



# Review of the Forthcoming City of London Complete Streets Design Manual

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## Introduction - What are Complete Streets?

“A complete street is one that is designed to accommodate the mobility needs of all ages, abilities, and modes of travel. Safe and comfortable access for **pedestrians, bicycles, transit users, and the mobility challenged** are not design after-thoughts, but are **integral to the planning of the street** from the start.”

- London Transportation Master Plan



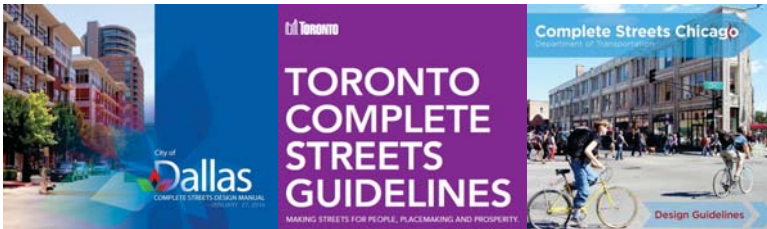
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## Introduction – Complete Streets Manuals

Complete Streets Guides & Manuals have been developed by **many cities around the world** to help **direct and coordinate** street planning/design towards more balanced mobility options



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## Background

The 2016 City of London Official Plan introduced a group of **Street Classifications**, which set the stage for more **context sensitive city building policies** and **redefining mobility** for Londoners

Classifications Include:

- Rapid Transit Boulevards
- Urban Thoroughfares
- Civic Boulevards
- Main Streets
- Neighbourhood Connectors
- Neighbourhood Streets
- Rural Thoroughfares
- Rural Connectors



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## Background

Each **Street Classifications** was accompanied with policies to guide future planning and design towards a an **intended character and function**, while progressing towards **overall mobility goals**

DESIGN FEATURES	STREET CLASSIFICATION		
	Rapid Transit Boulevard	Urban Thoroughfare	Civic Boulevard
Planned Street Width (Width of Right-of-Way)	50m	45m	30m
<b>BIKEWAY</b>			
On-street Parking (Additional to Through Lanes)	+	+	+
On-street Parking (In Through Lanes)	+	+	+
Left Turn Lanes	+	+	+
Right Turn Lanes	+	+	+
Planting Medians	+	+	+
Carb Extensions	+	+	+
<b>PEDESTRIAN ZONE</b>			
Hard Surface (from Curb to Building Face)	+	+	+
Standard Sidewalk (1.5m wide, Both Sides)	+	+	+
Coordinated Utilities	+	+	+
Street Trees	+	+	+
Street Furniture	+	+	+
Pedestrian-scaled Lighting	+	+	+
Landscape Plantings	+	+	+
Grass Boulevard	+	+	+
Enhanced Crosswalk Treatments	+	+	+
Low Impact Development	+	+	+

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## Background

**Many stakeholders** were included in **consultation efforts** for the development of the Complete Streets Design Manual and attended a **Stakeholder Workshop**, held on June 2nd, 2017. These groups included:

- Accessibility Advisory Committee
- Can-Bike
- Hyde Park Business Association
- Bell
- London Middlesex Road Safety Committee
- Middlesex Health Unit
- Start Communications
- Cycling Advisory Committee
- London Fire
- London Development Institute (LDI)
- Downtown London BIA
- London Hydro
- London Transit
- Union Gas
- Tree and Forests Advisory Committee
- Argyle BIA
- City of London Water
- London Environmental Network
- City of London Development Services

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## Goals

The City of London Official Plan suggested the preparation of a Complete Streets Manual to establish:

- Overall cross-sections for the street classifications
- Design parameters for the public realm



The vision for the City of London Complete Streets Design Manual grew to include . . .



## London Complete Street Manual - Content

### Chapter 1: Complete Streets: Vision and Principles

- Complete Streets concepts and policy support

### Chapter 2: Elements of Complete Streets

- Complete Streets features

### Chapter 3: Undertaking Complete Streets Design

- Processes for balancing the needs of current and future users

### Chapter 4: Street Design for Roadways

- Street characteristics/priorities and conceptual cross sections, by street classification

### Chapter 5: Street Design for Intersections

- Intersection treatments that provide Complete Streets elements for specific combinations of street classifications

### Chapter 6: Moving Forward with Complete Streets

- Progress indicators for Complete Streets outcomes



## Contents:

1. What are Complete Streets?
2. Who is This Guide For?
3. Review of Complete Streets Policies in London
4. Core Principles for Complete Streets

### CHAPTER

# 1

### COMPLETE STREETS: VISION AND PRINCIPLES



## Local Policy Support

“ At the local level, policy support for complete streets is found in a number of documents, including the:

- Strategic Plan
- The London Plan
- Downtown Plan
- Design Specifications and Requirements Manual
- Cycling Master Plan
- London Rapid Transit
- London Road Safety Strategy
- London 2030 Transportation Master Plan ”



## THE LONDON PLAN

EXCITING. EXCEPTIONAL. CONNECTED.



### COMPLETE STREETS: VISION AND PRINCIPLES



## Local Policy Support

“ Municipal Council adopted the following Vision Zero Principles:

- No loss of life is acceptable
- Traffic fatalities and serious injuries are preventable
- We all make mistakes
- We are all physically vulnerable when involved in motor vehicle collisions
- Eliminating fatalities and serious injuries is a shared responsibility between road users and those who design and maintain our roadways ”



### COMPLETE STREETS: VISION AND PRINCIPLES



## Core Principles



Prioritize Safe and Accessible Options for People



Embed Sustainability



Emphasize Vitality



Prioritize Connectivity



Ensure Context Sensitivity

### COMPLETE STREETS: VISION AND PRINCIPLES



## Core Principles



### Prioritize Safe and Accessible Options for People

“The safety and mobility needs of all users is a priority in any street design exercise.”



### Emphasize Vitality

“Streets that attract pedestrians enhance urban vitality in London.”



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COMPLETE STREETS: VISION AND PRINCIPLES

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## Accessibility

The Manual defines what a pedestrian is, describes the central role of walking and mobility device travel within London and outlines how the City will support pedestrians through Complete Streets.

### Key considerations:

- Tactile walking surface indicators
- Separation of pedestrians and cyclists where practical
- Consideration of user needs and land uses in prioritizing street elements such as sidewalk width
- Design processes that emphasize consultation with stakeholder groups
- Pedestrian crossing refuge islands
- Accessible transit stop design

COMPLETE STREETS: VISION AND PRINCIPLES

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### Contents:

General Considerations and Tools for:

1. Pedestrian Facility Design
2. Cycling Facility Design
3. Transit Facility Design
4. Motor Vehicles
5. Green Infrastructure
6. Utilities and Municipal Services

CHAPTER

2

ELEMENTS OF COMPLETE STREETS

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### Pedestrian Facility Considerations



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Buffered bicycle lane in London.

### Cycling Facilities Considerations

ELEMENTS OF COMPLETE STREETS

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### Provide connectivity:

As the slowest mode of transportation, pedestrians have the greatest sensitivity to route directness.”



Buffered bicycle lane in London.

### Prioritize vulnerable users:

Cyclists are more vulnerable than transit riders and motorists in a collision because they are not protected within a vehicle.”

ELEMENTS OF COMPLETE STREETS

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### Design For Accessibility

“Pedestrians include those who are using a walker, crutches, a wheelchair or an electrically powered mobility device as well as individuals with a visual impairment.

Design features should be used to accommodate all of London's pedestrians, such as:

- appropriately wide pedestrian clearways;
- audible pedestrian signals;
- tactile walking surface indicators (TWSIs);
- visually contrasting surface treatments; and
- amenities such as seating



ELEMENTS OF COMPLETE STREETS

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**Contents:**  
(under development with City input)

1. Process Overview
2. Planning
3. Conceptualizing
4. Designing
5. Implementing

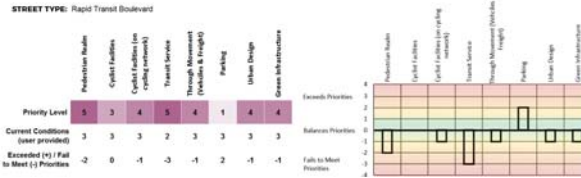
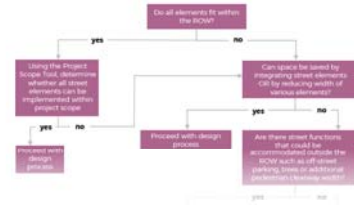
**CHAPTER**

**3**

**UNDERTAKING COMPLETE STREETS DESIGN**



**Street Element Decision Making Tool**

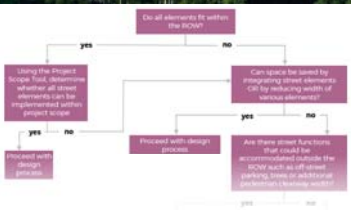


**Complete Street Audit Tool**

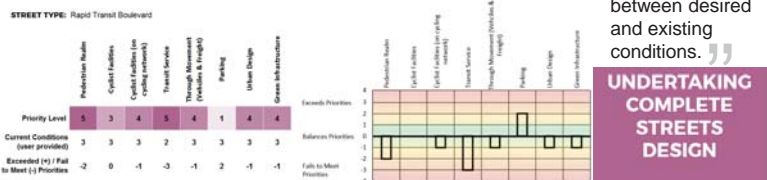
**UNDERTAKING COMPLETE STREETS DESIGN**



“The tool outlines suitable alternatives that should be considered in cases where the Right of Way is not sufficiently wide.”



“The selected street typology automatically loads the priority rankings from the Complete Street Priorities Tool and the graph on the right displays the difference between desired and existing conditions.”



**UNDERTAKING COMPLETE STREETS DESIGN**



**Contents:**  
1. Street Typologies  
2. Design Guidance for:

- Rapid Transit Boulevards
- Urban Thoroughfares
- Civic Boulevards
- Main Streets
- Neighbourhood Connectors
- Neighbourhood Streets
- Rural Thoroughfares
- Rural Connectors

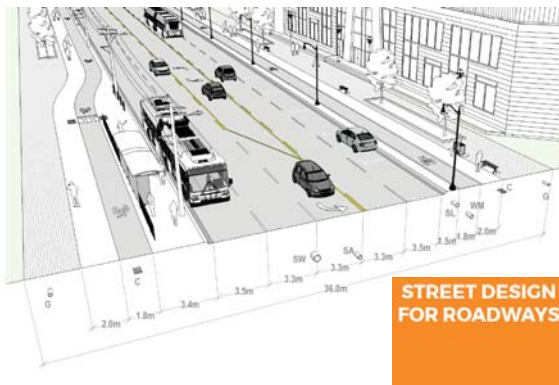
**CHAPTER**

**4**

**STREET DESIGN FOR ROADWAYS**



**Example Civic Boulevard**

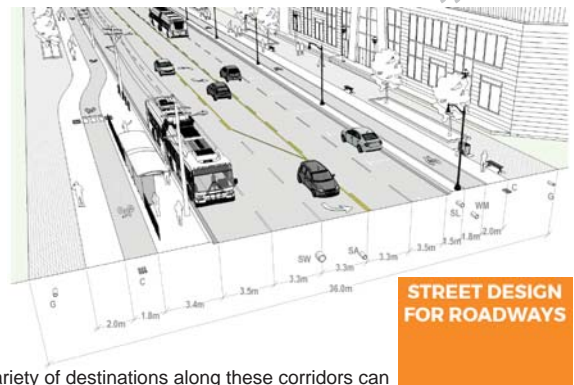


**STREET DESIGN FOR ROADWAYS**



“Physically separated and continuous cycling facilities are preferred.”

**Example Civic Boulevard**



**STREET DESIGN FOR ROADWAYS**

“Civic Boulevards provide multi-modal connections between different neighbourhoods across the City including downtown.”

“The variety of destinations along these corridors can generate significant volumes of walking trips”



Example  
**Neighbourhood Street**



**STREET DESIGN FOR ROADWAYS**



Example  
**Neighbourhood Street**

“Neighbourhood Streets are where most Londoners, including many families, live; enhancing the livability, sense of community, and the ability to age-in-place are important considerations.”



**STREET DESIGN FOR ROADWAYS**

“Motorist speeds may be managed with speed humps.”  
“Benches and newspaper boxes are typically provided at corners with other major streets.”



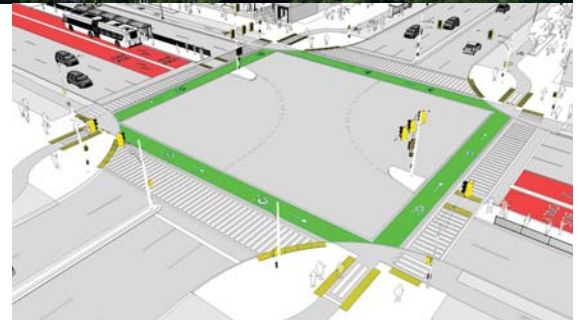
**Contents:**

1. Intersection Design Principles
2. Design Guidance for:
  - Rapid Transit Boulevard Intersecting a Main Street
  - Urban Thoroughfare intersecting a Civic Boulevard (Signalized)
  - Urban Thoroughfare Intersecting a Civic Boulevard (Roundabout)
  - Urban Thoroughfare Intersecting a Neighbourhood Connector
  - Civic Boulevard in the Primary Transit Area Intersecting a Neighbourhood Street

**CHAPTER 5 STREET DESIGN FOR INTERSECTIONS**



Example  
**Rapid Transit Boulevard Intersecting a Main Street**



**STREET DESIGN FOR INTERSECTIONS**



Example  
**Rapid Transit Boulevard Intersecting a Main Street**

“The pedestrian clearway widens as the planter boxes and trees are discontinued, providing for greater ease of pedestrian movement and queuing.”

“Centre median design requires dedicated transit signals which use the same phasing as the through motor vehicle movement.”

**STREET DESIGN FOR INTERSECTIONS**



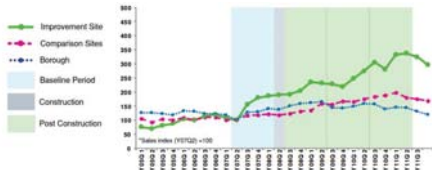
- Contents:**  
(under development with City input)
1. Principles of Performance Metrics
  2. Options for Measuring Complete Streets Performance
  3. Next Steps

**CHAPTER 6 MOVING FORWARD WITH COMPLETE STREETS**



## Principles of Performance Measurement

- Undertake relevant and multi-faceted data collection
- Analyze usage patterns in context
- Develop a feasible monitoring strategy
- Communicate findings and integrate data analysis into project decision-making



NYC Sustainable Streets Report: Combined Sales: Improvement Sites vs. Comparison Sites

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Baltimore Case Study: Network Completeness Mapping: Pedestrian Network



“The spatial distribution of Complete Streets can be used to visualize the City’s progress and highlight specific areas that may have less access to sustainable mode choices.”

“Sales data collected via electronic payment vendors can be used to compare changes on streets where improvements are made with control streets that have a similar character.”



Baltimore Case Study: Network Completeness Mapping: Pedestrian Network



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## Next Steps

- Share Draft with Stakeholders and Finalize spring 2018
- Education campaign
- Move towards a network of Complete Streets

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## Questions

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