendations and provide an integrated servicing solution that supports previously planned servicing strategies and concurrent design and construction.
6. Consider unique opportunities and challenges for water and wastewater servicing.
7. Solutions are required to provide continued servicing to the existing community.
8. Ensure that the solution supports a long-term holistic servicing strategy.
9. Protect the environment.

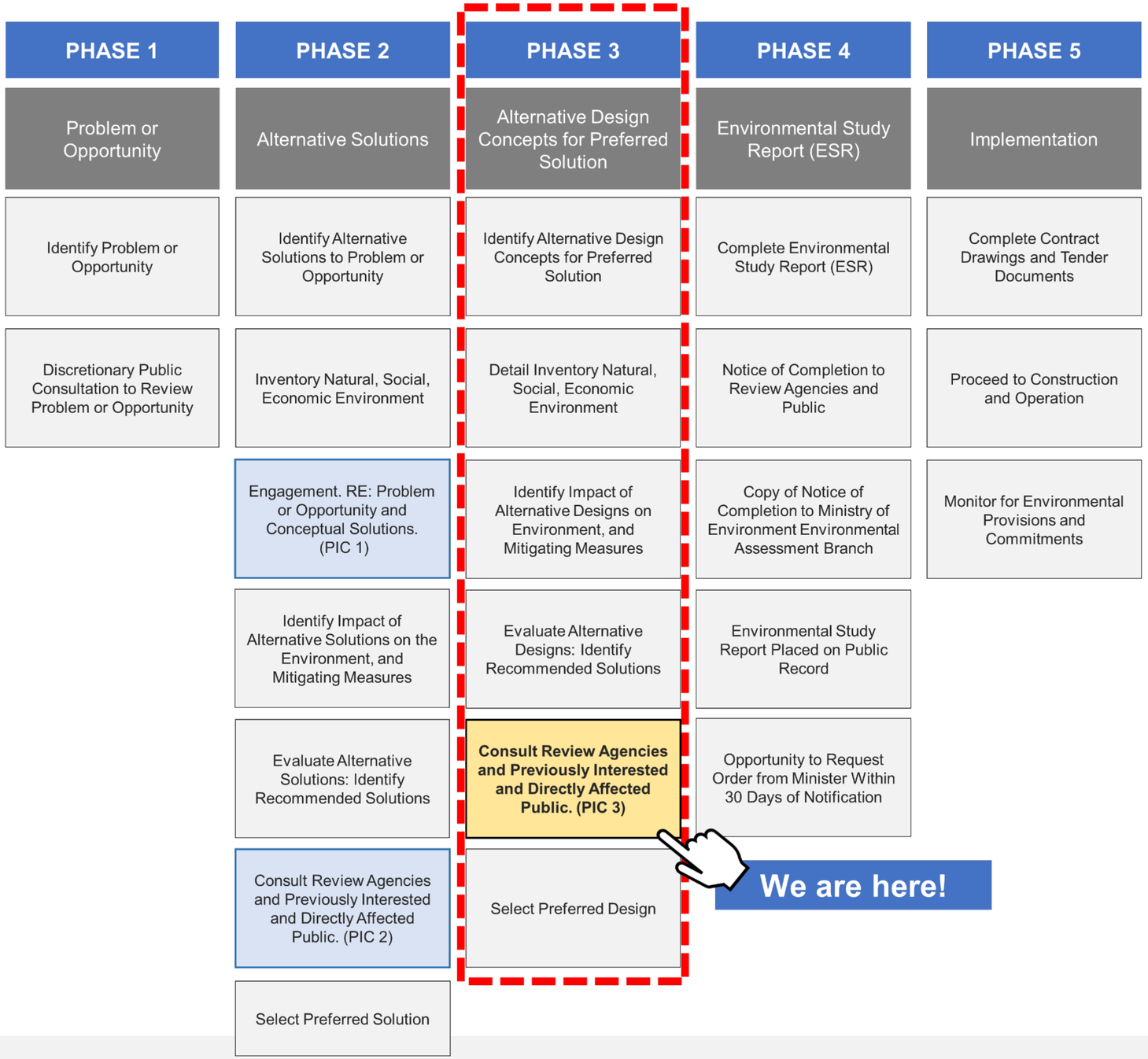


How is the study being conducted?

Municipal Class Environmental Assessment Process

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The **Bolton Water and Wastewater Capacity Improvements Study** is being undertaken as a Schedule ‘C‘ Class Environmental Assessment (EA), satisfying Phases 1 to 4 of the Municipal Class Environmental Assessment (MCEA) process (October 2000, as amended in 2007, 2011, 2015, 2023 and 2024).



What is this study about?

Bolton Class EA Study Overview

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The **Bolton Water and Wastewater Capacity Improvements Schedule 'C' Class Environmental Assessment (EA)** builds off the Feasibility Study–recently completed by the Region and covered under the ongoing 2025 Master Plan–that outlines conceptual projects to support additional development proposed within both the intensification and greenfield growth areas in the community of Bolton.

The study will fulfill the Class EA requirements for a specific set of projects but also follows a Master Plan approach that considers and ensures integration with the long-term servicing strategy for the broader service area and long-term planning horizon.

This Class EA study investigates alternative water and wastewater strategies for the Bolton area and has two (2) key components:

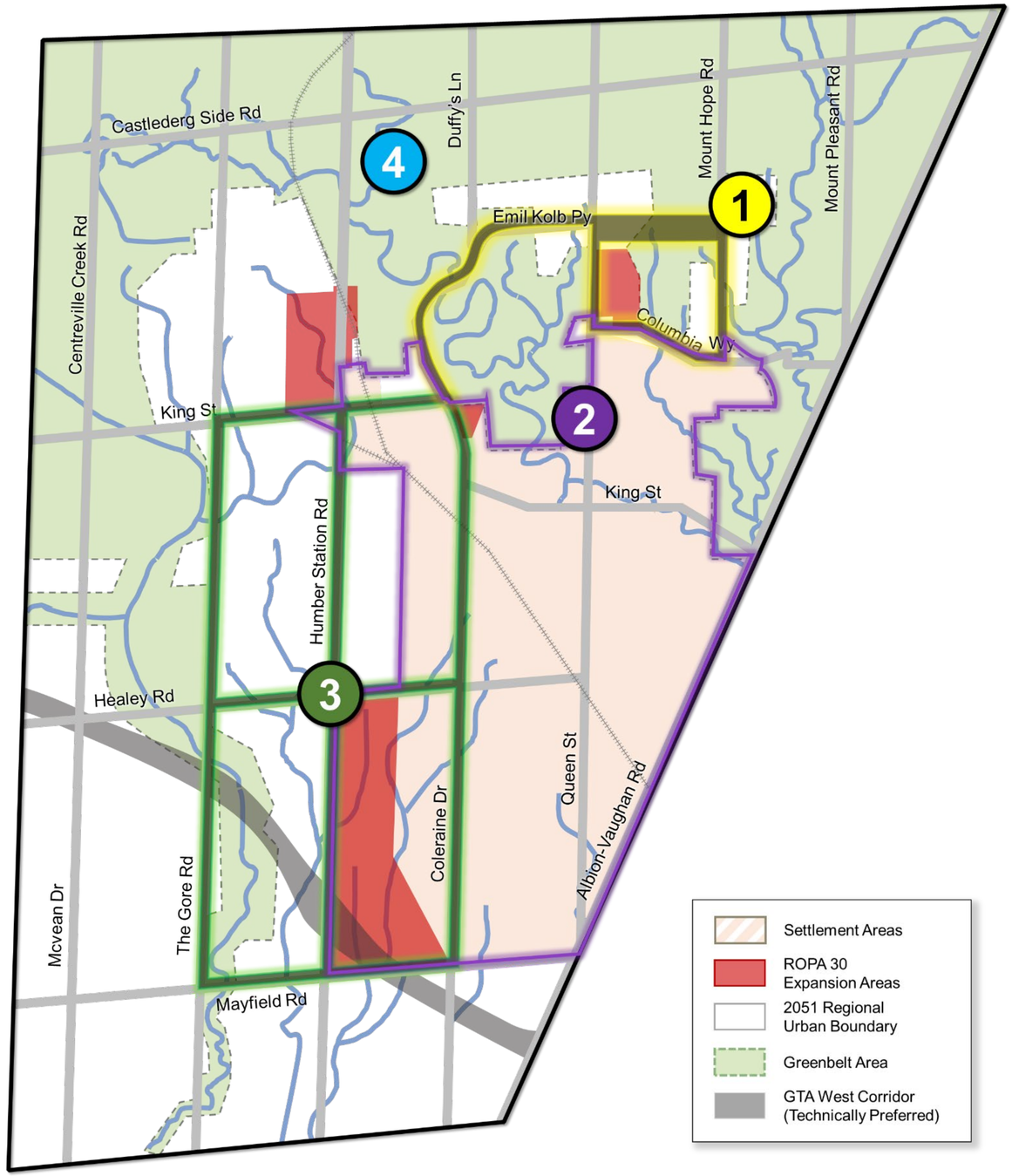
Focus Area 1 – New Sanitary Pumping Station, forcemains, gravity sanitary sewers and watermains to service new growth.

Focus Area 2 – Optimization of the existing service areas including Inflow and Infiltration (I&I) reduction, new Bolton SPS sanitary forcemain, and water pressure zone optimization.

The Class EA strategy recommended through this study must be integrated with projects that have previously fulfilled study requirements and are currently under design or construction and future projects requiring further study outside of this Class EA but are integral to the overall Bolton servicing strategy.

Area 3 – Projects previously fulfilled and under design include New Zone 7 Water Booster Pumping Station and watermains and new gravity sanitary sewers.

Area 4 – Future water storage facilities and transmission requiring study fulfilment outside of this Class EA.



Water and Wastewater Servicing Strategy

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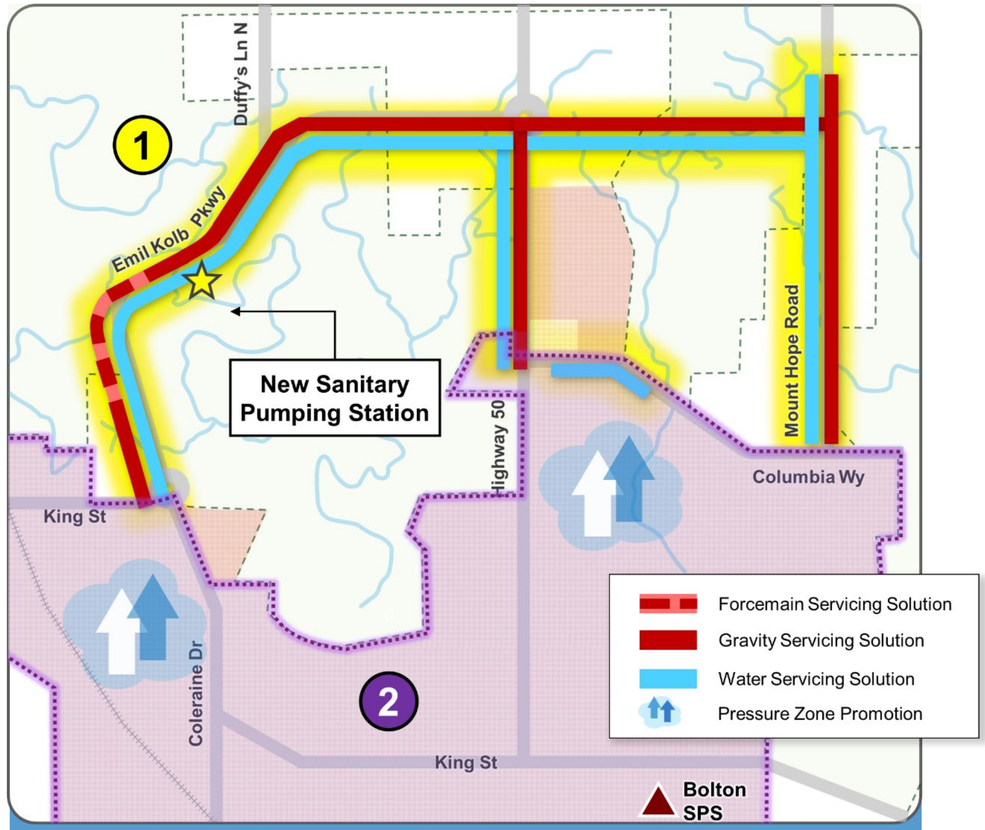
What's included in the strategy?

Focus Area 1 Servicing New Growth

- New watermain on Emil Kolb Parkway, Highway 50, Mount Hope Road, along new infrastructure corridor and new section of watermain on Columbia Way to connect to the existing and future Pressure Zone 7 system.
- New Sanitary Pumping Station (SPS) and access road north-east of the Humber River adjacent to the Emil Kolb Parkway.
- New deep gravity sanitary sewer on Emil Kolb Parkway from Highway 50 / Emil Kolb Parkway intersection to the new SPS.
- New gravity sanitary sewers on Highway 50, Mount Hope Road and along new infrastructure corridor to connect to the Emil Kolb Parkway sewer.
- New sanitary forcemain extending from the new SPS south along Emil Kolb Parkway to King Street.

Focus Area 2 Optimizing Existing System

- New sanitary forcemain from Bolton SPS along Old King Road to existing trunk sewer on Nunnville Road ultimately conveying flow to Albion Vaughan Trunk Sewer.
- Maintain the existing sanitary forcemain system on Strawberry Hill Court.
- Pressure Zone 6 areas promoted to new Pressure Zone 7 to optimize level of service.



Servicing Strategy Rationale

- Emil Kolb Parkway deep gravity sanitary sewer and watermain supports broader regional servicing solutions to support growth to 2051.
- Looped watermain construction provides security of supply and resiliency in the new Pressure Zone 7 water system.

Phase 3 Alternative Design Concept Evaluation

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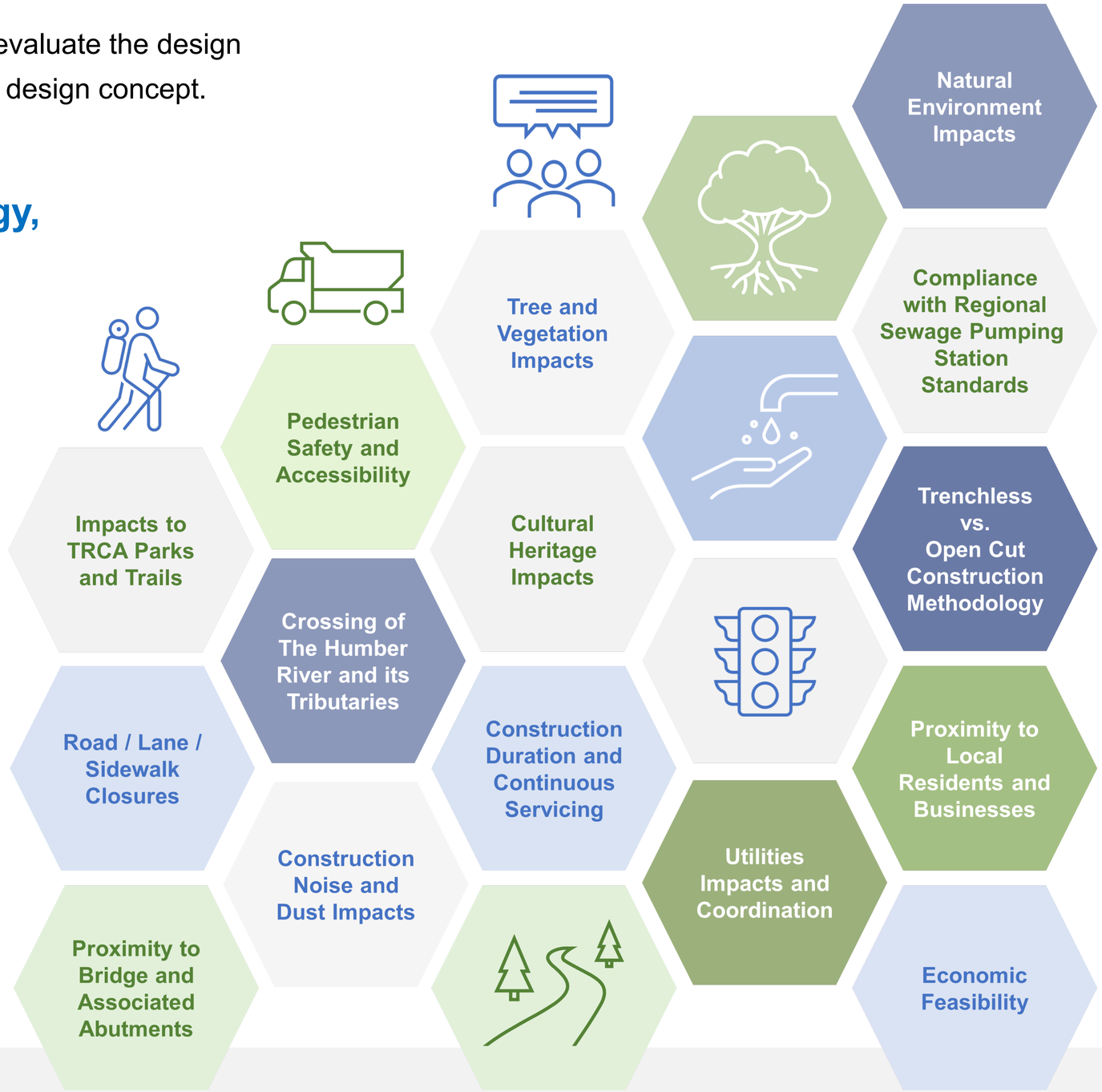
We are currently undertaking Phase 3 of the study to review and evaluate the design concept alternatives to select the preferred water and wastewater design concept.

The objective of Phase 3 is to determine what infrastructure is required to deliver the strategy, where it will be constructed and how.

Phase 3 includes:

- Preparation of detailed inventory
- Identification of design concept alternatives
- Evaluation of design concept alternatives using comprehensive evaluation criteria
- Selection of preliminary preferred conceptual design and technologies
- Identification of impacts and mitigation measures
- Public Information Centre (PIC) No. 3
- Confirmation of preferred conceptual design and technologies

Given the complexity and potentially sensitive nature of this study, meaningful consultation and two-way communication with stakeholders was maintained to provide information, listen to, address issues and concerns and inform the decision-making process.



Which field investigations have been completed?

Site Investigation Results

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Following the selection of the preferred servicing strategy in Phase 2 of the Class EA process, further site-specific reviews and investigations were undertaken to inform the evaluation of the design concept alternatives and to identify mitigation measures, including:



Cultural Heritage Registered Properties



Potential Redside Dace Habitat



Humber River Bridge Crossing at Emil Kolb Pkwy

Archaeological

Purpose: to determine where there are sites of archaeological significance within the study area which may impact the construction of the servicing solution. Main objective is to avoid areas of significance.

- Stage 1 and Stage 2 Archaeological Assessment completed.
- **Result: Areas of potential archaeological importance have been identified and will be considered in the selection of the preferred infrastructure alignment.**

Cultural Heritage

Purpose: to assess any potential impacts to cultural heritage resources and identify mitigation measures for the preferred solution.

- Cultural Heritage Screening completed. Cultural Heritage Preliminary Impact Assessment completed.
- **Result: Properties, landscapes and other cultural heritage resources have been identified within the study area. No indirect or direct impacts that cannot be mitigated.**

Natural Environment

Purpose: to document the existing natural environment features within the study area and identify any potential impacts and mitigation measures for the preferred solution.

- Desktop Natural Environment Assessment and site-specific field investigations completed.
- **Result: No significant environmental constraints that cannot be mitigated. Additional surveys including headwater drainage feature assessment and wetland delineation verification to be completed. Suitable bat habitat trees identified at SPS site. Potential tree removal at SPS site, however no Species at Risk identified. Compensation and replanting program to be confirmed during detailed design as per the Town's Tree Preservation Standards. Mitigation measures to be confirmed during detailed design to support permitting, approvals and construction timing.**

Which field investigations have been completed?

Site Investigation Results

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Sanitary Pumping Station Access Along Emil Kolb Pkwy



Agricultural Lands East of Highway 50

Traffic Investigations

Purpose: identify traffic impacts likely to arise during and post-construction period and assess measures to mitigate/address any issues or concerns.

- Traffic Impact Assessment in progress.
- **Result: No lane reductions are anticipated during construction, however there may be lane closure and replacement within road right of way to facilitate construction.**
- **Appropriate signage and safety measures will be implemented during construction to accommodate vehicle, pedestrian and cycle traffic.**

Environmental Site Assessment

Purpose: to identify potential environmental risks associated with the sites and determine if further investigations or remediation is needed.

- Phase One Environmental Site Assessment completed as part of site reviews.
- **Result: Further investigations required to support implementation.**

Agricultural

Purpose: to document the existing agricultural features within the study area and identify any potential impacts and mitigation measures for the preferred solution.

- Baseline Agricultural Impact Assessment in progress.
- **Result: Results will be considered in the selection of the preferred infrastructure alignment.**

Geotechnical and Hydrogeological

Purpose: to establish the existing groundwater, soil and rock conditions, assess the potential impacts to groundwater and surface water resources and identify the necessary mitigation measures along the preliminary preferred route.

- Desktop Geotechnical and Hydrogeological Assessment completed.
- **Result: Suitable hydrogeological conditions for shaft site and tunnel construction; dewatering consideration required. Commitment to further hydrogeological and geotechnical investigations during detailed design.**

During detailed design, further site-specific studies may be identified with the respective mitigation measures.

Considering Construction Methodology Benefits and Impacts

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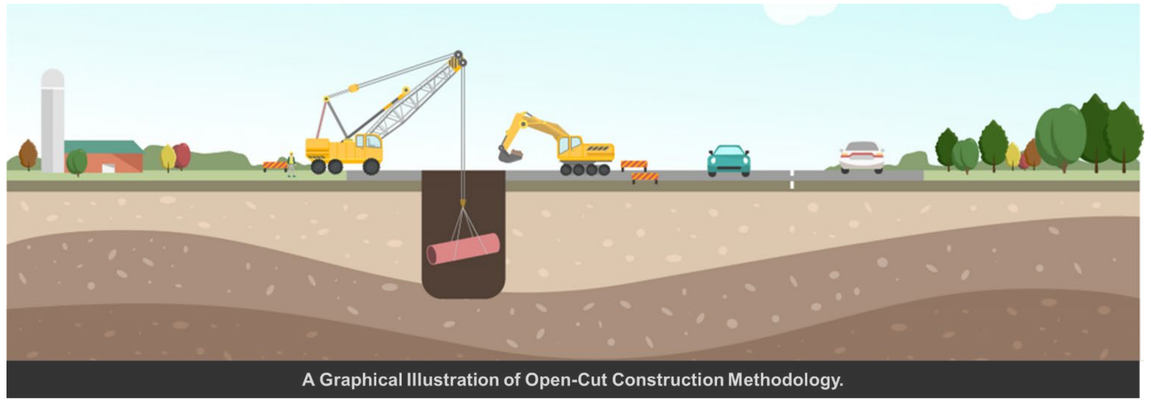
A key consideration in the evaluation and selection of the preliminary preferred design concept is the construction methodology for each section of the watermain, gravity sanitary sewer, and sanitary forcemain alignments.

When evaluating servicing solutions for the **Bolton Water and Wastewater Capacity Improvements Study**, the following construction methodologies were considered:

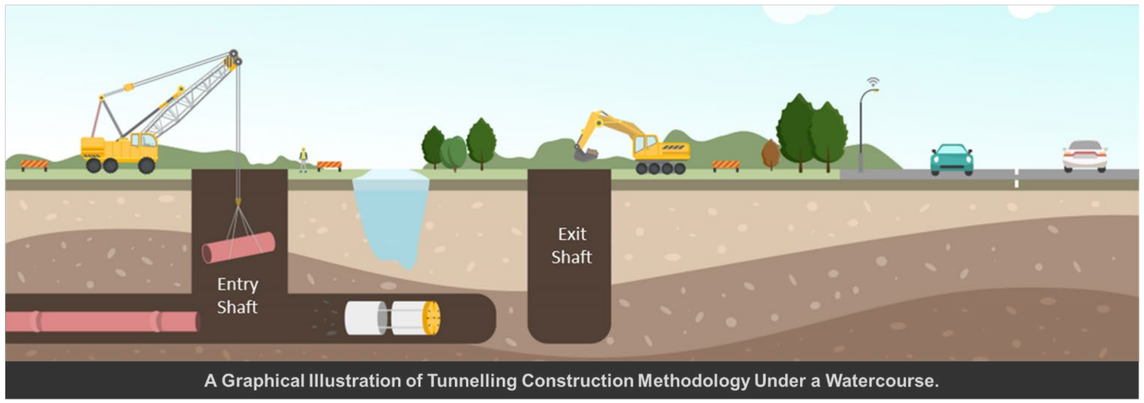
Open-Cut Construction involves digging a trench to facilitate the installation of linear infrastructure (e.g., watermains). Because construction occurs on the surface over a stretch of time, open cut construction has the potential to increase traffic, socio/economic and environmental impacts.

Trenchless (Tunnelled) Construction involves digging shafts and using special equipment to tunnel underground between shafts. It is less intrusive than open cutting minimizing traffic disruptions, impacts to local residents and businesses and can avoid environmental features such as watercourses by going underneath them. The surface works for tunnelled construction are the entry and exit shafts located between tunnel drive lengths that could vary between 0.2 km and 2.1 km apart depending on the technology used.

Suspended Construction involves hanging linear infrastructure from existing or new bridge structures. This methodology requires linear infrastructure to be exposed and hung from a bridge that is crossing an environmental or constraint area. This methodology can avoid the need for trenchless construction to cross the feature.



A Graphical Illustration of Open-Cut Construction Methodology.



A Graphical Illustration of Tunnelling Construction Methodology Under a Watercourse.



A Graphical Illustration of Suspended Construction Methodology from a Bridge.

Considering Construction Methodology Benefits and Impacts

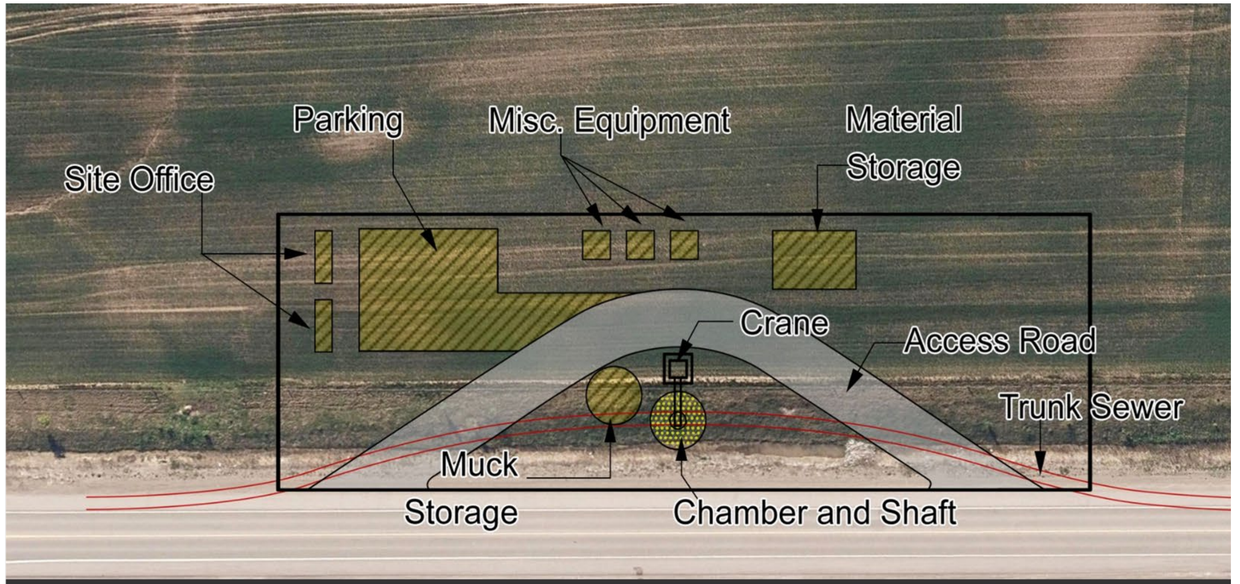
Trenchless Installation (tunnelling) requires both an entry and exit shaft(s) located between tunnel drive lengths to support the construction of the watermain and gravity sanitary sewer.

What does a Tunnel Shaft Compound Look Like?

Each tunnel shaft compound site will require a staging area where construction equipment can be stored, and excavated material can be brought to the surface and hauled away. The layouts of each compound will be optimized for safeguarding natural environmental features, underground utilities, and other mitigation measures as per design needs. **Once tunnelling is complete, the staging area will be restored to its previous condition, if not, better.**



Inside of a Tunnel Shaft.



A Schematic of a Typical Shaft Compound Layout in Rural Setting.

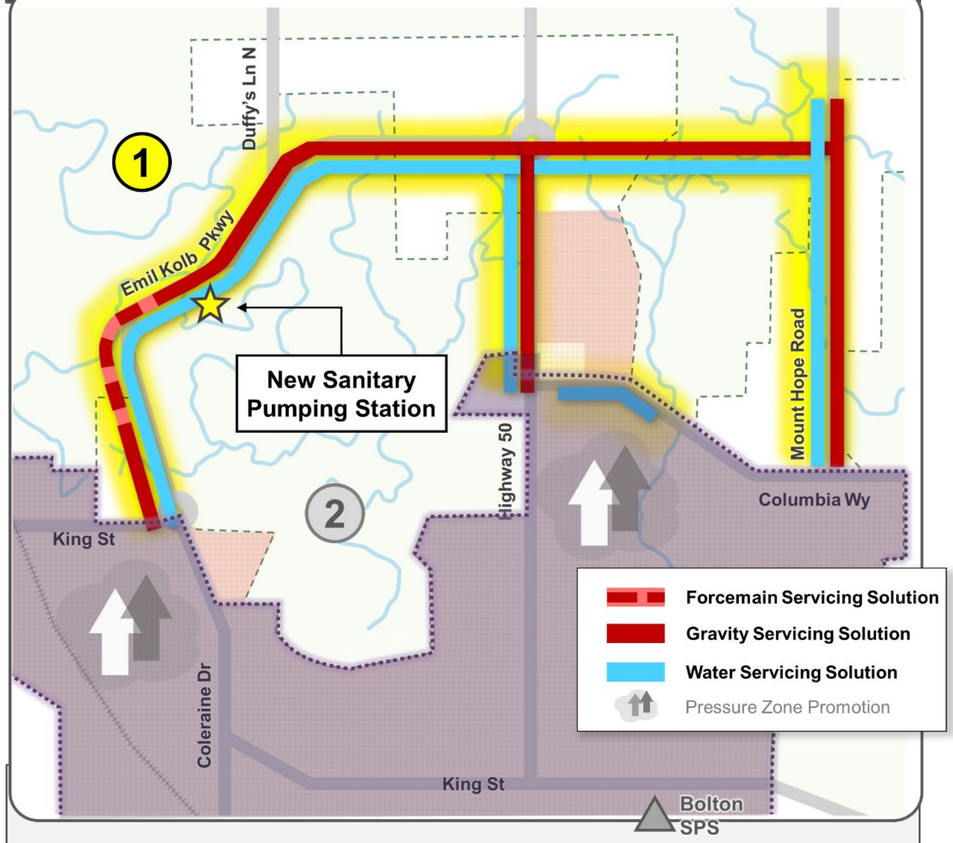
How was the preliminary preferred design concept selected?

Bolton Class EA – Focus Area 1

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Focus Area 1

Servicing New Growth



The evaluation and selection of the preliminary preferred design concept for **Focus Area 1** included the following steps.

Step 1

How will the solution be constructed?

- How will the watermain, gravity sanitary sewer, and sanitary forcemain be constructed?
- There are two main construction methodologies: open-cut construction and trenchless construction.
- The selection of the construction methodology considered:
  - Required depth of the watermain, sewer and forcemain.
  - Presence of environmental crossings.

Step 2

Where will the shafts be constructed?

- Shafts are required for trenchless construction.
- Shaft compounds require available space for staging and storage areas.
- Key sites were identified to optimize and integrate water and sanitary shaft locations to reduce surface impacts.
- Sites were selected to minimize overall impacts to the community including traffic, natural environment, archaeological and cultural heritage.
- Sites also avoided conflicts with existing infrastructure and utilities.

Step 3

Where will the routes be constructed?

- Routes were selected to minimize overall impacts to the community including traffic, natural environment, archaeological and cultural heritage.
- Routes avoided conflicts with existing infrastructure and utilities.

Step 4 (Wastewater only)

Where will the Sanitary Pumping Station (SPS) be located?

- The location of the sanitary pumping station was validated during Phase 2 and further refined during Phase 3.
- The selection of the SPS location was an integrated approach, in tandem with the selection of the gravity sanitary sewer and forcemain alignment.

Preliminary Preferred Design Concept - Water

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Preliminary Preferred Design Concept – Water

The first step in the water design concept evaluation process is to identify the preferred method of construction.

The following provides the **preferred methods** for the watermain alignment and the key rational for selection.

Open-Cut Construction

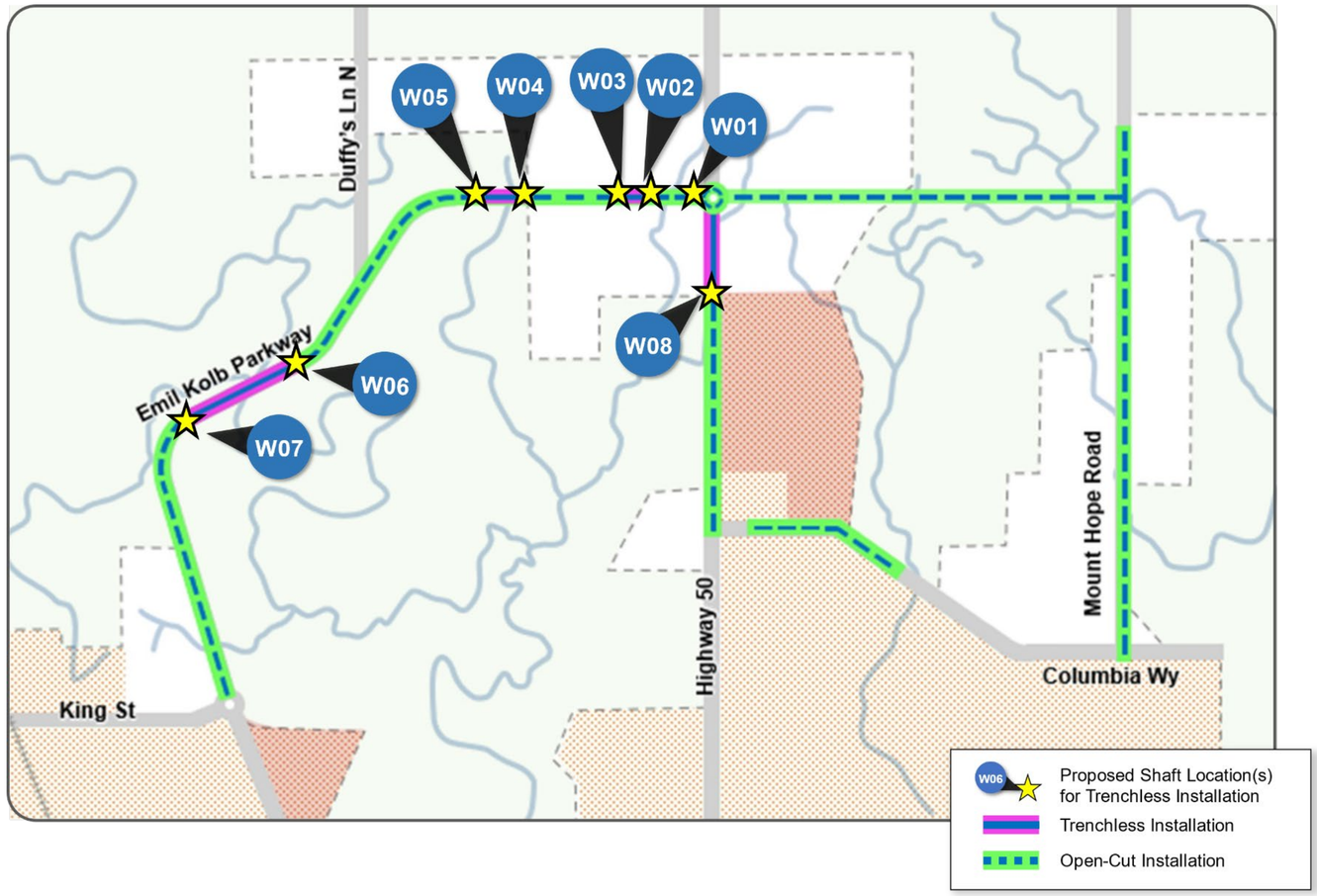
- Watermains are generally constructed by open cut methodology as they can be constructed at shallow depths.

Recommended open cut sections (green)

Tunnelling Construction

- Crossings of significant environmental or socio-cultural features to minimize impacts to the natural environment and community (e.g., watercourses, roundabouts).
- Shaft sites were selected to minimize overall impacts to the community including traffic, natural environment, archaeological and cultural heritage.
- Shaft sites considered existing infrastructure and utilities.

Recommended tunnelled sections (purple)



Step 2. Where will the shafts be constructed?
Preliminary Preferred Design Concept – Water

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Trenchless installation is the preferred method for crossing the Humber River Tributary. It will avoid impacts to the watercourse which is a suitable habitat for Redside Dace fish (Species at Risk – Endangered).

Two shafts (W04 and W05) have been identified to support the trenchless installation, located outside of the river sensitive meander belt and floodplain.

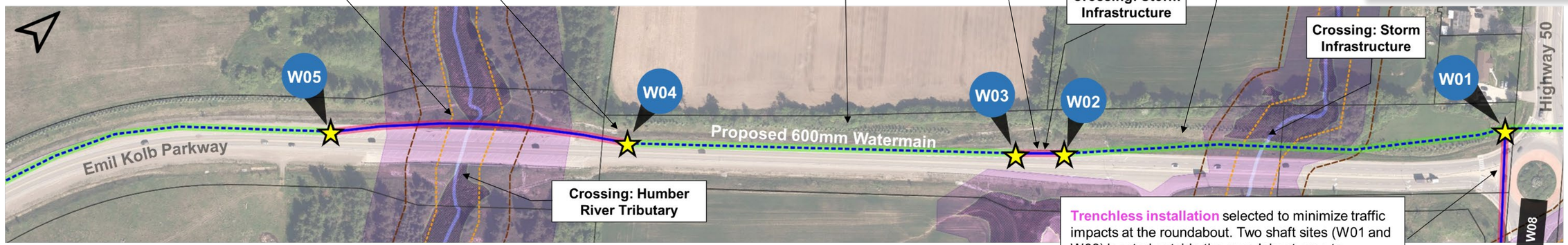
Watermain located on the north side of the road ROW.

Trenchless installation is the preferred method for crossing the existing storm culvert concrete box to avoid impacts to the infrastructure and its function. Two shaft sites (W02 and W03) have been identified.

Open-Cut installation was selected as the proposed watermain can achieve the required vertical clearance below the HDPE storm pipe (1.7m minimum) within the existing road.

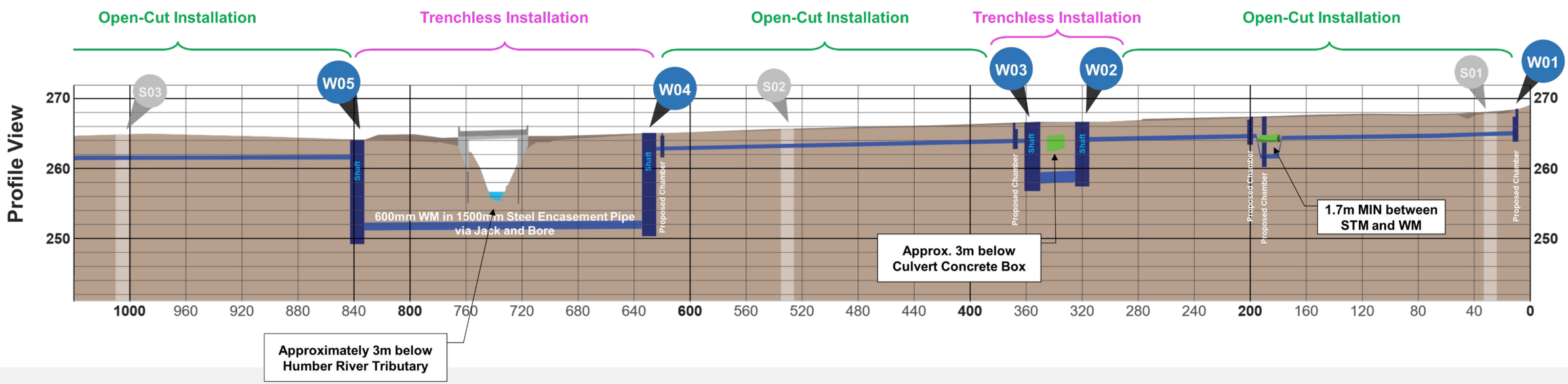
- Proposed Shaft Location(s) for Trenchless Installation
- Trenchless Installation
- Open-Cut Installation
- Watercourses
- TRCA Meander Belt
- TRCA Meander Belt (30m inclusive)
- Parcel
- TRCA Floodplain
- TRCA Regulated Area

Plan View



Trenchless installation selected to minimize traffic impacts at the roundabout. Two shaft sites (W01 and W08) located outside the roundabout area to minimize surface works at the roundabout area.

Profile View



Approximately 3m below Humber River Tributary

Step 2. Where will the shafts be constructed?
Preliminary Preferred Design Concept – Water

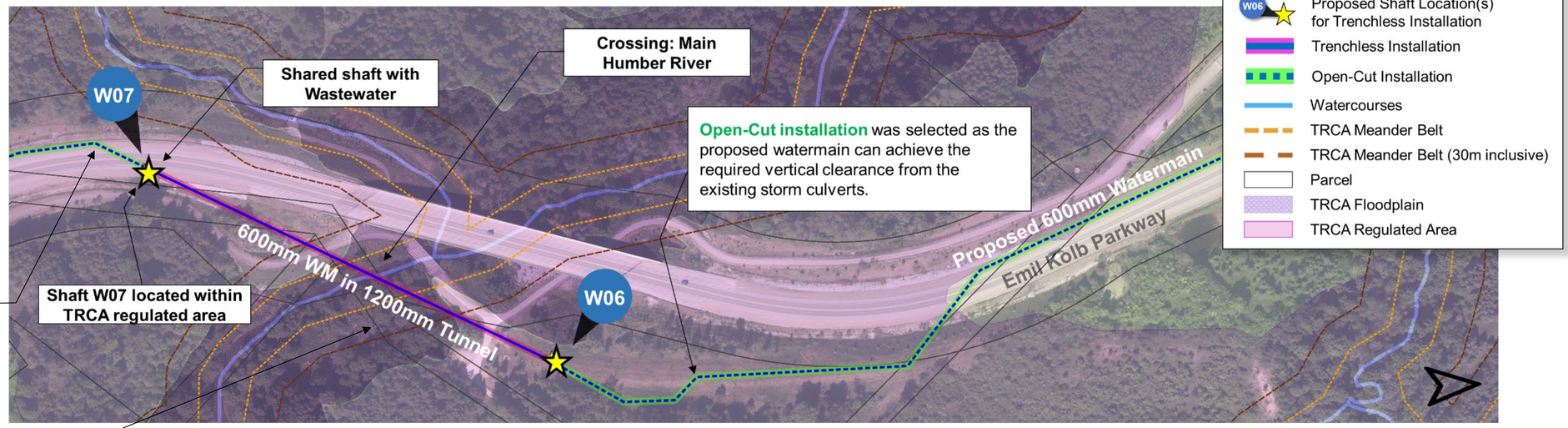
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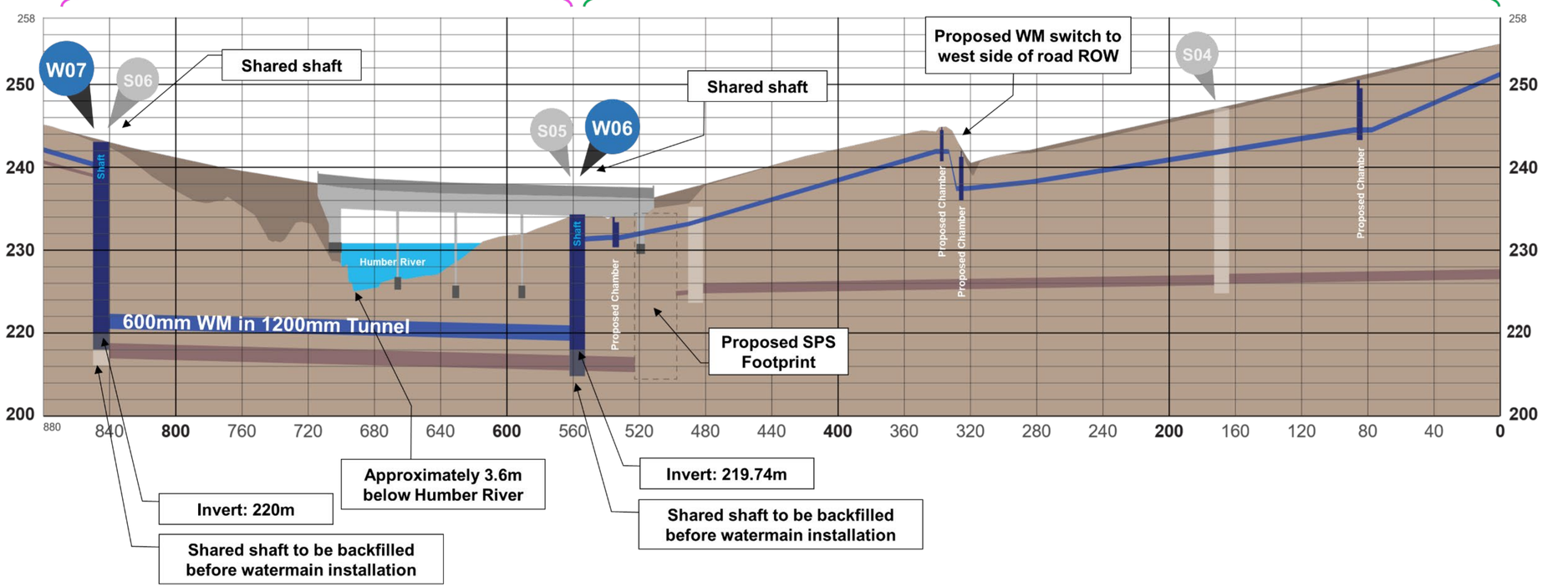
Two shafts (W06 and W07) have been identified to support the trenchless installation, located outside the river sensitive meander belt and floodplain.

Trenchless installation is the preferred method for crossing the Humber River. It will avoid impacts to the watercourse which is a suitable habitat for Redside Dace fish (Species at Risk – Endangered).

Plan View



Profile View



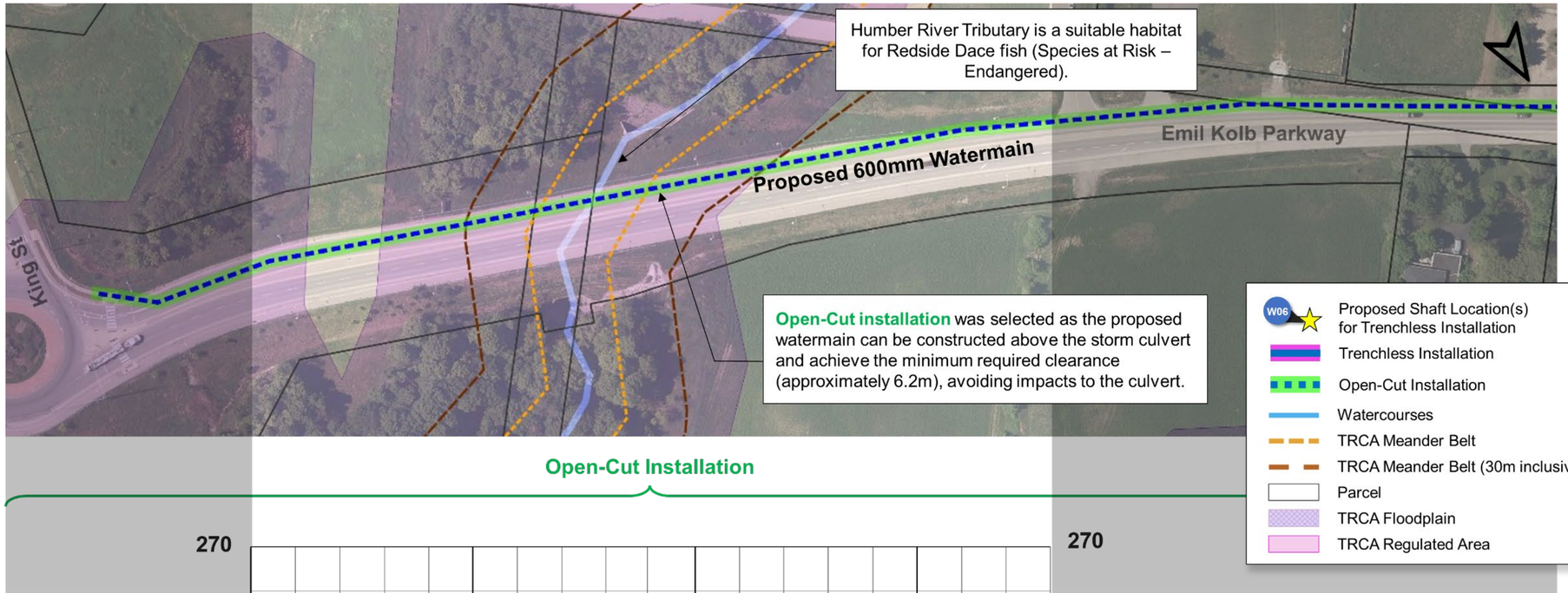
Step 2. Where will the shafts be constructed?

Preliminary Preferred Design Concept – Water

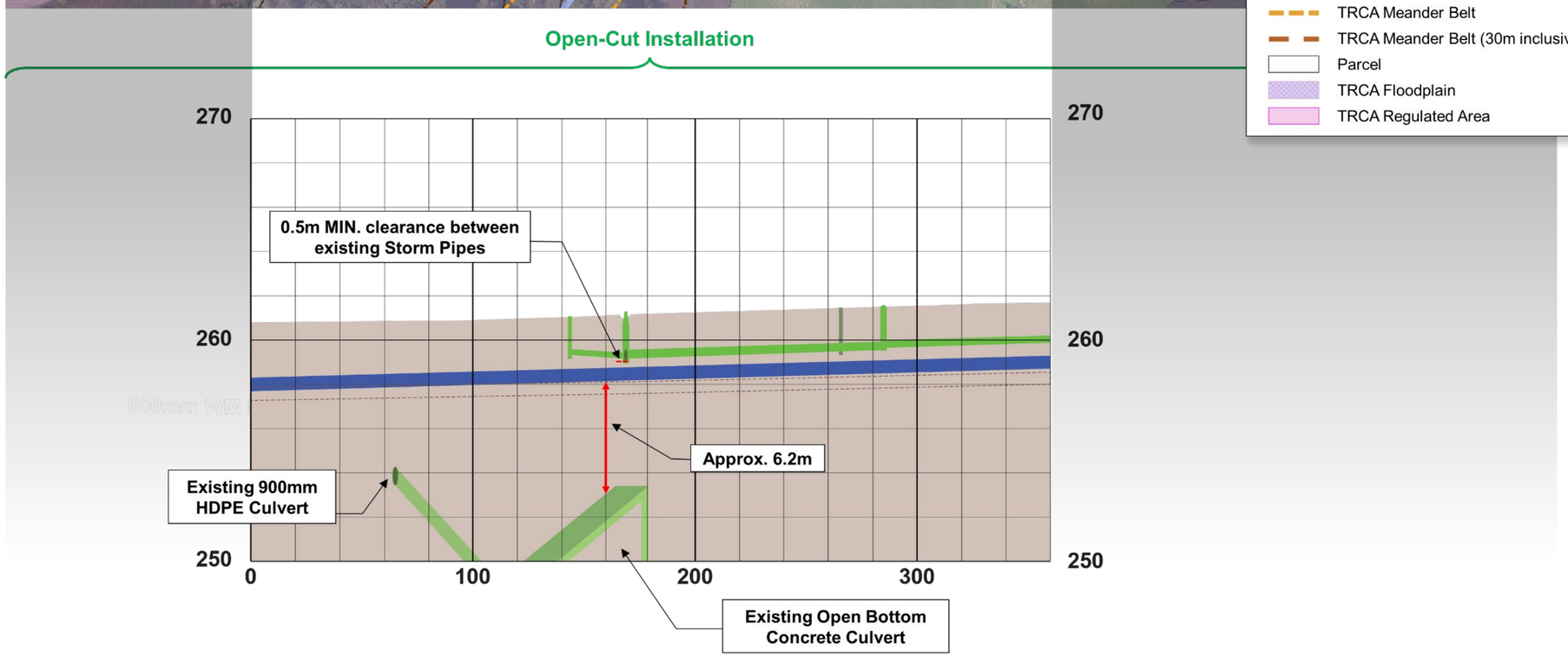
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Plan View



Profile View



Preliminary Preferred Design Concept – Water

The third step in the water design concept evaluation process is to identify the **preferred location** of the watermain route.

The location of the routes considered the following:

- selected construction methodology for both the watermain and gravity sanitary sewers,
- existing constraints, and,
- overall impacts to the community including traffic, natural environment, archaeological and cultural heritage.

The routes are separated into the below components:

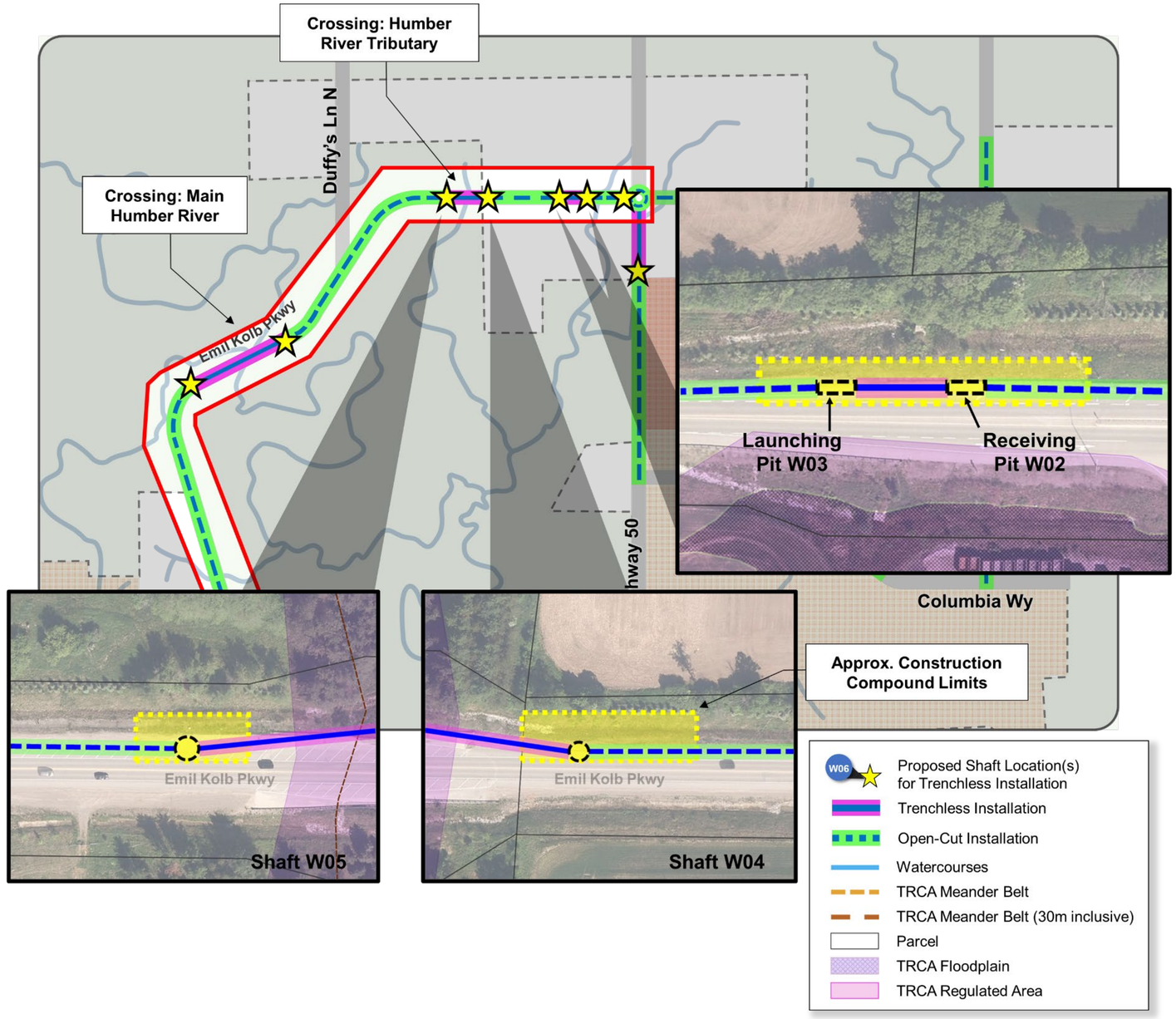
Emil Kolb Parkway | Highway (Regional Road) 50 | Mount Hope Road | Utility Corridor | Columbia Way (water only)

Emil Kolb Parkway

Majority of the watermain alignment will be open-cut, with key crossings to be tunneled to avoid impacts to the fish and fish habitat and other key structures.

The watermain is located on the **north side** of the road ROW:

- No conflicts within existing infrastructure.
- Available space for open cut construction within road shoulder.
- Minimal impacts to traffic with no reduction in number of traffic lanes.
- Provides setback from cultural heritage property, north of King Street.
- No archaeological potential within the road right of way.



Preliminary Preferred Design Concept – Water

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Emil Kolb Parkway | Highway (Regional Road) 50 | Mount Hope Road | Utility Corridor | Columbia Way (water only)

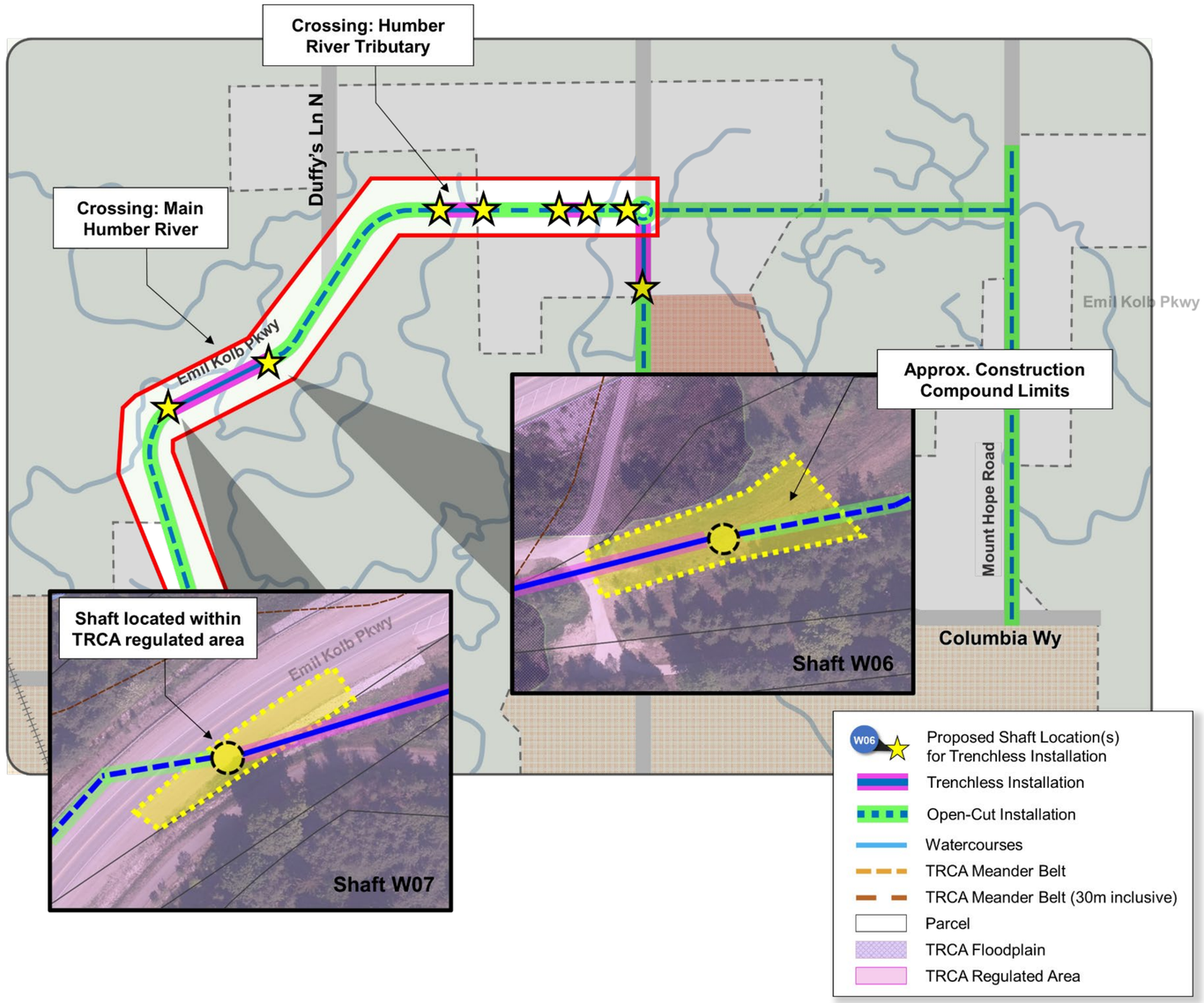
Emil Kolb Parkway (cont'd)

Majority of the watermain alignment will be open-cut, with key crossings to be tunneled to avoid impacts to the fish and fish habitat and other key structures.

The watermain is located on the **north side** of the road ROW:

- No conflicts within existing infrastructure.
- Available space for open cut construction within road shoulder.
- Minimal impacts to traffic with no reduction in number of traffic lanes.
- Provides setback from cultural heritage property, north of King Street.
- No archaeological potential within the road right of way.

Water Shafts W06 and W07 is shared with Wastewater Shafts S05 and S06.



Preliminary Preferred Design Concept – Water

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Emil Kolb Parkway | **Highway (Regional Road) 50** | Mount Hope Road | Utility Corridor | Columbia Way (water only)

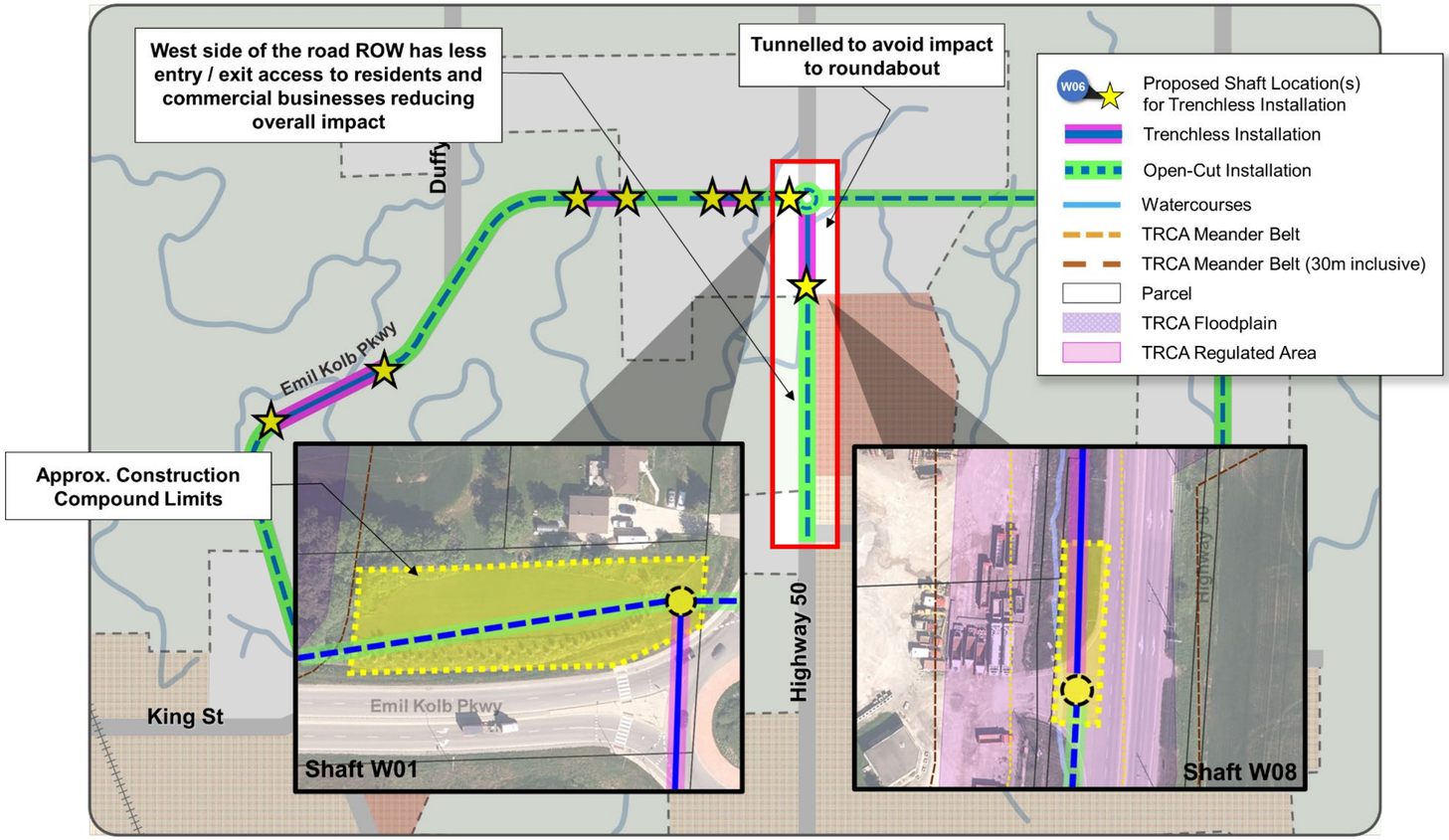
Highway (Regional Road) 50

Watermain alignment will be tunneled from the roundabout at the intersection of Highway 50 and Emil Kolb Parkway, with the remaining to be open-cut to Columbia Way.

The watermain is located on the **west side** of the road ROW:

- No conflicts within existing infrastructure.
- Available space for open cut construction within road shoulder.
- No watercourse crossings.
- Minimal impacts to traffic with no reduction in number of traffic lanes.
- No archaeological potential within the road right of way.

West side of the road ROW has less entry / exit access to residents and commercial businesses reducing overall impact.



Preliminary Preferred Design Concept – Water

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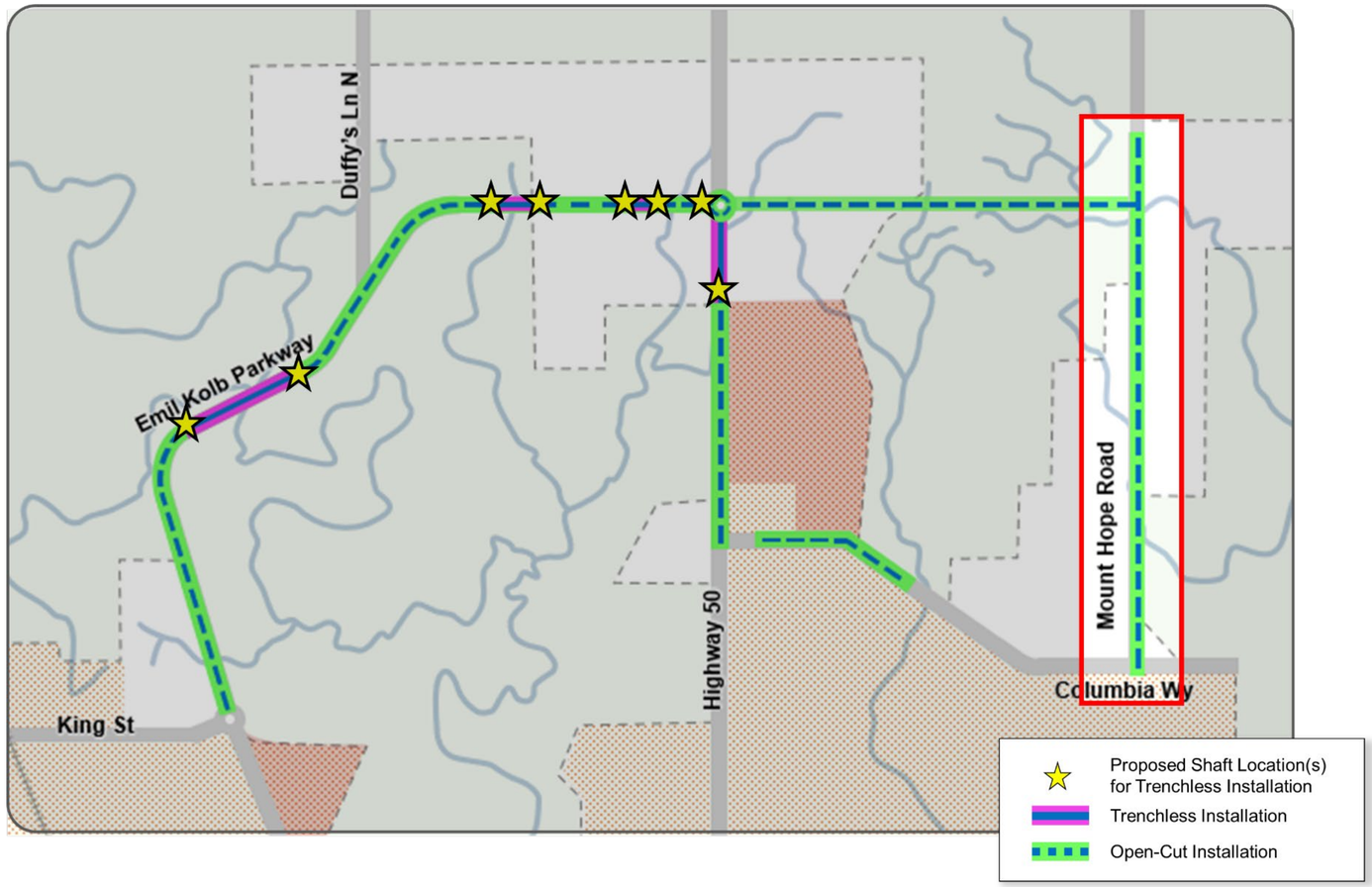
Emil Kolb Parkway | Highway (Regional Road) 50 | **Mount Hope Road** | Utility Corridor | Columbia Way (water only)

Mount Hope Road

Majority of the watermain alignment will be open-cut, with key crossings to be tunneled to avoid impacts to the fish and fish habitat and other key structures.

The watermain is located on the **east side** of the road ROW:

- No conflicts within existing infrastructure.
- Available space for open cut construction within road shoulder.
- Minimal impacts to traffic with no reduction in number of traffic lanes.
- No archaeological potential within the road right of way.



Preliminary Preferred Design Concept – Water

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Emil Kolb Parkway | Highway (Regional Road) 50 | Mount Hope Road | **Utility Corridor** | **Columbia Way (water only)**

Utility Corridor

Majority of the watermain alignment will be open-cut, with key crossings to be tunneled to avoid impacts to the fish and fish habitat and other key structures.

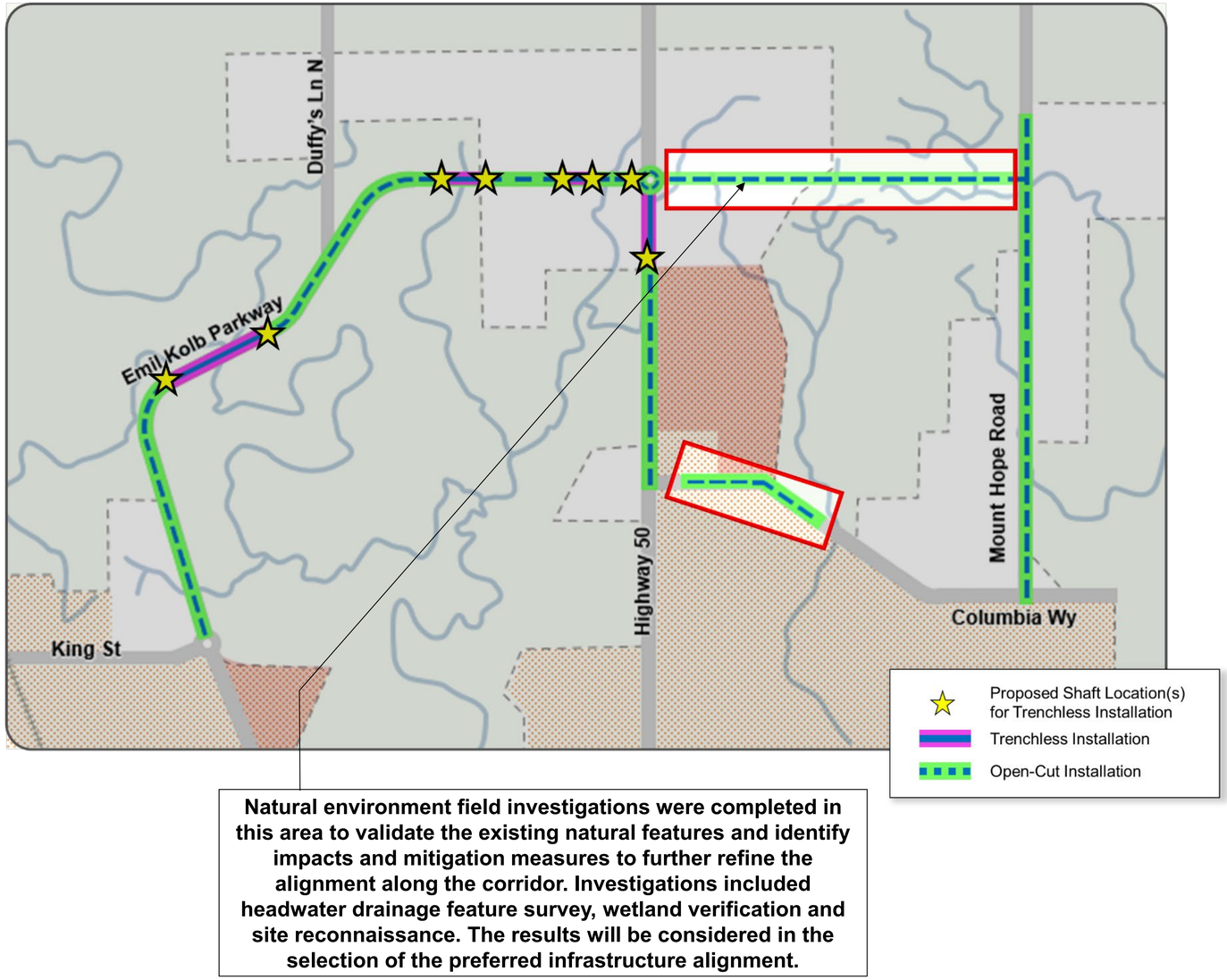
The watermain is located **within a new utility corridor** which aligns with Town of Caledon's planned local road.

- No conflicts with existing infrastructure.
- Alignment provides a looped water system minimizing water quality issues, reducing service risk, and increasing system resiliency.
- Landowners willing to work with the Region.
- Corridor is within the Regional 2051 urban boundary.
- Natural features and areas of potential archaeological importance have been identified and will be considered in the selection of the preferred infrastructure alignment.

Columbia Way

Proposed watermain alignment will be open-cut. The watermain is located on the **south side** of the road ROW:

- Additional sections of watermain along Columbia Way to connect into the existing system to support the looped water system.



Natural environment field investigations were completed in this area to validate the existing natural features and identify impacts and mitigation measures to further refine the alignment along the corridor. Investigations included headwater drainage feature survey, wetland verification and site reconnaissance. The results will be considered in the selection of the preferred infrastructure alignment.

Preliminary Preferred Design Concept - Wastewater

BluePlan ENGINEERING
A GEI Company

GEI Consultants

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Preliminary Preferred Design Concept – Wastewater

The first step in the wastewater design concept evaluation process is to identify the **preferred method** of construction.

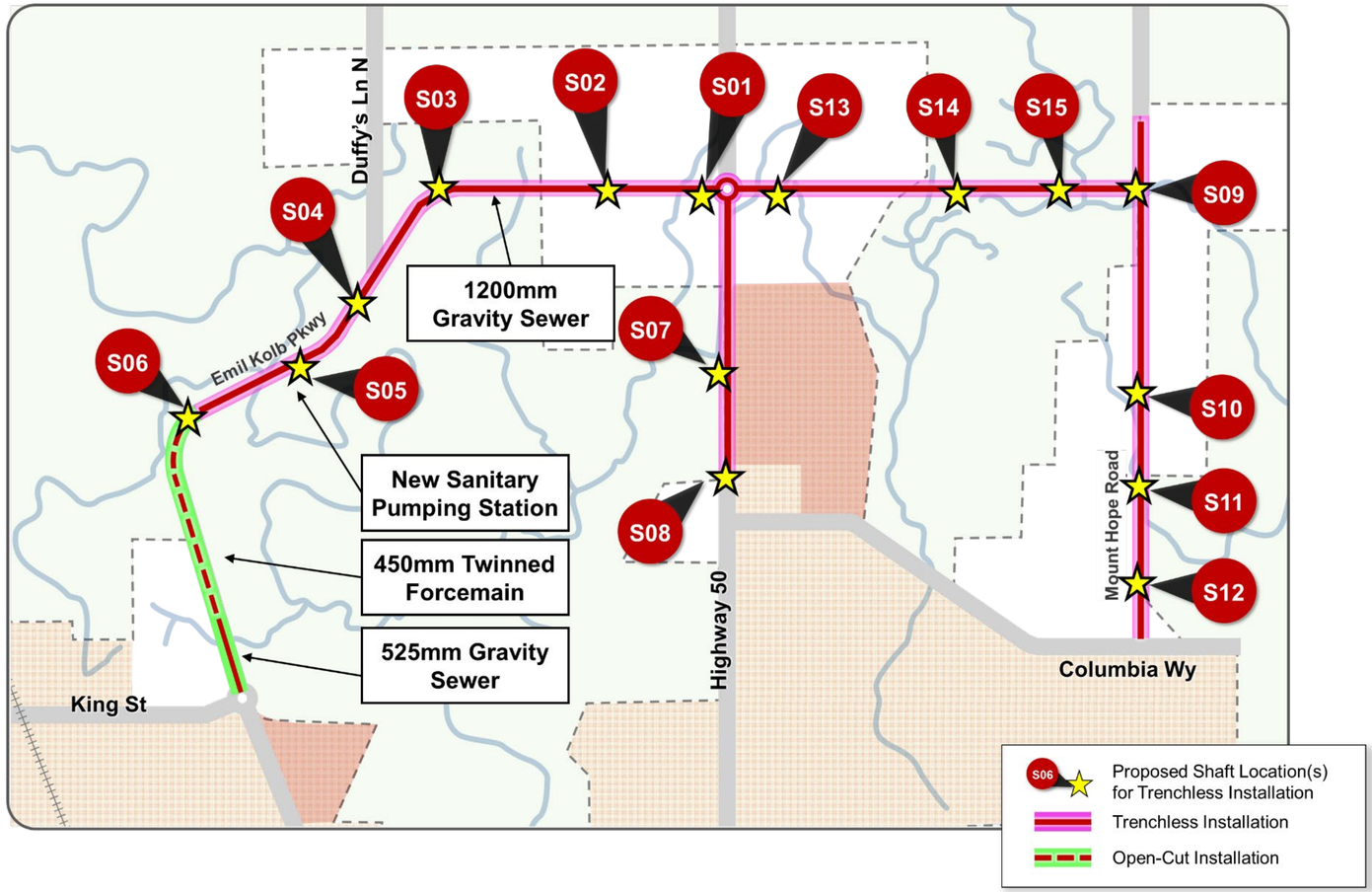
The following provides the preferred methods for the gravity sanitary sewer and forcemain alignments and the key rational for selection.

Open-Cut Construction

- Forcemain enables pumped sanitary flow and can be constructed by open-cut since it does not require a minimum slope and can be constructed at shallow depths.

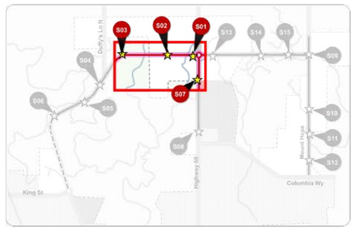
Tunnelling Construction

- The new gravity sewer must connect to the existing sanitary system at specific elevations. Gravity sewers must also meet a minimum slope to operate. Tunnelling is required to attain the required deep depth for the gravity sewers to connect to the existing system and achieve the minimum slope.
- Crossings of significant environmental or socio-cultural features to minimize impacts to the natural environment and community (e.g., watercourses, roundabouts).
- Shaft locations were selected to minimize overall impacts to the community including traffic, natural environment, archaeological and cultural heritage.
- Shaft locations considered existing infrastructure and utilities.



Step 2. Where will the shafts be constructed?
Preliminary Preferred Design Concept – Wastewater

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Trenchless installation is the preferred method for crossing the Humber River Tributary. It will avoid impacts to the watercourse which is a suitable habitat for Redside Dace fish (Species at Risk – Endangered).

Since the preferred construction methodology for the wastewater design concept is **trenchless installation**, the tunnel drive length between the shaft sites was maximized **(~500-600 m)** to reduce the number of shaft sites required.

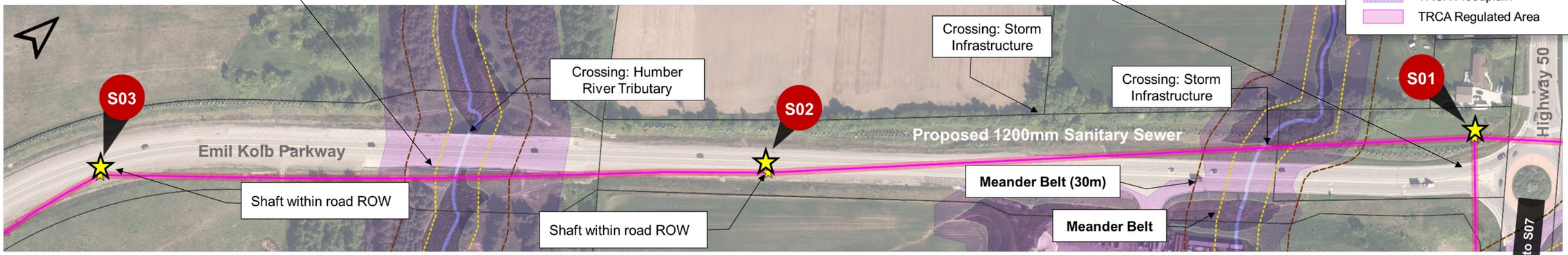
Location of proposed shaft locations are within existing road right-of-way (ROW) and is wide enough to maintain existing number of travel lanes during construction.

Trenchless installation selected to minimize traffic impacts at the roundabout. Two shaft sites (S01 and S07) located outside the roundabout area to avoid surface works at the roundabout area.

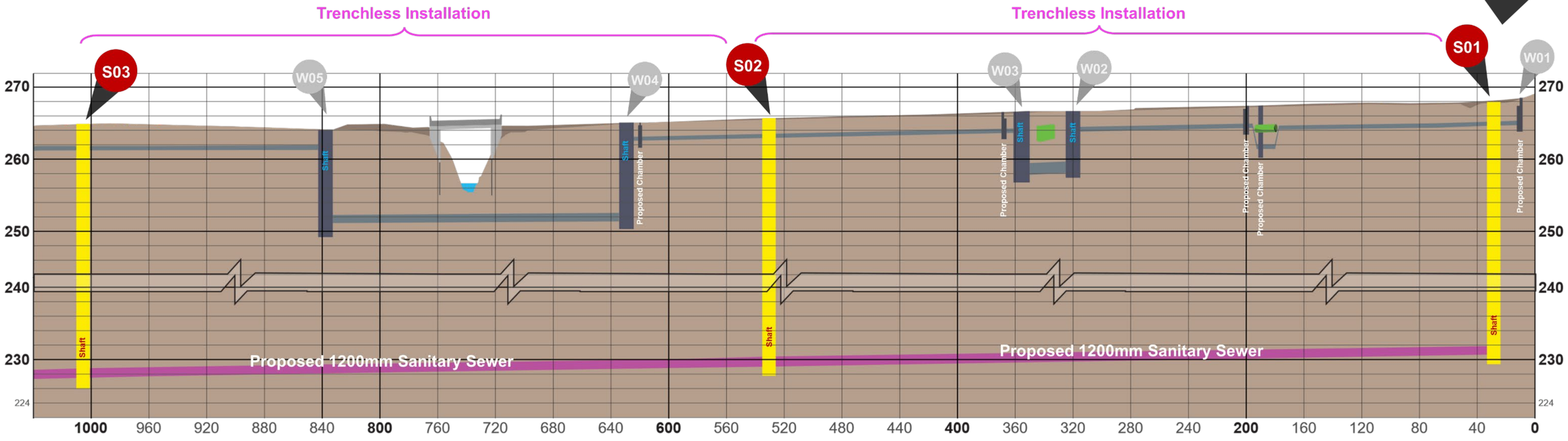
Shaft sites will be shared with W01 to support an integrated solution.

- S06 — Proposed Shaft Location(s) for Trenchless Installation
- Trenchless Installation
- Open-Cut Installation
- Watercourses
- TRCA Meander Belt
- TRCA Meander Belt (30m inclusive)
- Parcel
- TRCA Floodplain
- TRCA Regulated Area

Plan View

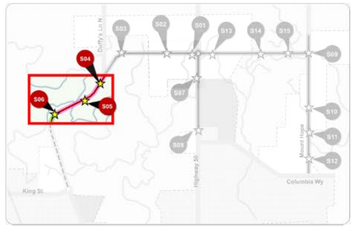


Profile View

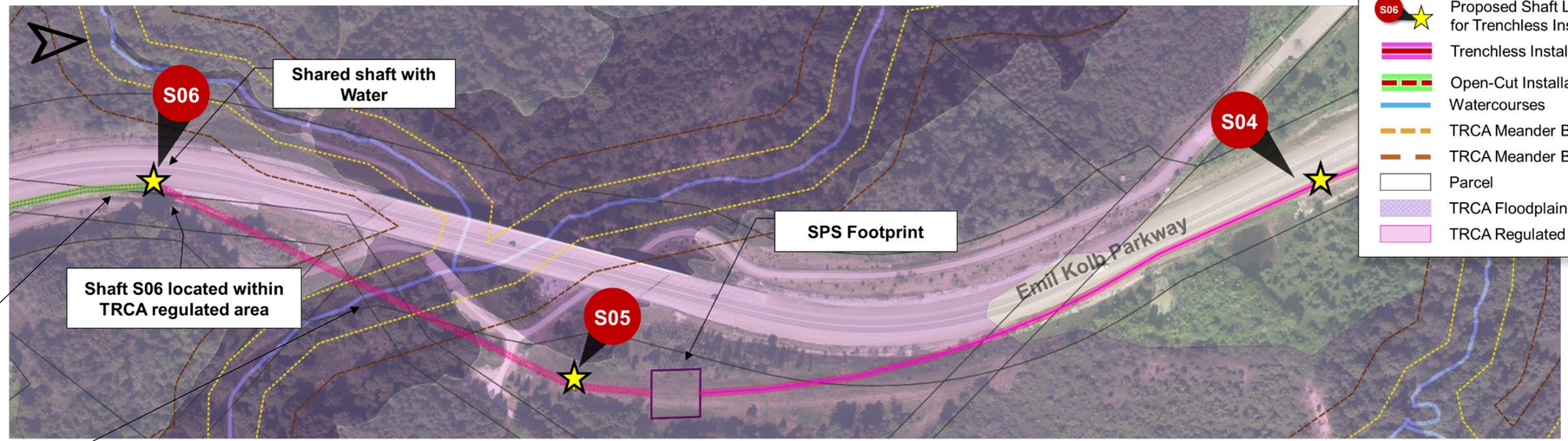


Preliminary Preferred Design Concept – Wastewater

Region of Peel
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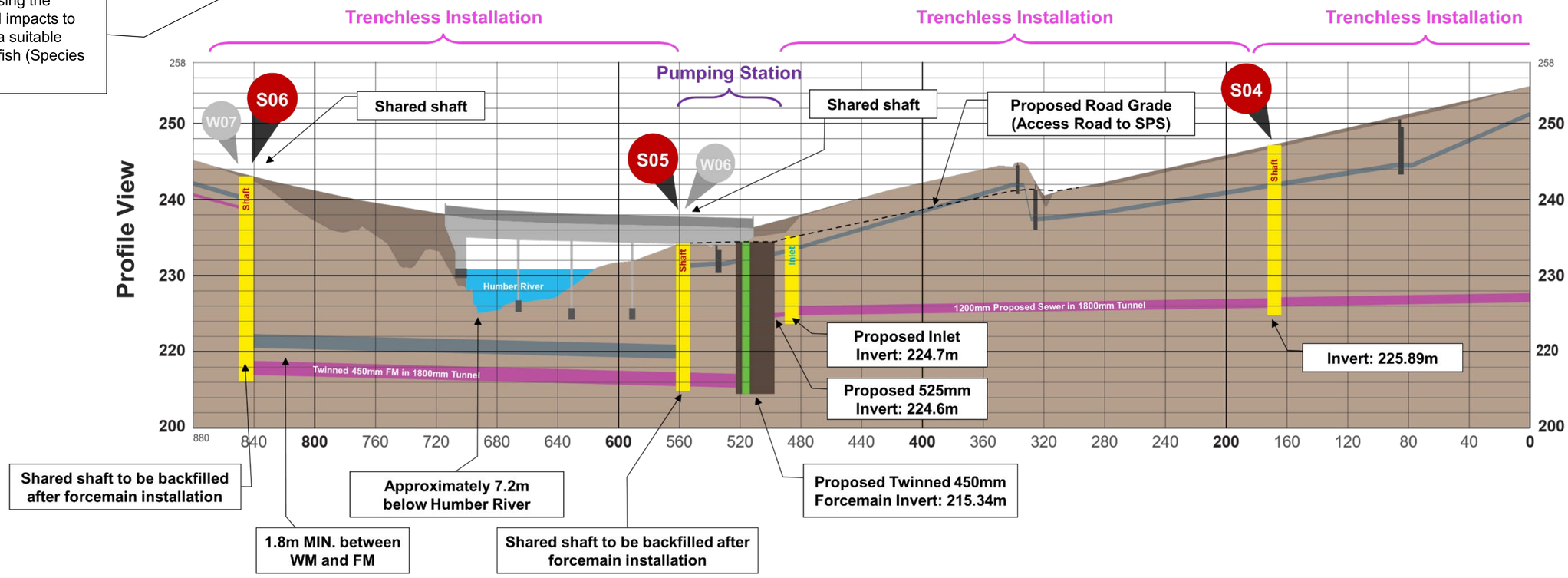
Plan View



Two shafts (S05 and S06) have been identified to support the trenchless installation, located outside of the river sensitive meander belt and floodplain.

Trenchless installation is the preferred method for crossing the Humber River. It will avoid impacts to the watercourse which is a suitable habitat for Redside Dace fish (Species at Risk – Endangered).

Profile View



Shared shaft to be backfilled after forcemain installation

Approximately 7.2m below Humber River

1.8m MIN. between WM and FM

Shared shaft to be backfilled after forcemain installation

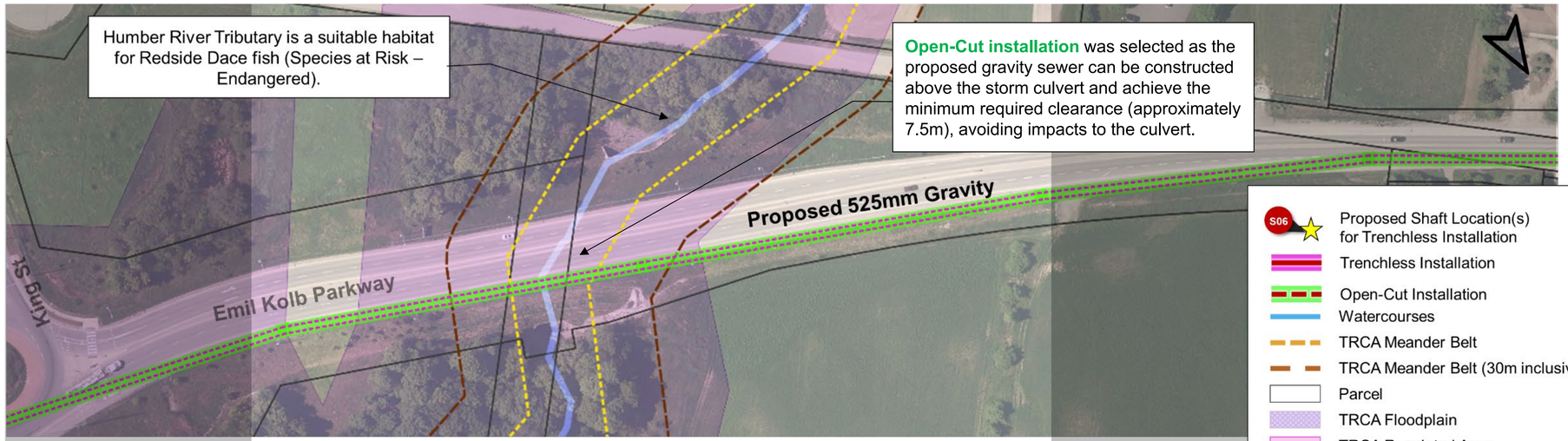
Proposed Twinned 450mm Forcemain Invert: 215.34m

Preliminary Preferred Design Concept – Wastewater

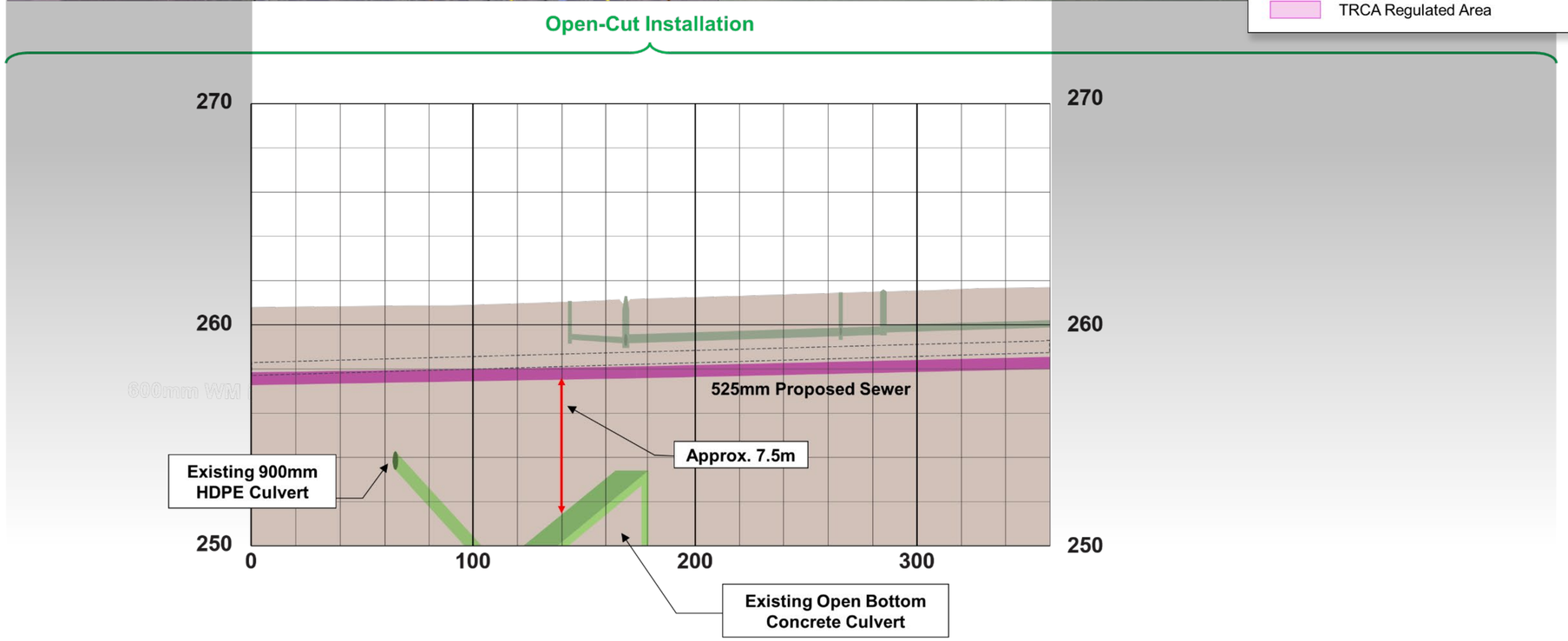
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Plan View



Profile View



Preliminary Preferred Design Concept – Wastewater

The third step in the wastewater design concept evaluation process is to identify the **preferred location** of the sewer and forcemain route.

The location of the routes considered the following:

- selected construction methodology for both the watermain and gravity sanitary sewers,
- existing constraints, and,
- overall impacts to the community including traffic, natural environment, archaeological and cultural heritage.

The routes are separated into the below components:

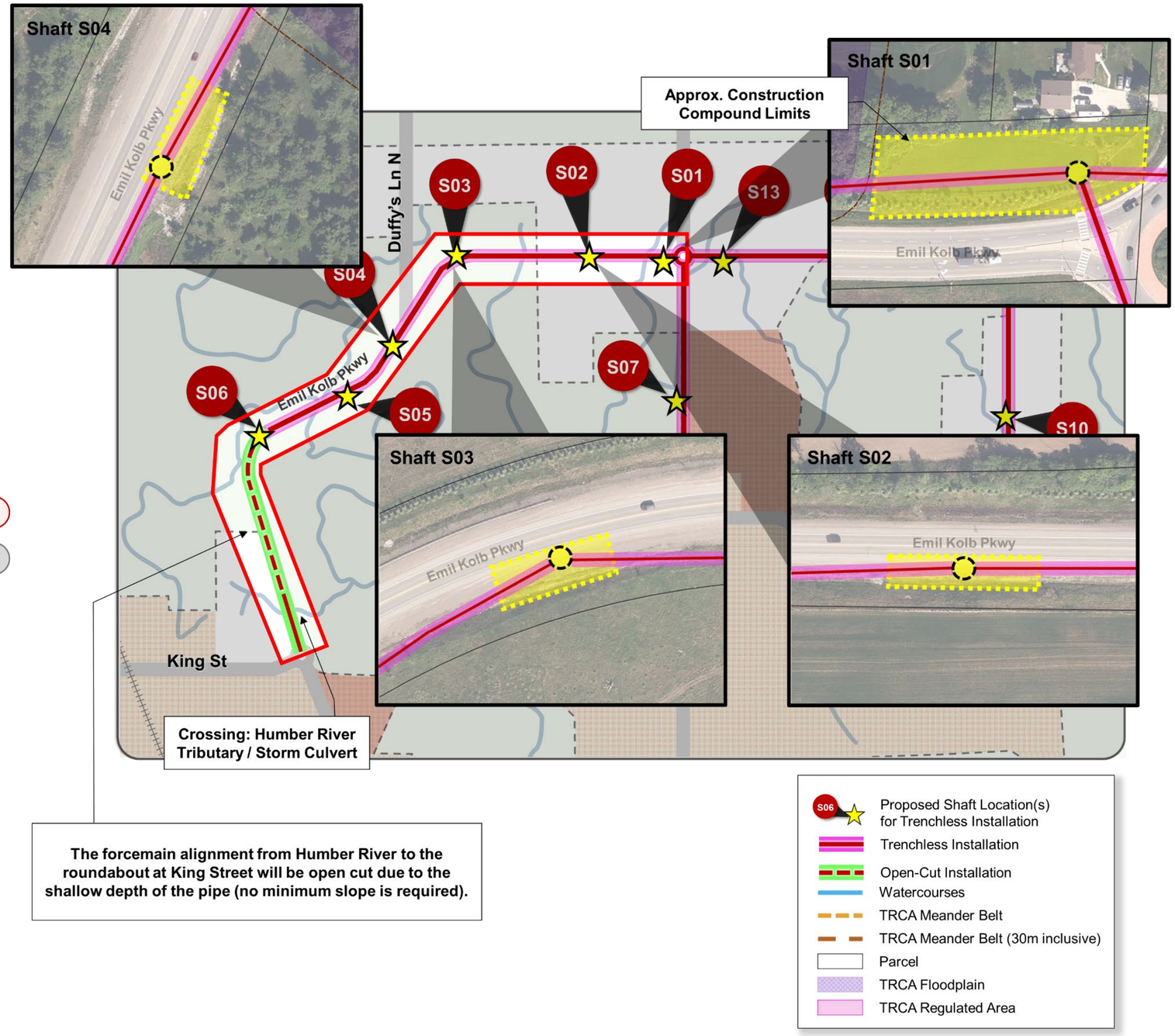
Emil Kolb Parkway | Highway (Regional Road) 50 | Mount Hope Road | Utility Corridor | Columbia Way (water only)

Emil Kolb Parkway

The gravity sewer alignment from Highway 50 to the Humber River (S01 to S06) will be tunnelled due to the depth of the pipe required to achieve minimum slope.

The Sewer is located on the **south side** of the road ROW:

- No conflicts within existing infrastructure.
- Available space for proposed shaft compounds.
- Minimal impacts to traffic with no reduction in number of traffic lanes.
- No archaeological potential within the road right of way.



Preliminary Preferred Design Concept – Wastewater

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Emil Kolb Parkway | Highway (Regional Road) 50 | Mount Hope Road | Utility Corridor | Columbia Way (water only)

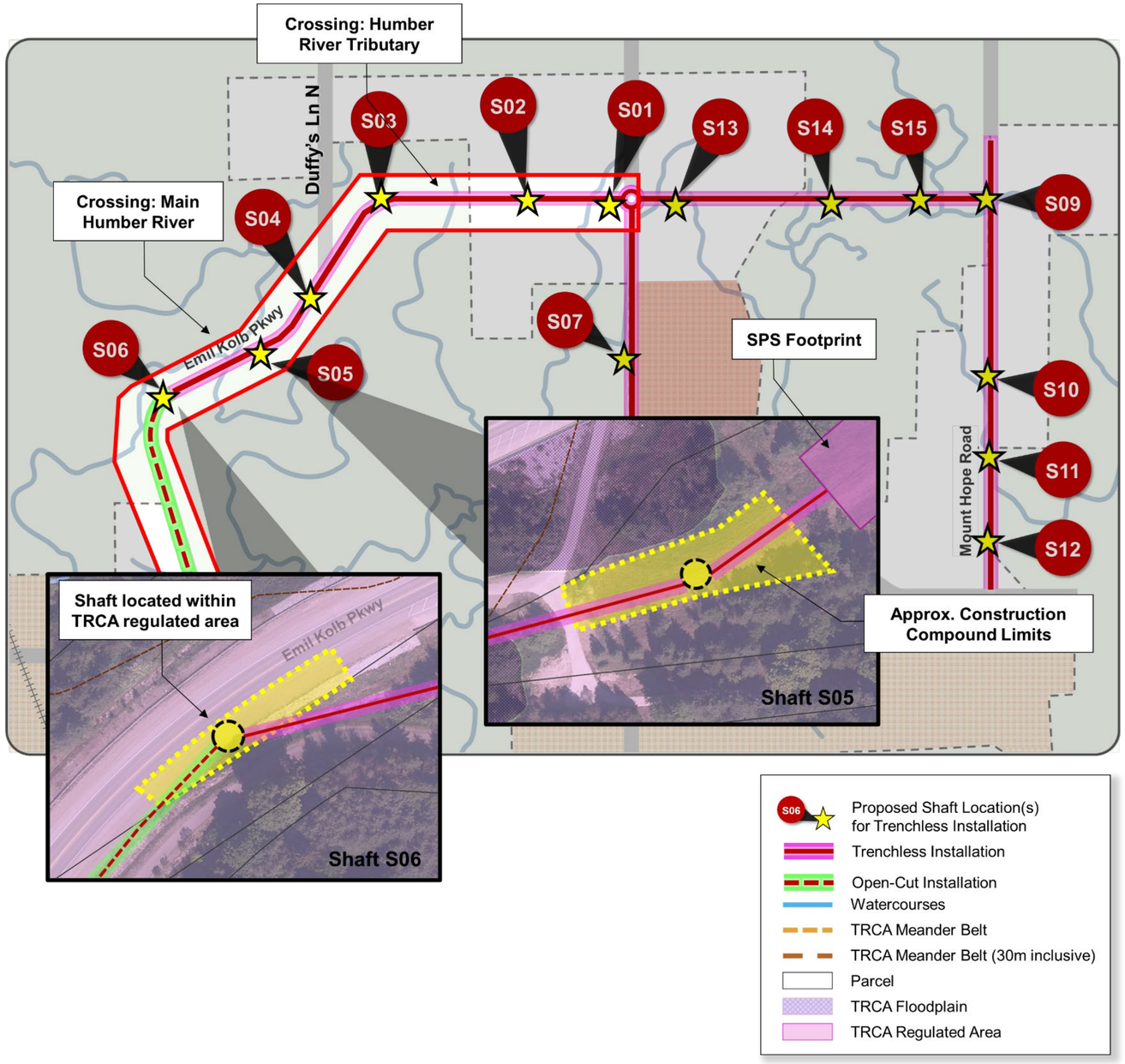
Emil Kolb Parkway (cont'd)

The gravity sewer alignment from Highway 50 to the Humber River (S01 to S06) will be tunnelled due to the depth of the pipe required to achieve minimum slope.

The Sewer is located on the **south side** of the road ROW:

- No conflicts within existing infrastructure.
- Available space for proposed shaft compounds.
- Minimal impacts to traffic with no reduction in number of traffic lanes.
- No archaeological potential within the road right of way.

Wastewater Shafts S05 and S06 is shared with Water Shafts W06 and W07.



Preliminary Preferred Design Concept – Wastewater

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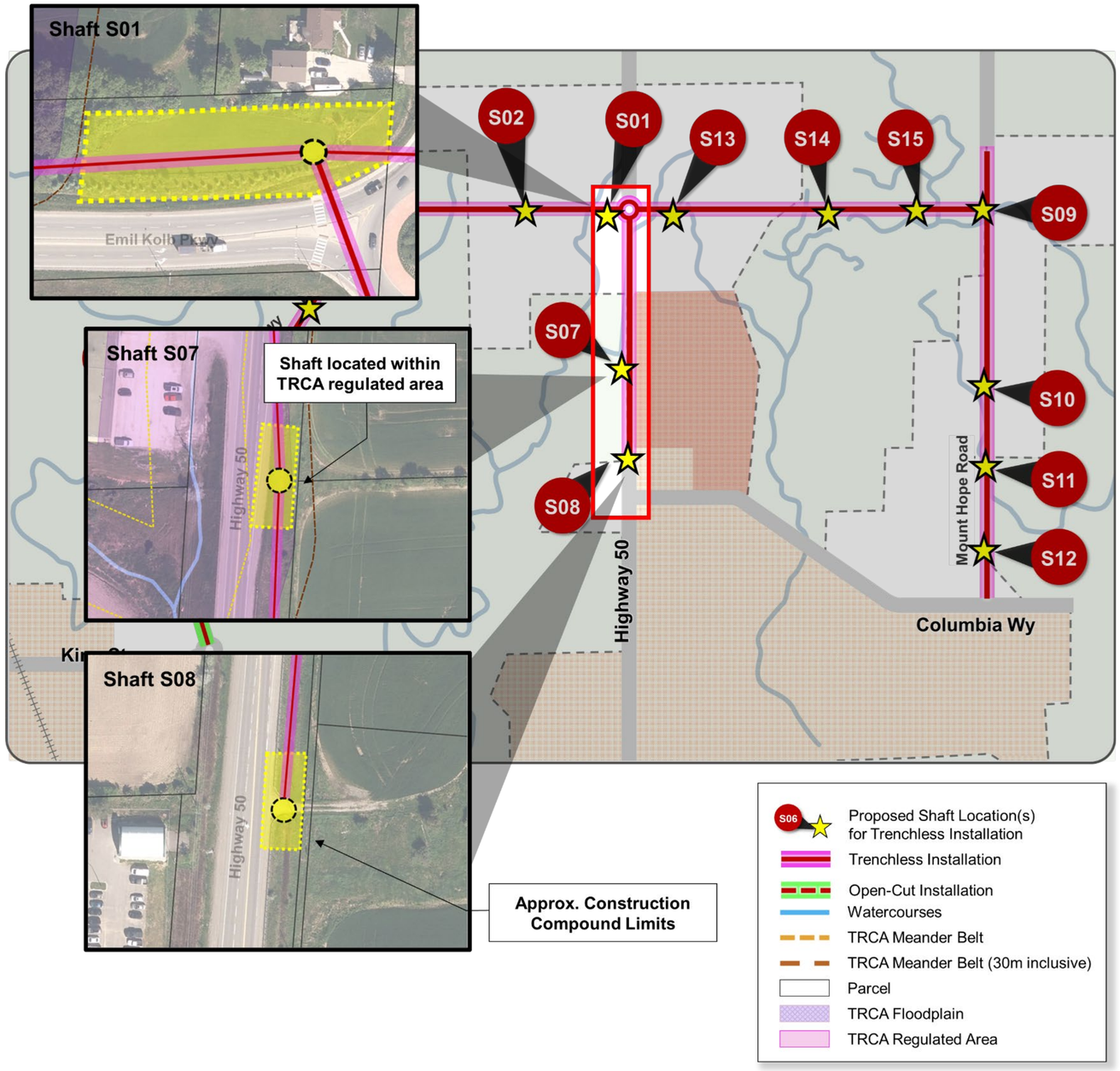
Emil Kolb Parkway | **Highway (Regional Road) 50** | Mount Hope Road | Utility Corridor | Columbia Way (water only)

Highway (Regional Road) 50

The gravity sewer alignment will be tunneled from the roundabout at the intersection of Emil Kolb Parkway and Highway 50 and will run south to Columbia Way.

The sewer is located on the **east side** of the road ROW:

- No conflicts within existing infrastructure.
- Available space for open cut construction within road shoulder.
- Reduced impacts to trees and no watercourse crossings.
- Minimal impacts to traffic with no reduction in number of traffic lanes.
- No archaeological potential within the road right of way.



Preliminary Preferred Design Concept – Wastewater

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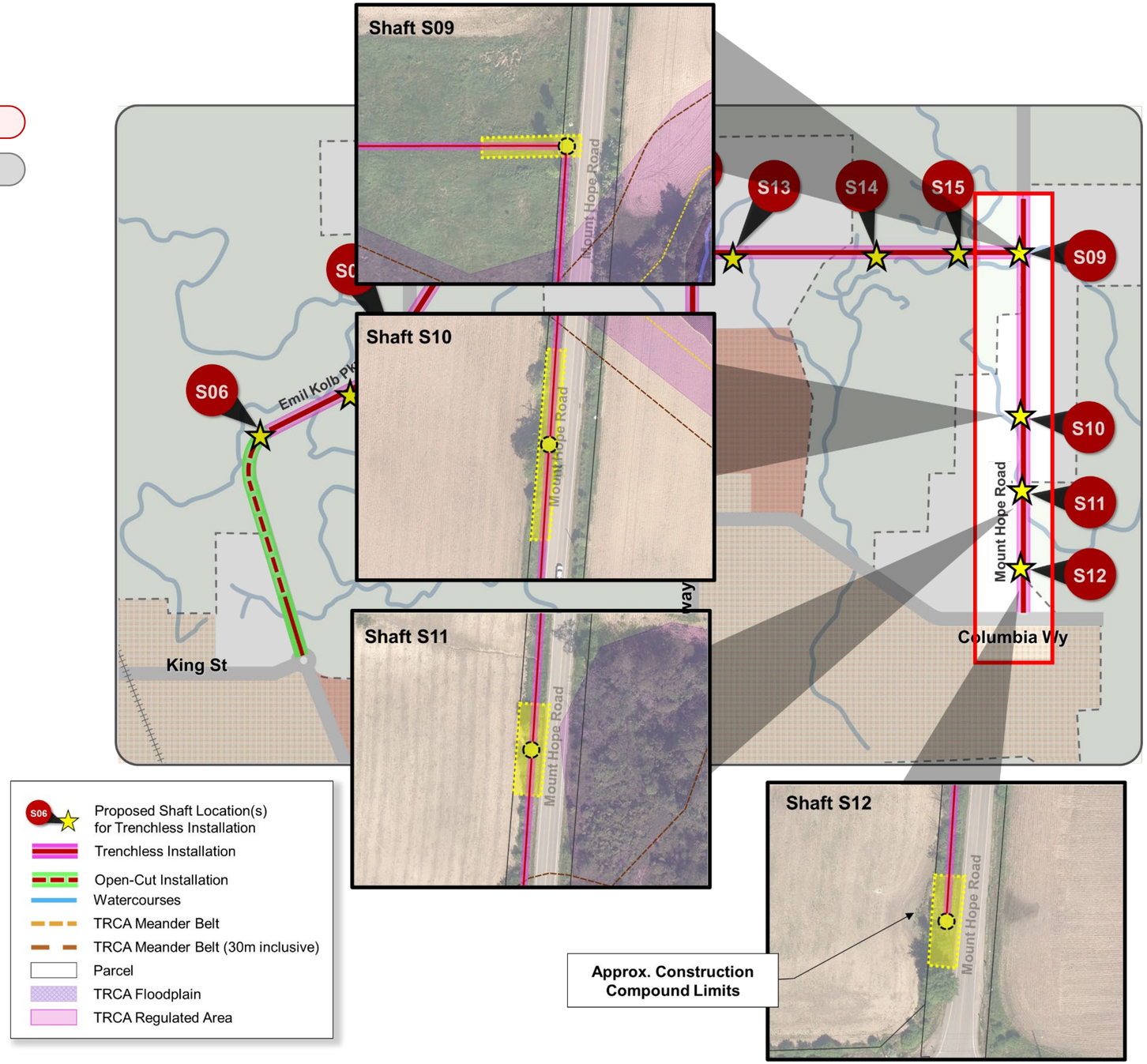
Emil Kolb Parkway | Highway (Regional Road) 50 | **Mount Hope Road** | Utility Corridor | Columbia Way (water only)

Mount Hope Road

The gravity sewer alignment will be tunneled from the intersection of Columbia Way to the new utility corridor located along the planned Town local road.

The sewer is located on the **west side** of the road ROW:

- No conflicts within existing infrastructure.
- Available space for open cut construction within road shoulder.
- Watercourse crossing sections will be tunnelled to avoid impacts to the fish and fish habitat.
- Minimal impacts to traffic with no reduction in number of traffic lanes.
- No archaeological potential within the road right of way.



Preliminary Preferred Design Concept – Wastewater

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Emil Kolb Parkway | Highway (Regional Road) 50 | Mount Hope Road | **Utility Corridor** | Columbia Way (water only)

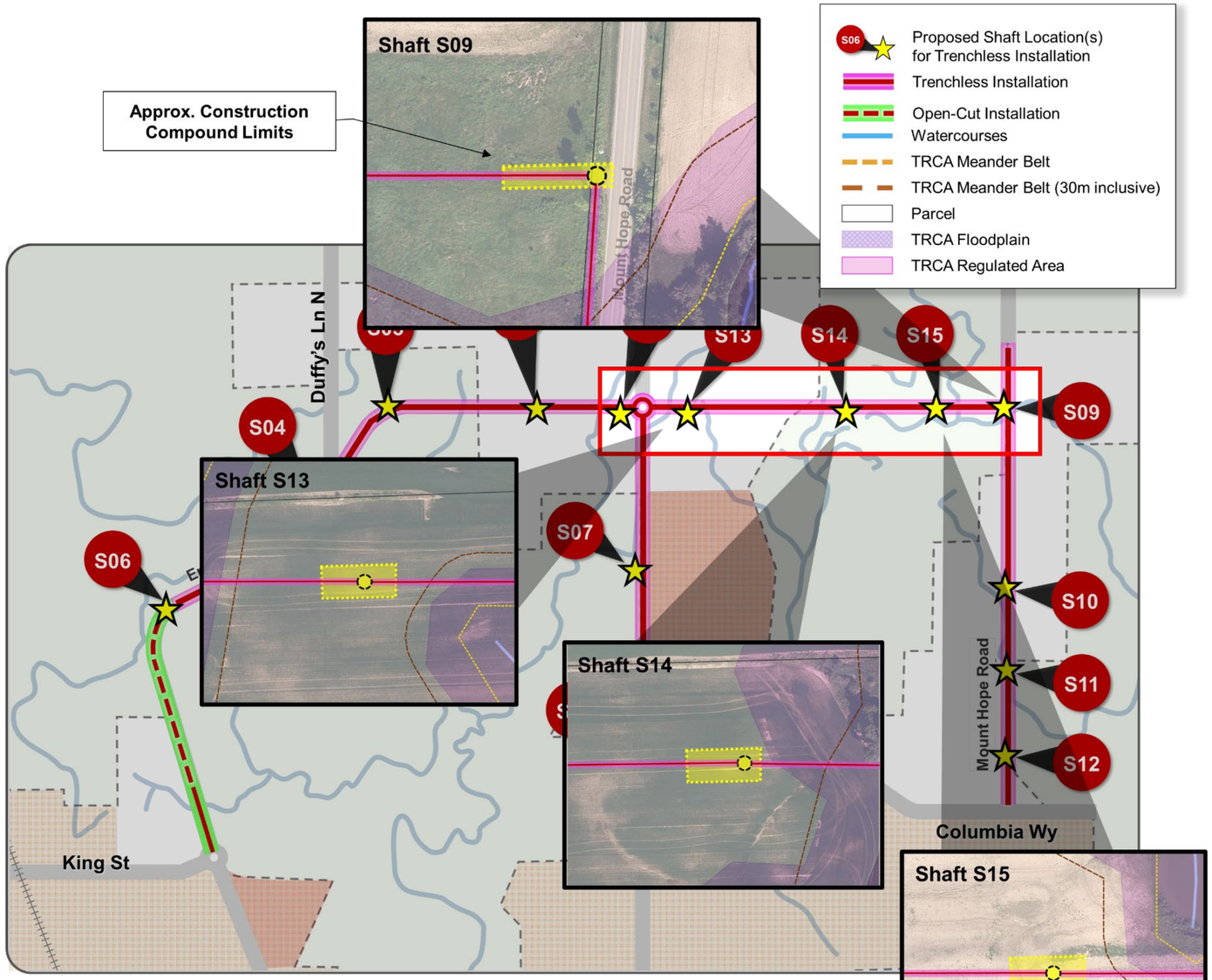
Utility Corridor

The gravity sewer alignment from the roundabout at Emil Kolb Parkway and Highway 50 will be tunnelled to Mount Hope Road to avoid impacts to the fish and fish habitat and other key structures.

Note: Ongoing natural environment, cultural heritage and agricultural studies to support location of wastewater alignment to minimize impacts to the natural environment.

The sewer is located **within a new utility corridor** which aligns with Town of Caledon's planned local road.

- Field investigation cleared the alignment of any further archaeological impact.
- No conflicts with existing infrastructure.
- Alignment provides a looped water system minimizing water quality issues, reducing service risk, and increasing system resiliency.
- Landowners willing to work with the Region
- Natural features and areas of potential archaeological importance have been identified and will be considered in the selection of the preferred infrastructure alignment.



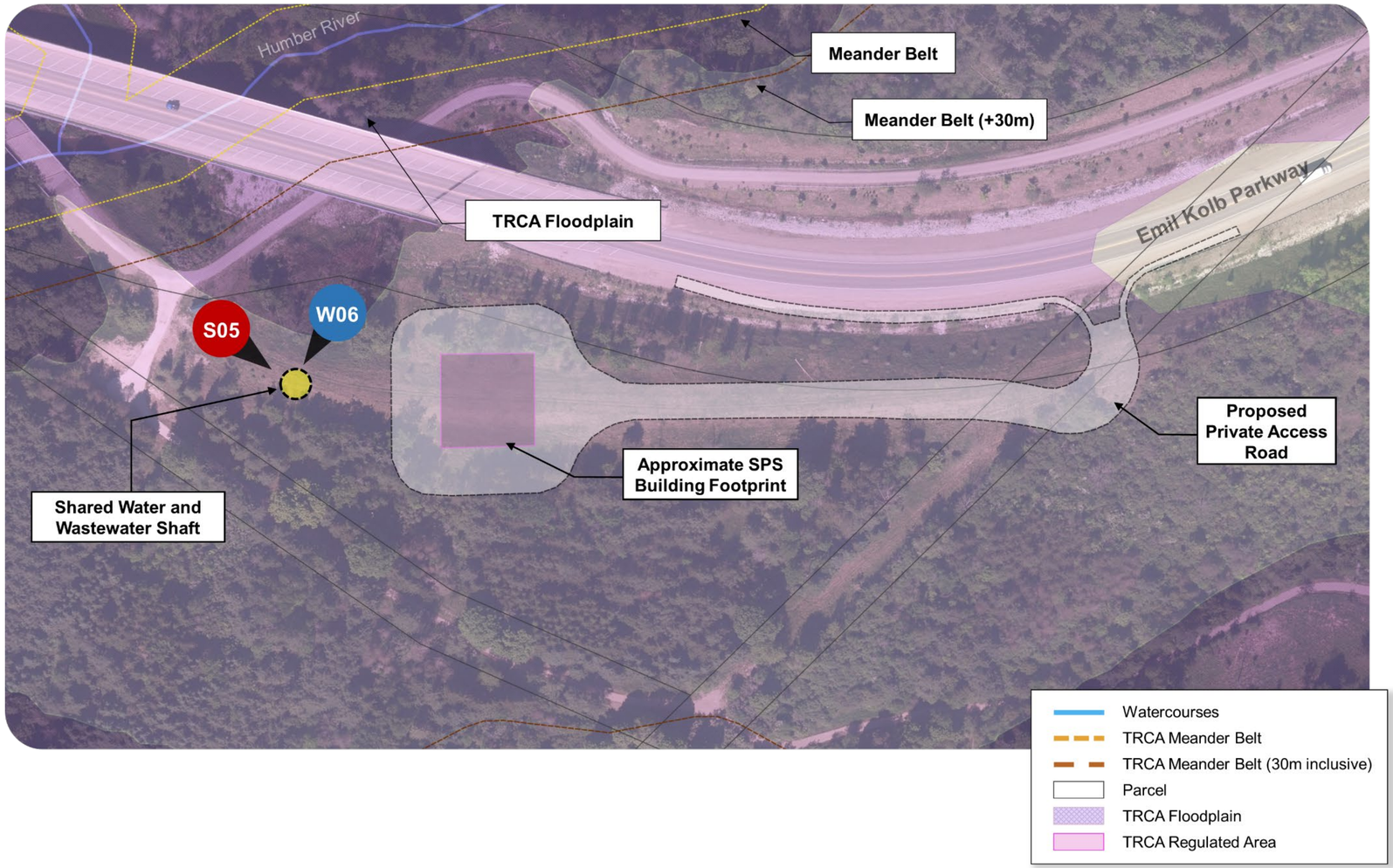
Note* Natural environment field investigations were completed in this area to validate the existing natural features and identify impacts and mitigation measures to further refine the alignment along the corridor. Investigations included headwater drainage feature survey, wetland verification and site reconnaissance. The results will be considered in the selection of the preferred shaft locations and infrastructure alignment.

Preliminary Preferred Design Concept – Wastewater

The last step in the wastewater design concept evaluation process is to identify the **preferred location for the Sanitary Pumping Station (SPS) site, access road and forcemain route**. The location of the SPS and forcemain considered the selected construction methodology for both the watermain and sewers, existing site constraints and overall impacts to the community including traffic, natural environment, archaeological and cultural heritage features.

Sanitary Pumping Station (SPS) Site and Access Road

- Validated during Phase 2 and further refined during Phase 3.
- Aligns with watermain, gravity sanitary sewer and forcemain alignment and shaft locations.
- Located on TRCA owned property (property acquisition required) and within TRCA regulated lands.
- SPS site and access road located outside the floodplain and meander belt (including 30m buffer) limits.
- Partially located on previously disturbed lands (previous road alignment).
- Private access road includes an entrance / exit on the east side of Emil Kolb Parkway.
- Mitigation measures will be needed to support operations and movement.
- Site-specific natural environment investigations were completed including headwater drainage survey, wetland delineation surveys, tree habitat survey and a bat cavity assessment. Mitigation measures include construction timing outside key ecological seasons and tree protection / replacement.
- No Species at Risk trees were identified.
- Cultural Heritage, Archaeological and Phase 1 ESA have been completed at this location to further inform the preferred site and identify impacts and mitigation measures.

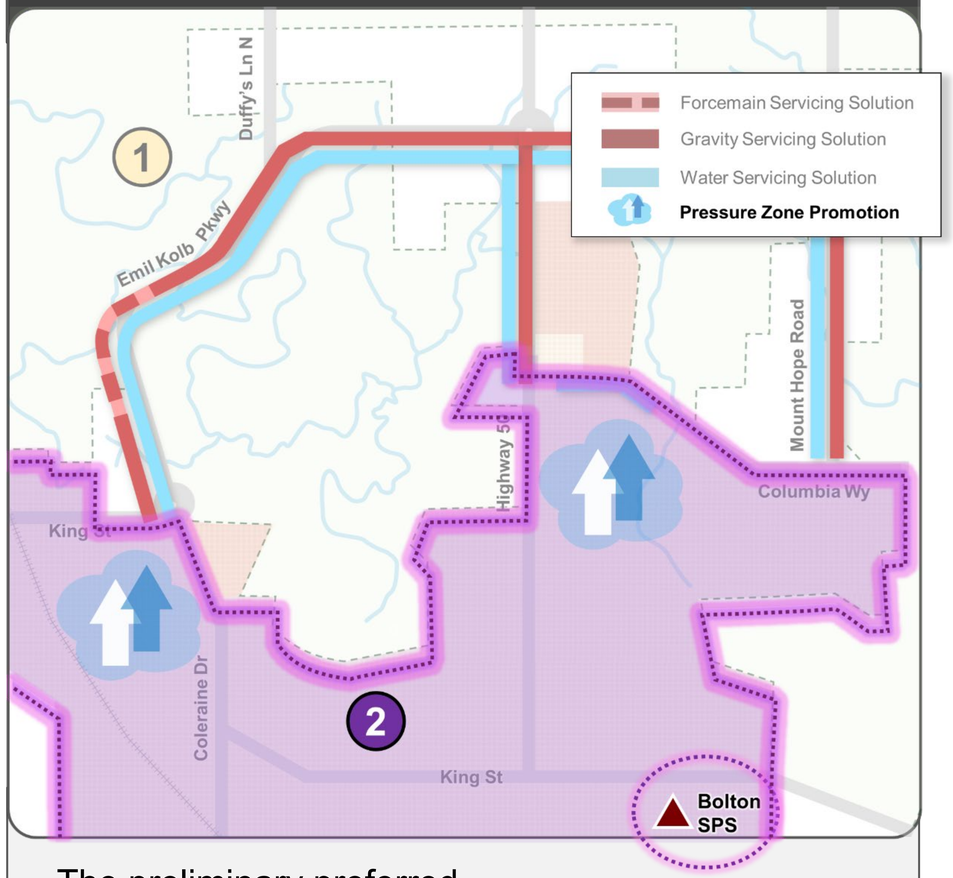


Bolton Class EA – Focus Area 2

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Focus Area 2

Optimizing the Existing System



The preliminary preferred solution for **Focus Area 2** includes the following elements listed on the right.

Water System

Pressure Zone Promotion

- Pressure Zone 6 areas promoted to new Pressure Zone 7 to optimize level of service.

Wastewater System

Bolton SPS and Forcemain Optimization

- New sanitary forcemain from Bolton SPS along Old King Road to existing trunk sewer on Nunnville Road ultimately conveying flow to the Albion-Vaughan Trunk Sewer.
- Maintain the existing sanitary forcemain system on Strawberry Hill Court to provide operational flexibility and resiliency.

Inflow and Infiltration (I&I) Reduction

- Inflow is rainwater or snowmelt that enters the wastewater system through direct connections (e.g., downspouts, stormwater catch basins, building foundation drains). Infiltration is rainwater and/or groundwater that enters the wastewater system through defects in the sewer.
- The Region has an ongoing wastewater flow monitoring program and comprehensive I&I reduction strategy developed to reduce and mitigate I&I in the wastewater system.

What are the next steps?

Schedule and Future Considerations

Region of Peel working with you

Public and stakeholder consultation was maintained through all phases of the Class Environmental Assessment process.

PHASE 1

June 2023
Issue Notice of Study Commencement.

Summer 2023
Agency and Stakeholder Pre-Consultation Workshops.

Fall 2023
Review of Baseline Data and Information to Define Problem and Opportunity Statement.

November 2023
PIC No. 1 – Presented the Study Problem and Opportunity Statement and Conceptual Servicing Alternatives.

PHASE 2

Fall 2023
Prepare Natural, Hydrogeological, Social, Cultural, Archaeological, and Economic Inventory.

Winter 2024
Identify Key Factors and Considerations along with Potential Impacts and How to Address them.

Spring 2024
Evaluate and Review Alternatives and Construction Methodologies.

June 2024
PIC No. 2 – Presented Preliminary Preferred Servicing Strategies.

PHASE 3

Summer 2024
Validate Preliminary Preferred Servicing Strategy.

September 2024
Identify Preferred Design Technology Alternatives and Methodologies.

Fall 2024
Evaluate Preferred Design Technologies and Refine Tunnel Shaft Locations.

December 2024 – January 2025
PIC No. 3 – Presented the Preliminary Preferred Design Concept and Tunnel Shaft Locations.
We are Here!

PHASE 4

February 2025
Confirm Preferred Design Concepts.

Spring 2025
Finalize Environmental Study Report (ESR) and Conceptual Designs.

Spring 2025
Issue Notice of Study Completion and 45-Day Public Review and File Final ESR.

PHASE 5

Fall 2025
Detailed Design Commences.

2027
Construction of Gravity sewers and Watermain from Highway 50 and Emil Kolb Pkwy to Columbia Way. Duration is approximately 12 months.

2027 to 2028
Construction of Gravity Sewers and Watermain from Emil Kolb Pkwy south to Highway 50. Duration is approximately 14-18 months.

2027 to 2029
Approximate Construction Start for Emil Kolb Pkwy Sewage Pumping Station. Duration is approximately 14-24 months.

Post-2029
Construction of Gravity Sewers and Watermain Alignment from Proposed Easement and along Mount Hope Rd South.

Solution Construction Complete and Strategy in Service 2028/2029.

Thank you!

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What are we doing next?

- Review and incorporate responses from PIC No. 3.
- Complete supporting technical studies including agricultural impact assessment and Phase 1 ESA.
- Confirm preferred design concepts for the preferred solution.
- Engagement with Indigenous Rights and Interest Holders.
- Consultation with affected / directly impacted parties, public review agencies, and other interested stakeholders.
- Prepare Environmental Study Report for 45-day public review period.

Project Overview:

- Winter 2025 - Confirm the preferred design concepts for the preferred solution.
- Spring 2025 - A detailed costing, phasing and implementation plan will be developed.
- Spring 2025 - Notice of Study Completion and 45-day public review period.

Stay Engaged!

- ✓ Have a look at the project information available on the project website.
- ✓ Provide your feedback regarding the information presented.

Do you have any questions, comments, or want to stay up to date?

Please contact us anytime!

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Italia.ponce@peelregion.ca

Please note that information related to this study will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. All comments received will become part of the public record and may be included in the study documentation prepared for public review.

If you need any accommodations to provide comments and/or feedback for this study, please contact the Project Manager.