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CONTEXT SENSITIVE SOLUTIONS DEVELOPING DESIGN GUIDELINES FOR REGIONAL STREETS

The Transportation Services Committee recommends:

- 1. Receipt of the presentation by Angela Gibson, Head, Policy and Planning, Transportation Services, Roads; and**
- 2. Adoption of the recommendation contained in the following report dated January 18, 2012, from the Commissioner of Transportation and Community Planning.**

1. RECOMMENDATION

It is recommended that:

1. The Regional Clerk circulate this report to the Clerks of the local municipalities.

2. PURPOSE

This report informs Council of the need for Context Sensitive Solutions design guidelines for the future planning, design and construction of Regional streets that will better serve the needs and total context of the community.

3. BACKGROUND

The role and function of Regional Streets have changed and therefore supports the need to update the existing Regional street design guidelines

Over the last decade, there has been a paradigm shift in the function and the prioritization of regional corridors, from planning streets primarily to increase motor vehicle capacity to planning streets that build greater mobility for all road users including transit users, pedestrians and cyclists. The role of Regional corridors has expanded to reflect and support provincial and regional planning objectives, contribute to city-building and create a sense of “place.” Determining how to prioritize the competing interests within the Regional rights-of-way using the existing planning processes, such as Environmental Assessments and detailed design is complicated with few examples to draw upon. As a result, many Regional street projects have been delayed due to community expectations not being met. It is recognized that a “one size fits all” approach does not work for all communities, and therefore there is a need for greater flexibility in designing Regional streets.

Provincial policies have also influenced the role and function of Regional corridors

Places to Grow, the Big Move, *Accessibility for Ontarians with Disability Act* and the Provincial Policy Statement are provincial policies that call for increased accessibility, urbanization and intensification in the community and along specific corridors. Provincial policies also require Regional streets move alternative modes other than single occupant vehicles more efficiently. There is also an increased expectation for Regional streets to promote high quality urban design as they serve as entryways into communities and therefore encourage the development of pedestrian and transit-oriented neighbourhoods.

Context Sensitive Solutions is a collaborative and interdisciplinary approach to the design and construction of Regional streets

Context Sensitive Solutions go beyond examining the vehicular capacity needs to looking at the total context, including factors such as: heritage preservation, streetscape elements, accessibility, transit, community values, adjacent land uses, and pedestrian and cycling needs, etc. The U.S. Federal Highway Administration has defined CSS as follows:

"Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist."

-- Federal Highway Administration (FHWA)

The Context Sensitive Solutions approach is being integrated into design guidelines throughout North America. The City of Ottawa and the Region of Waterloo have recently developed Regional corridor guidelines based on the principles of Context Sensitive Solutions.

Regional road design guidelines require a Context Sensitive Solutions approach to ensure the total context is considered in street design

The development of Context Sensitive Solutions design guidelines will result in a flexible set of guidelines that will help outline the prioritization of travel modes based on community values and needs. The guidelines will provide direction to planners and engineers managing capital projects and will simplify decision-making to deliver improved Regional streets that are supported by the community and can be implemented in a timely manner. The objective is to provide a transportation corridor that provides options for various modes while considering the needs of the community and adjacent land uses into the design of regional corridors.

Towards Great Regional Streets was the first step towards implementing a Context Sensitive Solutions approach for the Region

Building on the 1998 '*Regional Streets*' design guidelines, '*Towards Great Regional Streets*' was developed in 2006 to specifically address the design of six-lane streets. In November 2009, the Region completed the construction of its first project under these design guidelines on Dufferin Street. The Dufferin Street project included High Occupancy Vehicle (HOV) lanes and dedicated bicycle lanes that were incorporated to help manage traffic congestion and impacts to the environment by encouraging alternative and more sustainable modes of travel. A landscaped centre median with raised planters was constructed to enhance the aesthetics of the roadway and improve traffic calming. While '*Towards Great Regional Streets*' is a useful tool for designing six-lane roadways, a menu of alternatives is required for all street types to help clarify and prioritize various travel modes and community uses.

4. ANALYSIS AND OPTIONS

Context Sensitive Solutions design guidelines will create a suite of options to respond to various street types and contexts

The Context Sensitive Solutions design guidelines will build on the previous initiatives undertaken in the Region, including the Regional Official Plan, the Transportation Master Plan, the Pedestrian and Cycling Master Plan, the South Yonge Streetscape Master Plan and the VivaNext Design Guidelines. The Context Sensitive Solutions Guidelines will also build on and consolidate the recommendations developed in the Regional Streets guidelines and Towards Great Regional Streets design guidelines. This will ensure one consistent and comprehensive resource for planners and engineers to refer to when planning and designing Regional streets for the community.

The guidelines will identify the different street typologies for both urban and rural contexts. The establishment of right-of-way widths and specific elements within the right-of-way for the various typologies will help provide a tailored solution that will respond to the needs of the adjacent community. The outcome will be a framework that will guide the identification of street typology, determine right-of-way widths based on street typology, select the required elements that are available to use for the particular street typology as well as opportunities for consultation with the community and stakeholders.

The guidelines will provide planners and engineers the flexibility to select and prioritize the various street requirements including, right-of-way width, lane widths, capacity, landscaping, utility, transit, and pedestrian and cycling elements that are required for the specific regional street type. The result will be a more customized transportation facility that will be aligned with the needs of the community and increase the efficiency of resources (time, budget, staff resources) involved in the planning and design of Regional

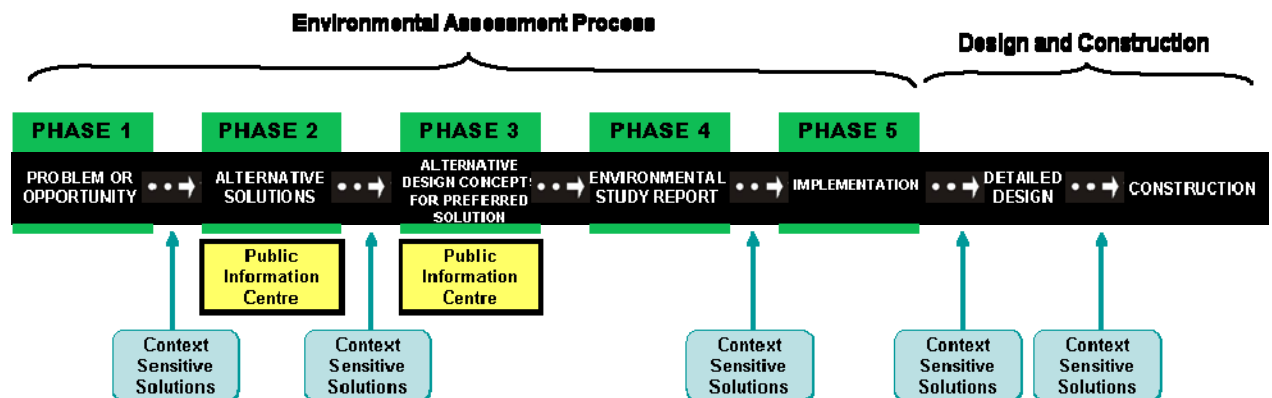
streets. This framework will be developed within the parameters of provincial and Regional standards and include best practices from Transportation Association of Canada and the Institute of Transportation Engineers.

The Context Sensitive Solutions approach will be incorporated throughout the entire Environmental Assessment, Detailed Design and construction of roadways

Context Sensitive Solutions is an approach that engages the public early and continuously throughout the Environmental Assessment, detailed design and construction processes to resolve any potential issues that may arise. Currently, Project Managers are limited by existing road design guidelines. This often leads to alternatives that are criticized by the public for not appropriately regarding the total context of their community. The Context Sensitive Solutions approach is intended to minimize delays to the public approval of Environmental Assessments by providing the public, stakeholders and decision-makers with more choice.

Figure 1 depicts how the Context Sensitive Solutions approach will be incorporated throughout the Municipal Class Environmental Assessment process; ensuring that transportation planning, design and construction of Regional streets is carried out in a holistic, flexible manner that considers a community's total context before developing a street design.

FIGURE 1
Context Sensitive Solutions Process



All modes of travel will be considered as part of the decision-making framework

The guidelines will consider all modes of transportation and activity within the right-of-way, including walking, cycling, transit, autos and trucks. The decision-making will ensure vehicular, cycling and pedestrian safety while determining the feasibility and requirements for each amenity within the right-of-way. An implementation framework will help in the selection of options for amenities for the specific street typology.

The Guidelines will incorporate the update to the Regional Streetscape Policy

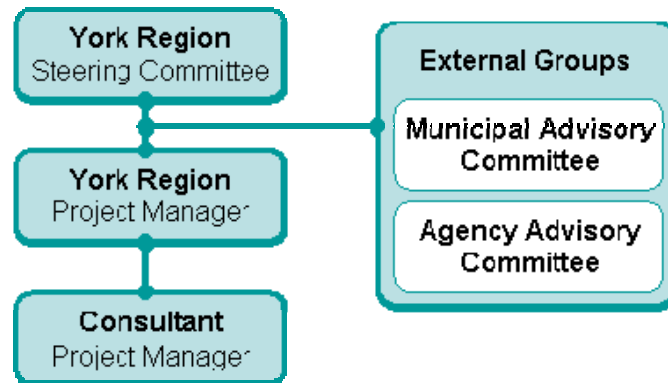
The Context Sensitive Solutions guidelines will also include an update to the Regional Streetscape Policy. The policy was approved in 2001 to promote high quality streetscape and urban design based on three levels of streetscape enhancement conditions which focus on improving the public realm and supporting intensification within Regional Centres (as identified in the Regional Official Plan). To ensure the Context Sensitive Solutions guidelines are a comprehensive resource for planners and engineers, they will also address the treatment of sight triangles for urban and rural intersections.

The establishment of a multi-disciplinary project steering committee ensures support for the guidelines across departments

A multi-disciplinary Project Steering Committee has been established to ensure that there is support and understanding of the Context Sensitive Solutions approach across the various departments within the Region. The Steering Committee represents the following functions: Policy, Traffic Management, Community Planning, Infrastructure Planning, Forestry, Transit, Rapid Transit and Capital Delivery (Roads, Water and Wastewater). This ensures the different roles and perspectives in the planning, design, construction and maintenance of regional corridors are considered in the development of the Guidelines.

Members of the Steering Committee were in attendance at an internal kick-off workshop on October 17, 2011 to discuss the benefits of the Towards Great Regional Streets guidelines as well as the undertaking of the Context Sensitive Solutions guidelines. Consultation with External Agencies as well as technical representatives from the local municipalities will be carried out. Figure 2 shows the Team Organization Structure for the development of the Guidelines.

FIGURE 2
Context Sensitive Solutions Guidelines – Team Organizational Chart



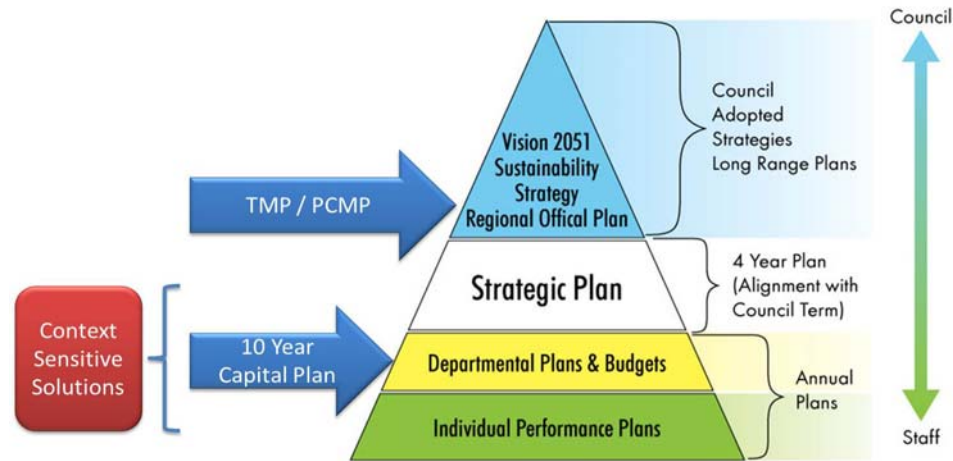
The Steering Committee has reviewed the Terms of Reference for the Request for Proposal (RFP) as well as the study objectives to ensure that all needs are considered in development of the guidelines. The RFP is expected to be released in the early spring 2012, with a consultant retained by summer 2012. The Study is anticipated to take approximately 18 months to complete, with a report to Transportation Services Committee seeking endorsement of the guidelines before the end of 2013.

Link to Key Council – approved Plans

The Context Sensitive Solutions Guidelines supports the Regional Centres and Corridors policies in the Regional Official Plan, the principles of Vision 2051, and the New Communities Guidelines. The Context Sensitive Solutions guidelines supports the Region's 2011 to 2015 Strategic Plan priority areas of 'Continuing to deliver and sustain critical infrastructure' and 'focusing growth along Regional Centres and Corridors'.

Figure 3 shows how the Context Sensitive Solutions Guidelines supports the Region's planning and hierarchy framework.

FIGURE 3
The Region's Planning and Hierarchy Framework and the CSS Approach



5. FINANCIAL IMPLICATIONS

The Guidelines are expected to cost up to \$300,000, and is included within the 2012 Transportation Services budget.

6. LOCAL MUNICIPAL IMPACT

A Municipal Advisory Committee will be established to gain input on the development of the guidelines. The Committee will be consulted at key milestones throughout the process.

7. CONCLUSION

The Context Sensitive Solutions approach is intended to minimize delays to the public approval of Environmental Assessments by providing the public, stakeholders and decision-makers with more choice. This will ensure any potential issues and considerations will be addressed early in the Environmental Assessment process. The guidelines will provide a suite of options that are available to transportation planners and engineers to respond to varying contexts. The development of a set of design guidelines is anticipated to take 18 months to complete. There will be extensive consultation with the multiple-disciplines within the Region, local municipalities and external agencies.

For more information on this report, please contact Angela Gibson, Head, Policy and Planning at Ext. 5902.

The Senior Management Group has reviewed this report.



Context Sensitive Solutions: Design Guidelines for Regional Corridors

Presentation to
Transportation Services Committee

Angela Gibson, Head, Policy and Planning

February 1, 2012

Overview

- ❑ What is Context Sensitive Solutions (CSS)?
- ❑ Why CSS needed now?
- ❑ What are the key principles for the Guidelines?

What is Context Sensitive Solutions?

- ❑ Fits its **physical setting**
- ❑ Maintains **safety and mobility**
- ❑ Considers the **total context**
- ❑ **Collaborative** and **interdisciplinary** approach

What is Context Sensitive Solutions?



Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, ITE Recommended Practice Presentation, ITE Website.

Regional Example of CSS

St. John's Sideroad, Aurora



Where we are heading...

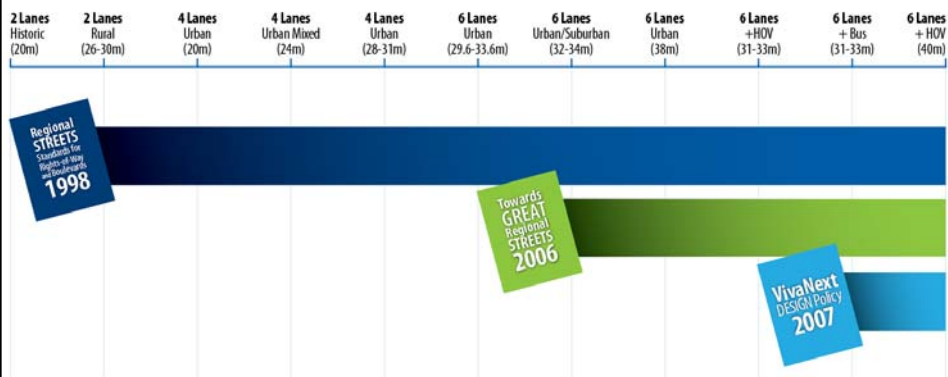
Davis Drive, VivaNext Corridor, Newmarket



Benefits of the CSS Approach

- ❑ Responds to **changing public values**
- ❑ **Our** Corridor – **Their** Community
- ❑ **Provides Customized Solutions** – “One Size Does Not Fit All”
- ❑ Provides a “*made in York Region*” solution (urban/rural)
- ❑ Maintains standards through **site-specific design options**
- ❑ Increases **efficient** use of resources (time and budget) by **getting it right the first time**

Existing Regional Policies & Guidelines to build on:



Regional Streets:

Standards for Rights-Of-Way and Boulevards (1998)

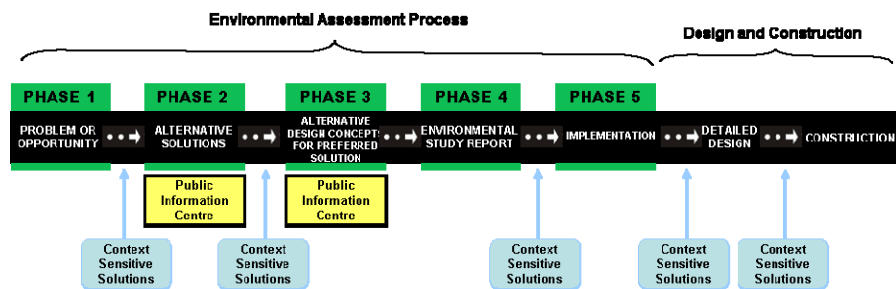
- ❑ Menu of standards to guide planning, design and construction of regional streets
- ❑ **Elements: “Menu of 12 Roads”**
 - ❑ Includes options varying from 2 to 7 lanes within 20 to 40 meters
 - ❑ Bike lanes and HOV/Transit Lanes
 - ❑ Considers context



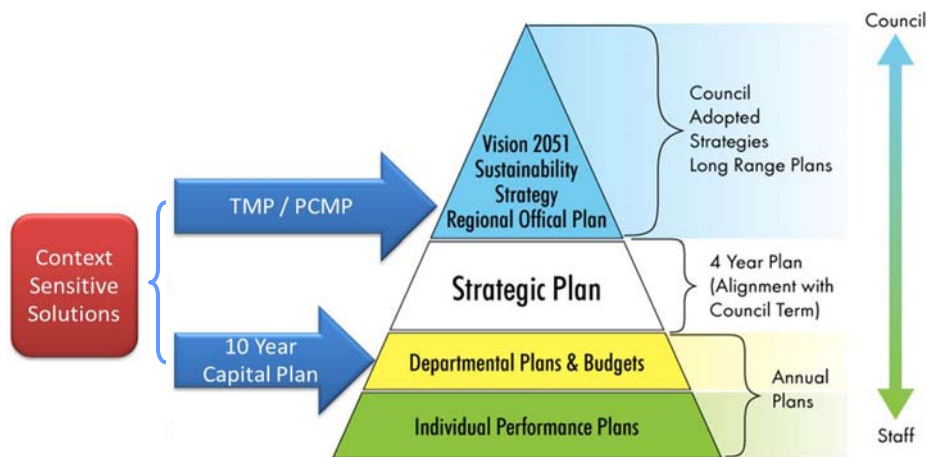
Objectives of the CSS Guidelines

- ❑ A toolbox or suite of design options
- ❑ A process to deal with constraints
- ❑ Input into the Streetscape Policy update and Sight Triangle Guidelines
- ❑ Define cost implications (capital, operations and maintenance)
- ❑ Help inform future updates to policies of TMP and ROP with respect to ROW widths

How CSS Fits into the Planning Process



Relationship to Regional Strategies



Key Milestones

- ❑ Establish Steering Committee Winter 2011
- ❑ Issue RFP Spring 2012
- ❑ Commence Guidelines Summer 2012
- ❑ Report to Committee/Council Fall 2013
- ❑ Completion of Guidelines Fall 2013
- ❑ Anticipated Costs Up to \$300,000