
6. Implementing a Bikeway Network

The fundamentals outlined in **Section 2 (Bikeway Network Planning)**, **Section 3 (Bicycle Facility Type Selection)** and **Section 4 (Bicycle Facility Design)** are brought together in this chapter. **Section 6** presents a recommended implementation process, including management structure and the necessary steps required to support the review, approval, design and implementation of bicycle facilities on roadways throughout Ontario.

6.1 Five- Stage Implementation Process

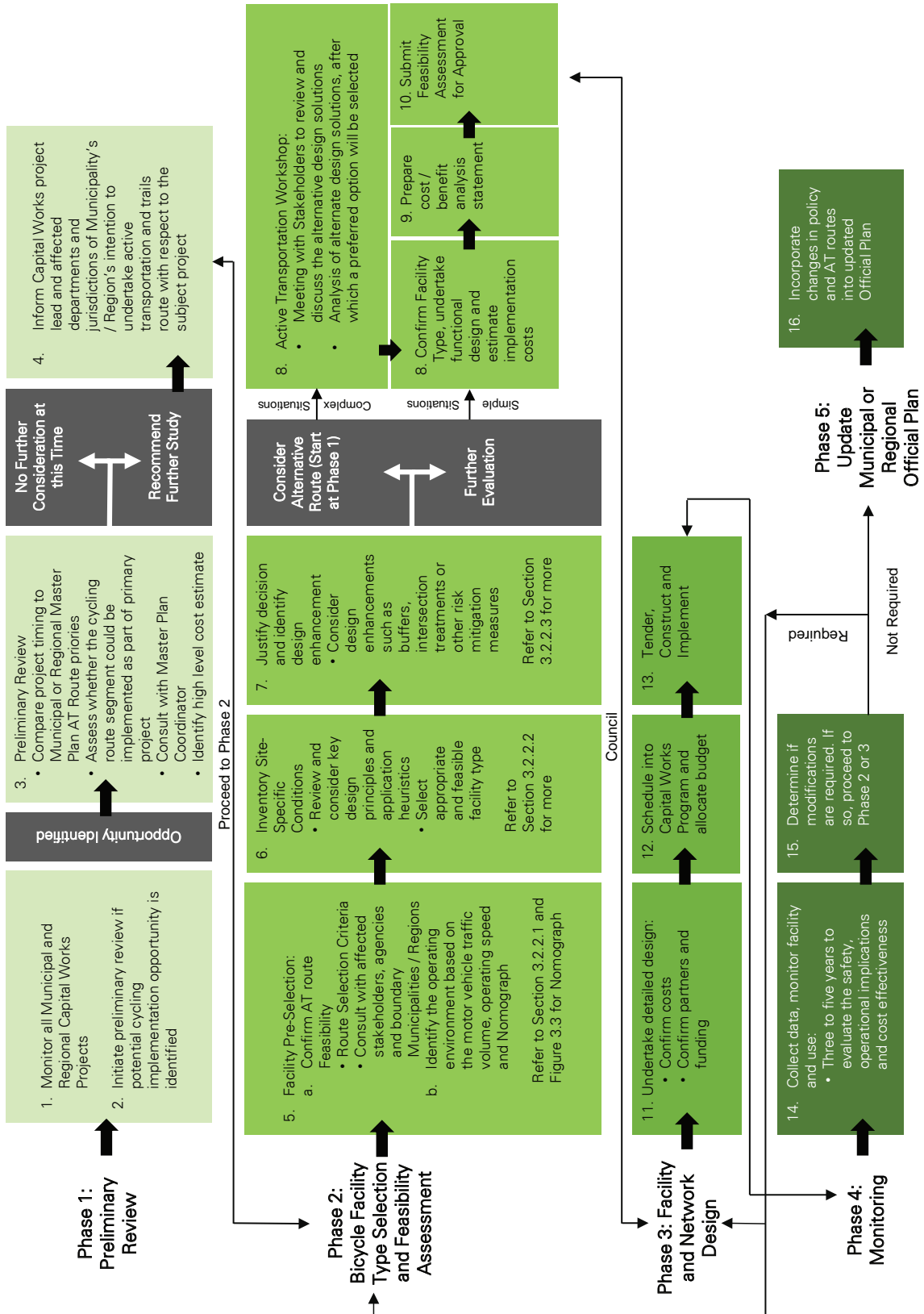
The five-stage implementation process forms the final step in the Bicycle Network Planning, Design and Implementation Process and outlines a strategy to support the successful implementation of a bicycle network. The process is a step-by-step mechanism to guide practitioners through a feasibility assessment of each bicycle route which is recommended to be undertaken at the time implementation is proposed.

A key step in this process will be the review of Municipal or Regional Master Plans and AT route priorities which will need to be considered in detail when capital infrastructure projects are identified and scheduled. This should include municipal and regional asset management programs for reconstructing or resurfacing roads, as well as any investigation of potential new road alignments. The objective is to ensure that municipal and regional assets, particularly roads designated in the Master Plan for future cycling routes, are given due regard when planning, designing and budgeting for road and infrastructure projects. This step should also apply to planning studies. Without this step, network opportunities could be lost and cost efficiencies not realized.

Building upon this primary recommendation, **Figure 6.1** illustrates the implementation process tool for guiding practitioners through the planning and design of bicycle facilities in Ontario.

The five part process is comprised of a step-by-step mechanism to confirm feasibility of each cycling route proposed. It is intended to assist practitioners from various municipal and regional departments to work together by sharing information that will facilitate the implementation of the proposed cycling route or network. Each part of the network implementation process is described in the following sections.

Figure 6.1 – Five-Stage Implementation Schedule



6.1.1 Phase 1: Preliminary Review

The first step in the implementation process is to identify and communicate opportunities. Practitioners should monitor all Municipal and Regional capital works programs to identify projects that link existing corridors and cycling routes identified in a Master Plan document. Through this process, road construction projects can be coordinated with the implementation of the proposed cycling facility.

If an opportunity arises to establish a new route not previously identified in the Master Plan, practitioners should undertake Phase 1: Preliminary Review.

The Preliminary Review should:

- Identify the jurisdictions involved in a project;
- Compare the timing of the project to the short and long term implementation priorities identified within the Region or Municipality;
- Assess whether the nature of the project permits the implementation of the preferred cycling facility type in a cost-effective manner; and
- Inform the project lead and affected departments whether or not a feasibility assessment should be undertaken to confirm the practicality and costs for implementing the proposed cycling route as part of the subject project.

A key aspect of this Preliminary Review is communication. Staff from various departments within the Region and Municipality should document all upcoming projects that may involve or impact a cycling facility designated in a Master Plan document. From this point forward, the

project lead, with appropriate technical support, would be expected to work through the remaining three phases of the implementation process with various departments at the Region or Municipality, as appropriate.

6.1.2 Phase 2: Bicycle Facility Type Selection

If a cycling project is confirmed through the Preliminary Review Process (Phase 1), the project lead should undertake a two-part feasibility assessment.

Part one of the assessment consists of confirming the feasibility of the route based on a review of the submitted plans, supporting route selection, planning and design criteria, as well as other relevant information. **The Bicycle Facility Type Selection Tool** presented in **Section 3** should serve as the basis for this feasibility assessment, and should include:

- A collection or confirmation of current roadway characteristics including AADT volumes, collision data and commercial vehicle percentages; and
- A field check for both on and off-road route segments to measure sight distances (if applicable), and to identify any other site characteristics that may be considered for facility type selection.

If site-specific issues, context sensitive conditions or the outcome of the feasibility assessment conclude that a facility cannot be constructed in association with a particular road improvement project, other nearby parallel routes should be closely examined at this time to determine their suitability.

If the route location is considered complex or there are significant constraints, then as part of the feasibility assessment, the practitioner should

conduct a multi-disciplinary Active Transportation Workshop. The focus of this workshop would be to review the proposed route and the design, then identify and evaluate alternative designs or enhancements. Through this rigorous technical review and assessment of the various design alternatives, the practitioner can determine whether a proposed bicycle route and associated facility type can be accommodated on the roadway, or whether an alternative route should be considered.

Once a suitable route and facility type have been selected, part two of the feasibility assessment can be undertaken. This involves production of a preliminary functional design for the preferred on or off-road cycling facility segment. It also includes an estimate of the implementation costs, including construction and signing.

6.1.3 Phase 3: Facility Design

Once approval has been obtained to implement the cycling route segment, the required detailed design should be undertaken as outlined in **Section 4 (Bicycle Facility Design)**. This step is typically completed as part of a primary capital roads project such as a road widening. The third phase of the implementation process should also include the confirmation of potential partners (if any) and cost sharing opportunities. The project should then be scheduled into the municipal capital road program, and a suitable budget should be allocated. The final step involves tendering the project, followed by construction and implementation.

It is also possible that following the detailed design stage, a decision may be made not to proceed with the preferred facility type because of costs or other constraints that may arise through the detailed design process.

6.1.4 Phase 4: Monitoring Phase

Once cycling facilities have been constructed, their design and use should be monitored to ensure that they function in the manner that was intended. When necessary, the facilities should also be upgraded and maintained to ensure continued safe use by cyclists. A monitoring team should also check that the cycling facilities comply with current design guidelines. This step will involve the collection of data to assist in the monitoring step in the process.

6.1.5 Update to the Municipality's Official Plan

The fifth phase of the implementation process includes updating the Regional or Municipal Official Plans (when the next update is scheduled) to account for changes in AT policy and network routes.