

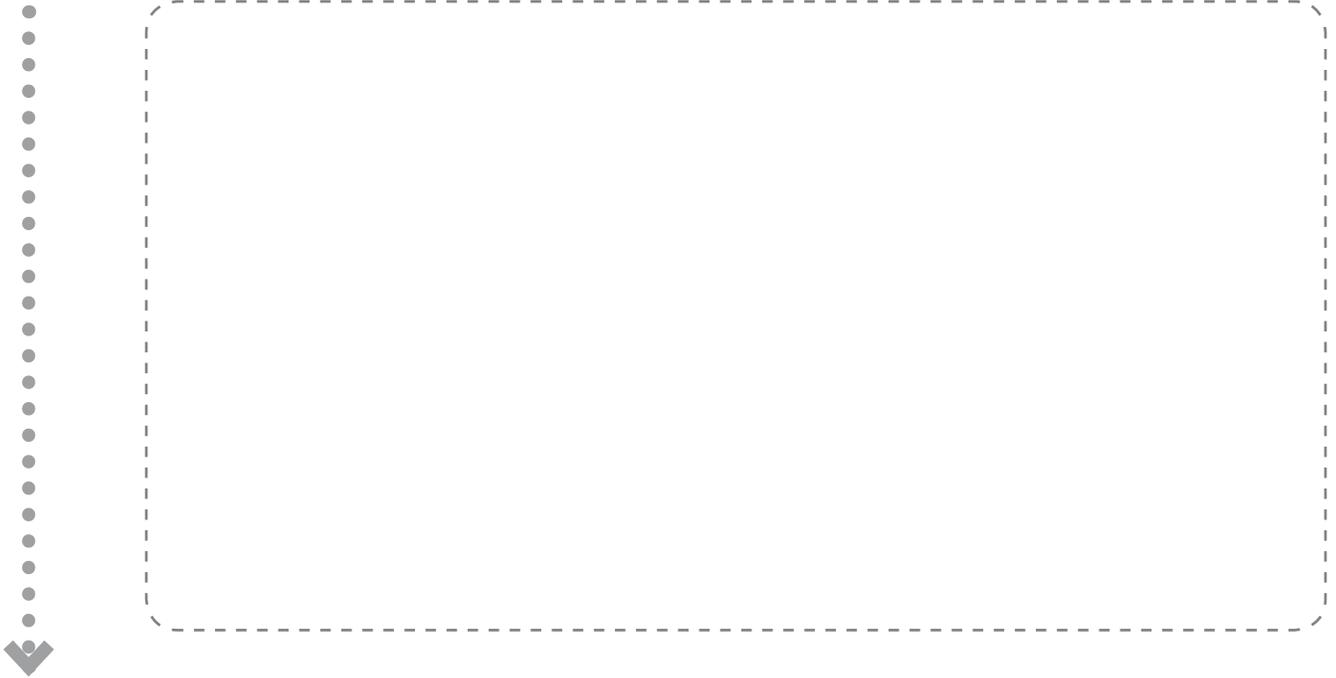
## 6.2 Decision Making Process Worksheets

The worksheets are contained on pages 131 to 144. The Typology Matrix is found in Appendix A and the Road and Boulevard Elements Toolbox is found in Section 3.

1

## OPPORTUNITY STATEMENT

What are the problems or opportunities you are addressing through this project? Consider the Problem or Opportunity Statement identified in your Environmental Assessment, as well as the community beyond the street itself and planned future conditions. Write your Opportunity Statement in the box below.



move to step 2

## 2

## REVIEW CONTEXT

Determining the policy and physical context of the street is the first step to developing a solution. Most importantly, consider the future of the area and how the street design will respond to anticipated conditions. Take note of the difference between what exists today and the community aspirations for the street. Consider that the street context may change along its length.

### Part A - Planning Framework and Policy Context

A number of Provincial, Regional and Municipal policies already define major objectives and principles for the road system in York Region. They identify the future role of Regional roads and provide important direction and guidelines, including objectives for promoting active transportation and Transit-Oriented Development.

#### policies and key questions

##### **Growth Plan for the Greater Golden Horseshoe**

- Does the project contribute to growth management, improved transportation efficiency and economic vitality on a local and regional scale?
- Does the project contribute to the creation of compact, vibrant and complete communities?
- How does the project protect, enhance and conserve natural resources?
- Is the project supportive towards reaching intensification targets?
- Is the project aligned with the development goals of urban growth centres?

##### **Oak Ridges Moraine Plan/Greenbelt Plan**

- Is the project situated within the limits of these plans?
- How does the project address the goals and policies of these plans?
- Is the project protective of the integrity of the Oak Ridges Moraine and Greenbelt?

##### **Metrolinx Regional Transportation Plan (Big Move)**

- Is the project supportive of the strategies outlined in the Regional Transportation Plan?
- Does the Regional Transportation Plan include plans for the corridor or intersecting corridors?

##### **York Region Official Plan**

- What are the key aspects/directions that influence the future role and design of the street (consider different segments of the street)? For example:
  - Planned evolution of the street and context more broadly
  - Direction on active transportation, density and mix of uses
  - Sensitive areas nearby (natural habitat network, provincially-significant wetlands, water resources protection areas, well sensitive areas)
  - Current and planned transit service
  - Planned right-of-way width of each segment of the street
  - Promotion of healthy community design
  - Climate change mitigation and adaptation

##### **York Region Transportation Master Plan**

- What are the key directions for the future role and design of the street (Maps and Background Report E)?
- How does the Opportunity Statement support the objectives and the key policy areas in the Regional Transportation Master Plan?
- How does the project improve mobility?

##### **Regional Road Design Guidelines**

- How does the project address the guidelines and standards contained within this document?



move to next page

## policies and key questions

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### York Region Design Standards for Pedestrian and Cycling Facilities

- Is the project using the appropriate facility(ies) considering its context and typology?
- How does the project address the guidelines or standards for the facility(ies)?

### Regional Transit-Oriented Development Guidelines

- How does the project address objectives and principles of Transit-Oriented Development?
- Are there elements of the checklist or themes that affect the street?

### York Region Forest Management Plan

- Is the project sensitive to the health and vigor of nearby living organisms including species at risk?
- How can the project contribute to the achievement of targets such as canopy cover and woodland cover?

### Towards Great Regional Streets: Design Guidelines for 6-Lane Regional Roads

- Are there guidelines or standards in addition to those superseded by Designing Great Streets that this project needs to address?
- Are there any contradictions with other guidelines or policies?

### York Region Transit Five-Year Service Plan and Strategic Plan

- How does the project address the long-term growth and expansion of York Region Transit?
- How does the project consider York Region Transit's latest service plans and initiatives?

### Municipal Policies, Plans and Guidelines

- What are the key aspects of each relevant plan that influence the future role and design of the street? For example:
  - Current and planned adjacent land use and built form
  - Relevant streetscape or boulevard design objectives

### Lake Simcoe Region Conservation Authority and Toronto and Region Conservation Authority

- What are the stormwater management quantity, quality and erosion goals and objectives for the watershed and how do they pertain to the street?
- What are the natural hazard management goals and objectives for the watershed and how do they pertain to the street?
- What are the natural heritage system goals and objectives for the watershed and how do they pertain to the street?

## Part B - Capital and Lifecycle Costs

Consider the financial environment your project is going to be built and maintained in.

## policies and key questions

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### Capital Costs

- What is the available/desired budget to build your project? See capital cost tool and estimates (*Please refer to York Region eDOCS #8866816 "Capital Cost Estimates for DGS Typologies - 2018". Alternatively, contact the Manager, Transportation Asset Management.*).

### Lifecycle Costs

- What lifecycle cost assumptions are going to be applied to your project? See lifecycle cost tool and estimates. (*Please refer to York Region eDOCS #7860535 "DGS Life Cycle Costs 2018" for operations and maintenance related cost estimates. Alternatively, contact the Manager, Transportation Asset Management.*)



move to next page

## Part C - Planned Physical Context

Identify the differences between what exists today and what is planned for the street. Consider key elements listed below and any other relevant characteristics.

### street elements and key questions

#### Built Form and Land Uses

- What is the character of existing built form and what is the vision for planned built form (e.g. scale, density, architectural character)?
- Are there significant heritage elements (e.g. buildings, structures, districts)?

#### Planned Regional Road

- What is the existing and the planned right-of-way width? How do they differ?
- What are the issues that street improvements are planned to address (e.g. intensification, transit service, cycling facilities, capacity, goods movement)?
- What opportunities exist to complete the project as an integrated design with municipal services and utilities?
- What is the existing and planned character of the boulevard/streetscaping? How do they differ?

#### Open Space and Natural Features

- What and where are natural heritage resources and sensitive areas? (Refer to Part 1, York Region Official Plan)
- What are unique or special physical features (e.g. watercourses, distinct topography, views, mature trees and landscaping)?
- Are there existing or planned parks and open spaces nearby (e.g. cemeteries, golf courses, community centres, parks)?

#### Utilities

- What are the requirements for the roadway in the future?
- What are the required separation distances?

#### Primary Infrastructure

- Are there major pieces of infrastructure that impact or affect the planned road (e.g. hydro corridors, rail lines, grade separations)?

### emerging directions relevant to the road:

move to step 3

## 3

## PRODUCE OBJECTIVES

Consider information collected through Step 2 to determine objectives for the street that recognize opportunities and constraints. Rank the modes of movement in order of priority, as this is one of the most important determinants of street design.

Objectives you identify for the street should serve as a 'check and balance' for each decision made throughout the process. They may need to be revisited as the process unfolds, however should be based on relevant policies, as well as analysis of the planned context for the street. If different segments of the street have different contexts, identify objectives and priority mode of movement for each segment independently.

consider the following items when ranking modes:

- Primary transportation function
- Integrating non-priority modes of movement
- Planned land uses and context
- Objectives for built form scale and orientation
- Objectives for boulevard and streetscape treatment
- Operational objectives (e.g. vehicular flow, connectivity and access management, parking provision, utilities)
- Key site specific conditions
- Community aspirations

rank mode of movement in order of planned priority:

(1 = highest; 4 = lowest; or N/A if not applicable)

- pedestrians
- cyclists
- transit
- vehicle movement  
(commercial and/or private vehicles)

 move to step 4

## 4

**SELECT ROAD TYPOLOGY**

Refer to the Road Typology Matrix, which identifies a number of different characteristics for the six major road typologies. Decide which road typology best fits the objectives, Priority Mode of Movement and future context you identified in Step 2 and 3. These typologies refer to the street in its future condition. Identify the appropriate road typology for each different road segment, as required. A hybrid of two or more typologies may be most appropriate.



**refer to road typology matrix to select the appropriate road typology(ies)**

select appropriate road typology(ies):

city centre street

avenue

main street

connector

rural road

rural hamlet road



move to step 5

## 5

**DETERMINE ELEMENTS OF THE STREET**

For the road typology you selected, refer to the Toolbox in Section 3 to determine the Boulevard and Roadway Elements required to support the priority mode of movement. The total width of all elements required for your street design may exceed or be less than the width of the Planned right-of-way. In this case, cycle through Steps 5 and 6 as many times as required to adjust the elements, and respective widths, to fit within the Planned right-of-way.

Begin by noting all relevant **Mandatory Elements** and **Optional Elements** in the tables on the following page. To begin, use the **Maximum Widths** indicated in the Toolbox. In some cases, the combined maximum widths of a typology's mandatory and optional elements equal to more than the maximum ROW. In this case, not all maximum widths will fit into the cross section and included elements and element widths should be sensitive to context and mobility goals. Consideration should also be given to any property acquisition requirements and associated costs in determining the optional elements to use and element widths. Please refer to sections 4.2 and 4.3 for more specific roadway and boulevard element guidelines.



refer to toolbox to fill in  
applicable facility widths

- Mandatory Elements are a given within the street right-of-way and **MUST** be included.
- Optional Elements are features that **WOULD BE GOOD** to include should space or budget be available.



move to next page

using the toolbox, fill in element widths in the table below for each road typology you selected

| boulevard element                       | (width) x (# sides) = total  | roadway element                       | (width) x (# sides) = total  |
|---|--|---------------------------------------|--|
| Frontage Zone                           | _____  | Inside Travel Lane(s)                 | _____  |
| Pedestrian Clearway incl. Clearances    | _____  | Outside Travel Lane/Parking           | _____  |
| Cycle Track incl. Clearances/Buffer     | _____  | Continuous Centre Turn Lane           | _____  |
| Multi-Use Path incl. Clearances         | _____  | Painted Centre Median                 | _____  |
| Planting and Furnishing Zone            | _____  | Landscaped Median                     | _____  |
| Edge Zone                               | _____  | Shoulder, Buffer and Rounding         | _____  |
| <b>BOX A</b><br>total boulevard width = | <div style="border: 2px solid #92d050; width: 150px; height: 40px;"></div> | <b>BOX B</b><br>total roadway width = | <div style="border: 2px solid #92d050; width: 150px; height: 40px;"></div> |



move to next page

total boulevard width (BOX A)

total roadway width (BOX B)

total right-of-way **REQUIRED** for your design

**PLANNED** right-of-way width (from Official Plan)

→ does **REQUIRED** width = **PLANNED** width?

yes

move to step 7

no

REQUIRED width >  
PLANNED width  
move to step 6 Part A

no

REQUIRED width <  
PLANNED width  
move to step 6 Part B

## 6

## REFINE ELEMENTS

## PART A - Reduce the Width of the Required Right-of-Way

If the Required right-of-way width exceeds the Planned right-of-way width, revisit the elements included in the street section to **reduce** the Required right-of-way width. The **Priority Mode of Movement** identified in Step 3 will affect how decisions are made to eliminate or reduce the width of certain elements. Revisions should be made by going through the list below (in this order) until street and boulevard elements fit into the Planned right-of-way width.

There may be area specific pinch points in your project (grade separations, protected natural or cultural heritage). Due to the varied nature of these areas specific constraints and the range of stakeholders involved, a process of refinements (like the one below) cannot be provided. Rather the project team is encouraged to discuss the issues and options with the appropriate stakeholder to arrive at area specific street section compromises.



refer to toolbox to refine elements

refine your section in this order:

1. Review Environmental Assessment to ensure planned right-of-way width is appropriate
2. Remove All or Some Optional Elements
3. Use minimum dimensions for all elements except for priority networks
4. Use minimum dimensions for priority network elements
5. Reduce design speed
6. Remove vehicle lanes
7. Consider acquiring land beyond planned right-of-way



back to step 5



## 6

## REFINE ELEMENTS

## PART B - Increase the Width of the Required Right-of-Way

If the Required right-of-way width is less than the Planned right-of-way width, revisit the elements that are included in the street section to **increase** the Required right-of-way width. You may be able to allocate more space to the **Priority Mode of Movement** or add more elements to the right-of-way. Refine your section in the order identified below to dedicate more space in the right-of-way to the Priority Mode of Movement, or to include more optional elements.



refer to toolbox to refine elements

refine your section in this order:

1. Review Environmental Assessment to ensure planned right-of-way width is appropriate
2. Add Optional Elements
3. Increase the width of elements related to the Priority Mode of Movement within the range provided in the Toolbox
4. Increase the width of elements related to other modes of movement (other than the Priority Mode)



back to step 5



## 7

**BUILD PLAN AND SECTION**

Drawing the street section below will be the visual check and balance that the street design you selected works. If you identify problems with the street layout at this stage, you may need to go back to Step 5.

At this point, consideration should again be given to the capital and lifecycle costs of the street section including the questions listed in Step 2 Part B of this Decision Making Process. Again, the capital and lifecycle costing tool and estimates are available to assist. *(Please refer to York Region eDOCS #7860535 "DGS Life Cycle Costs 2018" for operations and maintenance related cost estimates, and/or eDOCS #8866816 "Capital Cost Estimates for DGS Typologies - 2018". Alternatively, contact the Manager, Transportation Asset Management.)* If there are concerns, you may need to go back to Step 5 and revisit the elements and their widths from a financial standpoint.




did you identify any problems with the street section?

yes

back to step 5



no

move to step 8

## 8

**BUILD INTERSECTIONS AND TRANSITIONS**

Refer to the Intersections and Transitions sections of the report. Pay particularly close attention to urban intersections. Transitions between different typologies and between new and existing streets also require careful consideration.

Consider the following questions before moving to the next step:

- How are you incorporating recommendations in the Intersection section of the report?
- How will transitions be addressed between different typologies and between new and existing sections of the street?
- If there is a cycling facility in your plan/section, what best practice solutions can you incorporate at intersections? *Refer to MTO's Book 18 and York Region Pedestrian and Cycling Planning & Design Guidelines for best practices.*
- How are you incorporating the recommendations of the General Guidelines (Section 4.6)?



move to step 9

## 9

**REVISIT OPPORTUNITY STATEMENT**

Does the solution address the problems or opportunities identified in the Opportunity Statement in Step 1?

- Does the street design fit with the future context?
- Does it make the community better?
- Are the objectives and modal priorities in Step 3 addressed?
  - If yes, input the elements of the final solution into the York Region **Design Criteria for Transportation Projects** document.

