COMPLETE STREETS

What is a Complete Street?

WHAT DO COMPLETE STREETS LOOK LIKE?

There is no singular design prescription for a Complete Street - each is unique and responds to its immediate and broader community context. Examples of streets from the Capital Region exhibiting elements of Complete Streets are shown below.

Wide sidewalks and considerable landscaping has made Goldstream Avenue in Langford a beautiful, pedestrian-friendly urban street

A crosswalk on Royal Oak Drive is made safer and better integrated with the streetscape with a centre median, landscaping and curb extensions that reduce crossing distance

Traffic is calmed on Jutland Road in Victoria with curb extensions, street trees and a textured road surface

McKenzie Avenue (near the University of Victoria) includes a protected bicycle lane, landscaped centre median and rainwater retention ponds

Traffic calming diversions in the Oaklands neighbourhood restrict through traffic to major roads while retaining access for pedestrian and cyclists

Priorities have changed on Fort Street where on-street parking has become a "parklet", speed limits have dropped and signs installed alerting motorists to the presence of pedestrians and cyclists

WHAT IS A COMPLETE STREET?

Complete Streets are streets for everyone. They are designed and operated to enable safe access for users of all ages and abilities, including pedestrians, bicyclists, motorists and transit riders. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from transit. They accommodate vehicles without negatively impacting other users of the street.

Incomplete streets – those designed with only cars in mind – limit transportation choices by making walking, bicycling, and public transit inconvenient, unattractive, and, too often, dangerous.

Streets are the most vital, yet under-utilized public spaces in communities. In addition to providing space for travel, streets play a big role in the public life of communities and should be designed as public spaces as well as channels for movement.

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About the Complete Streets Handbook

OVERVIEW

The Oak Bay Complete Streets Handbook formalizes the District of Oak Bay's intent to fund, plan, design, operate and maintain streets so they are safe and attractive for everyone. By supporting this document, the District is committing to consider all travel modes in future street design - pedestrians, cyclists, public transit, motorists and freight vehicles.

The Oak Bay Complete Streets Handbook identifies the preferred design process and design features to be used by District of Oak Bay staff, design professionals (Planners, Engineers, Architects), land developers, community groups, and others involved in the planning and design of streets in Oak Bay.

Sample image of the *Oak Bay Complete Streets Handbook* document

RELATION TO OTHER DOCUMENTS

The Oak Bay Complete Streets Handbook was developed based on guidance from and in coordination with the following existing documents:

- The ***Oak Bay Active Transportation Strategy***, which identifies the primary active transportation network and key priorities for advancing active transportation in Oak Bay;
- The ***Official Community Plan***, which defines road classes for Oak Bay's Road Network;
- The Capital Regional District ***Pedestrian and Cycling Master Plan*** (CRD PCMP), which identifies the primary inter-community cycling network;
- The Capital Regional District ***Regional Transportation Plan*** (RTP), which identifies the goods movement network;
- The BC Transit ***Victoria Transit Future Plan***, which guides transit planning in the region over the next 25 years;
- Oak Bay's ***Streets and Traffic Bylaw*** (Bylaw 4100), which regulates traffic and the use of streets within the Municipality of Oak Bay;
- Oak Bay's ***Subdivision and Development Bylaw*** (Bylaw 3578), which regulates the subdivision and development of land within the Municipality of Oak Bay; and
- The ***BC Motor Vehicle Act***.

VISION

Oak Bay's street network allows residents of all ages and abilities to enjoy safe and convenient multi-modal transportation.

PRINCIPLES

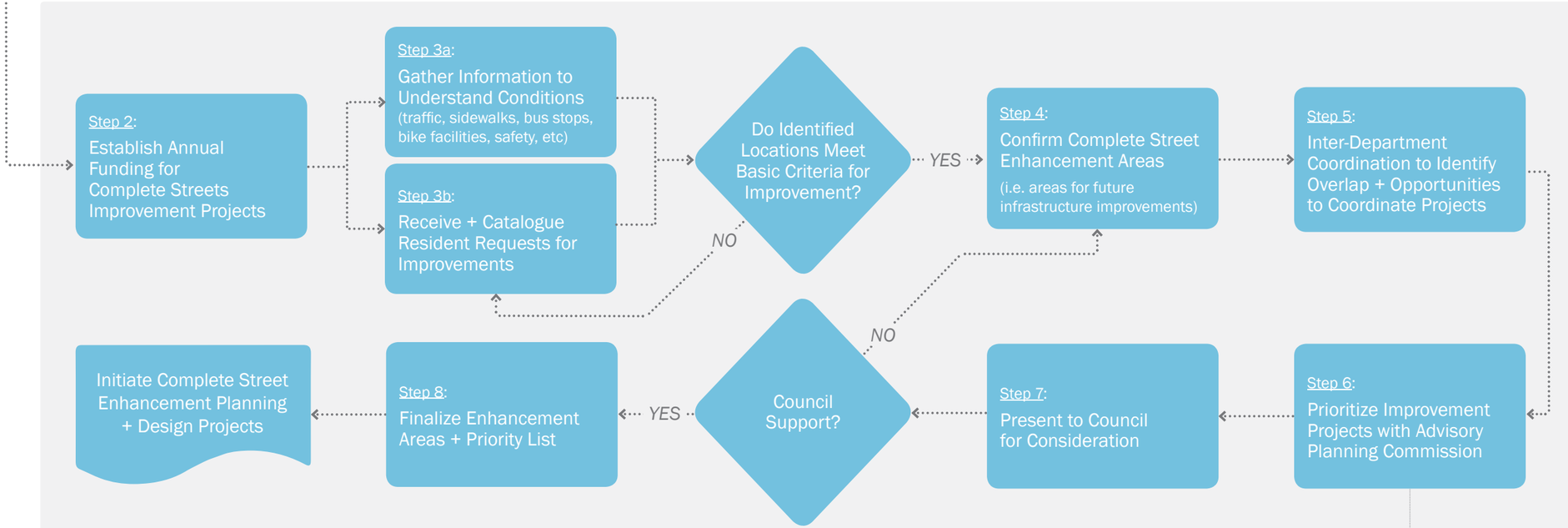
1. Prioritize public infrastructure improvements and spending based on the following hierarchy - universal accessibility, walking, cycling, transit, goods movement and high-occupancy vehicles, and low-occupancy vehicles.
2. Calm and divert traffic where appropriate to create neighbourhood streets.
3. Provide safe and obstruction-free walking spaces for pedestrians.
4. Improve the interface of adjacent land uses with the public realm and incorporate street furnishings and placemaking to contribute positively to the pedestrian experience.
5. Provide a network of safe and comfortable bicycle facilities.
6. Provide accessible, attractive, safe transit stops.
7. Ensure access for goods movement and emergency services.
8. Provide and preserve green spaces to manage stormwater and create a sense of place.

COMPLETE STREETS

The Proposed Complete Streets Program

ABOUT THE PROGRAM

A Complete Streets program is proposed to guide District of Oak Bay staff and Council toward a pro-active complete street enhancement process that considers resident requests and staff identified needs to create a prioritized list of complete street enhancement projects that represent an efficient use of available budget and prioritization of areas in greatest need. The proposed program is highlighted below.



The District recently established the Oak Bay Advisory Planning Commission (“APC”). The APC is comprised of Oak Bay residents and provides recommendations to Council on matters respecting land use, community planning, and proposed amendments and initiatives related to the Official Community Plan (OCP) and Zoning Bylaw.

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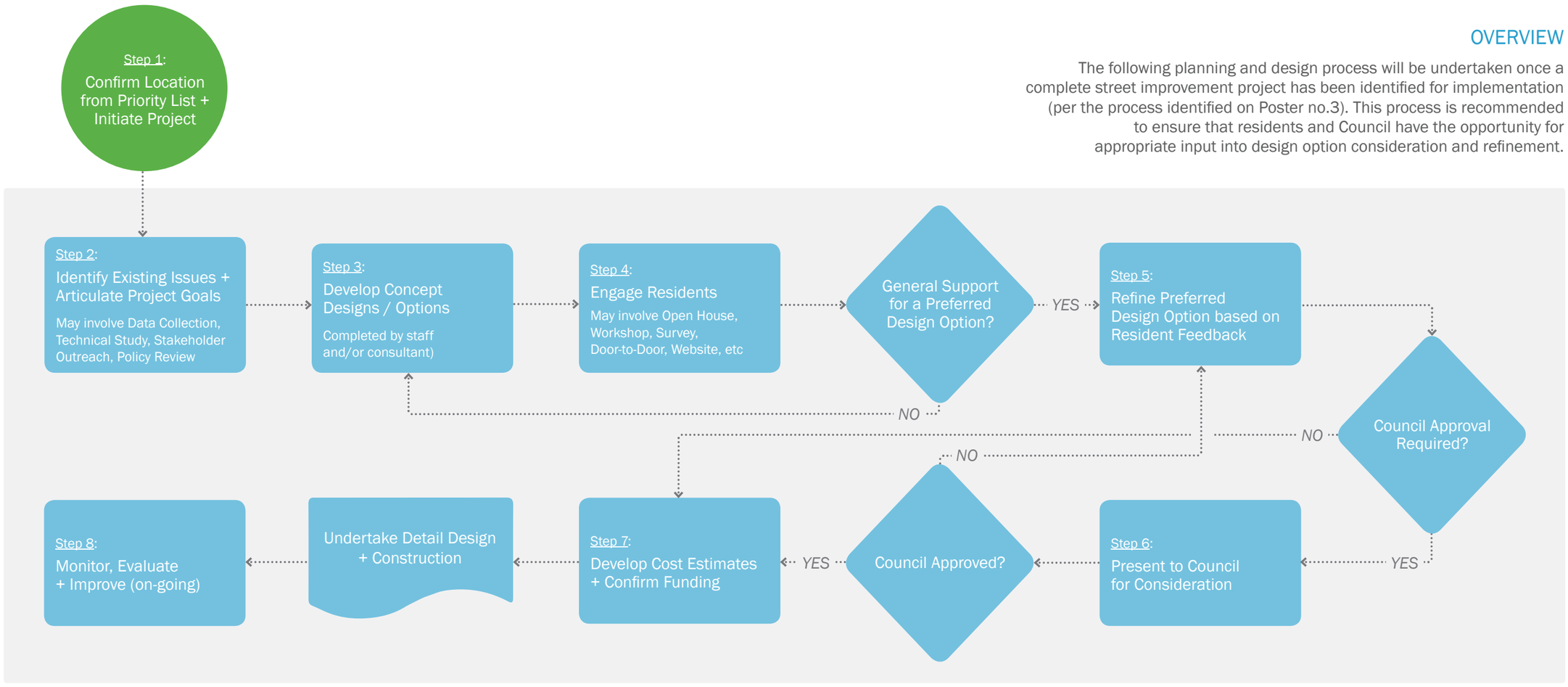
COMPLETE STREETS

The Complete Streets Planning + Design Process

OVERVIEW

The following planning and design process will be undertaken once a complete street improvement project has been identified for implementation (per the process identified on Poster no.3). This process is recommended to ensure that residents and Council have the opportunity for appropriate input into design option consideration and refinement.



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COMPLETE STREETS

Complete Street Design Toolbox

Design Treatment		ROAD CLASSIFICATION				Application
		Arterial Road	Collector Road	Local Road	Special Road	
Accessible Design	A1. Curb ramp	!	!	!	!	Access for all including those with disabilities
	A2. Tactile paving	!	●	◑	!	
	A3. Accessible pedestrian signals	!	●	--	!	
Walking Facilities	B1. Sidewalk	!	!	◑	!	Safe and comfortable walking environment
	B2. Curb extensions	◑	○	○	◑	
	B3. Crosswalks	●	◑	○	●	
Bicycling Facilities	C1. Protected bicycle lane	●	--	--	●	Safe and comfortable cycling environment
	C2. Bicycle lane	○	●	--	○	
	C3. Shared lane	--	○	--	○	
	C4. Bicycle greenway	--	◑	●	--	
Traffic Calming	D1. Traffic volume management	--	◑	●	--	Reduced traffic, safer speeds
	D2. Traffic speed management	○	◑	◑	◑	
Transit	E1. Basic bus stop	○	◑	◑	○	Transit access
	E2. Enhanced bus stop	●	◑	○	●	
Placemaking	F1. Street tree and greenspace	◑	◑	○	●	Enhanced streetscape, sense of place
	F2. Lighting, street furniture, art	●	◑	○	●	
	F3. Celebration & temporary installation	◑	◑	○	●	

DESIGN SUITABILITY

Toolbox items are identified in the matrix with consideration for their suitability on each road class, as follows:

! **Requirement**
Design treatments that should be incorporated into all street improvements on identified road classes

● **High Priority**
Design treatments that are appropriate for identified road classes and are high priority for implementation

◑ **Moderate Priority**
Design treatments that are appropriate for identified road classes and are moderate priority

○ **Low Priority**
Design treatments that may be appropriate for identified road classes, but are of lesser priority

-- **Not Appropriate**
Design treatments that are generally inappropriate on identified road classes

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COMPLETE STREETS

Oak Bay's Road Network

ARTERIAL

Arterial roads are the largest that occur in Oak Bay. These connect the major activity centres and carry large volumes of traffic entering and leaving Oak Bay. Example arterial roads include Cadboro Bay Road, Cedar Hill X Road and Foul Bay Road.

LOCAL

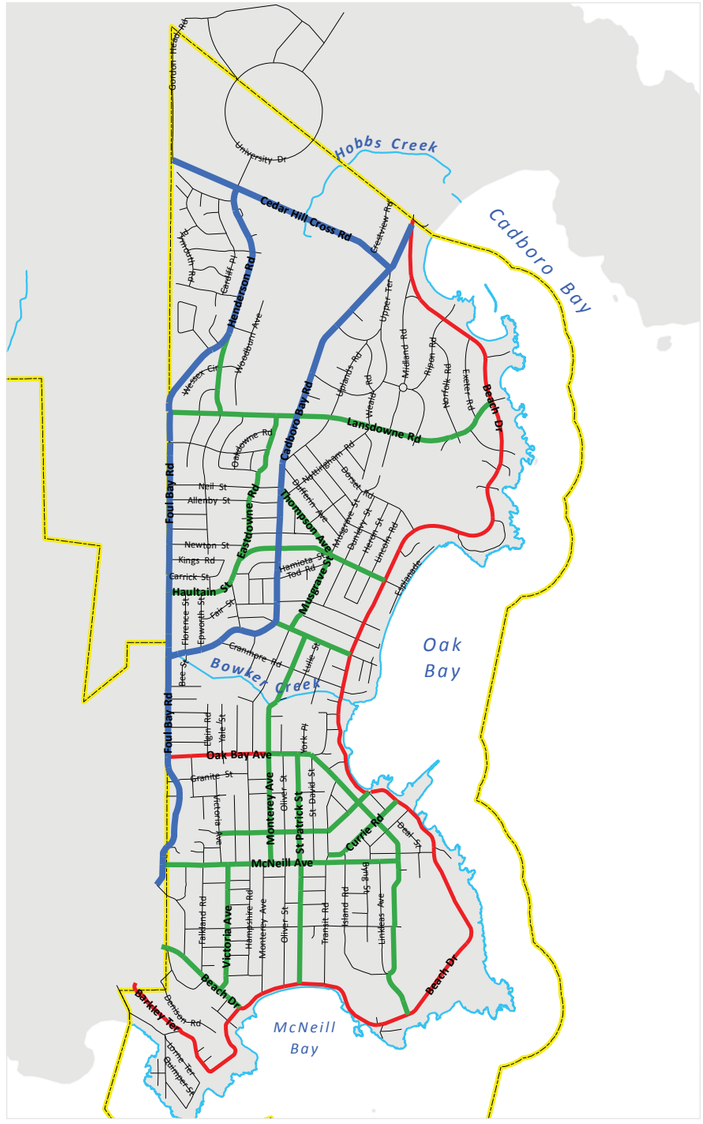
Local roads are the most common roads within Oak Bay. Their primary purpose is to serve the houses that directly abut them.

COLLECTOR

Collector roads collect traffic from local roads and channel it to arterial roads. Collectors may still maintain most of the characteristics of a local road. In established communities such as Oak Bay, Collectors are designated based on historical use.

SPECIAL

Special roads do not fit easily into any categories because they perform a number of roles. In addition to being important vehicle routes, they have other functions that may be environmental or recreational. Beach Drive and Oak Bay Avenue are designated as Special Roads.



COMPLETE STREETS

Design Features, pt.1

A. ACCESSIBLE DESIGN

Accessibility (or accessible design) refers to the degree to which a street can be used by all people, with particular attention to individuals with physical, sensory, or cognitive disabilities. The District considers streets that are accessible to all residents a priority and will continue to pursue accessible design where appropriate.

The key opportunities for accessible design include:

1. Curb Ramps (see photo)
2. Tactile Paving (see photo)
3. Accessible pedestrian signals with predictable configuration and timing, audible indicators, and/or crossing countdown

Sample image of the District's standard curb ramp and tactile strip placed at pedestrian crossing locations

B. WALKING FACILITIES

Walking facilities provide a dedicated area for safe, comfortable pedestrian travel. The sidewalks, trails, crosswalks and related design features that comprise the pedestrian network are fundamental elements to achieving an accessible community, providing access to public transit, and advancing placemaking objectives.

The following walking facilities are given consideration in the Complete Street Handbook:

1. Sidewalks
2. Crosswalks
3. Curb Extensions (see photo)

Sample image of a curb extension that reduces the pedestrian crossing distance and manages vehicle turn speeds

C. BICYCLE FACILITIES

Appropriately planned and designed bicycle facilities provide a safe and comfortable environment in which to ride a bike. Bicycle facilities can take many forms and provide varying degrees of separation from vehicular traffic, including full physical separation (i.e. "cycletrack") to a shared travel lane on continuous streets with limited traffic.

Examples of bicycle facility types include a fully separated lane (i.e. "cycletrack") at top, a bike lane separated from vehicles by a "buffer" area at bottom-left, and a neighbourhood bikeway where cyclists share the street with vehicles on identified low volume routes.

COMPLETE STREETS

Design Features, pt.2

D. TRAFFIC CALMING

Traffic calming is physical measures used to reduce negative effects of motor vehicles and return a street to its intended function. It is typically used to manage vehicle speeds (where speeds have been demonstrated to exceed acceptable speed), reduce vehicle volumes (where volumes exceed what is considered acceptable for the street classification) or address instances of a high number on non-local vehicle on local streets (i.e. cut-through traffic).

Traffic calming measures are considered in five categories:

1. **Obstructions** | Features that obstruct specific vehicle movements, discouraging shortcutting and reducing conflicts.
2. **Vertical Deflections** | Features that require vehicles to reduce speed due to varied surface level.
3. **Horizontal Deflections** | Features that require a motorist to alter their direction or choose an entirely different route.
4. **Signs** | Signs used to regulate traffic movements (requires police enforcement and can often be replaced with self-enforcing features).
5. **Technology** | Technological means to communicate a message to motorists, such as radar speed signs and in-road lighting.

E. TRANSIT

To encourage transit ridership, the District is seeking to develop a well-designed network of bus stops for passengers to wait for, board, alight, and transfer between buses. Bus stops will be designed for accessibility, safe waiting and alighting, visibility for approaching buses, and comfortable conditions with places to sit and weather protection where possible.

Two basic types of bus stops are considered in the Complete Street Handbook:

1. **Basic Stops** include on a bus stop ID sign and a painted red curb. These stops are suitable on routes with limited service and/or at bus stops with a low number of boardings / alightings.
2. **Enhanced Stops** are preferred on routes with frequent transit service and/or at bus stops with a high number of boardings / alightings. Enhanced stops may include seating, shelters, garbage bins and lighting.

F. PLACEMAKING

The street network is typically a community's largest public space and is concerned primarily with movement (and most often with vehicles). Placemaking presents an opportunity to bring life and amenities to public spaces so that they achieve their transportation role, but also create more valuable public spaces serving a broader public function.

The Complete Street Handbook makes provisions for placemaking in three general categories, as follows:

1. **Street Trees + Landscape** | Street trees and landscape may be incorporated into street design in boulevards, medians, curb extensions and frontages to replicate (as best as possible) natural processes by providing shade, managing stormwater and increased urban forest coverage.
2. **Lighting, Furniture + Art** | Lighting, benches, newspaper kiosks, bicycle parking, and public art installations enhance the urban landscape, and may be incorporated as part of street design.
3. **Celebration + Temporary Installations** | Celebrations and temporary installations may be hosted on streets, accommodated by partial or full closures to vehicles and other travel modes.

Examples of various traffic calming features (from left to right) - A Right-in, Right-out Island on Richmond Road at Royal Jubilee Hospital, a Centre Median on Finlayson Road, a Directional Closure on Hillside Avenue, and a Speed Hump.

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