2 THE NEED FOR AN UPDATED PLAN

Understanding the current needs of the County, its local municipalities and residents to help shape the future.

CHAPTER 2 | THE NEED FOR AN UPDATED PLAN

Building upon the understanding of how CWATS has been embraced in the County and its successes since 2012, Chapter 2 addresses the need for an updated master plan. This chapter provides an overview of why the master plan is being updated and how this process unfolded. The information contained in this chapter is intended to provide context and a better understanding of the different factors that helped prompt the need for an updated plan.

2.1 WHY UPDATE CWATS NOW?

Since 2012, the CWATS Master Plan has been used as the primary resource to guide County staff in partnership with its local municipalities and agencies to improve conditions for active transportation. As noted in Section 1.1, the key components of the CWATS Master Plan addressed policy, infrastructure and programming, to help shape future-decision making in the short and long term. Since this time, the County in collaboration with its local municipalities and partners have achieved many successes in the short-term and have set the groundwork for long-term investments and prioritization in CWATS.

About ten years has passed since the CWATS Master Plan was adopted, and there have been a number of changes which provide additional guidance on the planning and design of active transportation infrastructure. To continue building upon recent successes, it is necessary to understand what factors have changed and why it is important to the update of the CWATS Master Plan. The following section provides an overview of the various factors, which include:

Emerging Guidelines and Best Practices	**Planning and design changes since the 2012**	**New trends in active transportation**
Equity as the sixth "E" of master planning	**Roles, responsibilities, and partnerships**	

Informing the update to the:

CWATS MASTER PLAN

EMERGING GUIDELINES AND BEST PRACTICES

Since the adoption of the 2012 CWATS Master Plan, there have been many updates to planning and design guidelines and standards related to active transportation facilities. These guidelines and standards were reviewed when updating the CWATS Master Plan to ensure the proposed routes, facility types and operational considerations were integrated into the CWATS network and reflective of current best practices.

Table 1 provides an overview of the guidelines and standards that have been updated since 2012, as well as key planning, design, implementation and operational considerations that are addressed in each resource. **Technical Appendix B** provides a summary of all policies and guidelines that were reviewed as part of the update to the CWATS Master Plan.

Table 1 | Overview of Emerging Guidelines and Key Considerations

Key Considerations	OTM Book 18 [2021]	OTM Book 15 [2016]	MTO BDM [2014]	TAC [2017]	NACTO [2012]
Facility selection and design	■		■		■
Increased separation for AT facilities	■		■		■
All ages and abilities	■		■	■	■
Guidance for urban and rural roads	■			■	
Integration with other modes	■		■	■	■
Pedestrian Crossings		■		■	
Intersection treatments	■	■	■	■	■
Maintenance and operations	■		■		

Legend:

■ Applicable ☐ Not Applicable

A brief summary of the five guidelines and standards outlined in **Table 1**, is provided on the following pages.

Ontario Traffic Manual (OTM) Book 18: Cycling Facilities

Figure 8: OTM Book 18: Cycling Facilities

OTM Book 18 provides information and guidance for transportation practitioners when planning, designing and implementing cycling facilities and supportive design features. OTM Book 18 provides a set of guidelines consistent with the intent of the Highway Traffic Act, and is meant to form the basis for municipal road authorities to generate or update their own guidelines and standards.

In 2018, the Ontario Traffic Council commissioned a study to update the 2013 OTM Book 18. The update incorporated best practices and lessons learned since 2013 to reflect the changing needs of Ontario and its local municipalities for balanced, equitable and multi-modal transportation systems. The facility selection process contained in OTM Book 18 has been updated for application in both urban and rural environments. As such, step 1 of this process was revised to include two different nomographs for urban / suburban and rural contexts. The update to the OTM Book 18 was completed in June 2021.

Ontario Traffic Manual (OTM) Book 15: Pedestrian Facilities

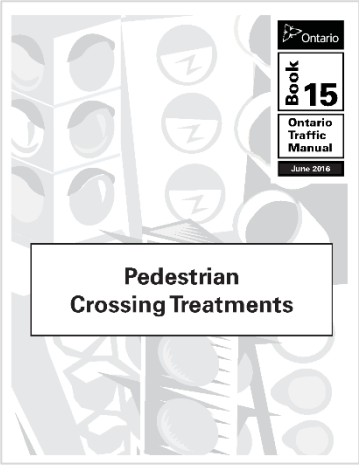

Figure 9: OTM Book 15: Pedestrian Facilities

OTM Book 15 was updated in 2016 in response to concerns regarding the cost of on-going maintenance of standard pedestrian crossings (PXOs) and traffic control signals. OTM Book 15 defines the rules of the road including conditions under which pedestrians can cross the road, as well as overview of various pedestrian crossing treatments.

The update to OTM Book 15 provides guidelines for Justification, Treatment System Selection and Treatment System Design for the new PXOs. The purpose of OTM Book 15 is to provide practical guidance and application information on the planning, design, and operation of pedestrian roadway crossings treatments for transportation practitioners and to promote uniformity of approaches across Ontario. The information contained in OTM Book 15 is consistent with the Highway Traffic Act with respect to the pedestrian crossing applications and provides a basis for road authorities to generate or update their own guidelines and standards.

Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads

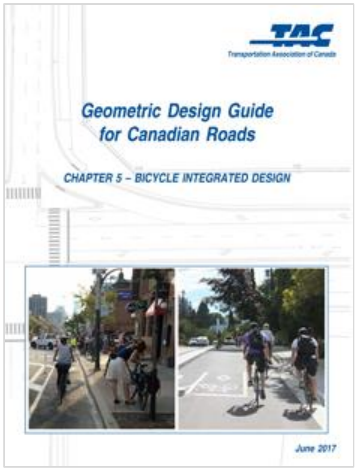

Figure 10: TAC Geometric Design Guide for Canadian Roads

The TAC Geometric Design Guide for Canadian Roads was updated in 2017, and incorporates current design, research and best practices for roadway geometric design in urban and rural environments. It provides guidance to planners and designers in developing design solutions to meet the needs of all road users

The 2017 edition includes 10 chapters highlighting design philosophy; design controls, classification and consistency; alignment and lane configurations; cross section elements; bicycle integrated design; pedestrian integrated design; roadside design; access; intersections and interchanges. Specifically, chapter 5 provides guidance on the integration of bicycle facilities into the design of roadways and was recently updated in June of 2019. In addition, chapter 6 highlights examples of how to integrate the design of pedestrian facilities into the design of roadways to provide a balanced solution for all modes and road users.

National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide

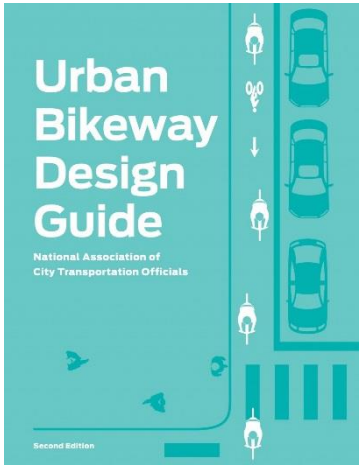

Figure 11: NACTO Urban Bikeway Design Guide

The NACTO Urban Bikeway Design Guide provides design guidance on bicycle facilities and treatments to enhance cycling for different users and contexts. The guide was first published in 2011 and updated in September 2012. The guide provides required, recommended and optional treatment examples and options to help practitioners select the most appropriate facility based on their needs. It contains design guidelines for bike lanes, cycle tracks, intersection treatments, bicycle signals, bikeway signs and markings, bicycle boulevards, as well as general guidelines for designing for all ages and abilities.

The Urban Bikeway Design Guide draws upon a range of national and internal bikeway design standards and practices, to provide options and potential solutions that can help create complete streets that are safe and enjoyable for cyclists. Practitioners are encouraged to use the guide as a resource to help improve the safety, viability and attractiveness of cycling within their communities.

Ministry of Transportation Ontario (MTO) Bikeways Design Manual (BDM)

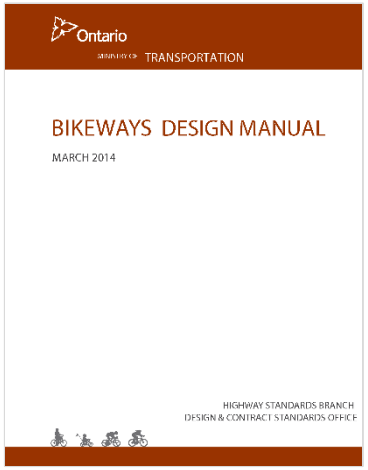

Figure 12: MTO Bikeways Design Manual

The MTO Bikeways Design Manual was updated in 2014 – the original edition *Bikeways Planning and Design Guideline* was published in 1996. The Bikeways Design Manual is similar to OTM Book 18, but the design guidance provided in this document is intended to be applied to on and off-road facilities located within provincial highway rights-of-way as opposed to municipal roadways.

The manual covers bikeway design controls and cycling facility type selection, as well as the design of on and off-road cycling facilities. The Bikeways Design Manual is based on best practices in both Canada and the United States, as well as relevant international research and is considered to reflect the state of knowledge with regard to network planning and cycling facility design at the time of publication. In addition, the development and release of the Ministry's Bikeways Design Manual was supported by the Province's #CycleON: Ontario's Cycling Strategy, specifically Action 1.0 which is the first of a series of multi-year action plans and included funding opportunities to implement municipal cycling infrastructure across Ontario.

The CWATS Master Plan was adopted in 2012 prior to the completion of the guidelines and standards identified in this section. In addition, Ontario's primary resource for cycling facility design and application, OTM Book 18, has recently been updated to incorporate best practices, lessons learned and increased need for separation between cycling facilities and motor vehicle traffic.

It is important that the facilities recommended in the CWATS Master Plan reflect current design standards, specifically the update to OTM Book 18. It is recognized that the County is implementing high-order AT facilities, where feasible and appropriate based on traffic volumes and operating speeds. As part of the update to the CWATS Master Plan, the existing and previously proposed CWATS network and routes have been reviewed to confirm the most appropriate facility type and desired level of separation using the refined facility selection process in the update to OTM Book 18, which contains two different nomographs for rural road cross-sections and urban / suburban road cross-sections. The process that was used to review and confirm the CWATS network as well as the outcomes, are documented in Chapter 6.

PLANNING AND DESIGN CHANGES SINCE THE 2012 MASTER PLAN WAS ADOPTED

The planning and design of transportation systems within the public realm is increasingly focused on providing integrated, multi-modal networks that are considered safe, comfortable and equitable by the community. Since 2012, more municipalities across the province are applying a "complete streets" and "all ages and abilities" approach when planning, designing and implementing transportation systems. Though a master plan is not intended to follow a "one-size fits all" approach, recommendations and strategies contained in a plan, and specifically in the CWATS Master Plan, are intended to enhance multi-modal travel and recreational opportunities for all users.

Complete streets

This refers to the concept of designing roadways to accommodate all ages, abilities and travel modes. A Complete Streets approach when planning and designing roadways is intended to support the principle of complete communities. Existing policies and planning documents at the provincial level identify complete communities to be well-designed communities that offer transportation choices, accommodate people at all stages of life and have an adequate access to goods and services.

Research completed by The Centre for Active Transportation (TCAT) outlines four key goals that a Complete Streets approach is intended achieve:

- Increase AT mode share.
- Decrease collision frequency and vehicle operating speeds.
- Enhance user experience for pedestrians, cyclists and other AT users by increasing sense of comfort and safety.
- Help the surrounding area(s) experience the economic, environmental and health benefits of active and connected communities.

County Road 20 in Leamington and Kingsville:

Figure 13: County Road 20
Source: Google StreetView

Figure 14: County Road 20
Source: WSP Canada

County Road 20 has been improved with a one-way cycle track y for cyclists on both sides of the road as part of the CWATS network.

All ages and abilities (AAA)

This refers to an approach of planning, designing and implementing a multi-modal transportation system that is considered safe and equitable for a majority of road users. Traditionally, planning and design principles have favoured very confident cyclists, or a small portion of users. An "all ages and abilities" approach to planning and designing, is intended to help guide planners and engineers to determine when, where, and how to best combine traffic calming tools with roadway design to integrate AT facilities that accommodate a broad range of users and to help increase user comfort and safety.

NACTO has identified the following users to encompass an "all ages and abilities" approach to transportation planning and design:

- Children
- Seniors
- Women
- People riding bike share
- Visible minorities
- Low-income riders
- People with disabilities
- People moving goods or cargo
- Confident cyclists

This would also include agricultural workers in the County.

How has this been applied in the County?

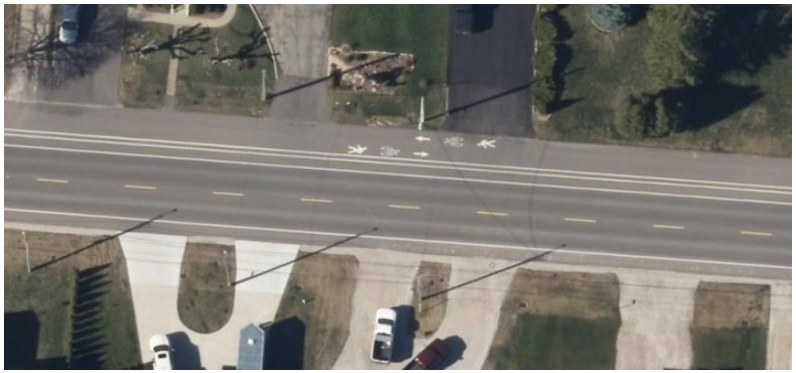

Figure 15: Existing in-boulevard multi-use pathway and paved shoulders along Texas Road, Amherstburg
Source: Google StreetView

Figure 16: Mid-block crossing along County Road 20 and off-road multi-use trail, Leamington
Source: Google StreetView

NEW TRENDS IN ACTIVE TRANSPORTATION

The way in which people travel including preferences for transportation modes is changing due to advancements in technology and an increased awareness of multi-modal trip making. The province's population is increasing and demands for increased mobility and integration of transportation options continues to emerge as a key issue for municipalities across Ontario.

Though it may take many years to feel the full impacts of emerging technologies and new trends, thoughtful planning, design, and implementation is needed to appropriately accommodate the future of transportation. Two key trends include micro-mobility and the integration of active transportation with transit to encourage multi-modal travel and the concept of "first and last mile" travel. Understanding these new trends can help inform recommendations and strategies in the CWATS Master Plan to enhance active transportation as a viable travel mode and to encourage more people to engage in active forms of travel and multi-modal trips as part of their primary commute.

Micro-mobility

At both the provincial and national level, there has been an increased awareness to investigate and address emerging mobility options, specifically e-bikes and e-scooters. Micro-mobility or personal human and electric-powered vehicles such as e-bikes and kick style e-scooters, is rapidly emerging as a potential solution for mobility needs for people of various ages and abilities, as well as gaps in transportation networks. E-bikes and other forms of micro-mobility can help municipalities support sustainable and inclusive travel choices such as the first and last mile travel (distances between transit stops and the beginning and end of a trip).

Source: Adobe Stock Image

Increased interest and awareness in micro-mobility could potentially generate questions from practitioners and municipalities, particularly about the lack of consistent information regarding the types of e-bikes, how they should be regulated or where they should be permitted. Responding to this trend, in November 2019, the Ontario government initiated a 5-year pilot that regulates the operation of e-scooters under which, municipalities may pass by-laws that permit e-scooters to be used in environments deemed appropriate. This new trend in micro-mobility presents an opportunity for municipalities to embrace future changes in transportation technology by integrating micro-mobility into "future mobility" components of planning policies such as Official Plans, Transportation Master Plans and Active Transportation Master Plans.

Figure 18: E-scooter
Source: WSP Canada

Integrating Active Transportation and Transit

The integration of active transportation infrastructure and transit is a critical component of designing a multi-modal and accessible transportation system. A balanced transportation system should accommodate pedestrians, cyclists and transit users. In the last decade there has been an increased focus on improving multi-modal transportation options. Currently there are various local transit routes provided in some municipalities including LaSalle (bus service operated by Transit Windsor), Leamington, Essex and Kingsville.

To help people complete their first and last mile using active transportation, municipalities can leverage existing transit systems by developing high quality, accessible active transportation connections to transit stops and ensuring transit busses are equipped with a bike rack to support first and last mile connections. It is important that transit stops, terminals and stations are connected through continuous sidewalks, pathways and bicycle facilities to encourage more people to combine active modes and transit for the same trip. Providing viable options for people to walk and / or cycle as part of their daily trip can help to increase the overall number of people that use active transportation.

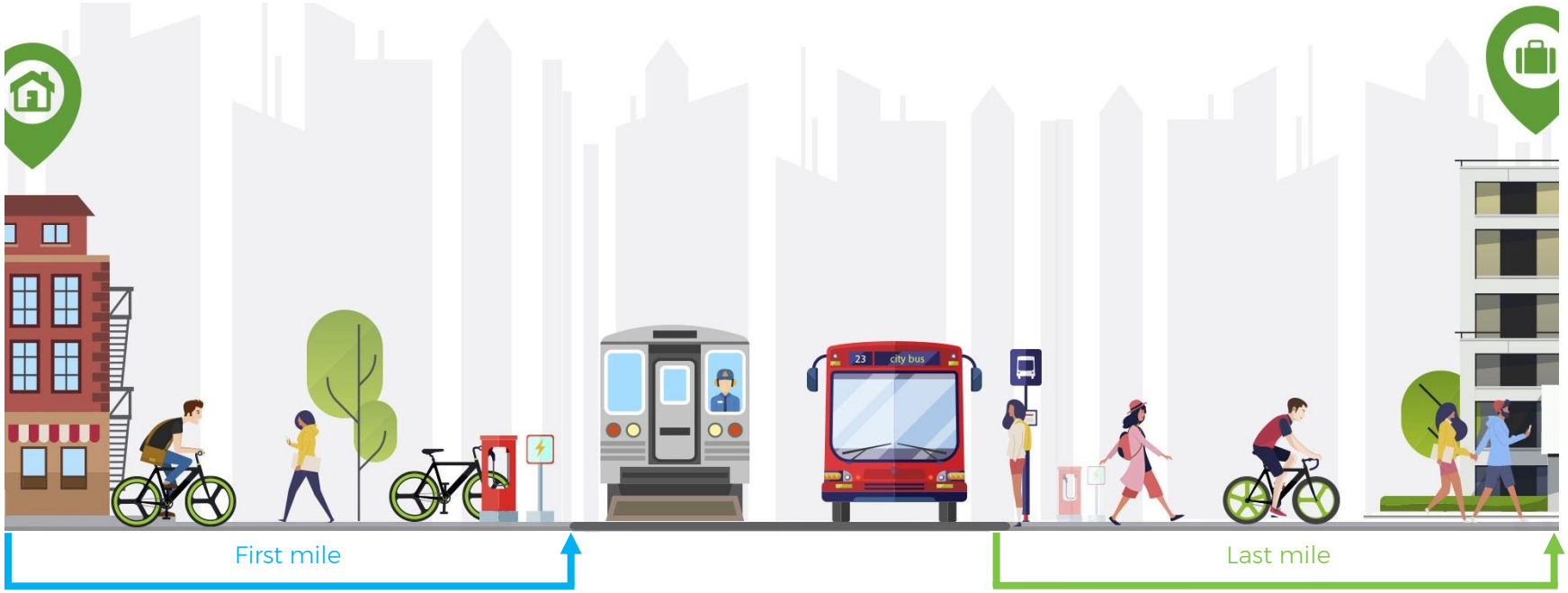

Figure 19: First and Last Mile Travel
Source: ONN Bikes

EQUITY TO FORM PART OF THE "6 E'S" APPROACH OF MASTER PLANNING

Master plans have typically addressed the "Five E's" (engineering, encouragement, education, evaluation and enforcement) to influence behavior change, create community awareness and enhance the culture of active living and recreation. Research shows that enhancing opportunities for affordable and reliable transportation options is a key determinant to an equitable transportation system.

Equity at its core implies that the approach that is being used is considered "fair and impartial." Transportation equity makes reference to the ability to provide social and economic opportunities through equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally underserved. Traditionally underserved groups include individuals in at least one of the following categories: low income, minorities, elderly, immigrant populations, person(s) with disabilities, and/or youth; however, within each community there are unique and geographically specific groups and conditions that need to be considered and addressed.

Adding Equity as a sixth E means that the needs of various groups are considered and addressed with the goal of removing barriers that could prevent them from accessing, utilizing and enjoying active transportation and leading a healthy lifestyle. The intent of including equity as a sixth E is to identify, connect with and tailor programs and network options to all potential audiences and users to help ensure that the active transportation facilities and initiatives are available to people of all ages and abilities.

Figure 20: Illustration of the Equity Approach
Source: Robert Wood Johnson Foundation

ROLES, RESPONSIBILITIES AND PARTNERSHIPS

It is important to understand the anticipated roles and responsibilities for managing and implementing the various components of the CWATS Master Plan. Establishing a clear reporting structure can help ensure that the implementation of CWATS is supported and managed by those who will have a direct role in the day-to-day decision making as well as staff, departments and agencies who will require on-going coordination as it relates to planning, design, implementation, operations and promotion.

Following adoption of the 2012 CWATS Master Plan, a number of roles were formalized and established to clearly identify the expectation for those who will be responsible for managing and implementing CWATS. Key roles that were established following completion of the 2012 plan include:

- **Active Transportation Coordinator**
  Responsible for championing AT related issues, initiatives and programming throughout the County, working with the CWATS Committee on future prioritization and decision-making related to implementation, and providing updates on progress when necessary to County and its local municipal staff.

- **CWATS Committee**
  Responsible for sharing information and providing input and guidance to the County, ERCA and local municipalities on the implementation of the CWATS Master Plan as well as other initiatives related to active transportation and regional trail use in the County of Essex. The CWATS Committee also reviews and assists in determining project implementation.

In addition to these two roles, partnerships with agencies and stakeholders are considered to be a key contributor to the success of the CWATS Master Plan. The County has a strong history of building and maintaining relationships to help coordinate, support and deliver a variety of programs, initiatives and projects for CWATS and active transportation. It is the on-going and concerted effort to work with partners and maintain these relationships that has helped guide the planning, design, implementation, promotion and management of CWATS in the County and its local municipalities.

The update to the CWATS Master Plan will provide additional guidance on roles and responsibilities to reflect current resources, constraints and staffing capacity to help continue implementation of CWATS in a meaningful, achievable and realistic manner for the County, its local municipalities and its partners. Further detail on these mentioned roles and responsibilities, as well as additional ones, is provided later within Chapter 9 of the report.

2.2 HOW WAS CWATS UPDATED?

The update to the CWATS Master Plan was completed in the fall of 2022. The process was iterative and consisted of six phases that were shaped by input collected from the CWATS Committee, members of the public, stakeholders, County staff and local municipal staff. The process was also informed by current best practices and lessons learned since the previous 2012 plan. **Figure 21** provides an overview of the study process.

The approach used to update the CWATS Master Plan was consistent with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment master planning process including the assessment of potential alternatives, the selection of preferred options and consultation with members of the public. Throughout the study process consultation and engagement activities were prepared for and undertaken using a range of tools and tactics such as: community-based events, online surveys, committee workshops, public open houses and bike tours.

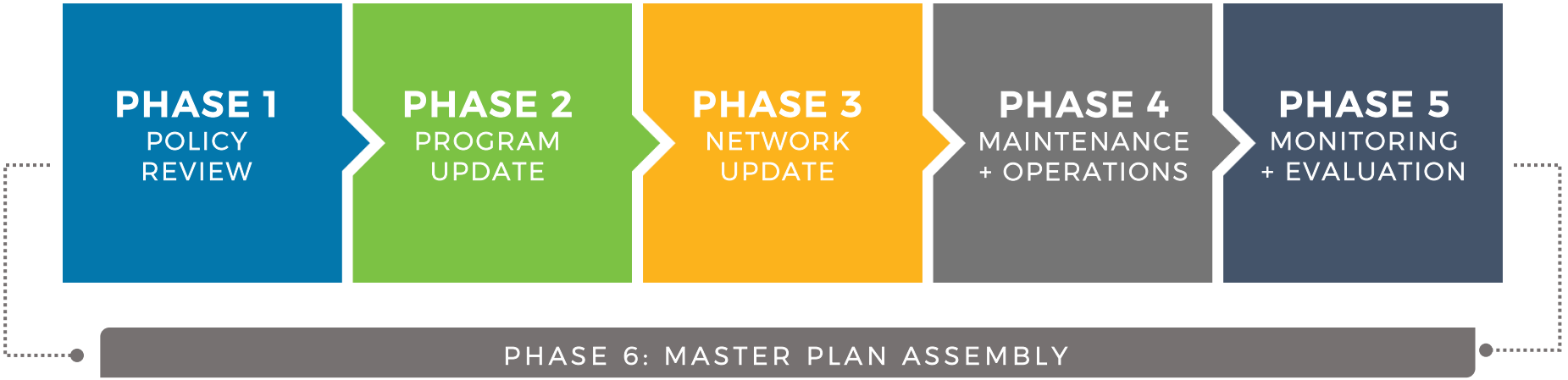

Figure 21: CWATS Master Plan Study Process

CWATS Master Plan Foundation

The CWATS Master Plan is founded on key principles, recommendations and the six E's of master planning. It is important to understand what these are and how each component is incorporated into the document. An overview of the CWATS Master Plan's foundational elements is provided in **Figure 22.**

The Vision is the ultimate aspiration for CWATS and it provides direction for the CWATS Master Plan. The vision is intended to be supported by a set of action-oriented statements (objectives). [see **Section 1.3** of the report]

Objectives are specific actions that can help to achieve the vision. The objectives are supported by the various recommendations within each chapter. [see **Section 1.3** of the report]

Recommendations have been established to identify actions / next steps that could be undertaken by the County, its local municipalities and partnering agencies to help achieve the CWATS vision and objectives. The recommendations are informed by the Six E's identified below [see **Chapter 10** of the report]

The Six E's represent elements of a successful master plan and were considered when developing each recommendation. Each recommendation is intended to achieve one or more of the Six E's. [see **Chapter 7** of the report]

Figure 22: CWATS Master Plan Foundation

2.3 ORGANIZATION OF THE REPORT

The CWATS Master Plan Update is organized into the following chapters:

1	The context for the 2012 CWATS Master Plan including the vision, objectives and a sample of some recommendations as well as an overview of successes to date.
2	A detailed summary to explain why the CWATS Master Plan was updated and how this was done.
3	An overview of infrastructure built to date and the County's profile including socio-demographic information.
4	A summary on the consultation and engagement initiatives held throughout the study and a synopsis of the input received.
5	A proposed policy strategy that builds upon best practices, lessons learned, emerging trends, and plans that have been implemented since the completion of the 2012 CWATS Master Plan.
6	Documentation of the approach used to refine and update the CWATS network as well as the final proposed routes with associated facility types and design considerations.
7	A proposed program strategy including potential outreach initiatives / options that build upon the successes and what has been done to date in the County and its local municipalities.
8	Key considerations and recommendations for maintaining the CWATS network including winter and non-winter considerations as well as best practices.
9	Guidance on implementation including a phasing strategy, costing and funding considerations, supportive tools and monitoring and evaluating metrics.

Since the development of the original CWATS Master, there have been significant changes to active transportation including planning, design, implementation and operations. The opportunity to revisit and revise the components of 2012 CWATS that have made it successful will allow the County to update the master plan with the most current best practices and lessons learned including:

- The development of new guidelines, standards and best practices related to AT present an opportunity to reassess the facilities that form part of the 2012 CWATS network;
- An opportunity for new construction projects and ongoing maintenance to consider planning approaches such as Complete Streets or All Ages and Abilities facilities;
- Trends like micro-mobility and seamless integration with transit are evolving and CWATS will need to revisit how these trends influence decision making;
- Further develop initiatives related to the encouragement and education of active transportation listed within the preceding 2012 CWATS Master Plan;
- Planners and transportation practitioners realize that equity is an important aspect of transportation planning and design, and it should be considered in the master planning; and
- An opportunity to revisit who is responsible for the implementation, promotion and maintenance of the 2012 CWATS network, programs and initiatives to better distribute financial resources.

In addition to these emerging trends and opportunities, there have been significant socio-demographic changes, infrastructure improvements and shifts in residents' understanding of CWATS since the development of 2012 CWATS Master Plan. These changes are summarized in **Chapter 3** to further explain and support the need to update the 2012 CWATS Master Plan.

Figure 23: CWATS route located along County Road 20 (2019)
Source: WSP Canada