

Executive Summary

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A Context Sensitive approach to road design will ensure York Region's roads are fully integrated with planned land use and built form, allowing the Region to respond to changing conditions and create age friendly complete communities

Road design plays an important role in city building and the establishment of a sense of "place". Evolving best practices call for cross-disciplinary collaboration and approaches to street design that integrate boulevard and roadway design while recognizing the unique attributes of the area and land uses. This approach is often called Context Sensitive Solutions (CSS). It shifts the focus from planning for vehicle capacity to planning for streets that provide greater mobility for all users and greater integration with the community.

This update to The Regional Municipality of York road design process guideline is consistent with direction and policies in the 2016 Transportation Master Plan. It also integrates the road design process with land use and existing community characteristics. Like many municipalities in Ontario, the Region is working to plan its transportation infrastructure to accommodate additional growth in residents and employees as well as changing demographics. The Region is striving to make more efficient use of land and resources, promoting intensification in urban areas, while developing a more sustainable, interconnected system of mobility that is sensitive to climate change. Road design to support evolving communities and land uses is an integral component of building communities to meet the needs of all residents.

These guidelines are intended for planners, urban designers, architects, landscape architects, engineers, developers and others who may be involved with the Regional road design process.

These guidelines are expected to be used by multidisciplinary design teams to produce resilient road design options that suit the specific, current settings and proposed future land uses.

The Vision of these guidelines is:

To create vibrant streets for York Region that provide a range of safe and reliable transportation options, while being sensitive to adjacent land uses and needs of the community.

The key elements of this Study are summarized below.

Six Road Typologies

These guidelines include six road typologies that reflect the Region's aspirations for the Regional road network.

1. City Centre Street
2. Avenue
3. Main Street
4. Connector
5. Rural Road
6. Rural Hamlet Road

Sample sections and plans are provided for each typology, along with key operational and urban design attributes.

Design Guidelines

The guidelines outline best design practices for elements of the roadway (between the curbs) and the boulevard (between the curb and building

face), as well as adjacent natural heritage features. They are intended to assist the road design team in developing design detail for projects that reflect the best practices for each typology.

Decision Making Process

This step-by-step process guides design teams through a flexible and multidisciplinary process of street design and prioritization of multiple items. It contains worksheets, a detailed matrix and toolbox to be used in designing Regional roads.

The process directs design teams to undertake a thorough analysis of the future setting and land use surrounding the road, the identification of broad-based objectives and the priority mode of movement to identify the preferred typology or typologies. Roadway and boulevard elements

are selected and a process of refinement is used to lead the team through the development of an appropriate cross-section based on land use, community needs, project objectives and constraints. A summary of the decision making process is illustrated on the next page.

Implementation

Adoption of the recommendations in the guidelines has implications for the Municipal Environmental Assessment process, the best practices for maintenance and operations and the costs for road construction.



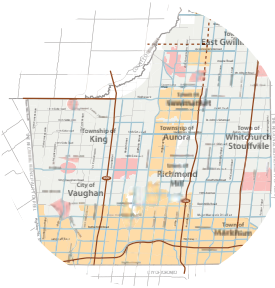
Regional roads pass through a variety of contexts

Summary of Decision Making Process

1

OPPORTUNITY STATEMENT

- Identify the issues the project will address



2

REVIEW CONTEXT

- Determine the policy context (e.g. land use, transit)
- Determine the planned physical context (e.g. right-of-way width, built form)
- Determine financial context (e.g. capital/lifecycle)



3

PRODUCE OBJECTIVES

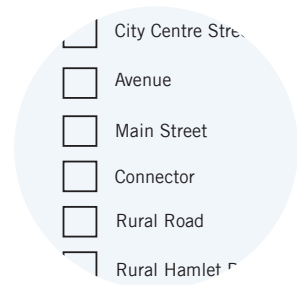
- Determine objectives (e.g. priority modes of movement, planned context)
- Refer back to objectives throughout process



4

SELECT A TYPOLOGY

- Refer to typology matrix
- Select appropriate typology or hybrid typologies based on objectives, priority mode of movement and planned context



5

DETERMINE ELEMENTS OF THE STREET

- Refer to Toolbox
- Identify Boulevard and Roadway Elements
- Determine whether elements need to be refined to fit in available space



6

REFINE ELEMENTS

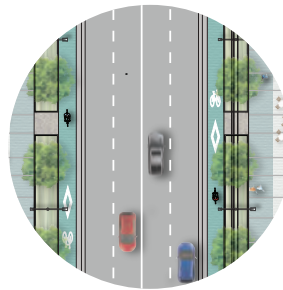
- Refer to Toolbox
- Cycle between Step 6 and 5 until required/preferred elements fit in available space
- Refine in order of priority



7

BUILD PLAN & SECTION

- Compile all elements into a recommended section for the Regional road
- Confirm section satisfies the objectives in Step 3



8

BUILD INTERSECTIONS & TRANSITIONS

- Refer to guidance provided for the design of Intersections and Transitions



REVISIT OPPORTUNITY STATEMENT

- Check back to ensure that the solution developed will address issues identified in the Opportunity Statement

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