

Regional Road 25 Public Information Centre #1 – Preliminary Design Considerations and Opportunities (Video 4) – Text Description

Slide 34 (Video 4 – Preliminary Design Considerations and Opportunities)

Hello and welcome to the Preliminary Design Considerations and Opportunities video – the fourth of five video presentations for the Regional Road 25 MCEA study. In this video, we will review design considerations and opportunities, typical cross-section elements for the corridor, and the process for developing the recommended solution.

Slide 35 (Development of Alternative Design Concepts)

Phase 3 of the MCEA process involves developing and assessing alternative design concepts for the recommended solution. Having established the needs and opportunities for Regional Road 25 in Phase 1 and identifying the Recommended Solution in Phase 2, this next study phase will involve developing and evaluating alternative design concepts for the various components of the proposed improvements on Regional Road 25.

Considering the varying characteristics and land uses in the corridor, the study area has been divided into three sections with similar characteristics:

1. Section 1: Speers Road to Highway 407 including the QEW interchange
2. Section 2: Highway 407 to Britannia Road
3. Section 3: Britannia Road to Derry Road

Each section will be considered separately throughout the development of alternative design concepts. The outcomes of the development of alternative design concepts may vary in each segment to suit specific needs in the respective area.

Slide 36 (Preliminary Design Considerations and Opportunities)

The development of the typical cross-section elements, intersections, roadway alignment, and other corridor improvements for Regional Road 25 will prioritize the following considerations and opportunities:

- An inclusive and multi-modal transportation system available to all users of all abilities.
- A safe and efficient cycling and pedestrian environment, including at intersections and interchanges.
- Protection at intersections for cyclists and pedestrians.
- Select cycling facility type and integration with planned cycling facilities within the broader network.

- Minimize impacts to properties (residential, business, institutional, recreational, etc.).
- Integration with future development.
- Minimize impacts to natural features.
- Protect the White Oak Tree.
- Consideration for drainage, stormwater management, and flood storage.
- Protect space for transit stops and needs for future stops (shelter, power, utilities, etc.).
- Tie into QEW and Highway 407 interchanges.
- Consideration for major utilities and pipeline crossings throughout the corridor.

Our understanding of these elements and opportunities is expected to evolve as the study progresses and based on input from technical agencies and stakeholders.

Slide 37 (Design Considerations – Active Transportation)

Cycling and pedestrian facilities are a key component of the design for Regional Road 25 to support the creation of a safe and convenient multi-modal transportation network in Halton Region.

The 2015 Active Transportation Master Plan proposed a combination of cycling and pedestrian facilities on Regional Road 25, including multi-use paths, sidewalks, bike lanes and paved shoulders. The 2015 Active Transportation Master Plan recommendations will be revisited using the recently updated provincial guidance, Ontario Traffic Manual Book 18 from 2021. This guidance reflects current design guidelines and best practices, including an ‘all ages and abilities’ design approach. This approach to cycling infrastructure development encourages people of all ages and abilities to cycle more often and mitigate potential conflicts through facility design, where possible.

Based on vehicles speeds, volumes, and the road cross-section, cycle tracks, sidewalks and/or multi-use paths will be considered for the corridor.

Slide 38 (Active Transportation at Intersections)

Safety is Halton Region’s top priority for the transportation network and active transportation is a key element to providing an inclusive and multi-modal transportation system available to all users of all abilities.

Intersections must be designed to address the needs of pedestrians and cyclists and create a safe and comfortable active transportation network.

In general, design principles to manage potential conflicts between pedestrians, cyclists, and motorists include:

- separating high-risk conflicts in time or space;
- maximizing visibility;
- clearly communicating right-of-way and expected yielding behaviour;
- minimizing delay; and

reducing motor vehicle speed.

Slide 39 (Active Transportation at Intersections)

There are many strategies that may be used to implement the design principles described on the previous slide. Some sample strategies examples include:

- pavement markings and solid green surface treatment;
- signs;
- bicycle signals; and
- setback crossings.

An example of a pavement marking is a crossride, as shown in the images on the slide. A crossride provides a designated space where cyclists are permitted to ride across an intersection or crossing. Several different pavement markings may be used to delineate a crossride depending on the type of crossride. Green surface treatment may be applied to increase the visibility of a cycling facility, highlight conflict areas and reinforce the priority of people riding bikes in conflict areas.

Slide 40 (Design Considerations – Transit Infrastructure)

As discussed in Video 2, Regional Road 25 is identified as a Priority Bus Corridor. Transit supportive infrastructure that may be considered for the corridor includes:

- Transit signal priority (TSP) to reduce the time that transit vehicles spend waiting at red traffic lights.
- Queue jump lanes to allow transit vehicles to pull ahead of vehicular queues at intersections.
- High-occupancy vehicle (HOV) / transit lanes to reserve lanes for bus operations to be shared with HOVs (e.g., 2+ vehicle occupancy).
- 6-lane cross section to provide an opportunity to incorporate HOV lanes on the outside lanes.
- Transit shelters and amenities to provide essential information and comfort to transit users.

Slide 41 (Typical Cross Section Elements)

The typical cross-section elements for Regional Road 25 are based on a planned overall right-of-way width of 47 metres, which is consistent with the Halton Region Transportation Master Plan and provision of three travel lanes in each direction.

The boulevard space between the edge of the right-of-way and the travel lanes provides space for:

- Setback to the property line
- Streetscape & landscape features

- Separated pedestrian & cycling facilities
- Utilities & illumination.
- Transit stops
- Curb & gutter

The raised centre median provides space for left turn lanes at intersections.

Three lanes are provided in each direction, with space to accommodate potential future high-occupancy vehicle and transit in the curb lane.

Further assessment is required to determine the type of preferred pedestrian and cycling facilities in these sections.

Slide 42 (Process for Developing Recommended Solution)

The graphic on the slide illustrates the activities that will be completed in Phase 3 of this MCEA study.

- Identify design considerations and opportunities.
- Develop typical cross-section elements to establish the future right-of-way requirements.
- Develop road alignment options for Regional Road 25 where there is flexibility to avoid constraints.
- Develop various road design features such as intersection improvements and localized modification to cross-sections and alignment in constrained areas.
- Develop the preliminary design plan and profile based on the preferred cross-section elements, alignment, and associated right-of-way requirements.

The first two steps in the process were the focus of the content in this video. The remaining steps will be presented at the next PIC. Design iterations may occur at each step as the design progresses.

Slide 43 (We Want to Hear From You)

We want to hear from you. Please provide your comments and feedback on the preliminary design considerations and opportunities by completing the online survey. We will review and take feedback into consideration as we move into the next phase and develop alternative design concepts.