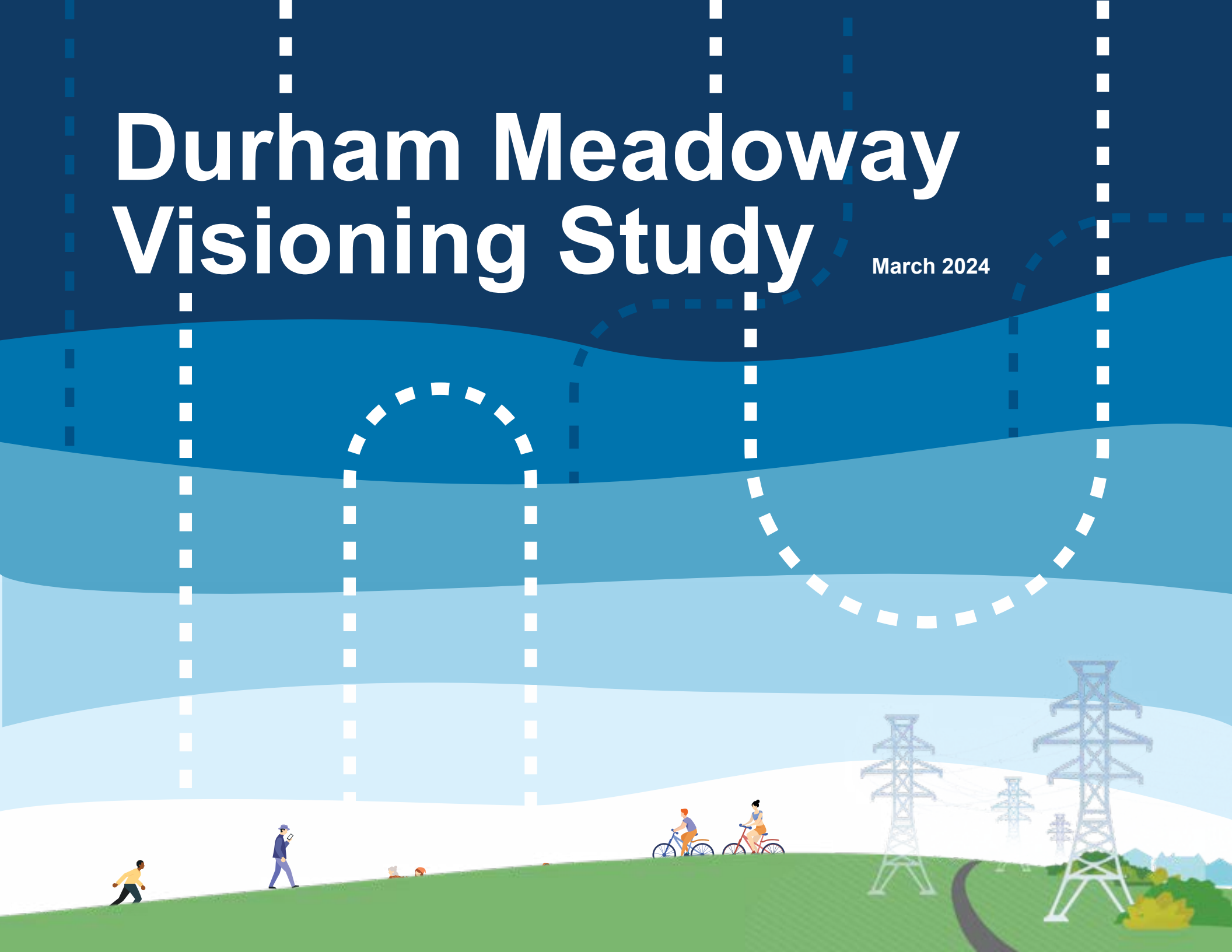
Durham Meadoway Visioning Study

March 2024



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On behalf of

Region of Durham

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01

Executive Summary




DURHAM MEADOWAY

“ The Durham Meadoway will connect diverse communities in Pickering, Ajax, Whitby and Oshawa with a unique and inclusive landscape experience that is both trail and destination, creating opportunities for culture and environmental stewardship. ”



The Vision

The Durham Meadoway Visioning Study is the first step in the process that will culminate in a 30 kilometre active transportation corridor and linear park, connecting communities across Durham Region including the City of Pickering, Town of Ajax, Town of Whitby and City of Oshawa. The Durham Meadoway has tremendous potential to transform a largely single-use utility corridor to a multifunctional, mixed-use destination promoting social, economic and ecological well-being. It can:

- Foster the imperative shift to active transportation that is environmentally sustainable and benefits human health.
- Provide unique community and recreational amenities to help meet the needs of one of the fastest growing regions in North America.
- Restore and enhance important natural heritage functions to create diverse, connected and thriving ecosystems.

The Linear Park

The Durham Meadoway is a vibrant destination in itself, offering amenities, programming and gateways along its length that connect to and enhance adjacent communities and neighbourhoods. Amenities within or near the transmission corridor can include community gardens, sports fields, children's play areas, gathering spaces, public art installations, lookouts, nature walks, and many others. Each municipality can create special focal points that reflect their unique needs and context. This visioning study provides prototypical design concepts that establish an incremental, modular framework that can be implemented over time, in step with capital project planning and funding.

The Route

The Durham Meadoway Multi-Use Path will provide a safe, direct, easy to follow, end-to-end route that creates a great landscape experience through diverse natural ecologies, promoting use by people of all ages. It will be located within the Gatineau hydro transmission line corridor, or green spaces such as conservation areas and valleys, wherever possible, recognizing challenges and barriers such as Highway 412 or other incompatible uses. In some locations, the Durham Meadoway route will utilize existing and planned
Multi-Use Paths within road rights-of-way where constraints make it challenging to locate within the transmission corridor. The route will connect to other trails and active transportation routes, and it must comply with Hydro One safety guidelines.

Next Steps

A broad range of interested parties and the public helped create this vision for the Durham Meadoway. Given its scale, many jurisdictions and agencies are needed to fund, design, build and maintain the Durham Meadoway, and many people across Durham Region and from beyond will use its facilities and amenities.

Engagement

- Led by Region of Durham (Transportation Planning Section)
- City of Pickering
- Town of Ajax
- Town of Whitby
- City of Oshawa
- Regional staff
- Toronto and Region Conservation Authority
- Central Lake Ontario Conservation Authority
- Infrastructure Ontario
- Hydro One
- Ministry of Transportation, Ontario (MTO)
- Parks Canada
- City of Toronto
- Citizen Advisory Committees
- Community Groups
- Public
- Indigenous Communities

The next step in the process is to further refine this vision by undertaking more detailed technical and design studies for natural environment, socio-economic, and cultural heritage considerations to comply with regulatory and permitting requirements. Landscape design and engineering drawings will be prepared as part of the subsequent phase of the project and this information will assist in establishing the cost to build and implement the Durham Meadoway and its various amenities. A wayfinding, public art and branding strategy will be developed to ensure that signage, pavement markings, furnishing and planting creates a distinct, memorable and beautiful experience. Together, all interested parties and the public will continue to coordinate the details to implement the vision for the Durham Meadoway.




Baldwin Street
Highway 407
Durham
Meadoway
Future alignment of
Mid-block Arterial
Lynde Creek valley
Future District Park

02

Introduction

2.1 Study Area
2.2 Scope of the Durham Meadoway Visioning Study
2.3 Background and History



30km

As the crow flies

114,000

People in the Greater Study Area

40,000

People within a 10-minute walk

24

Neighbourhoods

35

Road crossings

26

Creek crossings

2.1 Study Area

The study area extends across the northern edge of the urbanizing area of the City of Pickering, Town of Ajax, Town of Whitby, and City of Oshawa, from the Rouge National Urban Park in the west, to Harmony Road in the east.
The Greater Study Area (GSA) represents the broader area of study that can influence, and will be influenced by, the Durham Meadoway. It captures destinations and places of interest within a 15 to 20 minute walking distance. A more focused Corridor Study Area (CSA) was developed that includes the Gatineau transmission corridor, where the Durham Meadoway trail will primarily be located. The trail alignment alternatives that were evaluated are also captured within the CSA, along with the immediate surrounding road network, watercourses, and other urban features that intersect with it. Both of these scales were considered when developing this vision.

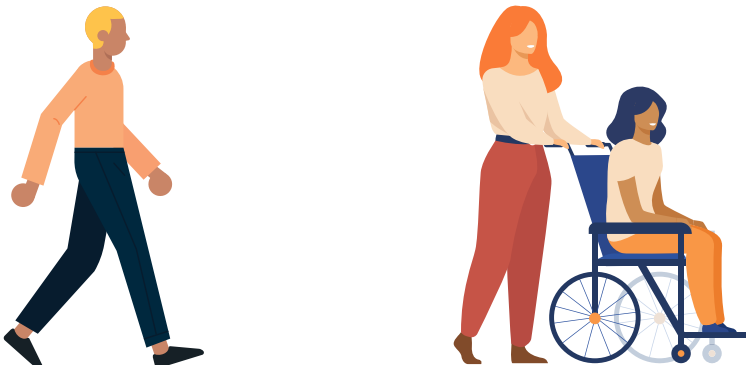
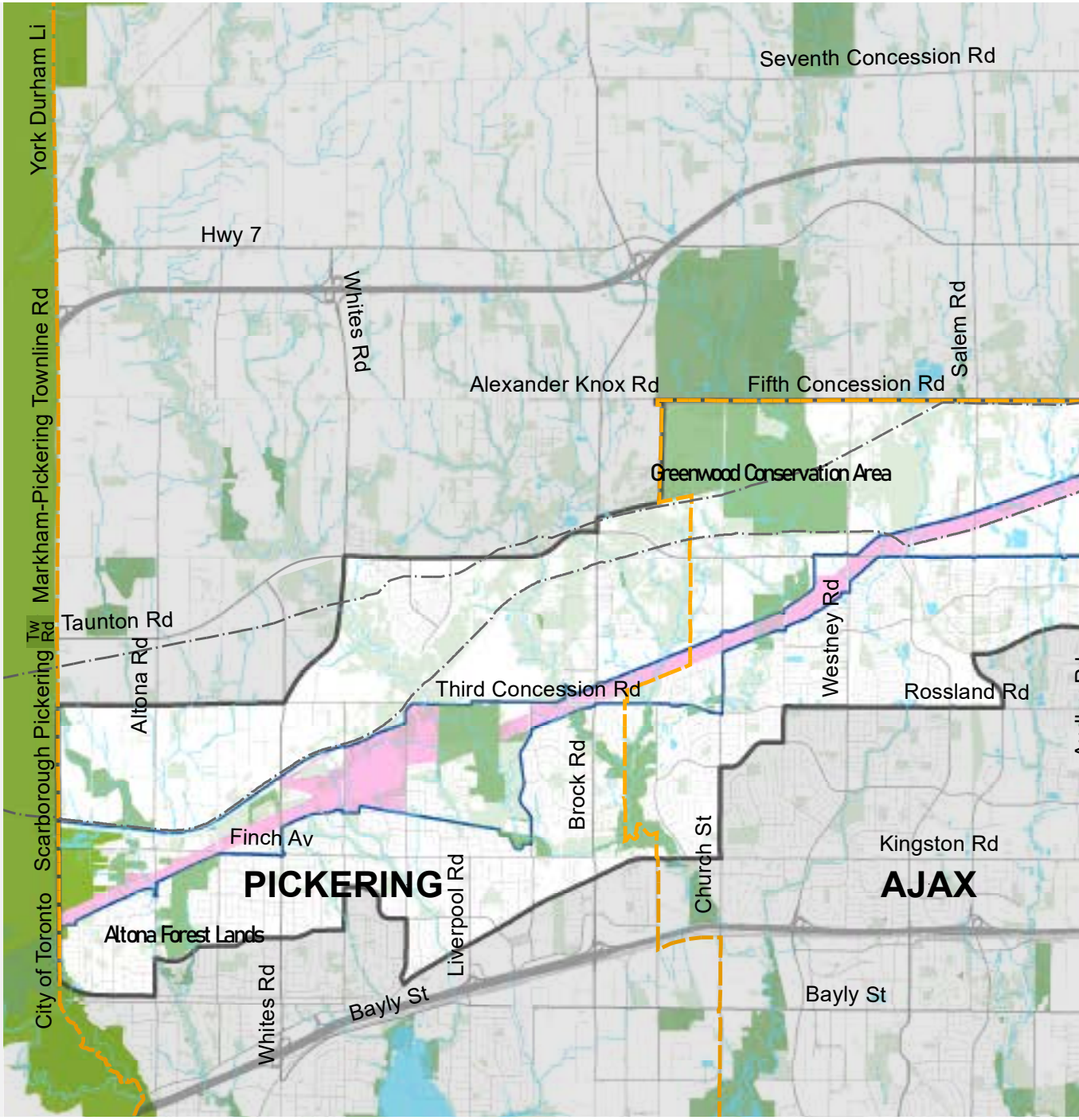
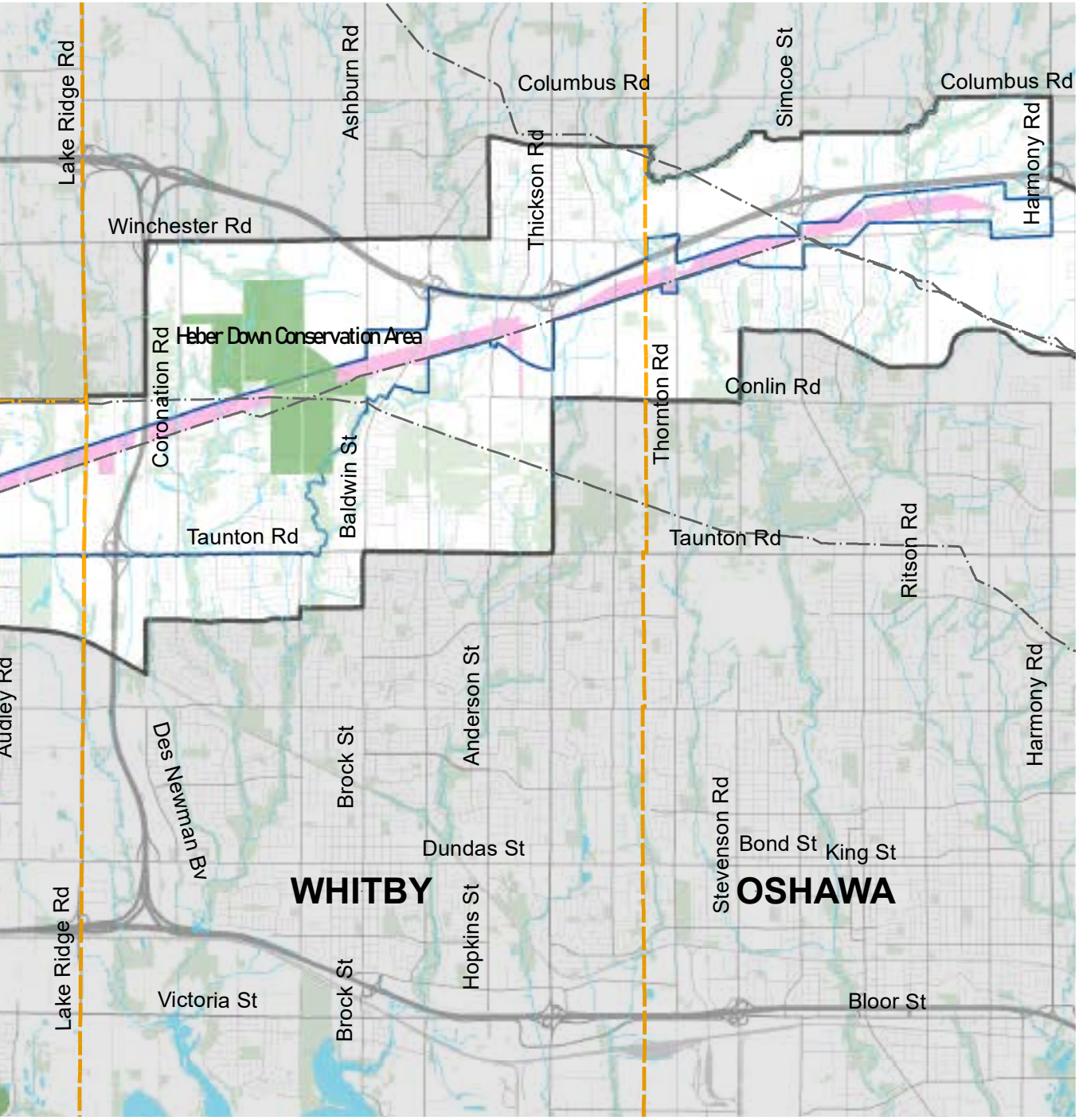


Figure 2.1: Study Area Map

Legend

- Municipal Boundaries
- Corridor Study Area
- Major Roads
- Freeways
- Railway
- Pipeline
- Watercourses
- Water Bodies
- TRCA or CLOCA Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Transmission Corridor Lands Owned by Province
- Greater Study Area





Durham Region's population is forecast to grow from approximately 700,000 in 2021 to 1.3 million by 2051. This rapid growth will increase demand for a variety of municipal services and facilities and place significant pressure on the Region's transportation network. Supporting greater use of alternative modes of transportation, including active transportation, will be essential to achieving several of Durham Region's strategic goals: improving mobility, building a community that encourages good health, addressing climate change and enhancing economic prosperity. The Durham Meadoway is a significant opportunity to address these needs.

The Durham Meadoway is a 30 kilometre active transportation corridor and linear park, connecting communities across Durham Region including the City of Pickering, Town of Ajax, Town of Whitby and City of Oshawa. While the urban areas of these municipalities are well-served by the Waterfront Trail to the south, the Durham Meadoway provides critical east-west connectivity for active transportation to the north, as well as enhance the open spaces, amenities and destinations that benefit the community.

2.2 Scope of the Durham Meadoway Visioning Study

The Durham Meadoway Visioning Study is the first step in the process that will culminate in a 30 kilometre active transportation corridor and linear park. It sets the overall vision and framework for this new corridor, connections to the surrounding community and the lands adjacent to it. Key objectives of this study include:

- Articulating a vision statement that captures the spirit of the Durham Meadoway, and providing concrete principles for further planning and design;
- Defining the types of experiences, activities, amenities and gateways that the public, municipalities, agency, and Indigenous Communities would like to see programmed or evolve over time along the corridor;
- Establishing a conceptual alignment for the Durham Meadoway's Multi-Use Path based on community engagement and a desktop review of existing conditions and planned improvements;
- Showcasing the amazing potential of the Durham Meadoway by visualizing the character of its diverse amenities and landscapes; and
- Providing a road map for developing the vision into reality through subsequent technical studies, design work and potential approvals processes.

The Durham Meadoway Visioning Study engaged a wide range of interested parties and the public to develop the vision presented here. Many great ideas were brought forward and incorporated. This study contains an achievable framework based on the information available at this time. However, as a living and evolving study, there is flexibility for the project to be interpreted and refined through subsequent detailed studies.





2.3 Background and History

Figure 2.2 illustrates a timeline showing policies and plans that established the background and foundation for the Durham Meadoway Visioning Study.

Federal and Provincial Policies and Plans

Provincial Secondary Land Use Program (2003)

Through the proclamation of The Reliable Energy and Consumer Protection Act, 2002, hydro transmission corridor lands previously owned by Hydro One were transferred to the province. In 2003, the province established the Provincial Secondary Land Use Program (PSLUP), which defined a hierarchy of public land use principles as follows:

- New linear public uses have top priority;
- New provincial/inter-regional linear public uses have priority over local uses;
- New non-linear public infrastructure uses have priority over private uses;
- Non-linear public recreational uses have priority over private uses;
- Multi-use corridors are preferred.

Most of the land that is part of the Gatineau transmission corridor along the Lake Ontario shoreline municipalities in Durham is owned by the province. Hydro One and Infrastructure Ontario jointly administer the PSLUP. The Ministry of Municipal Affairs and Housing requested municipalities to declare their long-term interests for public secondary uses on transmission corridor lands.

In 2005, Durham Region and the area municipalities jointly submitted long-term interests for public secondary uses on transmission corridor lands. Through this submission, a trail connection was identified on the Gatineau transmission corridor and formed a component of active transportation planning for both the Region and area municipalities.

#CycleON: Ontario's Cycling Strategy (2013)

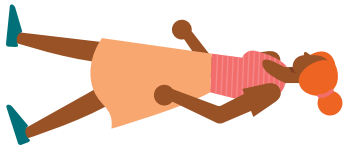
#CycleON, a cycling strategy for Ontario, looks ahead 20 years and asks what needs to be done to help more people and communities in Ontario reap the benefits of cycling. The Strategy recognizes the potential for growth in cycling-related tourism, and highlights a lack of connectedness between major cycling routes as a key barrier. Identified areas for action include promoting Ontario as a premier cycling tourism destination and improving connections between existing facilities with the goal of creating an integrated provincial network of bike routes.

Tied to the Strategy, a Province-Wide Cycling Network Study was completed in 2016. It identified a network of on and off-road cycling routes, comprised of existing and proposed routes, to provide cyclists with facilities necessary to

explore Ontario by bike. The network is intended to provide guidance for provincial, municipal and other agencies to inform the future planning, design and implementation of cycling infrastructure. The Trans Canada Trail, Taunton Road (from Church Street in Ajax to Mary Street in Oshawa), the Des Newman Boulevard extension and Coronation Road (from the extension to Columbus Road) are components of the network near the Gatineau transmission corridor lands within Durham Region.

Rouge National Urban Park Management Plan (2019)

Parks Canada developed this management plan, the first for the newly created Rouge National Urban Park. It outlines the vision and key strategies for park management, as well as six management area concepts that cover smaller geographic areas and which provide area- and site-specific direction. The concept map for Management Area 1, which includes areas of the park south of Steeles Avenue East, illustrates a potential location for a gateway welcome area where the transmission corridor intersects with the park.





Regional Plans

Regional Trail Network (2006)

Through the Durham Trails Coordinating Committee (DTCC), a Regional Trail Network was approved by Regional Council. The Regional Trail Network provides a framework for long-range off-road trail planning, which included a conceptual alignment for the Durham Meadoway.

Durham Transportation Master Plan (2017)

The Durham Transportation Master Plan (TMP) was approved by Regional Council, which includes a Regional Cycling and Trail Network as part of a multi-modal approach for the Region's transportation system. The Durham Meadoway is conceptually shown as part of this network, as the Durham TMP integrated the Regional Trail Network with the 2012 Regional Cycling Plan.

Regional Cycling Plan (2021)

The Regional Cycling Plan was updated in 2021 to improve connectivity, establish the Region as a premiere cycling destination, help reduce GHG emissions, and contribute towards the goal of creating complete and liveable communities. It integrates the Durham Meadoway as well as off-road components of the Province-Wide Cycling Network (such as the Waterfront Trail and Trans Canada Trail) as components of the Primary Cycling Network.

Envision Durham: Regional Official Plan (2023)

A new Regional Official Plan (ROP) was adopted by Regional Council in May 2023 as part of the Envision Durham review of the current (2020 consolidation) ROP. Currently, the new ROP is still subject to approval by the province. It includes a broader suite of policies supporting active transportation, including a specific reference to the Durham Meadoway (policy 8.2.4) and Active Transportation Network map (based on the 2021 Regional Cycling Plan).

Area Municipal Plans

Pickering, Ajax, Whitby and Oshawa have TMPs with complementary Active Transportation (AT) Plans, or Integrated TMPs that show existing and planned active transportation networks. The Durham Meadoway, in terms of a

conceptual trail alignment, is identified in each of these plans as part of the off-road trail network.

The area municipal active transportation networks identified in these plans are broken down in terms of phasing for implementation. The phasing of projects in the TMP or AT plans helps to inform the annual capital budget and forecasting process and varies by area municipality and trail section.

Conservation Authority Plans

Toronto and Region Conservation Authority (TRCA)

The Trail Strategy for the Greater Toronto Area (2019) outlines TRCAs plan to work with partners to complete, expand, manage, and celebrate the Greater Toronto Region Trail Network, a connected trail network in the regional greenspace system. The Strategy serves as a framework to protect potential trail alignments, and to guide the planning, development, and management of over 1,000 kilometres of regional trails.

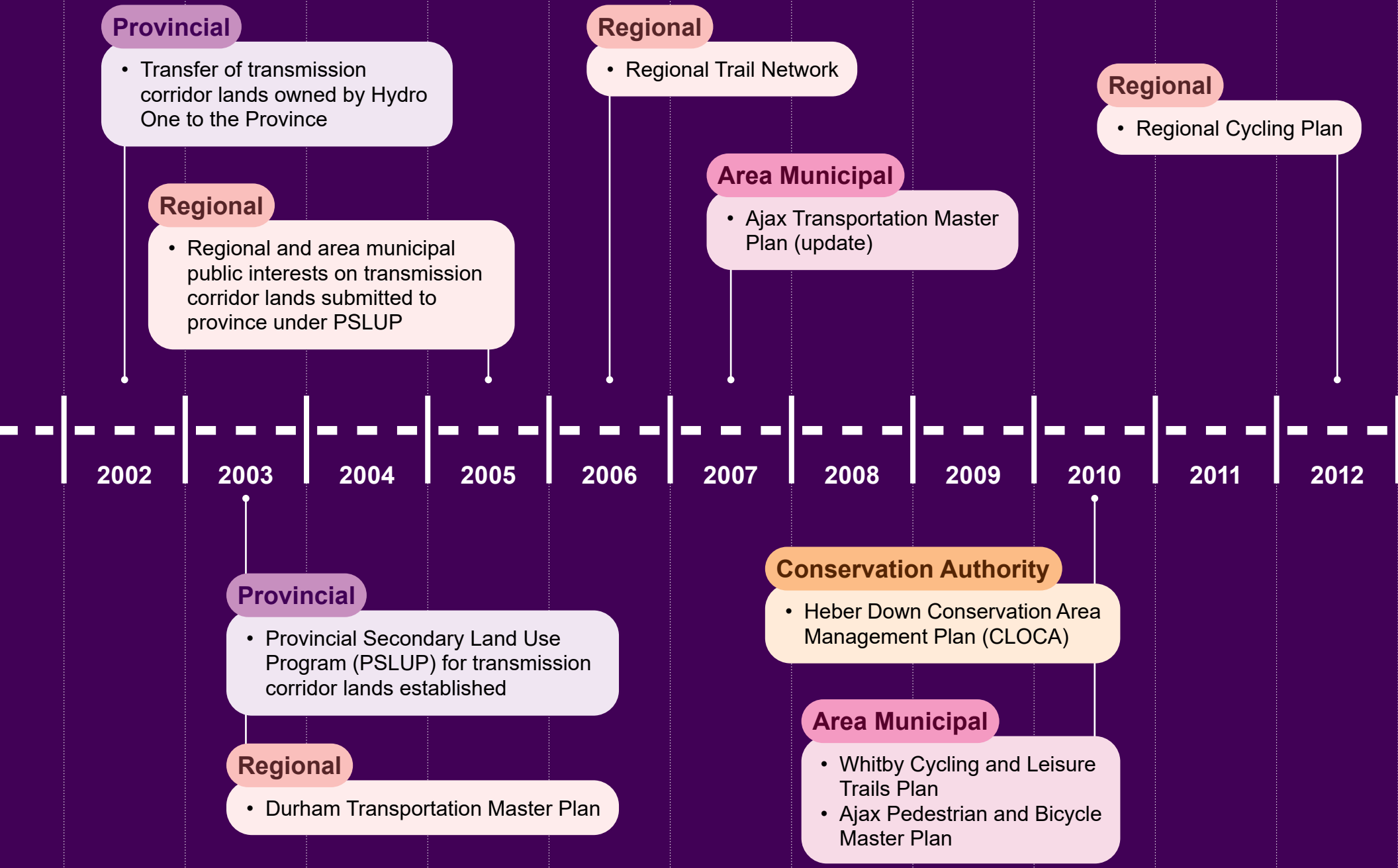
A trail concept map within the Trail Strategy identifies the existing trail system and key missing links, and proposes opportunities for trail connections to destinations that would link into the regional and municipal trail systems. The map illustrates a proposed trail linkage running eastwards through the Gatineau transmission corridor from Rouge National Urban Park into Ajax and beyond the TRCA watershed planning area.

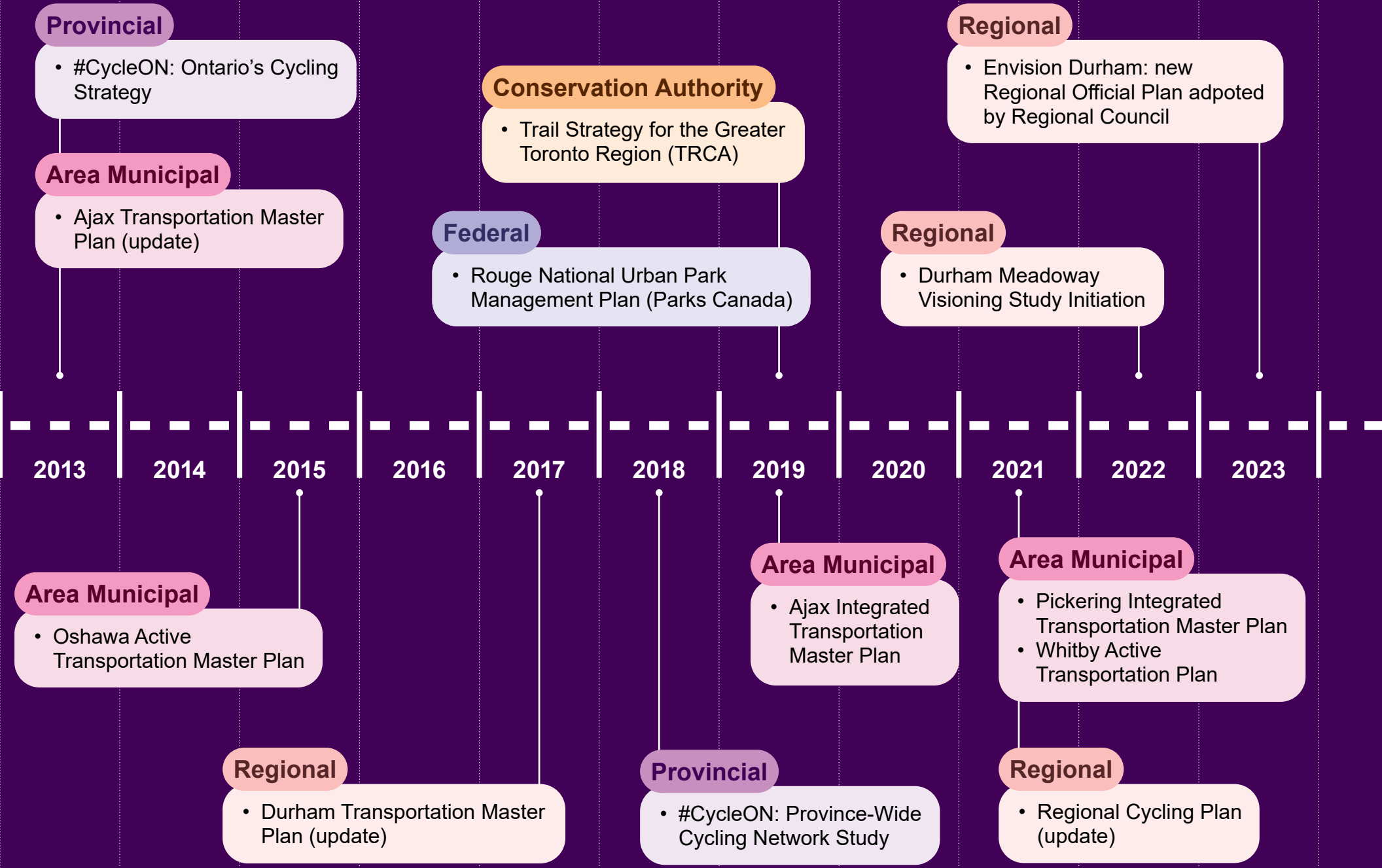
Central Lake Ontario Conservation Authority (CLOCA)

The Heber Down Conservation Area Management Plan (2010), prepared by CLOCA, is intended to conserve and enhance the natural heritage features within the conservation area while allowing for the public to continue to use the lands for recreational and educational opportunities. The conservation area comprises approximately 278 hectares and is delineated into four distinct landscape areas.

An extensive off-road trail network exists within Heber Down, the most significant of which being the Iroquois Trail (constructed in 2017). It is a paved multi-use path that connects Cullen Central Park and the Taunton Road multi-use path to on-road cycling facilities on Ashburn Road starting at the Spencers Road intersection. Part of the Iroquois Trail forms part of the Durham Meadoway.

Figure 2.2: Durham Meadoway - Timeline of Related Policies and Plans




Provincial
• #CycleON: Ontario's Cycling Strategy
Area Municipal
• Ajax Transportation Master Plan (update)
Conservation Authority
• Trail Strategy for the Greater Toronto Region (TRCA)
Federal
• Rouge National Urban Park Management Plan (Parks Canada)
Regional
• Envision Durham: new Regional Official Plan adpoted by Regional Council
Regional
• Durham Meadoway Visioning Study Initiation
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Area Municipal
• Oshawa Active Transportation Master Plan
Regional
• Durham Transportation Master Plan (update)
Provincial
• #CycleON: Province-Wide Cycling Network Study
Area Municipal
• Ajax Integrated Transportation Master Plan
Area Municipal
• Pickering Integrated Transportation Master Plan
• Whitby Active Transportation Plan
Regional
• Regional Cycling Plan (update)

02

03 Engagement

3.1 Engagement Strategy
3.2 Interested Parties Engagement
3.3 Public Engagement

04





3.1 Engagement Strategy

During the Durham Meadoway Visioning Study, a wide range of input was sought from municipalities, agencies and the public to shape the vision and recommendations in this report. The engagement process included numerous meetings with an Area Municipal and Agency Advisory Group, individual meetings with municipalities and agencies, two major public open houses, and online public surveys (see figure 3.1). Tremendous support for the Durham Meadoway was expressed, and in fact a major theme was: **when can it get built?**

Figure 3.1: Study Process

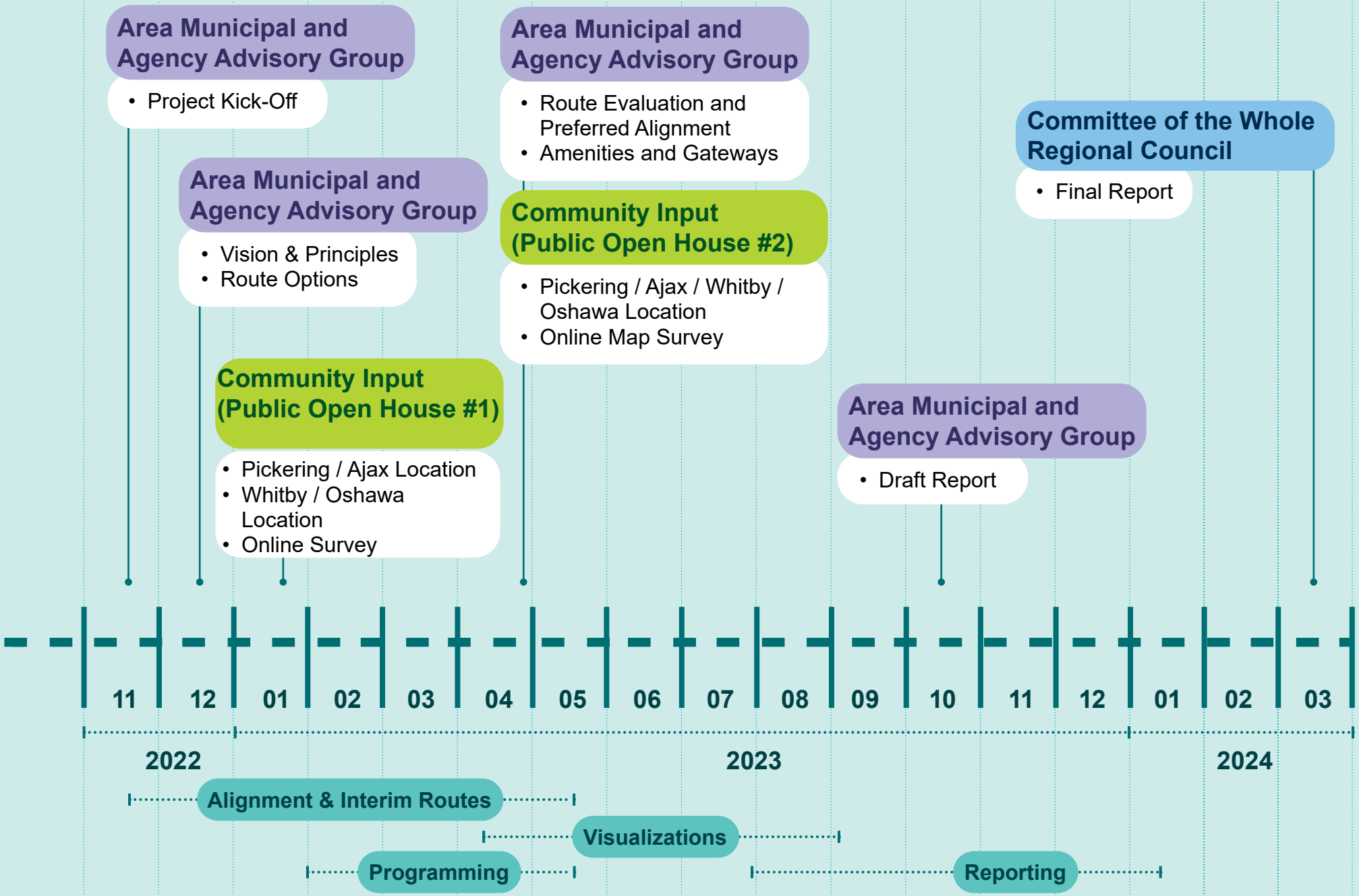


Figure 3.2: Interested Parties and the Public Representatives



Interested Parties and the Public

It is vital to engage with a broad range of interested parties and the public to help create a vision for the Durham Meadoway. Given its scale, many jurisdictions and agencies are needed to fund, design, build and maintain the Durham Meadoway, and many people across Durham Region and from beyond will use its facilities and amenities.

Region of Durham

The Region of Durham is spearheading this initiative to ensure there is a blueprint that guides decision making. Led by Transportation Planning, staff from the Works Department, Economic Development and Tourism Division, Finance Department, Durham OneNet (responsible for implementing the Regional Broadband Network), Durham Region Transit and Office of the Chief Administrative Officer (CAO) have contributed expertise. It is important the Durham Meadoway fosters community pride, tourism and sustainability, while functioning well from a fiscal and transportation standpoint.

Area Municipalities

The City of Pickering, Town of Ajax, Town of Whitby and City of Oshawa are vital partners in bringing the vision to reality. Each has unique circumstances for the Durham Meadoway to respond to, and they have identified specific issues to address. In turn, each municipality has various divisions and departments who have and will continue to contribute to the creation of the Durham Meadoway.

Conservation Authorities

The Toronto and Region Conservation Authority (TRCA) and the Central Lake Ontario Conservation Authority (CLOCA) have important resources within and adjacent to the corridor, and they will be important partners. The conservation authorities will be involved in planning and design, ecological assessment, as well as implementation, management and operations through habitat restoration, education and outreach.

Infrastructure Ontario and Hydro One

The Gatineau transmission corridor lands are administered on behalf of the Government of Ontario by Infrastructure Ontario (IO) and Hydro One Networks Inc. (HONI). The Durham Meadoway will be implemented under the Provincial Secondary Land Use Program, allowing public use of the corridor that meets Hydro One's operational needs and technical guidelines.

Ministry of Transportation Ontario (MTO)

The Durham Meadoway crosses Highway 412 and Thickson Road at the Highway 407 interchange, which are under the jurisdiction of the MTO. Coordination and approval from MTO is needed to ensure the route is safe for Durham Meadoway users as well as highway operations.

Parks Canada and City of Toronto

The Durham Meadoway seeks to provide connectivity beyond the Region of Durham. By connecting with Rouge National Urban Park (Parks Canada) and Beare Hill Park (City of Toronto), the Durham Meadoway links to a more extensive active transportation network.

Citizen Advisory Committees

There are several citizen advisory committees that provide recommendations to Regional Council and area municipal councils related to active transportation, the environment and sustainability. They provide advice and expertise that is helpful from a planning and connectivity perspective, as well as informing design decisions for the Multi-Use Path and related amenities.

Public

Community groups including the Durham Region Cycling Coalition and the general public have been welcome to participate and provide their thoughts through in-person open house sessions as well as online surveys. As the ultimate users, members of the public have contributed valuable input on the experience, amenities, comfort and usability of the Durham Meadoway.

All of these participants provided their perspectives on the initial planning for the Durham Meadoway. There will be more opportunities for participation as the project moves towards implementation.

3.2

Interested Parties Engagement

Engagement with municipalities and agencies occurred in a variety of ways including dedicated advisory group sessions (formerly referred to as the Stakeholder Advisory Group), presentations to local Committees, Councils and individual discussions. Draft materials were provided at all stages of this Visioning Study, including the vision and principles, evaluation criteria and assessment, route options, the preferred route, amenities and programming, and visualizations. Municipal and agency staff representatives provided feedback in meetings, through surveys and written comments.

Clarifying the Vision

Municipal and agency staff provided important feedback on the vision statement. They emphasized the need for language that is **inspirational, warm, and speaks compellingly to the values of Durham Region** and the benefits of the Durham Meadoway.

The vision should help to **paint a picture** of what the corridor will be like:

- Imply the corridor will contain **experiences and offerings that will make it more than just a recreational trail**;
- Ensure the language is **accessible** and not jargon;
- Think big about the potential to **connect people to places**;
- Adding texture to speak to the unique sections of the corridor – not just communities but **cultures, landscapes and ecosystems**; and
- Ensuring **nature is prominent**



Principles: What's Most Important?

Responses indicate that connecting communities via a continuous, accessible, and easy-to-navigate multi-use trail is an important priority and a core part of the Durham Meadoway's value proposition. Several respondents noted that they liked that the Natural Environment principle contains the words "protect" and "enhance," which are strong and positive (see figure 3.3).

Underscoring the ranking of principles is public safety within the transmission corridor lands in terms of the design, layout and vision of the Durham Meadoway and Hydro One operational, maintenance and future expansion needs. The hydro transmission infrastructure must continue to be safe and reliable to the public and for Hydro One maintenance and operations staff.



Figure 3.3: Ranking of Principles

Highest-ranked Principles

The highest-ranked principles based on the questionnaire responses were:

- **Connectivity and Accessibility**
- **Natural Environment**

Lowest-ranked Principles

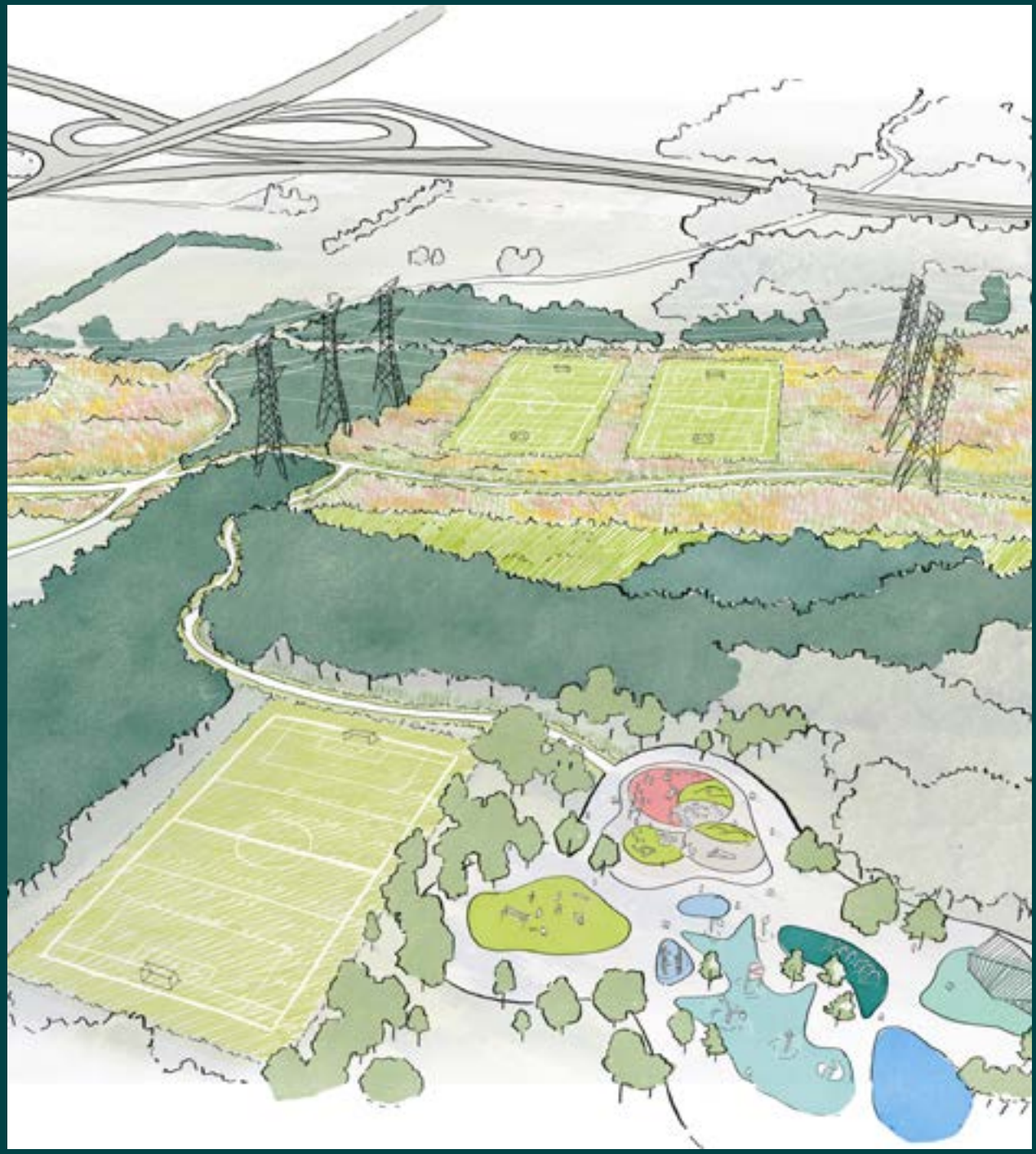
The lowest-ranked principles based on the questionnaire responses were:

- **Community**
- **Identity**

Municipalities and agencies sought to understand the practicalities of implementation of the Durham Meadoway, such as how it would be paid for, what the cost sharing formula would be, and what their specific role would be. They also provided detailed knowledge of the existing and planned trails, amenities, and destinations under their jurisdiction, and how the Durham Meadoway could benefit from and enhance those features. This information was woven into this Visioning Study, in the selection of the preferred route and in the amenities and programming framework that form the linear park concept. In particular, there is an opportunity for each area municipality to develop a major focal point along the Durham Meadoway that enhances existing amenities that are adjacent to the transmission corridor. These focal points create large, multi-functional destinations that integrate active transportation, passive and active recreation, and ecological restoration and enhancement.

How Municipalities and Agencies Shaped the Vision:

- Emphasized the need for the vision to be inspiring.
- Promoted a multi-functional Durham Meadoway that balances active transportation, community benefit, and environmental enhancement.
- Reinforced the need to promote ecological restoration and enhancement as a driving force through implementation.
- Identified destinations and amenities nearby or adjacent to the transmission corridor for connection.
- Identified existing and planned active transportation networks connecting to the Durham Meadoway.
- Articulated the location and amenities for focal points, especially where synergies with other projects can create greater impact.
- Provided near term planned capital projects that could benefit the Durham Meadoway.





Open House #1 (Whitby and Oshawa), January 17, 2023



Open House #1 (Whitby and Oshawa), January 17, 2023



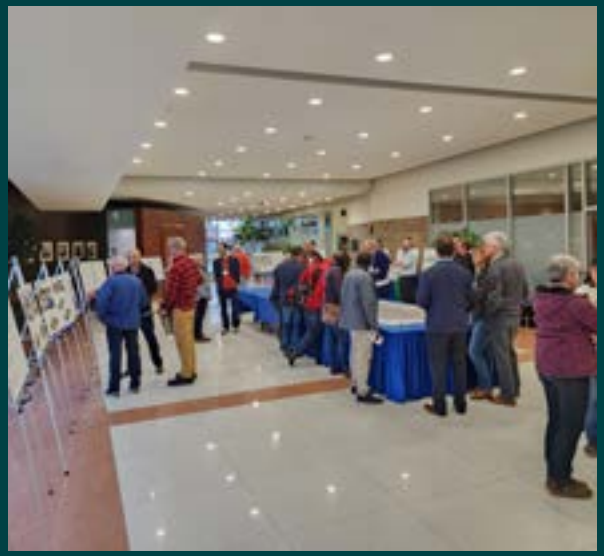
Public Open House #1 (Pickering and Ajax), January 19, 2023



Public Open House #1 (Pickering and Ajax), January 19, 2023



Public Open House #2 (Pickering, Ajax, Whitby and Oshawa), April 26, 2023



Public Open House #2 (Pickering, Ajax, Whitby and Oshawa), April 26, 2023

3.3 Public Engagement

There were four major opportunities for the public to participate in the Durham Meadoway Visioning Study. Two in-person public open houses were held, the first held at two different locations. Following the first open houses there was an on-line survey, and following the second open house, an on-line interactive map was posted for submissions. Multiple communications channels were used to advertise the study and encourage participation.

Outreach Approach

- Direct mail out (53,000 households, Public Open House #1)
- Region of Durham social media channels
- Your Voice Durham webpage
- Direct Indigenous Communities outreach
- Area municipalities promoted the Durham Meadoway through their own channels, providing assistance to the public at open houses

Please Tell Us
1. Which route
most, and why
2. Are there
should be
3. Which
connecte
Pleas
Liverpool Rd
Finch Ave
Denmar Rd
Third Concession Rd
Bowler Dr
Derby Dr
Pickering Dog Park
Beverly Morgan Park
Pine Ridge Secondary School
Potential Recreational Loop
Brock Rd crossing
Please connect to Duffin

Summary of Public Feedback

The first public open house focused on the overall idea for the Durham Meadoway, the vision and principles, options for where it could be located, and inspiring ideas from around the world of similar trails and projects. There was an open house held in the Town of Whitby, geared to Whitby and Oshawa residents, and an open house held in the City of Pickering, geared to Pickering and Ajax Residents.

The second public open house focused on the preferred route, how it was selected, and the concept for amenities and programming along it. The open house was held in the Town of Whitby.

Refer to Appendix 8.1: Interested Party and Public Engagement Summary for a full record of engagement undertaken.

How Public Input Shaped the Vision:

- Contributed hundreds of ideas for amenities that could be located along the route.
- Wanted the Durham Meadoway to be environmentally responsible and to limit human impacts to natural features.
- Reinforced the need to design for all ages, all abilities and all seasons. The Durham Meadoway must be accessible.
- Suggested ways for community outreach and participation in the programming for the Durham Meadoway, including the potential to explore partnerships.
- Emphasized the need for safety, usability and good signage when designing the Multi-Use Path.

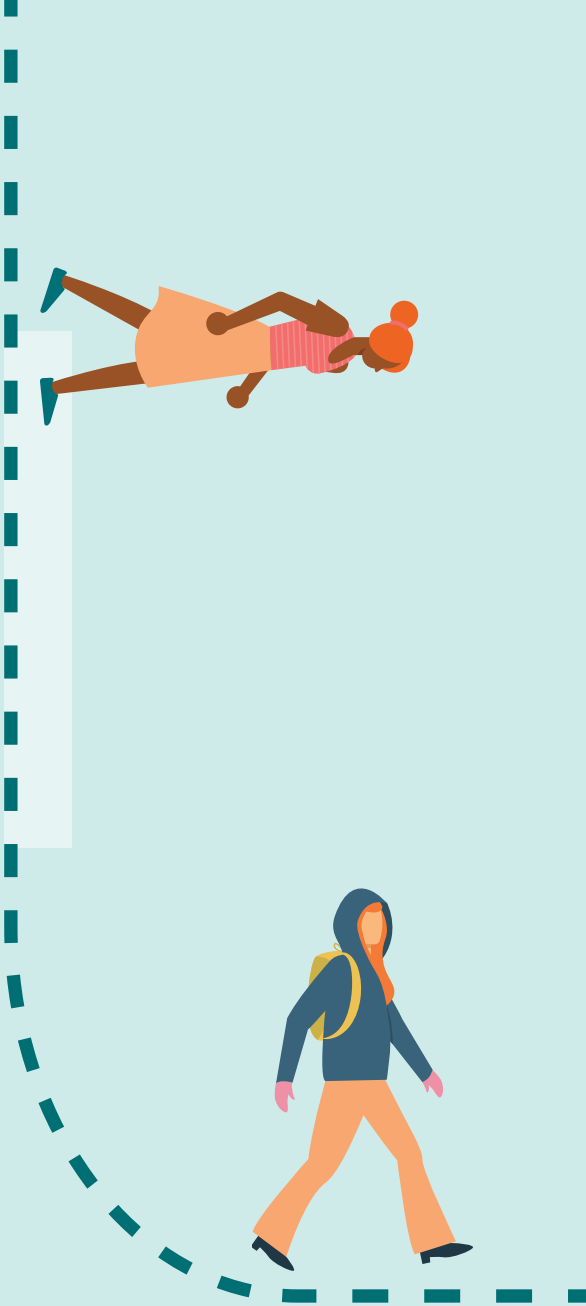
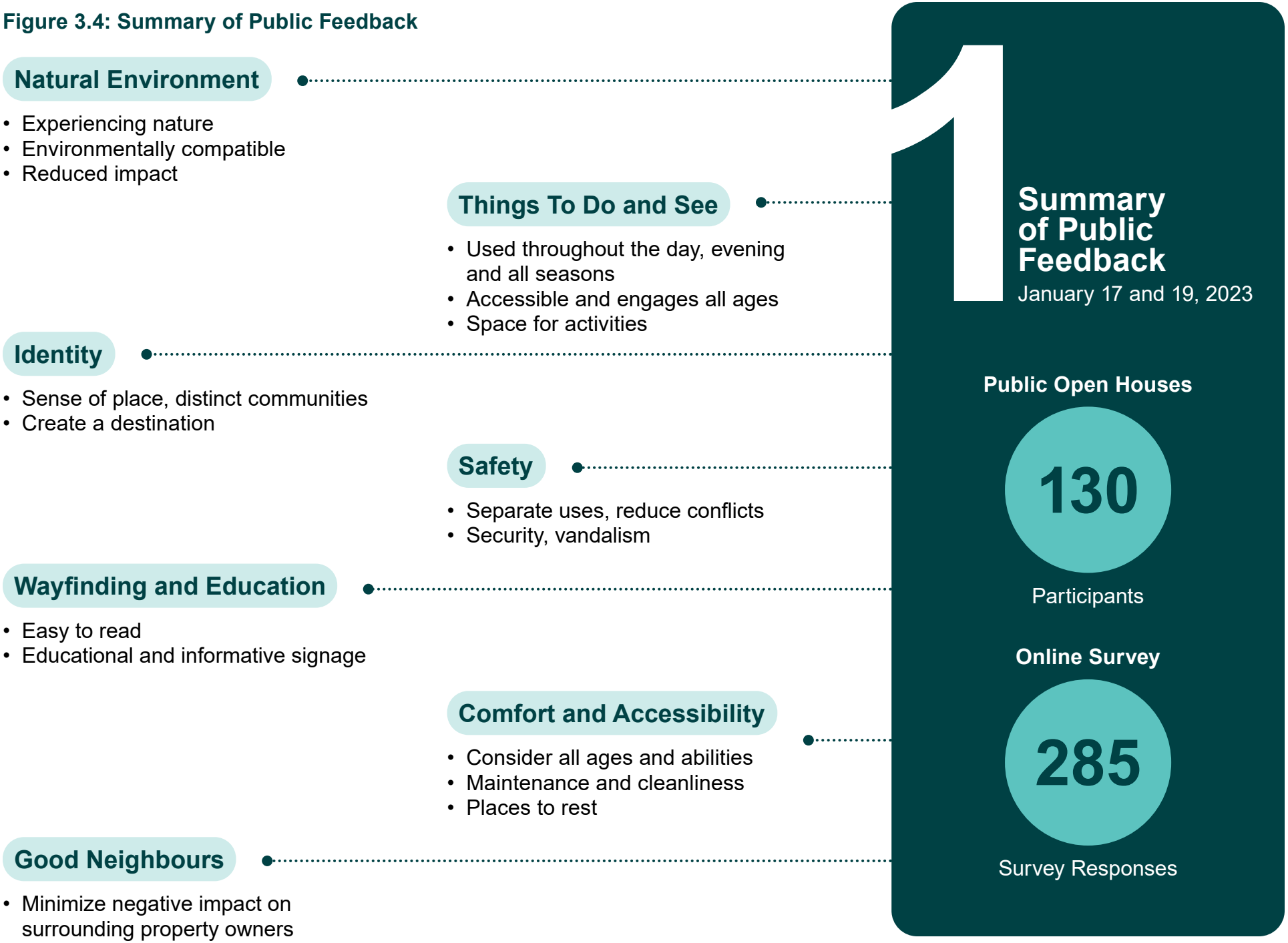


Figure 3.4: Summary of Public Feedback



Public Open House

55

Participants

Online Survey

75

Submissions

Summary of Public Feedback

April 26, 2023

2

Natural Environment

- Minimize wildlife interaction
- Manage invasive species
- Reduce impact in sensitive areas

Things To Do and See

- Used throughout the day, evening and all seasons
- Accessible and engages all ages
- Space for activities and amenities

Identity

- Integration with nature
- Create a destination

Safety

- Emergency response considerations
- Safety, lighting

Wayfinding and Education

- Navigational signage
- Educational and informative signage

Comfort and Accessibility

- Consider all ages and abilities
- Maintenance year-round
- Connect to nearby destinations

Good Neighbours

- Consider partnerships with adjacent communities
- Avoid hydro transmission infrastructure

04

The Vision

4.1 Vision Statements
4.2 Principles





4.1 Vision Statements

“ The Durham Meadoway will connect diverse communities in Pickering, Ajax, Whitby and Oshawa with a unique and inclusive landscape experience that is both trail and destination, creating opportunities for culture and environmental stewardship. ”




DURHAM MEADOWAY



This report establishes an exciting vision to guide the future development and implementation of the Durham Meadoway.

To provide consistency through the process, a vision statement has been developed to succinctly capture the spirit of the Durham Meadoway. It serves as the overall umbrella for the project, clarifying the mission and meaning of the Durham Meadoway for planners, designers and users.

The vision statement is further articulated by a series of principles providing detail on the many components and complexities of the Durham Meadoway. The principles are grouped under categories relating to natural, cultural and economic goals (refer to Section 4.2). The principles provide specific guidelines or actions that have shaped the route selection and amenities set forth in this report, and will continue to guide decisions in the future through detailed planning, design, construction and management.

A concept for the Durham Meadoway has been developed, and is illustrated on the following pages as Figure 4.1: Geographical Concept of Durham Meadoway Vision and Principles. It identifies a preferred route for the Multi-Use Path, potential interim routes, and potential locations for amenities, programming and gateways.

4.2 Principles

Natural Environment

- Protect sensitive natural features and habitat
- Enhance biodiversity by restoring meadow and pollinator habitat
- Support educational opportunities and community stewardship

Healthy, Active Lifestyles

- Provide diverse and inclusive active and passive recreational opportunities and destinations
- Include a variety of trail amenities
- Provide a continuous, functional active transportation route that helps people to shift to sustainable transportation choices for commuting, shopping and learning

Community

- Create gathering and socialization areas
- Accommodate community programming for all user groups
- Promote opportunities for community gardening and urban agriculture
- Create positive interfaces with adjacent neighbourhoods





Identity

- Promote the unique identities of Indigenous Communities, the Region of Durham and area municipalities by showcasing cultural and environmental heritage
- Create a distinct identity through placemaking principles inclusive of public art, wayfinding and gateways

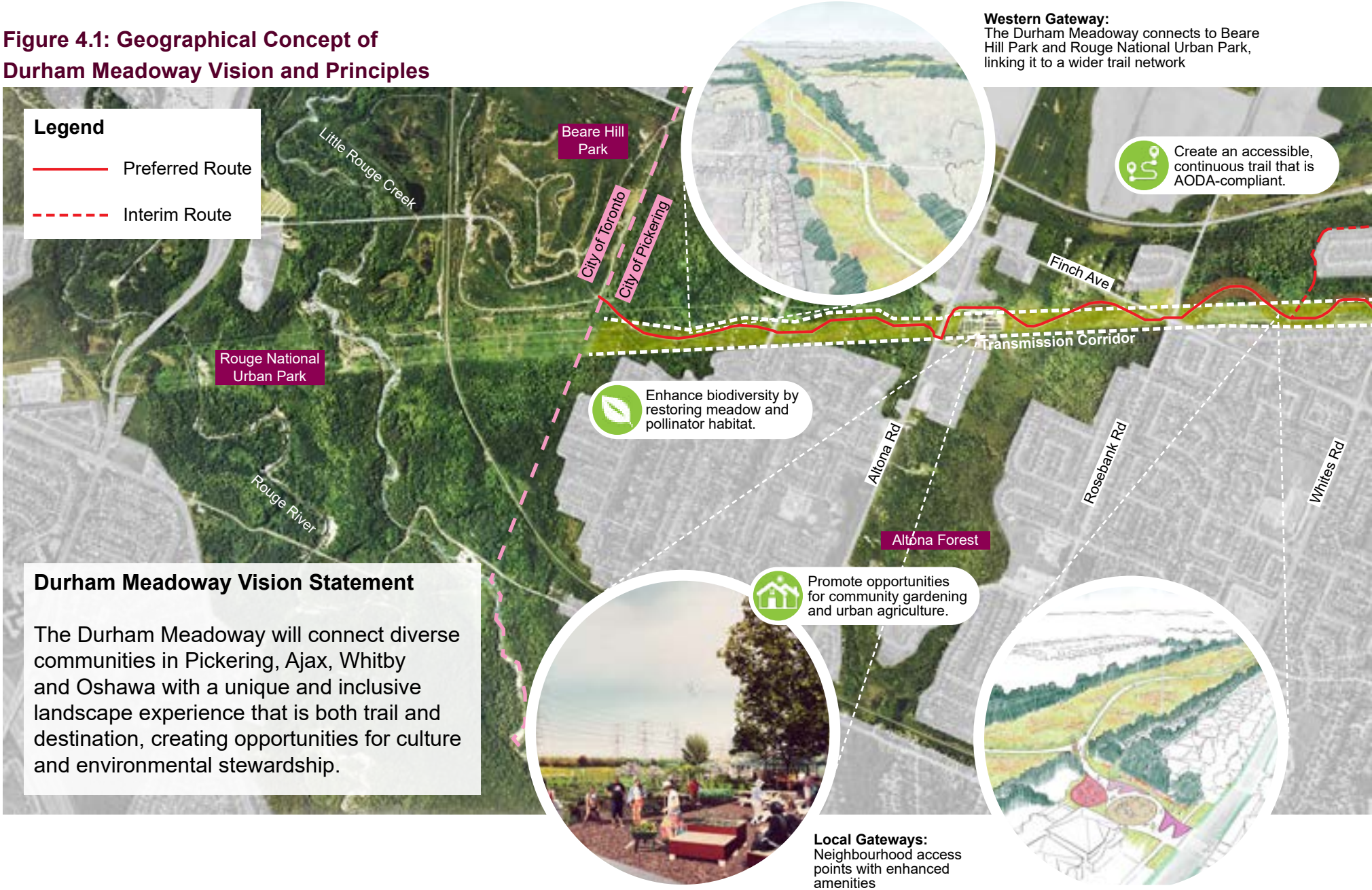
Connectivity & Accessibility

- Create an accessible, continuous and safe trail that is Accessibility for Ontarians with Disabilities Act AODA-compliant
- Connect to adjacent communities and destinations
- Ensure the trail is easy to navigate through a comprehensive and intuitive wayfinding system
- Ensure compatible land use relationships on trail and for existing licensed uses on transmission corridor lands

Implementation

- Ensure that trail planning, phasing and implementation aligns with fiscal resources and responsibilities
- Create a continuous trail end-to-end in short-term and identify areas where new or improved alignments can occur in long-term

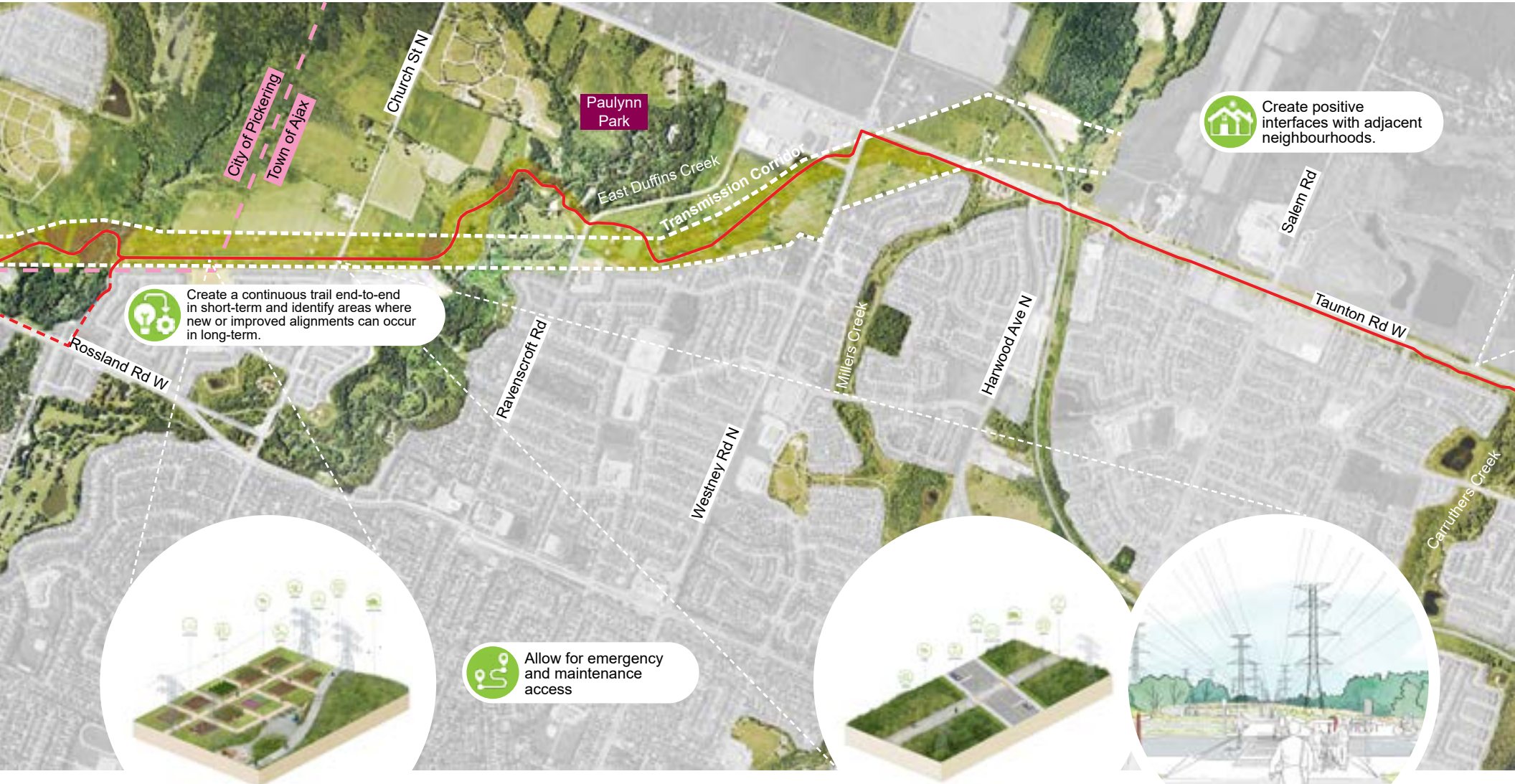
Figure 4.1: Geographical Concept of Durham Meadoway Vision and Principles





Road Crossings:
Grade separated crossing of Whites Road

Nature Spaces:
Opportunities to observe and learn about natural features

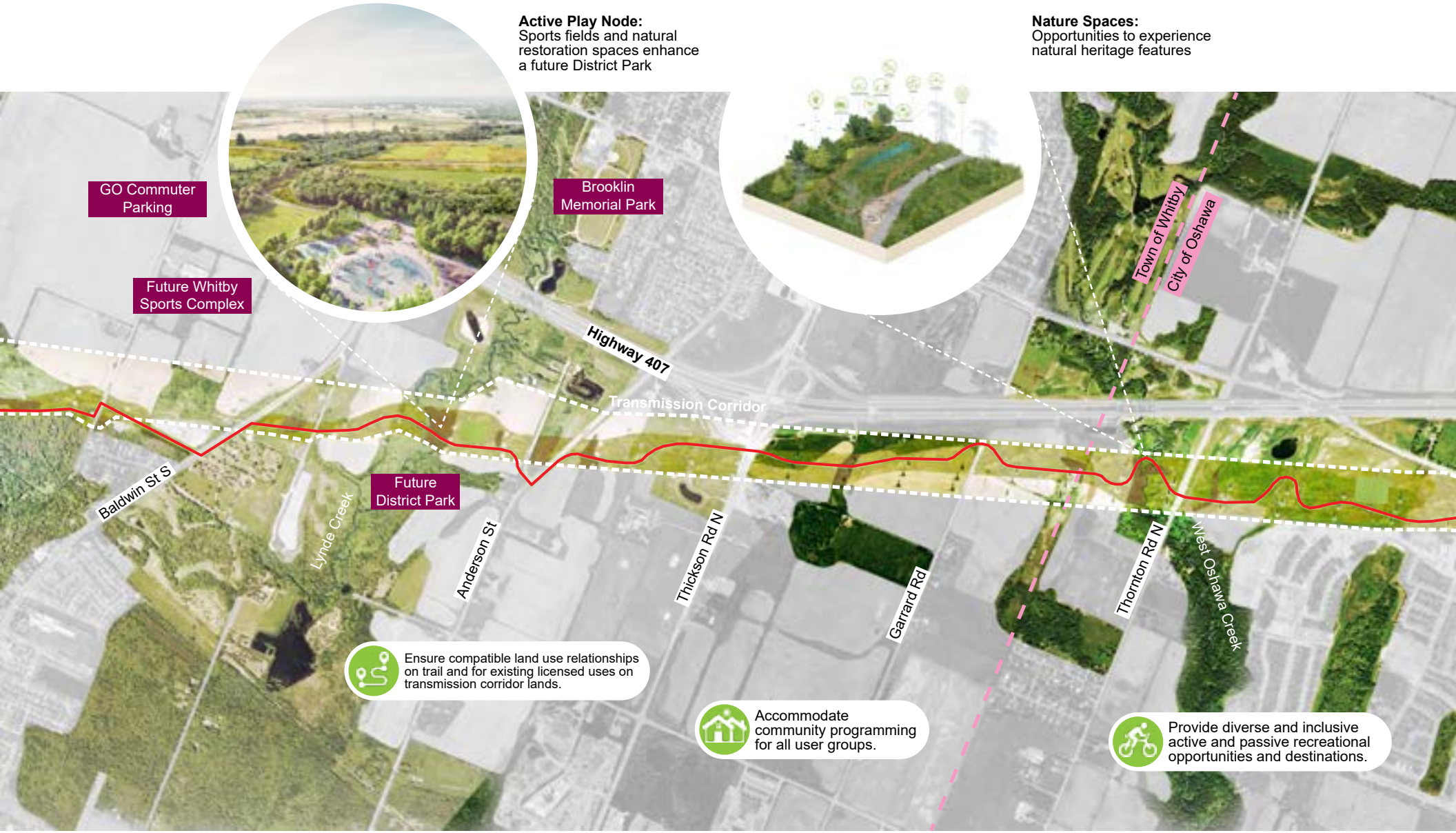


Garden and Community Nodes:
Neighbourhood amenities and focal points

Road Corssings:
Mid-Block Road Crossings incorporate clear wayfinding, safe crossings, and trail amenities



Road Crossings:
Intersection Road Crossings incorporate clear wayfinding and safe crossings.


Active Play Node:
Sports fields and natural restoration spaces enhance a future District Park
Nature Spaces:
Opportunities to experience natural heritage features
GO Commuter Parking
Brooklin Memorial Park
Future Whitby Sports Complex
Highway 407
Transmission Corridor
Town of Whitby
City of Oshawa
Baldwin St S
Future District Park
Lynde Creek
Anderson St
Thickson Rd N
Garrard Rd
Thornton Rd N
West Oshawa Creek
Ensure compatible land use relationships on trail and for existing licensed uses on transmission corridor lands.
Accommodate community programming for all user groups.
Provide diverse and inclusive active and passive recreational opportunities and destinations.



Segment 11: Simcoe St to Harmony Rd

05

The Linear Park

5.1 Durham Meadoway as a Trail and Destination
5.2 Conditions and Opportunities
5.3 Toolkit
5.2 Typologies





What is a linear park?

- It is the dynamic experience of moving through the landscape.
- It is a thriving ecosystem of meadows, valleys and forests.
- It is a green space that connects to and across many neighbourhoods and communities.
- It is a necklace of public spaces for playing, exercising, gathering, gardening, and relaxing.

5.1 Durham Meadoway as a Trail and Destination

The Durham Meadoway's potential is much more than an active transportation route. It is a vibrant destination itself, offering amenities, programming and gateways along the route that connect to and enhance adjacent communities. This section explains how the Durham Meadoway will be transformed into a linear park.

Approach

The linear park concept includes a diversity of publicly accessible spaces, including:

- Spaces within the transmission corridor;
- Spaces that are adjacent to it such as parks, conservation areas, and valleylands; and
- Space within the road rights-of-way that intersect with the transmission corridor.

Each have different potential in terms of what can be located within them and how they relate to the route of the Multi-Use Path. Because the corridor is actively used for electricity transmission, there are important guidelines and restrictions in place that determine what can be built and how permitted facilities and amenities must be designed. By leveraging road rights-of-way and adjacent public spaces, elements that cannot be located within the transmission corridor, such as certain types of structures and trees, can still be incorporated into the Durham Meadoway.

At 30 kilometres in length, and typically over 100 metres in width, the potential for providing amenities, programming and gateways is immense. The Durham Meadoway takes a strategic approach to amenities, programming and gateways by clustering them together at locations that serve existing and developing communities and have a high impact. These clusters or nodes are identified below as a series of typologies.

The typology approach provides an incremental, modular framework that can be applied over time, in step with capital project planning and funding. Typologies can be directed to different locations across the Durham Meadoway, in different municipalities. The typologies are a starting point, and more typologies can be developed over time, or hybrid typologies can be created.



5.2 Conditions and Opportunities

While there are many different conditions along the Durham Meadoway, there are patterns and relationships that can be found in many locations along it, such as where it crosses roads or watercourses, where it connects to existing or planned trails and bicycle infrastructure, where it is beside homes and neighbourhoods, and where it is beside natural areas. Each of these existing conditions are opportunities for co-locating amenities, programming and gateways to enhance the linear park experience (see Figure 5.1).

1. Adjacency to green urban areas / Connection through adjacent park
2. Existing nursery business / Repurpose nursery as community garden in transmission corridor
3. Road crossing / Uninterrupted underground crossing
4. Adjacency to urban areas / Connection to intersecting road



5 Adjacency to conservation areas / Enhancing natural heritage areas

6 Road crossing / Crossing at level street

7 Pathway crossing / Connection to existing pathway

8 Adjacency to green urban areas / Connection to existing park

9 Two road crossing / Crossing at level street with gateway

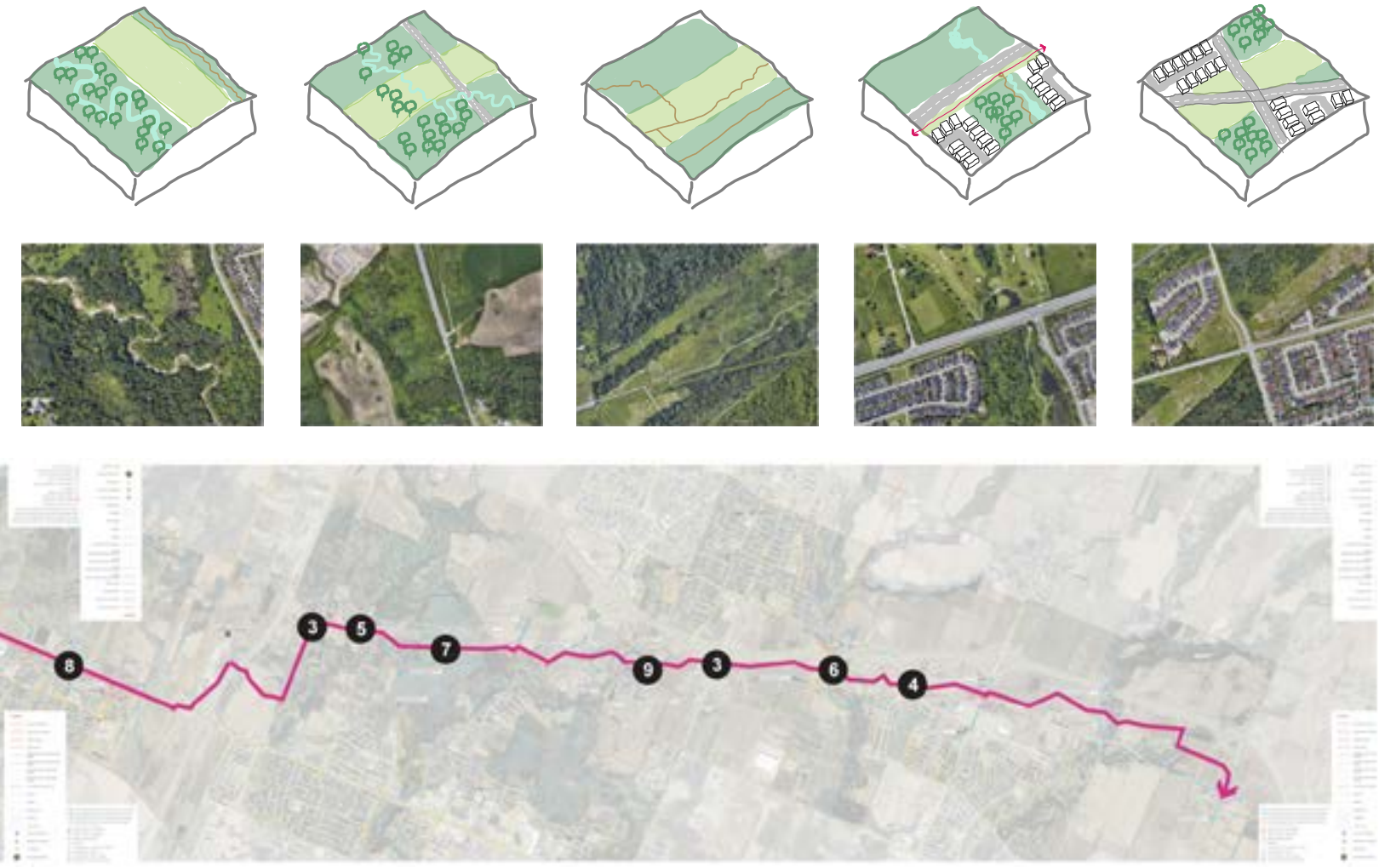


Figure 5.1: Examples of Condition and Opportunity Locations Along the Durham Meadoway

A sample of ten different types of opportunities where the toolkit and the typologies can be applied. The locations of the ten types of opportunities are spread along the Durham Meadoway. There are more locations and opportunities that can be identified through future study.

5.3 Toolkit

Through municipal, agency and public consultation, amenities, programming and gateways were identified that people would like to see within the linear park, such as community gardens, public art, interpretive signage, and many others. In addition to recreational elements, there are functional elements such as road and creek crossings, which will have a common approach to design including signage, pavement markings and signals. The Multi-Use Path itself will follow a set of design standards such as alignment, pavement width, edge condition, gradient and sightlines. All of these elements form the toolkit for the Durham Meadoway.

The toolkit, as illustrated in Figure 5.2, includes:

- Ways of accessing and moving along the Multi-Use Path
- Orientation, navigation and identity elements
- Passive and active recreational features
- Environmental enhancements
- Other amenities and features.

The toolkit can be implemented in different ways in different places along the route, based on the opportunities of the local community context. As the corridor evolves and grows, different elements of the toolkit can be added.

Some elements of the toolkit will be designed and coordinated as part of the overall branding and identity of the Durham Meadoway, to create a consistent experience for all users. These types of elements include the Multi-Use Path design, crossing treatments, and wayfinding signage. Other elements, such as furniture, paving, and interpretive signage, can be more individual in expression while appearing as part of the same family. Some elements will be unique, such as natural heritage restoration and public art, responding to the needs of each community and site.



Bridge



Bike repair



Allotment gardens



Active play



Figure 5.2: Toolkit Elements and Amenities

Examples of the amenities and elements that form a toolkit for deploying along the Durham Meadoway. The typologies that follow illustrate how the elements from the toolkit can be combined to create placemaking.

5.4 Typologies

Through the Visioning Study, four typologies have been identified that will create special moments along the Durham Meadoway, punctuating the Multi-Use Path with a variety of experiences that will help establish the corridor as a destination. These typologies are:

- Active Play
- Nature Space
- Garden and Community
- Road Crossing

The typologies combine the opportunities of site-specific locations along the Durham Meadoway with elements of the toolkit, as illustrated by Figure 5.3: Typologies Development Process Example. At this stage of the process, the typologies act as a template or reference for future design work by demonstrating how programming, amenities, and environmental enhancements identified in the toolkit can be provided like a string of pearls along the corridor to create a linear park. They are general examples, not designed for specific locations. As further work is undertaken beyond the Visioning Study, these typologies can be adapted and refined to reflect the opportunities of site-specific conditions and community needs. New typologies may also be developed as further technical work is undertaken. For example, detailed environmental and engineering study of the watercourses and their valleys may lead to a typology of watercourse crossings that can be applied to the larger watercourses while potentially another typology could be added for the their numerous smaller channels.

Using the guiding principles as a starting point, each typology is designed to:

- Be accessible for people of all abilities;
- Be located where they connect to other trails, cycling facilities, and sidewalks;
- Be accessible to as many modes of transportation as possible;
- Enhance the local community with new amenities and programming;
- Provide amenities that appeal to and serve a wide range of ages;
- Contribute to establishing a unique identity for the Durham Meadoway and include key elements of the toolkit: Wayfinding signage, seating and enhanced planting.

What is Placemaking?

Placemaking refers to the action and result of creating or improving public spaces that are both beautiful and functional, and that are rooted in an authentic sense of place that responds to local social and environmental conditions. Placemaking is a participatory process where members of the community co-create places that are beloved by citizens because they help fulfil the social, cultural, economic, recreational and/or sustainability aspirations of the community.

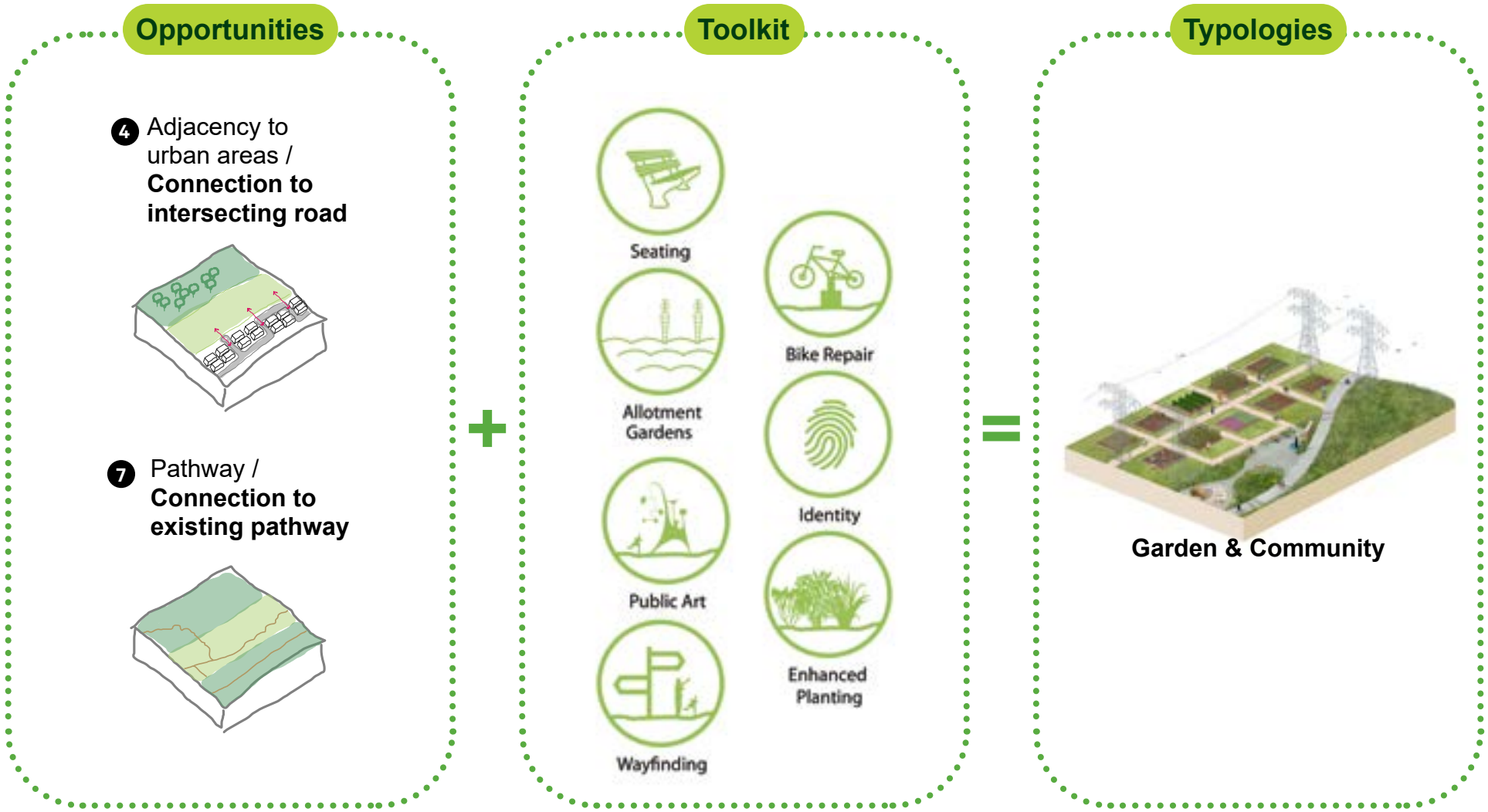


Figure 5.3: Typologies Development Process Example

Understanding the opportunities of the site context and applying the Durham Meadoway toolkit of elements will create different typologies for gathering, experiences and recreation.

Active Play

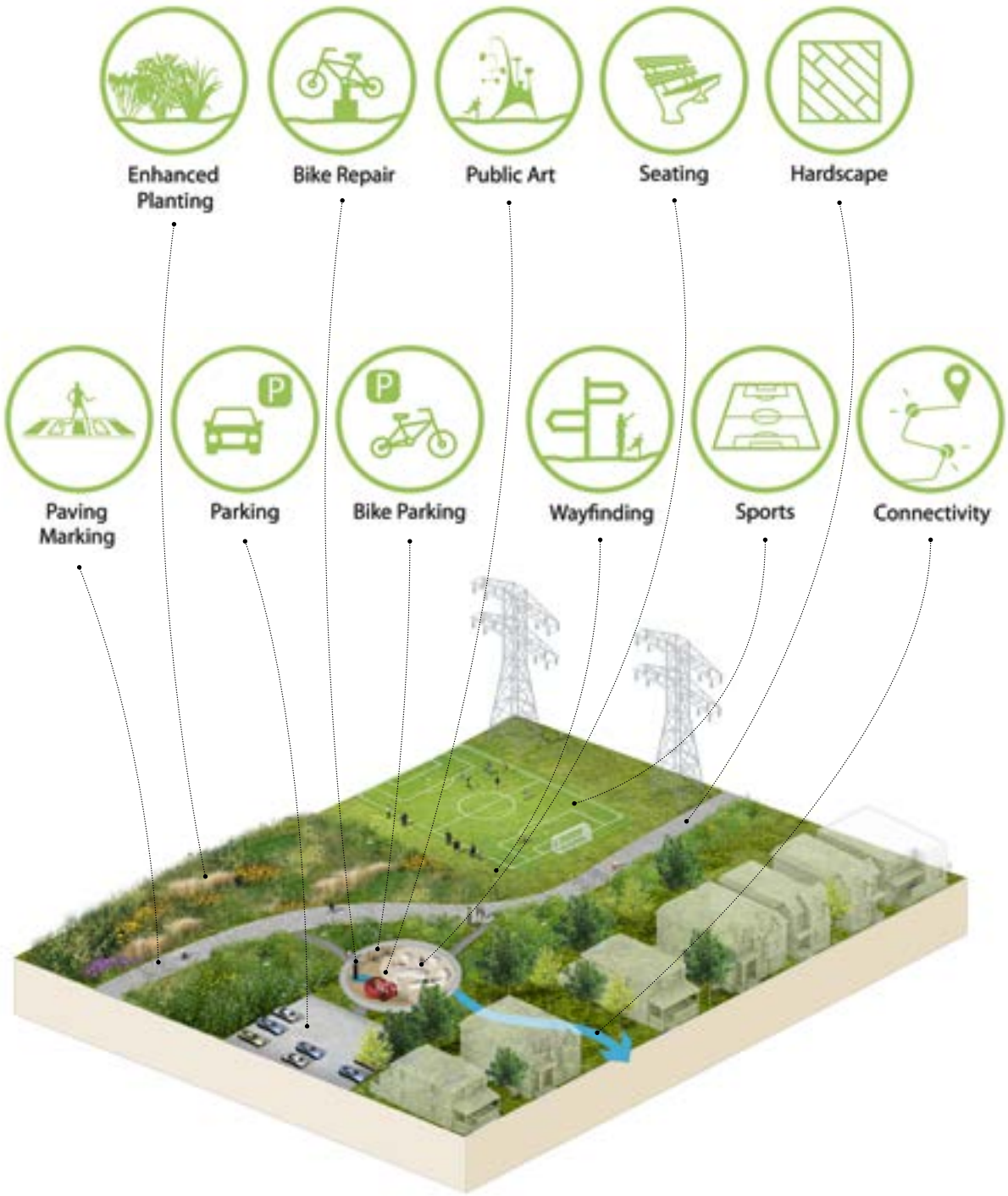
Active recreation is the core of the Active Play typology. Active Play includes elements that are potentially well-suited to being located under the hydro wires such as sports fields, cycling facilities (e.g. pump track), skating rink, artificial ice skating trail, or dog off-leash zones, which do not have significant permanent or tall infrastructure. Active play can also include constructed elements such as playgrounds, multi-use sports courts, skateboard parks, and outdoor fitness equipment that may need to be located outside of the main transmission corridor or within adjacent public lands.

The Active Play typology encompasses major destinations attracting people to engage in a variety of activities. It is recommended to locate Active Play nodes in association with existing or planned parks, where they will function as an extension of those parks creating a larger municipal open space focal point.

Key Design Strategies:

- Consider two or more types of active recreation facilities, appealing to different age ranges, to promote a critical mass and diversity of activities;
- Include seating, enhanced landscaping, cycling facilities, and public art that create a rest area along the Multi-Use Path and support the recreation facilities; and
- Provide connections to the local community, both at the local level through trail, sidewalk and park connections, and ideally at the broader scale, through vehicular connections and parking availability.

Figure 5.4: Active Play Typology
Example of toolkit elements and precedents used in the Active Play typology. The precedents include Street Library in Varna, Bulgaria; Pickleball Courts, various cities, TX, USA; Johnston-McVay Park in Westerville OH, USA; Turenscape Bridged Gardens in Tianjin, China and Arrowhead Provincial Park near Huntsville ON, Canada.


Enhanced Planting
Bike Repair
Public Art
Seating
Hardscape
Paving Marking
Parking
Bike Parking
Wayfinding
Sports
Connectivity



















Sports fields within the transmission corridor are subject to further review by Hydro One as a permitted secondary use.



Conceptual rendering of an Active Play Typology node along the Lynde Creek in Whitby. Multi-use sports fields in the transmission corridor expand the amenities of a future District Park, and connect to the Lynde Creek Trail, creating an enhanced destination.

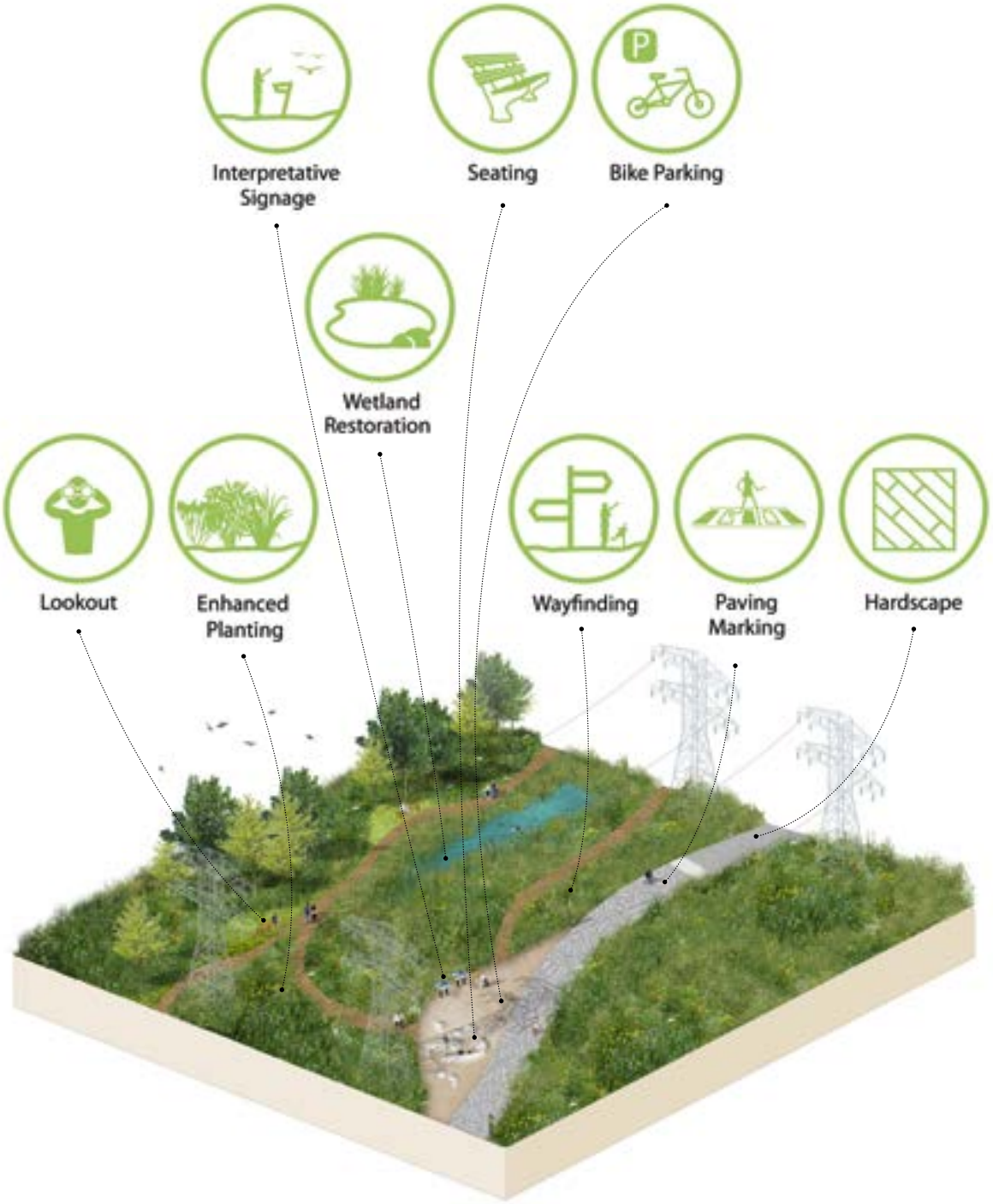
Nature Space

The Nature Space typology focuses on the natural environment. They are places where the ecological function of the corridor is enhanced or restored while allowing people to see and experience the natural environment for all seasons. There are different types of ecologies along the Durham Meadoway that should be considered for Nature Space typologies, including meadow, ruderal (plants that grow in areas that have experienced a high level of disturbance, such as road rights-of-way), wetland, forest (for example, in association with conservation areas), and riparian. Nature Spaces will be passive recreational nodes for observation, interpretive and educational opportunities, and rest.

Key Design Strategies:

- Include an alternative loop or destination, connected to the principal Multi-Use Path (i.e., the preferred route), that allows people a more direct and intimate experience of the natural setting, for example a boardwalk, woodland trail or viewing platform;
- Provide educational opportunities, for example through interpretive signage or digital information; and
- Include frequent seating and viewing opportunities within the Nature Space.

Figure 5.5: Nature Space Typology
Example of the different elements of toolkit used in the Nature Space typology. The precedents for this typology include Minghu Wetland Park in Lupanshui, Guizhou, China; Algonquin Park in Whitney ON, Canada; St. Jacques Ecological Park in Rennes, Brittany, France; Schelokovsky Hutor Forest Park in Ardatovsky District, Nizhny Novgorod Oblast, Russia; The Meadoway in Toronto ON, Canada; Tianjin Qiaoyuan Park in Tianjin, China; John M Craddock Wetland Nature Preserve in Muncie IN, USA and Signage in Cathar Country in Aude, Occitanie, France.


Interpretative Signage
Seating
Bike Parking
Wetland Restoration
Lookout
Enhanced Planting
Wayfinding
Paving Marking
Hardscape











DURHAM MEADOWAY



Conceptual rendering of a Nature Space Typology node. Existing natural features are conserved and enhanced, with amenities for trail users to experience and learn about nature.

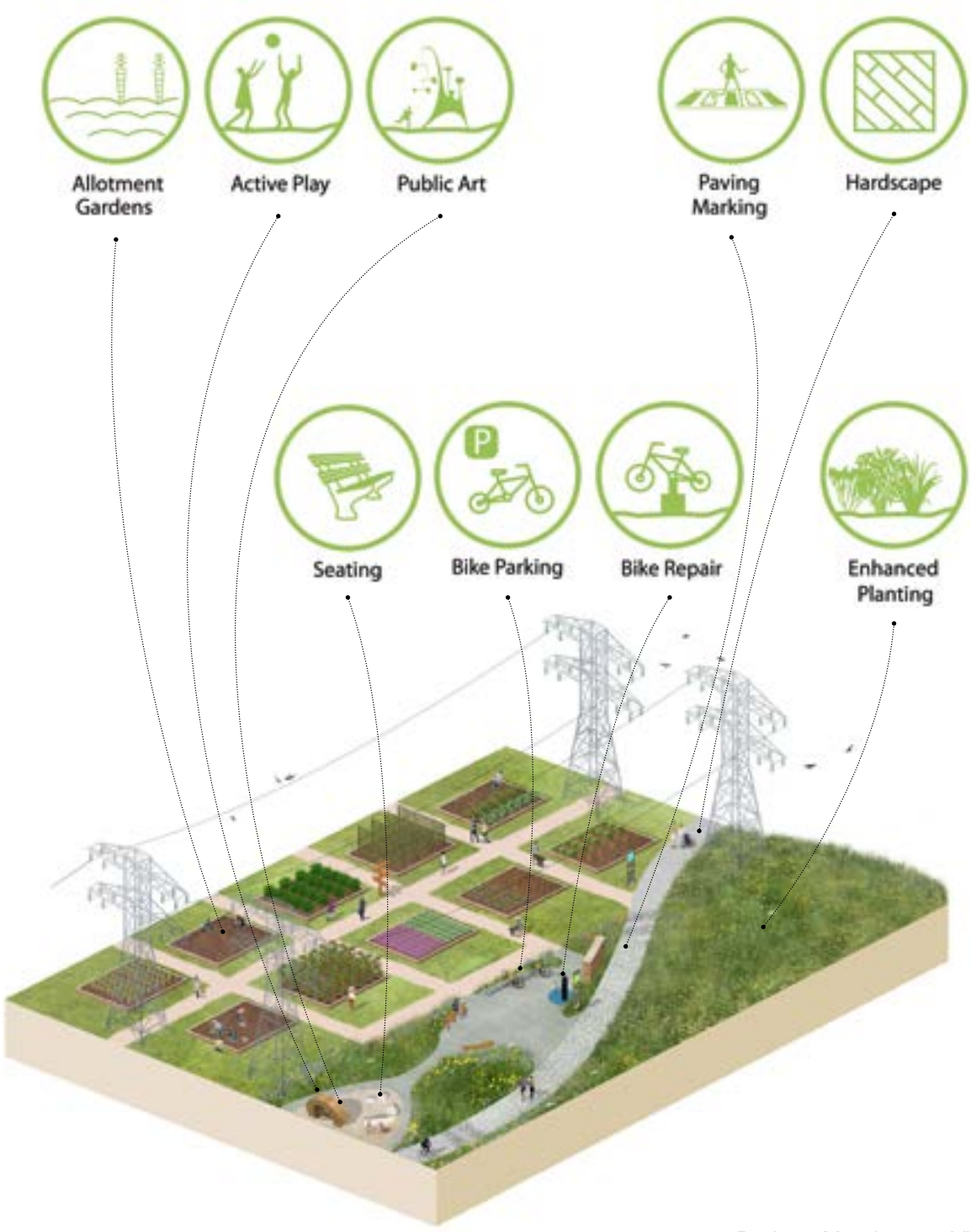
Garden and Community

The Garden and Community typology is focused on community gathering. It can include a wide range of activities that serve the local community, such as community garden plots, small play areas, public art, and spaces to host events like markets and festivals. Depending on the nature of the activity, some elements may be located within the transmission corridor lands while others may be located just outside of it within other publicly owned lands. As a community space, it is important that this typology is located in close proximity to existing neighbourhoods where they are accessible by multiple transportation modes.

Key Design Strategies:

- Consider two or more types of community-oriented facilities, appealing to different age ranges, to promote a critical mass and diversity of activities;
- Create large, multi-purpose open spaces;
- Consider providing infrastructure to support community activities, such as a toolshed with garden tools, and access to electrical power and water;
- Include seating, enhanced landscaping, cycling amenities and public art that create a rest area along the Multi-Use Path that also serves the community facilities; and
- Provide connections to the local community, both at the local level through trail, sidewalk and park connections, and ideally at the broader scale, through vehicular connections and parking availability.

Figure 5.6: Garden and Community Typology
Example of the different elements of toolkit used in the Garden and Community typology. The precedents for this typology include St. James Park in Toronto ON, Canada; Unbuilt Treehouse Tower by Earthscape; The Meadoway in Toronto ON, Canada; Rooftop Farming in Copenhagen, Denmark; Chongqing Xinhu North Sports Culture Park in Chongqing, China; Valley Plentiful Community Garden in Pickering ON, Canada and Unbuilt Engie/Living in UK.


Allotment Gardens
Active Play
Public Art
Paving Marking
Hardscape
Seating
Bike Parking
Bike Repair
Enhanced Planting


FISH

















Community gardens within the transmission corridor are subject to further review by Hydro One as a permitted secondary use.



Examples of the amenities and elements that form a toolkit for deploying along the Durham Meadoway. The typologies that follow illustrate how the elements from the toolkit can be combined to create placemaking.

Road Crossings

The Road Crossings typology establishes the design elements that provide Multi-Use Path users with predictable, clear and safe guidance for crossing roads and consistent branding and wayfinding to help them find their way along the route These elements can include crosswalk markings, safety and warning signage, wayfinding signage, trail markings, vehicular lane markings, and wherever appropriate, signalization infrastructure including call boxes, Multi-Use Path signals, and vehicular signals.

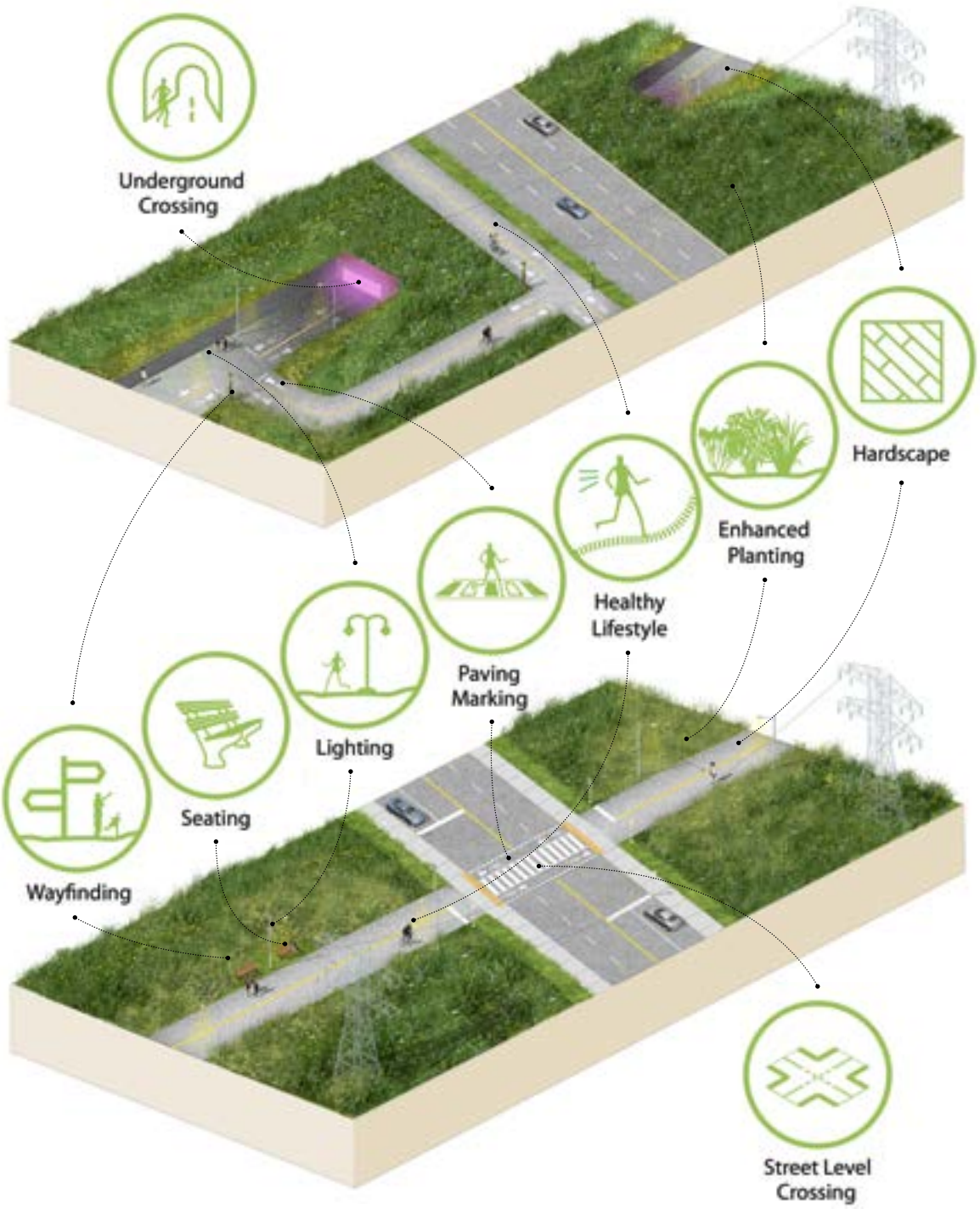
In many cases the Road Crossing typology will also include function as a Gateway – a way to enter onto the Durham Meadoway, but also an identity element such as a bench that provides a place of rest and/or amenity.

Key Design Strategies:

- Ensure road users and Multi-Use Path users have clear sight lines to the crossing, inclusive of signage and signals as appropriate;
- Provide connections from the Multi-Use Path to all modes within the road right-of-way including: Transit stops; potential transfer hubs at key intersecting transit routes; sidewalks; and cycling routes;
- Separate pedestrian and cycling traffic at the crossing through lane markings and signals;
- Provide wayfinding signage and branding elements for the Durham Meadoway; and
- Provide amenities such as seating, public art and lighting.

In some cases, it may be appropriate for the Durham Meadoway to have a grade separated crossing of particularly busy roads, such as Highway 412 or Whites Road. It is important to ensure the design of the Multi-Use Path provides a clear, continuous and easy-to-follow route at these locations. Additional attention to visibility, wayfinding signage, lighting, trail markings, and connections to adjacent sidewalks and cycling routes is needed. Further study is required to determine the technical feasibility of these crossings. The design of the Durham Meadoway should also discourage any mid-block crossings at busy arterial roads within the transmission corridor if the preferred Multi-Use Path route takes advantage of a nearby signalized crossing location.

Figure 5.7: Road Crossings Typology
Example of the different elements of toolkit used in the Road Crossings typology. The precedents for this typology include Craiglinn Underpass in Glasgow, Lanarkshire, UK; Etobicoke Creek Trail in Toronto ON, Canada; Michael Starr Trail Crossride at Rossland Road in Oshawa ON; Waterfront Trail Crossride at Front Street in Whitby ON; Taunton Road Multi-Use Path Crossride at Salem Road, Ajax ON; and Herb Gray Parkway Trail in Windsor ON, Canada.


Underground Crossing
Hardscape
Enhanced Planting
Healthy Lifestyle
Paving Marking
Lighting
Seating
Wayfinding
Street Level Crossing












Conceptual rendering of the Multi-Use Path crossing a road intersection.



Conceptual sketch of the Multi-Use Path crossing a road at a mid-block location.

06

The Route

6.1 Background on Route Selection
6.2 Route Selection
6.3 Preferred Route
6.4 Interim Routes



What is the best route for the Durham Meadoway?

- It provides access to the Gatineau transmission corridor lands to the extent possible, recognizing land use or infrastructure constraints.
- It connects to adjacent communities and destinations.
- It creates a safe, direct, easy to follow, end-to-end route.
- It creates a great landscape experience through diverse natural ecologies.

6.1 Background on Route Selection

There are many considerations in planning for a 30 kilometre trail within the Gatineau transmission corridor. While the hydro wires are elevated on tower structures, the Multi-Use Path must traverse the corridor along the ground. This means navigating watercourses, roads, and incompatible or inaccessible uses.

Key Considerations for Route Planning

Ends of the Route

At the west end, the Durham Meadoway will connect to Rouge National Urban Park and to points beyond. The route must maximize connectivity while considering the rail tracks within the City of Toronto that are between the Durham Meadoway and Rouge National Urban Park. At the east end, the Durham Meadoway extends to Harmony Road in City of Oshawa, and must consider where it begins (or ends), and how it can connect to the larger active transportation network to create opportunities to neighbouring planned residential and employment areas.

Highway 412 and Lake Ridge Road

Highway 412 is a major barrier in the middle of the corridor. Tunneling or bridging it would be prohibitively expensive. The route must consider how to cross the highway in a way that is practical, safe, and accessible for pedestrians, and experienced and novice cyclists alike. A mid-block crossing of Lake Ridge Road (a high-speed Regional road and goods movement route) is also a potential safety risk where the transmission corridor is located.

Golf Course and CP Rail Tracks

West of Highway 412, the transmission corridor lands are licensed and occupied by the private Deer Creek Golf Course. In this location it is not practical to route the Multi-Use Path through the transmission corridor – another publicly accessible route must be found. West of the golf course, the CP rail tracks are another major barrier that would be challenging to overcome.

Road Crossings

There are 35 road crossings along the route of the Durham Meadoway, and each is unique. Some are, or will be in the future, very busy multi-lane arterial roads, and crossing them must consider the safety of all pathway and road users. While some roads can be crossed within the transmission corridor itself, others will require a detour so they can be crossed at a nearby existing or planned signalized intersection that have appropriate spacing to other intersections.

Valleys

The many watercourses and their tributaries create undulating and sometimes dramatic terrain along the

transmission corridor. Steep slopes and sensitive areas near streams may require creative solutions. Further study is needed for the design of these watercourse crossings and approaches within the valleys.

Cherrywood Transformer Station

The Cherrywood Transformer Station occupies a large area and is located along the transmission corridor. It is a great opportunity for education and interpretation about this impressive yet critical infrastructure, but the Multi-Use Path will need to go around it.

Community Amenities and Destinations

There are many existing and planned community amenities and destinations adjacent or close to the transmission corridor, such as parks, conservation areas, community centres, educational facilities, transit stops, and parking lots, as well as the different land uses of the communities themselves. The Durham Meadoway can make connections among them, fostering better accessibility and promoting sustainable transportation choices.

Active Transportation Routes

There are many existing and planned active transportation corridors that the Durham Meadoway can connect to: trails, paths, on- and off-road cycling routes, and sidewalks. In addition, where the Durham Meadoway must leave the transmission corridor, it is able to be routed primarily along an existing Multi-Use Path within a road right-of-way.

Timing and Alignment with Capital Projects

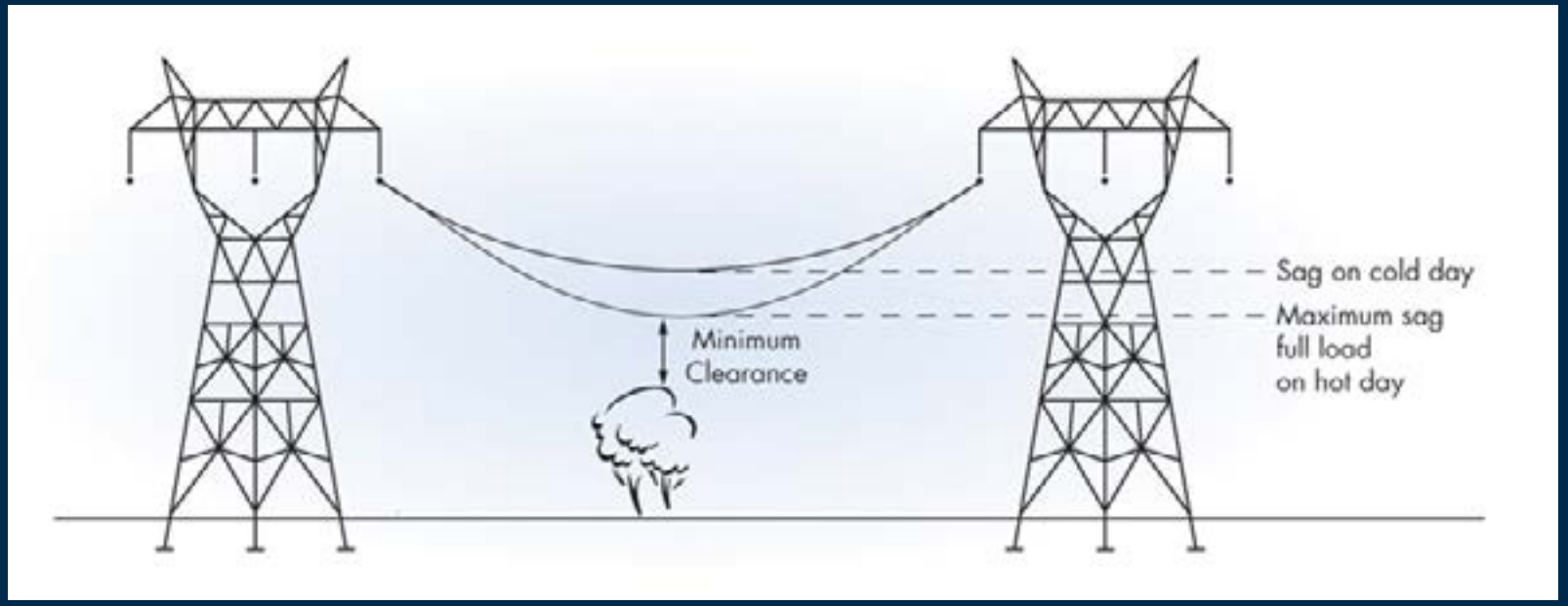
The timing of existing and planned infrastructure could benefit the route of the Durham Meadoway. The Durham Meadoway may be able to use existing bridges and leverage planned capital projects such as Multi-Use Paths within road rights-of-way.

Hydro One Guidelines

Hydro One has established important safety and operational guidelines for any work within the transmission corridor, both for built elements and for planting. The Multi-Use Path should not follow the transmission wires for long, straight segments, and must be offset from the towers. This will be a benefit for creating a meandering route through the landscape, as illustrated conceptually by Figure 6.1: Hydro One Vertical and Horizontal Clearance Considerations. Other features to support the Multi-Use Path such as signage, site furniture, gateway features and public uses such as community gardens, playgrounds, gathering areas, ecological and environmental enhancements, public art and other amenities are subject to detailed design reviews by Hydro One. As part of that review, the overall fit with the hydro transmission infrastructure and ensuring public safety will be assessed.

Refer to Appendix 8.2: Opportunities and Constraints for route considerations.





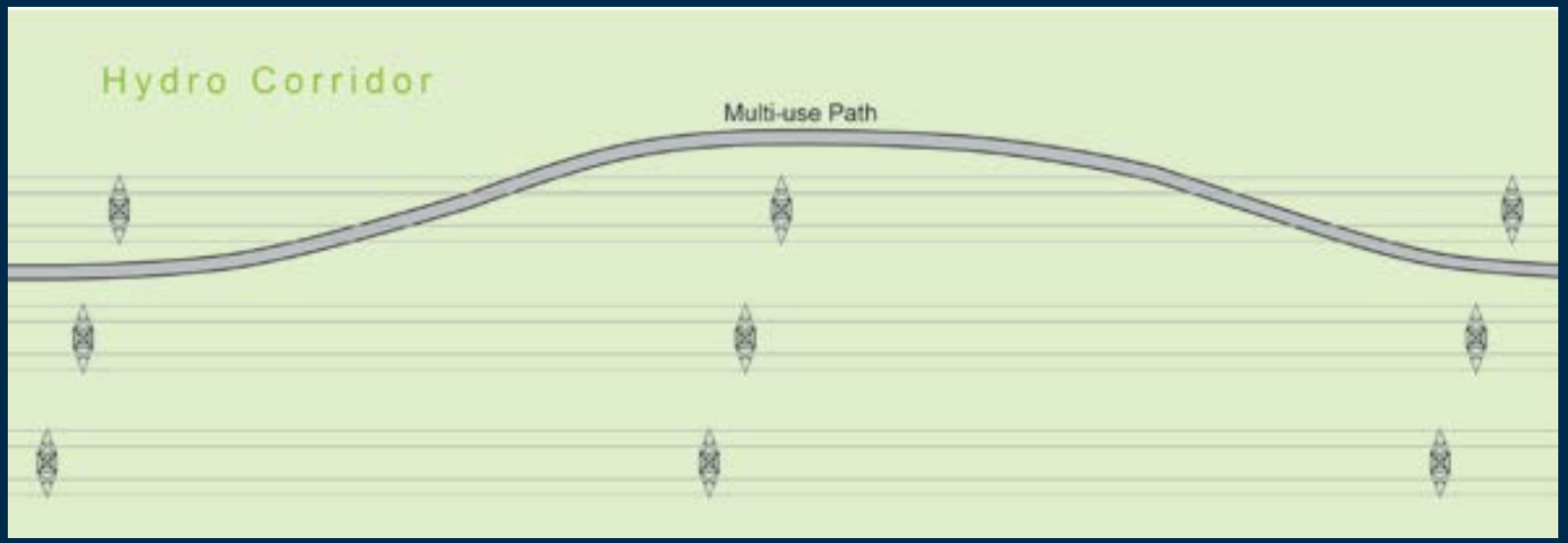


Figure 6.1: Hydro One Vertical and Horizontal Clearance Considerations

The Multi-Use Path should meander within the hydro corridor.

Hydro One Transmission Corridor Considerations

Within the transmission corridor, the Durham Meadoway multi-use path and location of amenities must follow some key safety and operational considerations.

Vertical Clearance

Minimum vertical clearances must be maintained from the maximum sag levels of the conductors. Clearances are case-specific and will be reviewed by Hydro One.



Buildings and Permanent Structures

Buildings and permanent structures are not permitted on Hydro One rights-of-way.

Access to Structures

An unhindered, minimum 6 metre wide access path to facilities on the corridor must be provided for maintenance vehicles. A 15 metre clear working radius around transmission structures is required to maintain access for vehicles carrying out routine maintenance. A 3 metre radius around each tower footing must be left unpaved for access to the footing.

Grading, Drainage, and Stormwater Management

Grading changes must not impact vertical clearance requirements or result in standing water anywhere along the corridor, and no fill material may be placed in the transmission corridor without written approval from Hydro One.

Roads and Parking

Curb cuts or access gates should be provided for Hydro One's Maintenance vehicles. Parking facilities on 115 kV and 230 kV rights-of-way should be restricted to passenger vehicles only. Parking facilities are not permitted under 500 kV rights-of-way. Transmission towers near roads and parking areas must be protected by standard highway barriers.

Landscape Plantings

All plantings must be consistent with Hydro One's approved species list and the overall plan is subject to Hydro One's approval. Plantings should be located in such a way as to not impede access to transmission towers and an area of 15 metres around transmission towers should be kept clear of shrubs to permit Hydro One access to towers.

Ongoing Costs

The annual fee is established through the following formula: (width of trail + 3 metres) x length of trail x tax rate x 50%. If additional land beyond the 3 metres trail buffer is used, that would need to be factored into the calculation.

Multi-Use Path

The Multi-Use Path must meander within the transmission corridor. It may not follow the hydro lines for long, straight sections. The path must be physically separate from access routes used for Hydro One maintenance vehicles.

6.2 Route Selection

A key goal of the Durham Meadoway Multi-Use Path is to be located within the transmission corridor lands, or – where constraints and barriers make it impossible to remain in-corridor – within other off-road green lands such as conservation areas and valleys. This aligns with the vision of the Durham Meadoway to be a beautiful landscape experience that both facilitates enhancement of and showcases the natural environment. It also supports the functionality of the Durham Meadoway as an active transportation corridor by providing a continuous, direct route connecting communities.

Based on an initial review of opportunities and constraints, the study team prepared a draft route alignment that included several areas where different alignment options for the route needed to be evaluated. An objective-based evaluation methodology was employed to identify the preferred route alignment through an assessment of the relative merits of the alternative routes or a combination of routes.

Evaluation Criteria

Route evaluation criteria were developed based on the Durham Meadoway guiding principles and refined through consultation with area municipalities, agencies, community groups and the public. Criteria development considered what information is available at this visioning stage. Refinement will be needed during the detailed design phase when there is further technical information available, including natural heritage, engineering, archaeological and hydrologic assessment studies. The evaluation process is illustrated by Figure 6.2: Route Selection Process. Table 6.3 identifies the evaluation criteria and the principles they support.

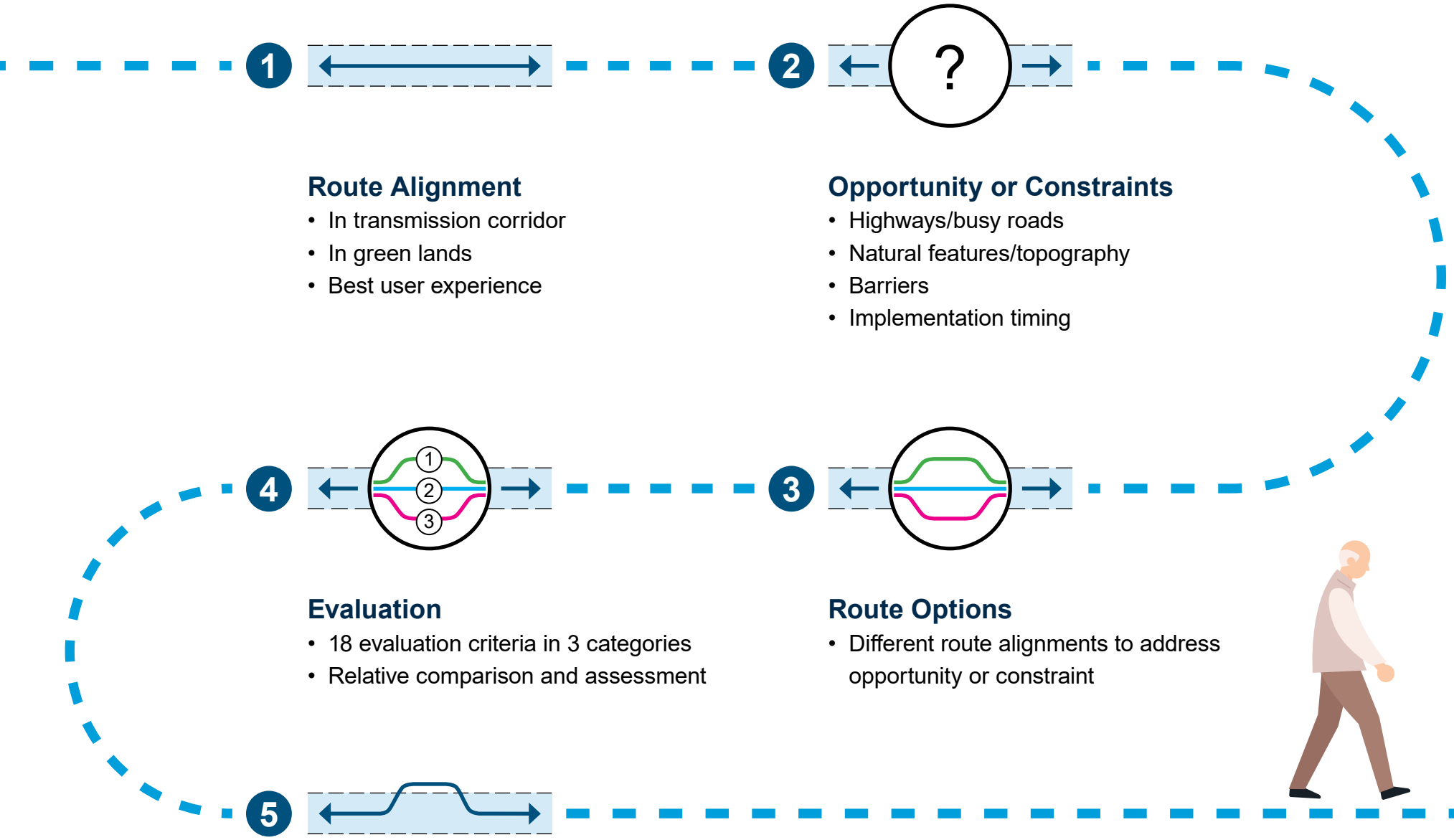


Figure 6.2: Route Selection Process

Criteria Group	Evaluation Criteria
Interact with Nature	1. Minimizes adverse impacts on sensitive natural areas, watercourses and aquatic habitat
	2. Enables enhancement or restoration of the natural environment
	3. Utilizes existing trails through sensitive areas to minimize further disturbance
User Experience	4. Provides a direct and easy to follow route
	5. Maximizes the length of pathway within the transmission corridor
	6. Minimizes interaction with vehicular traffic
	7. Capitalizes on unique topography and view opportunities
	8. Maximizes opportunities for recreation and enjoyment of greenspace, both within and adjacent to the corridor
	9. Creates opportunities for programming, amenities and gateways
	10. Maximizes proximity to existing and planned neighbourhoods
	11. Connects to other existing and planned active transportation facilities
	12. Accesses transit and existing or planned carpool parking lots
	13. Improves access to destinations including community uses, parks, Conservation Areas, schools and businesses
	14. Provides access to existing services such as washrooms and public parking
Infrastructure	15. Compatible with planned road and infrastructure projects
	16. Potential for compatibility with HONI technical requirements
	17. Aligns with other existing and planned Regional and area municipal trail networks to maximize resources
	18. Minimizes major infrastructure (e.g. new/retrofit bridges) requirements at watercourse, highway and arterial road crossings

Table 6.3: Evaluation Criteria by Group and Corresponding Principles

	Natural Environment	Active Lifestyles	Community	Connectivity and Accessibility	Identity	Implementation
	●					
	●					
	●					
				●	●	
				●	●	●
		●		●		
					●	
		●	●		●	
		●	●	●	●	
		●	●	●		
				●		
				●		
		●	●	●		
			●	●		
				●		●
						●
				●		●
	●					●

Evaluation Assessment

For each area where route options were proposed, relevant evaluation criteria were assessed in a comparative, qualitative fashion:

- How well does the route option support the achievement of the criteria?
- How does one route option compare to another for the criteria?
- How important is the criteria in relation to other criteria for this area?

There were six areas where route options were considered. The following provides a summary of the options, how they were evaluated, and the preferred option. Alignments for Route Options are shown conceptually for evaluation purposes in Figures 6.5 to 6.15. The alignments for the preferred route option and interim routes are further refined in the Visioning Study, and will continue to be adjusted through subsequent detailed design studies.

Refer to Appendix 8.3: Evaluation of Route Options for a detailed record of evaluation results.

For each criterion, all segments in each area where there are alignment alternatives are assessed with a simple rating system:

- Does not meet the criterion
- Meets only a small portion of the criterion
- Adequately meets the criterion
- Substantially meets the criterion
- Excels for the criterion



Area 1: Altona Road Crossing - Route Evaluation

Criteria	Score	
	Option 1	Option 2
Interaction with Nature	◑	◑
User Experience	◕	◕
Infrastructure Considerations	◑	◕

Table 6.4: Area 1 - Altona Road Crossing - Route Evaluation Table

Discussion

Option 1: Direct

- Mid-block crossing of Altona Road in transmission corridor
- Mid-block spacing for new signal spacing not ideal

Option 2: Southerly Jog **Preferred**

- New signal required at existing Sparrow Circle intersection
- Better for traffic operations
- Detour is minor

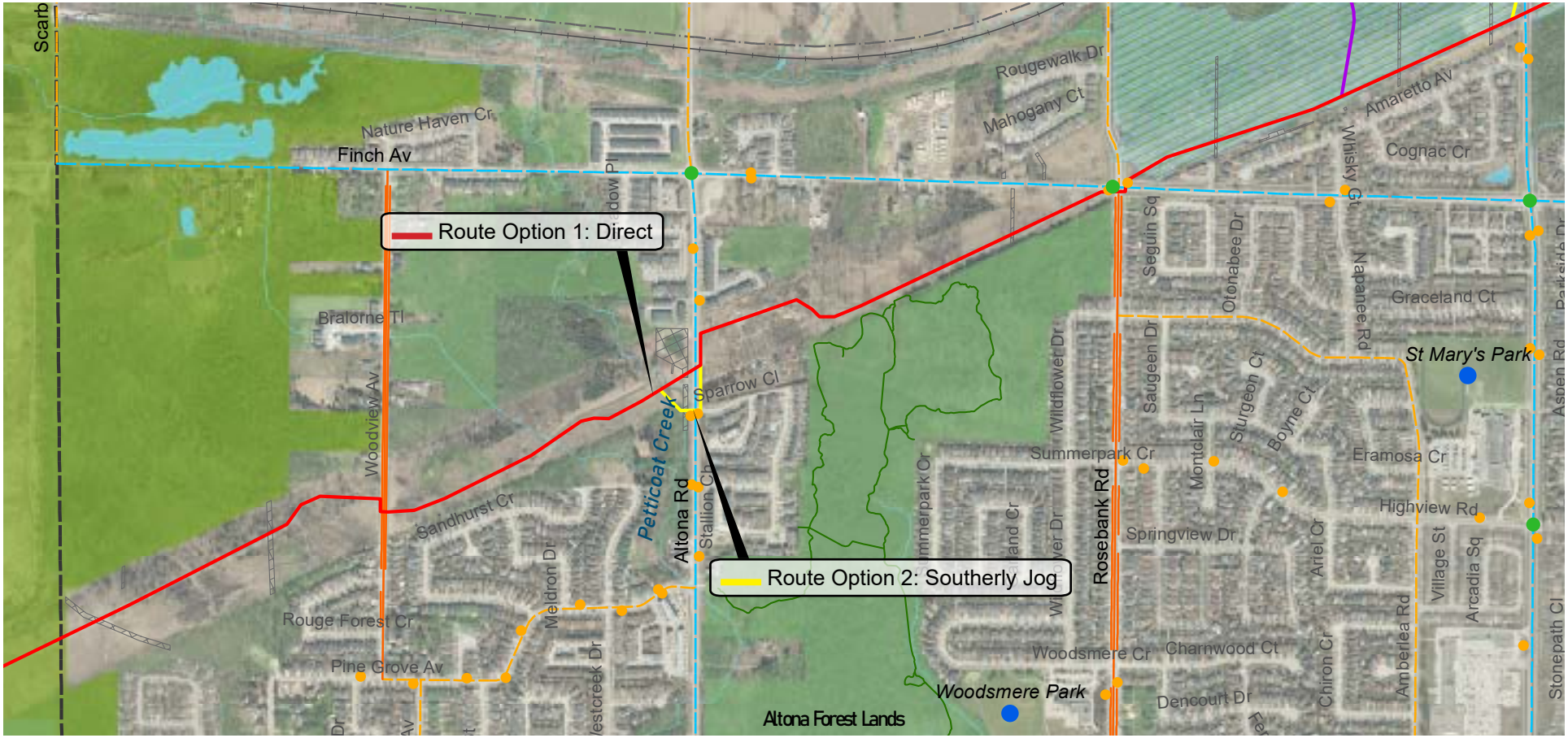


Figure 6.5: Area 1 - Altona Road Crossing - Route Evaluation Map

Legend

- Municipal Boundaries
- Regional Primary Cycling Network Existing
- Regional Primary Cycling Network Future
- Municipal Active Transportation Existing
- Municipal Active Transportation Future
- Conservation Authority Trail
- Major Roads
- Freeways
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Secondary Use Licence
- TRCA or CLOCA Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Route Option 1
- Route Option 2

Area 2: Whites Road Crossing - Route Evaluation

Criteria	Score				
	Option 1	Option 2	Option 3	Option 4	Option 5
Interaction with Nature	◑	◑	◑	◑	◑
User Experience	◑	◑	◔	◕	◑
Infrastructure Considerations	◔	◑	◕	◑	◕

Table 6.6: Area 2 - Whites Road Crossing - Route Evaluation Table

Discussion

Option 1: Direct
- Mid-block crossing of Whites Road in transmission corridor
- May be an interim condition until future widening to 6-7 lanes

Option 2: Southerly Jog
- Crosses Whites Road at Amaretto Avenue intersection
- Least detour
- Signalization may not be possible
- Risk of unsafe crossing in transmission corridor

Option 3: Northerly Detour
- Crosses Whites Road at Sunbird Trail/ Craighurst Crescent intersection
- Long detour
- Risk of unsafe crossing in transmission corridor

Option 4: Underpass **Preferred**
- Preferred over long term, requires further study; costly

Option 5: Northerly Experience
- Detour uses existing TRCA trail, provides green experience
- Crosses Whites Road at planned signal, avoids unsafe crossings
- Interim route until underpass is feasible

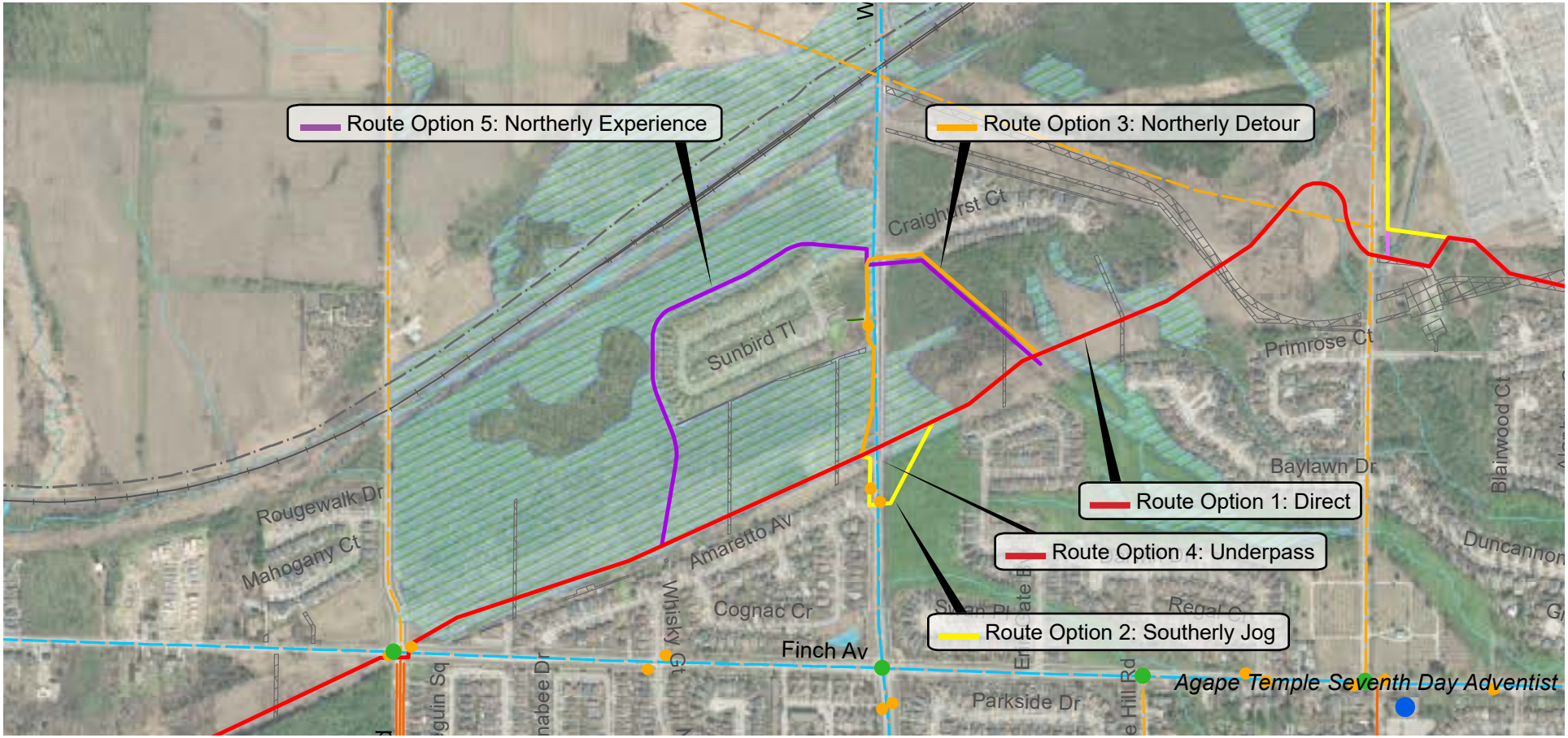


Figure 6.7: Area 2 - Whites Road Crossing - Route Evaluation Map

Legend

- Municipal Boundaries
- Regional Primary Cycling Network Existing
- Regional Primary Cycling Network Future
- Municipal Active Transportation Existing
- Municipal Active Transportation Future
- Conservation Authority Trail
- Major Roads
- Freeways
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Secondary Use Licence
- TRCA or CLOCA Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Route Option 1
- Route Option 2
- Route Option 3
- Route Option 4
- Route Option 5

Area 3: Cherrywood Transformer Station - Route Evaluation

Criteria	Score	
	Option 1	Option 2
Interaction with Nature	◑	◑
User Experience	◕	◑
Infrastructure Considerations	◑	○

Table 6.8: Area 3 - Cherrywood Transformer Station - Route Evaluation Table

Discussion

Option 1: South Route **Preferred**

- Close to existing community
- Links to existing and planned off-road trails
- Links to destinations

Option 2: North Route

- Green experience
- Consider as an alternate to the Durham Meadoway primary route – part of a larger Recreational Loop in this area



Figure 6.9: Area 3 - Cherrywood Transformer Station - Route Evaluation Map

Legend

- Municipal Boundaries
- Regional Primary Cycling Network Existing
- Regional Primary Cycling Network Future
- Municipal Active Transportation Existing
- Municipal Active Transportation Future
- Conservation Authority Trail
- Major Roads
- Freeways
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Secondary Use Licence
- TRCA or CLOCA Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Route Option 1
- Route Option 2

Area 4: East of Brock Road - Route Evaluation

Criteria	Score	
	Option 1	Option 2
Interaction with Nature	◑	◕
User Experience	●	◑
Infrastructure Considerations	◑	●

Table 6.10: Area 4 - East of Brock Road - Route Evaluation Table

Discussion

Option 1: Direct **Preferred**

- Most direct and easy to follow
- Scenic views
- Challenging topography, multiple watercourse crossings

Option 2: To the South Along Rossland Road

- Uses existing Multi-use Path along Rossland Road
- Potential interim route

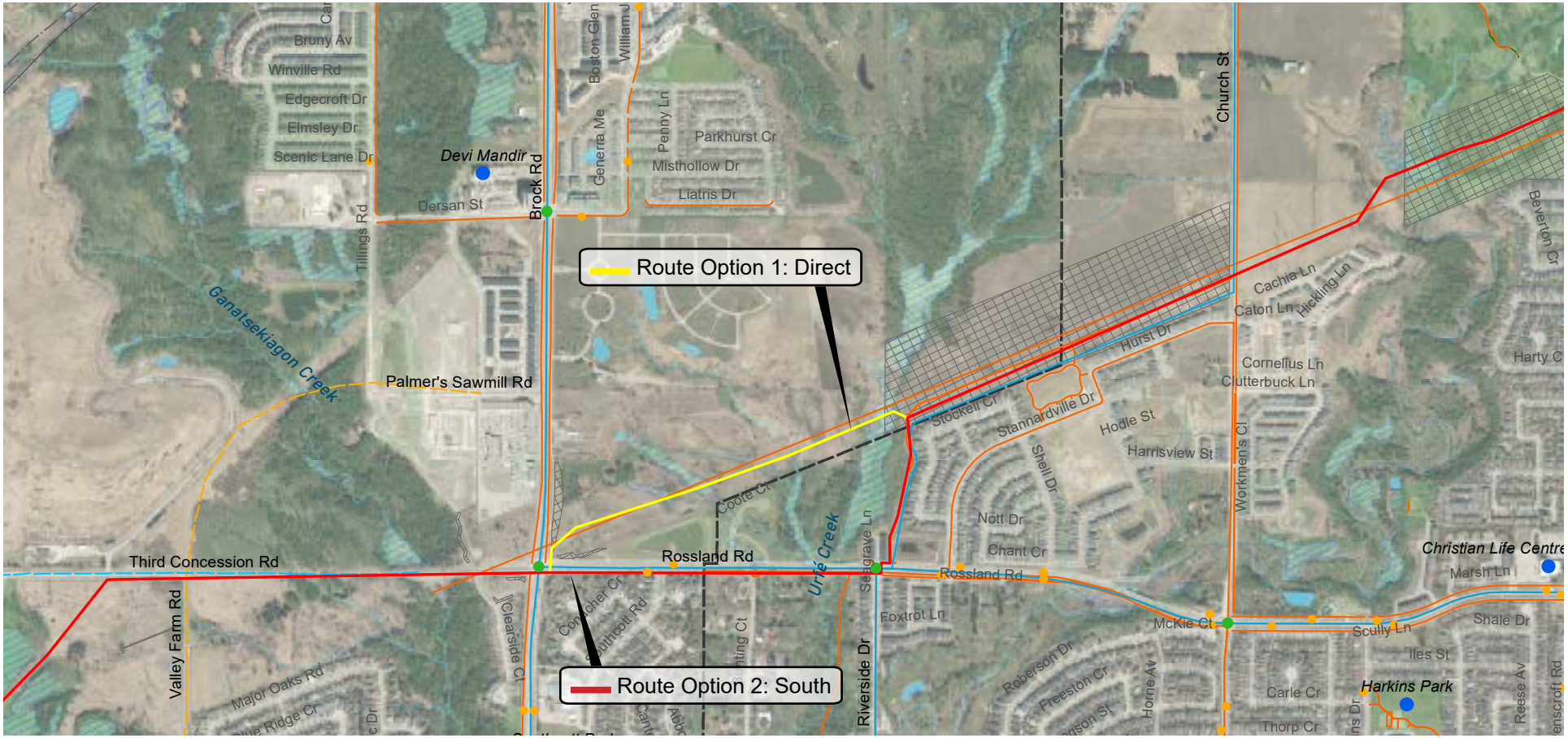


Figure 6.11: Area 4 - East of Brock Road - Route Evaluation Map

Legend

- Municipal Boundaries
- Regional Primary Cycling Network Existing
- Regional Primary Cycling Network Future
- Municipal Active Transportation Existing
- Municipal Active Transportation Future
- Conservation Authority Trail
- Major Roads
- Freeways
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Secondary Use Licence
- TRCA or CLOCA Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Route Option 1
- Route Option 2

Area 5: Highway 412 Crossing - Route Evaluation

Criteria	Score				
	Option 1	Option 2	Option 3	Option 4	Option 5
Interaction with Nature					
User Experience					
Infrastructure Considerations					

Table 6.12: Area 5 - Highway 412 Crossing - Route Evaluation Table

Discussion

Option 1: Taunton/Coronation

- Shortest route to transmission corridor via. Des Newman Boulevard/ Coronation Rd
- Requires Highway 412 interchange crossing on Taunton Road
- Consider as preferred option if technical study determines that Option 2 is not feasible

Option 2: Under Highway 412/ Coronation **Preferred**

- Avoids ramps at Highway 412
- Greener and safer experience
- Shortest route to transmission corridor via. Des Newman Boulevard/ Coronation Rd

Option 3: Direct

- Requires new grade separation of Highway 412
- Cost prohibitive

Option 4: Taunton/Country Lane

- Requires Highway 412 interchange crossing on Taunton Road
- Taunton Road would not provide good user experience
- Route meanders through neighbourhood roads and trails, difficult to follow

Option 5: Taunton/Iroquois Trail

- Requires Highway 412 interchange crossing on Taunton Road
- Taunton Road would not provide good user experience
- Connects to Cullen Gardens/Heber Down

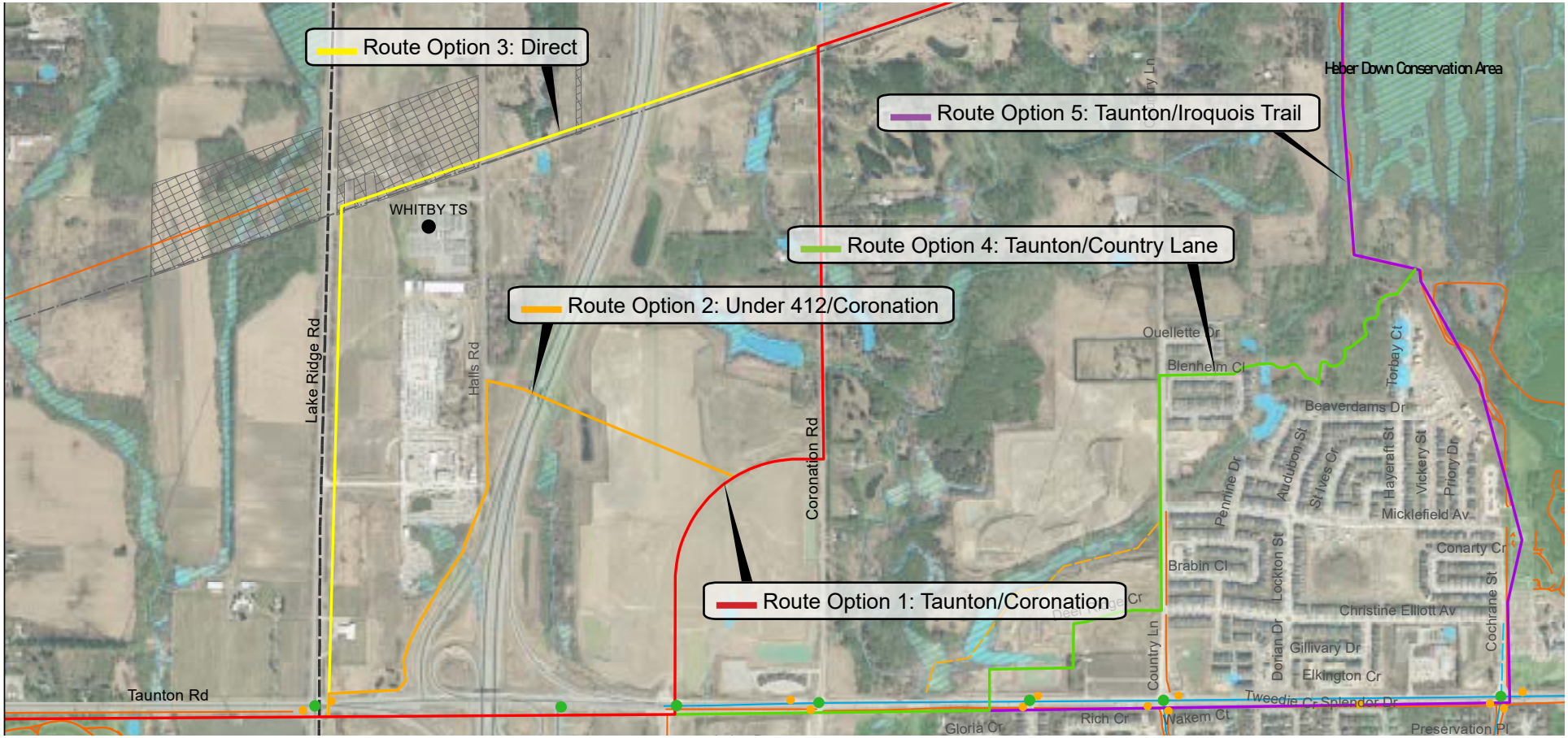


Figure 6.13: Area 5 - Highway 412 Crossing - Route Evaluation Map

Legend

- Municipal Boundaries
- Regional Primary Cycling Network Existing
- Regional Primary Cycling Network Future
- Municipal Active Transportation Existing
- Municipal Active Transportation Future
- Conservation Authority Trail
- Major Roads
- Freeways
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Secondary Use Licence
- TRCA or CLOCA Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Route Option 1
- Route Option 2
- Route Option 3
- Route Option 4
- Route Option 5

Area 6: Ashburn Road to Lynde Creek - Route Evaluation

Criteria	Score	
	Option 1	Option 2
Interaction with Nature		
User Experience		
Infrastructure Considerations		

Table 6.14: Area 6 - Ashburn Road to Lynde Creek - Route Evaluation Table

Discussion

Option 1: South to Spencers Road Crossing **Preferred**

- Most direct, in/near transmission corridor
- Possible signal spacing concern

Option 2: North Along Baldwin to Mid-Block

- Uses the roundabout at the Town of Whitby's planned Mid-block Arterial to cross Baldwin Street
- Route is along Baldwin Street and Lynde Creek

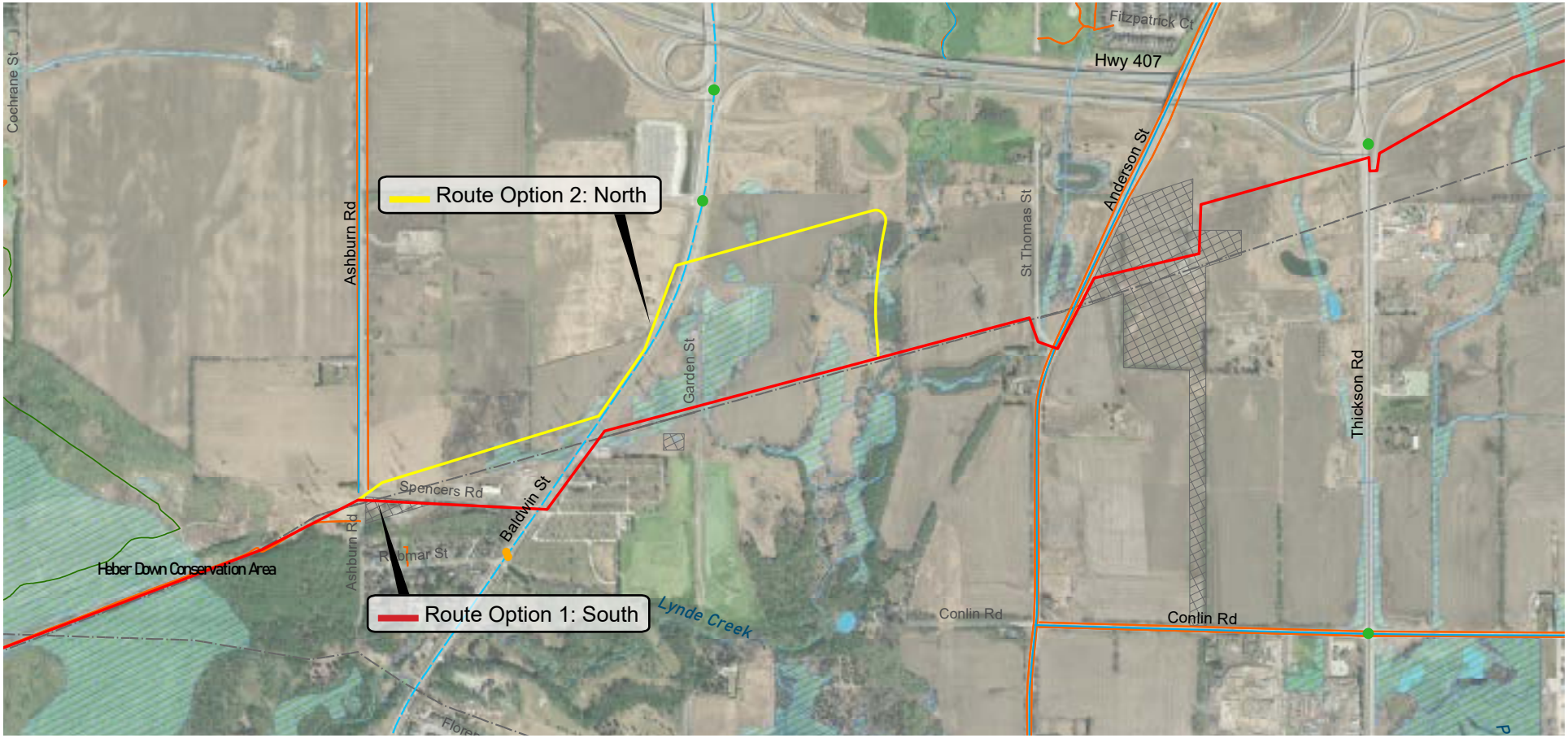


Figure 6.15: Area 6 - Ashburn Road to Lynde Creek - Route Evaluation Map

Legend

- Municipal Boundaries
- Regional Primary Cycling Network Existing
- Regional Primary Cycling Network Future
- Municipal Active Transportation Existing
- Municipal Active Transportation Future
- Conservation Authority Trail
- Major Roads
- Freeways
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Secondary Use Licence
- TRCA or CLOCA Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Route Option 1
- Route Option 2





6.3 Preferred Route

The preferred route was selected based on the study team's assessment of the opportunities, input from interested parties and the public, and the evaluation assessment of route options. It represents the best location for the Multi-Use Path based on what we know today. The route will be refined through subsequent technical studies and further municipal, agency, Indigenous Communities' and public input. The following pages present the preferred route in 11 segments, from west to east. Each segment identifies the location of the route on a map, discusses route planning considerations, and provides an overview of potential gateways, amenities and programming that can be located along the route. Note that where a road crossing defines the east limit of a segment, the crossing itself is considered to be part of the next segment.

Overall Preferred Route

Overall Length of Multi-Use Path:

34.5

km

Route Length Within Transmission Corridor or Open Space

72%

(24.9 km)

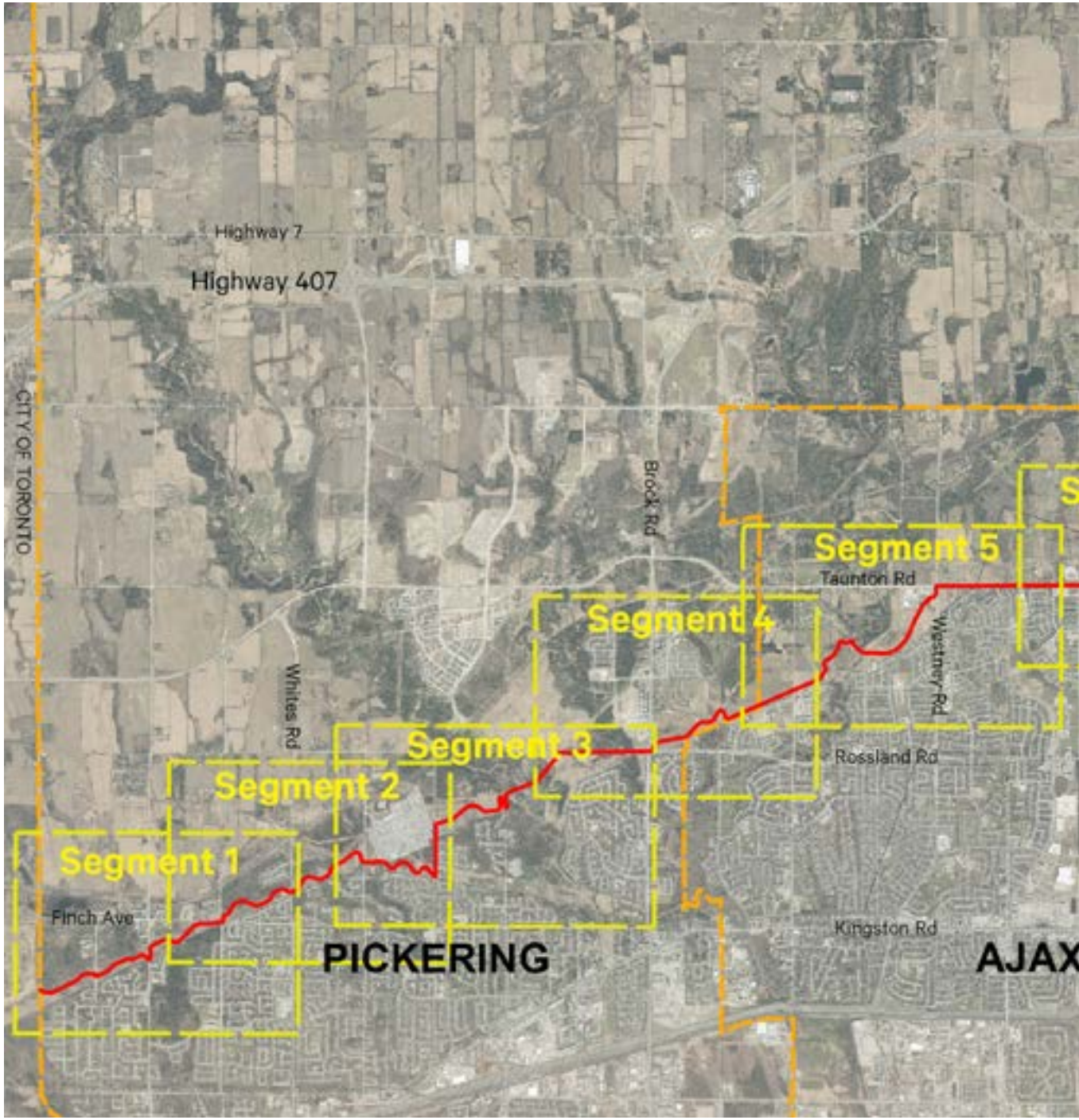




Figure 6.16: Preferred Route Alignment and Segments

The preferred route for the Durham Meadoway is divided into 11 segments and is further explored on the following pages.


Rouge National Urban Park
Beare Hill Park
Woodview Ave
Durham
Meadoway

Segment 1

Rouge National Urban Park to Rosebank Road - Overview

Segment 1 is the western gateway to the Durham Meadoway at the boundary with the City of Toronto. It is anticipated the western terminus of the Durham Meadoway Multi-Use Path will connect with the trail network within Beare Hill Park. City of Toronto staff are working with CN Railway to establish a safe crossing of the railway line that divides Beare Hill Park from Rouge National Urban Park. In this way, the Durham Meadoway will have a continuous connection with the Rouge Valley trail system and to broader trail network to the west of Durham Region.

A unique gateway experience should be created at this location to establish the identity and branding of the Durham Meadoway. The descent from the Beare Hill Park landform to the Durham Meadoway can be a dramatic experience, celebrated in the landscape and enhanced with public art. Most of the primary route is located within the transmission corridor in this segment, with a very short detour to cross Altona Road at an existing intersection. The Durham Meadoway can utilize the planned Multi-Use Path on the east side of Altona Road as part of the detour.

Along Altona Road, there is an existing plant nursery business that occupies a part of the transmission corridor. The business will be closing, and it is hoped that the nursery footprint and design layout within the corridor could be adapted as a Community/Green node typology, for example with community gardens, seating and play elements.

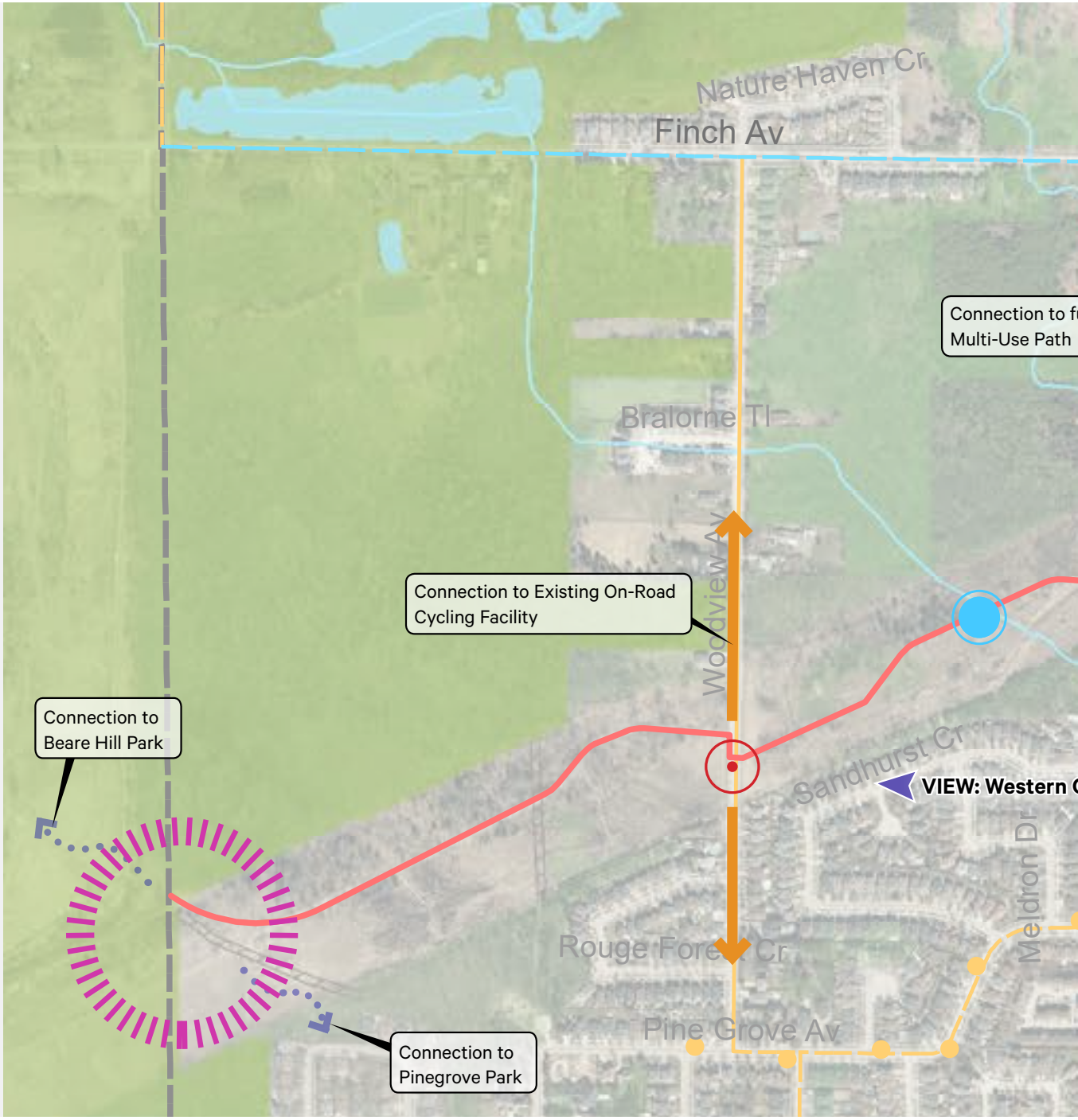
The Altona Forest lands, operated by the Toronto and Region Conservation Authority, lie immediately south of the transmission corridor. The Durham Meadoway will make a connection to the trails within the Altona Forest, which are located very close to the corridor. The Altona Forest lands provide a small parking lot for trail users.

The conceptual sketch on the left demonstrates the Western Gateway toward Scarborough.

Figure 6.17: Segment 1 - Rouge National Urban Park to Rosebank Road

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

2.5

km

MUP Length on Road Right-of-Way:

0.1

km

MUP Length in Transmission Corridor or Open Space:

2.4

km

Segment 2

Rosebank Road to Dixie Road - Overview

In Segment 2, much of the Durham Meadoway is located within lands that include the Gatineau corridor and an adjacent smaller transmission corridor south of the Cherrywood Transformer Station. There is an approximately 650 metre stretch where the preferred route will need to be located within the Dixie Road right-of-way.

The preferred route will cross Whites Road through a grade separated structure (bridge or tunnel) to create a clear, direct route under a very busy road. Good design can ensure the crossing is visible, safe, well-lit and functions as a memorable placemaking feature of the Durham Meadoway. However, it requires further technical study as the grade separation is not contemplated as part of the Whites Road widening and will be costly. For this reason an interim route is proposed in this location (refer to Section 6.4).

The Cherrywood Transformer Station lies at the nexus of two transmission corridors. It is a large area of existing Hydro One infrastructure with the potential for expansion. The preferred route of the Multi-Use Path utilizes the smaller transmission corridor around the south side of the Transformer Station, linked to the Gatineau hydro corridor via the stretch along Dixie Road. The southern route around the Transformer Station will provide excellent access for the existing community, and ties into the City of Pickering's planned trails, which in turn link to major school and open space uses to the east.

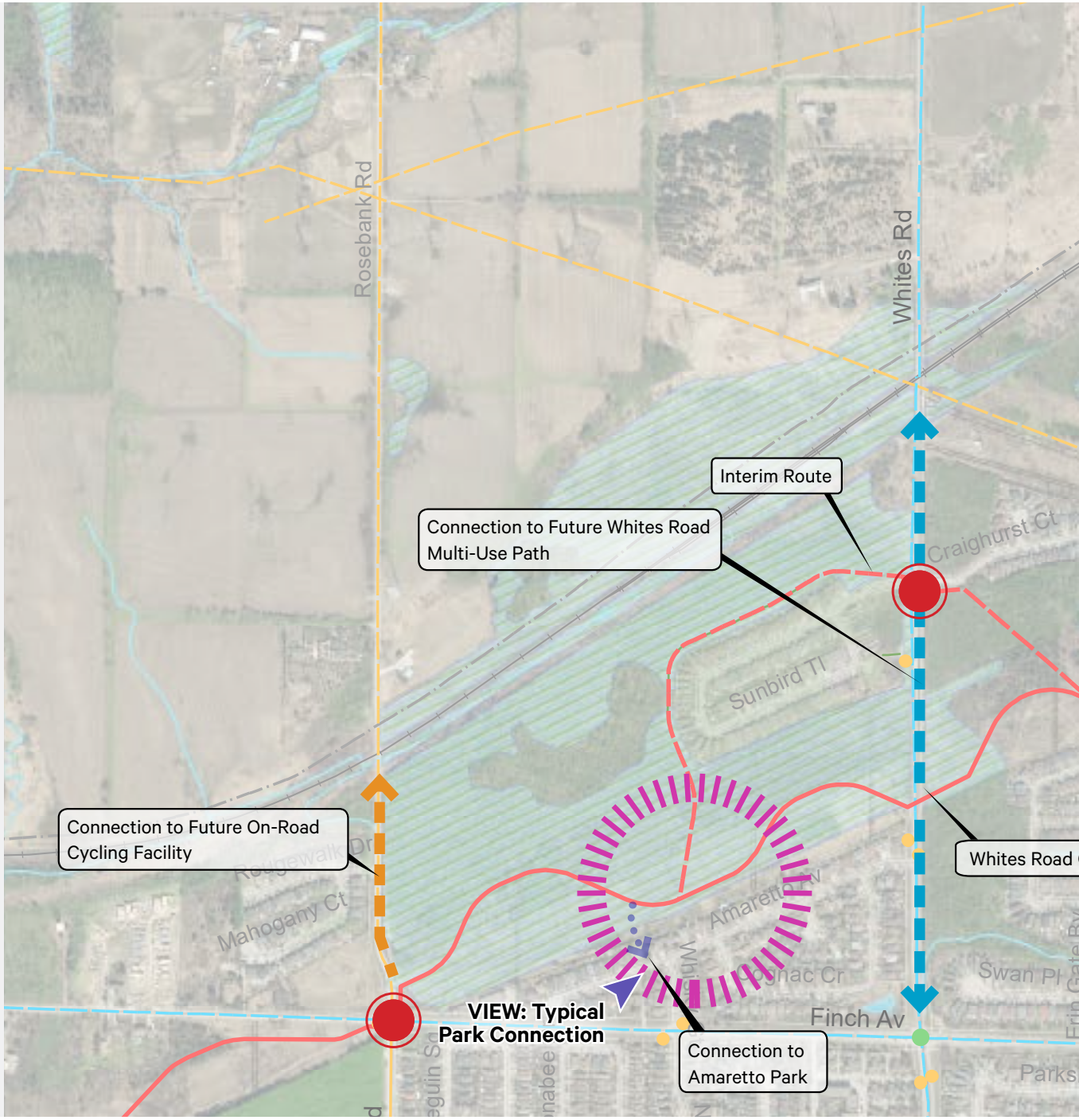
Amaretto Park is located immediately adjacent to the transmission corridor and can function as a neighbourhood gateway to the Durham Meadoway. Another gateway can be created along Fairport Road, where multiple trails connect, and the transformer infrastructure could be interpreted through signage and landscape experience.

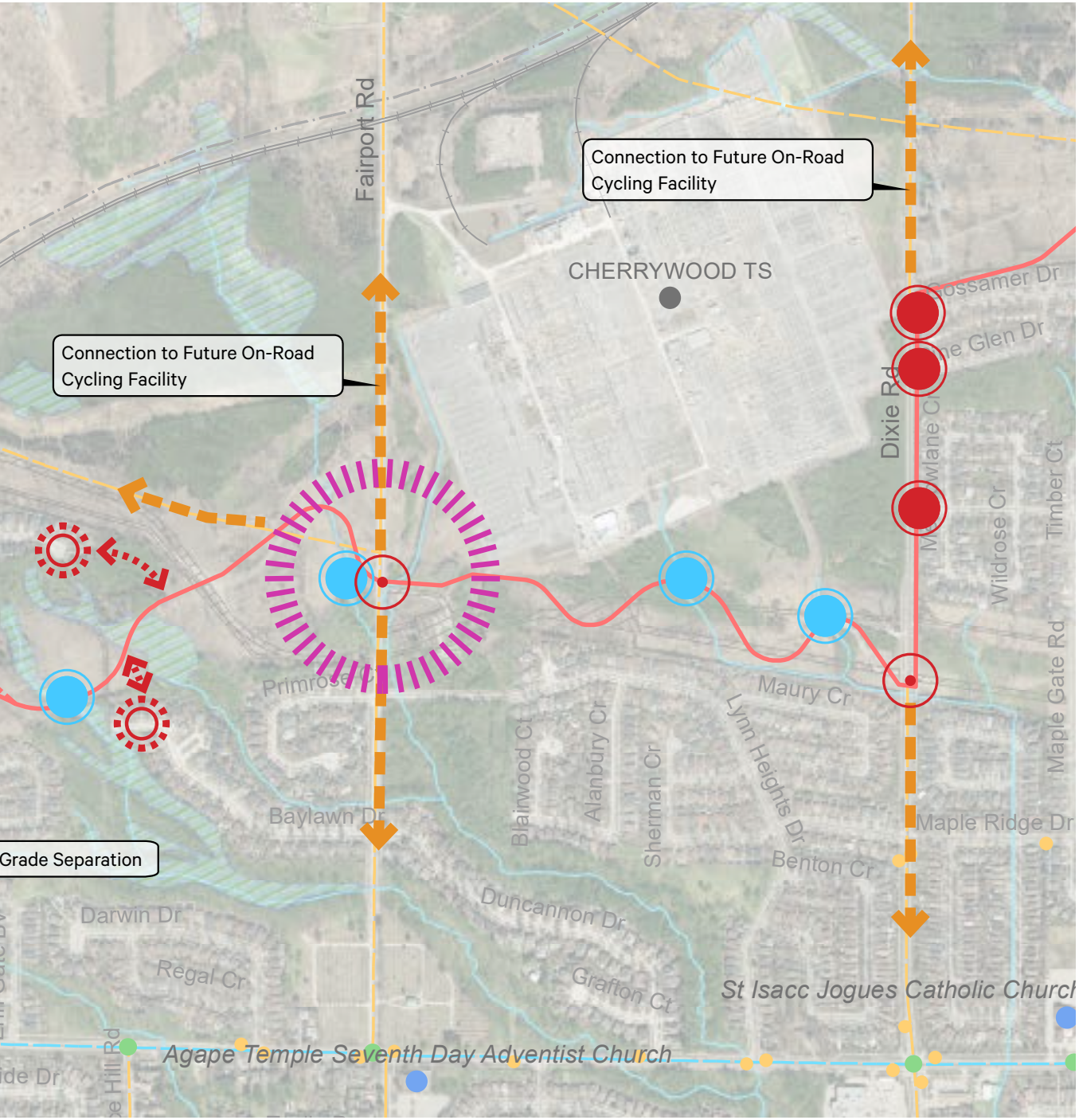
A northern route around the Transformer Station is also feasible and would provide a more naturalistic experience. It is recommended to implement this route, in the long term, as an alternative to the primary route to the south, to give pathway users a choice of route in this area.

Figure 6.18: Segment 2 - Rosebank Road to Dixie Road

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

3.2

km

MUP Length on Road Right-of-Way:

0.0

km

MUP Length in Transmission Corridor or Open Space:

3.2

km

Segment 3

Dixie Road to Valley Farm Road - Overview

In Segment 3, most of the Durham Meadoway is located on lands outside of the transmission corridor, including along Dixie Road and a short stretch following the planned Multi-Use Path along the south side of Third Concession Road. The topography of West Duffins Creek is challenging and it would be difficult to grade the Multi-Use Path within the hydro corridor. Reconstruction of Third Concession Road, which will be renamed to Peter Matthews Drive, is imminent and provides a convenient, nearly direct route that is perched on the edge of West Duffins and Ganatsekiagon Creeks and still provides a green experience for pathway users.

The major feature of Segment 3 is the West Duffins Creek valley which includes lands owned by the Toronto and Region Conservation Authority (TRCA) on which Hydro One has an easement for the transmission lines. The Multi-Use Trail will need to navigate the steep slope on the west bank. In the valley, the pathway and bridge structure have the potential to be a spectacular moment along the Durham Meadoway. A Nature typology node is proposed here, enhancing the natural ecology of the valley and creating a gateway to the Seaton Trail. An Active Play typology node can be located adjacent, outside of the main hydro corridor, and where it is linked to the Pickering Dog Park and parking lot.

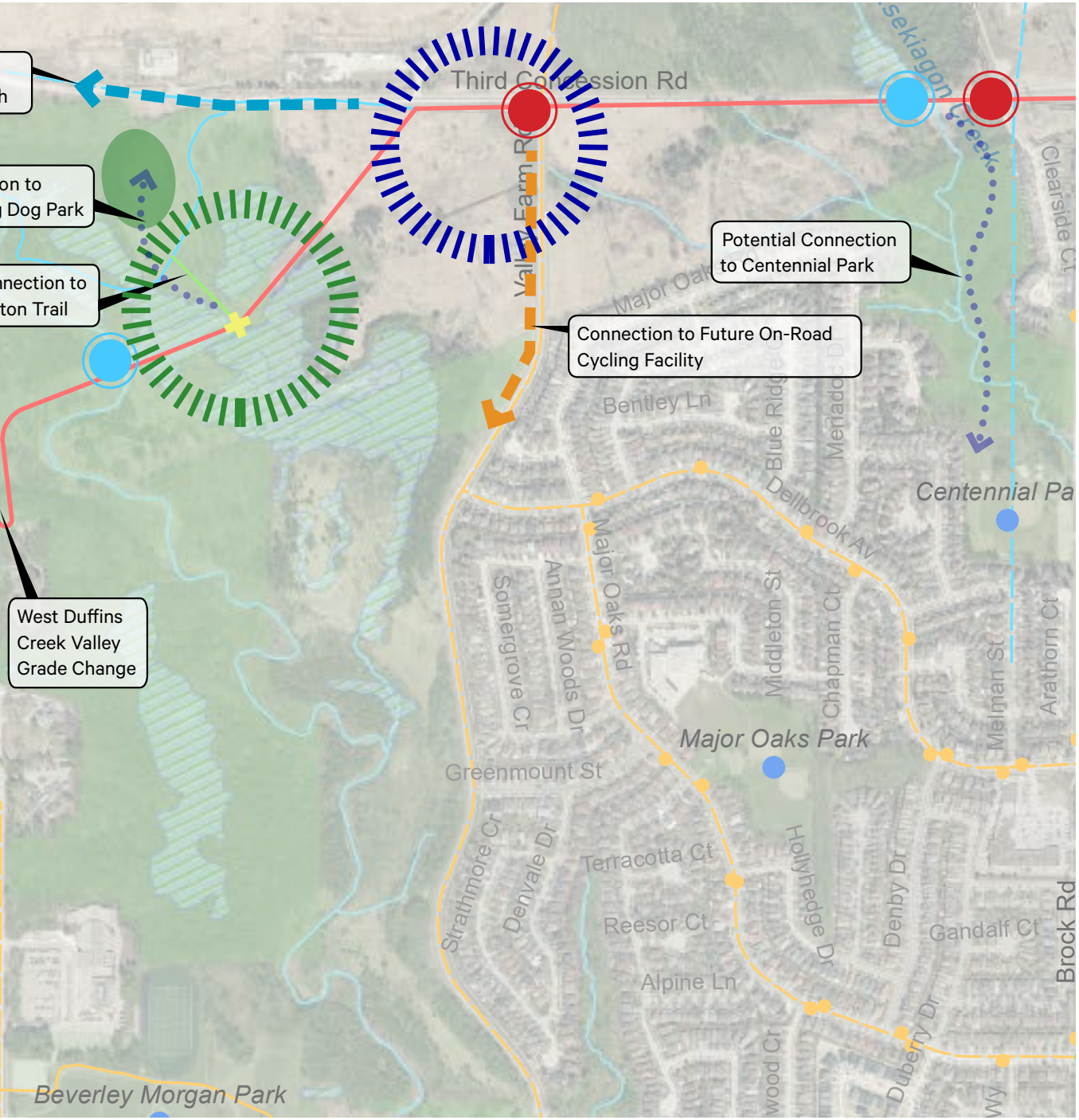
If the trail alignment within the West Duffins Creek valley and watercourse crossing is not possible as part of this conceptual alignment, an alternative using the east-west transmission corridor from Dixie Road to Valley Farm Road, and either within the creek valley or along Valley Farm Road to Third Concession Road, may have to be considered. This general alignment was identified in the TRCA Trails Strategy (2019), but a more direct route within or near the Gatineau hydro corridor was identified through this Visioning Study.

Figure 6.19: Segment 3 - Dixie Road to Valley Farm Road

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

2.9

km

MUP Length on Road Right-of-Way:

0.8

km

MUP Length in Transmission Corridor or Open Space:

2.1

km

Segment 4

Valley Farm Road to Church Street - Overview

The preferred route follows the south side of Third Concession Road between Valley Farm Road and Brock Road, which at the time of this report is being reconstructed with a Multi-Use Path, due to the challenging topography of Ganatsekiagon Creek. The balance of the Multi-Use Path is located within the transmission corridor in this segment. East of Brock Road, the preferred route crosses multiple watercourses and undulating topography, which could be costly and technically challenging, and therefore is being planned longer term. An interim route is proposed in this area (refer to Section 6.4).

At Urfé Creek, where the preferred route follows the TransCanada Trail, there are dramatic views to the west, providing the opportunity for a lookout and seating.

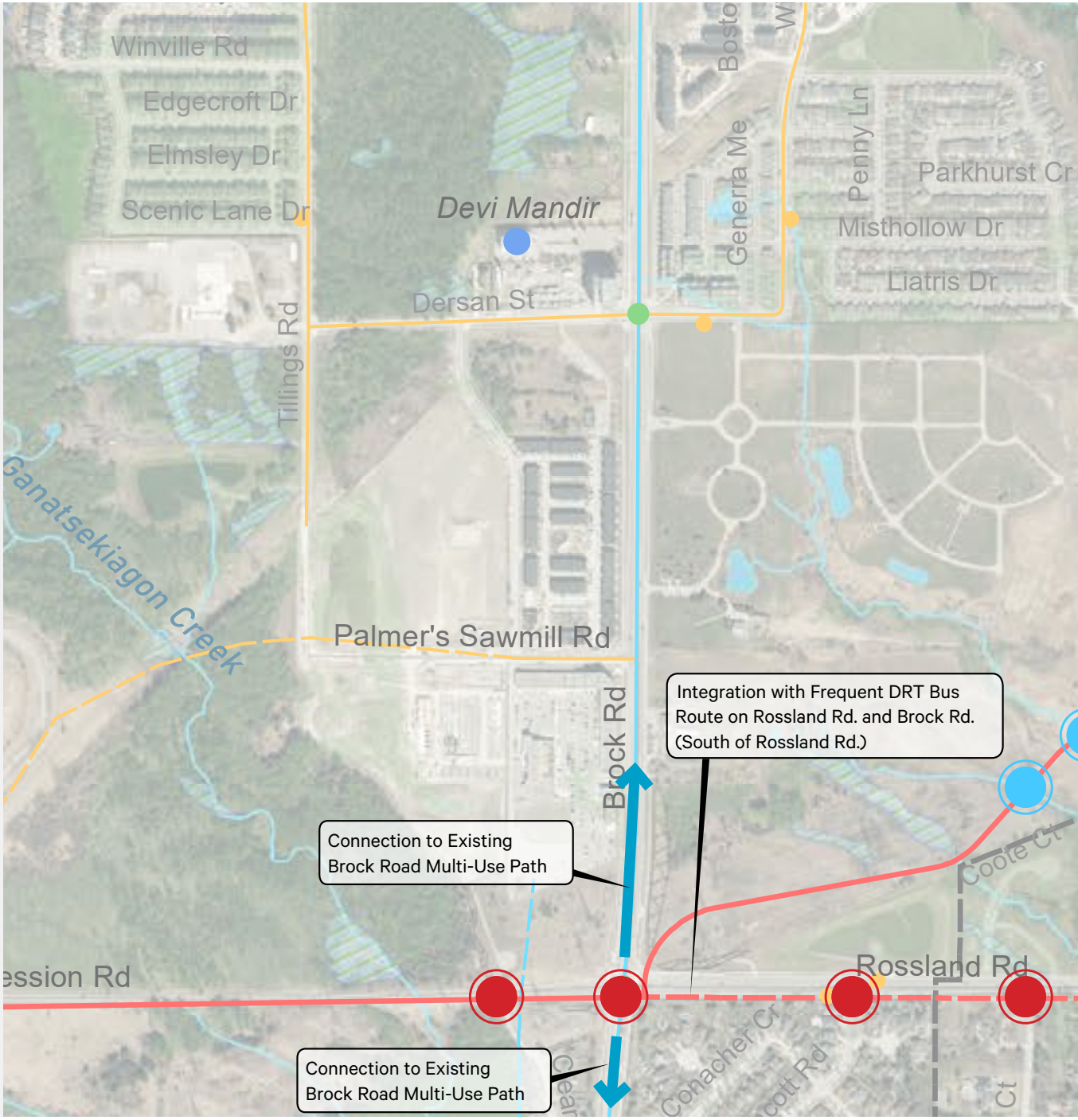
The Durham Meadoway utilizes the existing TransCanada Trail between Urfé Creek and Church Street. The boundary between the City of Pickering and the Town of Ajax is located here.

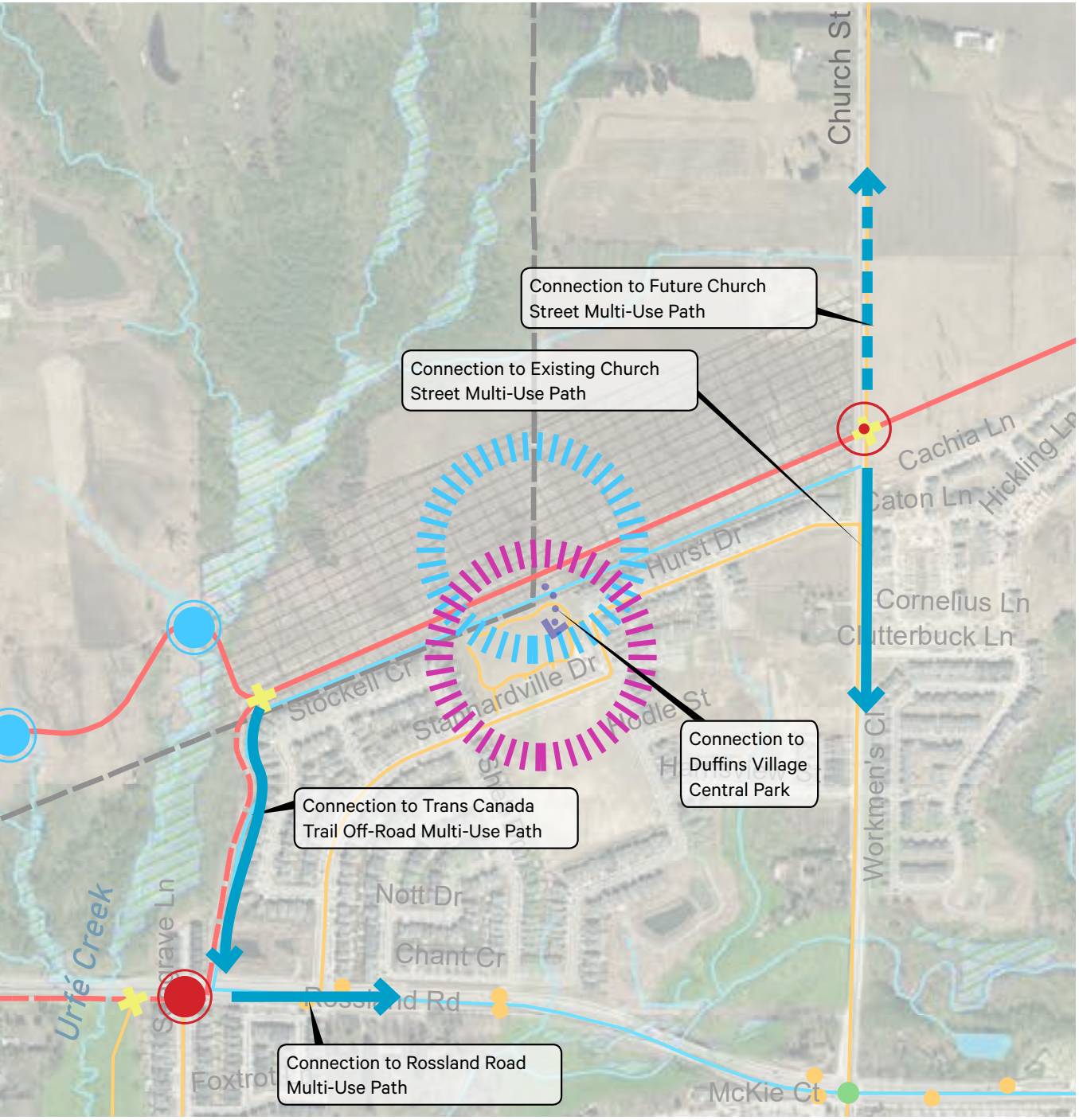
Duffins Village Central Park is located immediately adjacent to the transmission corridor and can function as a neighbourhood gateway to the Durham Meadoway, with the potential for a Garden and Community typology node to extend the park function into the corridor.

Figure 6.20: Segment 4 - Valley Farm Road to Church Street

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

2.9

km

MUP Length on Road Right-of-Way:

0.9

km

MUP Length in Transmission Corridor or Open Space:

2.0

km

Segment 5

Church Street to Harwood Avenue - Overview

Within Segment 5, the preferred route transitions between two conditions: being primarily located within in the transmission corridor, or being located within the Taunton Road right-of-way. The transition occurs at the Westney Road intersection with Taunton Road. A Gateway node will be created at this important intersection to facilitate a clear and smooth transition between the two pathway conditions, ensure connectivity to nearby bus stops including frequent transit service on Westney Road and Taunton Road and provide amenities for users. Another Gateway can be created at the west end of this segment, bookending where the Durham Meadoway joins the TransCanada Trail.

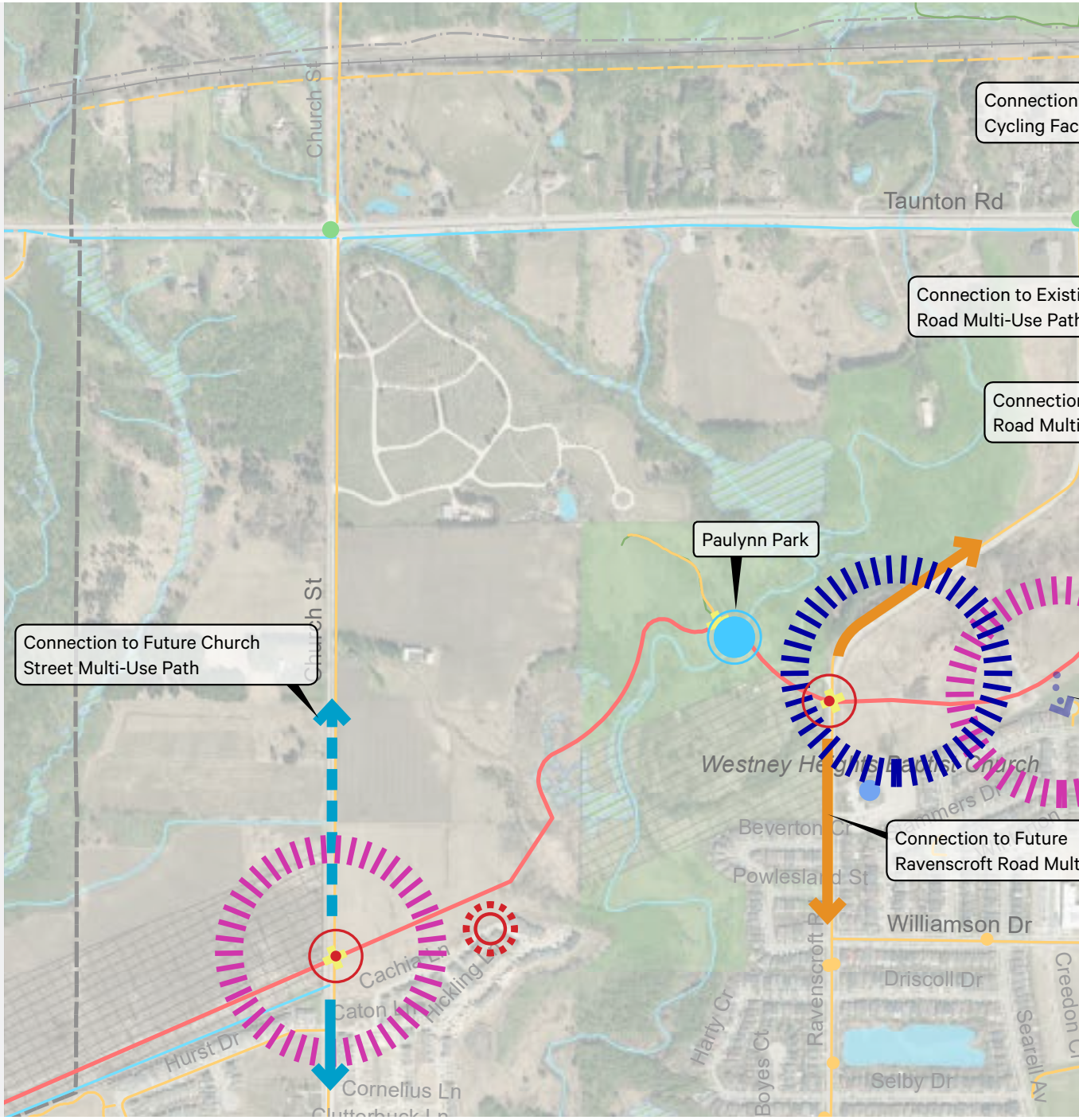
Paulynn Park is a major feature within Segment 5, immediately north of the hydro corridor, offering washrooms, parking and a number of recreational amenities that can benefit Durham Meadoway users. The preferred route is routed through Paulynn Park to use the existing bridge over the creek as well as the Town of Ajax's planned path linking the bridge to Church Street within the tranmission corridor. An Active Play typology node can extend the function of Paulynn Park into the hydro corridor with large sports fields.

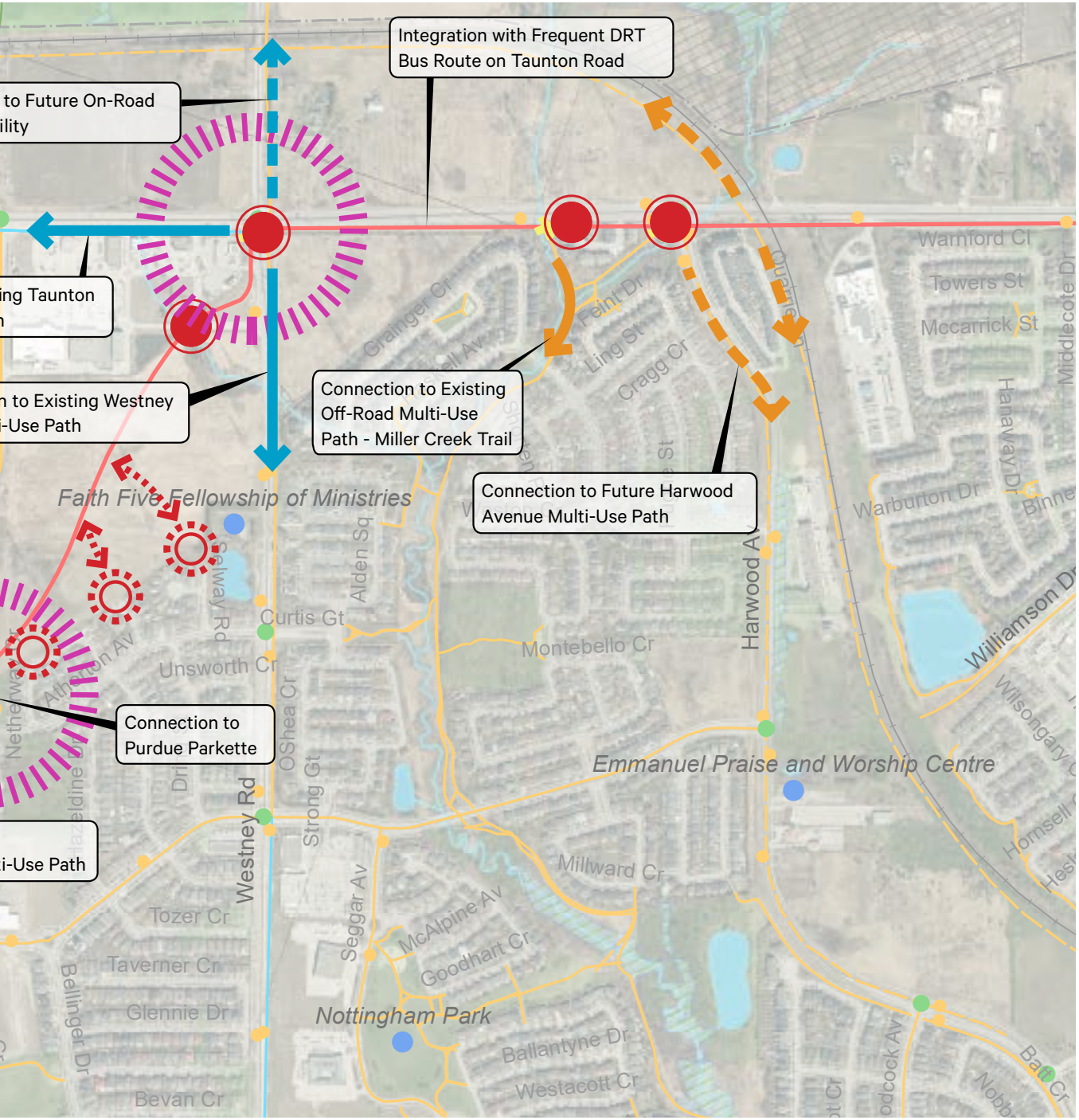
Purdue Parkette is located immediately adjacent to the hydro corridor (a short distance west of Westney Road) and can function as a neighbourhood gateway to the Durham Meadoway.

Figure 6.21: Segment 5 - Church Street to Harwood Avenue

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

3.2

km

MUP Length on Road Right-of-Way:

0.8

km

MUP Length in Transmission Corridor or Open Space:

2.4

km

Segment 6

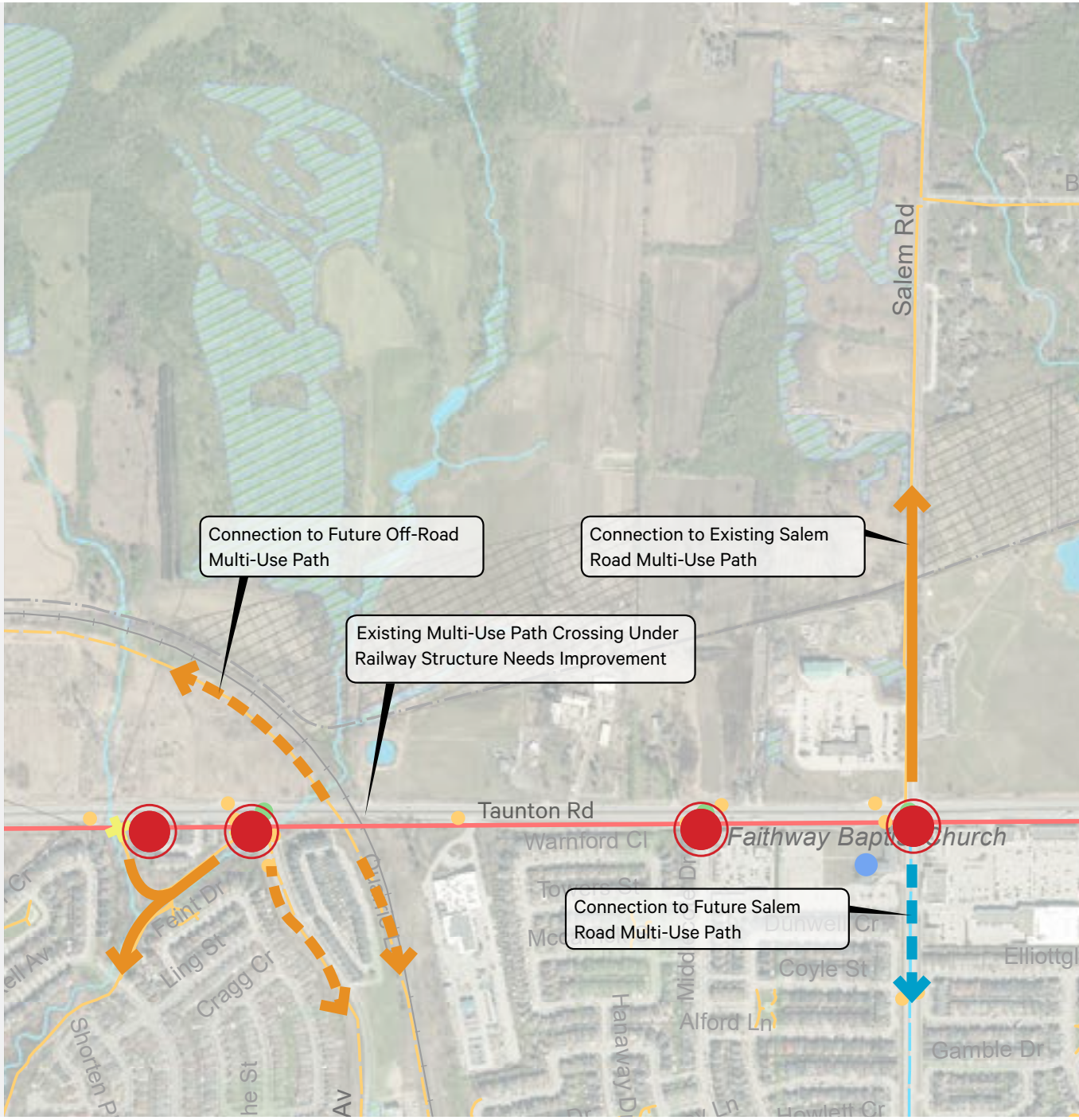
Harwood Avenue to Audley Road - Overview

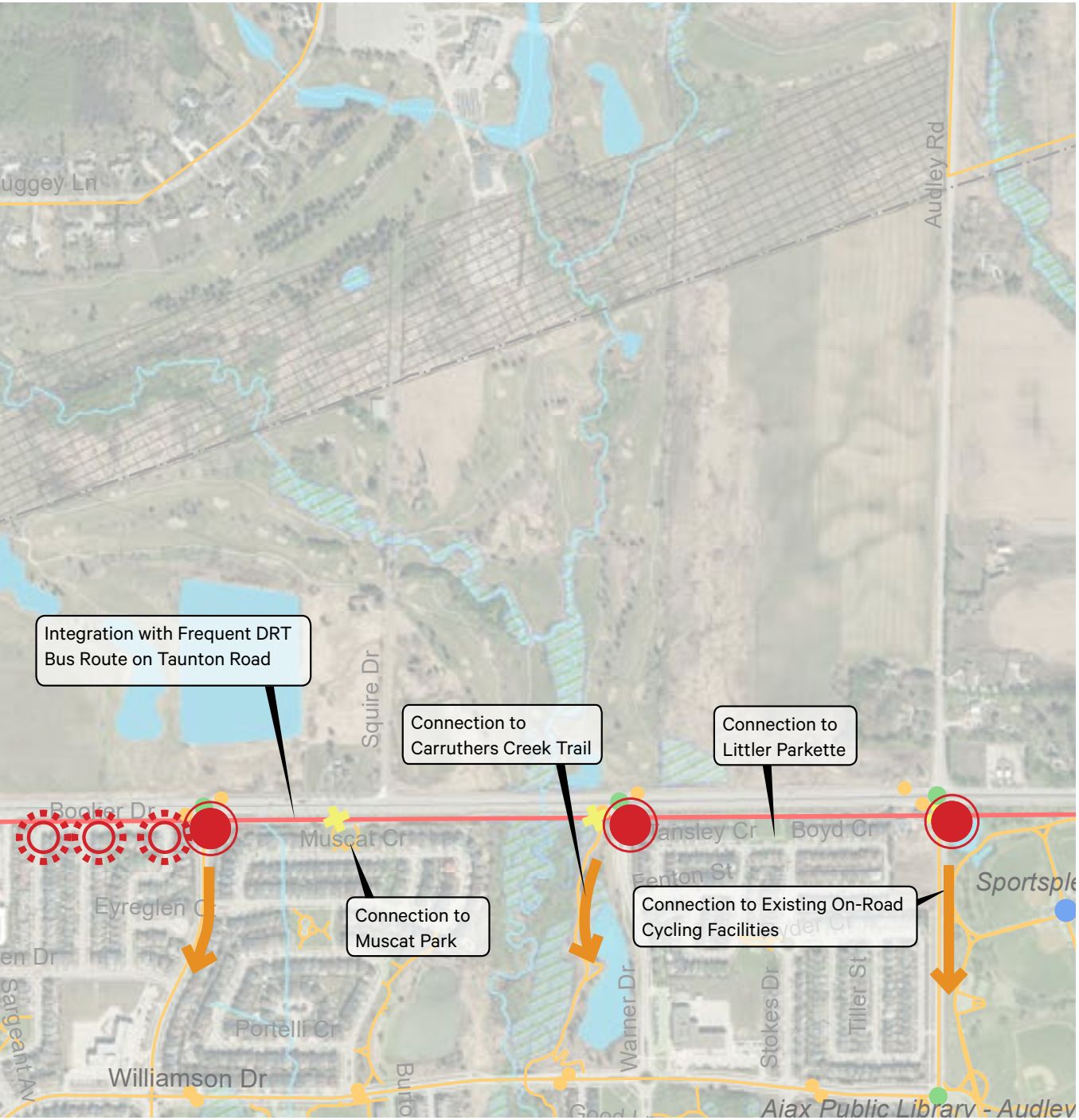
The Durham Meadoway will utilize the existing Multi-Use Path on the south side of Taunton Road through this segment. The existing Multi-Use Path will be enhanced with road crossings that include cross rides, and meet other current design standards where required. Branding, wayfinding, planting and amenities will be important in this segment, and all segments that utilize Taunton Road, to ensure that the Durham Meadoway route is clearly identified and has a consistent appearance.

Figure 6.22: Segment 6 - Harwood Avenue to Audley Road

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

2.6

km

MUP Length on Road Right-of-Way:

2.6

km

MUP Length in Transmission Corridor or Open Space:

0.0

km

Segment 7

Audley Road to Coronation Road - Overview

The preferred route within Segment 7 has a number of distinct conditions. It includes a stretch along Taunton Road, within the Town of Ajax, following the existing and proposed Multi-Use Path alignment on the south side. The boundary between the Town of Ajax and the Town of Whitby is located at Lake Ridge Road. The preferred route crosses Highway 412, each side with different approaches, and it includes a stretch along Coronation Road that requires further study.

A crossing of Highway 412 has been discussed with the Ministry of Transportation Ontario. Pending further investigation and technical work with the Ministry, the crossing will utilize an existing bridge along Highway 412 that spans a watercourse. The Durham Meadoway Multi-Use Path can pass under this bridge beside the watercourse. This route provides a green experience consistent with the character of the Durham Meadoway. As an off-road pathway in a landscape setting, it is much more accessible for the full range of pathway users. The route avoids the automobile-oriented interchange of Highway 412 with Taunton Road, which is also planned for future active transportation facilities. However, it is not as compatible for certain trail users as an off-road crossing under Highway 412.

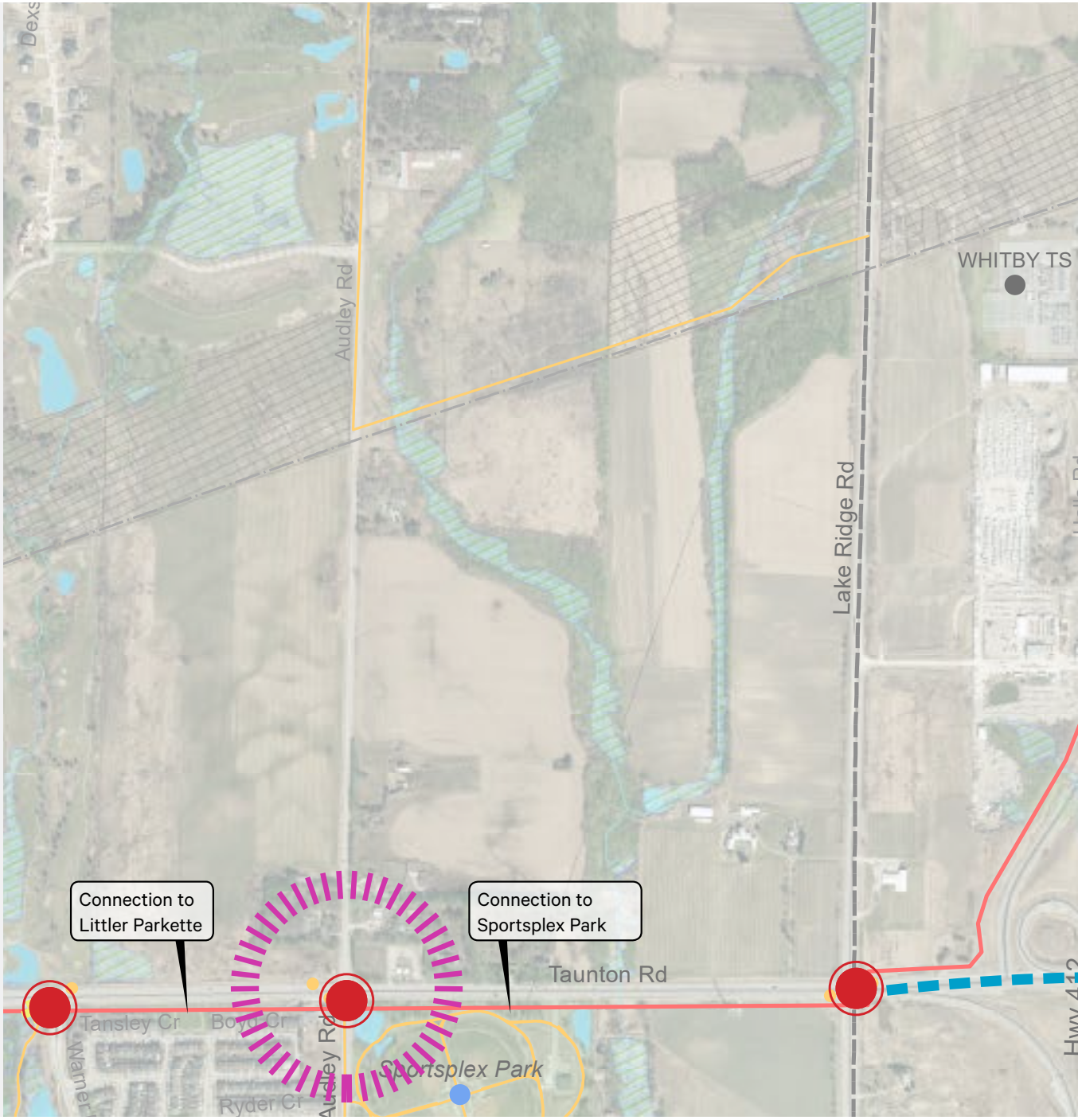
To approach the Highway 412 crossing from the west, the Multi-Use Path can utilize the former Halls Road right-of-way and planned transitway station lands beside Highway 412. To approach the bridge from the east, the Multi-Use Path can be located in or adjacent to a planned subdivision. The preferred route could be located within designated greenlands to the north of the subdivision, or, navigate through the subdivision via local streets and Des Newman Boulevard, which is planned to have a Multi-Use Path along it. Further investigation is required to confirm the preferred route. For the purposes of the Visioning Study, the route north of the subdivision is assumed in the mapping.

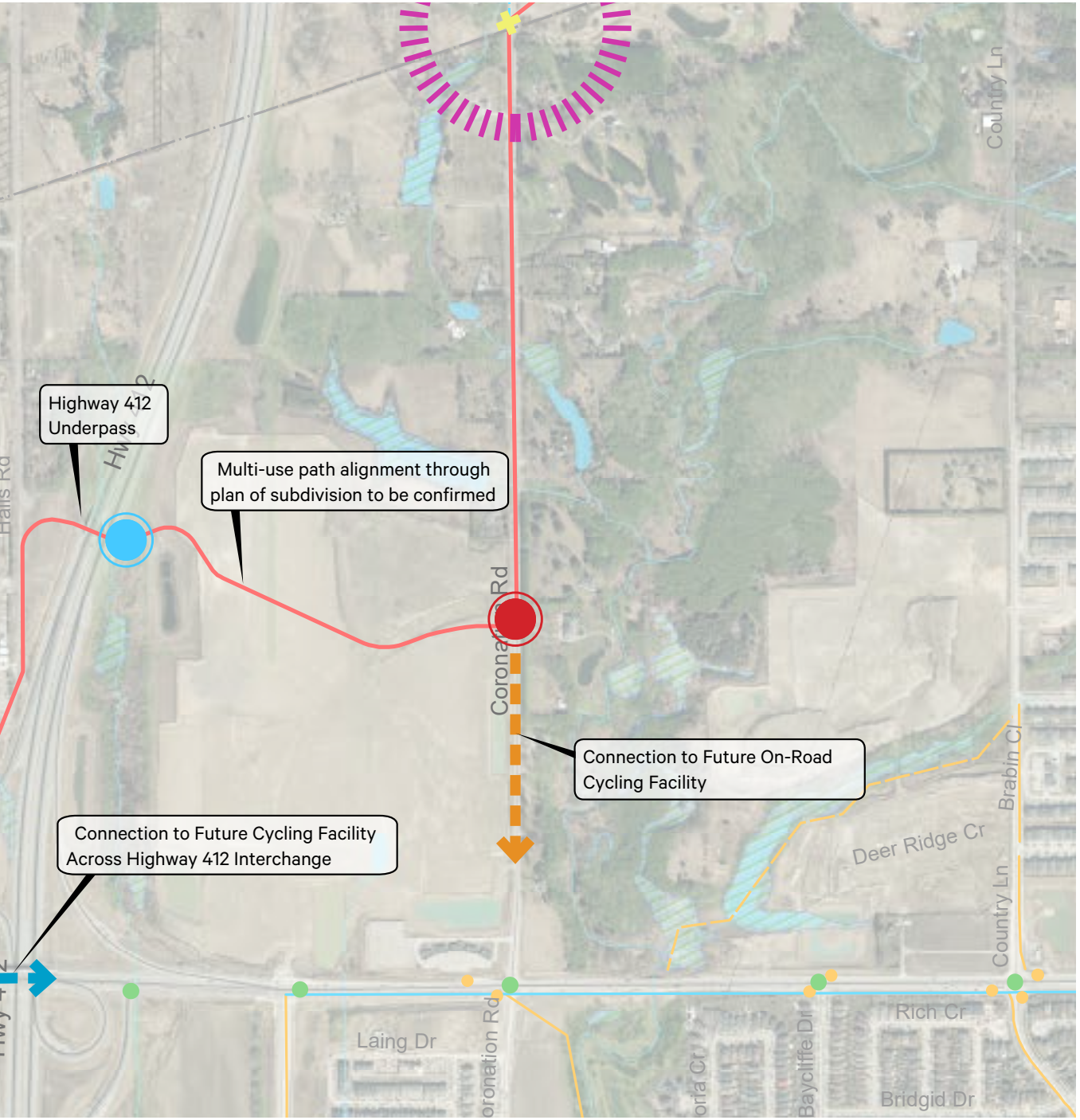
To connect the hydro corridor with the Highway 412 crossing, the preferred route follows Coronation Road. This is a pleasant road with a rural cross section that will require further study to understand how the Durham Meadoway could be implemented along it. In the short term, it is possible to provide an interim condition along the paved shoulder of Coronation Road, perhaps separated from vehicular traffic by bollards. Where the Multi-Use Path joins the hydro corridor, there is an opportunity for a Gateway to address the transition between the hydro corridor and Coronation Road.

Figure 6.23: Segment 7 - Audley Road to Coronation Road

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

2.8

km

MUP Length on Road Right-of-Way:

0.8

km

MUP Length in Transmission Corridor or Open Space:

1.9

km

Segment 8

Coronation Road to Cochrane Street - Overview

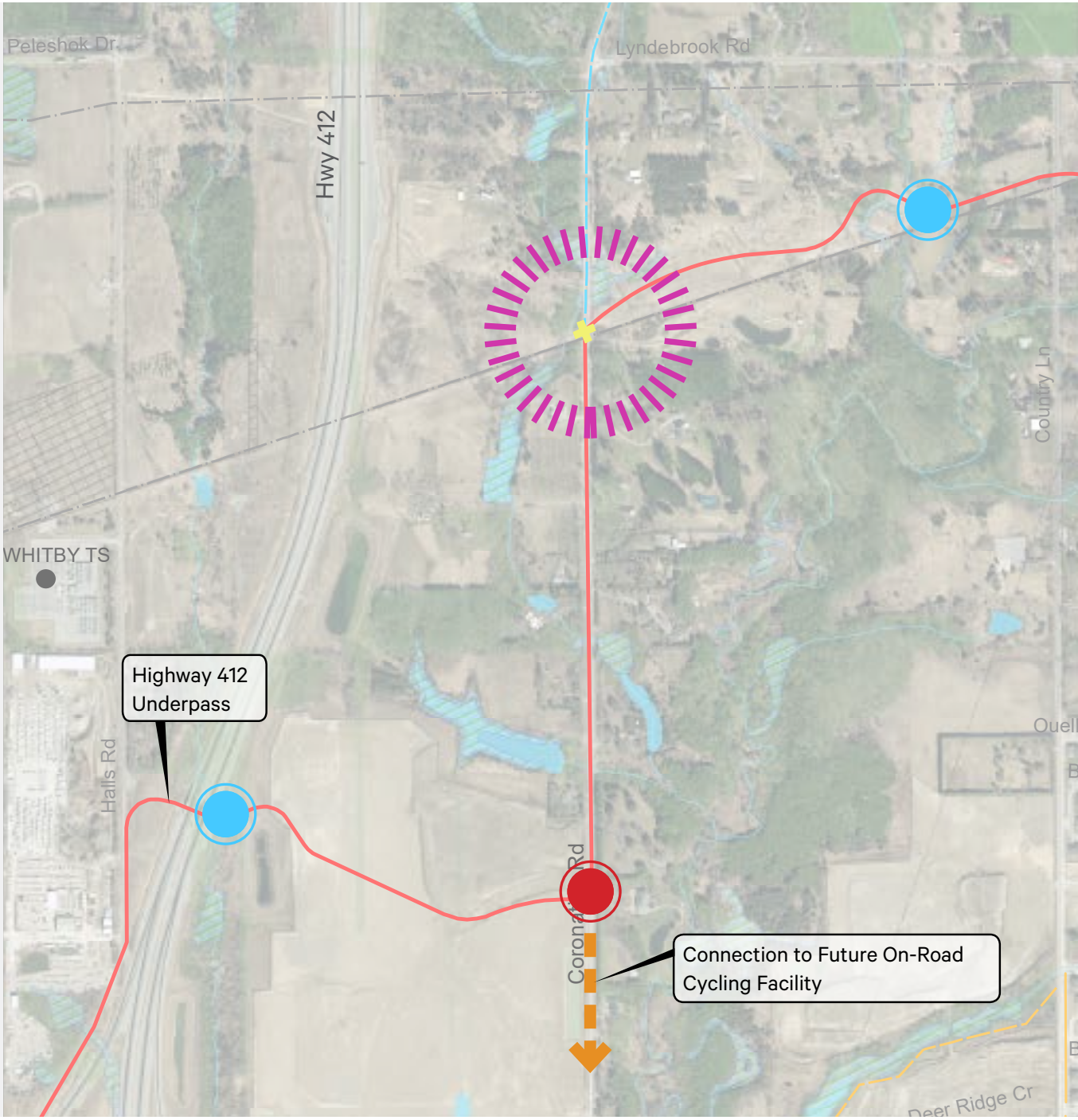
In the west section of segment 8, the preferred route is located within the transmission corridor. In the east, it will follow the existing Iroquois Trail through the Heber Down Conservation Area.

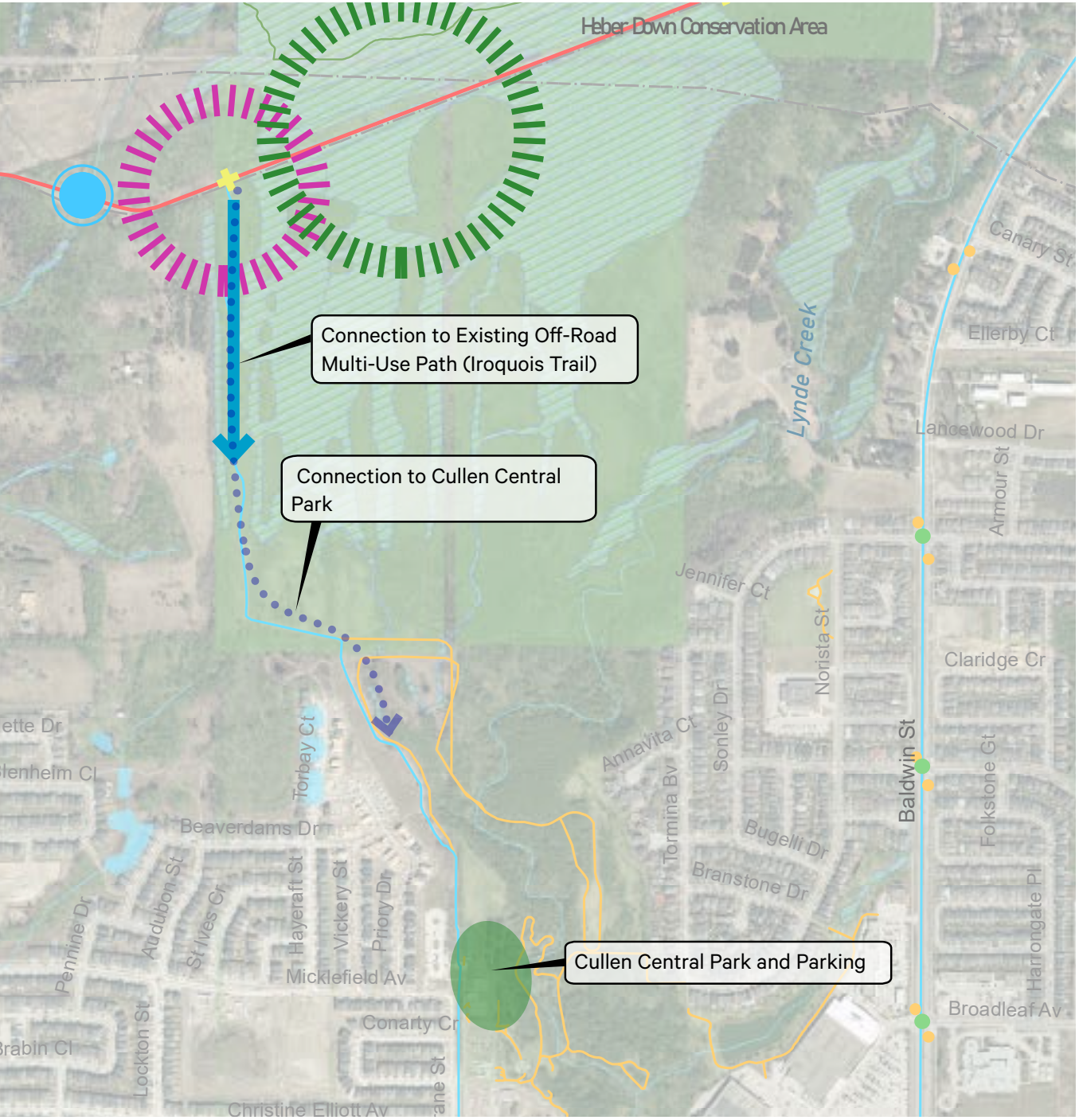
This area is an important location along the Durham Meadoway. It is a Gateway to Cullen Central Park and parking lot, which are located to the south and connected by the south leg of the Iroquois Trail. Segment 8 facilitates connections to other trails within the Heber Down Conservation Area. It is a great opportunity to establish a Nature Space typology node to interpret the surrounding natural features, augment the amenities in Heber Down, and provide a multi-functional node along the Durham Meadoway.

Figure 6.24: Segment 8 - Coronation Road to Cochrane Street

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

2.8

km

MUP Length on Road Right-of-Way:

1.0

km

MUP Length in Transmission Corridor or Open Space:

1.8

km

Segment 9

Cochrane Street to Thickson Road - Overview

The preferred route is located primarily within the transmission corridor, with two short detours to provide safe crossings of major roads at existing intersections.

The planned Whitby Sports Complex is located north of the Durham Meadoway, reachable by an existing cycling route along Ashburn Road. The Whitby Sports Complex will provide parking, washrooms, recreational facilities and other amenities that will benefit Durham Meadoway users. A Gateway is located at Ashburn Road along the Durham Meadoway, where it orients to the Whitby Sports Complex and the Heber Down Conservation Area. There is a nearby GO commuter parking lot reachable along the planned boulevard Multi-Use Path along Baldwin Street.

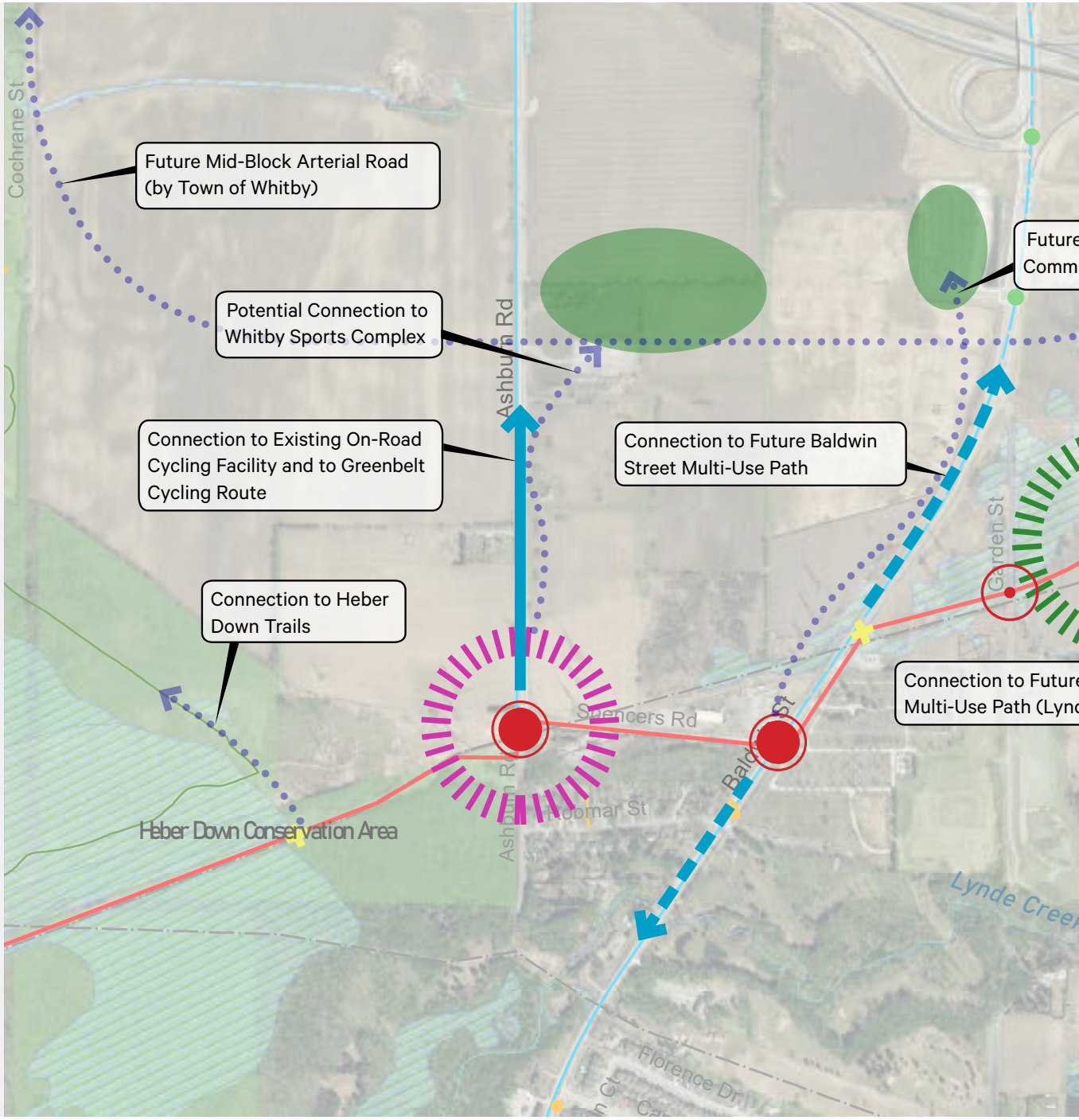
The preferred route crosses Baldwin Street at the Spencers Road intersection, via a short detour along the planned Multi-Use Path on the east side of Baldwin Street. A signalized crossing of Baldwin Street appears feasible at this location; however, due to traffic volumes and intersection spacing, further study is required, and an alternative route may need to be considered. The preferred route crosses Anderson Street at the planned roundabout with Whitby's future Mid-Block Arterial Road. Both crossings have very short detours that are clearly visible from the primary route within the transmission corridor, are easy to follow, and provide safe crossing of busy roads.

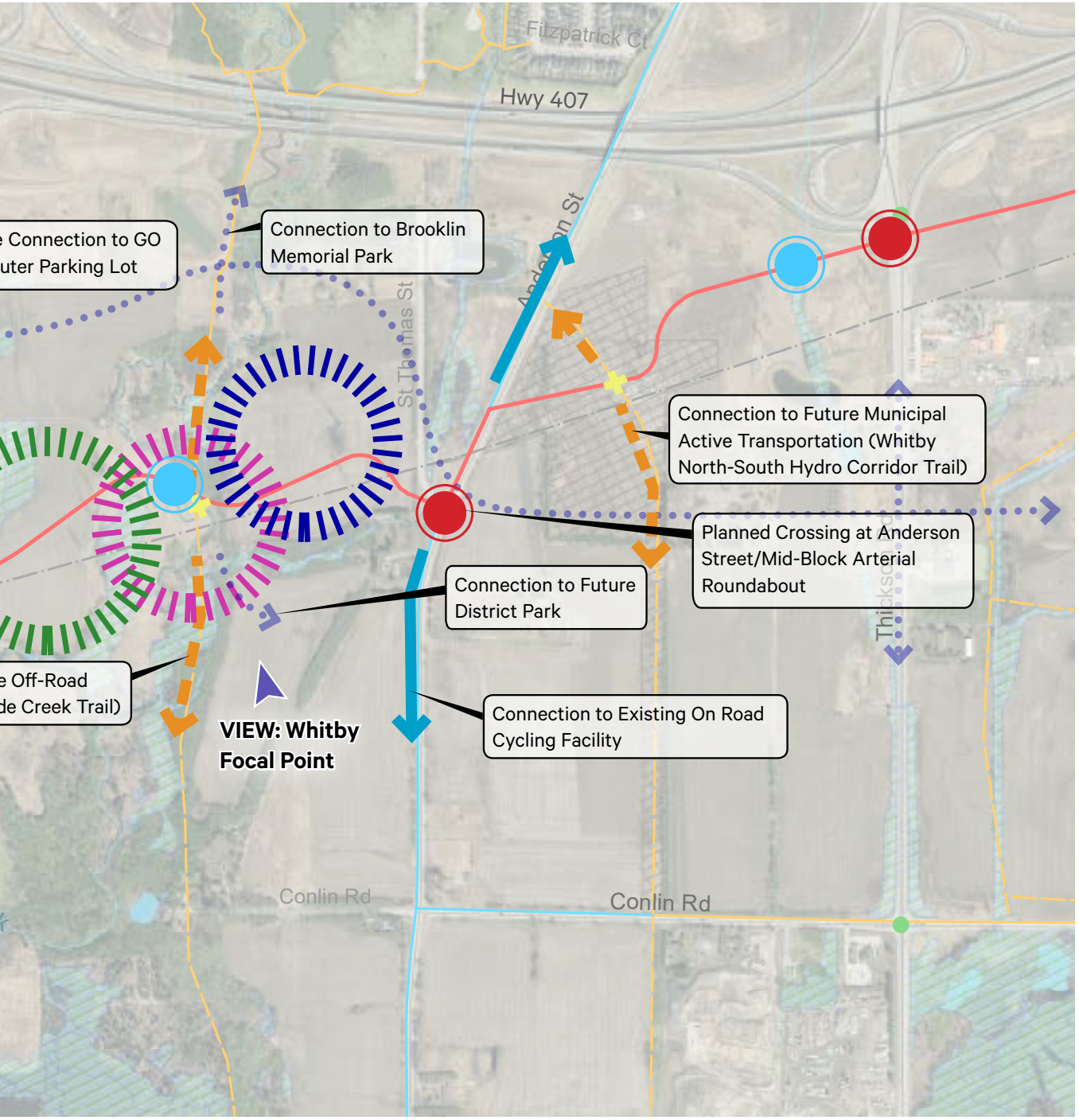
In the heart of Segment 9 there is an opportunity to develop a major destination that acts as Gateway, Active Play, and Nature Space typology nodes. The planned Lynde Creek trail intersects the Durham Meadoway here. A planned district park, just south of the transmission corridor, can be enhanced by sports fields within and/or adjacent to the corridor. The Lynde Creek valley can be enhanced as the Nature Space node.

Figure 6.25: Segment 9 - Cochrane Street to Thickson Road

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

3.9

km

MUP Length on Road Right-of-Way:

1.0

km

MUP Length in Transmission Corridor or Open Space:

2.8

km

Segment 10

Thickson Road to Simcoe Street - Overview

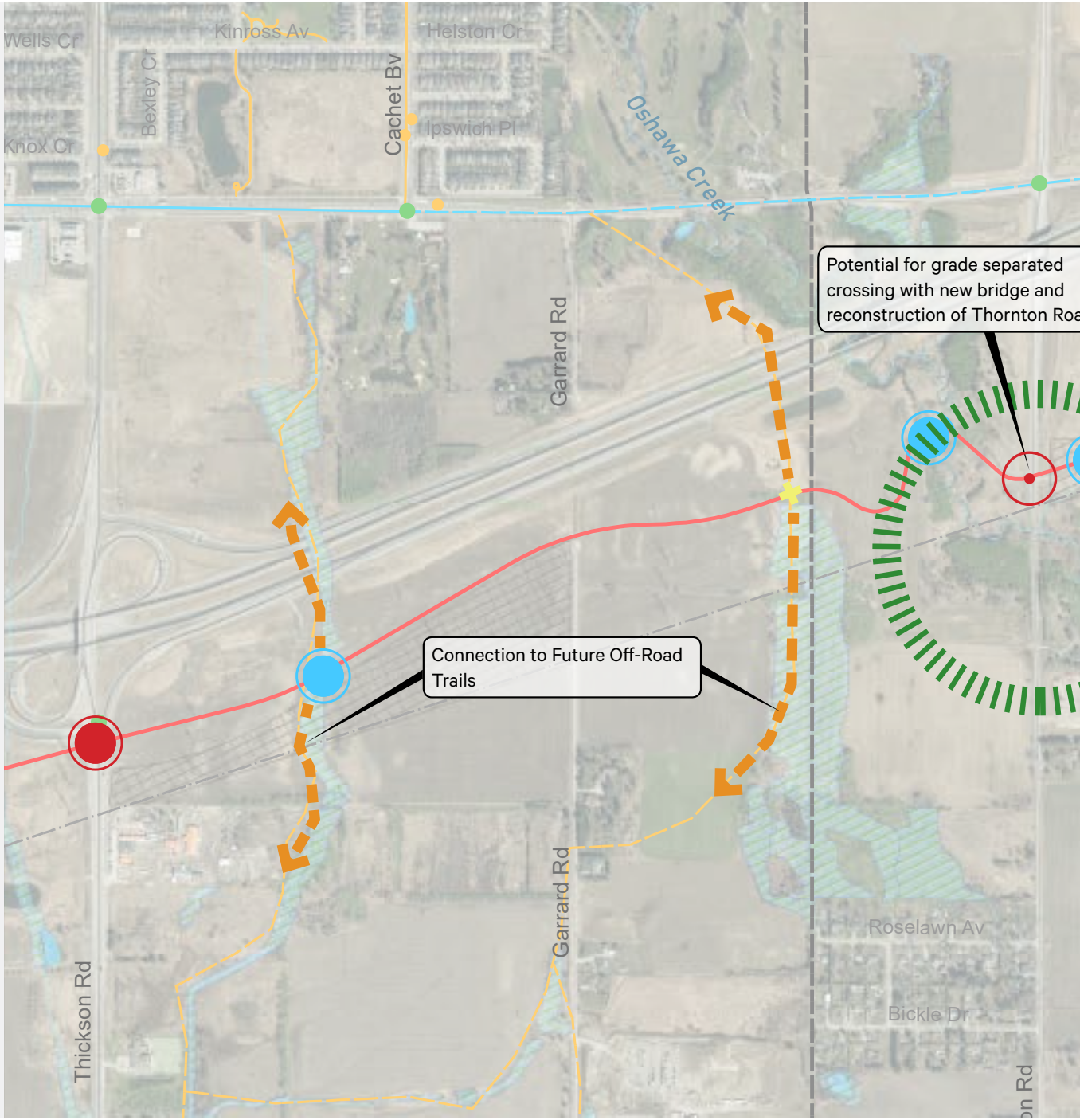
The preferred route is located within the transmission corridor in this segment, except for a very short jog where the Multi-Use Trail will cross the future Windfields Collector Road at a planned roundabout. A portion of the trail east of Thickson Road is also located on lands owned by the Ministry of Transportation under the transmission corridor. The boundary between the Town of Whitby and the City of Oshawa is located in this segment.

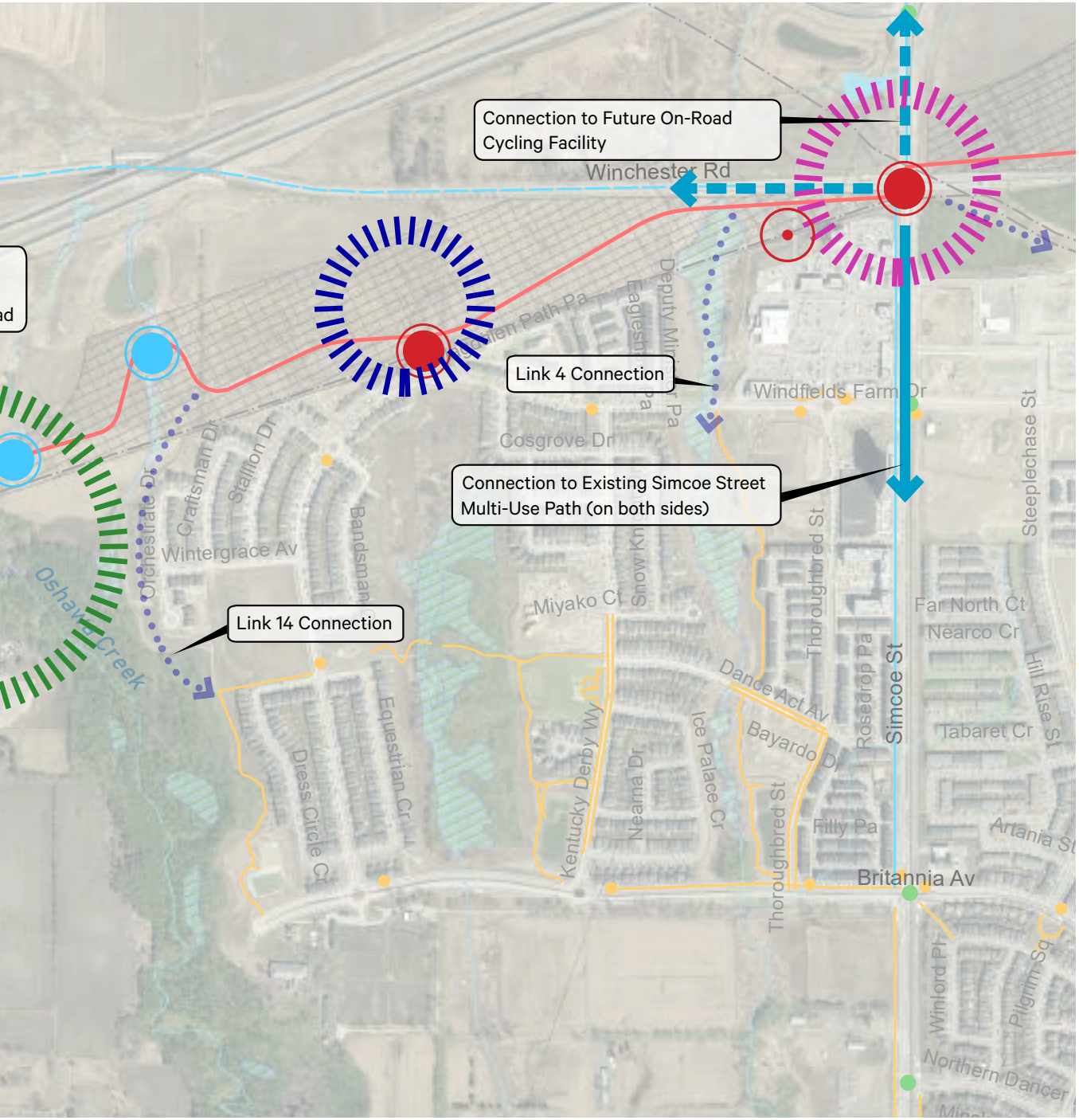
There is an opportunity to create a Nature Space typology node at the Oshawa Creek, and an opportunity to create an Active Play typology node within the hydro corridor to enhance the Windfields community. Links 4 and 14, which are planned trails in the Windfields area of the City of Oshawa, provide good connectivity to the Durham Meadoway and the nodes. At the intersection of Simcoe Street and Winchester Road there is an opportunity to create a Gateway node to the Durham Meadoway that is integrated with the City of Oshawa's planned City gateway feature and/or existing gateway feature for the commercial development at the southwest corner. The design elements of each can be coordinated to create a more impactful gateway.

Figure 6.26: Segment 10 - Thickson Road to Simcoe Street

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

3.8

km

MUP Length on Road Right-of-Way:

0.0

km

MUP Length in Transmission Corridor or Open Space:

3.8

km


Simcoe St
Ritson Rd
Future HEPC
trail connection
Winchester Rd
Future Oshawa
Creek trail
connection
Durham
Meadoway

Segment 11

Simcoe Street to Harmony Road - Overview

Segment 11 is the eastern gateway to the Durham Meadoway. Within Segment 11 the Multi-Use Path is located primarily within the transmission corridor, except for a short stretch connecting the Harmony Road and Winchester Road intersection with the transmission corridor. A Gateway at this intersection will celebrate the eastern end of the Durham Meadoway.

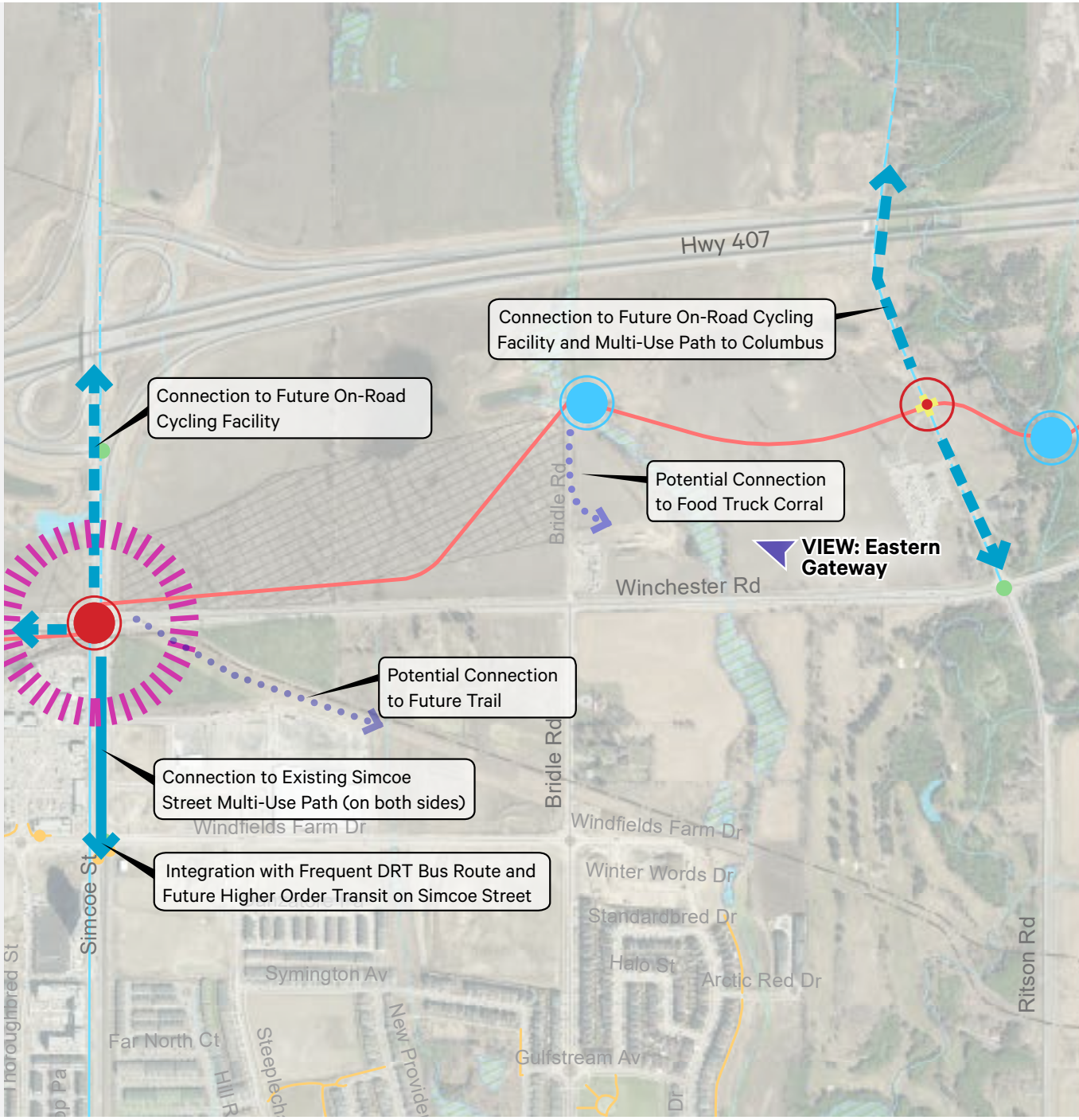
This segment offers a number of connection opportunities to planned trails, at Simcoe Street, Ritson Road, and a north-south transmission corridor. The Food Truck Corral at Bridle Road is just south of the Durham Meadoway and is a great amenity to connect to. In the long term, the Durham Meadoway has the potential to continue further.

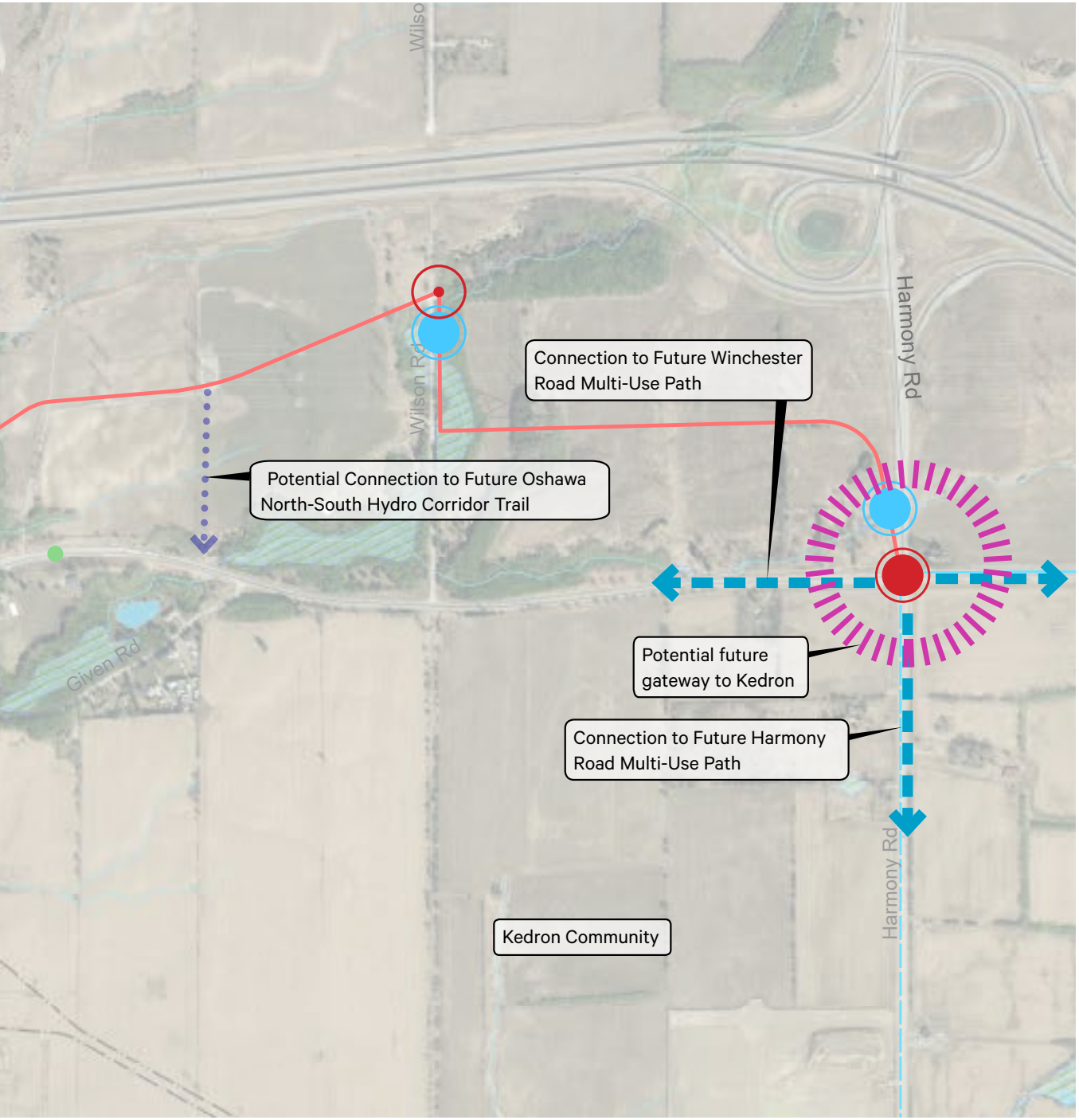
The conceptual sketch on the left demonstrates the Eastern Gateway.

Figure 6.27: Segment 11 - Simcoe Street to Harmony Road

Legend

- Municipal Boundaries
- Preferred Route
- Interim Route
- Existing Regional Primary Cycling Network
- Existing Regional Primary Cycling Network
- Existing Municipal Active Transportation
- Future Municipal Active Transportation
- Conservation Authority Trail
- Railway
- Pipeline
- Watercourses
- Wetlands
- Water Bodies
- Conservation Authority Lands
- Municipal Park / Open Space
- Rouge National Urban Park
- Secondary Use Licence
- Multi-Use Path or Trail Intersection
- Community Services
- Signalized Intersection
- Transit Stop
- Transmission Station
- Existing Regional Primary Cycling Network Connection
- Existing Regional Primary Cycling Network Connection
- Existing Municipal Active Transportation Connection
- Future Municipal Active Transportation Connection
- Connection to Destination
- Road Crossing - Intersection
- Road Crossing - Mid-block
- Watercourse Crossing
- Gateway
- Garden and Community
- Nature Space
- Active Play
- Potential Local Road Connection





Total Multi-Use Path (MUP) Length in Segment:

3.9

km

MUP Length on Road Right-of-Way:

0.2

km

MUP Length in Transmission Corridor or Open Space:

3.7

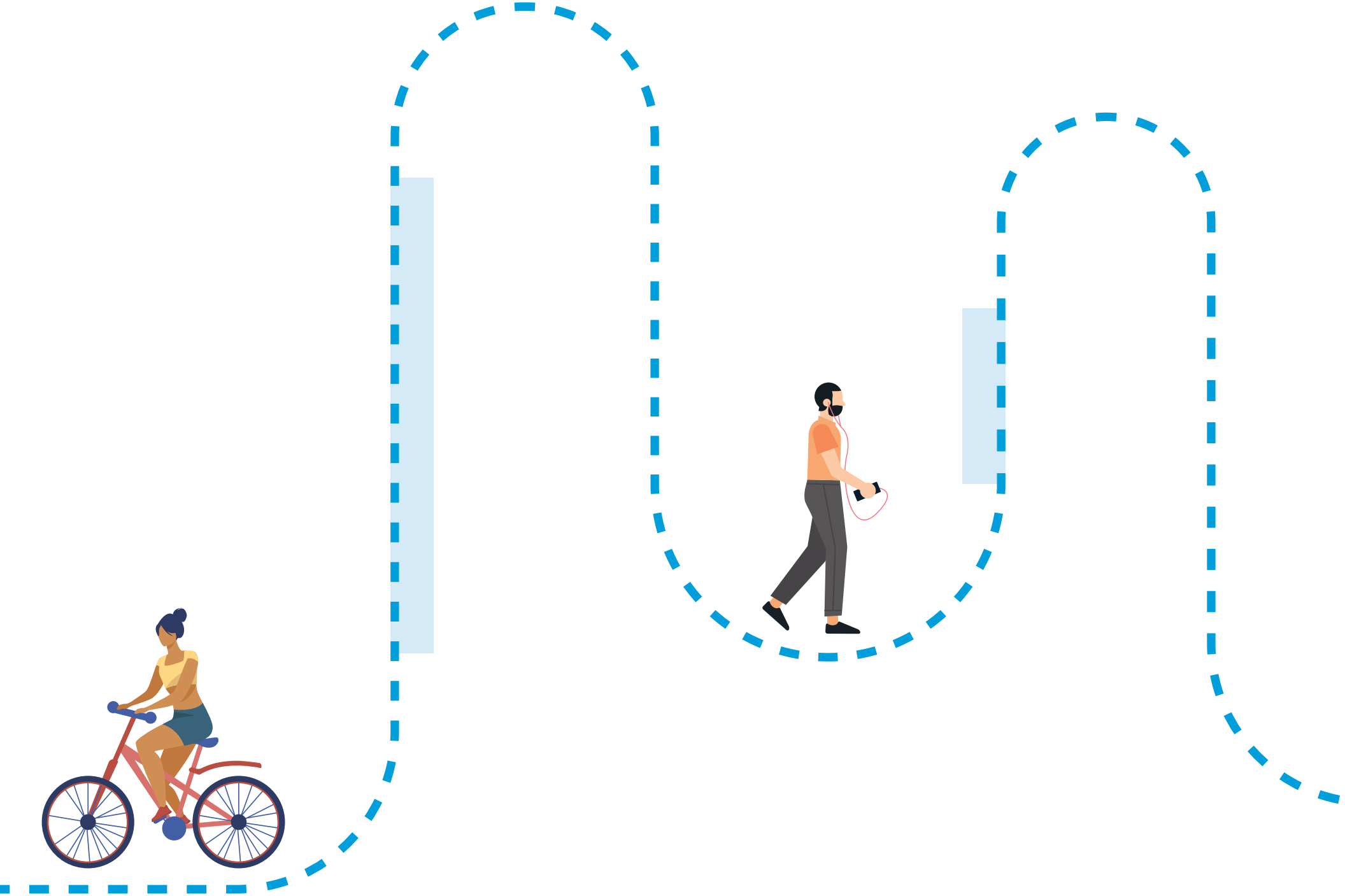
km

6.4 Interim Routes

For sections where the preferred route will likely take a long time or has significant cost implications, an interim route has the potential to provide an easier and more cost-effective way to achieve end-to-end connectivity over the short term (see Figure 6.28). Key objectives for an interim route include:

- Optimize the route selection based on the evaluation criteria. The interim route should be the next best choice given available resources or constraints;
- Minimize the length of the interim route segment. Return to the preferred route as quickly as feasible; and
- Apply the same design standards to the interim route. It must be seamless with the primary route and have all planting, branding and wayfinding toolkit elements.

Once the preferred route is able to be implemented, the interim route should remain; however, it will no longer be a part of the Durham Meadoway. All Durham Meadoway wayfinding should be removed from it. The interim route would thereby become part of the Regional and/or Municipal active transportation network, while the preferred route is designed and signed as the Durham Meadoway.



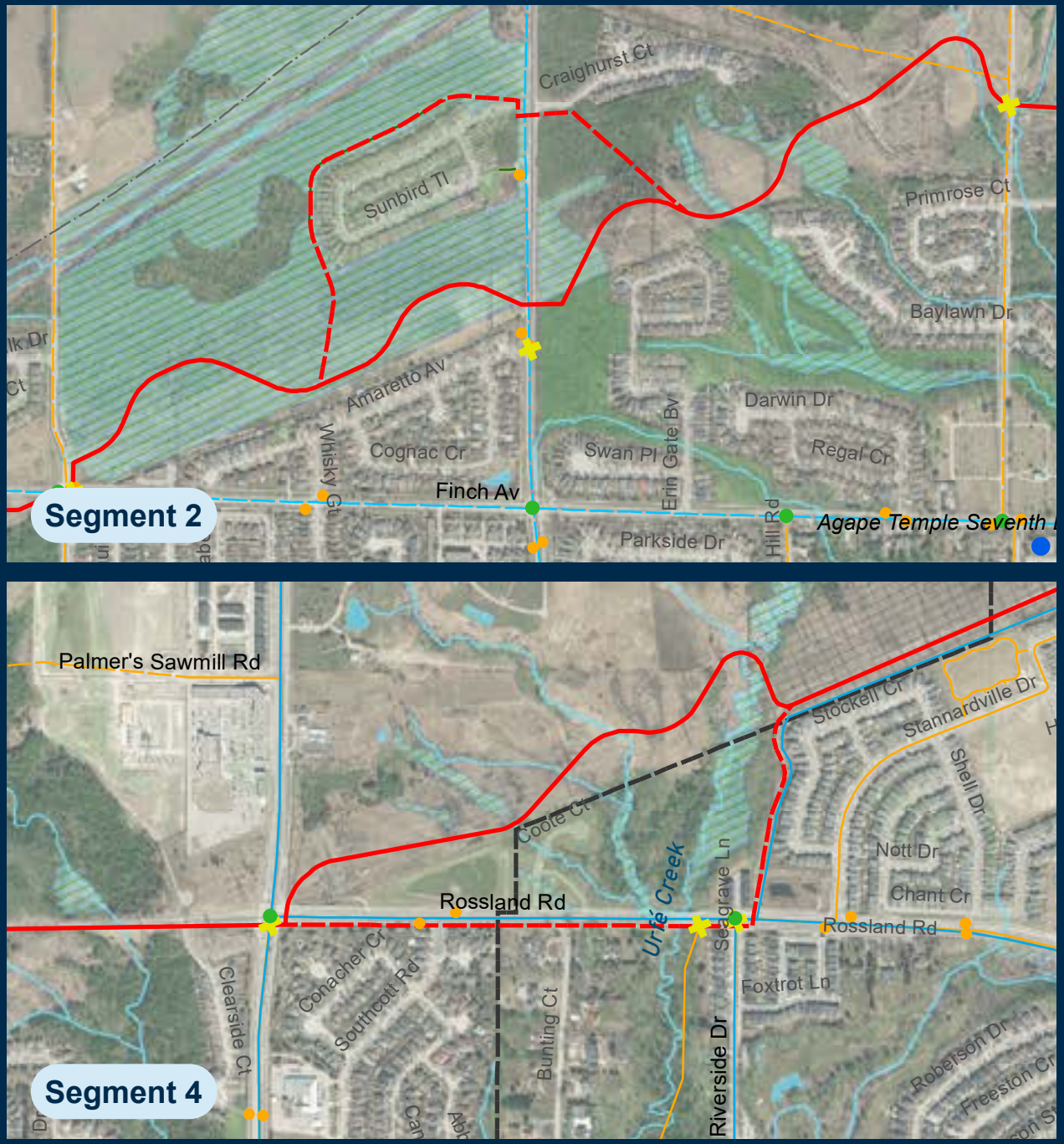


Figure 6.28: Interim Routes

Based on what is known today, two areas have been identified for interim routes: Segment 2 - Whites Road Crossing and Segment 4 - Rossland Road, East of Brock Road.

The Two Areas for Interim Routes

Segment 2

Currently, Whites Road is a two lane Type A Arterial road, but is planned to be upgraded to a six lane cross section carrying high traffic volumes. Given existing intersection spacing, it will not be feasible to implement an at-grade mid-block crossing of Whites Road within the transmission corridor for the Durham Meadoway. The preferred route identifies a grade-separated crossing of Whites Road within the transmission corridor to create a clear, direct route. To achieve this requires further technical study, as it is not part of the current Whites Road widening project. The preliminary design for Whites Road, from Finch Avenue to Highway 7 is contained in the Central Pickering Development Plan Class EA for Regional Services study, with detailed design for the section between Finch Avenue and Taunton Road including the West Duffins Creek bridge currently in progress. Also, achieving a grade separation of the Durham Meadoway at Whites Road will be costly.

Based on a transportation review, a signal at the Sunbird Trail/Craighurst Court intersection with Whites Road is feasible. It maintains appropriate signal spacing from Finch Avenue, and provides a safe crossing for the Durham Meadoway. This intersection is approximately 250 metres to the north of the transmission corridor.

Rather than risk unsafe crossings of Whites Road at the transmission corridor by pathway users if the interim route were to have a 500 metre out-and-back detour along Whites Road, the selected interim route makes a slightly longer alignment but forms a more gradual and intuitive detour. On the west side of Whites Road, it follows a partially constructed Toronto and Region Conservation Authority trail. On the east side of Whites Road, it follows a minor watercourse. With the exception of the crossing itself, both sides are treed, naturalistic experiences supporting the vision of the Durham Meadoway. The alignment of the detour will allow it to be designed and landscaped consistently and seamlessly with the meandering nature of the preferred route.

Segment 4

Urfé Creek and numerous tributaries cross the transmission corridor between the Brock Road and Rossland Road intersection to the west, and the Trans Canada Trail to the east, creating highly undulating terrain, steep at times, and potentially challenging environmental conditions. Grading the Multi-Use Path to manage the elevation changes, and providing several watercourse crossings in close proximity to each other, will be challenging and expensive. For this reason, an interim route is proposed.

The interim route utilizes an existing boulevard Multi-Use Path on the south side of Rossland Road. The length of the interim route is approximately 850 metres, from Brock Road to Riverside Drive, both of which are signalized. At Brock Road, the existing TransCanada Trail south leg can connect the transmission corridor to Rossland Road. This interim route alignment is relatively short and utilizes existing infrastructure, requiring relatively minor upgrades in design and wayfinding to implement.

07

Implementation

7.1 Approvals
7.2 Next steps
7.3 Roles and Responsibilities
7.4 Funding and Other Partnerships



The Durham Meadoway Visioning Study is the first step in a process that will culminate in a 30 kilometre active transportation link and linear park that serves four municipalities. The Visioning Study provides an inspiring framework that can unite interested parties and the public to a common goal, coordinate efforts, assist with funding, and guide the technical work and design drawings leading to construction. This section identifies likely regulatory approvals requirements, potential next steps, and the roles and responsibilities of the many actors who will need to work together to implement this exciting initiative.

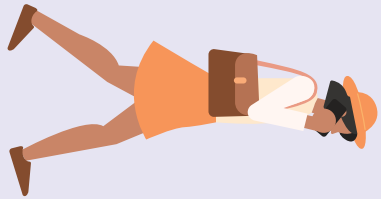


7.1 Approvals

There are a number of environmental regulatory requirements within federal, provincial, and municipal jurisdictions that apply to all projects and proponents, and that are important to understand in the context of the Durham Meadoway, as there are so many jurisdictions and agencies involved.

There are three key regulatory and legal requirements for consideration for the Durham Meadoway (Project):

1. Corridor use requirements: Infrastructure Ontario and Hydro One
2. Environmental Assessment requirements
3. Other environmental permitting and municipal approval requirements



Environmental Assessment (EA) Requirements

The Municipal Class Environmental Assessment, Municipal Engineers Association, March 2023 is the most appropriate process for this project given the known scope at this time, and likely proponency. Based on this document, the project would be best characterized as construction of multi-purpose paths or cycling facilities including water crossings outside existing (municipal) right-of-way and/or in a utility or rail corridor. Although certain sections of the Durham Meadoway Multi-Use Path may be in a municipal right-of-way or on an existing path, much of the proposed route is located off-road within the transmission corridor or in adjacent open space areas.

An excerpt from the Municipal Class EA document, Appendix 1 is shown in Table 7.1. The likely cost of the undertaking assists in determining the type of EA required. Cost is defined in the Municipal Class EA document and does not include acquisition of land, feasibility studies and engineering design, or operational costs of the project. These tables are considered a guide, and proponents of a Municipal Class EA study should customize the process to reflect the complexities and needs of their specific project.

Except from Municipal Class EA Document - Classification of Undertakings				
Project Description	**Exempt**	**Eligible for Screening**	**Schedule B**	**Schedule C**
25b Construction or removal of sidewalks, multi-purpose paths or cycling facilities including water crossings outside existing right-of-way and/or in a utility or rail corridor	<$4.1 million		≥$4.1 million	≥$12 million

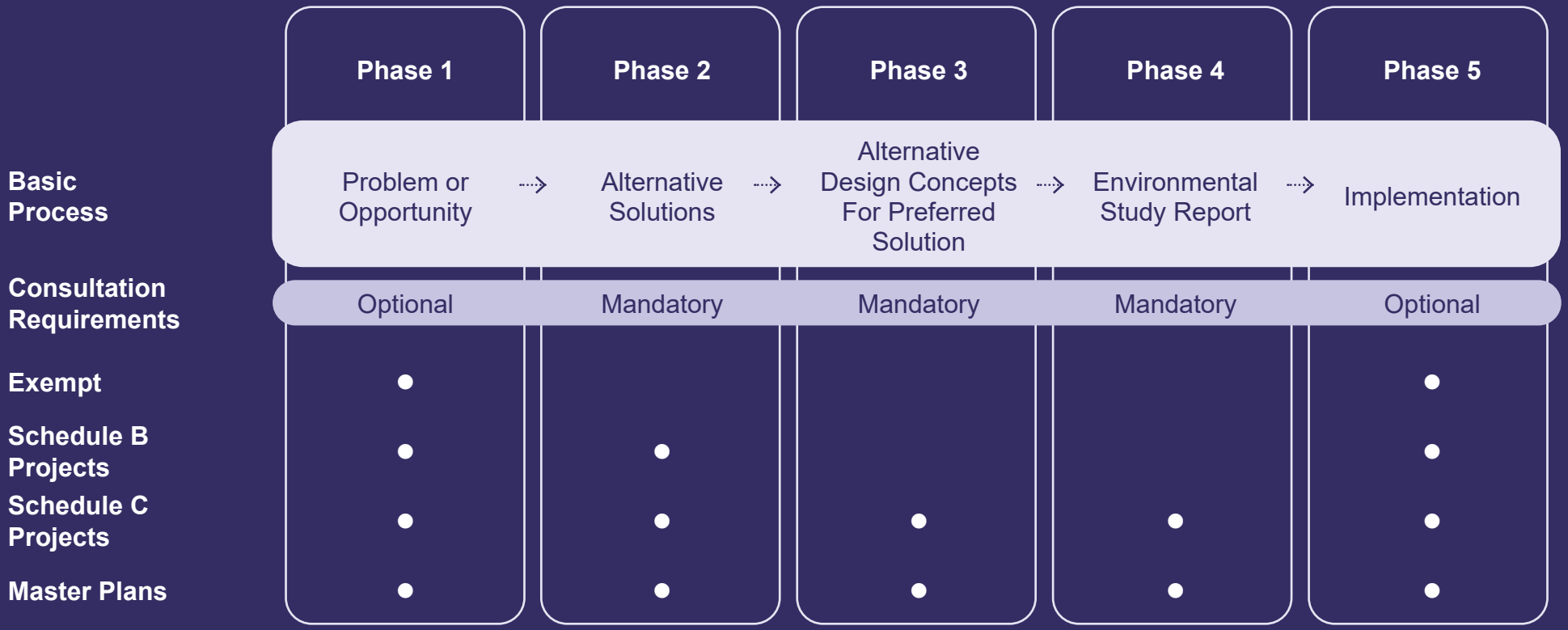
Table 7.1 Classification of Undertakings (Excerpt)

The Municipal Class EA process requires consideration of potential effects including, but not limited to, property requirements, affecting watercourses and other natural features, or having impacts considered significant to the community. Further, the Municipal Class EA process emphasizes the need to plan large or extended projects in their entirely even if they are to be completed in stages over an extended period of time. The EA process is not intended to be broken up, or piecemealed, into smaller components. Where different processes would apply to portions of the undertaking (for example portions of the trail along existing municipal rights-of-way would not require an EA process as opposed to portions along a utility corridor) the more stringent process is to apply.

Recently, a similar project, the Scarborough Meadoway, led by the Toronto and Region Conservation Authority in partnership with the City of Toronto as co-proponents, successfully employed the Municipal Class EA process, Schedule C with respect to project approvals. The project was an approximately 16 kilometre linear multi-use trail, predominantly located within an electricity transmission corridor. Some portions of the trail were existing prior to commencement of the EA process.

Depending on the type of EA required, various components of the Municipal Class EA basic process would be required. Both Schedule B and C projects require consideration of alternative solutions, however, Schedule C also requires consideration of alternative design concepts for the preferred solution and preparation of a formal Environmental Study Report. Both require consultation requirements as shown in Figure 7.2.

Figure 7.2: Municipal Class EA Process



The information above is summarized from the most recent Municipal Class EA document, which was amended in March 2023. Although further amendments to the Municipal Class EA process are being considered by the province, these are not yet finalized or well understood. Regardless of changes or further exemptions to EA requirements, avoidance of EA process may not result in any significant benefit given other corridor use requirements, environmental studies, permits and approvals and the desire to engage and consult interested parties, the public and Indigenous Communities.

The EA process is a useful mechanism to ensure compliance with mandatory regulatory or legal requirements, regardless of whether the Durham Meadoway is exempt from the requirements of the Municipal Class EA process. At the time of the Visioning Report, the Durham Meadoway appears to require a Class EA process under Schedule C (refer to Figure 7.2), as it is likely the project would cost over $12 million to complete, even with the use of Interim Routes. In addition to regulatory compliance, the EA process provides a framework for consultation and regulatory review.

Other Permitting and Approval Requirements

Regardless of EA requirements and completion, or other utility corridor licensing requirements, conformance with federal, provincial and municipal regulatory requirements must be ensured. Studies and consultation would typically be required to ensure regulatory compliance, and required permits and approvals would be required from applicable regulatory bodies. Typically these studies and associated approvals, where impacts are relevant, may include but not be limited to:

- Natural environment, including aquatic, terrestrial (vegetation, wetlands), wildlife, habitat, species at risk, invasive species, natural heritage features, ecological function, tree inventory, groundwater resources, erosion, water quality, flood risk;
- Socio-economic including planning and policy considerations, neighbourhood characteristics, amenities, utilities, traffic and transportation, air quality, noise and vibrations, electro-magnetic fields, community safety; and
- Cultural heritage including built heritage, cultural heritage landscapes, and archaeology.

Permits and approvals would be required where potential impacts to the above features are identified and would be issued by the applicable federal, provincial and municipal bodies, Conservation Authorities or other regulators. Consideration of the above matters would be relevant regardless of EA requirements. In addition, consideration of sustainable development practices, minimizing emissions associated with project construction and operations/maintenance as well as climate resiliency are advisable. Resiliency includes consideration of the vulnerability of the project to the effects of climate change and extreme weather as well as the ability to incorporate climate change adaptation measures into design elements.

Corridor Use Requirements: Infrastructure Ontario and Hydro One

The Durham Meadoway follows portions of an electricity transmission corridor. Most of the corridor is considered provincial land represented by the Minister of Government and Consumer Services, and managed by Ontario Infrastructure and Lands Corporation (IO) on behalf of the province. Hydro One Networks Inc. (HONI) maintains a statutory easement over these lands and has primacy of use for electricity transmission related activities. HONI and IO jointly manage the Provincial Secondary Land Use Program (PSLUP) which allows certain secondary uses, such as Multi-Use Paths, within these corridor lands, provided the uses meet the program criteria and do not impede the safe transmission of electricity.

As outlined in the HONI/IO document Information Package for Applicants Seeking a License for a Secondary Land Use (SLU) under the PSLUP, applicants must follow three processes and their associated requirements. HONI is responsible for the management activities of the lands which include providing front line delivery of the PSLUP. IO, acting as agent on behalf of the Minister of Government and Consumer Services, is responsible for the oversight of the PSLUP. The three processes are consecutive and are managed by HONI and IO. The processes are listed below.

1

HONI reviews an applicant's proposed Secondary Land Use (SLU) and approves or rejects the application. This entails both a Planning Approval process and a Technical Review. The Planning Approval process ensures that the SLU conforms to municipal planning and zoning designations. The Technical Review involves HONI staff and internal departments evaluating the proposed SLU to ensure compatibility with electrical infrastructure, specifically that it does not impede the safety, maintenance, operations or future expansion of the HONI infrastructure. If approved, the application advances.

2

The applicant completes the license application to IO. This includes an Environmental Assessment of the license by IO to ensure it meets the requirements of the Ministry of Infrastructure Public Work Class EA (2012) requirements. Note that this review is for the act of licensing itself and does not satisfy the requirements of any EA obligations of the undertaking proposed. If there is no change in land use, no further environmental assessment for the licensing is required. A change in designated land use would result in a requirement for a "Category B" EA for the license. It is likely that activities carried out as part of the Municipal Class EA process would satisfy the EA requirements for licensing. Regardless of EA requirements for

the licensing, IO also conducts an Environmental Review of the SLU proposal to ensure that any other relevant permits and approvals have been identified and that the proposed use will not negatively affect environmental features (cultural, natural) or impair the environmental condition of the land.

3

If all is approved, the final phase is the granting of a license by IO.

A fulsome and up-to-date inventory of land ownership will be needed when the route of the Durham Meadoway (interim or ultimate) and any of its associated amenities are determined, as transmission corridors can be owned by private landowners, municipalities, or other parties, in addition to those managed by HONI and IO on behalf of the province, as outlined above. Requirements of other landowners, including Conservation Authorities, would also have to be met.

As of 2020, the cost of technical review is $1,500 + HST per review. The annual cost to license the corridor is determined by the following formula:

of acres * $2,042.68 (tax rate) * 50%
where # of acres is (Multi-Use Path width + 3 m buffer * length) / 4,047

Licensees are responsible for maintaining the full width of the corridor.



Potential Approach to Environmental-Related Approvals and Associated Considerations

There are numerous considerations in determining the preferred approach to environmental-related approvals for the Durham Meadoway Project.

These include:

- Proponency
- Key municipal, agency and Indigenous engagement
- Scope and cost
- Regulatory requirements and significance of environmental effects
- Schedule/timing/phasing
- Funding model and availability

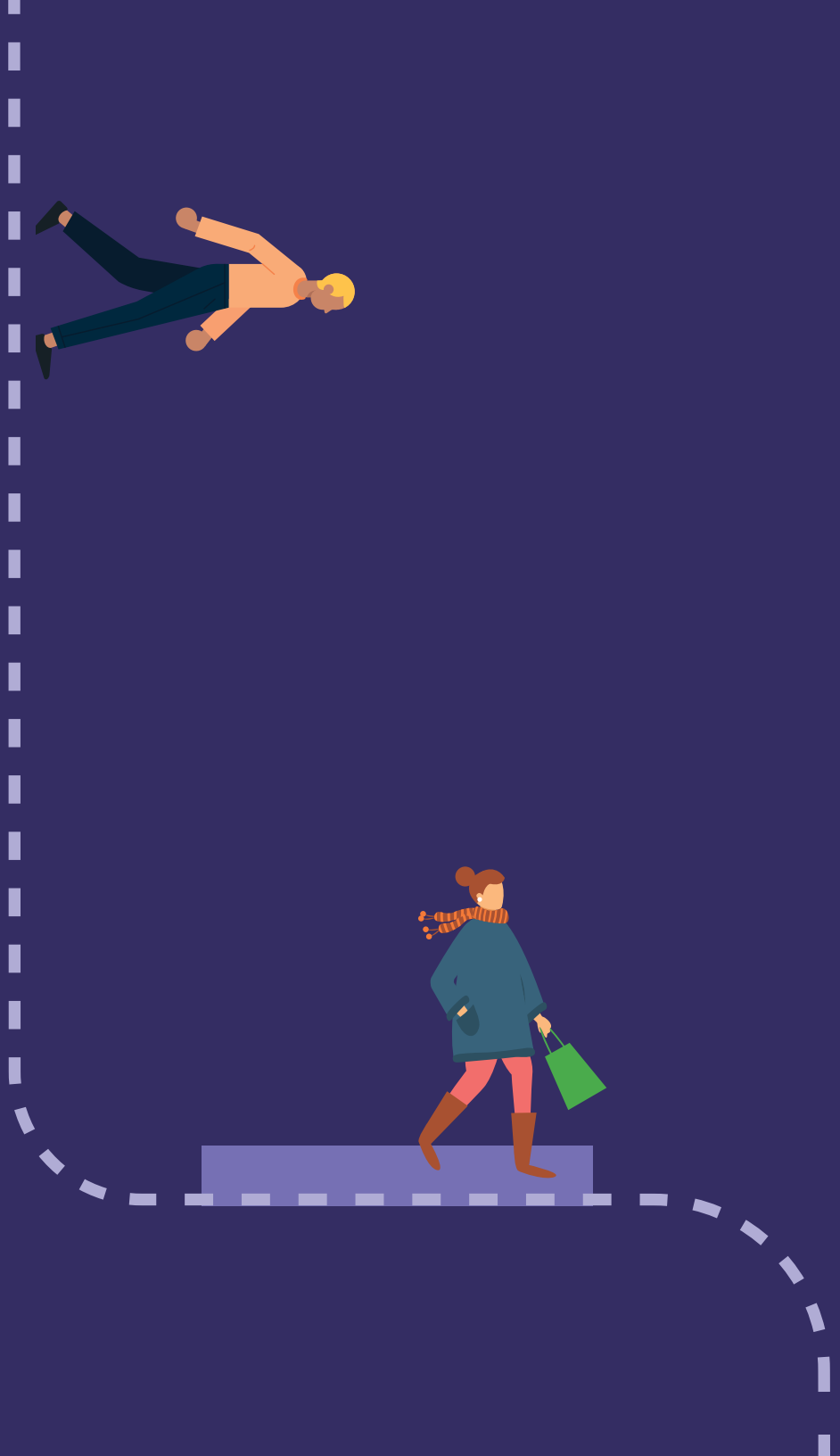
The Durham Meadoway Visioning Study has identified a preferred route, and potential interim routes, for the Multi-Use Path, as well as locations for amenities and programming. In some cases, these facilities may need to be located outside of the transmission corridor for various reasons, including avoidance of private leases, safety considerations, and HONI compatibility guidelines. Ultimately, the final route will be selected based on further technical study to provide the best continuous end-to-end connection. The goal is to construct the Durham Meadoway Multi-Use Path from Pickering to Oshawa, at least for the preferred route with the interim connections, in the next 5 to 10 years.

Tables 7.3 outlines how each of the considerations may affect the approach to implementation of environmental-related studies and approvals for the Multi-Use Path. There are a number of options for approvals including treatment of the entire Project as one undertaking, or separating it into multiple undertakings spatially and/or in terms of phasing. An understanding of funding sources is advisable in selecting an approach.

Consideration	Single Undertaking	Multiple Undertakings
Proponency	• Feasible with either Durham Region as the single proponent with other stakeholders consulted, or jointly as multiple proponents (e.g. Municipalities, Conservation Authorities) • Likely better collaboration, economies of scale, and consistency of approach across the Project • Does not preclude construction phases being completed by another proponent or group so long as the Project is carried out in the manner approved and with the appropriate mitigation and monitoring in place	• More easily justified as separate undertakings if there are separate proponents, such as the four municipalities • Risks loss of economies of scale and consistency of approach • May be perceived as “piecemealing” the project by Municipal Engineers Association Class EA process/ Ministry of Environment, Conservation and Parks
Engagement with Interested Parties and the Public	• Feasible as a single undertaking • Geographies do not confirm to arbitrary boundaries (such as traditional lands, conservation authority lands, existing infrastructure, and municipal boundaries)	• Potentially feasible but likely will result in confusion from interested parties and the public by multiple, similar projects being initiated, each with multiple points of engagement, and lack of consistency in final outcomes of Project • Potential negative perception that consultation is being avoided by “piecemealing” the Project
Scope and cost	• Larger scope and overall cost for the EA and environmental study but most likely resulting in economies of scale	• Scopes and costs can be reduced for separate sections by approaching as multiple undertakings, but economies of scale may be lost (i.e, higher overall cost) • Minimizing Project cost through multiple undertakings could result in requirement for a less rigorous EA process or even exemption, however, the benefit of this may be minimal as outlined in discussion of other considerations

Table 7.3: Approaches to Durham Meadoway Implementation

Based on currently available information, a coordinated approach to the Project using a single, fulsome Municipal Class EA process is most advantageous. The EA process provides a framework for study completion, municipal, agency, public and Indigenous engagement and consultation, and appropriate documentation. There may be little benefit to piecemealing or avoiding formal EA process given that license agreements and environmental regulatory obligations would remain regardless, and an engagement strategy on such a project is desirable. Early establishment of funding sources, potential agreements and timing is advisable regardless of approach. The suitability of the EA approach should be verified with the provincial environmental regulator, the Ministry of Environment, Conservation and Parks (MECP).



Consideration	Single Undertaking	Multiple Undertakings
Regulatory Requirements	• Municipal Class EA process emphasizes the need to plan projects in their entirely even if they are to be completed in stages to avoid “piecemealing” • Class EA process provides a useful and well understood framework for studies, documentation and consultation • More certainty of acceptance of regulatory process by provincial regulator by following recommended approach of planning larger projects in their entirety with an allowance to undertake portions of the Project over time following approval • Schedule C Municipal Class EA precedent set by Scarborough Meadoway • Mitigates the risk that, during the initial study process, more significant environmental effects are identified which could necessitate the need for a more rigorous study and consultation approach	• Generally some consideration on the part of the provincial regulator for projects that are not indivisible: a portion of the project could proceed as a stand-alone undertaking. If sections of the trail were self-contained with safe entry and exit points and were to be completed at different times, even by different proponents, this may be acceptable • Avoidance of the EA process may provide little actual benefit.
Schedule/ Timing/ Phasing	• A single EA process is appropriate for projects that may be completed in phases • Construction must begin within 10 years of completion of the EA • If significant time has elapsed, some confirmation of conditions is required. • Licenses for SLU could be obtained as required based on the results of completed studies.	• Long periods between EA completion and construction can be mitigated by community engagement prior to construction (advisable regardless) or ongoing technical or community advisory committees
Funding model and availability	• May be funded through multiple sources and does not preclude separate funding or implementation of construction phases • Economies of scale could be beneficial to all funding parties	• If funding from numerous sources, such as municipalities, conservation authorities etc. is anticipated and may have variable timing, there could be some benefit to separate processes • May lose economies of scale, lessons learned during consultation, and creation of mitigation strategies

Table 7.3: Approaches to Durham Meadoway Implementation (continued)

7.2 Next steps

Figure 7.4 provides an overview of further studies, requirements or processes that will likely be needed to implement the Durham Meadoway, no matter which implementation methodology is needed. They include technical studies that will be required for regulatory approval, as well as design and construction processes that will follow. Figure 7.5 outlines near term tasks that could be initiated prior to or in parallel with the Municipal Class EA Study to support advancement of the Durham Meadoway project.

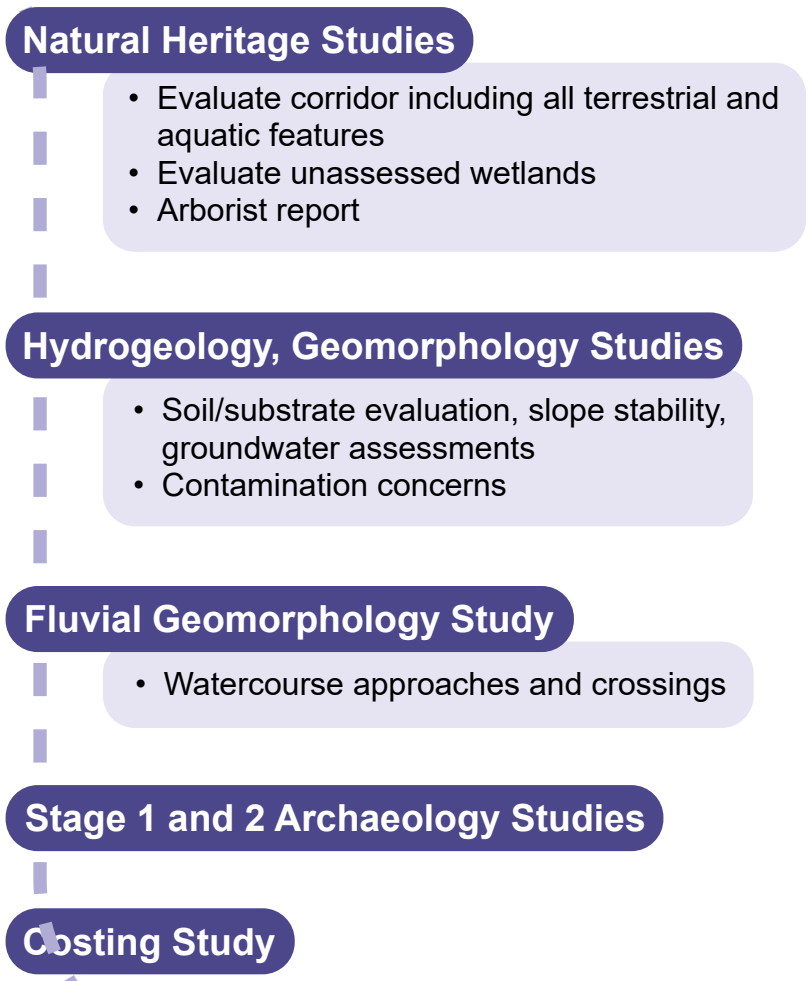


Figure 7.4: Additional Studies Likely Required as part of the Municipal Class EA Process and Implementation for the Durham Meadoway

Civil and Structural Engineering Studies

- Multi-Use Path design
- Watercourse crossing structures, including approaches (grading, slope stability)
- Grade-separated crossing structures, including approaches
- Stormwater management

Electrical and Lighting Studies, If Appropriate

- Lighting considerations at road crossings
- Examine potential for low level non-intrusive lighting for off-road sections of the Multi-Use Path

Accessibility Compliance, Woven into All Design Studies

Branding and Wayfinding Strategy

- Regional Cycling and Wayfinding Strategy (ongoing), which will provide preliminary recommendations for the Durham Meadoway as part of the Primary Cycling Network
- Town of Ajax Wayfinding Strategy (2020) may provide additional guidance

Maintenance and Operations Plan

- Roles and responsibilities
- Inspection schedules and protocols
- Vegetation management, including invasive species management
- Activation and programming plan, process, permitting
- Data collection (e.g. trail use surveys)

Potential Complimentary Studies

- Durham Region Public Art and Creative Placemaking Policy (ongoing, for lands owned by the Region)
- Area Municipal arts and culture plans
- Technology Strategy (e.g. smart navigation, signalization technology, sensors)
- Broadband installation (Durham OneNet)

Detailed Design and Construction

- Overall landscape site plan and cross sections
- Plan and profile drawings
- Construction Plan: access, phasing, management
- Erosion and Sediment Control Plan
- Tender drawings with Specifications
- Demolition/removals plans

Final Warranty

- Tendering and construction administration through final warranty

Obtaining Permits and Approvals

- Environmental protection plans to fulfill regulatory and permitting obligations
- HONI, Conservation Authorities

Co-ordination

- Co-ordination with other stakeholders, municipalities, conservation authorities and potentially ongoing technical or community advisory committees.

Near Term Tasks

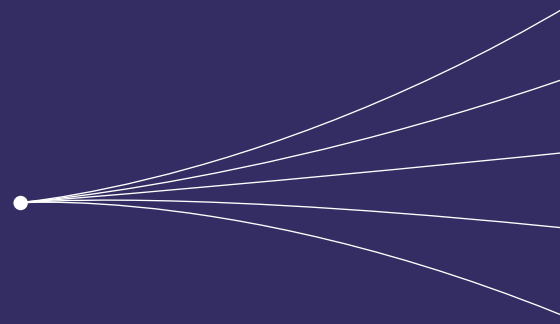


Figure 7.5: Near Term Tasks

Establish a Project Manager at the Region to oversee implementation, coordinate municipal efforts

Existing Taunton Road Multi-Use Path Improvements

- Crossrides, design refinements, signage, branding

Initiate discussions with Town of Whitby, the Des Newman Boulevard developer proponent and CLOCA

- Identify preferred route through the subdivision
- Identify developer and public sector responsibilities

Initiate MTO review process for Highway 412 crossing

- Develop initial design concept drawings
- Pre-consultation meeting with Corridor Management to solicit input from all internal and external stakeholders including the 407 East Development Group

Develop a pop up placemaking strategy

- Moveable furniture and amenities to create temporary gateways or nodes along the route
- Move to different municipalities and neighbourhoods
- Creates early awareness, excitement and branding

7.3 Roles and Responsibilities

There are many actors who will be involved in the planning, design, construction and operation of the Durham Meadoway, including the Region of Durham, local area municipalities, Infrastructure Ontario, Hydro One, the conservation authorities, and the Ontario Ministry of Transportation. Each has a specific jurisdiction with its own requirements and processes, and often multiple departments within them that need to be engaged. In addition, there are roles for various community organizations who wish to contribute their energies towards the success of the Durham Meadoway. Table 7.6 summarizes the roles of various stakeholders for the implementation of the Durham Meadoway.





Interested Party	Role
Region of Durham	• Environmental studies proponent or participant • Coordinate funding, planning and design • Coordinate stakeholders • Capital funding through cost sharing formula for Multi-Use Paths on Regional roads as per Regional Cycling Plan • Review design drawings • Capital upgrades or new Regional road signals
Area Municipalities	• Environmental studies proponent or participant • Capital funding of Multi-Use Path • Capital funding of amenities, programming and gateways • Review of design drawings • Maintenance, operations and renewal
Infrastructure Ontario and Hydro One	• Administer the Provincial Secondary Land Use Program, including issuance of Secondary Use Licence if approved • Confirm environmental studies meet regulatory requirements • Review design drawings • Accommodation of existing Licences
Conservation Authorities	• Review of works within Regulated Area • Potential funding for studies and restoration/planting works • Provide expertise from Scarborough Meadoway related to planting and ecological management strategies, compatibility with HONI requirements
Ministry of Transportation	• Review and approval of design drawings related to Highway 412 approach and crossing • Crossing at Highway 407/Thickson Road interchange (eastbound off-ramp signal) and nearby lands owned by MTO under transmission corridor
Community Groups	• Funding/construction of specific amenities • Programming, such as events, guided walks, school outreach • Assistance with maintenance and operations. • Indigenous communities' contributions to cultural or historic recognition for specific amenities

Table 7.6: Implementation Roles for Stakeholders



Figure 7.7: Potential Funding Opportunities by Agency or Organization





7.4 Funding and Other Partnerships

To implement a project of the scale and complexity of the Durham Meadoway will require contributions from many sources. Municipalities and agencies will need to work together to identify available resources, for planning, capital funding, and operations. Resources may come directly from the Region and area municipalities themselves, or from external sources such as other levels of government or private contributions. While capital funding is the primary requirement to build the Durham Meadoway, contributions of time and organizational resources are just as important to animate, enliven and maintain the Durham Meadoway. Potential funding sources are illustrated by Figure 7.7.

Figures 7.8 illustrates case studies with a variety of funding sources for other active transportation corridors.

Figure 7.8: Case Study Summaries

The Meadoway (Toronto)

Description

- Naturalized trail link between Rouge National Urban Park and downtown Toronto
- Stitches together 15 greenspaces, 4 ravines, 4 Neighbourhood Improvements Areas, employment and transportation hubs

Capital Cost

- $85 million estimate

Funding

- Private donation $25 million pledged, $10 million for Phase 1
- City of Toronto Capital Budget $6.3 million, plus operation and maintenance
- Federal Conservation Ontario Nature Smart Climate Solutions fund $1.35 million
- Parks Canada $150,000
- City of Toronto Investing in Infrastructure



The Meadoway

Arbutus Greenway (Vancouver)

Description

- Active transportation corridor between False Creek and Fraser River, potential street car route
- Very popular for walking, cycling and rolling

Capital Cost

- City of Vancouver $55 million land acquisition cost from Canadian Pacific Railway
- Trail improvements to be determined

Funding

- City of Vancouver Capital Planning $5 million for Phase 1
- Revenue from development of surplus lands adjacent to the corridor
- Partnerships with senior government
- Community Amenity Contributions (CAC's) from developers



Arbutus Greenway

The High Line (New York City)

Description

- 2.3km elevated linear park on disused former railway, constructed in phases 2006-2014

Capital Cost

- $152.3 million for Phases 1 and 2

Funding

- City of New York $112.2 million
- Federal government $20 million
- New York State $400,000
- Friends of the High Line raised $30 million and spent approximately $20 million on construction



The High Line

BeltLine (Atlanta)

Description

- 35km loop of trails, light rail transit and greenspace on a former railway corridor around the city core
- 53km of trails, 1,300 acres of new and 700 acres of restored greenspace, new and affordable housing units, public art, heritage preservation
- 26km of trails, 315 acres of greenspace, brownfield restoration, and new housing

Capital Cost

- $4.8 billion projected total
- $670 million invested 2005-2021 for

Funding

- Atlanta BeltLine Tax Allocation District
- City of Atlanta
- Private and philanthropic contributions
- County, Regional, State and Federal grants
- Public-private partnerships



BeltLine

Pipeline Trail (Hamilton)

Description

- Revitalization of an existing trail in a 6km pipeline corridor with new walking, cycling and recreational amenities
- In 2015 the City of Hamilton developed the Pipeline Trail Master Plan working with the Crown Point neighbourhood residents

Capital Cost

- $500,000 for design and $3 million for construction

Funding

- City of Hamilton Capital Budget $600,000 (2020), $550,000 from development charges and $60,000 from other internal sources
- Further Tax Supported Capital Budget and Environmental Services Budget support is planned



Pipeline Trail

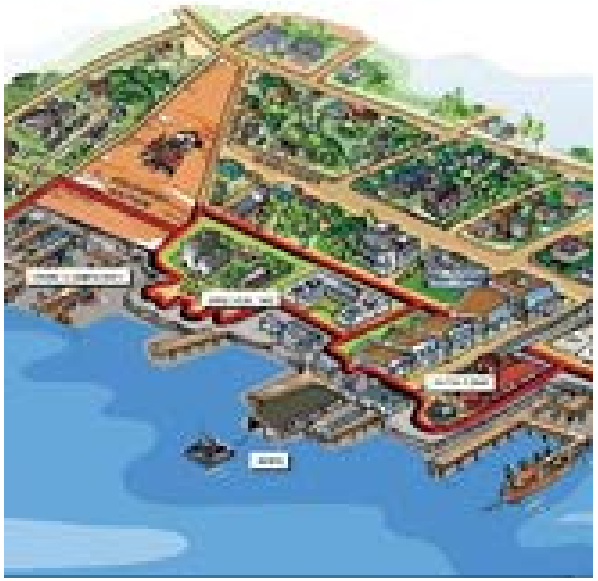
North Shore Spirit Trail (North Vancouver)

Description

- 35km waterfront greenway for pedestrians, cyclists, and wheeled mobility aids
- Collaboration between the City, the Squamish Nation, the District of North Vancouver, the District of West Vancouver, and provincial and federal governments
- City of North Vancouver portion is 6.5km, underwent extensive community consultations for design

Funding (City of North Vancouver portion)

- Federal and provincial governments provided $2.6 million for the Harbourside West Overpass
- Provincial government provided $1,730,000, plus TransLink funds
- BikeBC grant of $400,000
- Property tax increase includes a portion for the North Shore Spirit Trail



North Shore Spirit Trail

For more information please visit **https://yourvoice.durham.ca/durham-meadoway**

