

West Caledon Storage Facility and Transmission Main Schedule 'C' Class Environmental Assessment

Public Information Centre No. 3

Margaret Dunn Valleywood
Library and Community Room
20 Snelcrest Drive, Caledon ON, L7C 1B5

Date: October 7, 2025
Time: 5 p.m. – 7 p.m.

Key Dates

October 7, 2025



PIC No. 3 materials posted to project website (access via link or scan the QR code with a smart-phone):

<https://www.peelregion.ca/public-works/environmental-assessments/caledon/west-caledon-storage-facility.asp>

October 7 to October 28, 2025

If you have any questions or wish to provide your input, please speak with one of the project team members, and/or you may contact the Peel Region Project Manager at Sogol.Bandehali@peelregion.ca

November 4, 2025

Responses to questions and comments posted to project website.

Public Information Centre (PIC) Objectives



Provide study background review and present the study objectives.



Present study progress updates and what has been previously completed and confirmed.

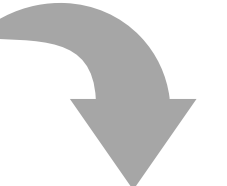


Present the preliminary preferred design concept for the elevated tank site, transmission main route and feedermain route.



Receive feedback on the evaluation process and preliminary preferred design concept.

Be on the lookout for this prompt. This indicates content we are looking for your feedback on!



Get Engaged!

- ✓ Please sign in and take a comment sheet.
- ✓ Have a look at the project information on display and chat with the Project Team.
- ✓ Provide your feedback regarding the information presented.



What is this study about?

Study Background

Peel Region operates a lake-based water system servicing the City of Mississauga, the City of Brampton, and parts of the Town of Caledon.

Water is collected from Lake Ontario, treated at the Region’s water treatment plants (WTP), and delivered to residents via pumping stations, transmission mains, and storage facilities.

Future Growth Projections

The 2051 growth projections require additional storage in Pressure Zone (PZ) 7 West (7W).

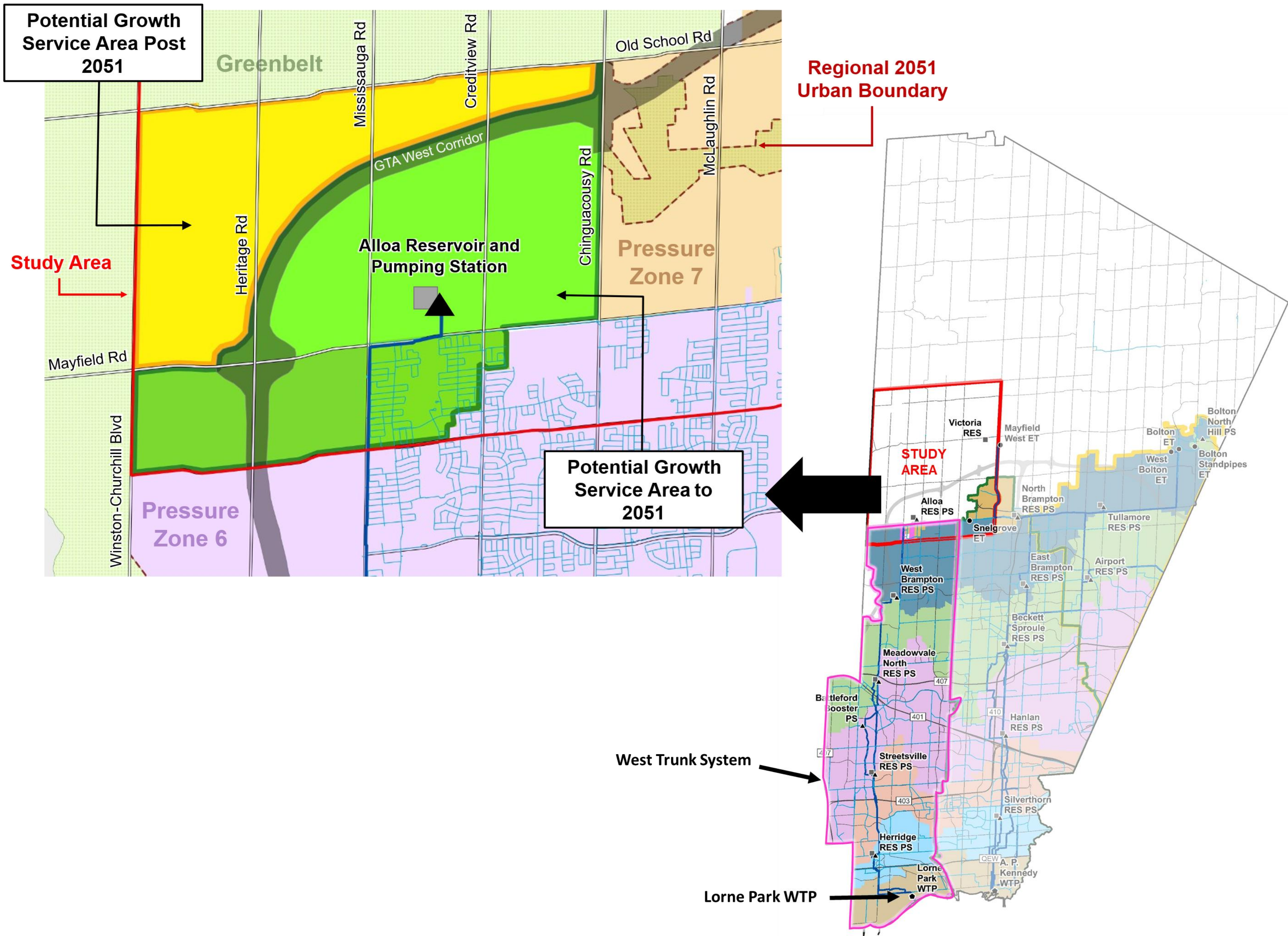
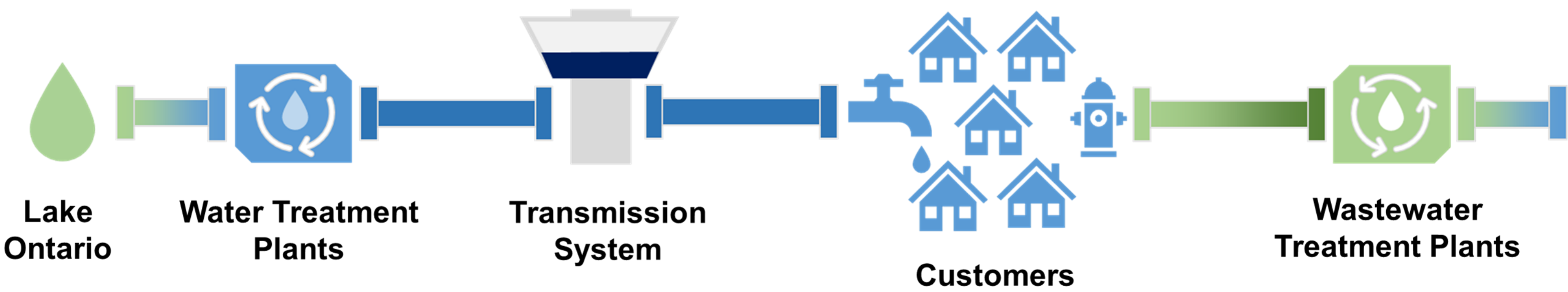
Planning Year	Population Growth
2021	8,000
2031	21,800
2041	32,700
2051	59,900

Existing Zone 7 Storage

- Mayfield West Elevated Tank (PZ 7-Central (7C))
- North Brampton Reservoir (PZ 7C-Pumped)
- Alloo Reservoir (PZ 7W-Pumped) – Provides 100% of 7W storage until additional floating storage is constructed.

Planning Year	Zone 7W Storage Requirements
2021	3 Mega Litres
2031	7 Mega Litres
2041	12 Mega Litres
2051	18 Mega Litres

Lake-Based Water System Servicing Process



What is this study about?

Study Purpose and MCEA Process

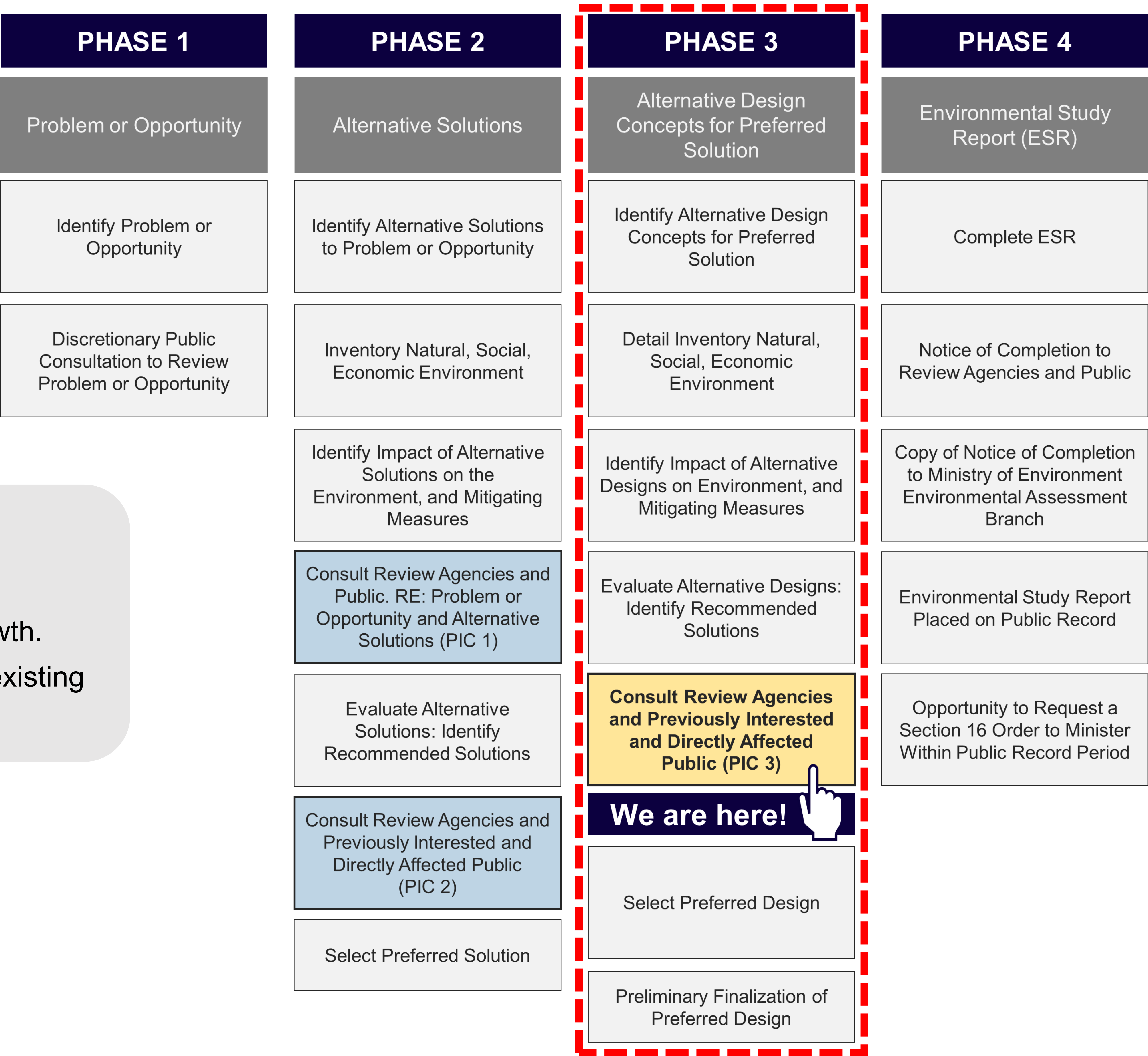
Problem and Opportunity:

Peel Region completed a **Water and Wastewater Master Servicing Plan Update (2020)** which identified the need to construct new water storage infrastructure for Pressure Zone (PZ) 7 West. The goal of this study is to develop, evaluate, and select a preferred storage facility and transmission main alignment to service projected growth to 2051.

Key Strategic Goals:

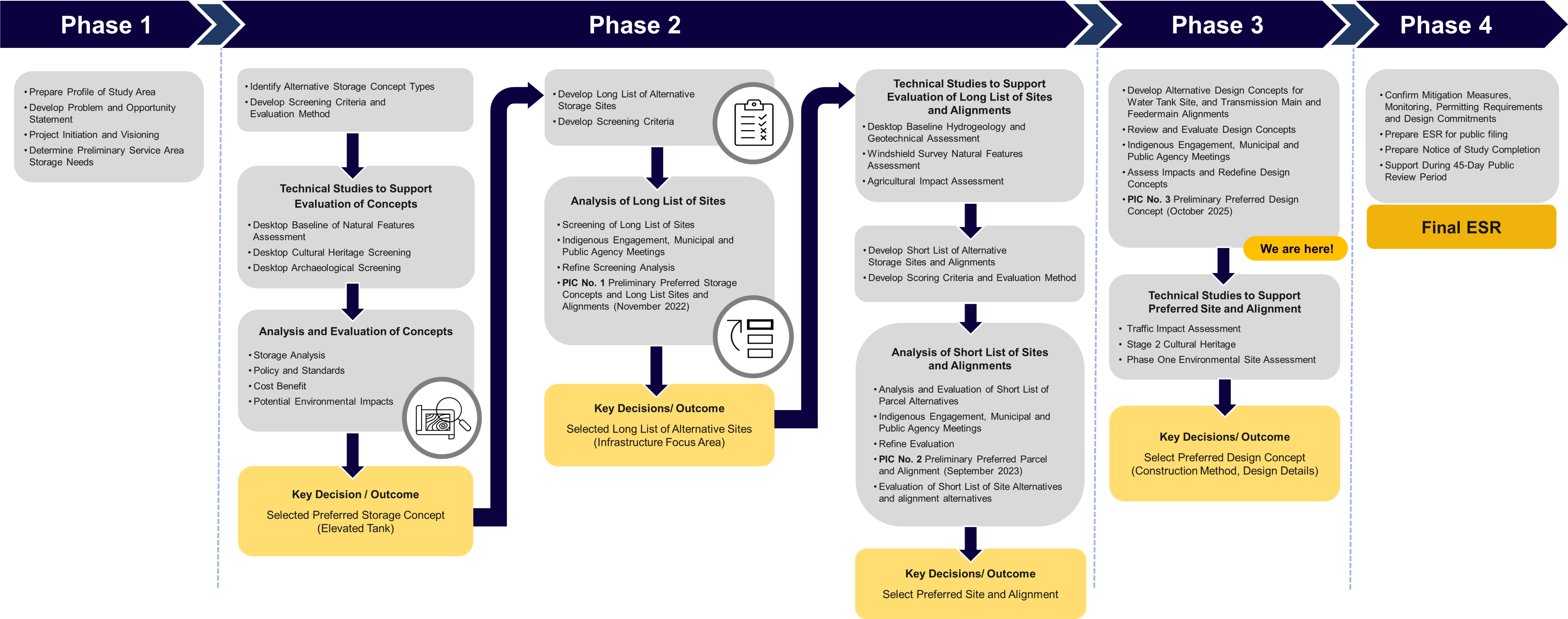
1. Protect the environment.
2. Increase system capacity to service future growth.
3. Ensure the best use and enhancement of the existing water infrastructure.

The project is being undertaken as a Schedule ‘C’ Class Environmental Assessment, satisfying Phases 1 to 4 of the Municipal Class Environmental Assessment (MCEA) process.



What are the steps in the evaluation process?

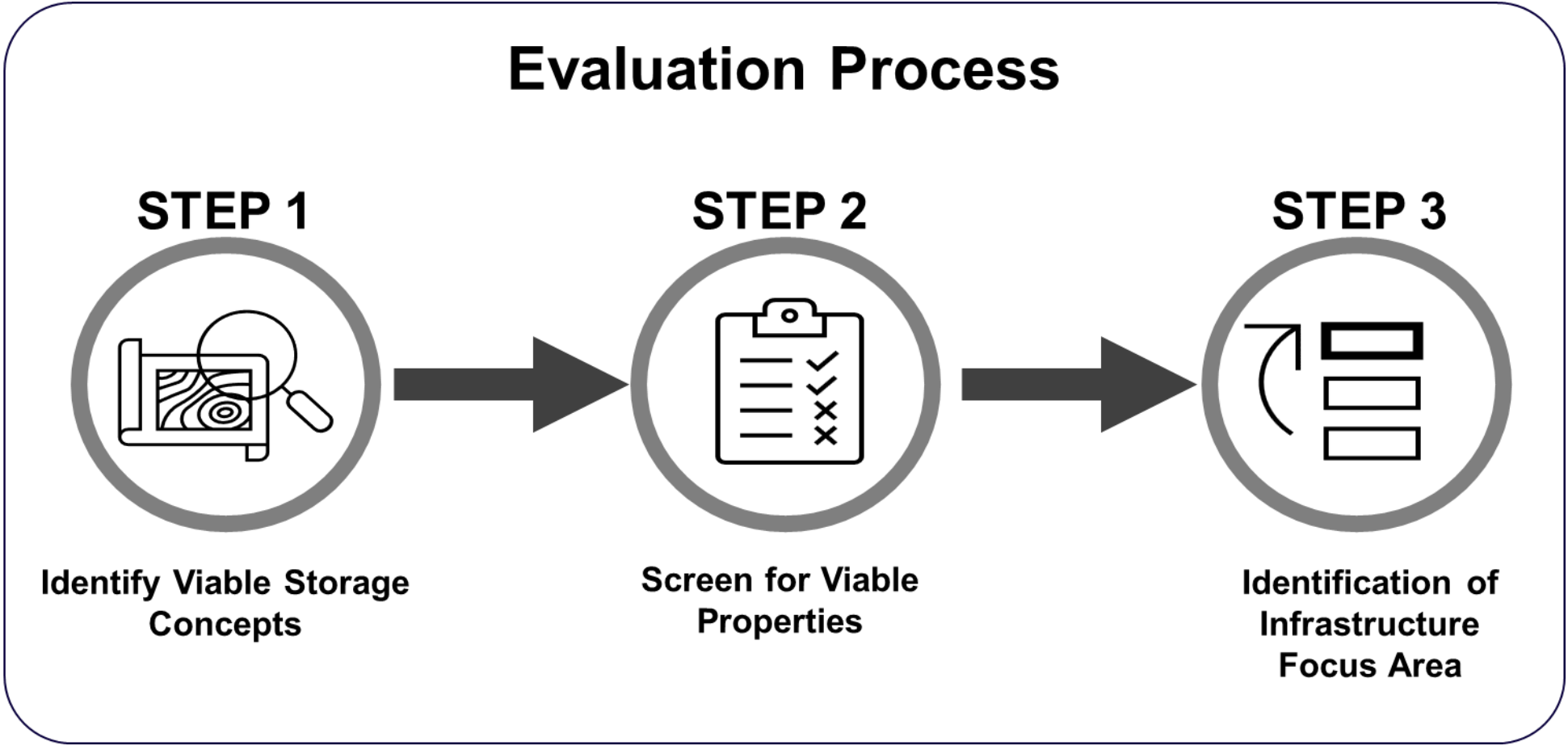
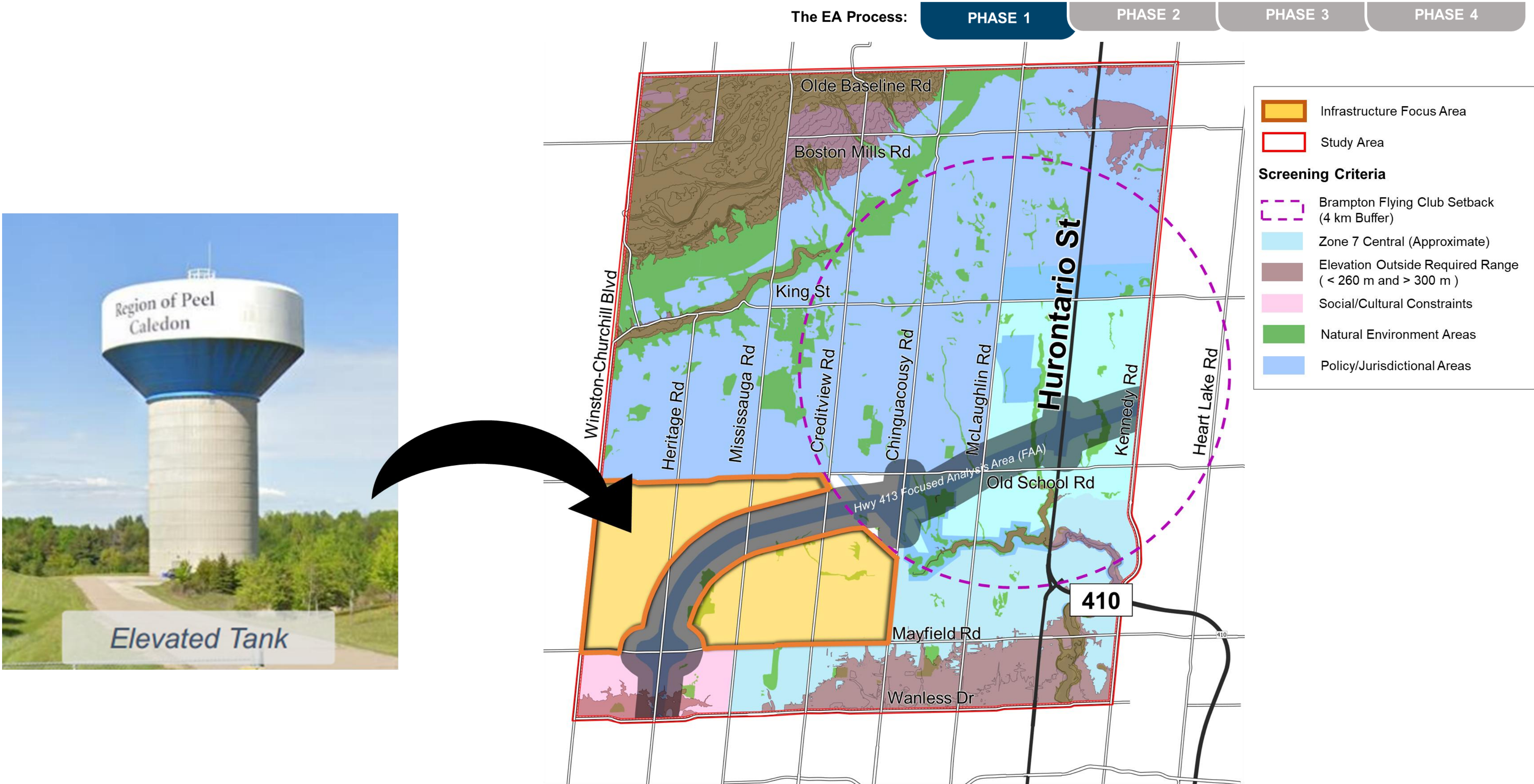
Study Progress Updates



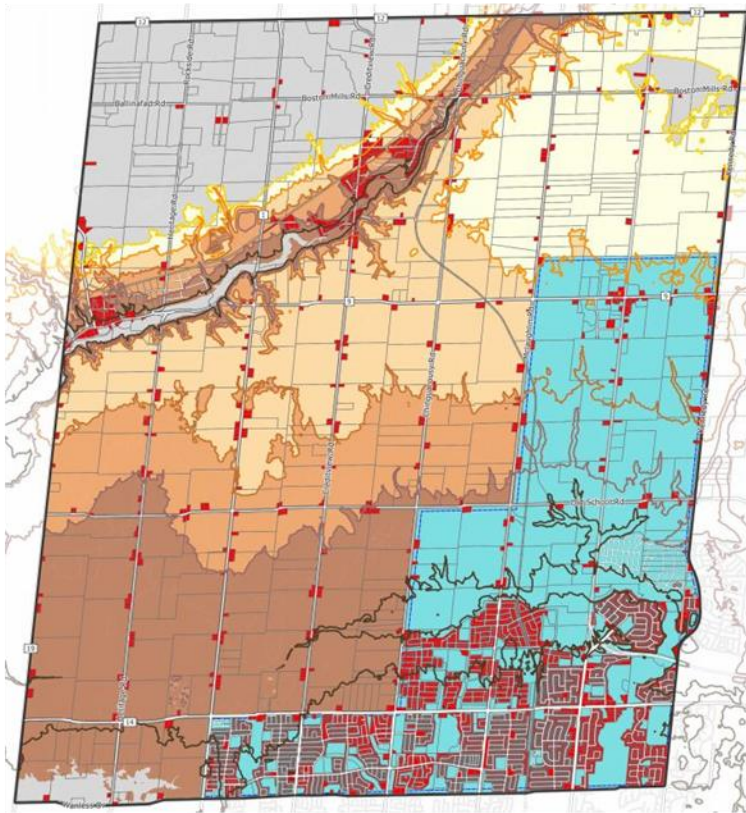
What has been completed? Confirmed During Phase 1

The following was confirmed during Phase 1 of the Class EA process:

- 1. The new Pressure Zone (PZ) 7 West storage facility will be an elevated water tower;
- 2. A new transmission main will be required from Alloo Reservoir and Pumping Station (PS) to the new elevated water tower;
- 3. Screening criteria was applied to the study area to avoid constraints and to minimize impact to the environment;
- 4. Based on use of the screening criteria and technical requirements, an Infrastructure Focus Area was selected within the Study Area in order to prepare a shortlist of sites for further consideration.



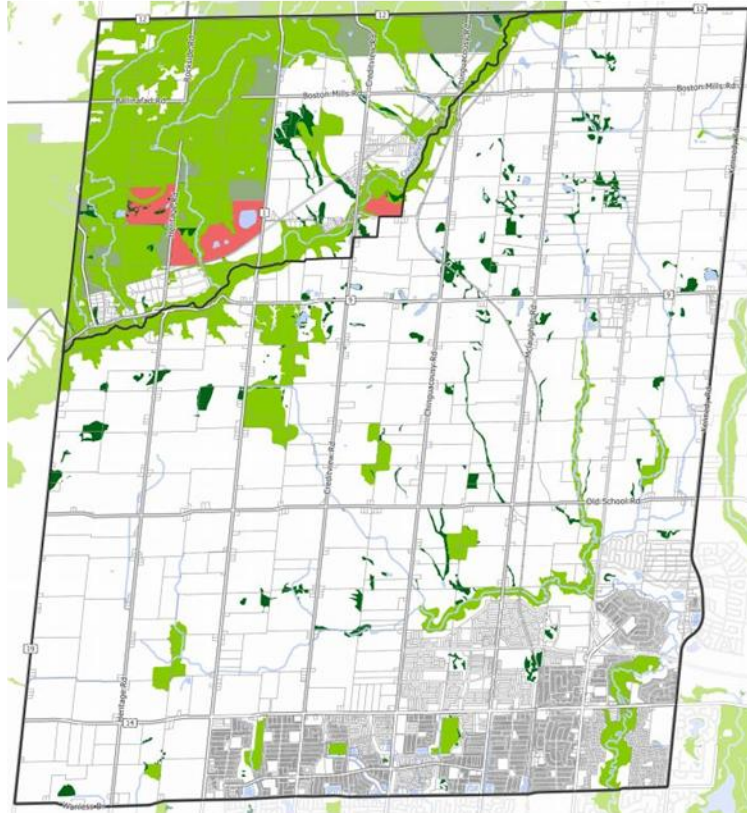
Technical Viability



Screened Out:

- X Properties outside required elevation
- X Properties less than 2 hectares
- X Properties in Pressure Zone 7 Central

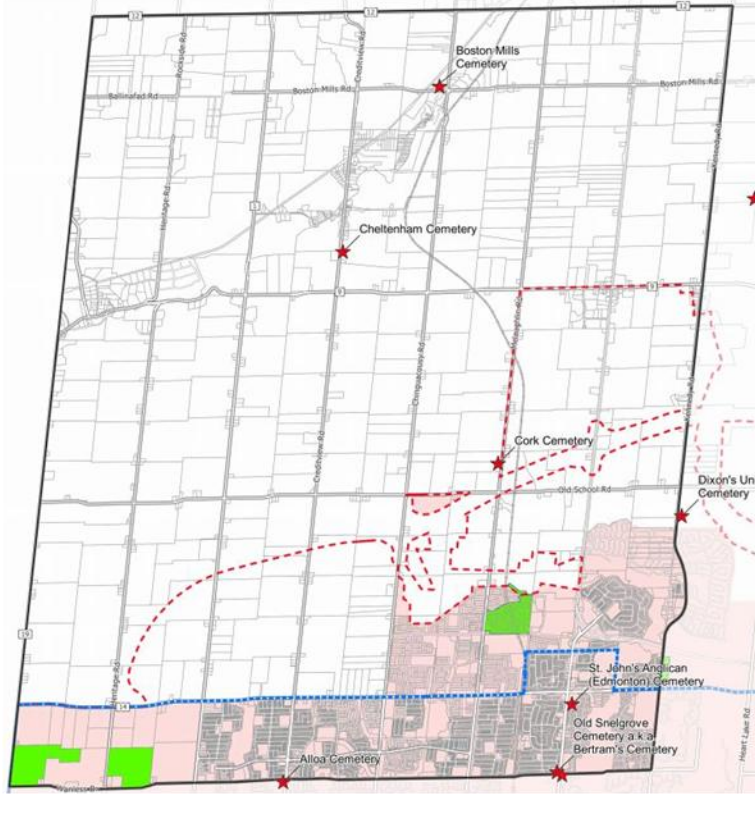
Natural Environment



Screened Out:

- X Properties in Niagara Escarpment
- X Environmentally Sensitive Areas
- X Area of Natural and Scientific Interest

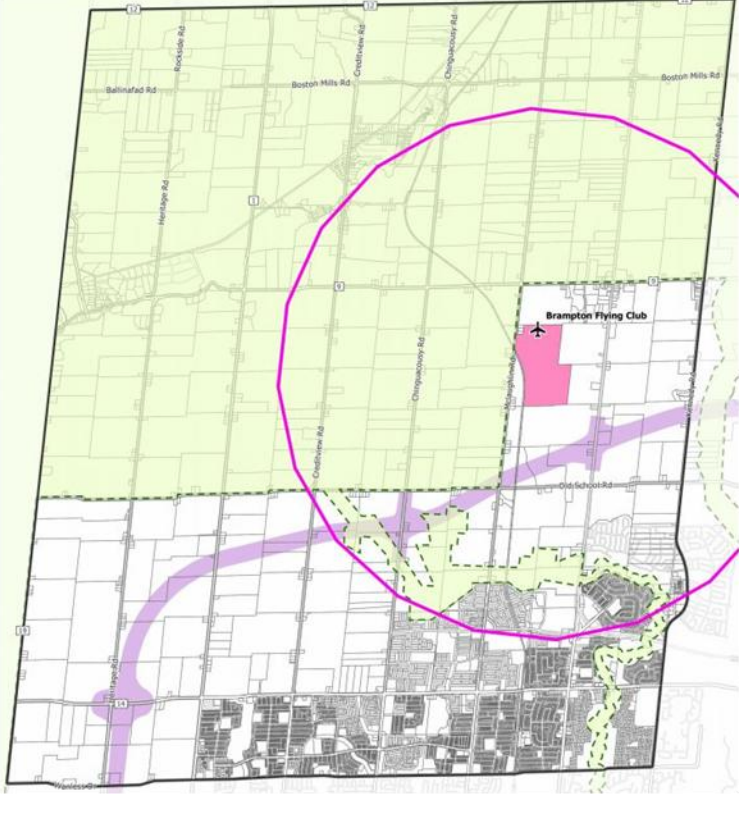
Social / Cultural



Screened Out:

- X Archeological and Cultural Heritage Properties
- X Existing Urban Areas

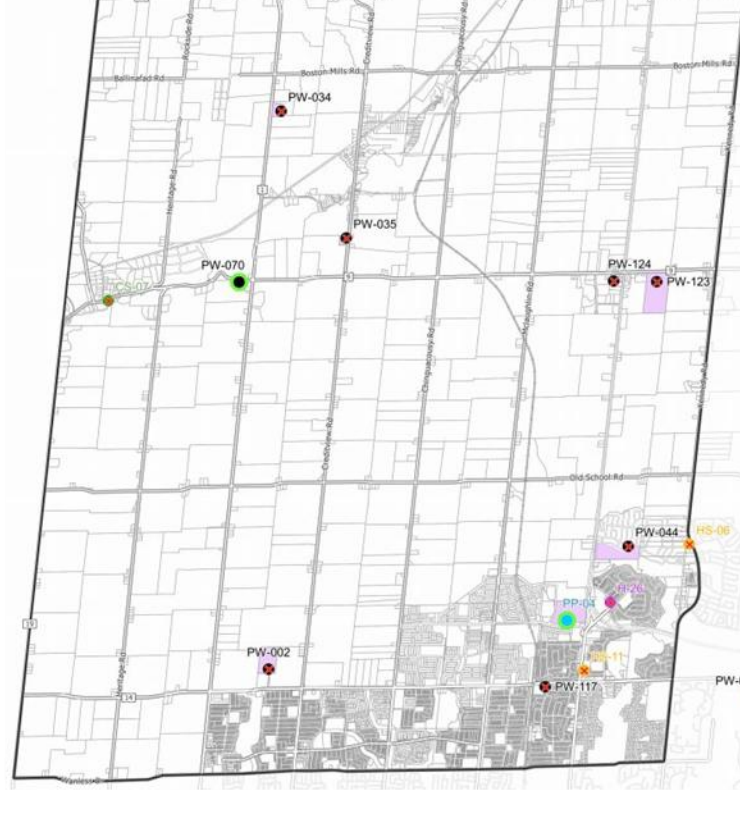
Policy / Jurisdictional



Screened Out:

- X Properties in the Greenbelt
- X Hwy 413 Focused Analysis Area
- X 4 km radius of Brampton Flying Club

Economic



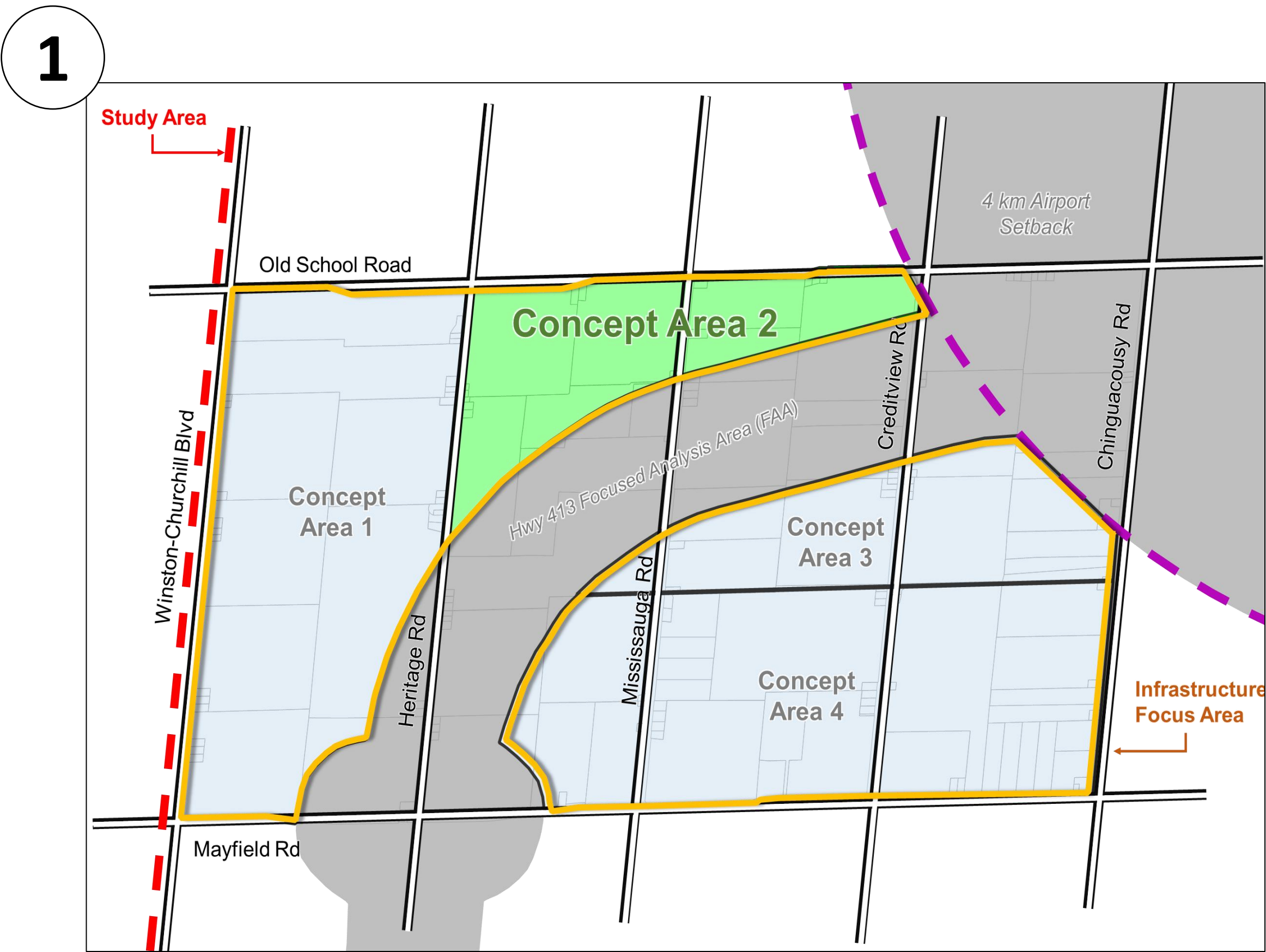
Screened Out:

- X Existing Region-owned properties that are not available

What has been completed? Confirmed During Phase 2

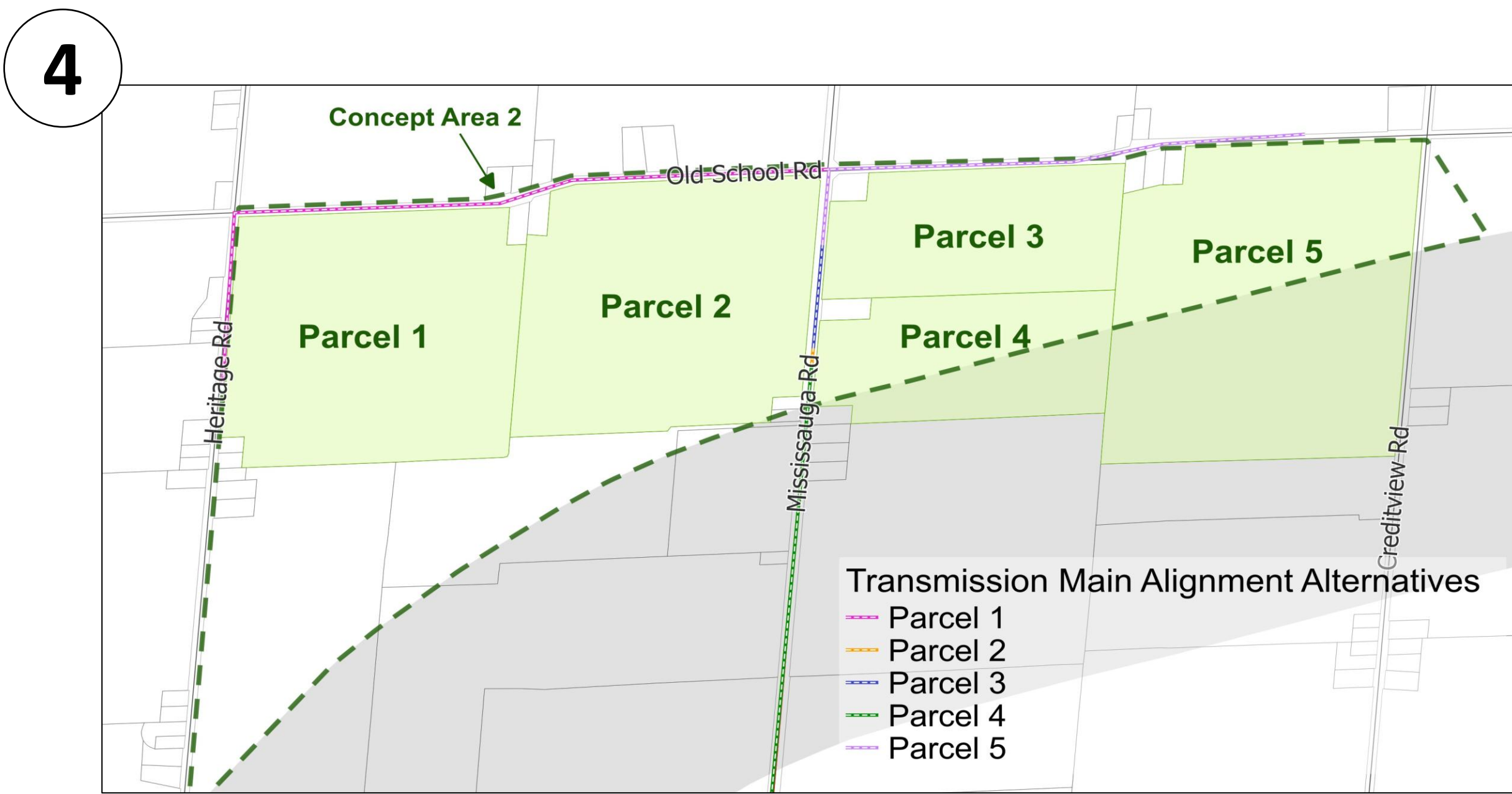
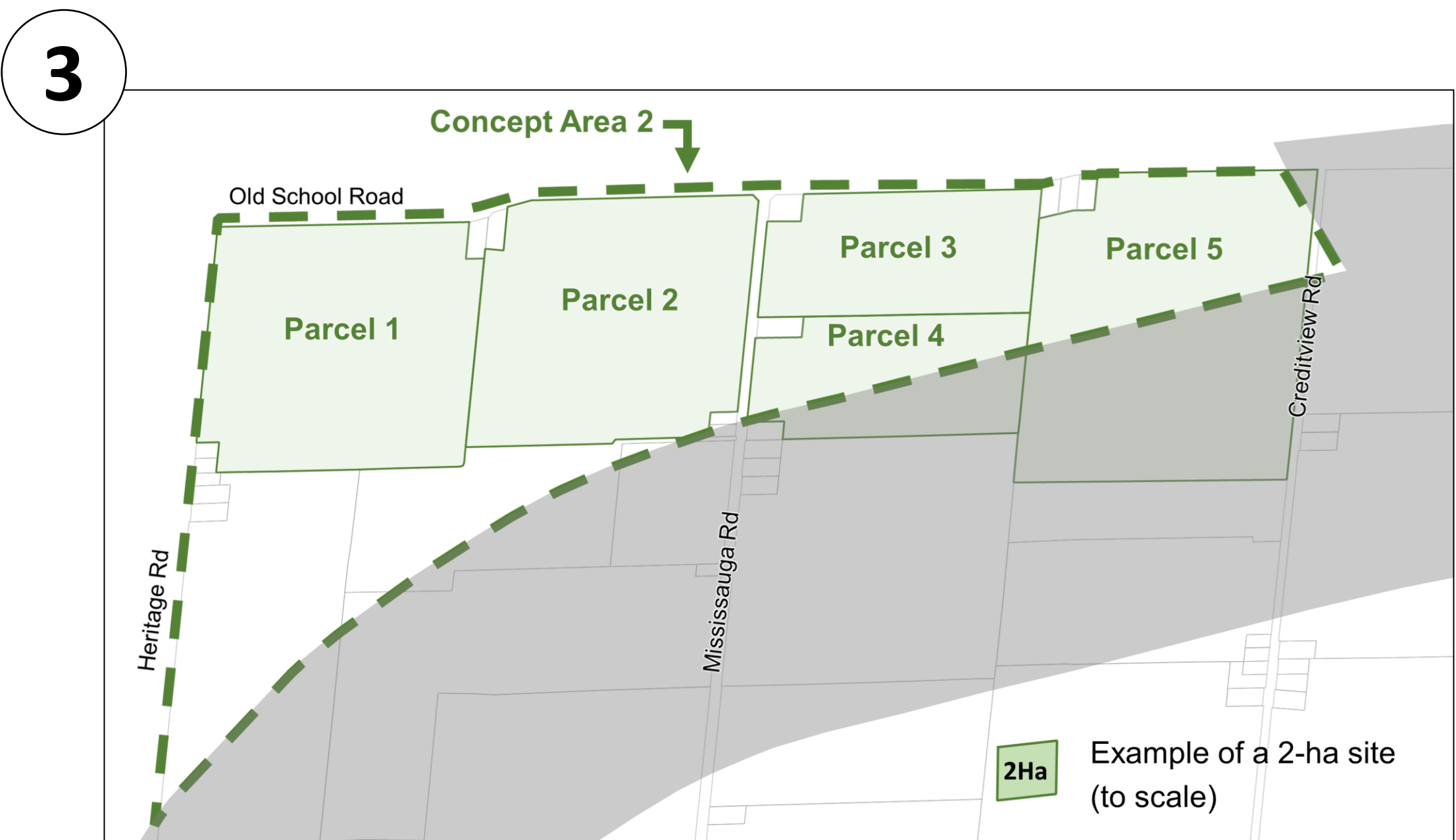
The following was confirmed during Phase 2 of the Class EA process:

1. Within the Infrastructure Focus Area, Concept Area 2 was selected as the preferred area for the elevated water tower based on technical, environmental and land use criteria.
2. Site requirements were established to select suitable parcel alternatives within Concept Area 2.
3. Five (5) parcels were selected from Concept Area 2. Within each selected parcel, there was opportunity to site the elevated tank that met the technical requirements and avoided constraints.
4. Five (5) transmission main alignment alternatives were selected connecting the selected parcel alternatives to the Alloo Reservoir and Pumping Station (PS).



2

Site Requirements	Criteria Description
Site Size	Optimal site area of 2ha
Site Elevation	Site elevation greater than 260m; optimal site elevation of 270m or greater to support an elevated tank height of less than 60m.
Site Location	- Avoid being at intersections and have north-south / east-west facing road frontage - Not within Highway 413 Focused Analysis Area (FAA), Northwest GTA Transmission Corridor Narrowed Area of Interest (NAI) (similar corridor as FAA) or the Brampton Flying Club 4-km buffer - Avoid areas of environmental significance
Site Impacts	Buffer of 100m from existing residential properties to avoid shadow, noise and other aesthetic impacts on adjacent parcels



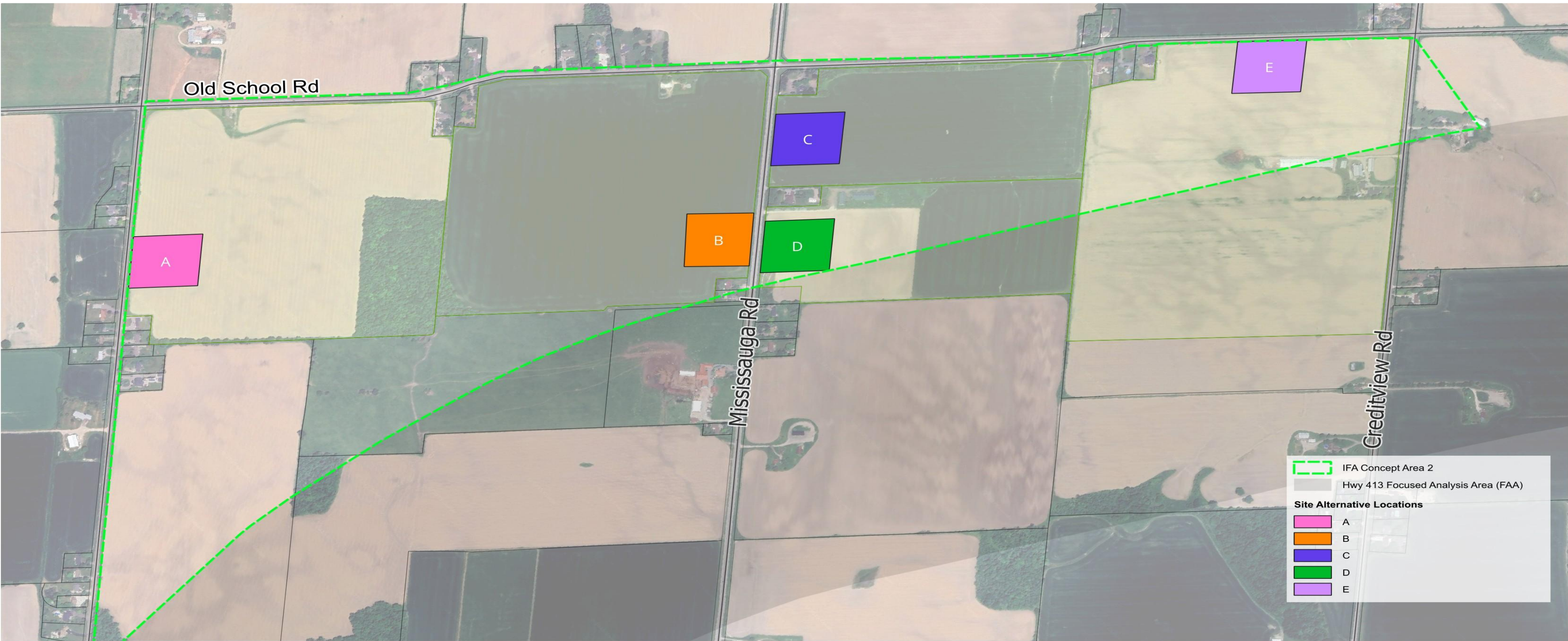
What site alternatives were evaluated?

Elevated Tank Site Alternatives

Two-hectare sites were selected within each of the parcel alternatives in Concept Area 2. These sites were selected to avoid major constraints while providing different access points/routes to ensure a range of alternatives.

The site alternatives were assessed though a comprehensive evaluation process, with each category of criteria being considered equally.

The highest score identified the preferred site.



Evaluation Criteria

Natural Environmental Factors



- Protects environmental features.
- Protects wildlife and species-at-risk.
- Ability to protect groundwater and well supplies.

Technical Suitability



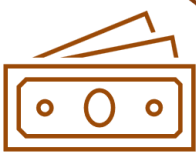
- Provides a reliable water supply to meet existing and future needs.
- Aligns with existing system and strategy.
- Minimizes and manages construction risk.
- Ability to adapt to climate change.
- Minimizes operations and maintenance needs.
- Minimize length of watermain as it relates to water age and water quality impacts if further from service area.

Socio-economic and Cultural Factors



- Aligns with existing and future land use.
- Flexibility to avoid existing/future residents/businesses and proximity to conflicting land use areas.
- Protects cultural heritage and archaeological features.
- Minimize impact to Indigenous Communities and traditional treaty lands.
- Minimize impact to protected countryside and prime agricultural areas.

Financial Factors



- Aligns with financially sustainable practices for construction and long-term operations.
- Minimizes overall lifecycle costs.

Policy & Jurisdictional Factors



- Aligns with respective municipal/provincial/federal legislation and policies.
- Flexibility to avoid the Highway 413 Focused Analysis Area (FAA) and the Northwest GTA Transmission Corridor Narrowed Area of Interest (NAI).
- Ability to comply with the Toronto and Region Conservation Authority (TRCA).

What were the results of the evaluation?

Elevated Tank Site Alternatives Evaluation

The EA Process:

PHASE 1

PHASE 2

PHASE 3

PHASE 4

	Site A	Site B	Site C	Site D	Site E
Natural Environment	All sites have opportunity to avoid siting the elevated tank within environmental features. All sites may require further field validation to assess potential impacts.	All sites have opportunity to avoid siting the elevated tank within environmental features. All sites may require further field validation to assess potential impacts.	All sites have opportunity to avoid siting the elevated tank within environmental features. All sites may require further field validation to assess potential impacts.	All sites have opportunity to avoid siting the elevated tank within environmental features. All sites may require further field validation to assess potential impacts.	All sites have opportunity to avoid siting the elevated tank within environmental features. All sites may require further field validation to assess potential impacts.
	3	3	3	3	3
Technical Suitability	- Potential for high inflows would be expected if deep open cut excavations is required below the groundwater table that encounter aquifers. - This site is further from service area; will impact operations – more volume of the tank used for turnover required to ensure good water quality. - Approximate site elevation is 266m, lower than optimal range (270-310 m).	- Potential for high inflows would be expected if deep open cut excavations is required below the groundwater table that encounter aquifers. - This site is close to service area; will benefit operations – less volume of the tank used for turnover required to ensure good water quality. - Approximate site elevation is 275m, within optimal range (270-310 m).	- Potential for high inflows would be expected if deep open cut excavations is required below the groundwater table that encounter aquifers. - This site is further from service area; will impact operations – more volume of the tank used for turnover required to ensure good water quality. - Approximate site elevation is 277m, within optimal range (270-310 m).	- Potential for high inflows would be expected if deep open cut excavations is required below the groundwater table that encounter aquifers. - This site is closest to service area; will benefit operations – less volume of the tank used for turnover volume to ensure good water quality. - Approximate site elevation is 275m, within optimal range (270-310 m).	- Potential for high inflows would be expected if deep open cut excavations is required below the groundwater table that encounter aquifers. - This site is further from service area; will impact operations – more volume of the tank used for turnover volume to ensure good water quality. - Approximate site elevation is 274m, within optimal range (270-310 m).
	2	3	2	3	2
Socio- Economic & Cultural Heritage	- No impact to access of farm fields. - Construction of the proposed site has the potential to temporarily disrupt farm traffic and generate higher levels of dust for surrounding farm operations. - Site includes loss of 2ha of systematic tile drainage; impact would require mitigation similar to Site B and more than Site E.	- No impact to access of farm fields. - Construction of the proposed site has the potential to temporarily disrupt farm traffic, impact surrounding tile drainage and generate higher levels of dust. - Site includes loss of 2ha of systematic tile drainage; impact would require mitigation similar to Site A and more than Site E - Close to proposed Highway 413 Focused Analysis Area (FAA) and Northwest GTA Transmission Corridor Narrowed Area of Interest (NAI). Opportunity to decrease existing agricultural land/future land use fragmentation and support siting of similar infrastructure/utilities land uses.	- Site may impact access to farm fields. - Construction of the proposed site would have negligible impacts on the surrounding farm operations in the area. - There is no tile drainage on the property, no impact or mitigation required compared to Sites A, B and E.	- No impact to access of farm fields. - Construction of the proposed site would cause some minor indirect impacts to the other agricultural operations in the area. - There is no tile drainage on the property, no impact or mitigation required compared to Sites A, B and E. - Adjacent to proposed Highway 413 FAA and Northwest GTA Transmission Corridor NAI. Best opportunity to decrease existing agricultural land/future land use fragmentation and support siting of similar infrastructure/utilities land uses.	- No impact to access of farm fields. - Construction of the proposed site has the potential to temporarily disrupt farm traffic, restrict access to farm fields, impact surrounding tile drainage and generate higher levels of dust. - Site includes loss of 1 ha of systematic tile drainage; impact would require mitigation but less that Sites A and B.
	2	2	2	3	2
Policy & Jurisdictional	- Potential need for permits and/or approvals from Department of Fisheries and Oceans Canada (DFO) and/or Credit Valley Conservation (CVC). - Property owners not willing to negotiate land easement and/or acquisition.	- No anticipated permits and/or approvals from DFO, Toronto and Region Conservation Area (TRCA)/CVC. - Property owners not willing to negotiate land easement and/or acquisition.	- No anticipated permits and/or approvals from DFO, TRCA/CVC. - Property owners not willing to negotiate land easement and/or acquisition.	- No anticipated permits and/or approvals from DFO, TRCA/CVC. - Property owners not willing to negotiate land easement and/or acquisition.	- Potential need for permits and/or approvals from DFO and/or TRCA. - Property owners not willing to negotiate land easement and/or acquisition.
	1	2	2	2	1
Financial	- Marginal height difference between sites; capital cost are similar. - This is the longest alignment option compared to other sites, requiring highest capital costs.	- Marginal height difference between sites; capital cost are similar. - This is second shortest alignment option similar to Site D, compared to other sites, requiring lower capital costs.	- Marginal height difference between sites; capital cost are similar. - This is longer compared to Site D and Site B, requiring additional capital costs.	- Marginal height difference between sites; capital cost are similar. - This is the shortest alignment option compared to other sites, requiring lowest capital costs.	- Marginal height difference between sites; capital cost are similar. - This alignment option is longer compared to Sites B, C and D requiring additional capital costs.
	1	3	2	3	1
Score	Least Preferred (9)	Less Preferred (13)	Less Preferred (11)	Most Preferred (14)	Least Preferred (9)

What were the results of Phase 2 evaluation?

Preferred Solution

Phase 2 selected both the preferred elevated tank site (Site D) and preferred transmission main alignment (Mississauga Road) strategy.

During Phase 3, the preliminary preferred conceptual design of the preferred solution (confirmed in Phase 2) is selected including what infrastructure is required, where it will be constructed and how.

Phase 3 includes:

- Identification of design concept alternatives.
- Preparation of additional inventory.
- 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.



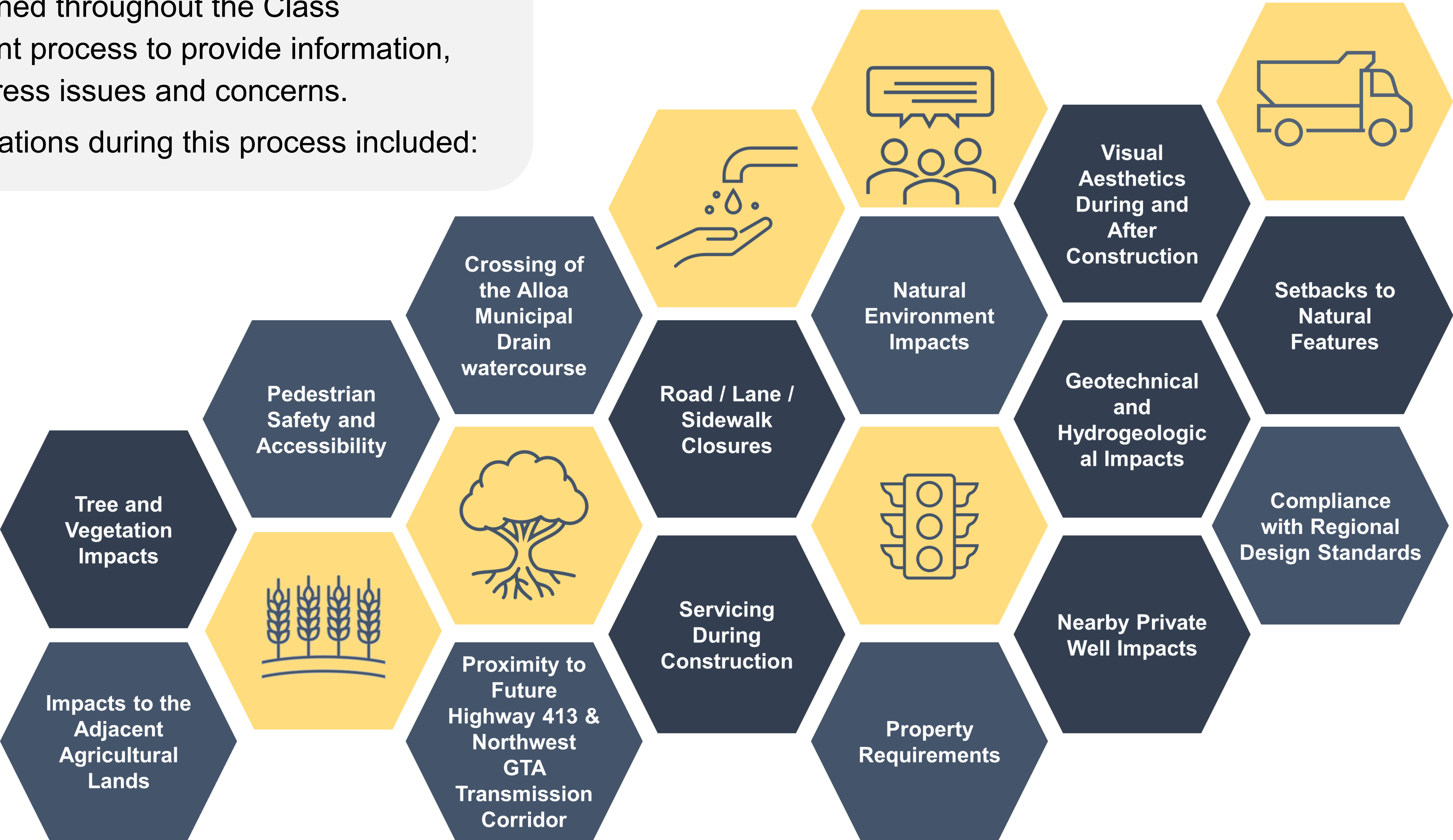
Phase 2 Preferred Solution

What are the potential impacts?

Key Considerations

Meaningful consultation and two-way communication with stakeholders was maintained throughout the Class Environmental Assessment process to provide information, listen to, and work to address issues and concerns.

Some of the key considerations during this process included:



What will the elevated tank site look like?

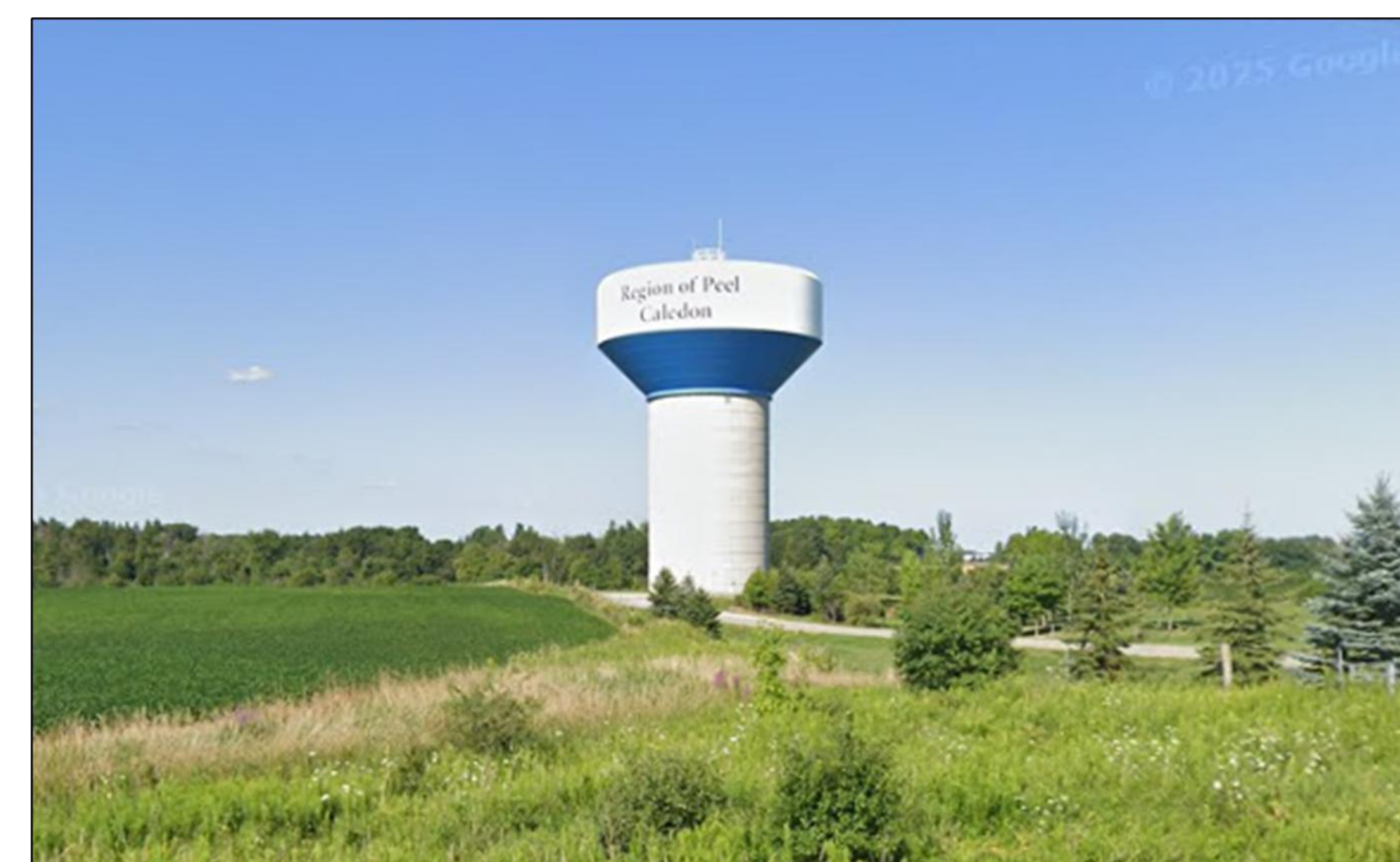
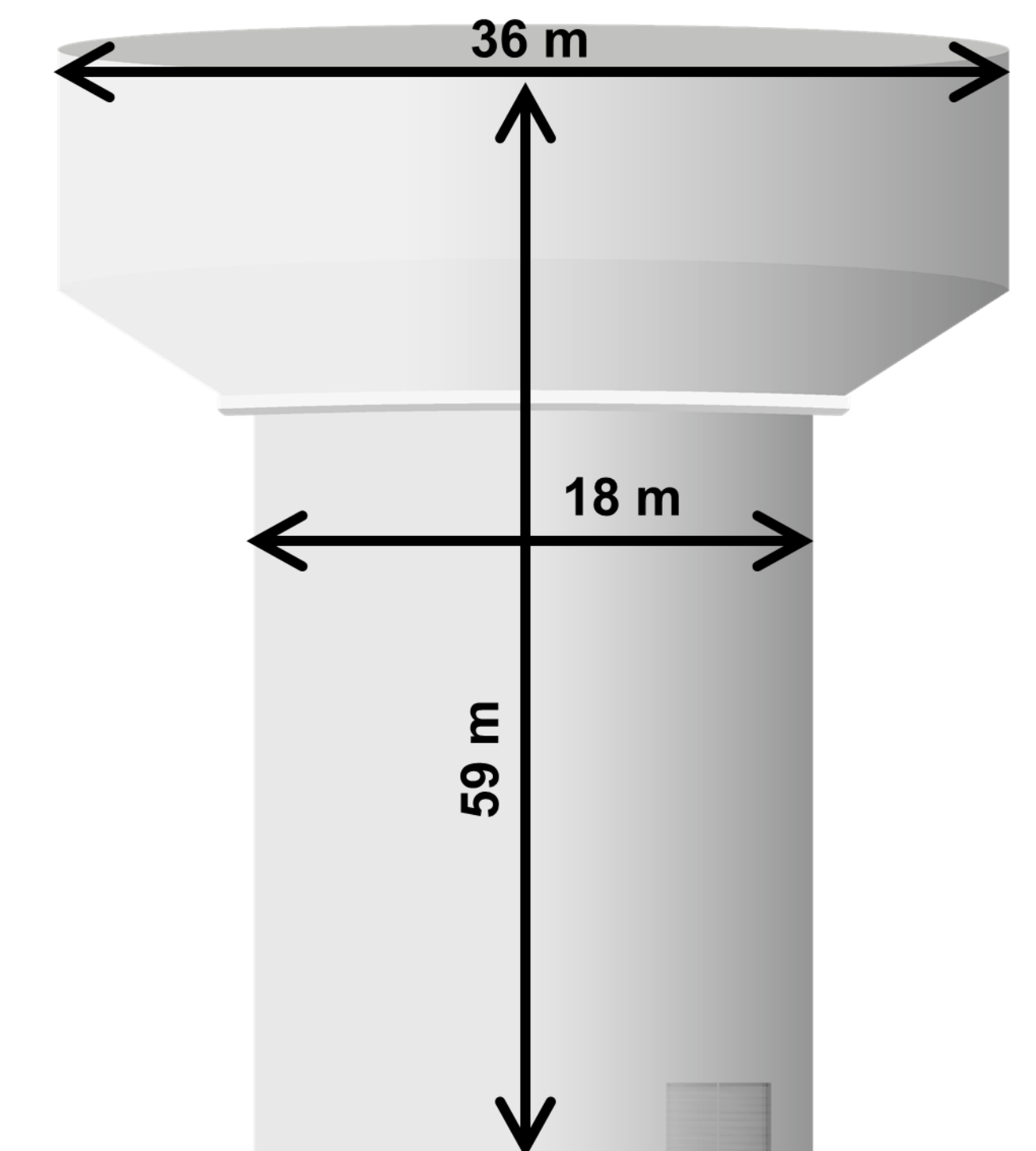
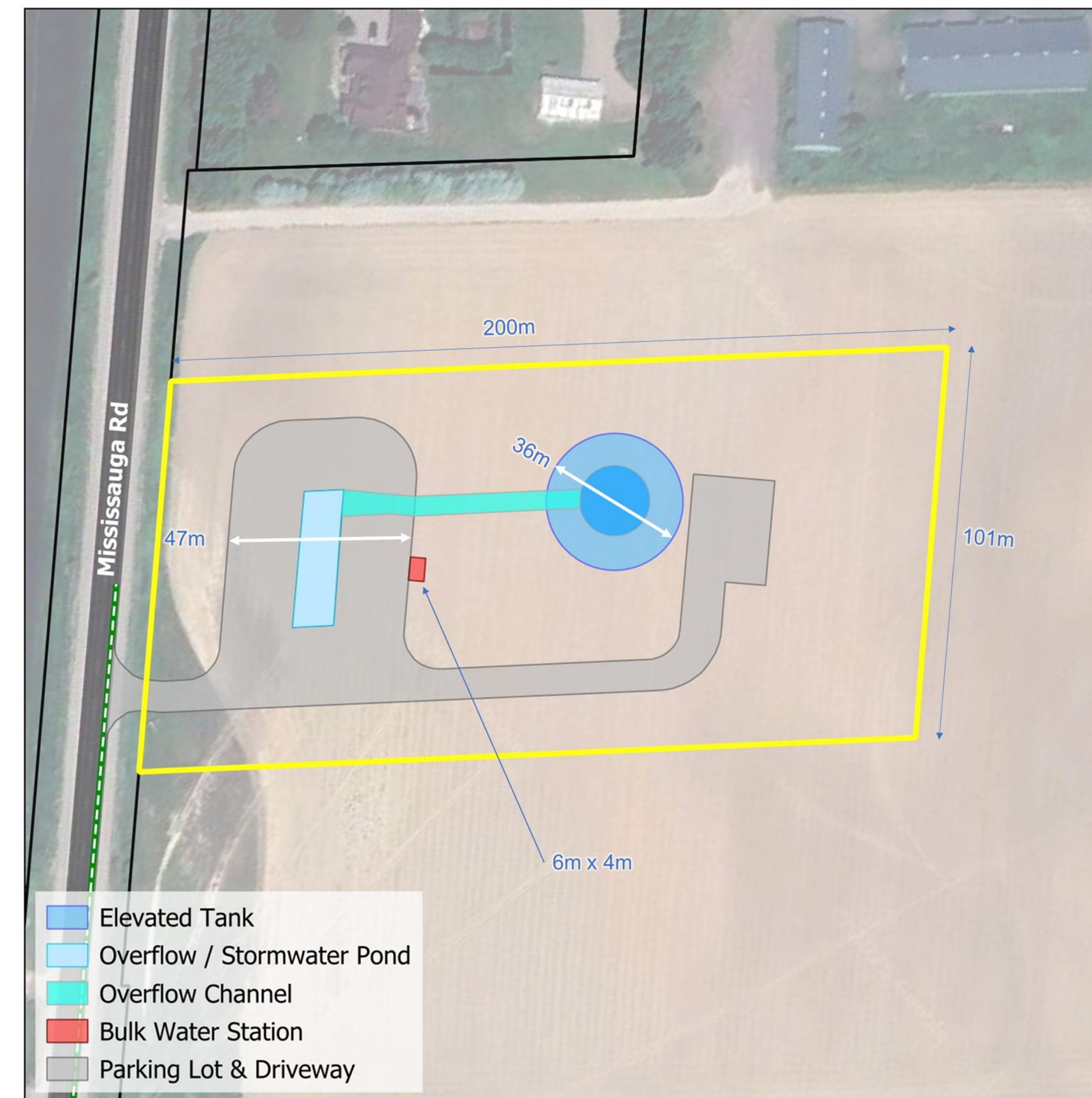
Preliminary Preferred Design Concept – Elevated Tank

The first step in Phase 3 was to determine the optimal facility site shape and location for the elevated tank and its ancillary components which includes:

- Bulk water station
- Emergency overflow
- Stormwater management pond
- Driveway from Mississauga Road
- Parking lot

There were two key criteria that determined the layout of the elevated tank:

- The location of the elevated tank within the site required a 100-metre buffer from residential properties to minimize shadow, noise and other aesthetics impacts.
- The site requires stormwater / emergency overflow drainage and has been designed to outlet to the roadside ditch on Mississauga Road.



For illustrative purposes only: Example of an existing regional elevated tank in the Town of Caledon (Mayfield West Elevated Tank).

How will the solution be constructed?

Preliminary Preferred Design Concept – Mississauga Road

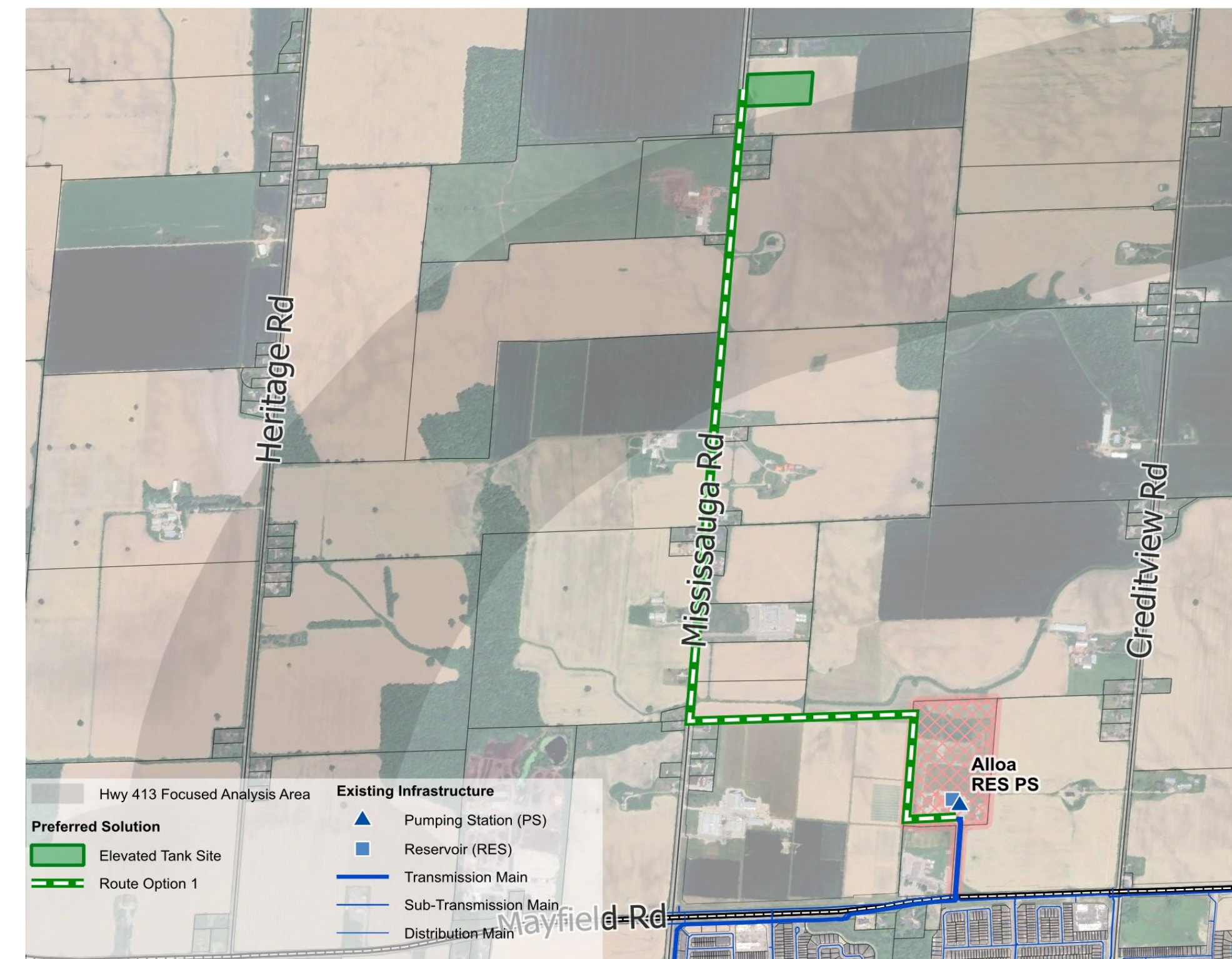
The second step in Phase 3 was to evaluate the route options of the transmission main from the Alloa Reservoir and Pumping Station (PS) to the Elevated Tank Site:

Route Option 1:

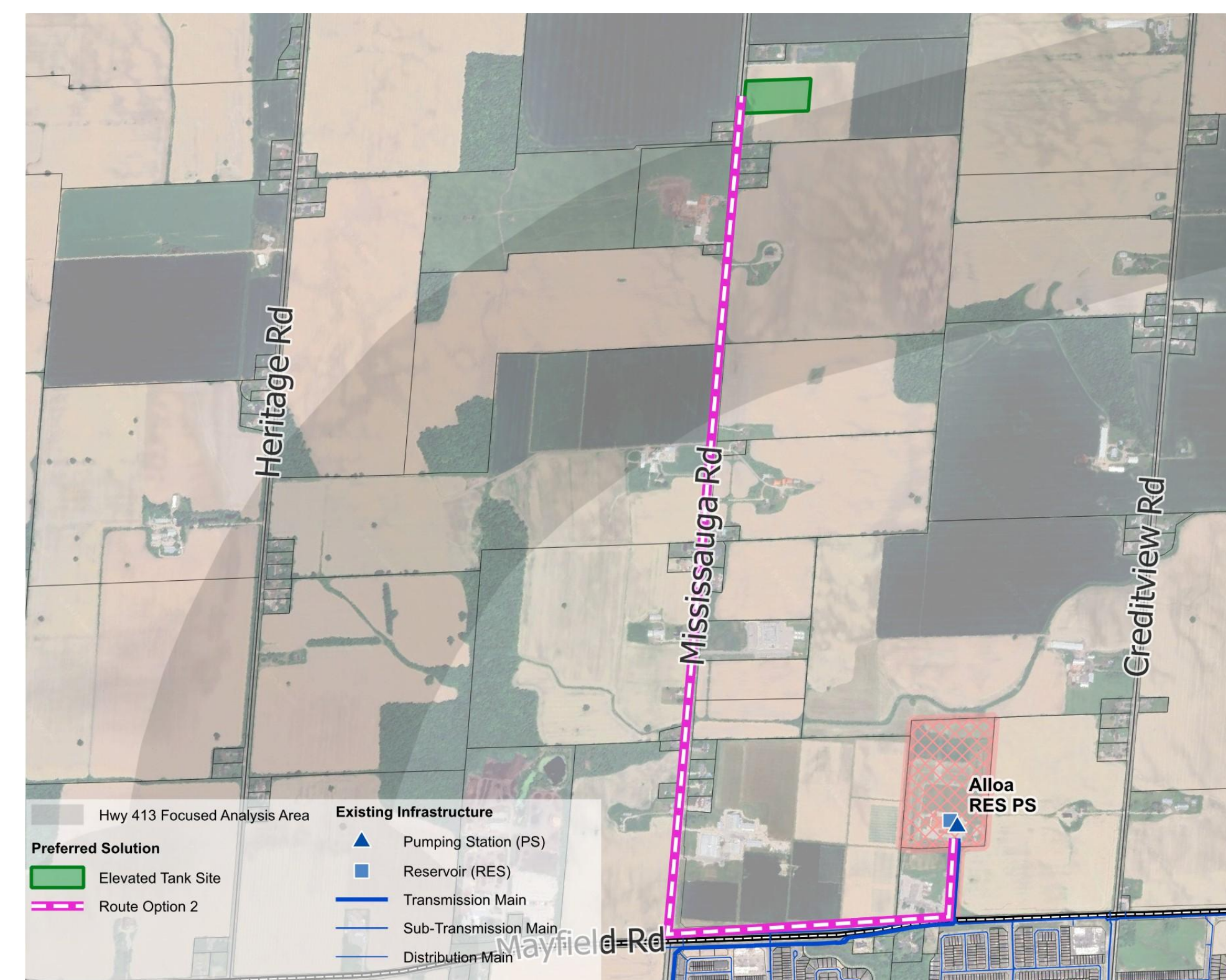
- ✓ Shorter pipe length; lower construction costs.
- ✓ Avoids heavily constrained driveway and Mayfield Road alignment and high impacts to socio/economic features.
- ✓ Easement does not have any existing infrastructure.
- ✓ Easement can be wider to future proof (space for any future piping that may be required to accommodate growth).
- ✓ Located adjacent to Alloa Municipal Drain; adequate area to provide setback to feature and mitigate impact.
- x Requires permanent easement or property acquisition.

Route Option 2:

- x Mainly within road right of way, but would require property to facilitate construction, constraints with existing adjacent land uses (e.g., school access).
- x Longer pipe length; higher construction costs.
- x Mayfield Road and Alloa Reservoir and PS driveway are congested with existing infrastructure.
- x Mayfield Road and Alloa Reservoir and PS driveway will be more difficult to future proof (congested corridor).



Route Option 1



Route Option 2

Transmission Main

Route Option 1 was selected as the preferred transmission main route because it:

- Minimizes overall environmental impact.
- Minimizes pipe length.
- Avoids Mayfield Road and the Alloa Reservoir and PS driveway – both congested infrastructure corridors.

Feedermain

A new feedermain from the new elevated water tank connecting back to the Pressure Zone 7 West service area is required. Mississauga Road was selected as the preferred feedermain alignment connecting into the existing watermain at Mayfield Road. No other alternatives were considered.

How will the solution be constructed?

Preliminary Preferred Design Concept – Alloa Property

The third step in Phase 3 was to evaluate the route options of the transmission main within the Alloa Reservoir and Pumping Station (PS) property and connection to the existing infrastructure:

Route Option 1:

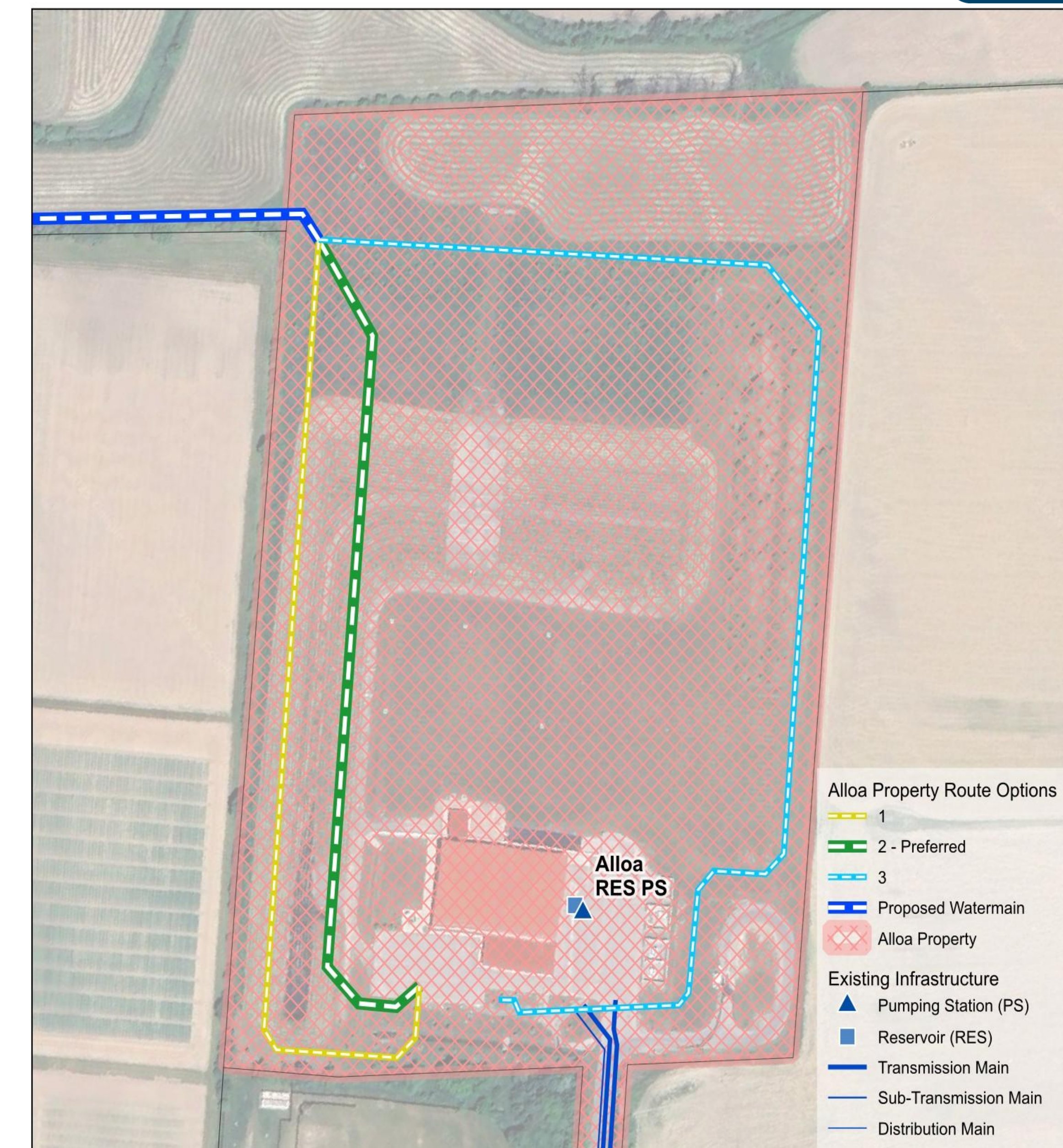
- ✓ Avoids crossing of congested Alloa Reservoir and PS driveway/parking lot.
- ✓ Shorter pipe length compared to Option 3; longer pipe length compared to Option 2.
- × Less space compared to Option 2 & Option 3.
- × One crossing of on-site stormwater / emergency overflow.

Route Option 2:

- ✓ Avoids crossing of congested driveway/parking lot.
- ✓ Shortest pipe length.
- ✓ More space compared to Option 1.
- × One crossing of on-site stormwater / emergency overflow.

Route Option 3:

- ✓ More space compared to Option 1 & 2.
- × Longest pipe length with numerous elbows; more complex construction.
- × Alloa Reservoir and PS driveway/parking lot is congested with existing infrastructure; would require a deep crossing under existing infrastructure
- × Transmission main must be protected from washout from on-site stormwater / emergency overflow.
- × One crossing of on-site stormwater / emergency overflow.



Route Option 2 was selected as the preferred route because:

- It avoids the congested Alloa Reservoir and PS driveway/parking lot.
- It is the shortest pipe length.
- There is space available for construction.

What are the various methods of construction?

Transmission Main and Feedermain Alignments

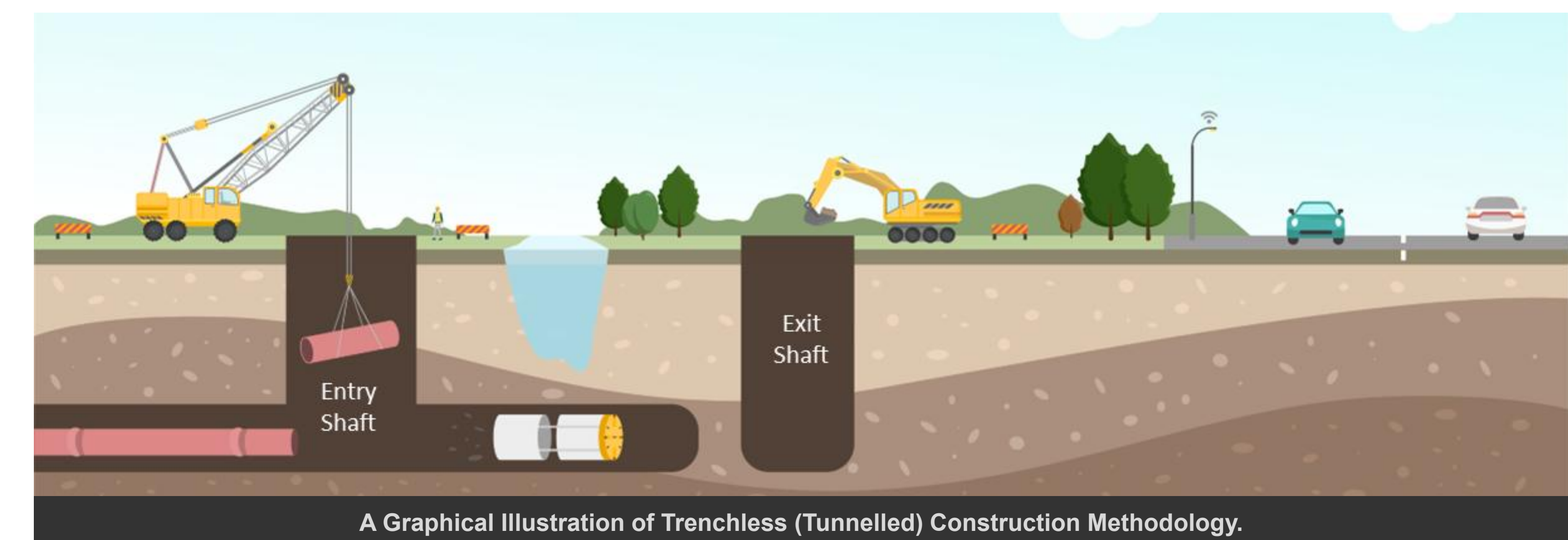
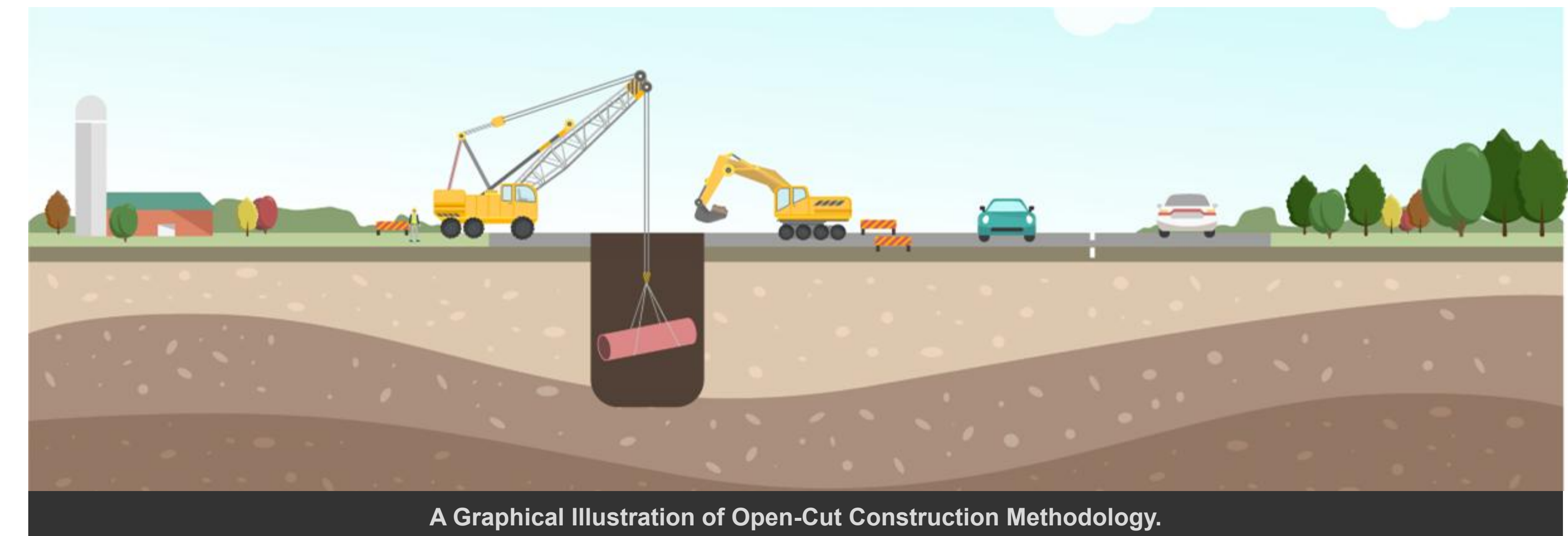
A key consideration in the selection of the preliminary preferred design concept is the construction methodology for each section of the alignment. The following construction methodologies were considered:

Open-Cut Construction involves digging a trench to facilitate the installation of linear infrastructure (e.g., watermain). 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 in length depending on the technology used.

The preferred option for the majority of the route is **open cut construction** due to the depths of the pipe. However, there are two crossings that will be tunnelled to avoid impacts:

- 1) Alloo Municipal Drain watercourse crossing on Mississauga Road.
- 2) Future Highway 413 crossing on Mississauga Road.

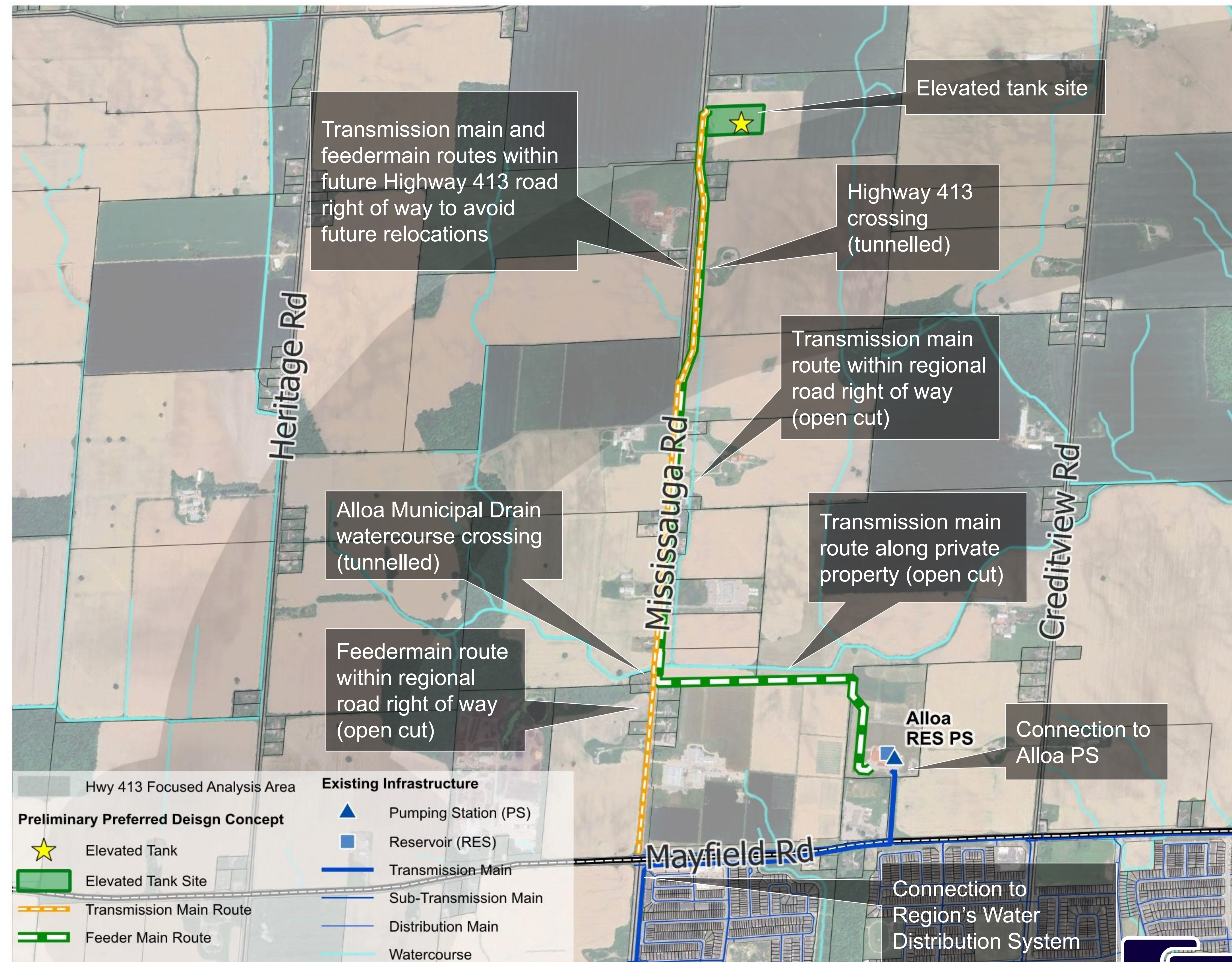


What was selected during Phase 3?

Preliminary Preferred Design Concept - Overview

Phase 3 selected the preliminary preferred conceptual design including:

- Siting the elevated tank and ancillary components within the preferred site.
- Selecting the preferred route for the transmission main and feedermain.
- Selecting the construction methodology.



What are the potential impacts and mitigation measures?

Discipline Study Results

The following discipline studies have been completed for this study to support the selection of the preliminary preferred design concept. Additional site-specific studies will be required during detailed design to support the design and construction of the preferred solution.

Archaeological / Cultural Heritage

Purpose: Identify properties within the study area with cultural heritage classification and archaeological potential.

- Stage 1 Archaeological Assessment (AA), Cultural Heritage Screening and Cultural Heritage Impact Assessment completed.
- **Identified cultural heritage resources. Cultural heritage resources located in proximity to elevated tank site and watermain alignments. Potential for indirect impacts therefore, vibration monitoring is recommended during construction.**
- **Identified areas of potential archaeological significance. There are areas within the elevated tank site and watermain alignments that require a Stage 2 AA to confirm archaeological significance and mitigation measures (to be completed during Detailed Design phase).**

Natural Environment

Purpose: Inventory Species at Risk habitat, significant natural features, wildlife habitats and governing environmental policies within the study area.

- Desktop Natural Environment Desktop Assessment and Windshield Survey.
- **Identified natural features. No natural features located within the elevated tank site, however, the watermain alignments cross one watercourse. Additional site-specific surveys are required during detailed design to identify potential impacts, construction mitigation measures and required permits/approvals.**

Geotechnical / Hydrogeological

Purpose: Establish the existing groundwater, soil, and rock conditions, hydrogeological conditions and Source Water Protection policy areas.

- Desktop Geotechnical and Hydrogeological Desktop Review completed.
- **Identified existing groundwater, soil and rock conditions based on desktop information for the elevated tank site and watermain alignments. Field investigations (e.g., boreholes, monitoring wells) are required during detailed design to confirm subsurface and groundwater conditions to support construction.**

Socio-Economic / Agricultural

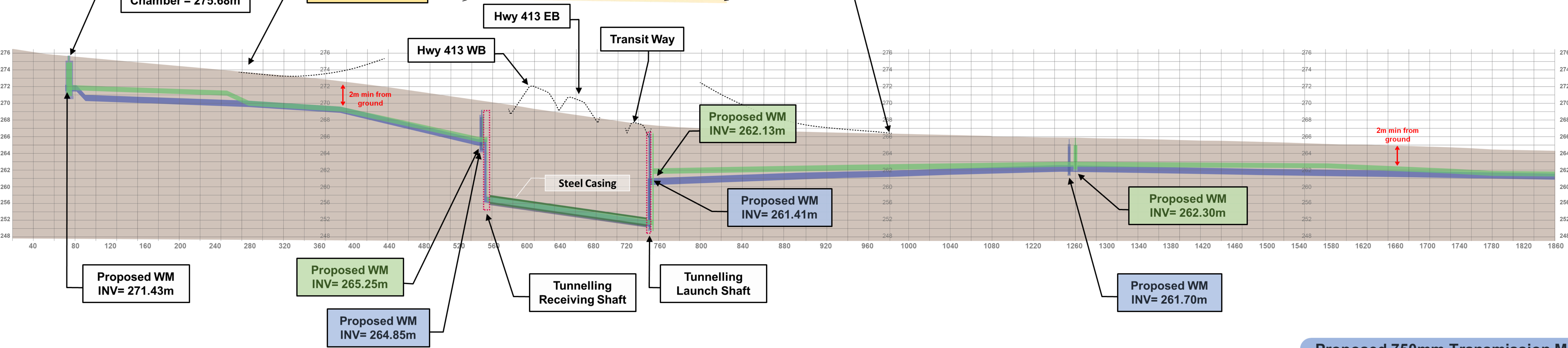
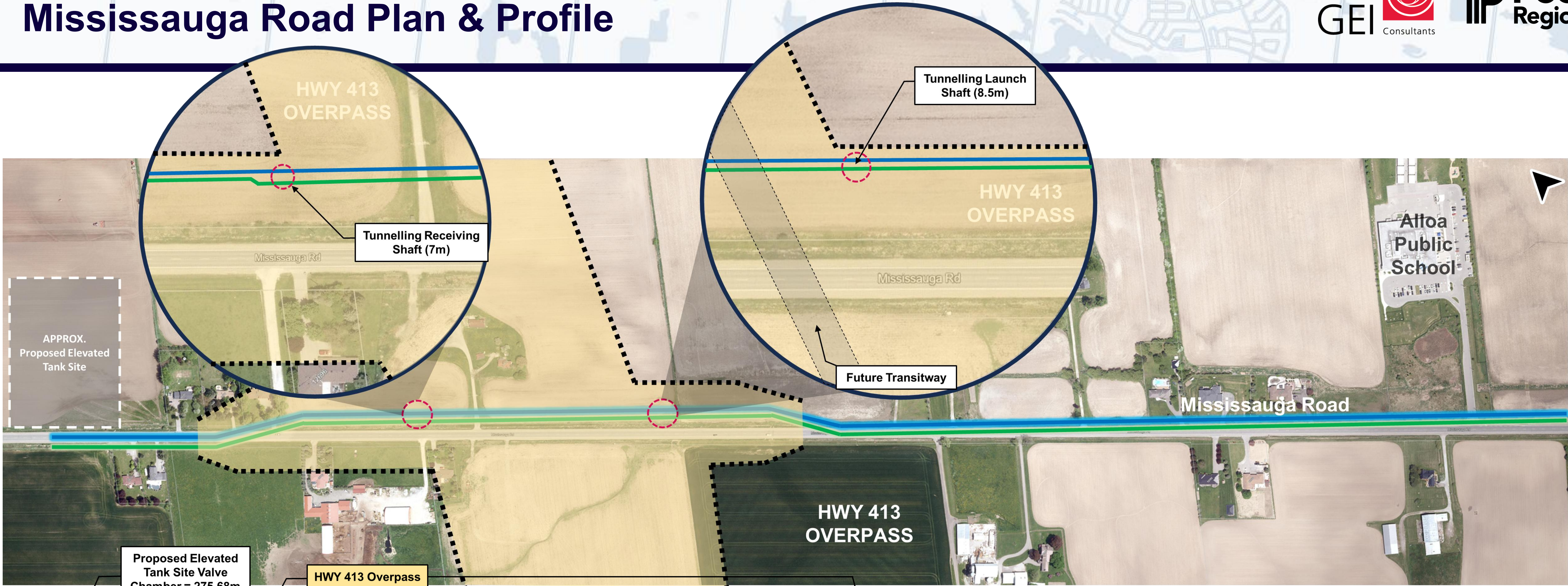
Purpose: Identify existing and future land uses within the study and impacts to agricultural lands.

- Agricultural Impact Assessment completed.
- **Identified existing and future land uses and potential agricultural impacts for the elevated tank site to consider during construction.**



How will it be constructed?

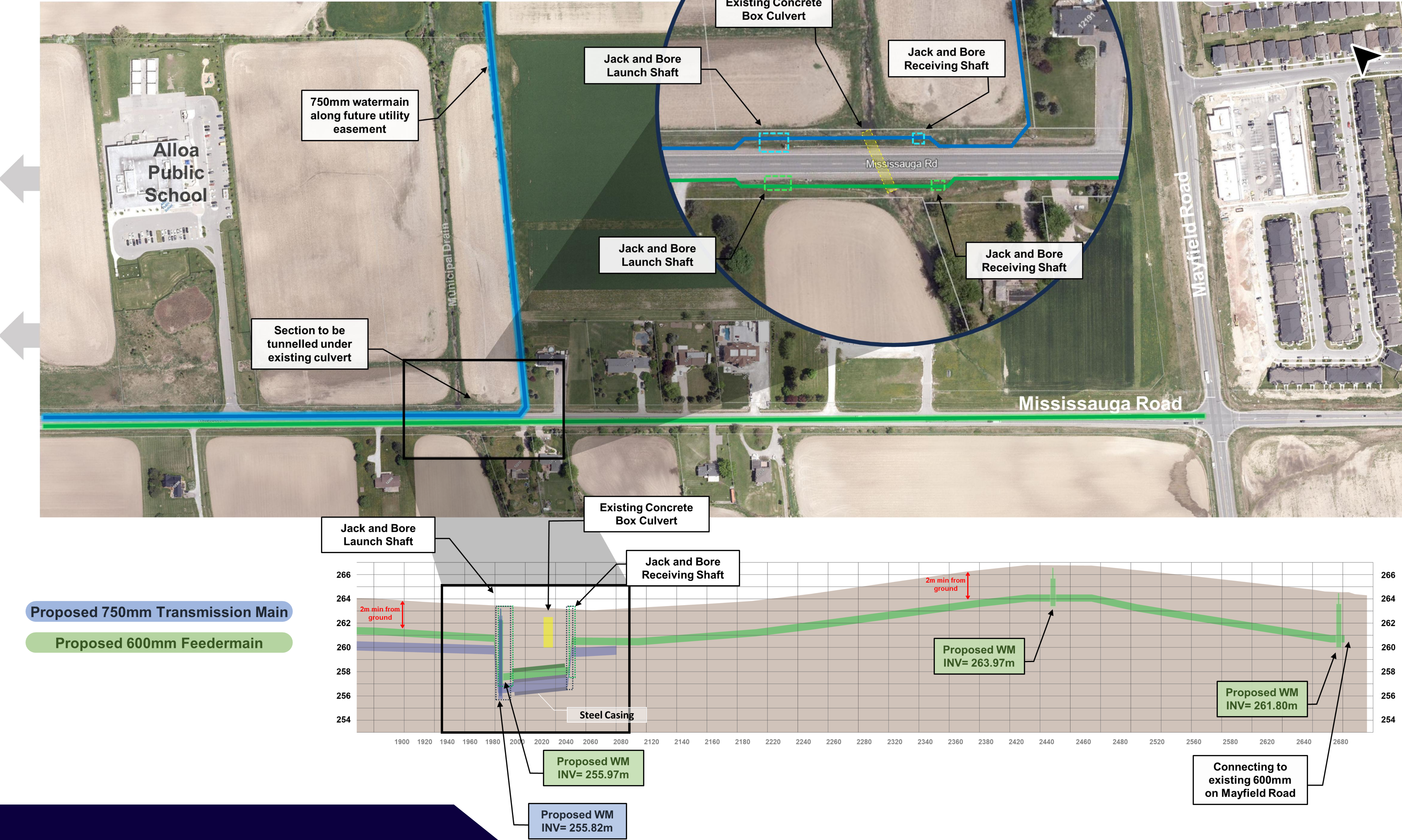
Mississauga Road Plan & Profile



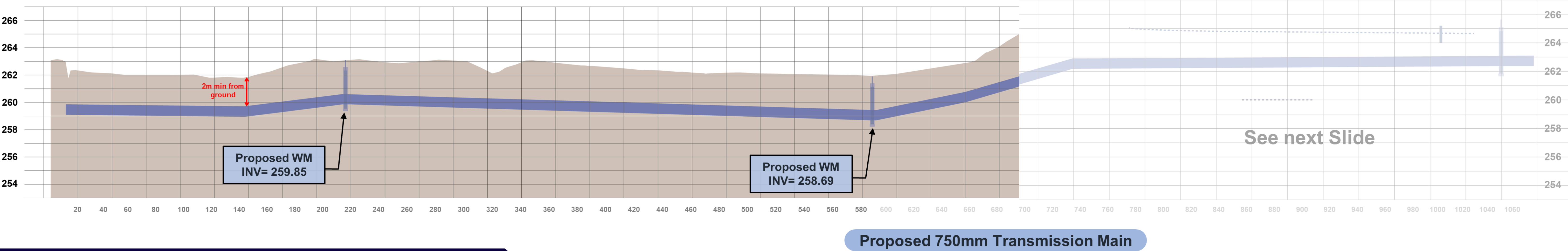
Proposed 750mm Transmission Main

Proposed 600mm Feedermain

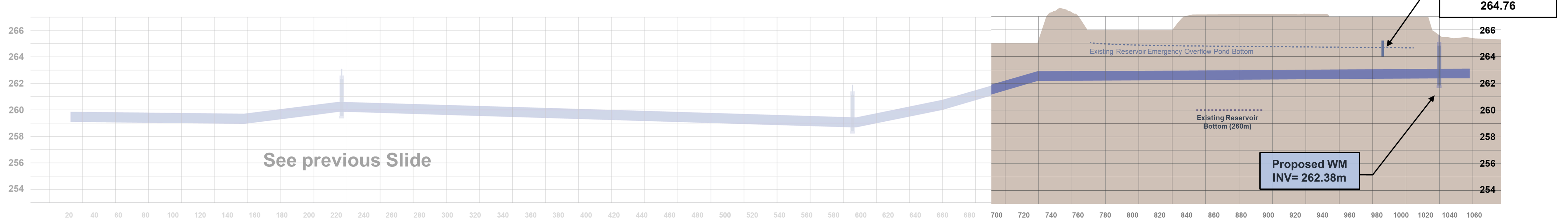
How will it be constructed?
Mississauga Road Plan & Profile



How will it be constructed?
Easement Plan & Profile



How will it be constructed? Alloa Property Plan & Profile



Proposed 750mm Transmission Main

Phase 3 Next Steps

- Complete a Traffic Impact Assessment on the preliminary preferred conceptual design to identify traffic impacts likely to arise during the construction period and assess measures to mitigate/address any issues or concerns.
- Complete a Phase One Environmental Site Assessment to identify potential environmental risks associated with the sites and determine if further investigations or remediation is needed.
- Finalize selection of the preferred design concept based on comments and feedback received.

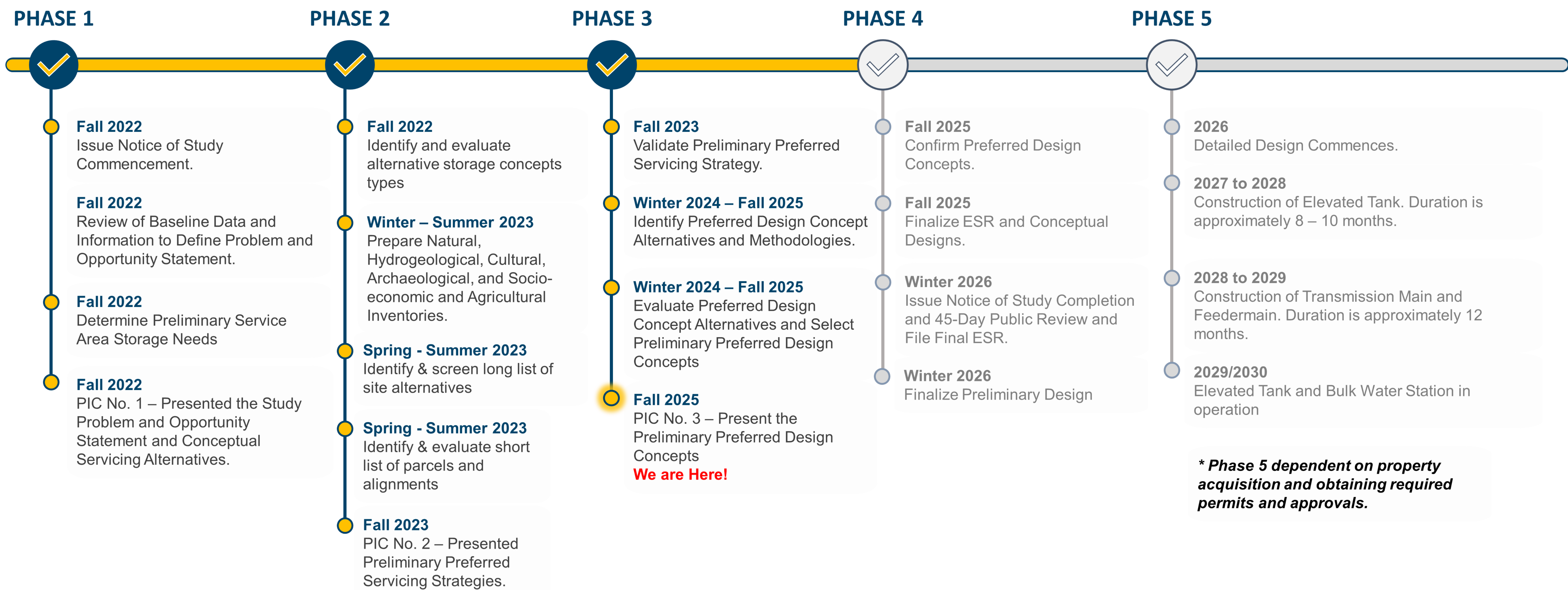
Future Commitments

- Continued engagement with Indigenous Communities.
- Ongoing discussions with property owners, the public and key stakeholders including Toronto and Region Conservation Authority (TRCA), Ministry of Transportation (MTO), and Town of Caledon.
- Identify and adhere to all municipal, environmental, and review agency approval requirements through design and construction.
- Site-specific archaeological, natural environment, geotechnical and hydrogeological assessment will be required during detailed design to refine the design, identify impacts and associated mitigation measures required during construction.

What are the next steps?

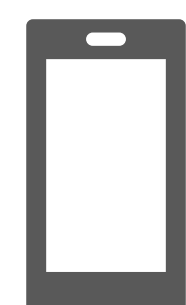
Anticipated Project Timeline

Public and stakeholder consultation was maintained through all phases of the Class Environmental Assessment process. A broad range of methods was used to advise the public and stakeholders of the study and solicit input. Methods include notices, a project website, comment forms, and public information centres.



What are we doing next?

- Review and incorporate responses from PIC No. 3.
- 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 (ESR) for 45-day public review period.



Additional project information can be found on the project website, which can be accessed by scanning the QR Code with your smartphone.

How to Stay Involved



- ✓ Fill out the questionnaire and comment sheet.
- ✓ Sign up for project information updates.
- ✓ Provide your feedback regarding materials presented in this PIC No. 3.

Do you have any questions, comments, or want to stay up to date? Please contact us anytime.

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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.