Region of Peel's Road Characterization Study

Synopsis

Region of Peel
Working for you

Goals for the Community

Within our dynamic and evolving Region, we recognize that Regional Roads add tremendous value to our communities. Our Regional Roads positively contribute to community identity, walkability, commerce, environmental function, and health, in addition to meeting our mobility needs. The goal of this study was to meet the needs appropriate for each community.

The Regional road rights-of-way we develop, operate and maintain must accommodate various functions from moving goods and freight to supporting children crossing streets on the way to school, to enhancing existing and emerging main streets. We must also consider how these rights-of-way impact our community character while providing access to land uses ranging from scenic and rural lands to successful neighbourhoods and main streets, industrial and aggregate extraction locations, and intensifying urban areas.

Re-examining our Approach to Become More Community Responsive

Through the Road Characterization Study process, we have reexamined our approach to Regional road right-of-way design. Past values that resulted in “one-size-fits-all” roads primarily focused on motorists’ safety have evolved. Today, we offer a more balanced response to the needs of pedestrians, cyclists, transit users, motorists, and freight haulers within our limited rights-of-way.

Our Transportation Division within the Public Works Department, as responsible stewards of public finances, offers this integrated approach as it continues to develop, maintain, and operate safe, cost effective and efficient roads for people living in our community and for those people passing through.

Dan Labrecque
Commissioner
Peel Public Works

Purpose of the Study

The RCS is an implementation measure of the Long Range Transportation Plan (LRTP) recommended in 2012. In the LRTP, the RCS was identified as a process to examine the objectives, needs and intended functions of arterial roads owned by the Region.

The outcome of this study was to characterize roads based on both their functionality and adjacent land use, while accounting for intensification and future development.

The four **key outcomes** of this study were:

- Road Character Map
- Road Character Matrix
- Illustrative Cross Sections
- Access Control Measures & By-Law

Roadway Characterization Based on Land Use Context

Road characterization is based on surrounding land use contexts that range from urban to rural and occasionally suburban. These categories are further subdivided into main street, commercial, or industrial depending on the immediate adjacent land use or desired function of the street.

Significantly, road characterization also depends on the vision of evolving corridors as communities change and respond to economic and cultural shifts. This makes the characterization of roads dependent upon identified future corridor land uses and function.

Study Method and Approach

A Context Sensitive Solutions (CSS) approach was used for this project. The CSS process balances local land use contexts and the needs of stakeholders with functional roadway design. Guiding the process was the Complete Streets model that considers all modes of transportation when designing roads.

This project involved consulting with municipal stakeholders and multiple Regional staff members to develop solutions, through multi-day workshops held in June, September, and November 2012.

KEY OUTCOME

Road Character Map

The Road Character Map shows Regional Roads and their associated road typologies. Each typology is explained further in the Road Character Matrix.

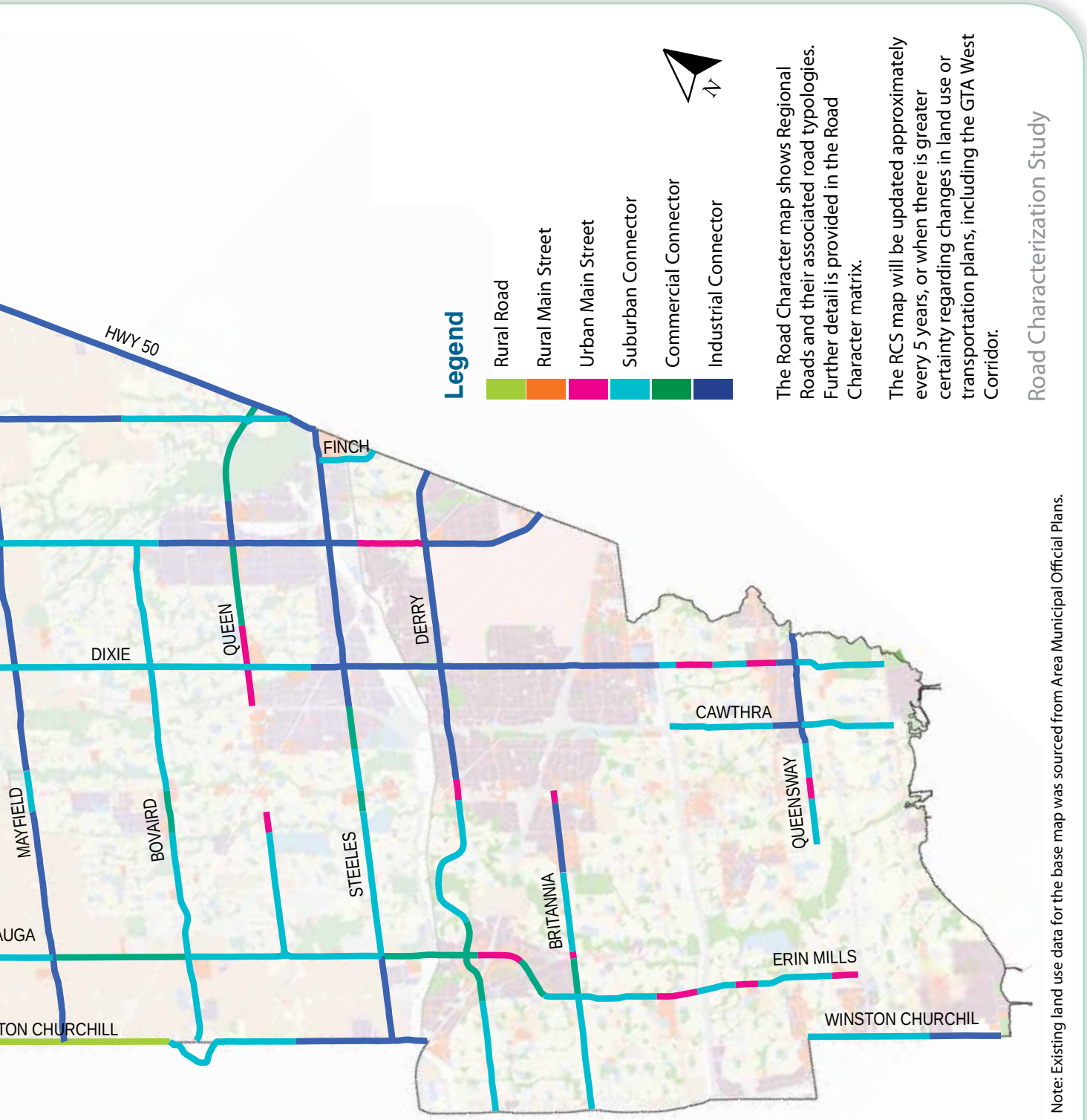
The RCS map will be updated approximately every 5 years, or when there is greater certainty regarding changes in land use or transportation plans, including the GTA West Corridor.

The map is shown on page 4.

Road Characterization Study Quick Reference

Full Study: peelregion.ca/rcs

Road Character Map



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Road Characterization Study

Note: Existing land use data for the base map was sourced from Area Municipal Official Plans.

KEY OUTCOMES

Road Character Matrix

The Road Character Matrix provides a detailed description of the typical attributes of each road character. This includes the general area context of the road, number of through travel lanes, and the desired operating speed. It also lists the transit and freight role played by the road, as well as the pedestrian and bicycle facilities that may be appropriate for the various road character typologies.

The Road Character Matrix can be viewed in the full RCS report, which can be downloaded through our website. A link is provided on the back cover.

Illustrative Cross Sections

The road cross sections were developed through the 2012 Road Characterization Study process and serve as a starting point for designers when Regional roadway projects are undertaken.

Within each cross section, specific zones are identified for illustrative purposes. These zones include vehicle, pedestrian, bicycle, and multi-use path zones. Other infrastructure is reflected through the green zone, median zone, splash strip, and parking zones.

All Illustrative Cross Sections can be viewed in the full RCS report, which can be downloaded through our website. A link is provided on the back cover.

"Arterial roads are vital to Peel's prosperity. This report shows that they can also be designed so that they are sensitive to, and indeed supportive of, neighbourhoods, main streets, complete streets, and all of the local land uses which the residents of Peel need to maximize their chances to enjoy good health. The report is a significant step towards a built environment which supports healthy living."

Dr. David Mowat
Medical Officer of Health
Peel Public Health

What is Access Control?

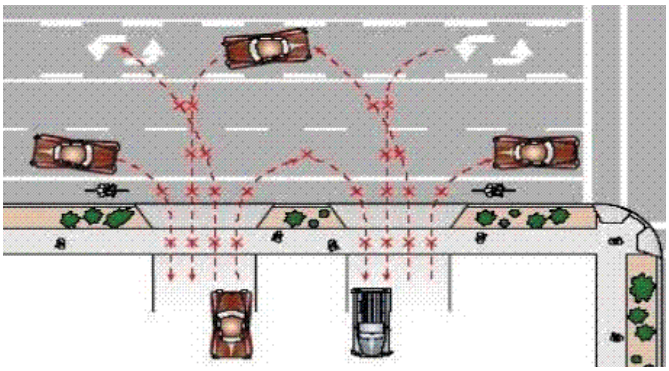
Access control measures maintain the quality of the traffic service on controlled roads while providing efficient access to surrounding properties.

Access control typically includes the following:

Spacing of accesses – This is intended to control the number and location of the points of vehicular access along an arterial road. Control of number and spacing of accesses, in turn, minimizes the number of signalized accesses, critical to preserving the travel time on the signal coordinated arterial road.

Access Design – These design measures control the number of turning movements (and consequently the number of vehicular conflicts). This also includes the use of medians, islands, and other designs that limit the turns allowed into and out of properties and roads.

The image below illustrates the number of potential vehicular conflicts, emphasizing the important role good access management plays in maintaining road safety, while balancing mobility and commercial and residential access.



In addition to the above, forming a network of local connections and using roundabouts are also tools used in access management.

Peel has outgrown the "one-size-fits-all" approach used in the past, and with growing communities, customizing access control to road character has been a significant leap forward in the way we design and operate our roads.

Further information on this new approach, the methodology behind it, and the cities reviewed to create Peel's access spacing is included in the full report, which can be downloaded through our website. A link is provided on the back cover.

KEY OUTCOME

Access Control Measures & By-Law

The access control outcomes from the study included a new approach to intersection spacing that takes into consideration the land use character. In areas with greater density in Brampton and Mississauga, reduced intersection spacing is needed to allow access to businesses and residences. In rural areas, such as those found in Caledon, points of interest are located further away, therefore less frequent access is required. Here the priority shifts to providing greater mobility, and larger intersection spacing is needed. This tailored approach to access control was applied to each of the six road characters in the Region of Peel.

This methodology and the corresponding design and access measures formed the basis of the Region of Peel's New Controlled Access By-Law (62-2013), adapted July 4, 2013.

To view the full report and contact information
for this study, please visit our website.
peelregion.ca/rcs

An accessible version of this document can be found online.