



Cottage Street Design Guidelines

May 2024 (FINAL)

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1 Introduction

1.1 What are Cottage Streets?

Cottage Streets can be described as “character” streets that serve the function of a Local Road (as defined in the *Town of Saugeen Shores Official Plan* (September 2014 consolidation)) but are (generally) short in length, (usually) have narrower rights-of-way and/or pavement widths, and (often) do not meet other (typical) engineering design standards. Under municipal jurisdiction, Cottage Streets differ from private roads and lanes, providing public access to both year-round and seasonal residential properties and other amenities, including the Lake Huron beachfront.

1.2 Why are Cottage Street Design Guidelines Needed?

The Town of Saugeen Shores undertakes road reconstruction projects to rectify deteriorating underground services and above ground (surface) infrastructure. This work is necessary to maintain the safe operation of roads and prevent future system failure. Typical works in this category include:

- upgrading or installing new storm sewers, sanitary sewers, and water mains;
- replacing or installing new sanitary and water service connections;
- replacing or installing new curb and gutter, and sidewalks;
- restoring the asphalt road surface and base;
- replacing driveway entrances;
- replacing or new installing signs and pavement markings;
- regrading, ditching, sodding/seeding, landscaping, and/or planting trees in boulevards; and
- replacing or installing retaining walls, stormwater management features, and other infrastructure.

Like most municipalities, the Town publishes a series of **engineering standards** that specify uniform criteria and practices for the design and construction of public roads in Saugeen Shores. The design criteria for Local Roads defined in the *Town of Saugeen Shores Engineering Development Manual* (January 2013) include:

- 20 metre rights-of-way unless otherwise specified in the Town’s Official Plan;
- 8.5 metre pavement width;
- storm sewer drainage system (with catch basins);
- concrete mountable curb and narrow gutter; and
- concrete sidewalk on one side.

On past Cottage Street reconstruction projects, the Town has found that applying these standard criteria can prove challenging or inappropriate in certain circumstances, necessitating a different approach to their design.

1.3 What do these Guidelines Address?

The **Cottage Streets Design Guidelines** provide supplemental guidance for the reconstruction of designated Cottage Streets to address this challenge. Building from the Town's Engineering Development Manual, the guidelines denote design criteria specific to Cottage Streets and offer advice for considering trade-offs from typical practice, providing the flexibility needed to adapt to local context while still meeting the test of good engineering judgement. The document includes a design process for Cottage Street reconstruction projects.

The Town's Official Plan contemplates the preparation of guidelines for road, sidewalk, and trail design to address specific circumstances like Cottage Streets (Section 4.4.8.1). The guidelines should provide preferred standards for features such as surface treatment, landscape material, and utility infrastructure placement, which this document addresses.

The Cottage Street Design Guidelines are intended to supplement the Town's Engineering Development Manual and other sources of detailed engineering guidance. Specific industry-standard reference documents referenced in preparing these guidelines include:

- Transport Association of Canada's (TAC) *Geometric Design Guide for Canadian Roads*, 2017 (TAC Guide)
- City of Toronto Complete Streets Guidelines, 2017
- City of London Complete Streets Design Manual, 2018
- City of Mississauga Complete Streets Guide, 2022
- City of Hamilton Complete Streets Design Guidelines, 2022
- *Ontario Traffic Manual (OTM) Book 15: Pedestrian Crossing Treatments*, 2016
- *OTM Book 18: Cycling Facilities*, 2021
- Ontario Provincial Standard Drawings (OPSDs)
- Toronto and Region Conservation Authority, *An Evaluation of Roadside Ditches and Other Related Stormwater Management Policies*, 2000
- U.S. Environmental Protection Agency, *Stormwater Best Management Practice: Eliminating Curbs and Gutters*, 2021

1.4 Complete Streets Design Approach

Consistent with direction stated in the *Town of Saugeen Shores Transportation Master Plan* (November 2020), the Cottage Street Design Guidelines follow the **Complete Streets** approach to street design. This philosophy begins with the premise that all streets are different and that no single, "one size fits all" design solution exists. A street's design is tailored to balance and resolve the competing demands placed upon the use of the public right-of-way, considering location-specific context.

Creating a Complete Street is as much about the process as it is about the final product. The process allows for a more deliberate discussion about the allocation of space within the right-of-way and helps internal and external partners, including Town staff, stakeholders, and members of the public, be more specific about their priorities and needs in street design.

1.5 Where do these Guidelines Apply?

The Town will apply the Cottage Street Design Guidelines when reconstructing the roads listed in **Table 1.1**. In most cases, meeting the Town's typical engineering standards on these roads may necessitate property acquisition and/or significant change to the existing street character, such as mature tree removal or loss of parking. These guidelines prevail in cases where their provisions may conflict with the Town's Engineering Development Manual.

The Town may consider applying the Cottage Street Design Guidelines in the reconstruction of roads not listed in **Table 1.1** upon resolution of Town Council. Council will consider the following factors in granting approval for use on other roads:

- Road primarily provides access to year-round and seasonal dwellings;
- Road within the Residential First Density (R1) zones in the Town's Zoning By-law No. 75-2006;
- Road designated as a Local Road in the Town's Official Plan (Schedule 'B');
- Road has a speed limit of 40 km/h or less; and
- Road has a right-of-way width less than 20.0 metres and/or a pavement width less than 8.5 metres.

Table 1.1: Designated Cottage Streets

Port Elgin and Former Saugeen Township	Southampton
- Alma Street (Market to Elgin) - Baker Road (Bruce Road 33 to George) - Bell Road (Olive to George) - Brook Lane (Market to Green) - Fenton Drive (Bushwood to McVicar) - Ferndale Lane (Bruce Road 25 to Saugeen Beach) - George Street (Bell to Saugeen Beach) - Goble Place (west end to Sieffert) - Izzard Road (Green to south end) - Jay Street (Olive to Snyder) - Mitchell Lane (north end to Izzard) - Nelson Road (Bruce Road 25 to Olive) - Olive Street (Bell to Ferndale) - Robert Drive (Jay to George) - Saugeen Beach Road (Bruce Road 25 to Concession 4) - ShIPLEY Avenue (north end to Bruce Road 25) - Sieffert Court (ShIPLEY to south end) - Smith Lane (Saugeen Beach to west end) - Snyder Street (George to Jay) - Upper Avenue (Green to south end) - Virginia Lane (west end to ShIPLEY)	- Adelaide Street (Burns to Huron) - Albert Street S (Cole to Huron) - Annie's Lane (Lansdowne to Thompson) - Balsam Street (Cole to Perkins) - Beach Road (Huron to beachfront) - Beechwood Lane (Cole to Windsor) - Burns Lane (Lake to Adelaide) - Chantry View Drive (Huron to beachfront) - Cole Boulevard (Albert to McNabb) - Eckford Avenue (Bruce Road 13 to Elm) - First Street (Huron to Lake) - Front Street (Saugeen to High) - Front Street South (Beach to Island) - Gilbert Lane (Lansdowne to Thompson) - Harmer Street (Island to Lake) - Island Street (Huron to Front) - Knechtel Lane (north end to Victoria) - Knowles Lane (Morpeth to Peel) - Laird Lane (Leeder to south end, Chantry View to Peel) - Lake Street (Chantry View to south end) - Lambert Lane (Adelaide to Peel) - Lansdowne Street (Huron to beachfront) - Lee Lane (Spence to south) - Leeder Lane (Albert to Huron) - Macaulay Street (Adelaide to Beach) - Macdonald Lane (Victoria to Grosvenor) - Morton Lane (Leeder to Palmerston) - Palmerston Street (Huron to beachfront) - Peel Street (Laird to beachfront) - Perkins Street (McNabb to Huron) - Second Street (Huron to Lake) - Third Street (Huron to Lake) - Thompson Lane (Grosvenor to Huron) - Union Lane (Victoria to Albert, Albert to Grosvenor) - Victoria Street S (Cole to South) - Water Street (Saugeen to Thompson) - Windsor Boulevard (Beechwood to Albert)

2 Design Guidance for Cottage Streets

2.1 Description

Cottage Streets principally provide access to year-round and seasonal residential properties and other amenities. Designated as Local Roads in the Town's Official Plan, they carry relatively low vehicle volumes and generally serve people residing in the surrounding neighbourhood and very little, if any, through traffic.

The low-traffic, low-speed roadway environment should allow for comfortable and safe pedestrian and cyclist movement. Sidewalks (where appropriate), street trees and other plantings, and street lighting can contribute to their safety, accessibility, and attractiveness, creating a sense of place and offering opportunities for social interactions and community activities.

2.2 Components

The cross-section of a Cottage Street consists of two main components, as shown in **Figure 2.1**:

- **Boulevard** – The public right-of-way between the pavement edge and the adjacent property line. This space is intended for planting areas, sidewalks (where appropriate), utilities, and other amenities.
- **Roadway** – The public right-of-way between the pavement edges. This space is intended for travel lanes for vehicles, bicycles, pedestrians (where no sidewalk or trail exists in the boulevard), and parking lanes. Curb and gutter and some utilities are also included in the roadway, where provided.

Combined, the boulevard and roadway comprise the **street**, also known as the public **right-of-way**.

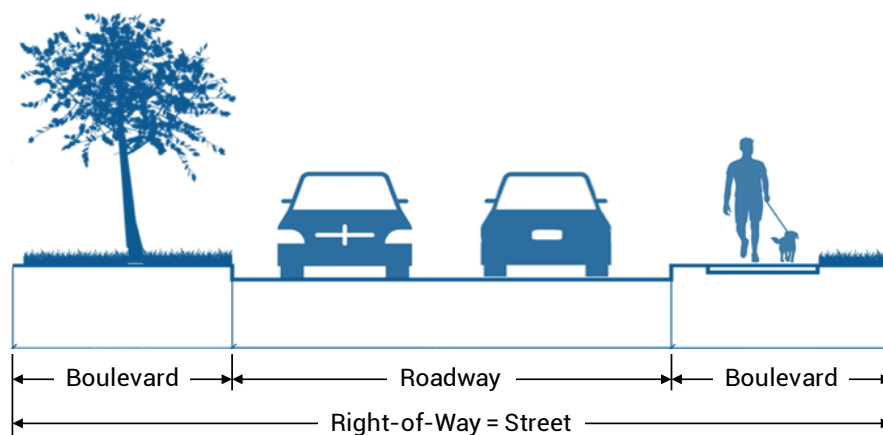


Figure 2.1: Components of a Cottage Street

2.3 Right-of-Way

Cottage Streets fall under the Local Road designation in the Town's Official Plan, which specifies a minimum right-of-way width of 20 metres for this road classification (Section 4.3.4.1). At the discretion of Council, the Town may deviate from the minimum width on the merits of an improved streetscape, better utility of the land base, impacts to the social and physical environments, function of the road, and life-cycle costs (Section 4.4.2.1). The plan further recognizes that the desired right-of-way width may not be achievable where extensive development has occurred along existing roads (Section 4.4.2.2).

There are also numerous public lanes in Saugeen Shores, generally of a substandard width to provide appropriate access, servicing, and emergency services (Section 4.3.5.2). The Town may consider a lesser right-of-way width for these facilities since they only provide access to a limited number of properties (Section 4.3.5.3).

For Cottage Streets not meeting the minimum right-of-way width set out in the Official Plan, the Town will generally fit the road within the available space by modifying or eliminating certain design elements. In some instances, though, the Town will seek to acquire additional property to expand the right-of-way to meet the desired cross-section dimension. The decision to obtain land will depend on several factors, including:

- **Rationale for Proposed Acquisition** – Is the property needed to: Allow a basic roadway cross-section? Enhance safety or security? Alleviate a drainage issue? Avoid a natural, cultural, social environmental feature? Provide space for sidewalk, parking, utilities, municipal services?
- **Extent of Property Required** – Is a partial acquisition needed? Or entire property?
- **Current Use of the Land** – Is there: A structure on the property? Mature vegetation, trees? Drainage feature? Parking?
- **Price and Timeframe to Acquire the Property** – What is the price? Is budget available to finance the cost? How long will the transaction take? Can the property be acquired in time to meet the construction schedule?
- **Willingness of Landowner to Sell** – Is it a willing buyer-willing seller scenario?

Chapter 3 describes the decision-making framework applied in determining the appropriate right-of-way width for a Cottage Street reconstruction project.

2.4 Typical Cross-Section

Typical cross-sections for Cottage Streets not meeting the minimum 20 metre right-of-way width and/or 8.5 metre pavement width specified in the Town's Engineering Development Manual will deviate from the usual Town standard. For illustrative purposes, **Figure 2.2**, **Figure 2.3**, **Figure 2.4**, and **Figure 2.5**, respectively, depict sample typical cross-sections for:

- two-way vehicle traffic flow in a reduced 10 metre right-of-way, without and with sidewalk on one side of the road and with storm sewers;
- one-way vehicle traffic flow in a reduced 6 metre right-of-way, without sidewalk and with storm sewers. The same space allocation and design principles as two-way streets apply with some modification; and
- two-way vehicle traffic flow with ditches. Note that this cross-section typically requires a wider right-of-way than one with curb, gutter, and storm sewers.

These typical sections are presented to illustrate the different elements of a Cottage Street, recognizing that exact dimensions and configurations will vary based on the location-specific context of the roadway. The process for reconstructing a Cottage Street described in **Chapter 3**, and specifically the Street Element Decision-Making Framework illustrated in **Figure 3.2**, will aid in determining the most appropriate cross-section design. Note that utility and municipal service locations are conceptual only and need to be confirmed with the responsible entity through the design process.

2.5 Design Criteria

2.5.1 General Design Parameters

Table 2.1 summarizes the general design parameters for Cottage Streets.

Table 2.1: General Design Parameters

Item	Criteria
Number of Travel Lanes	1 (one-way) or 2 (two-way)
Target and Posted Speeds	30 km/h
Design Vehicle Control Vehicles	Passenger Vehicle (P) Waste Collection Vehicle and Fire Truck
Pedestrian Facilities (as defined in Ontario Traffic Manual Book 15 – Pedestrian Crossing Treatments)	In boulevard (as a sidewalk or multi-use trail on one side of the road only) <u>or</u> shared (on-road)
Cycling Facilities (as defined in Ontario Traffic Manual Book 18 – Cycling Facilities)	Shared (on-road)
Traffic Calming	Passive speed management measures
On-Street Parking	Optional (where required)

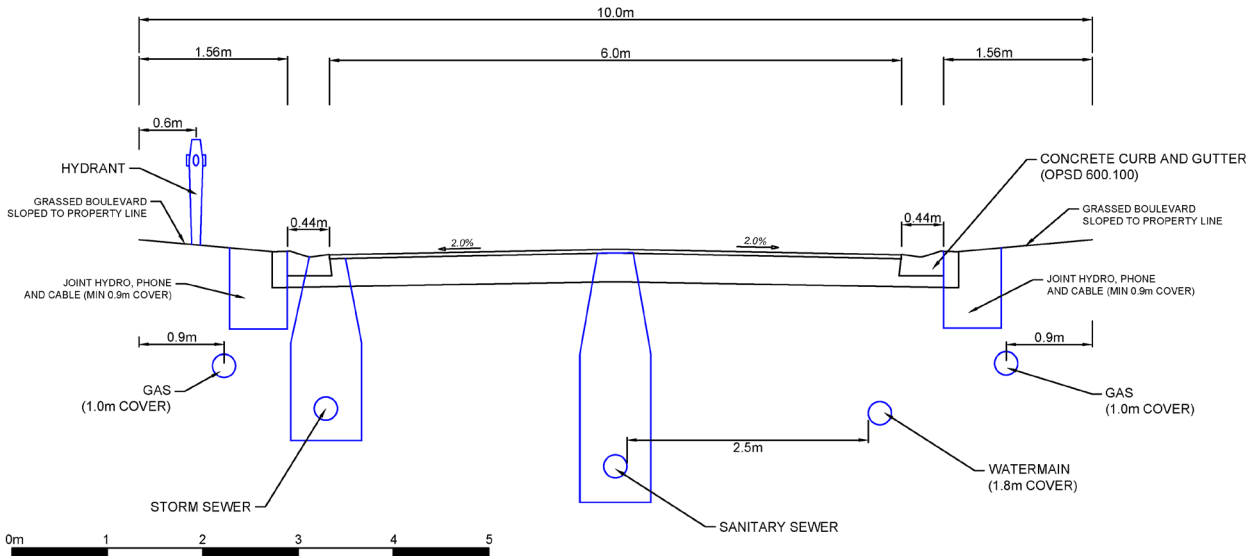
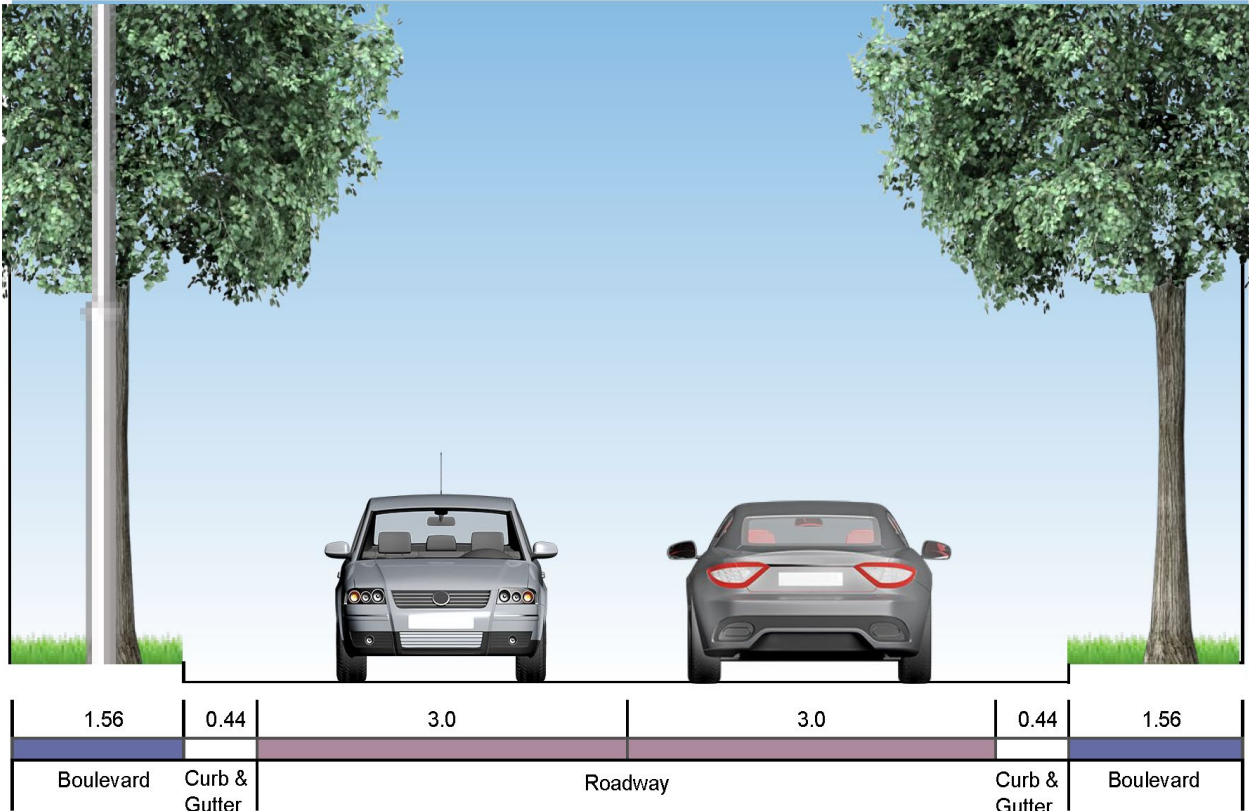


Figure 2.2: Typical Cross-Section – 10 m Right-of-Way without Sidewalk, Two-Way Traffic

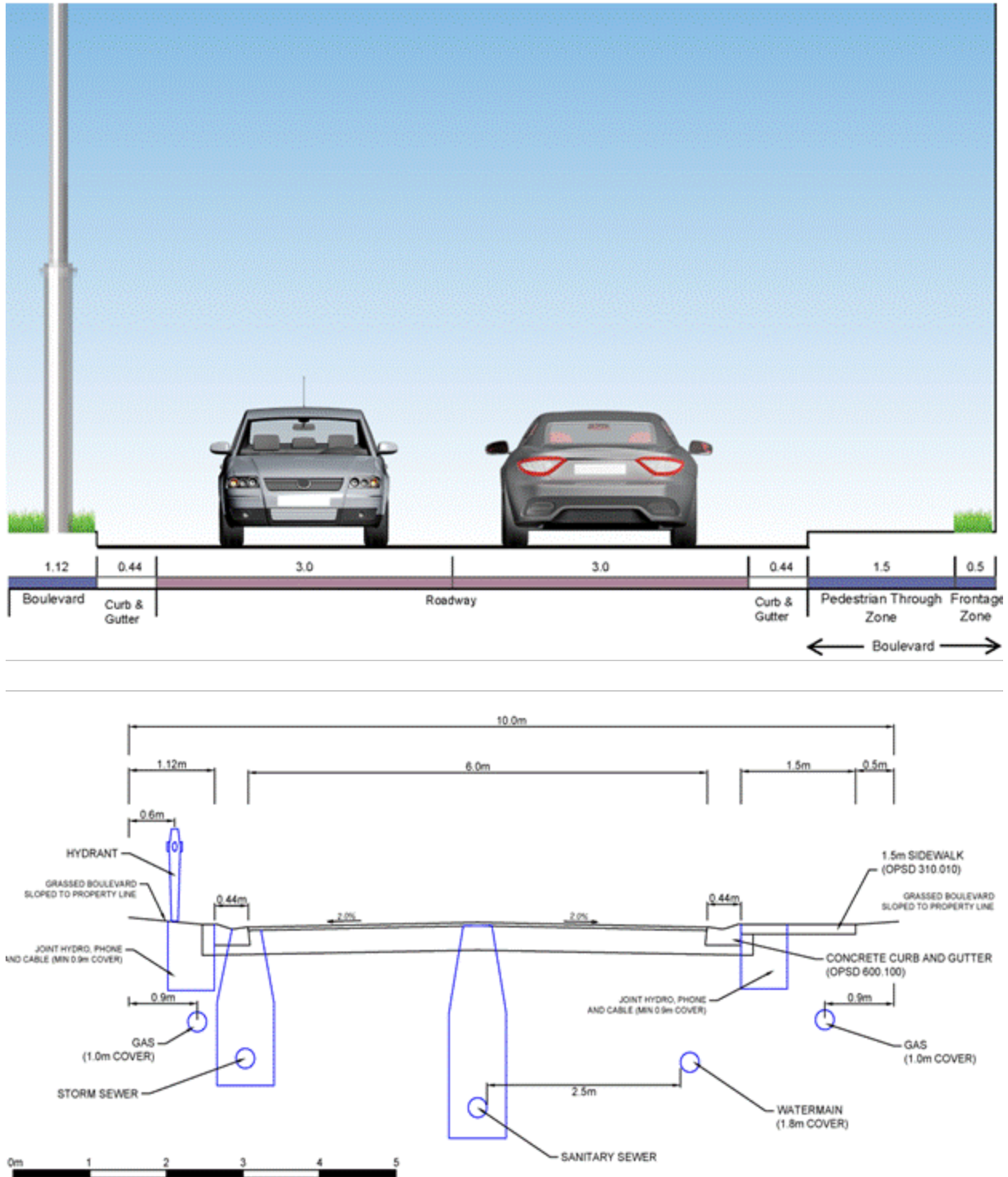


Figure 2.3: Typical Cross-Section – 10 m Right-of-Way with Sidewalk on One Side, Two-Way Traffic

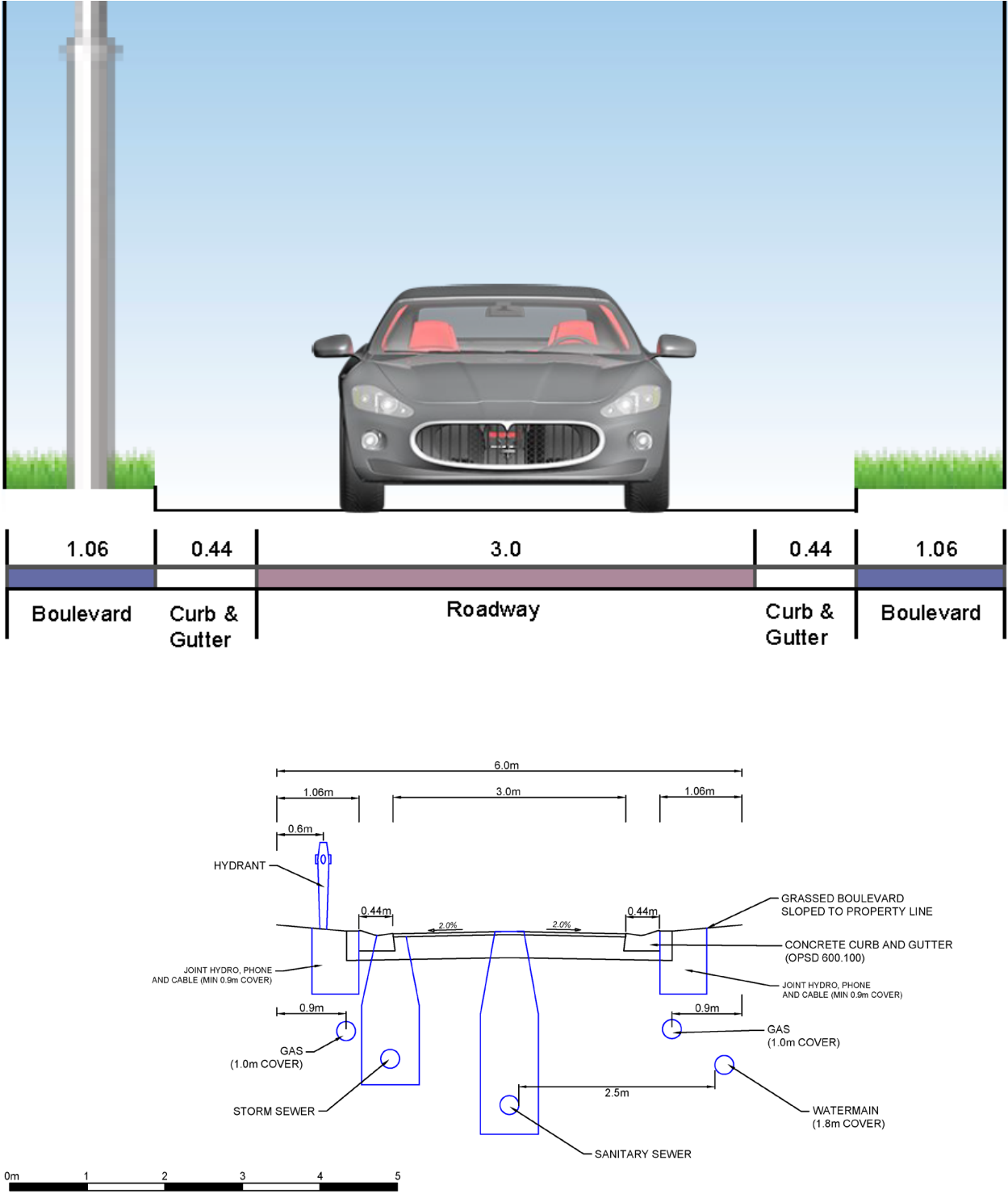


Figure 2.4: Typical Cross-Section – 6 m Right-of-Way without Sidewalk, One-Way Traffic

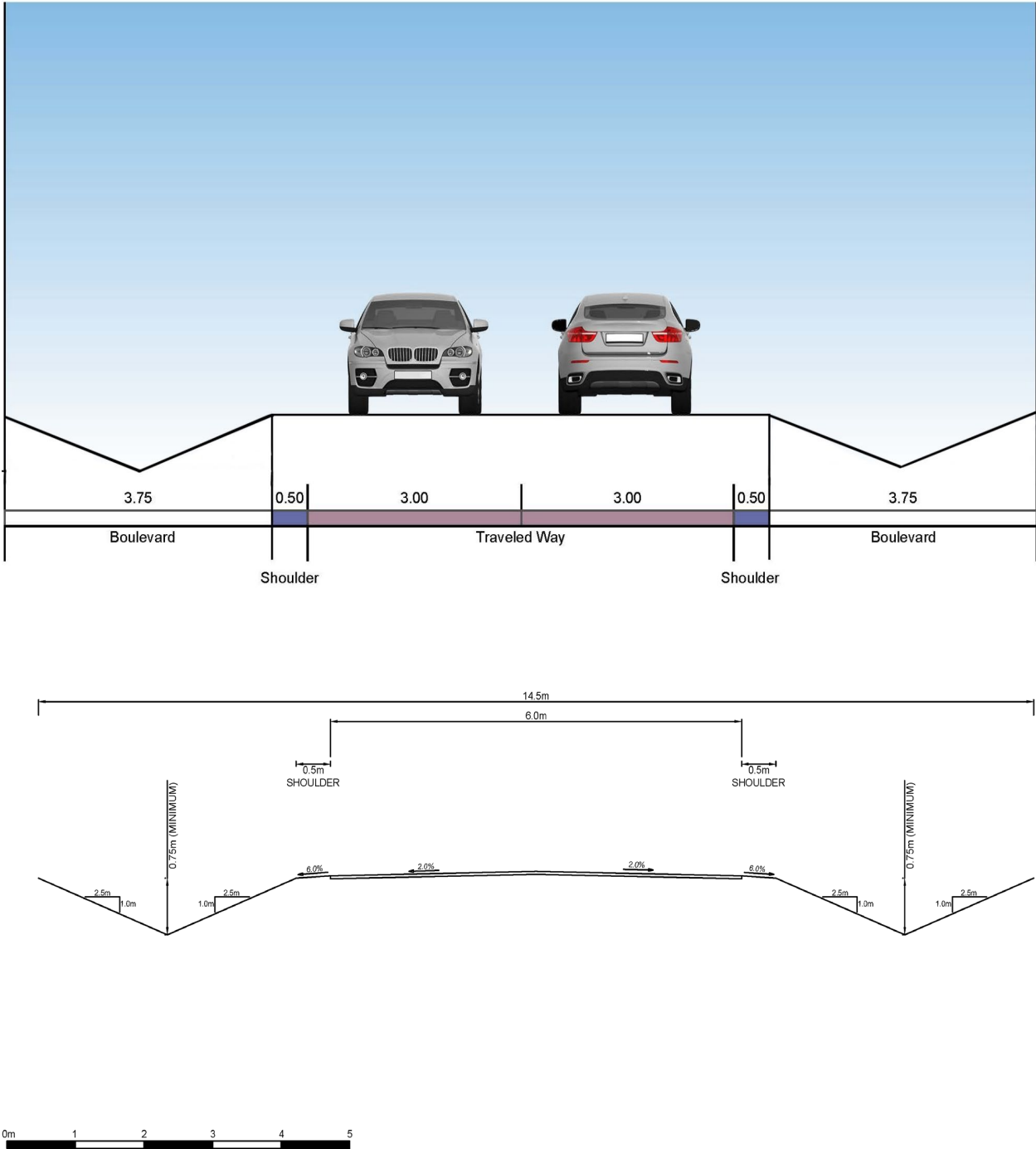


Figure 2.5: Typical Cross-Section – Ditches, Two-Way Traffic

In designing Cottage Streets, the Town will:

- **Number of Travel Lanes** – Consider providing one-way streets for vehicle traffic if the right-of-way is too narrow to accommodate two lanes safely and comfortably.
- **Target and Posted Speeds** – Design streets to meet a **target speed** of 30 km/h, per the Town's Transportation Master Plan. This speed is intended to be the maximum **operating speed** of the roadway once reconstructed and match the **posted speed** limit. It also equals the **design speed** (i.e., the speed set for the design of those geometric features of the roadway that affect vehicle operation). See the *TAC Guide* for further guidance.
- **Design and Control Vehicles** – Design streets to accommodate a passenger vehicle (P) as the **design vehicle** (i.e., largest vehicle frequently required to turn at an intersection) and the largest waste collection vehicle and fire truck operated by the Town as the **control vehicle** (i.e., largest vehicle infrequently required to turn at an intersection). See the *TAC Guide* for further guidance.
- **Pedestrian Facilities** – Provide sidewalks on one side of the road only where appropriate and feasible. See **Chapter 3** for further guidance. Other features such as green infrastructure, landscaping, street trees, and street lighting should also be considered to enhance the pedestrian realm. See *OTM Book 15* for further guidance on crossing locations.
- **Cycling Facilities** – Provide shared, on-road cycling facilities, which offer no separate operating space for cyclists but include other supporting features such as traffic calming and wayfinding to enhance safety and comfort for cyclists. See *OTM Book 18* for further guidance.
- **Traffic Calming** – Consider passive traffic calming measures to help keep speeds low, making roads safer and more comfortable for pedestrians and cyclists. This may include narrow vehicle travel lanes, on-street parking, landscaping, and curb radius reductions. More active forms of traffic calming, such as speed humps/tables, speed cushions, raised crosswalks, and raised intersections, may be considered in select circumstances to promote motor vehicle travel at the target speed. See the *TAC Canadian Guide to Traffic Calming* and the Town's Transportation Master Plan for further guidance.
- **On-Street Parking** – Provide parking as required. See **Chapter 3** for further guidance.

2.5.2 Criteria Specific to Boulevards

The boulevard consists of the following three functional zones:

- **Furnishings Zone** – Area between the pavement edge and the Pedestrian Through Zone. This zone contains landscaping, street furniture, signs, light posts, utilities, etc. and serves as a buffer between pedestrians and vehicles. It may also accommodate snow storage.
- **Pedestrian Through Zone** – Area that provides a clear, unobstructed path of travel for pedestrians (where provided). The Design of Public Spaces section of the Integrated Accessibility Standards (Ontario Regulation 191/11) under the *Accessibility for Ontarians with Disabilities Act, 2005* (the AODA standards) establishes minimum widths for this zone.
- **Frontage Zone** – Area between the Pedestrian Through Zone and the building front or private property line that is used to buffer pedestrians from windows, doorways, and appurtenances.

Figure 2.6 illustrates the three functional zones of the boulevard.

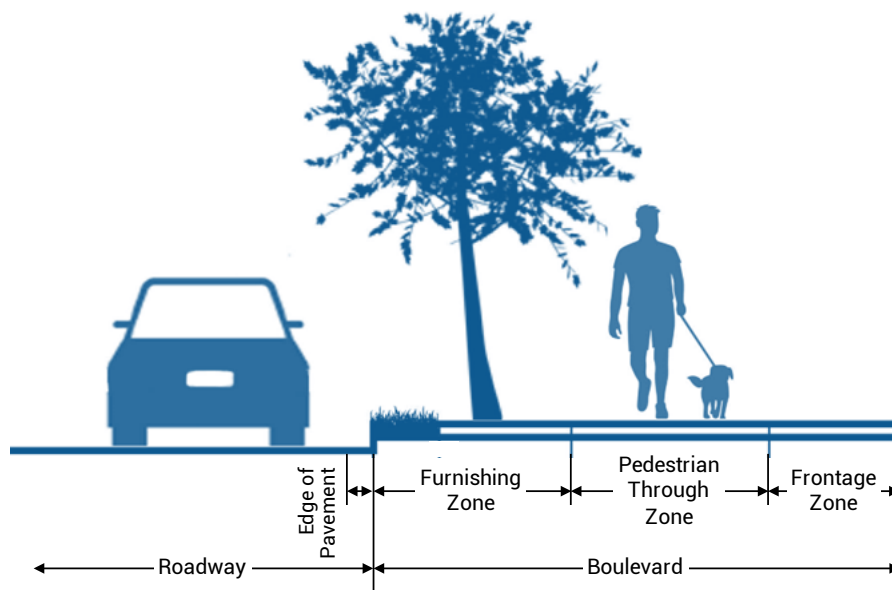


Figure 2.6: Boulevard Functional Zones

Some zones may be combined on certain streets, or the boundaries between zones may not be formally defined. In some cases, the boulevard may extend beyond the pavement edge into the roadway and be used as flexible space for on-street parking and other street-related purposes. Rural roads may not provide any of these elements, but instead have a walkable shoulder area, which can be considered the Pedestrian Through Zone.

In designing Cottage Streets, the Town will apply the recommended boulevard zone dimensions specified in **Table 2.2**. See the *TAC Guide*, the AODA standards, and *OTM Book 15* for further guidance.

Table 2.2: Boulevard Zone Dimensions

Zone	Minimum	Target	Maximum
Furnishings Zone	0.5 m	1.75 m	3.0 m+
Pedestrian Through Zone	1.5 m	1.8 m	2.0 m+
Frontage Zone	0.5 m	Varies	3.0 m+

2.5.3 Criteria Specific to Roadways

In designing Cottage Streets, the Town will apply the recommended lane widths specified in **Table 2.3**. These lane widths assume a 30 km/h target/design speed. See the *TAC Guide* and other municipal Complete Streets design guidelines for further guidance. Note that a minimum 6-metre clear width is required per the Ontario Building Code for emergency vehicle access.

Table 2.3: Lane Widths

Type	Minimum	Target	Maximum
Curb Lanes without Parking	3.0 m	3.3 m	3.5 m
Curb Lanes with Parking	4.25 m	4.25 m	4.25 m
Parking Lanes (including gutter)	2.0 m	2.2 m	2.5 m

Many Cottage Streets currently have pavement widths less than 8.5 metres. If existing lane widths are narrower than the values prescribed in **Table 2.3** and no identified traffic operations or road safety issues exist, the Town may consider maintaining the status quo and adjusting other elements in the cross-section accordingly.

It is further noted that public alleys and lanes also exist in the Town within very narrow rights-of-way with pavement widths ranging from 3 to 5 metres. The Town will determine lane widths for these facilities on a location-specific basis following the same principles set out in these guidelines.

2.6 Utilities and Municipal Services

Utilities and municipal services comprise the systems and facilities that provide potable water, sanitary sewage, storm water, electricity, telecommunications, gas, and street lighting. These services are generally located in the right-of-way and, as such, require careful consideration in their placement to maximize infrastructure investments, facilitate access for maintenance and repair, mitigate the impacts of climate change, and contribute to placemaking.

In designing Cottage Streets, the Town will:

- coordinate and collaborate with utility service providers to identify a mutually acceptable location to place infrastructure, especially if typical siting is impaired or not feasible due to limited right-of-way;
- explore opportunities to bury electric and telecommunication infrastructure underground (to the extent possible) through Cottage Streets reconstruction projects;
- coordinate utility and street lighting pole placement (to the extent possible) to reduce clutter in the boulevard.

2.7 Green Infrastructure

Green infrastructure refers to elements of the street that provide ecological and hydrological functions. These functions include mitigating urban heat island effects and improving biodiversity, air quality, energy efficiency, and stormwater management. Green infrastructure can also contribute to the aesthetics of the streetscape, improve comfort for people walking, rolling, and cycling, and provide traffic calming effects.

In designing Cottage Streets, the Town will:

- use ditches (and/or grass swales) and culverts for managing stormwater runoff from roads and boulevards, instead of storm sewer systems, where conditions permit. **Figure 2.5** depicts a sample typical cross-section with ditches. See **Chapter 3** for further guidance;
- explore opportunities to provide additional landscaping and street trees as part of Cottage Streets reconstruction projects;
- protect or mitigate impacts to existing landscaping and street trees potentially affected by the project; and
- consider applying low-impact development (LID) techniques, such as permeable pavements, only where practical, maintainable, and adequate space exists.

3 Design Process for Cottage Street Reconstruction Projects

3.1 Process Overview

In contrast to the traditional “centreline out” method of road design, the process for Cottage Street reconstruction projects takes an “outside in” approach. This approach explicitly considers the locational-specific context of the road and its character and setting in the neighbourhood in developing the proposed solution.

Consultation is a key component of this process, acknowledging the keen interest of the Saugeen Shores community in this topic. To this end, the Town will aim to engage the public and stakeholders at key points in the design process using established outreach tools, such as the municipality’s website and social media channels, direct communications to community groups, online surveys, and virtual and/or in-person public meetings and workshops. Key decisions and actions will be documented to enable participants to trace project development.

Based on this philosophy and approach, the design process for Cottage Street reconstruction projects involves five steps:

Step 1. Establish Design Priorities

Establish design priorities for the reconstruction project in consultation with neighbourhood residents.

Develop a shared vision of how the Cottage Street will look and function when reconstructed.

Step 2. Identify Available Right-of-Way and Other Constraints

Determine the right-of-way available through the Town’s GIS, survey mapping, and/or other appropriate source/records.

Note any constraints that will influence the design, such as utility placement, mature street trees, and drainage features.

Step 3. Design the Boulevard Elements

Review the level of pedestrian activity, topography, drainage, soil conditions, and other factors affecting design of the boulevard component.

Identify and select boulevard design elements based on the guidance in **Section 2.5**, **Section 2.6**, and **Section 2.7**. This requires an understanding of the characteristics and activity of the surrounding community, which comprises primarily low-density

residential dwellings. Property access and existing neighbourhood character will likely play important roles in helping establish the boulevard elements.

Conduct more detailed analysis, if required. These guidelines provide general guidance and do not address all possible situations or conditions.

Step 4. Design the Roadway Elements

Review the need for on-street parking, property access provisions, topography, drainage, soil conditions, utility and municipal service requirements, and other factors affecting design of the roadway component.

Identify and select roadway design elements based on the guidance in **Section 2.5**, **Section 2.6**, and **Section 2.7**.

Step 5. Assemble the Components

Prepare an initial cross-section design of the desired boulevard and roadway elements, as shown in **Figure 3.1**, in consultation with neighbourhood residents.

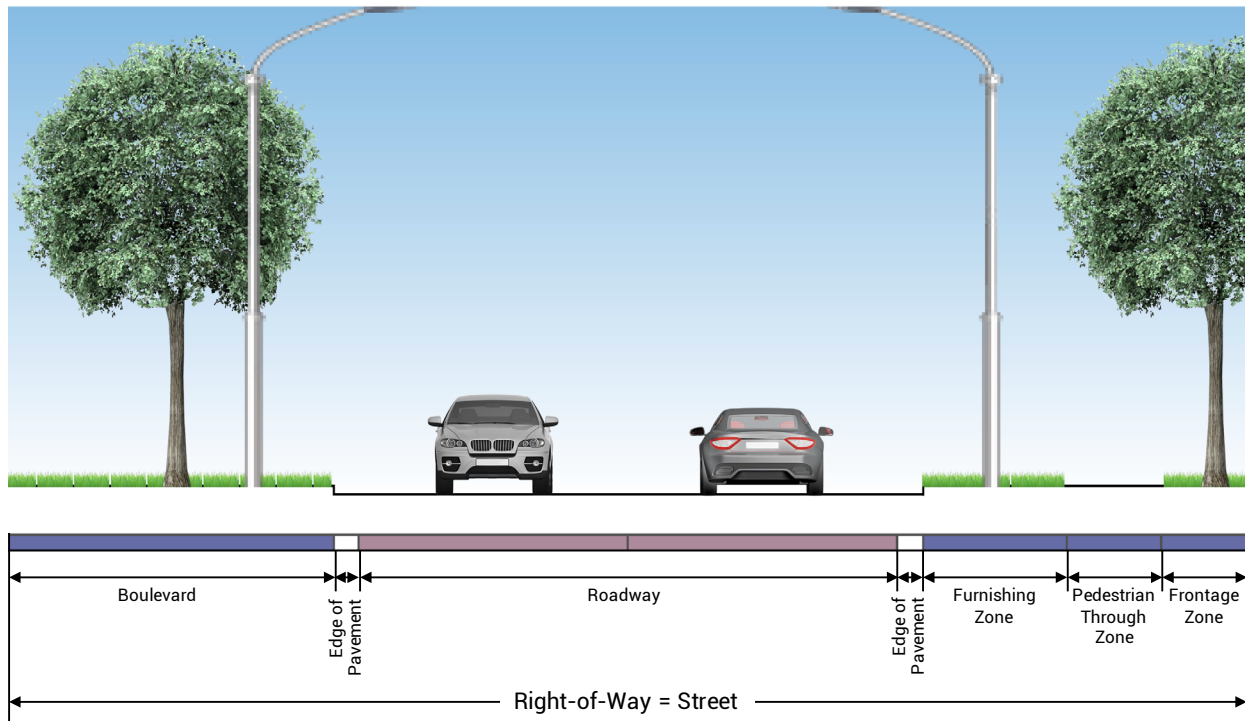


Figure 3.1: Cross-Section Elements

Compare the desired cross-section width with the available right-of-way.

If the desired width is equal to less than the available right-of-way, proceed with preliminary and detailed design process.

If the desired width exceeds available right-of-way, identify trade-offs to accommodate the boulevard and roadway elements within the space. This is an iterative process, particularly in constrained rights-of-way common for Cottage Streets. Trade-offs could include revisions to design element dimensions (widths) and/or the modification/elimination of less critical features. Common types of adjustments include:

- reducing the widths of travel lanes;
- reducing the width of the Frontage Zone if within the right-of-way;
- eliminating or reducing the width of on-street parking if present; and
- removing or reducing the width of the Furnishing Zone.

Section 3.2 discusses the process of design trade-offs in further detail.

In refining the design, seek to meet target dimensions for each element as outlined in **Section 2.5**. In constrained corridors, minimum widths may need to be used for specific elements, keeping in mind:

- Anticipated user volumes;
- Relative priority of each element and project objectives;
- Operations and maintenance impacts;
- Need for physical separation of vulnerable roads users and motorists, including consideration of accessibility needs; and
- Impacts to adjacent property owners and neighbourhood residents.

Balance trade-offs, priorities, and stakeholder feedback while documenting the rationale for design decisions.

If the total width of the desired design elements still exceeds available right-of-way after assessing trade-offs, acquire property, if feasible.

Revise the cross-section to fit the available right-of-way and proceed with preliminary and detailed design process. Document any plan or cross-section modifications to reflect the outcome of the trade-offs.

The Street Element Decision-Making Framework in **Figure 3.2** summarizes the process of reaching convergence on the preferred cross-section design for a Cottage Street through Step 5.

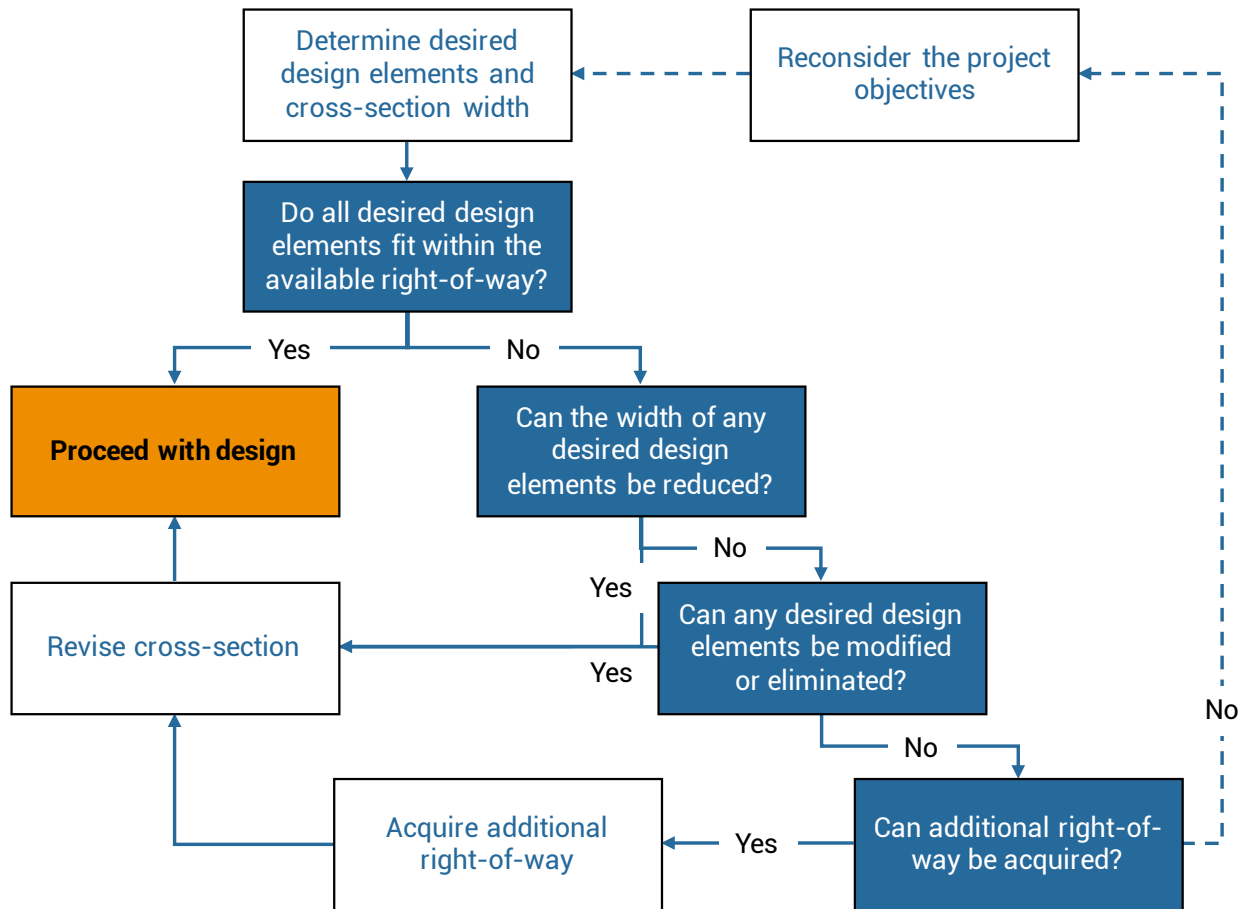


Figure 3.2: Street Element Decision-Making Framework

3.2 Trade-offs

3.2.1 Assessing and Deciding Trade-offs

Following assembly of the initial cross-section design in Step 5 of **Section 3.1**, refinement is often necessary to better satisfy the project objectives, as noted. Any refinements should result from a fair, thoughtful, and collaborative assessment of the **trade-offs** between competing uses on the street and given the available right-of-way, with overarching consideration for the safety and accessibility of all users. It is important to recognize that some design elements benefit certain users more than others, and some design elements that benefit one user group may work to the disadvantage of others.

Some typical trade-offs for Cottage Street projects include the following:

- Additional right-of-way versus limited space
- Street trees versus underground utilities
- Curb and gutter versus ditches and culverts

- Sidewalks versus additional boulevard space for street trees and landscaping
- Emergency vehicle access versus speed reduction
- Historical character versus urbanization efficiency
- Capital versus operations/maintenance costs

In assessing trade-offs, the need for design exceptions may arise when the criteria for one or more design elements falls outside the boundaries/minimum values specified in the text and tables of **Section 2.5**. According to the *TAC Guide*, the following criteria would be subject to a design exception if they could not be met: **design speed**, horizontal alignment, superelevation, vertical alignment, grade, **stopping sight distance**, vertical clearance, **cross-slope**, **lane width**, **shoulder width**, bridge width, or lateral offset to obstruction. The items denoted in **blue font** are most pertinent for a Cottage Streets reconstruction project. The *TAC Guide* (Section 1.5) outlines a comprehensive six-step process for addressing design exemptions.

The following sections address trade-offs specific to the boulevard and roadway components of the street.

3.2.2 Trade-offs Specific to Boulevards

Sidewalks

The Town may install or reinstate sidewalk on Cottage Streets to:

- meet accessibility needs;
- address known safety concerns;
- provide connectivity to neighbourhood amenities; and/or
- complete missing links in the pedestrian network.

Evidence (e.g., collision data, traffic speed and volume), site observation (e.g., sight lines), input from the public and stakeholders (e.g., Accessibility Advisory Committee guidance, reported complaints, public meetings), overarching plans and policies (e.g., Transportation Master Plan), and professional judgement will inform the assessment. Technical feasibility will also be considered, recognizing topography, grading, drainage, and obstructions such as utilities and vegetation may pose obstacles to sidewalk implementation. Further, access to off-street parking or loading areas should not be severely impeded or eliminated through the installation of sidewalk.

If provided, the Town's Engineering Development Manual specifies a minimum 1.5 metre wide sidewalk on one side of the road, constructed according to OPSD 310.010 (Concrete Sidewalk). Although most sidewalks are concrete, in some instances, an asphalt facility can provide a reasonable alternative, particularly for trail connections.

However, the long life of concrete, and its distinct pattern and lighter colour are strongly preferred.

Storm Sewer Systems

The Town may install or reinstate storm sewer systems on Cottage Streets where:

- known drainage concerns necessitate this type of treatment;
- a suitable and adequate downstream storm sewer outlet is available;
- insufficient right-of-way exists to provide ditches (and/or grass swales) and culverts;
- slope or grade issues limit the provision of ditches (and/or grass swales) and culverts;
- access to off-street parking or loading area would be severely restricted or eliminated with the installation of ditches (and/or grass swales) and culverts.

If a more thorough examination is required to confirm the need for a storm sewer system, the Town may consider conducting an evaluation based on an assessment tool developed by the Toronto and Region Conservation Authority¹ (available separately) for determining the preferred type of drainage feature. The tool considers:

- compatibility with physical site characteristics;
- compatibility with planning objectives (or existing development in the case of a retrofit situation) and ease of integration;
- ability to meet stormwater management objectives;
- economics; and
- public acceptance/safety.

3.2.3 Trade-offs Specific to Roadways

Pavement Edge

The Town may decide not to install or reinstate curb and gutter on Cottage Streets where:

- no known drainage concerns necessitate this type of treatment;
- no slope or grade issues exist;
- on-street parking and/or roadway maintenance issues do not require control;

¹ Toronto and Region Conservation Authority, *Evaluation of Roadside Ditches and Other Related Stormwater Management Practices*, 2000

- sufficient right-of-way is available to provide ditches (and/or grass swales) and culverts; and/or
- access to off-street parking or loading area would not be severely restricted or eliminated.

Although most curb and gutter systems are concrete, in some instances, asphalt can provide a reasonable alternative. **Figure 3.3** shows asphalt curb and gutter configurations specified in the Ontario Provincial Standard Drawings. That said, the durability and strength of concrete are superior to asphalt for this type of application.

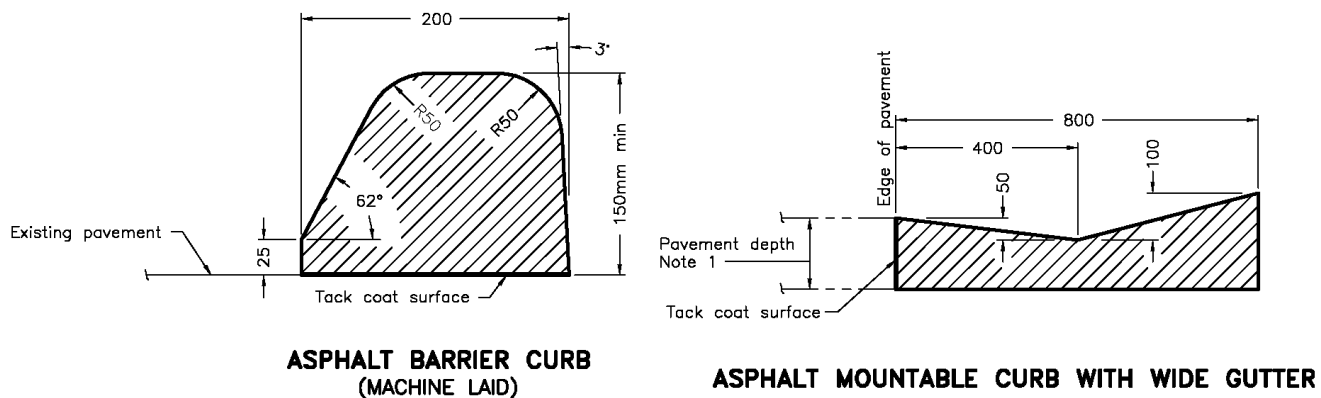


Figure 3.3: Asphalt Curb and Asphalt Curb with Gutter (OPSD 601.010)

If curb and gutter is not provided, the Special Roads (Chapter 11) supplement to the *TAC Guide* recommends providing 0.5 metre shoulders on surfaced two-lane roads like Cottage Streets.

Parking

The Town may consider changes to current on-street parking provisions (i.e., remove, maintain, or allow) through a Cottage Streets reconstruction project. The Town will typically base this decision on a technical review comprising an analysis of current parking conditions and an assessment of potential strategies to meet expected needs. An examination of anticipated financial, technical, and community impacts will usually form part of the review.

If on-street parking current exists and a trade-off is required, the Town will consider:

- reducing the width of on-street parking to as low as the minimum dimensions;
- converting two-sided on-street parking to one-side before removing completely; or
- removing parking if insufficient demand or established need.