

6

STRATEGY #2: NETWORK



A summary of the current CWATS network, the process that was applied to review and update the network and key network elements.






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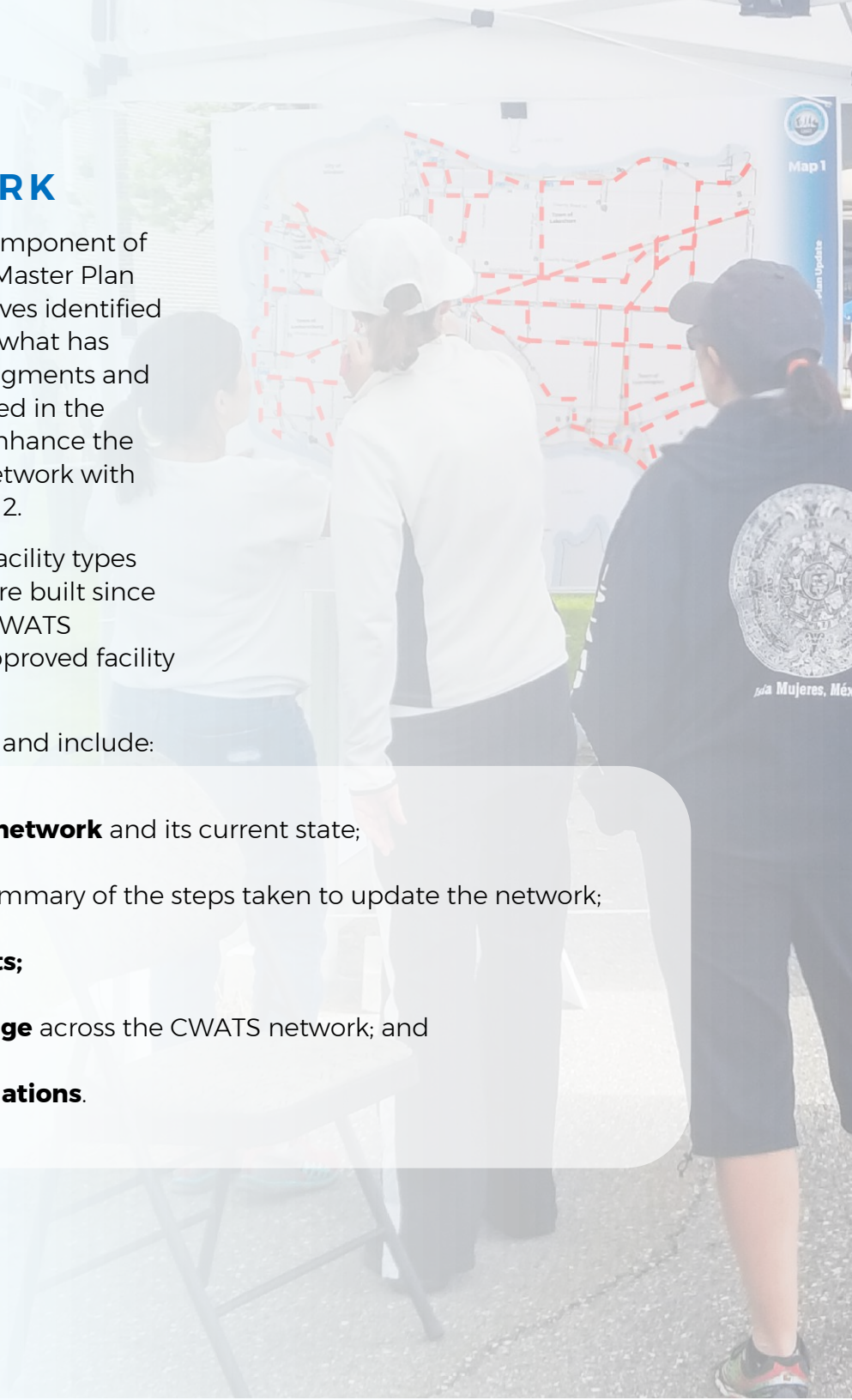
CHAPTER 6 | STRATEGY #2: NETWORK

The County-wide active transportation network is a significant component of the CWATS Master Plan Update. While the original 2012 CWATS Master Plan recommended an AT network that helped to achieve the objectives identified within the plan, this update provides the opportunity to confirm what has been implemented to date and identifies new recommended segments and associated facility types to the CWATS network to be implemented in the future. The strategic goal of updating the CWATS network is to enhance the active transportation experience in the County by aligning the network with the current best practices and applying lessons learned since 2012.

The CWATS network is not new. It encompasses the routes and facility types identified in the 2012 CWATS Master Plan along with infrastructure built since this time. As part of the process to update the master plan, the CWATS network also incorporates proposed modifications to the 2012 approved facility types and proposed new links.

The following sections describe the updated CWATS AT network and include:

-  A summary of the **original CWATS 2012 network** and its current state;
-  The **updated CWATS network**, with a summary of the steps taken to update the network;
-  An overview of the **key network elements**;
-  Considerations for **wayfinding and signage** across the CWATS network; and
-  Additional **network related recommendations**.





6.1 UNDERSTANDING THE CURRENT CWATS NETWORK

The 2012 CWATS Master Plan harnessed previously completed initiatives and studies in the County of Essex, including the County's Official Plan (2014) and the Regional Transportation Master Plan (2005), to support future investments and prioritization for active transportation within the County and its local municipalities. As a result, a key objective of the 2012 plan was to develop a comprehensive active transportation network which would consist of both on and off-road facilities, and connect urban and rural communities.

The CWATS network was adopted by County Council as well as the seven Local Municipal Councils as part of the 2012 CWATS Master Plan, and has since undergone ten years of implementation. During this time, significant progress has been made in building out the CWATS network. As noted in **Section 3.1**, approximately 556 kilometres of active transportation routes have been built.

6.2 UPDATING THE CWATS NETWORK

A key objective in updating the CWATS Master Plan was the identification of a revised CWATS network that reflects current best practices and design standards that have emerged since 2012. The following section outlines the process that was used to update the CWATS network including an overview of proposed modifications to the 2012 approved facility types and new route additions to form part of the CWATS network.

Network Development Process

The CWATS network was reviewed and updated using an iterative process that was informed by the input gathered by County staff, local municipal staff, the CWATS Committee and members of the public over the course of the study. This process is similar to the steps used to develop the 2012 network with slight modifications to reflect the CWATS infrastructure built to date, current best practices and lessons learned since the original plan. The network development process included five steps.

A brief overview of each step and the outcome of each step are provided below:

| Steps | Results |
|---|---|
| 1 Identify existing features of the AT network including facilities that have been recently constructed. | Table 4: Existing and Previously Proposed (in 2012) CWATS Network by Facility Type Figure 53A + B: Existing and Previously Proposed Conditions |
| 2 Apply the existing route selection criteria from the 2012 plan to help assess and refine routes. | Table 5: CWATS Route Selection Criteria |
| 3 Identify potential new routes to be investigated and that could form part of the CWATS network. | Figure 55: Proposed New Candidate CWATS Routes |
| 4 Undertake field work to investigate existing routes and locations for potential new routes. | Field Work Documentation Figure 57: Field Work Photo Locations |
| 5 Confirm the preferred CWATS network including the proposed facility types. | Table 8: CWATS Network by Facility Type Figure 61A+ B: CWATS Network by Facility Type |

A detailed overview of each step from **Figure 52** is on the following pages.

Figure 52: CWATS Network Development Process

Database Inventory



Step 1

Collect and consolidate digital and spatial data related to transportation, recreation, land use and CWATS in the County, its local municipalities and surrounding municipalities. Assemble this data in GIS and maintain on an on-going basis throughout the study process to reflect new information.

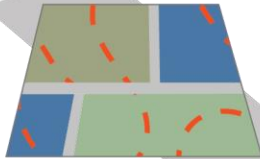
Existing Conditions Map



Step 2

Consolidate the existing conditions mapping with route selection criteria and feedback from the CWATS Committee to determine potential new routes for the CWATS network.

Candidate Route Map



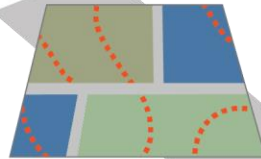
Step 3

Consult with both the CWATS Committee and the public to determine the most suitable routes to be added to the CWATS network.

Investigate candidate routes to collect additional information on the viability of adding new routes to the CWATS network.

Step 4

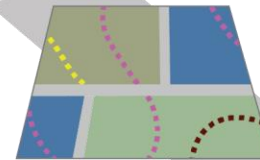
Confirmed Network Map



Review existing routes, previously proposed routes, and new routes using the updated OTM Book 18 facility pre-selection tool to determine the appropriate level of separation for all on-road facility. Document any suggested modifications to the approved 2012 facility types based on the review of OTM Book 18.

Step 5

Facility Type Map



Once the network and facility types have been confirmed, identify potential phasing horizons that build upon the 2012 implementation strategy and current information including future capital projects, input received from County staff, local municipal staff and the CWATS Committee as well as any secondary plan areas. Refer to **Chapter 9** for additional details on implementation and budgeting for CWATS.

Implementation

Project Phasing Map



STEP 1: ASSEMBLE DATA AND REVIEW EXISTING CWATS CONDITIONS

The first step when updating the CWATS network consisted of consolidating all available datasets in order to establish a base network of the existing CWATS conditions in the County. The base network included the previously proposed CWATS routes as well as other datasets indicated below:

Primary Data Sets

Data received from the County that could directly influence the CWATS network updates and decisions.

- The approved 2012 CWATS network, facility types, and phasing
- Local municipal active transportation networks and off-road trails
- Significant regional trail / route systems such as:
 - The Great Lakes Waterfront Trail
 - CASO Corridor / Cypher Systems Group Greenway
 - Chrysler Canada Greenway
 - Province-wide Cycling Network
 - The Trans Canada Trail
- Road network and classification
- Average annual daily traffic (AADT)
- Location and types of County traffic signals
- Posted speed limits

Secondary Data Sets

Data that was reviewed from other sources and considered when updating the CWATS network.

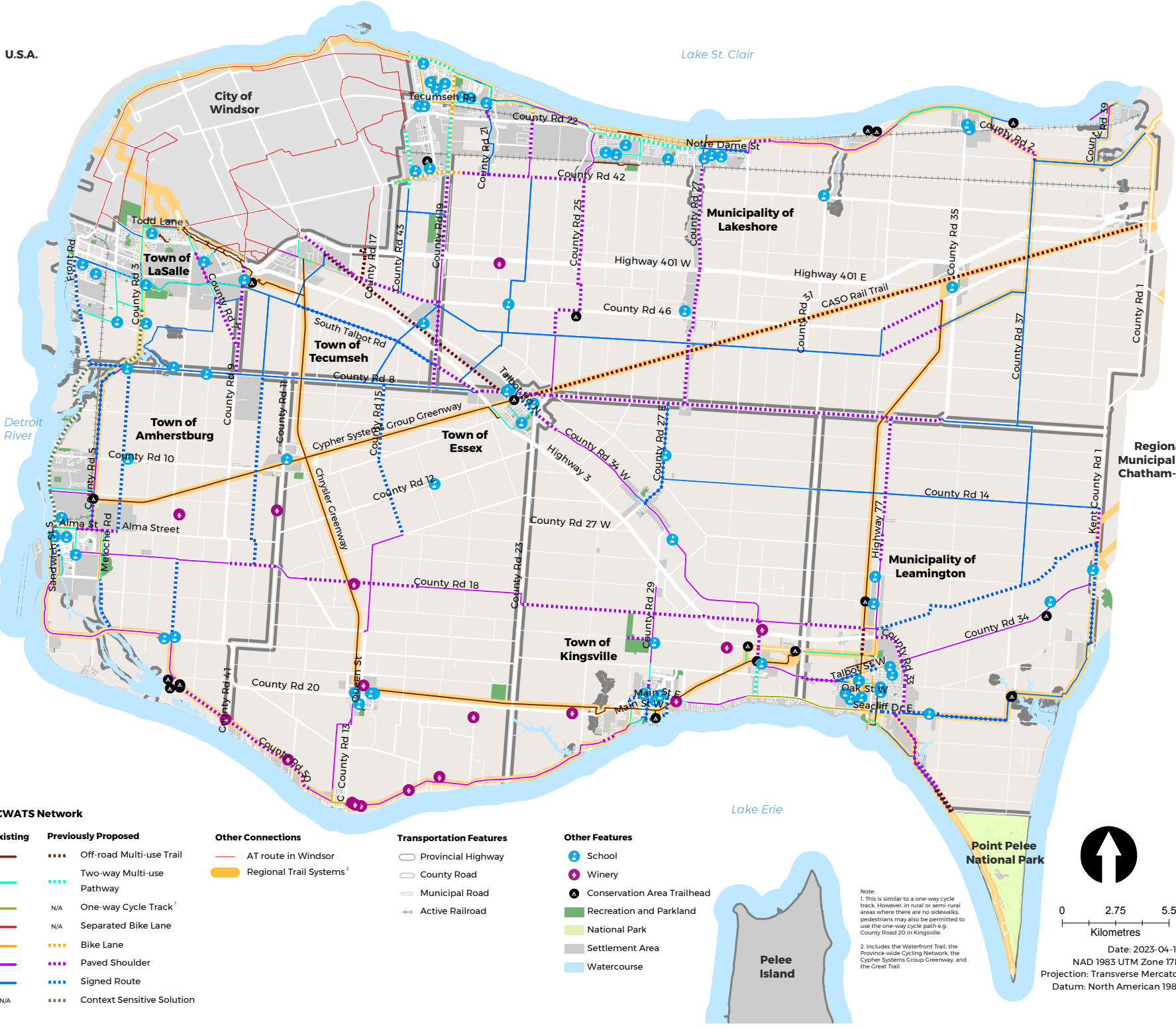
- Local municipal sidewalks and walkways
- Points of interest and attractions (including recreational facilities, healthcare facilities and schools)
- Trailheads
- Lakes and rivers
- Provincial parks, municipal parks and Conservation Authority Areas
- Railroads (active and inactive)
- Adjacent active transportation networks from the City of Windsor and the Municipality of Chatham-Kent
- Recent ortho-photography of the County
- Parcel fabric

Assembly of this data was critical in establishing the existing conditions of active transportation across the County and determining how much of the CWATS network has been implemented since 2012. The data was assembled within a Geographic Information System (GIS) and utilized during the network development process.

The existing and previously proposed CWATS routes and facility types are illustrated on **Figure 53A** (County-wide Map) and **Figure 53B** (Built-up Areas Map). A summary of the CWATS network, including the existing and previously proposed facility types, is presented in **Table 4**.



FIGURE 53A



CWATS Network

| Existing | Previously Proposed |
|----------|----------------------------------|
| | Off-road Multi-use Trail |
| | Two-way Multi-use |
| | Pathway |
| | One-way Cycle Track ¹ |
| | Separated Bike Lane |
| | Bike Lane |
| | Paved Shoulder |
| | Signed Route |
| | Context Sensitive Solution |
| N/A | |

Other Connections

| | |
|--|-------------------------------------|
| | AT route in Windsor |
| | Regional Trail Systems ² |

Transportation Features

| | |
|--|--------------------|
| | Provincial Highway |
| | County Road |
| | Municipal Road |
| | Active Railroad |

Other Features

| | |
|--|-----------------------------|
| | School |
| | Winery |
| | Conservation Area Trailhead |
| | Recreation and Parkland |
| | National Park |
| | Settlement Area |
| | Watercourse |

Note:
 1. This is similar to a one-way cycle track. However, in rural or semi-rural areas where there are no sidewalks, pedestrians may also be permitted to use the one-way cycle path e.g. County Road 20 in Kingsville.
 2. Includes the Waterfront Trail, the Province-wide Cycling Network, the Cypher Systems Group Greenway, and the Great Trail.

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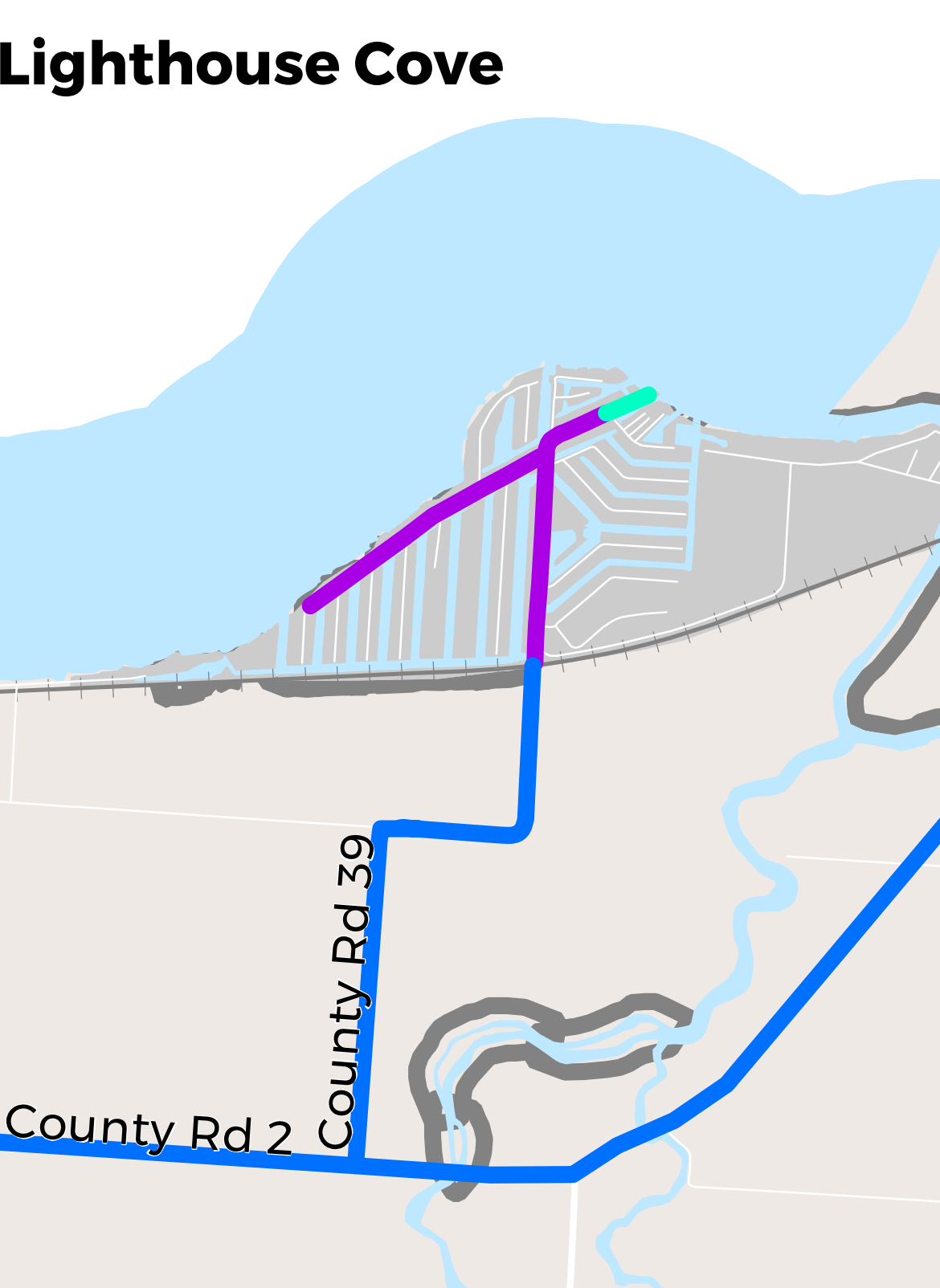
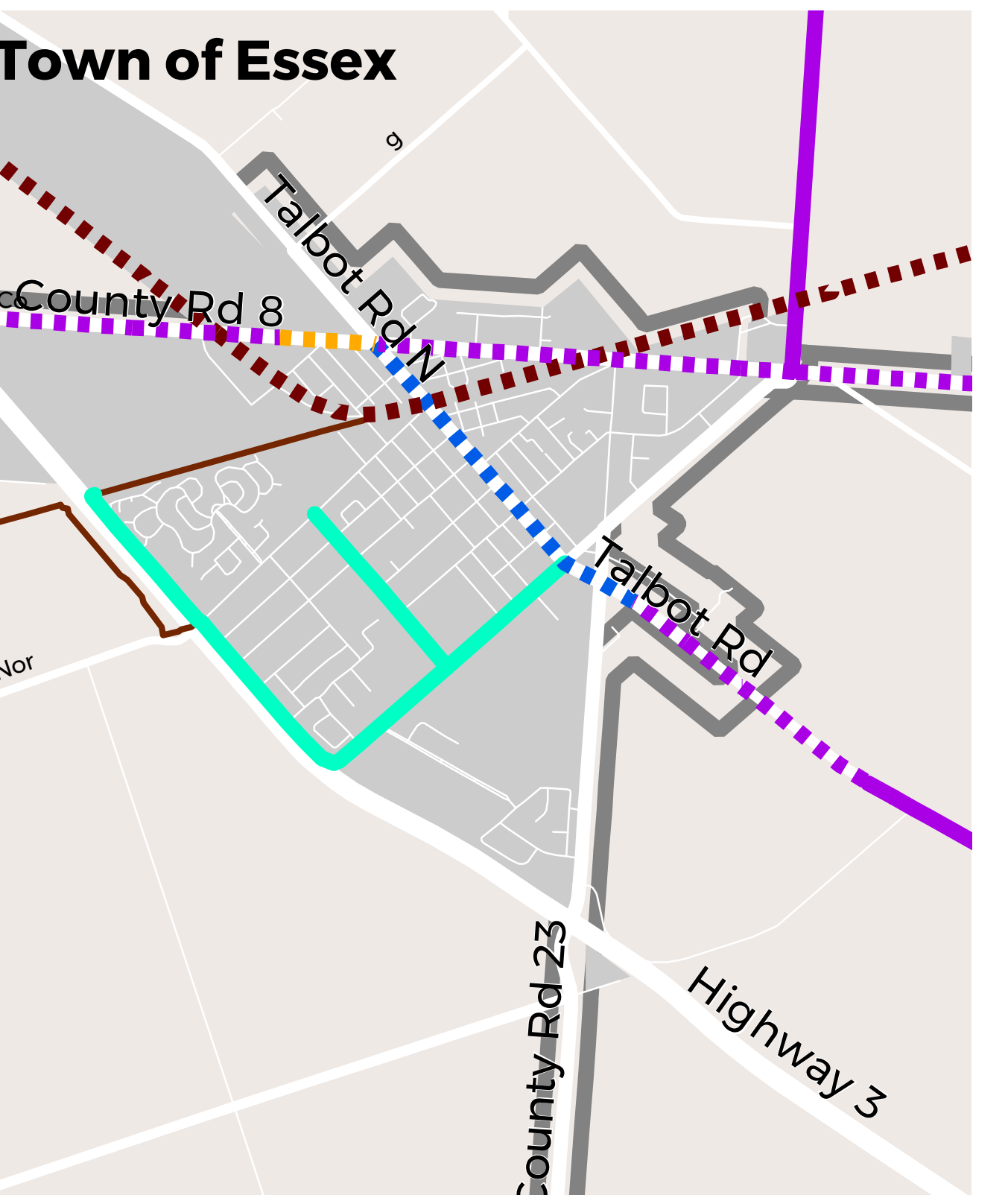
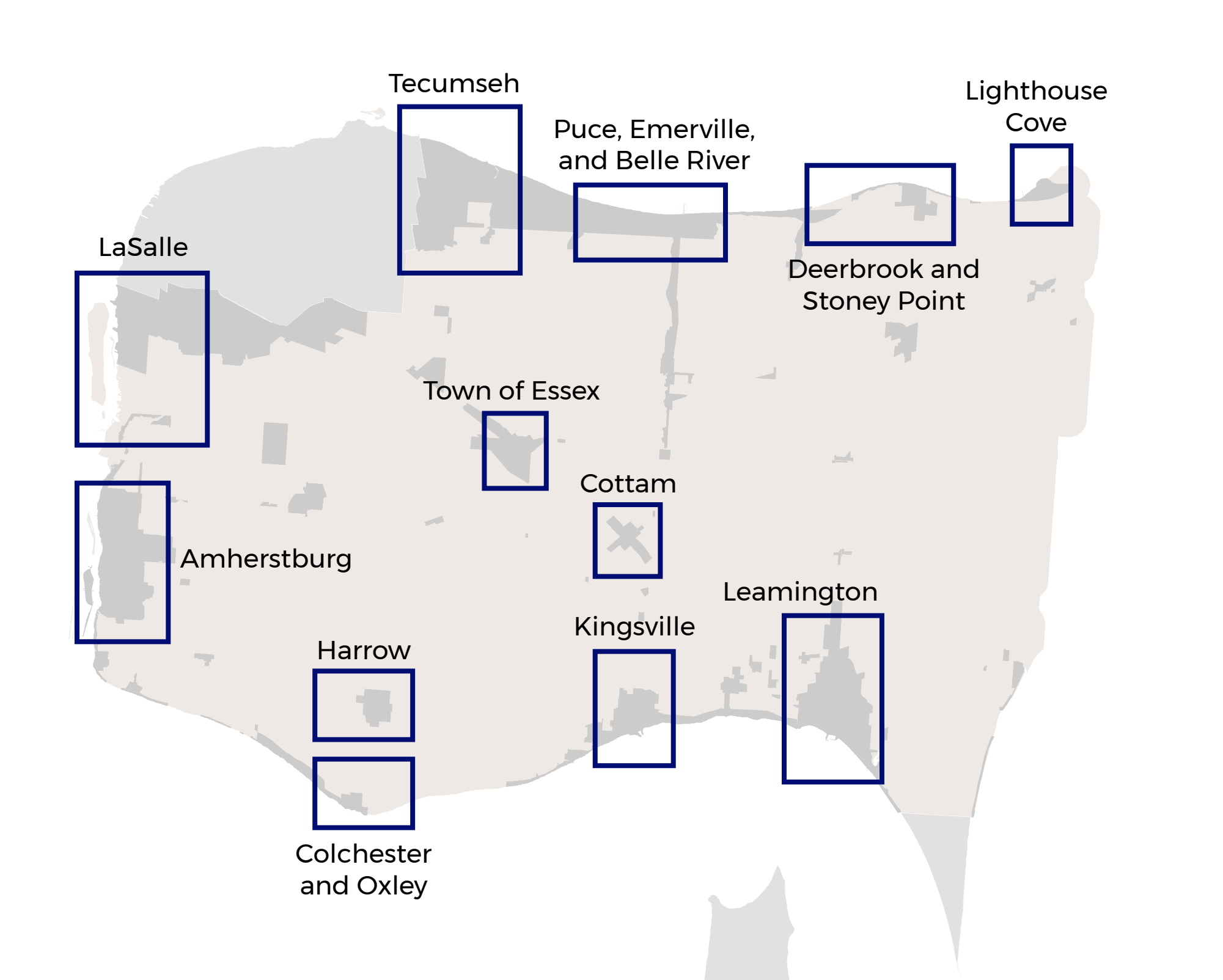
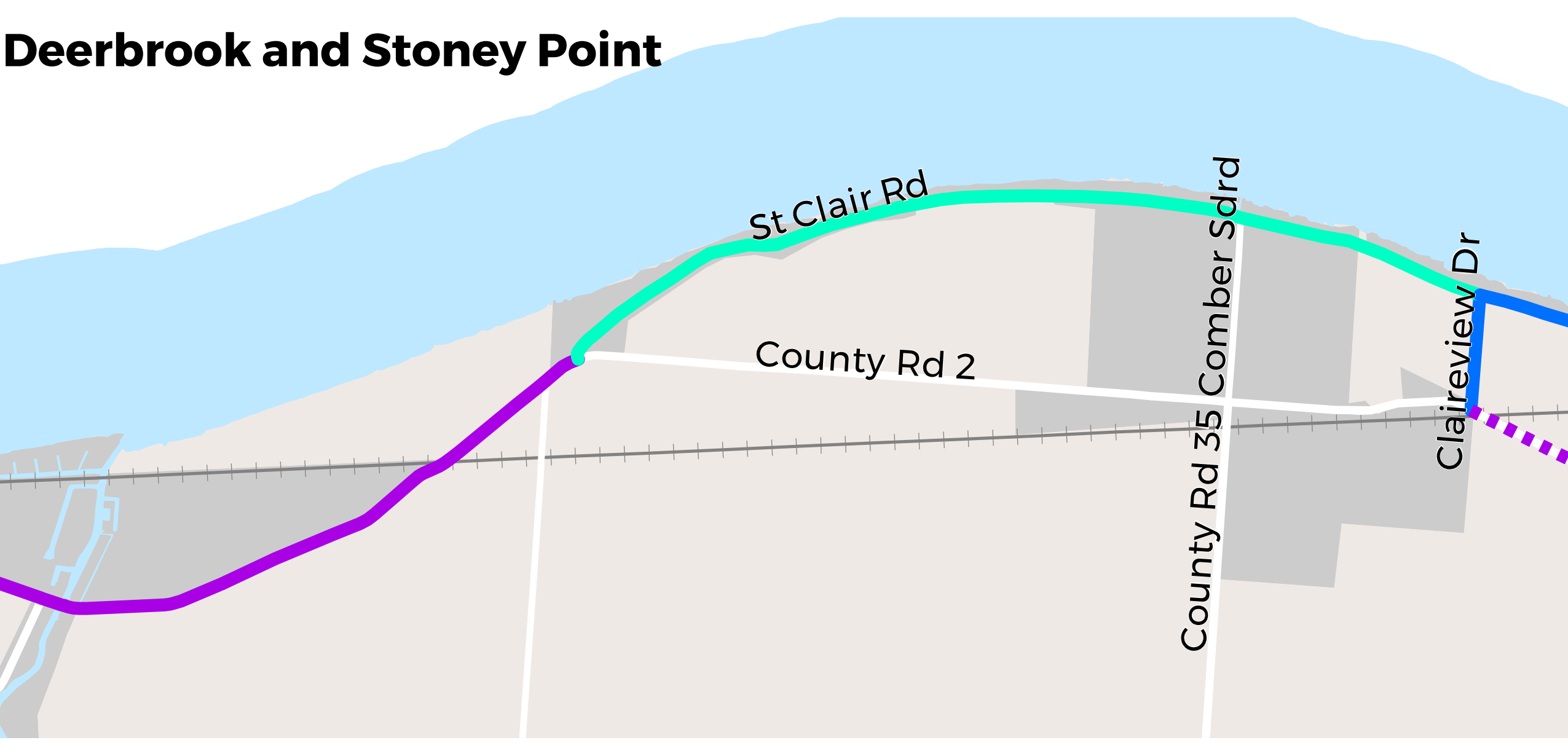
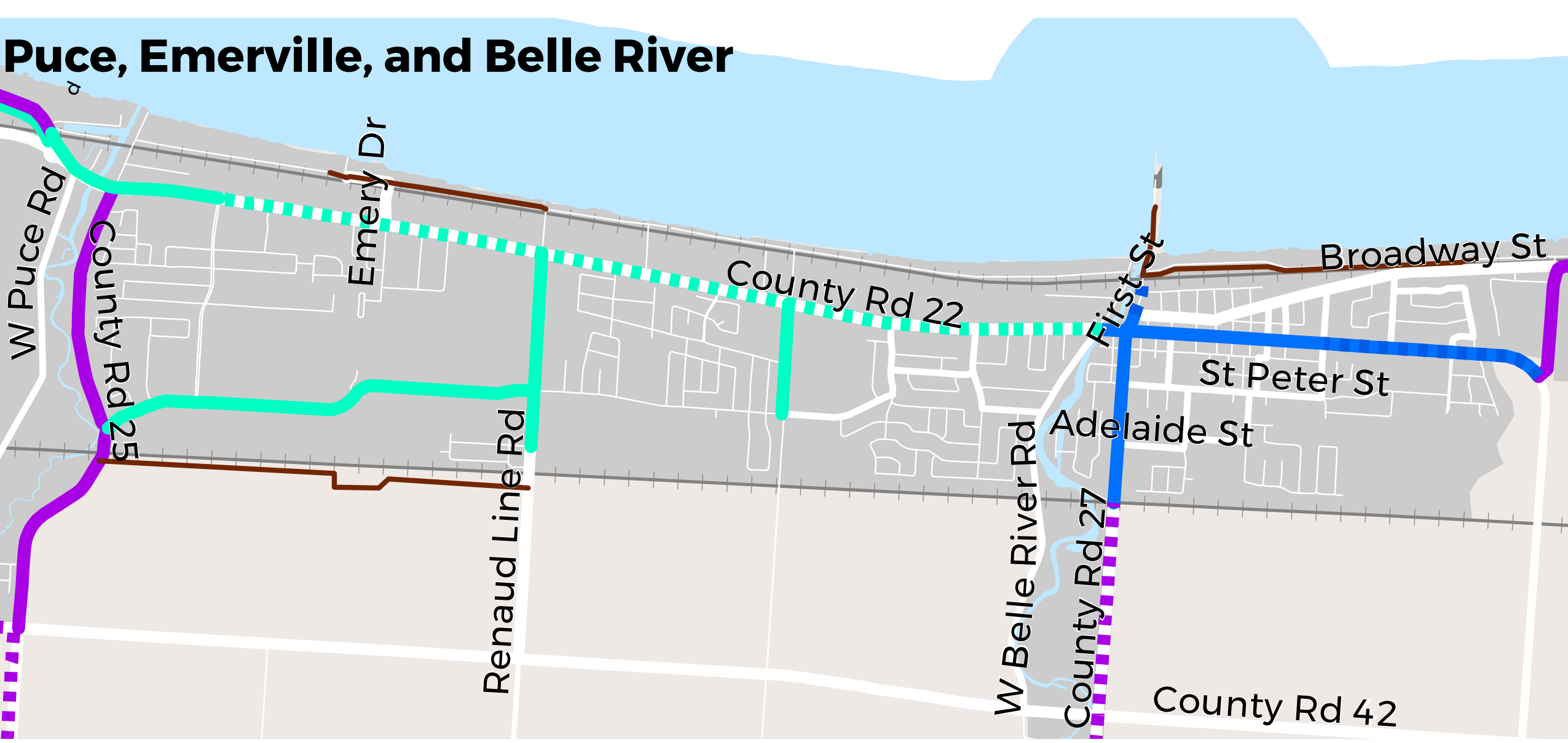
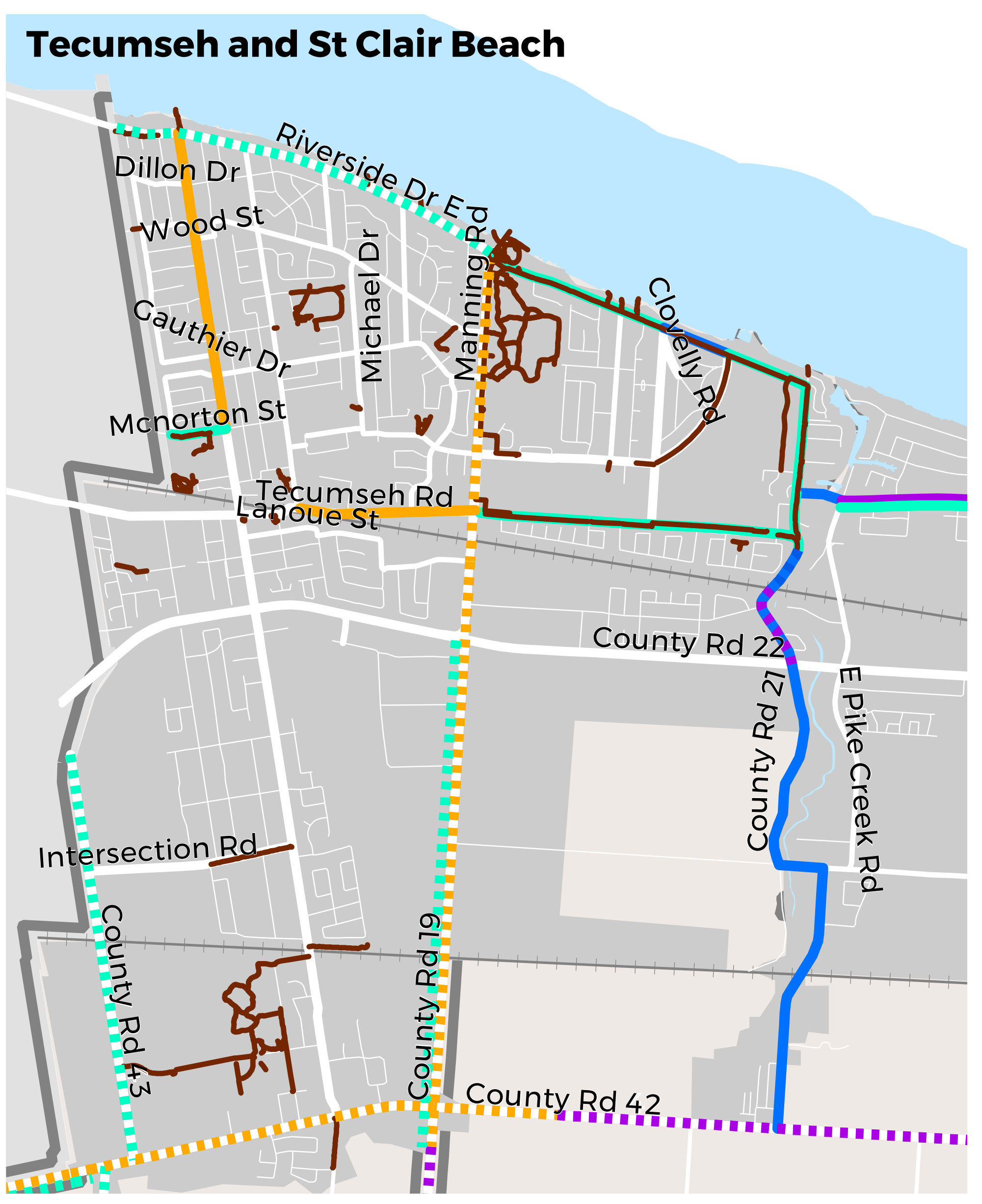
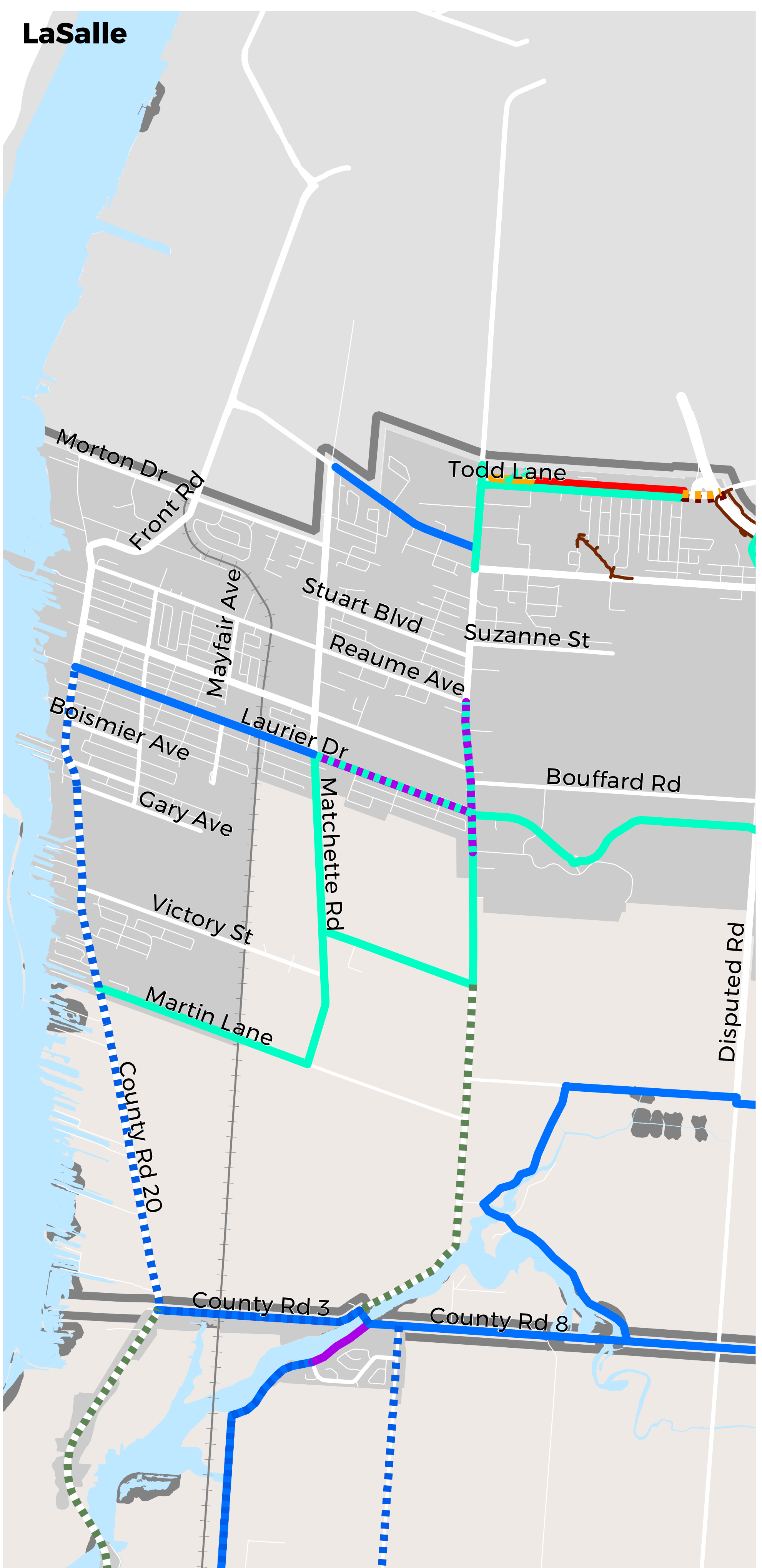
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Existing and Previously Proposed CWATS Network by Facility Type
 County Wide Active Transportation System (CWATS) Master Plan Update

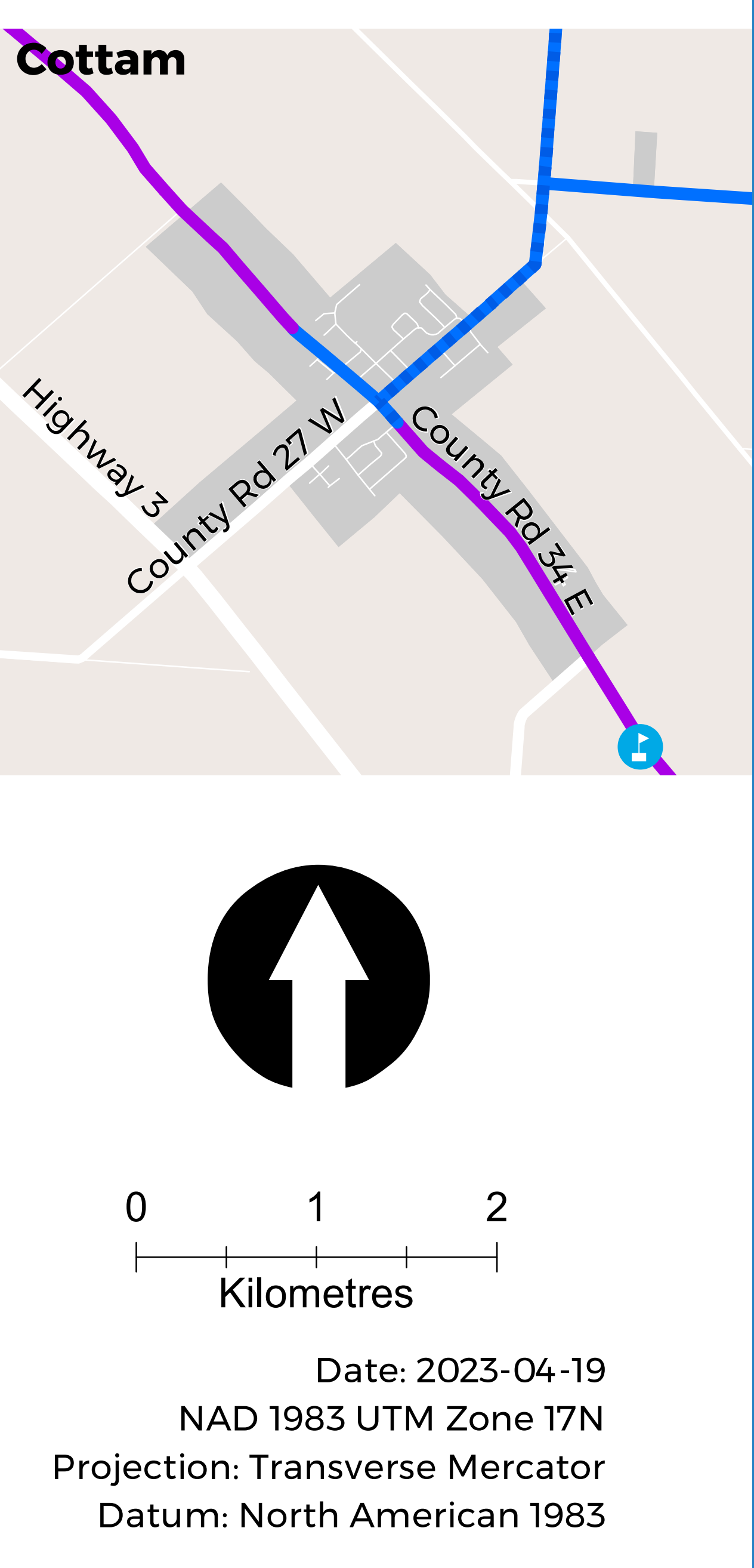
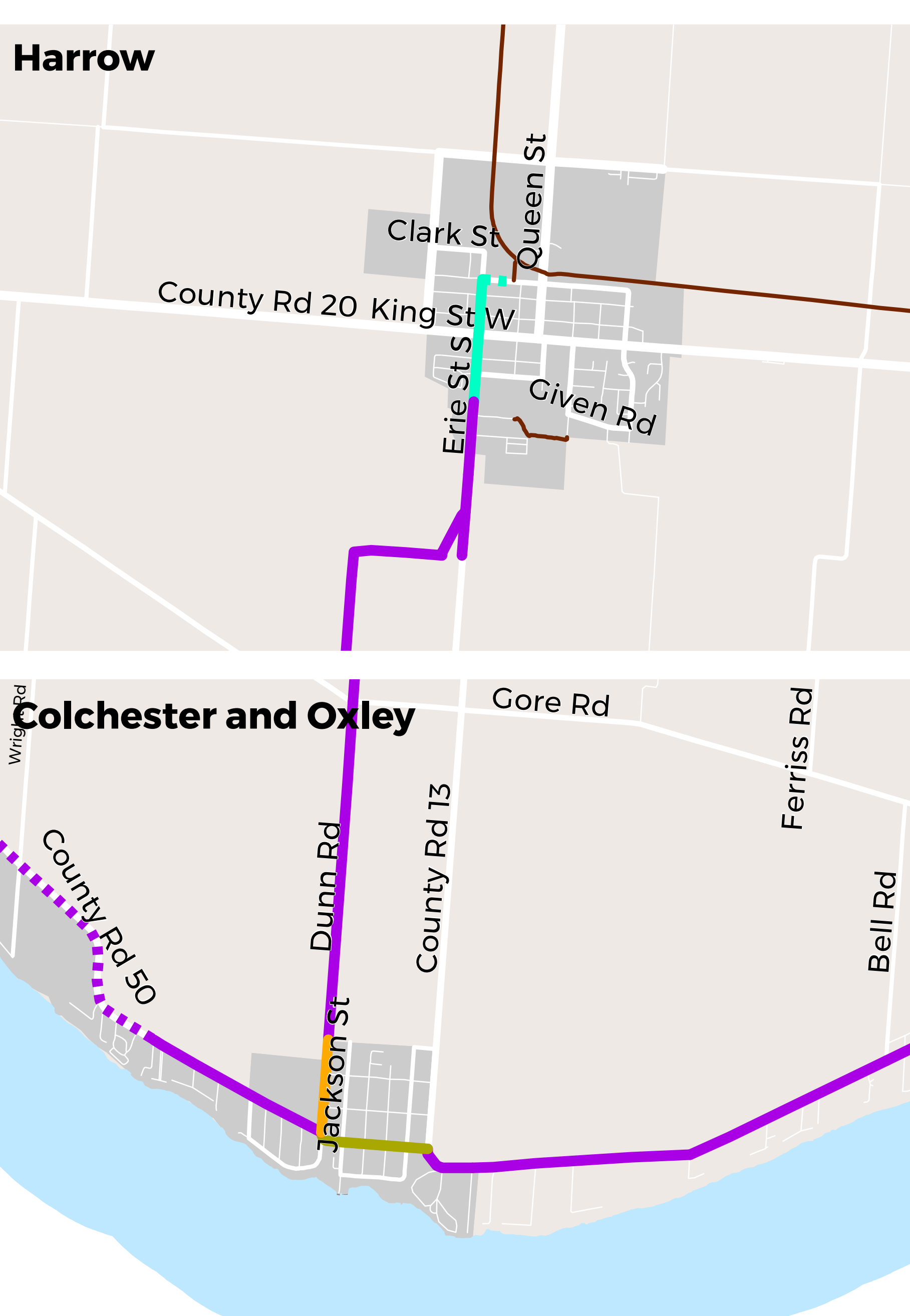
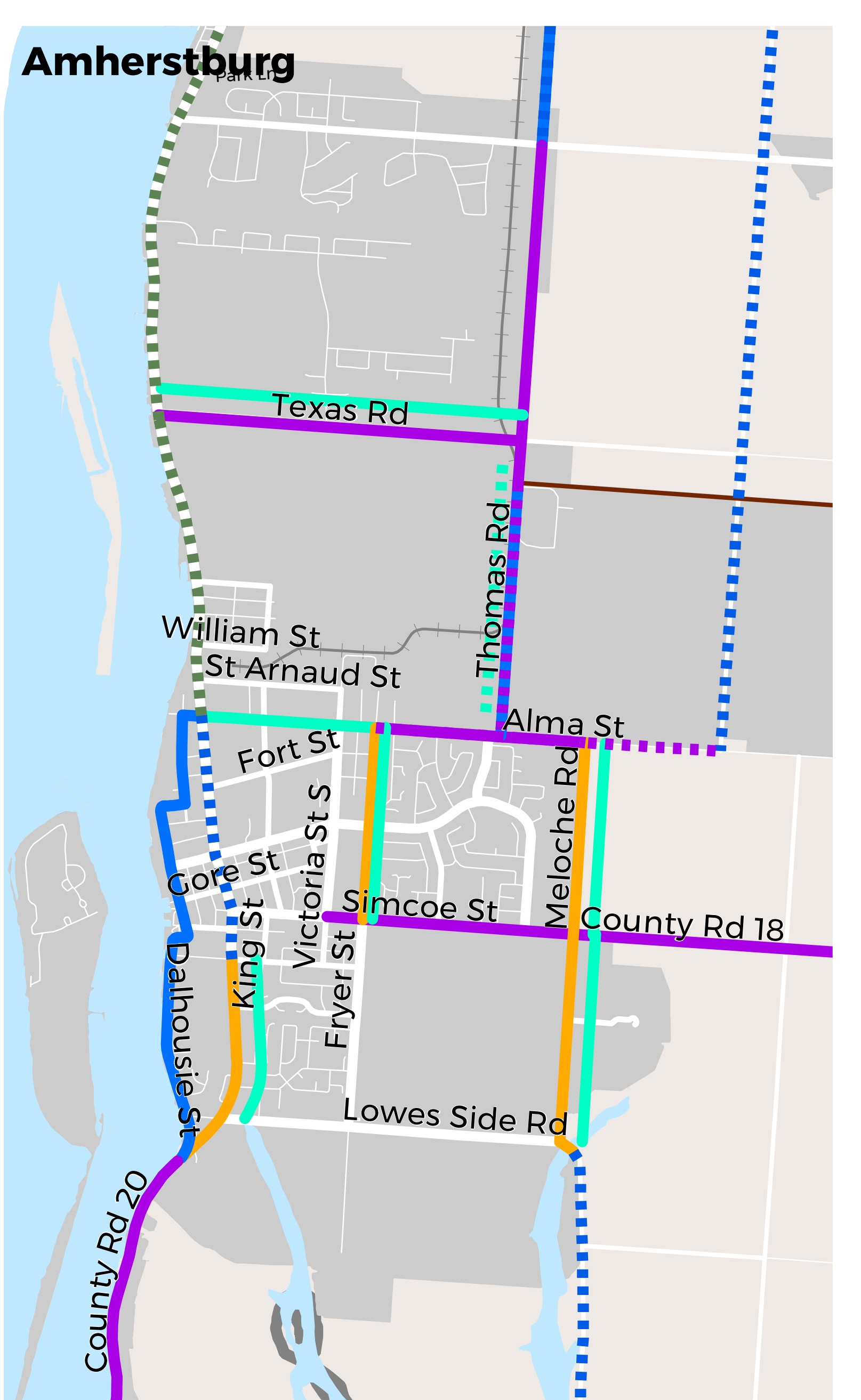


FIGURE 53B

Existing and Previously Proposed CWATS Network by Facility Type (Urban Areas)
County Wide Active Transportation System (CWATS) Master Plan Update



- CWATS Network**
- | | |
|-----------------|--------------------------------------|
| Existing | Previously Proposed |
| | Off-road Multi-use Trail |
| | Two-way Multi-use Pathway |
| | N/A One-way Cycle Track ¹ |
| | N/A Separated Bike Lane |
| | Bike Lane |
| | Paved Shoulder |
| | Signed Route |
| | Context Sensitive Solution |
- Other Connections**
- AT route in Windsor
- Transportation Features**
- Provincial Highway
 - County Road
 - Municipal Road
 - Active Railroad
- Other Features**
- School
 - Winery
 - Conservation Area Trailhead
 - Recreation and Parkland
 - National Park
 - Settlement Area
 - Watercourse



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Date: 2023-04-19
 NAD 1983 UTM Zone 17N
 Projection: Transverse Mercator
 Datum: North American 1983

Table 4: Existing and Previously Proposed (in 2012) CWATS Network by Facility Type

| Facility Type | Existing (km) | Previously Proposed and Not Yet Implemented (km) | Total (km) |
|----------------------------|---------------|--|--------------|
| Off-Road Multi-use Trail | 117.7 | 52.5 | 170.2 |
| Two-Way Multi-use Pathway | 62.8 | 19.8 | 82.6 |
| One-Way Cycle Track | 6.7 | 0.0 | 6.7 |
| Separated Bike Lane | 1.3 | 0.0 | 1.3 |
| Bike Lane | 17.8 | 11.5 | 29.3 |
| Context Sensitive Solution | 0.0 | 12.5 | 12.5 |
| Paved Shoulder | 138.5 | 154.3 | 292.8 |
| Signed Route | 211.3 | 89.3 | 300.6 |
| Total (km) | 556.1 | 339.9 | 896.0 |

Note: The original 2012 CWATS Master Plan envisioned approximately 780 kilometres of on and off-road routes as part of the CWATS Network. Since 2012, a number of additional routes have been added by the County and its local municipalities as new opportunities have emerged.



Figure 54: Cyclist on Dunn Road, Essex
Source: WSP Canada

STEP 2: REVIEW AND CONFIRM ROUTE SELECTION CRITERIA

Prior to developing new criteria and identifying potential new linkages, the criteria originally used in the 2012 plan were reviewed. After reviewing and assessing the CWATS vision and objectives, as well as current best practices, it was confirmed that the original 2012 route selection criteria were still applicable. The criteria were used throughout the network development process to review, update and confirm the preferred routes and facility types to build out the remaining segments of the CWATS network.

In addition, the route selection criteria are meant to be used by County staff as future opportunities arise and / or when changes to the CWATS network are being investigated.

How were the criteria informed?

- 2012 CWATS route selection criteria
- Vision and objectives (refer to Chapter 2)
- Existing guidelines and best practices such as OTM Book 18

How were the criteria applied?

- Potential new linkages (candidate routes) were assessed using the route selection criteria*
- *New candidate routes selected are not intended to fulfill all criteria but can satisfy multiple criteria*

What were the results?

- Any candidate routes that were considered during the network development process were assessed using the route selection criteria
- The criteria are meant to be applied beyond the lifespan of the master plan – the criteria can be used in the future by the County and its partners to assess potential new linkages and opportunities that come up

Table 5: CWATS Route Selection Criteria

| | |
|---------------------|--|
| Safety | Reducing risks to users and providing comfortable and safe facilities is a key consideration when selecting routes for the network. Confidence and acceptance of the network can be instilled in users by reducing real and perceived risk. |
| Visible | The active transportation routes should be a visible component of the transportation system (e.g. signage / markings, illustrated on maps, located on key local and County roads etc.). |
| Direct / Connected | The County network should link communities, key destinations and connect with all on and off-road networks. |
| Destinations | Active Transportation routes should provide access to major destinations in the County and its local municipalities including town and city centres, natural, cultural and service facilities, as well as routes to school, community and neighbourhood parks, shopping facilities and employment areas. |
| Modal | The active transportation network should be integrated with other modes of transportation, including public transit. |
| Attractive / Scenic | Active Transportation routes should take advantage of attractive and scenic areas, views and vistas. |
| Diverse Experience | The active transportation network should provide a diverse on and off-road walking and cycling experience throughout the County and local municipalities. |
| Locally Integrated | Active Transportation routes should well integrated into local neighborhoods within the County and its local municipalities. Every effort should be made to connect to existing and future routes of the local municipalities. |
| V Variety of Routes | The system should be designed to appeal to a range of user abilities and interests and support transportation choice and equity. |
| Cost Effective | The cost to implement and maintain proposed AT network facilities and supporting programs should be phased over time and designed to be affordable and appropriate in scale for the County and its individual municipalities. Opportunities for partnership funding from other non-local government sources (e.g. Provincial and Federal Governments, Essex Region Conservation Authority and the private sector) should be pursued. |
| Supportive Services | Supportive services and facilities such as benches and bicycle parking should be available along routes and at destinations. Routes should be selected that provide opportunities to develop supportive facilities. |
| Universal Access | The network should strive to improve the mobility of all, including those with specific accessibility considerations. |

STEP 3: IDENTIFY NEW CANDIDATE ROUTES

A candidate route represents a potential connection that could form part of the CWATS network. Candidate routes were identified using the route selection criteria (see step 2) and input received over the course of the study. Candidate routes were assessed based on their ability to complete gaps in the existing and previously proposed CWATS network, connect to surrounding municipal AT networks (such as Windsor) and enhance connections to regional trail systems.

All of the potential candidate routes were mapped and reviewed by County staff, local municipal staff, the CWATS Committee and members of the public. The new candidate routes identified for inclusion in the CWATS network are summarized in **Table 6** and illustrated in **Figure 55**.

Table 6: Summary of New Candidate CWATS Routes

| Proposed Segment ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | Proposed Facility Type |
|---------------------|--------------------|----------------------------|-------------------------|------------------------|-------------|-------------------------|
| Amh-26a | County Road 10 | County Road 20 | 2nd Concession North | Amherstburg | 2.3 | Buffered Paved Shoulder |
| Amh-26b | County Road 10 | 2nd Concession North | Cypher Systems Greenway | Amherstburg | 8.6 | Buffered Paved Shoulder |
| Amh-26c | County Road 10 | Cypher Systems Greenway | County Road 11 | Amherstburg | 1.0 | Buffered Paved Shoulder |
| Amh-27 | County Road 10 | Cypher Systems Greenway | County Road 11 | Amherstburg | 1.0 | Multi-Use Path |
| Amh-29a | County Road 20 | County Road 50 | Edge of Urban Area | Amherstburg | 0.4 | Paved Shoulder |
| Amh-29b | County Road 20 | Edge of Urban Area | County Road 20 | Amherstburg | 2.9 | Paved Shoulder |
| Ess-30 | Concession Road 11 | County Road 11 | Chrysler Greenway | Essex | 1.5 | Signed Route |
| Ess-31 | County Road 20 | County Road 20 | County Road 13 | Essex | 6.6 | Paved Shoulder |
| Ess-32 | County Rd 34 | Wilson Sideroad | County Road 8 | Essex | 2.4 | Buffered Paved Shoulder |
| Ess-33 | North Malden Road | Batten Road | Highway 3 | Essex | 0.5 | Paved Shoulder |
| Ess-34 | Batten Road | County Road 12 | North Malden Road | Essex | 2.1 | Signed Route |
| Ess-36 | County Road 12 | County Road 15 | Batten Road | Essex | 6.1 | Paved Shoulder |
| Ess-37 | Maidstone Trail | Amherstburg-Essex Greenway | County Road 8 | Essex | 0.9 | Multi-Use Path |
| Ess-38a | Iler Road | County Road 50 | County Road 20 | Essex | 4.1 | Paved Shoulder |
| Ess-38b | County Road 20 | County Road 23 | Iler Road | Essex | 1.9 | Buffered Paved Shoulder |
| Ess-38c | County Road 23 | County Road 20 | Chrysler Greenway | Essex | 0.3 | Buffered Paved Shoulder |

| Proposed Segment ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | Proposed Facility Type |
|---------------------|---------------------------------------|---|---|------------------------|-------------|------------------------|
| Ess-39 | Concession Road 5 | County Road 15 | Chrysler Greenway | Essex | 0.4 | Paved Shoulder |
| Ess-40a | County Road 11 | Chrysler Canada Greenway | 3rd Concession Road | Essex | 0.7 | Paved Shoulder |
| Ess-40b | County Road 11 | 3rd Concession Rd | County Road 15 | Essex | 2.2 | Paved Shoulder |
| Tec-25 | Lauzon Parkway | 291m north of the centreline of Hwy 401 | 291m south of the centreline of Hwy 401 | Tecumseh | 1.1 | Multi-Use Path |
| Tec-27 | Lauzon Parkway / Hwy 401 & A/T Bridge | ~291m north of the centreline of Hwy 401 | ~291m south of the centreline of Hwy 401 | Tecumseh | 0.9 | Multi-Use Path |
| Tec-29 | Concession Road 9 | South Talbot Road | County Road 8 | Tecumseh | 3.4 | Signed Route |
| Tec-32 | Lauzon Parkway | County Road 46 | Sexton Side Road (~440m south Hwy3) | Tecumseh | 2.8 | Multi-Use Path |
| Tec-28 | Tecumseh Road | Lacasse Boulevard | City of Windsor | Tecumseh | 1.3 | Protected Bike Lanes |
| Tec-30 | Lesperance Road | Tecumseh Road | McNorton Street | Tecumseh | 0.5 | Bike Lanes |
| Tec-31 | Dillon Drive | Windsor Border | Lesperance Road | Tecumseh | 0.4 | Signed Route |
| Tec-33 | 8th Concession Road | County Rd 46 | Windsor Boundary | Tecumseh | 0.6 | Signed Route |
| Tec-34 | North Talbot Road | O'Neil Street | 9th Concession Road | Tecumseh | 2.0 | Multi-Use Path |
| Tec-22 | County Road 42 | 200 W of Concession Road 11 | Concession Road 11 | Tecumseh | 0.1 | Multi-Use Path |
| Tec-23 | County Rd 42 | 215m west of County Road 42 / County Road 43 (south) intersection | Proposed County Road 42 / County Road 43 intersection | Tecumseh | 0.1 | Bike Lane |
| Tec-24 | County Road 42 | Proposed County Road 42 / County Road 43 intersection | County Road 19 | Tecumseh | 2.1 | Bike Lane |
| Tec-35 | County Road 42 | City / County Jurisdictional Boundary | 215m west of County Road 42 / County Road 43 (south) intersection | Tecumseh | 0.6 | Multi-Use Path |

| Proposed Segment ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | Proposed Facility Type |
|---------------------|----------------------------|---------------------------------------|---|------------------------|-------------|------------------------|
| Tec-36 | County Road 42 | City / County Jurisdictional Boundary | 215m west of County Road 42 / County Road 43 (south) intersection | Tecumseh | 0.6 | Bike Lane |
| Lake-39a | County Road 42 | County Road 19 | 220m east of County Road 19 | Lakeshore | 0.2 | Paved Shoulder |
| Lake-39b | County Road 42 | 220m east of County Road 19 | 750m east of County Road 19 | Lakeshore | 0.5 | Paved Shoulder |
| Lake-40a | County Road 42 | 750m east of County Road 19 | 9th Concession Road | Lakeshore | 0.8 | Paved Shoulder |
| Lake-40b | County Road 42 | 9th Concession Road | County Road 21 | Lakeshore | 0.5 | Paved Shoulder |
| Lake-41a | County Road 42 | Lakeshore Road 105 | West Puce Road | Lakeshore | 2.2 | Paved Shoulder |
| Lake-41b | County Road 42 | West Puce Road | County Road 25 | Lakeshore | 0.5 | Paved Shoulder |
| Lake-42 | County Road 31 | County Road 2 | County Road 42 | Lakeshore | 2.7 | Paved Shoulder |
| Lake-43 | County Road 42 | County Road 31 | 65m West of Aimee Street | Lakeshore | 0.4 | Separated Bike Lane |
| Lake-47 | East Ruscom River Rd | County Road 2 | County Road 42 | Lakeshore | 2.6 | Signed Route |
| Lake-49 | County Road 42 | 65m West of Aimee Street | East Ruscom River Road | Lakeshore | 0.2 | Paved Shoulder |
| Lake-44 | County Road 31 | County Road 42 | Highway 401 | Lakeshore | 4.3 | Paved Shoulder |
| Lake-45 | County Road 31 | Highway 401 | S Middle Road | Lakeshore | 4.1 | Paved Shoulder |
| Lake-46 | County Road 31 | S Middle Road | County Road 8 | Lakeshore | 3.1 | Paved Shoulder |
| Lake-48a | Puce Road / County Road 25 | County Road 42 | County Road 46 | Lakeshore | 6.9 | Paved Shoulder |
| Lake-48b | County Road 46 | County Road 25 | County Road 23 | Lakeshore | 1.3 | Paved Shoulder |
| Lake-48c | County Road 23 | County Road 46 | County Road 8 | Lakeshore | 1.2 | Paved Shoulder |
| Lake-50 | Renaud Line Road | Shoreline Avenue | County Road 22 | Lakeshore | 0.2 | Signed Route |
| Lake-51 | Lilydale Avenue | Waterfront Trail | Puce Road | Lakeshore | 1.1 | Signed Route |
| Lake-52 | Puce Road | Lilydale Avenue | County Road 22 | Lakeshore | 0.3 | Signed Route |
| Lake-53a | County Road 2 | St. Clair Road | 250m east of St Clair Road | Lakeshore | 0.2 | Paved Shoulder |
| Lake-53b | County Road 2 | 250m east of St Clair Road | 730m west of Hale Street | Lakeshore | 2.1 | Paved Shoulder |
| Lake-53c | County Road 2 | 730m west of Hale Street | Claireview Drive | Lakeshore | 2.5 | Paved Shoulder |

| Proposed Segment ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | Proposed Facility Type |
|---------------------|--------------------------------|--|--|------------------------|-------------|-------------------------|
| Lake-54 | Renaud Line Road | Rosewood Drive | Earthwalk Trail | Lakeshore | 0.2 | Multi-Use Path |
| Leam-33 | County Road 34 | Fraser Road | Crest View Drive | Leamington | 1.2 | Buffered Paved Shoulder |
| Leam-34 | Sherk St | Oak Street | Seacliff Drive West | Leamington | 0.1 | Bike Lane |
| Leam-35 | County Road 33 | County Road 34 | Seacliff Drive East / Mersea Road 1 | Leamington | 2.1 | Buffered Paved Shoulder |
| Leam-36 | Talbot Road | Meadow Brook Church driveway | County Road 33 | Leamington | 0.4 | Cycle Track |
| Leam-37 | County Road 37 | County Road 34 | Mersea Road 5 | Leamington | 2.0 | Paved Shoulder |
| Leam-38a | Mersea Road 19 | Talbot Road | Deer Run Road | Leamington | 2.1 | Paved Shoulder |
| Leam-38b | Deer Run Road | Mersea Road 19 | Mersea Road 19 | Leamington | 0.5 | Paved Shoulder |
| Leam-38c | Mersea Road 19 | Deer Run Road | Mersea Road 2 | Leamington | 1.4 | Paved Shoulder |
| Leam-39 | Erie St | Talbot Road | Marlborough Street East | Leamington | 0.3 | Signed Route |
| Leam-40 | Multi-Use Trail | CASO Corridor | County Road 46 | Leamington | 1.2 | Multi-Use Trail |
| Las-16a | Matchette Rd | Morton Drive | Sprucewood Avenue | LaSalle | 0.7 | Separated Bike Lane |
| Las-16b | Matchette Rd | Laurier Drive | Morton Drive | LaSalle | 1.8 | Separated Bike Lane |
| Las-17 | Morton Drive | Front Road | Matchette Road | LaSalle | 1.2 | Multi-Use Path |
| Las-18 | County Rd 3 | Normandy Street | Reaume Avenue | LaSalle | 1.1 | Multi-Use Path |
| Las-19a | Trail Connection along Railway | Martin Lane | Front Road | LaSalle | 5.0 | Multi-Use Trail |
| Las-19b | Trail Connection along Railway | Martin Lane | County Road 3 | LaSalle | 2.4 | Multi-Use Trail |
| Las-20a | Chrysler Greenway | MUP north of Todd Lane | Neighbourhood Trail near Delmar Street | LaSalle | 0.7 | Multi-Use Trail |
| Las-20b | Chrysler Greenway | Neighbourhood Trail near Delmar Street | County Road 9 | LaSalle | 4.7 | Multi-Use Trail |
| Las-20c | Chrysler Greenway | Todd Lane | Windsor Boundary | LaSalle | 0.3 | Multi-Use Trail |
| Kings-28 | Mccain Sideroad | Chrysler Greenway | County Road 50 | Kingsville | 2.0 | Paved Shoulder |
| Kings-29 | Conservation Boulevard | County Road 20 | County Road 50 | Kingsville | 1.6 | Paved Shoulder |
| Kings-30 | County Road 20 | Mccain Sideroad | Heritage Road | Kingsville | 2.8 | Paved Shoulder |
| COE-16 | County Road 20 | County Road 20 | County Road 20 | County | 1.5 | Paved Shoulder |

| Proposed Segment ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | Proposed Facility Type |
|---------------------|----------------|----------------------------|----------------|------------------------|-------------|------------------------------------|
| COE-17a | County Road 33 | 350m south of Monarch Lane | Mersea Road 12 | Leamington | 1.7 | Multi-Use Path |
| COE-17b | County Road 33 | 350m south of Monarch Lane | Mersea Road 12 | Leamington | 0.8 | Signed Route / Advisory Bike Lanes |
| COE-17c | County Road 33 | 350m south of Monarch Lane | Mersea Road 12 | Leamington | 0.9 | Paved Shoulder |
| COE-17d | County Road 33 | Mersea Road 12 | Mersea Road E | Leamington | 1.4 | Paved Shoulder |

Figure 55: Proposed New Candidate CWATS Routes



Approximately 150 kilometres of new candidate routes were identified. These routes were further assessed using the route selection criteria (refer to step 2) and through field investigations (refer to step 4). In addition, the routes were screened based on input provided by County staff, local municipal staff and the CWATS Committee. Building upon the field work findings and feedback collected, a refined CWATS network was then identified (refer to step 5).

Similar to the approach used for the 2012 plan, the proposed pedestrian component of the AT network focuses on trails, connections to local municipal sidewalk systems and the development of a set of pedestrian supportive actions and guidelines for both the County and its local municipalities.



Figure 56: Cycle Tracks on County Road 20, Leamington

Source: WSP Canada

STEP 4: UNDERTAKE FIELD INVESTIGATIONS

Field investigations were undertaken to better understand the locations of existing routes, previously proposed routes and new candidate routes for the CWATS network. Photos and information were documented for each route and the locations investigated, including observed traffic speed and volume, roadway width, on-street parking, surrounding land uses and local destinations. These field investigations were supplemented by a desktop review using both GIS data from the County and online street-view imagery allowing the team to revisit specific routes throughout the study process.

Information gathered during the field investigations and desktop reviews informed the refinement of potential candidate CWATS routes and preferred facility types (refer to step 5). Field observations were also used to help identify potential locations where consideration could be given to enhancing the intersection between an existing on-road route and off-road trail crossing and the roadway. **Figure 57** illustrates the location of photos taken during field investigations.

- Example of field data collected:**
 - Observed traffic speed
 - Observed traffic volume
 - Truck traffic
 - Available road platform / width
 - Presence of users
 - Density of driveways
 - Use of on-street parking
- Example of desktop data collected:**
 - Posted speed
 - Recorded traffic volume
 - Road classification
 - Curb-to-curb road width
 - Proximity to existing routes
 - Boulevard space



Figure 57: Field Work Photo Locations

STEP 5: CONFIRM THE CWATS NETWORK AND FACILITY TYPES

A key component to the update of the CWATS Master Plan included reviewing, validating and revising the following components of the CWATS network:

- Existing facility types;
- Previously proposed facility types; and
- Proposed new routes.

Based on the findings from Steps 1 to 4 and feedback collected from County staff, local municipal staff, the CWATS Committee and members of the public, the CWATS network and preferred routes were confirmed. Once the CWATS network was confirmed, all facility types (existing and proposed) were reassessed to determine their appropriateness based on current best practices and design standards. The reassessment was completed by taking into consideration the current roadway context and the 2021 edition of OTM Book 18's facility selection process.

Apply OTM Book 18: Multi-Step Approach

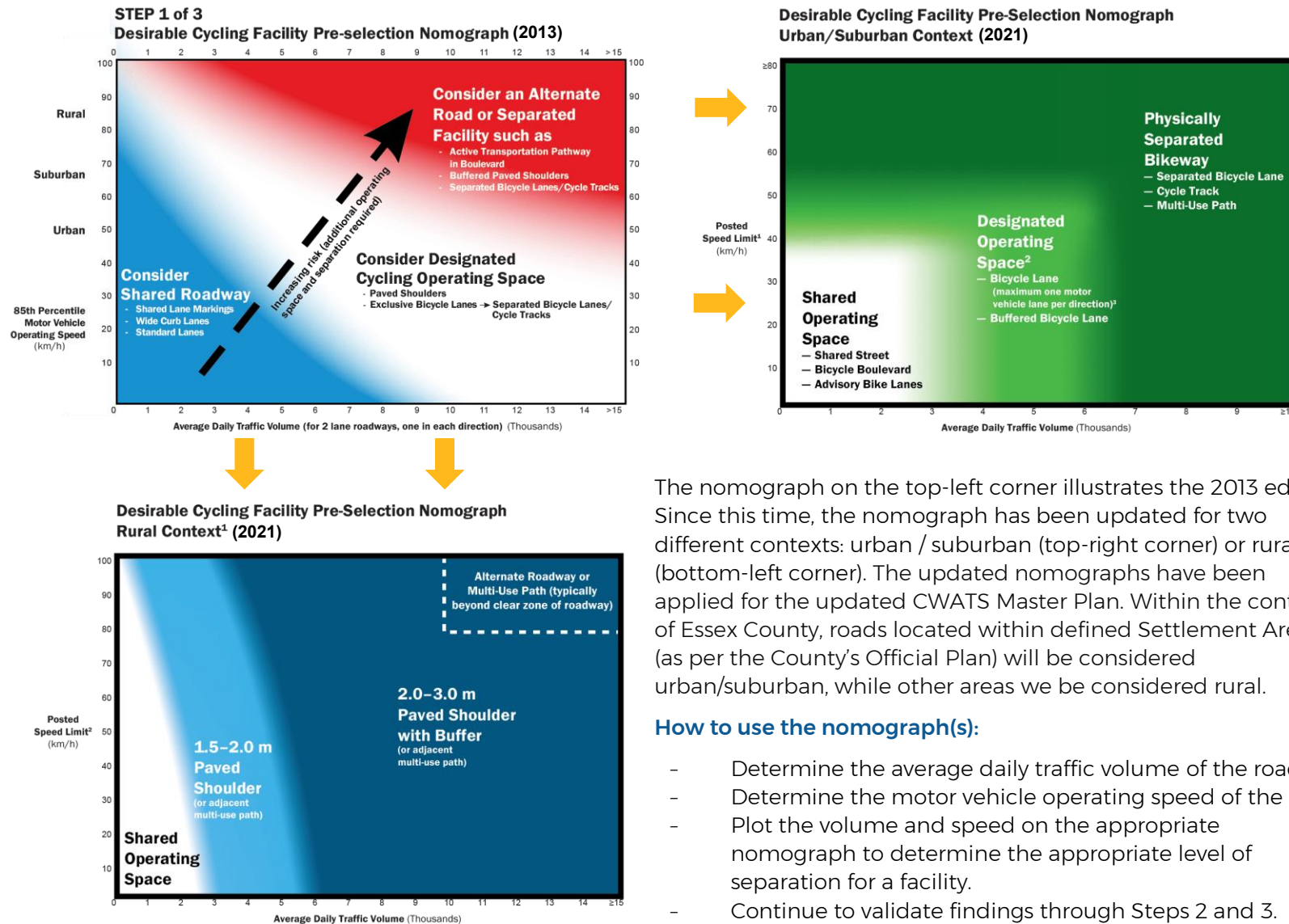
The original (2013) OTM Book 18 facility selection process took into consideration the operating speed (how fast motor vehicles are travelling on the road) and volume (how many cars are on the road) to determine an appropriate level of separation for an on-road facility (Step 1). As part of this 2021 update, the step has now been refined to take into consideration different thresholds for levels of separation based on the road type (rural roads vs urban / suburban roads). For example, the need to have designated or separated cycling facilities will be identified on roads that have lower traffic volumes and speeds compared to what was identified in the 2013 edition of OTM Book 18.

The outcome of Step 1 is not conclusive by itself. It is very important that the pre-selected facility types be validated through Step 2 and Step 3. A set of application heuristics or knowledge-based criteria have been developed to aid practitioners in Step 2. The conclusions and potential next steps should be documented as part of Step 3. The updated three-step process is presented in **Figure 58**.

In addition to the 2021 OTM Book 18 three-step facility selection process, the following factors were taken into consideration to refine and confirm the preferred facility types:

- Findings from field investigations and desktop analysis;
- Input from County staff, local municipal staff, the CWATS Committee and members of the public;
- Planned CWATS infrastructure projects; and
- Sound engineering and planning judgement.

OTM Book 18 Step 1: Pre-select facility type options



The nomograph on the top-left corner illustrates the 2013 edition. Since this time, the nomograph has been updated for two different contexts: urban / suburban (top-right corner) or rural (bottom-left corner). The updated nomographs have been applied for the updated CWATS Master Plan. Within the context of Essex County, roads located within defined Settlement Areas (as per the County's Official Plan) will be considered urban/suburban, while other areas we be considered rural.

How to use the nomograph(s):

- Determine the average daily traffic volume of the road.
- Determine the motor vehicle operating speed of the road.
- Plot the volume and speed on the appropriate nomograph to determine the appropriate level of separation for a facility.
- Continue to validate findings through Steps 2 and 3.

Figure 58: OTM Book 18 Three-Step Facility Selection Process

OTM Book 18 Step 2: Detailed and contextual evaluation

In Step 2, practitioners should conduct desktop reviews and field investigations to better understand the context of the corridor. The intent is to have sufficient evidence to confirm whether or not the level of separation and facility type pre-selected in Step 1 are suitable for the context of the roadway. A set of rules, also known as “application heuristics” in OTM Book 18, has been developed to link between specific site conditions and the appropriate facility types and supplementary design features.

| Key Inputs | | Process Overview |
|---|--|--|
| <p>Roadway Characteristics</p> <ul style="list-style-type: none"> - Speed - Volumes - Function - Vehicle mix - On-street parking - Pedestrian activity - Intersection frequency - Operations | <p>Feasibility</p> <ul style="list-style-type: none"> - Available space - Project type <p>Attractiveness</p> <ul style="list-style-type: none"> - User skill level and stress tolerance - Level of bicycle use - Cycling route function | <ul style="list-style-type: none"> - Apply and evaluate the key inputs to the corridor. - Determine the most appropriate facility type by using the heuristic summary to rank each relative to the characterizes listed adjacent (see Figure 59: OTM Book 18’s Roadway Characteristics Application Heuristics Evaluative Form). The appropriateness of each facility type is reflected in the scores received. - Conduct field investigations and create documentation including photos to address rankings requiring context specific evaluation. |
| Outcomes | | |
| <ul style="list-style-type: none"> - Identify an appropriate level of separation and facility type that matches the context of the road. - Identify road contexts that require a higher level of separation or unique mitigation actions. | | |

OTM Book 18 Step 3: Detailed and justify

- a. If the result of Step 2 differs from the level of separation and facility type options in Step 1, prepare a rationale for selecting a different facility type or separation option.
- b. Identify the specific application heuristics that were applied and reviewed in detail to come to a conclusion and rationale.
- c. Identify potential design treatments and enhancements that may mitigate potential issues identified through the review of the application heuristics.

| | Shared Roadway | Neighbourhood Bikeway | Rural Paved Shoulder | Advisory Bike Lane | Bicycle Lane | Buffered Bicycle Lane | Separated Bicycle Lane | Cycle Track | Multi-Use Pathway |
|---|--|--|--|--|--|--|--|-----------------------------------|--|
| Motor Vehicle Speed | | | | | | | | | |
| 30 km/hr or less | Typically appropriate for context | Typically appropriate for context | Requires further context specific evaluation | Requires further context specific evaluation | | | | | |
| 40 km/hr | Requires further context specific evaluation | Requires further context specific evaluation | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| 50 km/hr | | | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| 60 km/hr | | | Requires further context specific evaluation | | | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| 70 to 90 km/hr | | | Requires further context specific evaluation | | | | | Typically appropriate for context | Typically appropriate for context |
| Over 90 km/hr | | | | | | | | Typically appropriate for context | Typically appropriate for context |
| Motor Vehicle Volumes | | | | | | | | | |
| <1,500 vehicles/day | Typically appropriate for context | Typically appropriate for context | Requires further context specific evaluation | Requires further context specific evaluation | Requires further context specific evaluation | Requires further context specific evaluation | | | |
| 1,500 to 3,000 vpd | Requires further context specific evaluation | Requires further context specific evaluation | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| 3,000 to 6,000 vpd | | | Requires further context specific evaluation | Requires further context specific evaluation | Requires further context specific evaluation | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| 6,000 to 10,000 vpd | | | Requires further context specific evaluation | | | | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| >10,000 vpd | | | | | | | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context |
| Function of Street / Road / Highway | | | | | | | | | |
| Access roads (local streets) | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Requires further context specific evaluation | Requires further context specific evaluation | Requires further context specific evaluation | | | |
| Both mobility and access roads (minor collectors) | | | Requires further context specific evaluation | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| Mobility roads (major collector and arterials) | | | Requires further context specific evaluation | | Requires further context specific evaluation | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| Vehicle Mix | | | | | | | | | |
| More than 30 trucks/buses per hour in curb land | | | Requires further context specific evaluation | | | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| Bus stops located along route | | | Requires further context specific evaluation | | Requires further context specific evaluation | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| Pedestrian Activity | | | | | | | | | |
| Low Pedestrian Volumes | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context |
| High Pedestrian Volumes | Typically appropriate for context | Typically appropriate for context | Requires further context specific evaluation | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Typically appropriate for context | Requires further context specific evaluation |

| | |
|--|--|
| | Typically appropriate for context |
| | Requires further context specific evaluation |

Figure 59: OTM Book 18's Roadway Characteristics Application Heuristics Evaluative Form

Modifications to Approved CWATS Proposed and Existing Facility Types

This process was applied to the entire CWATS network including on and off-road routes in both urban and rural contexts to determine if facility types are considered appropriate given the roadway context, based on OTM Book 18. **Table 7** provides a summary of the CWATS route segments in which changes in facility types are proposed. This includes routes that have been implemented since the 2012 Plan and are proposed to be upgraded as part of this 2023 Update. These routes are illustrated in **Figure 60**.

It is recognized that the CWATS network will change with time as new opportunities arise. Any modifications to the approved CWATS routes and facility types will need to be reviewed and approved by the CWATS Committee and the County before next steps can be undertaken including future feasibility / detailed design studies and implementation. To respond to new opportunities or route modifications, municipal staff should continue working with the County and the CWATS Committee to review and approve potential new routes and / or modifications to facility types.

Table 7: Proposed Modifications to Approved CWATS Facility Types based on OTM Book 18 Step 1 Results

| Current Approved CWATS Route and Facility Type | | | | Proposed Change | | | | |
|--|-----------------------|------------------------------|------------------------------|------------------------|-------------|----------------------------|------------------------|-------------------------------|
| CWATS ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | 2012 Facility Type | Updated Book 18 Step 1 | Proposed Facility Type Change |
| Amh-6 | Alma Street | Fryer Street | Meloche Road | Amherstburg | 1.3 | Paved Shoulder | Urban | Multi-Use Path |
| Amh-7a | County Road 20 | Texas Road | Thrasher Drive | Amherstburg | 3.0 | Context Sensitive Solution | Urban | Separated Bike Lane |
| Amh-7b | County Road 20 | Thrasher Drive | N Side Road | Amherstburg | 1.7 | Context Sensitive Solution | Urban | Cycle Track |
| Amh-7c | County Road 20 | County Road 3 | N Side Road | Amherstburg | 2.7 | Context Sensitive Solution | Urban | Buffered Paved Shoulder |
| Amh-8 | County Road 20 | Texas Road | 180m north of Brunner Avenue | Amherstburg | 0.8 | Context Sensitive Solution | Urban | Separated Bike Lane |
| Amh-9 | Sandwich Street North | 180m north of Brunner Avenue | Alma Street | Amherstburg | 1.0 | Context Sensitive Solution | Urban | Separated Bike Lane |
| Amh-13 | County Road 5 | County Road 10 | 260m South of Texas Road | Amherstburg | 1.6 | Signed Route | Rural | Paved Shoulder |
| Amh-16 | Sandwich Street | Alma Street | Pickering Street | Amherstburg | 1.5 | Signed route | Urban | Bike Lane |
| Amh-18 | 2nd Concession North | County Road 8 | County Road 10 | Amherstburg | 4.8 | Signed Route | Urban | Paved Shoulder |
| Ess-1b | County Road 11 | County Road 18 | County Road 18 | Essex | 1.8 | Paved Shoulder | Rural | Buffered Paved Shoulder |
| Ess-12 | County Road 8 | 320m west of Allen Avenue | 180m west of Bell Avenue | Essex | 0.7 | Paved Shoulder | Urban | Multi-Use Path |
| Ess-13 | County Road 8 | 180m west of Bell Avenue | Bell Avenue | Essex | 0.2 | Bike Lane | Urban | Multi-Use Path |
| Ess-16 | Maidstone Avenue E | Bell Avenue | Talbot Road North | Essex | 0.2 | Bike Lane | Urban | Multi-Use Path |

| Current Approved CWATS Route and Facility Type | | | | Proposed Change | | | | |
|--|------------------|--------------------------------|--------------------------------|------------------------|-------------|--------------------|------------------------|-------------------------------|
| CWATS ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | 2012 Facility Type | Updated Book 18 Step 1 | Proposed Facility Type Change |
| Ess-28 | County Road 8 | 175m west of South Talbot Road | 485m east of South Talbot Road | Essex | 0.7 | Paved Shoulder | Urban | Multi-Use Path |
| Ess-29 | County Road 8 | Pinkerton Road | 175m west of South Talbot Road | Essex | 0.2 | Paved Shoulder | Urban | Multi-Use Path |
| Kings-5 | County Road 34 | 100m east of Elgin St | County Road 31 | Kingsville | 1.9 | Paved Shoulder | Rural | Buffered Paved Shoulder |
| Kings-9b | County Road 51 | Lake Drive | Conservation Boulevard | Kingsville | 0.7 | Paved Shoulder | Urban | Signed Route with Sharrows |
| Kings-10 | County Road 34 | County Road 45 | 100m east of Elgin Street | Kingsville | 0.5 | Paved Shoulder | Urban | Buffered Paved Shoulder |
| Kings-11 | County Road 29 | Palmer Drive | Water Street | Kingsville | 0.7 | Paved Shoulder | Urban | Multi-Use Path |
| Kings-13A | County Road 20 | Greenway | 100m west of Greenway | Kingsville | 0.1 | Paved Shoulder | Urban | Multi-Use Path |
| Kings-20 | County Road 34 E | County Road 27 | Clark Street | Kingsville | 0.2 | Signed Route | Urban | Paved Shoulder |
| Kings-22b | Main Street W | Heritage Road | Queen Street | Kingsville | 0.8 | Signed Route | Urban | Multi-Use Path |
| Kings-22d | Main Street | Spruce Street | Chrysler Canada Greenway | Kingsville | 1.2 | Signed Route | Urban | Multi-Use Path |
| Kings-17 | County Road 27 | County Road 8 | Road 10 | Kingsville | 2.1 | Signed Route | Rural | Multi-Use Path |
| Kings-21 | County Road 27 | County Road 34 | 110m east of Whitewood Avenue | Kingsville | 0.8 | Signed Route | Urban | Multi-Use Path |
| Kings-24d | Division St S | Park Street | Mill Street | Kingsville | 1.0 | Signed Route | Urban | Separated Bike Lane |
| Kings-24c | Wigle Avenue | Main Street East | Lakeview Avenue | Kingsville | 0.9 | Signed Route | Urban | Signed Route with Edgeline |
| Lake-18a | Patillo Road | County Road 22 | Railway Tracks | Lakeshore | 1.8 | Paved Shoulder | Urban | Multi-Use Path |
| Lake-18b | Patillo Road | Conway Crescent | County Road 22 | Lakeshore | 0.3 | Paved Shoulder | Urban | Multi-Use Path |
| Lake-21 | County Road 21 | Rail Corridor | County Road 42 | Lakeshore | 0.5 | Signed Route | Urban | Paved Shoulder |
| Lake-22 | County Road 22 | Duck Creek Boulevard | County Road 2 | Lakeshore | 0.3 | Signed Route | Rural | Paved Shoulder |
| Lake-25a | County Road 22 | Terra Lou Drive | 215m west of Terra Lou Drive | Lakeshore | 0.2 | Signed Route | Urban | Paved Shoulder |
| Lake-25b | County Road 22 | Eleventh Street | Terra Lou Drive | Lakeshore | 0.7 | Signed Route | Urban | Paved Shoulder |
| Leam-2 | County Road 34 | County Road 31 | Crest View Drive | Leamington | 0.6 | Paved Shoulder | Rural | Buffered Paved Shoulder |
| Leam-5a | County Road 33 | 900m north of Mersea Road B | Monarch Lane | Leamington | 1.7 | Paved Shoulder | Urban | Multi-Use Path |
| Leam-5b | County Road 33 | Monarch Lane | 350m south of Monarch Lane | Leamington | 0.4 | Paved Shoulder | Urban | Buffered Paved Shoulder |
| Leam-7a | County Road 33 | Mersea Road 2 | County Road 20 | Leamington | 1.4 | Paved Shoulder | Urban | Buffered Paved Shoulder |
| Leam-7b | County Road 33 | County Road 34 | Mersea Road 2 | Leamington | 1.3 | Paved Shoulder | Urban | Buffered Paved Shoulder |

| Current Approved CWATS Route and Facility Type | | | | Proposed Change | | | | |
|--|----------------------------|-----------------------------|-----------------------------------|------------------------|-------------|----------------------------|------------------------|-------------------------------|
| CWATS ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | 2012 Facility Type | Updated Book 18 Step 1 | Proposed Facility Type Change |
| Leam-10 | Bevel Line Road | Seacliff Road | County Road 33 | Leamington | 0.2 | Paved Shoulder | Urban | Multi-Use Path |
| Leam-13a | Oak Street | Fraser Road | 100m east of Industrial Road | Leamington | 1.2 | Bike Lane | Urban | Multi-Use Path |
| Leam-13b | Oak Street | Erie Street | 60m East of Victoria Avenue South | Leamington | 0.3 | Bike Lane | Urban | Multi-Use Path |
| Leam-16a | Mersea Road 1 | County Road 33 | Mersea Road 12 | Leamington | 0.8 | Signed Route | Urban | Multi-Use Path |
| Leam-16b | Mersea Road 1 | County Road 33 | Mersea Road 19 | Leamington | 0.7 | Signed Route | Urban | Paved Shoulder |
| Leam-16c | Mersea Road 1 | 750m east of County Road 33 | Mersea Road 12 | Leamington | 1.2 | Signed Route | Rural | Multi-Use Path |
| Leam-16d | Mersea Road 1 | 750m east of County Road 33 | Mersea Road 19 | Leamington | 4.6 | Signed Route | Rural | Paved Shoulder |
| Leam-17a | County Road 33 | 350 m south of Monarch Lane | Mersea Road 12 | Leamington | 1.7 | Signed Route | Urban | Multi-Use Path |
| Leam-17c | County Road 33 | 350 m south of Monarch Lane | Mersea Road 12 | Leamington | 0.8 | Signed Route | Urban | Paved Shoulder |
| Leam-17d | County Road 33 | 350 m south of Monarch Lane | Mersea Road 12 | Leamington | 0.9 | Signed Route | Urban | Paved Shoulder |
| Leam-17b | County Road 33 | Mersea Road 12 | Mersea Road East | Leamington | 1.4 | Signed Route | Urban | Advisory Bike Lanes |
| Leam-17e | County Road 33 | Mersea Road 12 | Mersea Road East | Leamington | 1.4 | Signed Route | Rural | Multi-Use Trail |
| Leam-18 | County Road 34 | County Road 48 | 60m west of Fader Avenue | Leamington | 0.7 | Signed Route | Urban | Multi-Use Path |
| Leam-19 | County Road 48 | 100m east of Industrial Rd | Sherk St | Leamington | 0.2 | Signed Route | Urban | Multi-Use Path |
| Leam-20 | Talbot Street West | 60m west of Fader Avenue | Rail Corridor | Leamington | 0.6 | Signed Route | Urban | Multi-Use Path |
| Leam-22a | Seacliff Drive West / East | Erie Street South | Cherry Lane | Leamington | 0.6 | Signed Route | Urban | Multi-Use Path |
| Leam-22c | Seacliff Drive West / East | County Road 33 | Bevel Line Road | Leamington | 0.5 | Signed Route | Urban | Multi-Use Path |
| Leam-24 | Dear Run Road | Milo Road | Chatham-Kent Boundary | Leamington | 0.2 | Signed Route | Rural | Paved Shoulder |
| Las-2 | County Road 7 | Broderick Road | County Road 9 | LaSalle | 2.8 | Context Sensitive Solution | Rural | Paved Shoulder |
| Las-3a | County Road 3 | Reaume Avenue | County Road 8 | LaSalle | 3.3 | Context Sensitive Solution | Rural | Paved Shoulder |
| Las-3b | County Road 3 | Reaume Avenue | 30m south of Martin Lane | LaSalle | 1.3 | Context Sensitive Solution | Urban | Multi-Use Path |
| Las-4 | County Road 7 | Sandwich West Parkway | Laurier Parkway | LaSalle | 1.2 | Context Sensitive Solution | Urban | Multi-Use Path |
| Las-5 | County Road 7 | Disputed Road | Sandwich West Parkway | LaSalle | 0.5 | Context Sensitive Solution | Urban | Multi-Use Path |

| Current Approved CWATS Route and Facility Type | | | | Proposed Change | | | | |
|--|-------------------|--------------------------------|----------------------------------|---------------------------------------|-------------|------------------------------|------------------------|-------------------------------|
| CWATS ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | 2012 Facility Type | Updated Book 18 Step 1 | Proposed Facility Type Change |
| Las-6 | County Road 6 | Tenth Street | Huron Church Road | LaSalle | 0.3 | Multi-Use Path and Bike Lane | Urban | Multi-Use Path |
| Las-7 | County Road 20 | County Road 3 | 320m south of Martin Lane | LaSalle | 2.5 | Signed Route | Rural | Separated Bike Lane |
| Las-8a | County Road 20 | 320m south of Martin Lane | Gary Avenue | LaSalle | 2.1 | Signed Route | Urban | Separated Bike Lane |
| Las-8b | County Road 20 | 320m south of Martin Lane | Gary Avenue | LaSalle | 2.1 | Signed Route | Urban | Separated Bike Lane |
| Las-9a | Front Road | Laurier Drive | Morton Drive | LaSalle | 2.2 | Signed Route | Urban | Separated Bike Lane |
| Las-9b | Front Road | Gary Avenue | Laurier Drive | LaSalle | 1.0 | Signed Route | Urban | Separated Bike Lane |
| Las-10 | Sprucewood Avenue | 85m west of Abbot Street | Malden Road | LaSalle | 1.4 | Signed Route | Urban | Multi-Use Path |
| Las-12 | Laurier Drive | Front Rod | Matchette Road | LaSalle | 3.6 | Signed Route | Urban | Multi-Use Path |
| Tec-4a | Manning Road | 86m south of St Gregory's Road | 114m south of Tecumseh Road East | Tecumseh | 0.4 | Bike Lane | Urban | Multi-Use Path |
| Tec-4b | Manning Road | Riverside Drive East | 86m south of St Gregory's Road | Tecumseh | 1.2 | Bike Lane | Urban | Multi-Use Path |
| Tec-10 | Brighton Road | Rail Corridor | Old Tecumseh Road | Tecumseh (Cost Shared with Lakeshore) | 0.3 | Signed Route | Urban | Paved Shoulder |
| Tec-11a | South Talbot Road | County Road 11 | County Road 19 | Tecumseh | 7.9 | Signed Route | Rural | Paved Shoulder |
| Tec-11b | South Talbot Road | County Road 9 | County Road 11 | Tecumseh | 2.9 | Signed Route | Rural | Paved Shoulder |
| Tec-17 | Riverside Drive | Manning Road | Brighton Road | Tecumseh | 2.0 | Signed Route | Urban | Multi-Use Path |
| COE-1 | County Road 9 | Seventh Concession Road | County Road 8 | LaSalle / Tecumseh | 3.9 | Paved Shoulder | Rural | Buffered Paved Shoulder |
| COE-2A | County Road 19 | 240m south of County Road 42 | 85m north of County Road 46 | Tecumseh / Lakeshore | 6.4 | Paved Shoulder | Rural | Buffered Paved Shoulder |
| COE-2B | County Road 20 | ERCA 12 | South Talbot Road | Tecumseh / Lakeshore | 2.4 | Paved Shoulder | Rural | Buffered Paved Shoulder |
| COE-6 | County Road 9 | Sixth Concession Road | Seventh Concession Road | LaSalle / Tecumseh | 1.4 | Paved Shoulder | Urban | Buffered Paved Shoulder |
| COE-7 | County Road 19 | 85m north of County Road 46 | CASO Line | Tecumseh / Lakeshore | 2.1 | Paved Shoulder | Urban | Buffered Paved Shoulder |
| COE-10 | Manning Road | County Road 22 | VIA Railway Corridor | Tecumseh / Lakeshore | 0.6 | Bike Lane | Urban | Multi-Use Path |
| COE-11 | County Road 3 | County Road 20 | County Road 8 | LaSalle / Amherstburg | 1.9 | Signed Route | Rural | Buffered Paved Shoulder |
| COE-12a | County Road 8 | County Road 11 | County Road 19 | Tecumseh / Essex | 7.4 | Signed Route | Rural | Buffered Paved Shoulder |

| Current Approved CWATS Route and Facility Type | | | | Proposed Change | | | | |
|--|--------------------|------------------------------|---------------------------------|------------------------|-------------|--------------------|------------------------|-------------------------------|
| CWATS ID | Route Name | From | To | Municipal Jurisdiction | Length (km) | 2012 Facility Type | Updated Book 18 Step 1 | Proposed Facility Type Change |
| COE-12b | County Road 8 | County Road 3 | County Road 9 | LaSalle / Amherstburg | 5.8 | Signed Route | Rural | Buffered Paved Shoulder |
| COE-12c | County Road 8 | County Road 9 | County Road 11 | Tecumseh / Amherstburg | 2.8 | Signed Route | Rural | Buffered Paved Shoulder |
| COE-12d | County Road 8 | County Road 19 | Highway 3 | Essex / Lakeshore | 2.3 | Signed Route | Rural | Buffered Paved Shoulder |
| COE-15 | Kent County Road 1 | Mersea Road 7 | 400m north of Concession Line 3 | Leamington / CK | 0.5 | Signed Route | Rural | Paved Shoulder |
| COE-14 | Kent County Road 1 | 200m south of Middleton Line | Deer Run Road | Leamington / CK | 2.2 | Signed Route | Rural | Paved Shoulder |

The CWATS Network

The routes and facility types recommended within the CWATS network have been confirmed based on the iterative network development process outlined in **Section 6.1.1**. The recommended CWATS network is shown on **Figure 61A** (County-wide Map) and **Figure 61B** (Built-up Areas Map). **Table 8** gives an overview of the CWATS network by facility type. Detailed maps for each local municipality can be found in **Appendix 1**.

As noted in the original 2012 plan, *County and municipal boundaries are usually not apparent to cyclists and pedestrians, however, a municipal boundary can sometimes become the “end of the road”, simply because the active transportation connection has not been made to the neighbouring municipality.* A key component of the network development process was to build upon existing and planned CWATS linkages by enhancing connections within and between surrounding urban areas and closing gaps in the rural areas. Updating facility types to be consistent with provincial best practices will also provide greater levels of separation for people on bikes and on foot.

CWATS is a spine network of routes that provides continuous and direct regional connectivity that is supported by municipal active transportation networks to enhance localized travel and recreation options. In short, the CWATS network is intended to connect to the network of seven local municipalities and surrounding areas such as the City of Windsor and the Municipality of Chatham-Kent so pedestrians, cyclists and other multi-modal users can engage in active forms of travel and recreation regardless of municipal boundaries and jurisdictions.

The updated CWATS network is proposed to include 1,073.8 kilometres of active transportation routes. Of the total, 554.3 kilometres are existing routes and 519.5 kilometres are proposed routes.

Table 8: CWATS Network by Facility Type

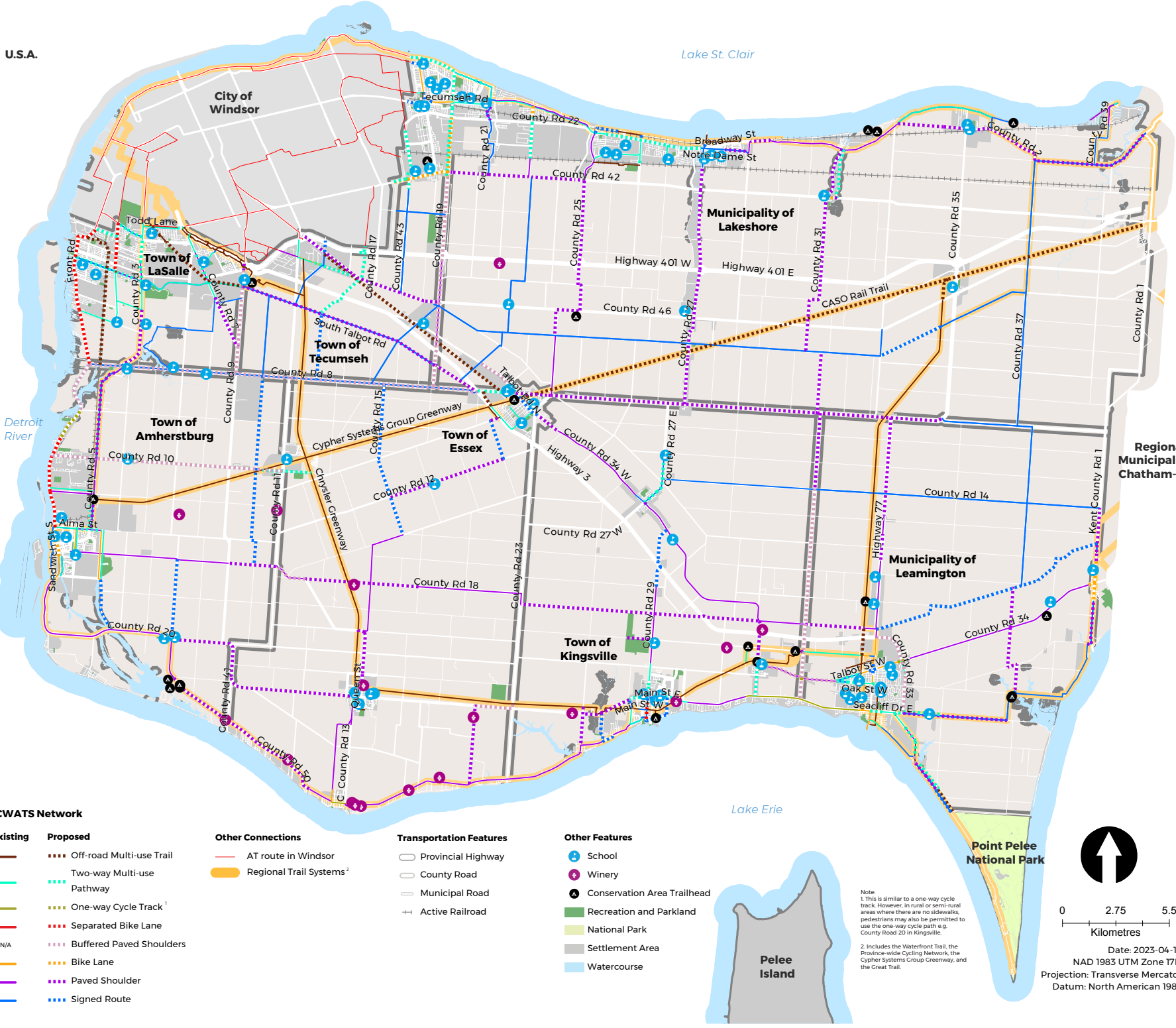
| <i>Facility Type</i> | <i>Existing [2023 Report] (km)</i> | <i>Previously Proposed and Not Yet Implemented [2012 Report] (km)</i> | <i>2023 Update Proposed [2023 Report] (km)</i> | <i>New Total [Existing 2023 + Proposed 2023] (km)</i> |
|----------------------------|------------------------------------|---|--|---|
| Off-Road Multi-use Trail | 117.7 | 52.5 | 63.8 | 181.5 |
| Two-Way Multi-use Pathway | 62.8 | 19.8 | 65.6 | 128.4 |
| Separated Bike Lane | 1.3 | 0.0 | 16.2 | 17.5 |
| One-way Cycle Track | 6.7 | 0.0 | 2.3 | 9.0 |
| Buffered Paved Shoulder | 0.0 | 0.0 | 77.6 | 76.6 |
| Paved Shoulder | 138.5 | 154.3 | 215.7 | 354.2 |
| Bike Lane | 17.8 | 11.5 | 8.5 | 26.3 |
| Context Sensitive Solution | 0.0 | 12.5 | 0.0 | 0.0 |
| Signed Route | 211.3 | 89.3 | 60.5 | 271.8 |
| Total (km) | 556.1 | 339.9 | 510.2 | 1066.3 |

Notes:

1. The original 2012 CWATS Master Plan envisioned a network of approximately 780 kilometres. Since 2012, a number of additional routes have been added by the County and its local municipalities as new opportunities have emerged.
2. For segments along common municipal boundaries, it is assumed that 50% of the distance would be attributed to each of the local municipalities.



FIGURE 61A



CWATS Network

Existing Proposed

- Off-road Multi-use Trail
- Two-way Multi-use
- Pathway
- One-way Cycle Track¹
- Separated Bike Lane
- N/A — Buffered Paved Shoulders
- Bike Lane
- Paved Shoulder
- Signed Route

Other Connections

- AT route in Windsor
- Regional Trail Systems²

Transportation Features

- Provincial Highway
- County Road
- Municipal Road
- Active Railroad

Other Features

- School
- Winery
- ▲ Conservation Area Trailhead
- Recreation and Parkland
- National Park
- Settlement Area
- Watercourse

Note:
1. This is similar to a one-way cycle track. However, in rural or semi-rural areas where there are no sidewalks, pedestrians may also be permitted to use the one-way cycle path e.g. County Road 20 in Kingsville.
2. Includes the Waterfront Trail, the Province-wide Cycling Network, the Cypher Systems Group Greenway, and the Great Trail.



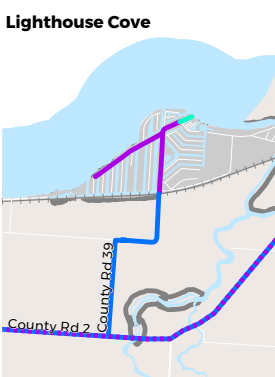
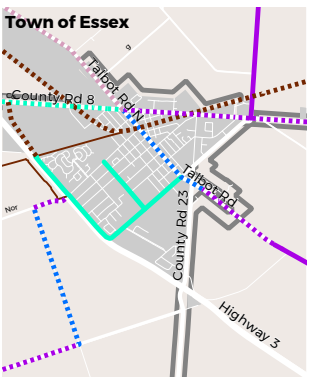
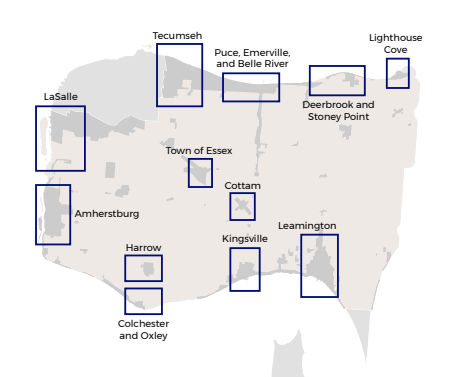
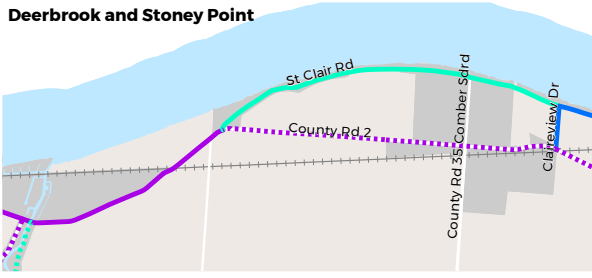
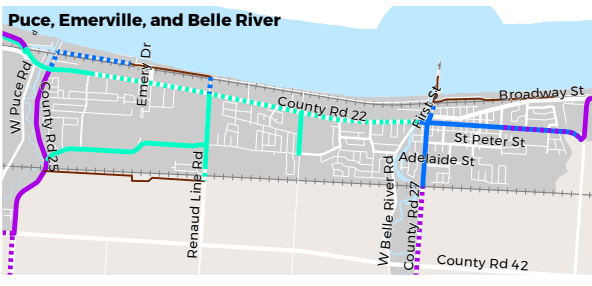
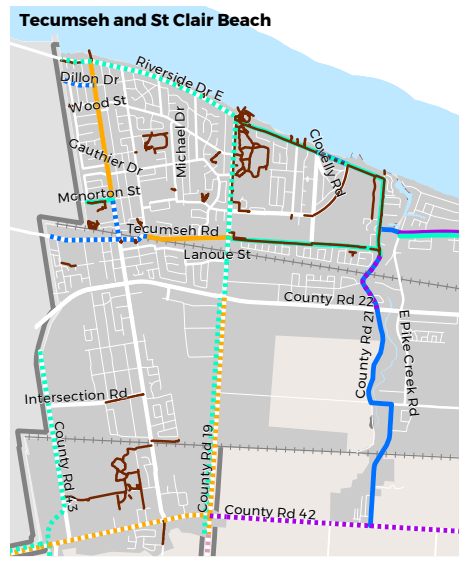
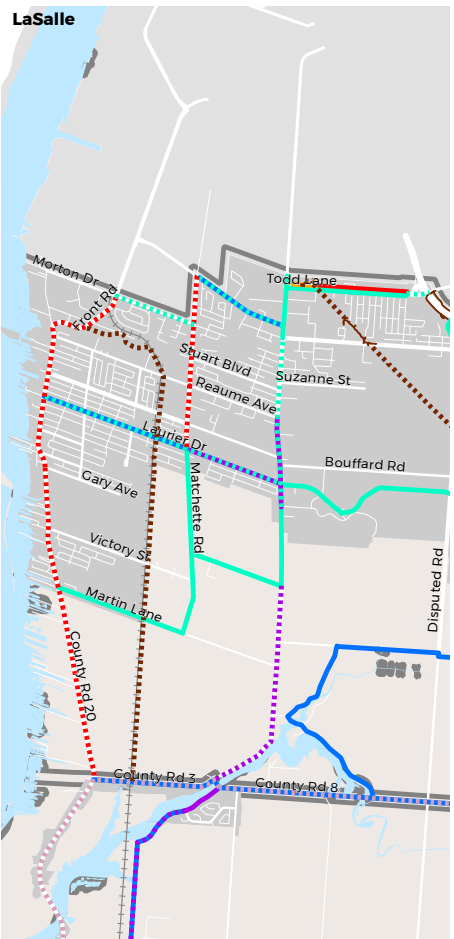
0 2.75 5.5
Kilometres

Date: 2023-04-19
NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983



FIGURE 61B

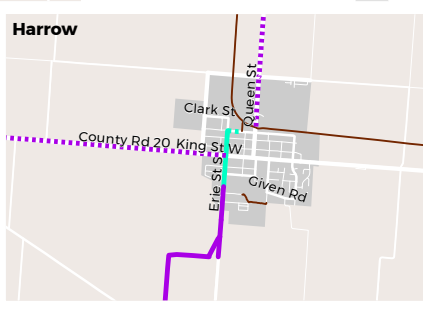
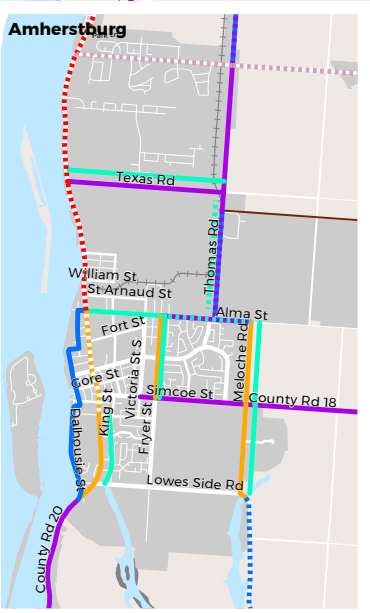
CWATS Network by Facility Type (Urban Areas)
County Wide Active Transportation System (CWATS) Master Plan Update



- CWATS Network**
- | Existing | Proposed |
|----------|----------------------------------|
| | Off-road Multi-use Trail |
| | Two-way Multi-use Pathway |
| | One-way Cycle Track ¹ |
| | Separated Bike Lane |
| | Buffered Paved Shoulders |
| | Bike Lane |
| | Paved Shoulder |
| | Signed Route |

- Transportation Features**
- Provincial Highway
 - County Road
 - Municipal Road
 - Active Railroad

- Other Features**
- School
 - Winery
 - Conservation Area Trailhead
 - Recreation and Parkland
 - National Park
 - Settlement Area
 - Watercourse



Date: 2023-04-19
 NAD 1983 UTM Zone 17N
 Projection: Transverse Mercator
 Datum: North American 1983

A detailed breakdown of the CWATS network by facility type and jurisdiction is provided in **Table 9** and the distribution of routes is shown in **Figure 62**.

Table 9: Proposed CWATS Network by Facility Type and Jurisdiction

| | County Share (km) | Local Share (km) | Provincial Share (km) | ERCA Share (km) | Total (km) |
|--------------|-------------------|------------------|-----------------------|-----------------|--------------|
| Amherstburg | 47.9 | 16.4 | 0.0 | 0.0 | 64.3 |
| Essex | 47.0 | 14.2 | 0.9 | 2.0 | 64.1 |
| Kingsville | 46.6 | 9.5 | 0.0 | 0.0 | 56.0 |
| Lakeshore | 74.0 | 25.4 | 0.0 | 36.4 | 135.9 |
| LaSalle | 19.4 | 27.5 | 0.0 | 0.0 | 46.9 |
| Leamington | 41.4 | 25.0 | 6.4 | 0.0 | 72.8 |
| Tecumseh | 36.1 | 26.5 | 0.0 | 7.5 | 70.1 |
| Total | 312.4 | 144.5 | 7.3 | 45.9 | 510.2 |

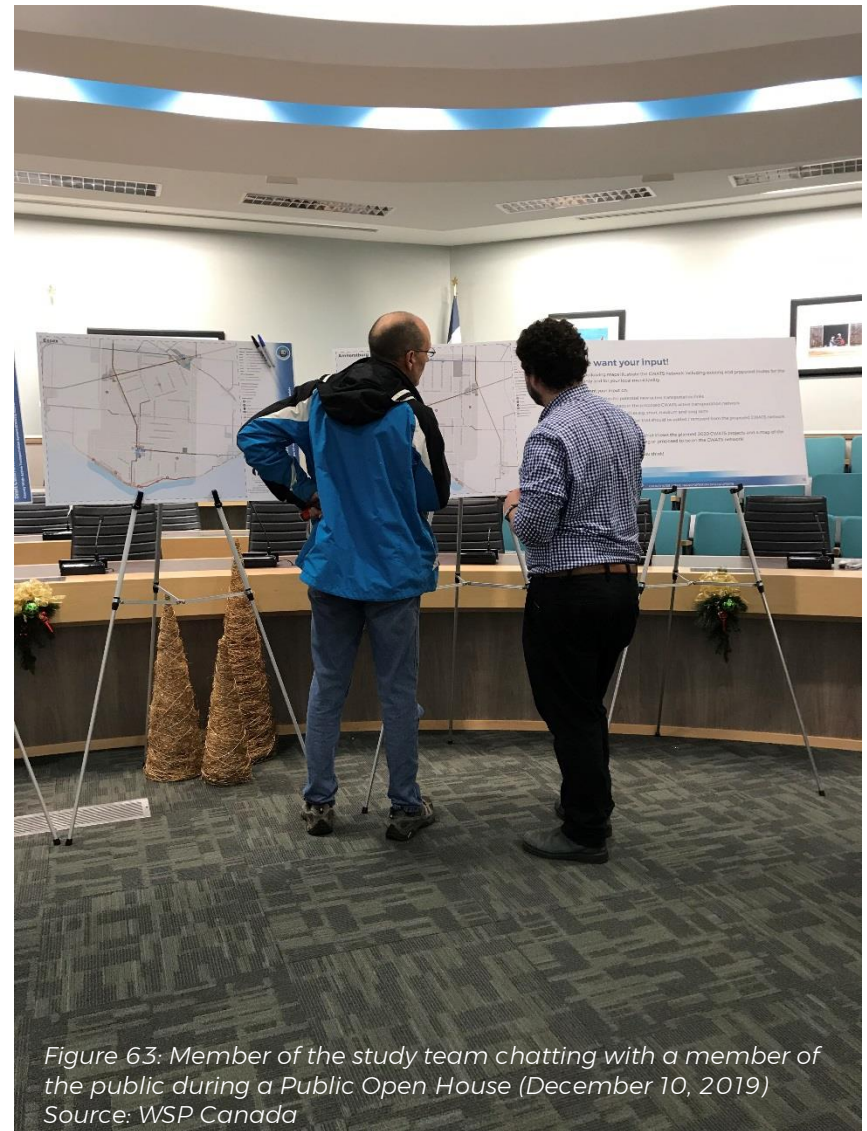
Note: local municipal shares of segments along common municipal boundaries have been included in local municipal totals, where applicable.

Figure 62: Distribution of the CWATS Network by Local Municipality



The updated CWATS network is made up of on and off-road routes designed to respond to the needs of different user groups, trip purposes, varying ages and skill-levels. Given there is no one facility type that meets the needs of all users, the proposed CWATS network was reviewed by County staff, municipal staff, the CWATS Committee and members of the public throughout the study process to balance the needs of the various users and take into consideration the amount of space available. The CWATS Committee played a key role in the updated of the CWATS network. Throughout the network development process, working meetings were held with the CWATS Committee to collect input on the network and proposed facility types. The input and comments collected from the CWATS Committee were incorporated and used to refine the network through a number of network iterations.

The CWATS network should be viewed as a connected system of different facility types that are designed to be comfortable and convenient for both existing and future users. The recommended network is also intended to be flexible. The implementation strategy identified in **Chapter 9** provides a recommended process to review and confirm any given route at the time it is scheduled for detail design and implementation. For example, the feasibility process may determine that a route on a roadway that is proposed to have bike lanes in the master plan may be built with a physical separation such as pre-cast concrete curbs, rubber delineators, etc. This flexibility allows planners and designers to tailor the facility type to the user needs at the time of implementation, to develop facility types that complement the surrounding community fabric, and to implement new facility designs that are specific to the surrounding road context.



*Figure 63: Member of the study team chatting with a member of the public during a Public Open House (December 10, 2019)
Source: WSP Canada*

The CWATS network is more than routes and facilities. There are a number of additional considerations that can be implemented and integrated into the design of active transportation infrastructure to enhance the overall user experience and encourage more people to engage in active forms of travel and recreation. The following sections provide an overview of current resources and considerations that are recommended to be addressed when planning, designing and implementing the CWATS network.



Figure 64: Photo of a protected cycling facility within the County of Essex (June 29, 2019)
Source: WSP Canada