

Vaughan Complete Streets Guide



C 1

Communication

CW(WS) – January 24, 2024

Item No. 1

Council Working Session

DTAH, Traffic Calmer, LURA, HDR
Wednesday Jan 24, 2024

Project Overview



Process



What are Complete Streets (CS)?

A Complete Street (CS) is designed for all ages, abilities, and modes of travel.

Safe and comfortable access for pedestrians, bicycles, transit users and people with disabilities is not an afterthought, but an integral planning feature.

Ensures that transportation planners and engineers consistently design and operate the entire street network for all road users, not only motorists.

www.completestreetsforcanada.ca



Why make Streets Complete?

95%

of pedestrian related collisions in Vaughan resulted in someone losing their life or being seriously injured while using streets in the City.

74%

of all collisions in Vaughan happen at intersections or are intersection-related.

Complete Streets (CS) = Safer Streets for all

Who's Involved: Engagement Activities

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Core Team

- Urban Design
- Infrastructure Planning & Engineering
- Transportation Planning & Engineering
- VMC Program
- Infrastructure Delivery

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Technical Advisory Committee

City of Vaughan

- Development Planning (Urban Design Division)
- Policy Planning and Special Programs
- Infrastructure Planning and Corporate Asset Management
- Development Engineering
- Transportation and Fleet Management Services
- Parks, Forestry and Horticulture Operations
- Environmental Services
- VMC Program
- Infrastructure Delivery
- Others

York Region

- Planning and Economic Development
- Transportation Services
- Others

External

- TTC/Viva/Metrolinx/YRT/TRCA/
- Utility Providers

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Stakeholders & Public

- Residents/Ratepayers' Groups and BIAs
- Complete Streets/Transportation Advocates
- Local Developers and Homebuilders
- Regional and Agency Staff

- Residents of Vaughan
- Workers in Vaughan
- Visitors to Vaughan

Neighbouring municipalities:

- Markham
- Richmond Hill
- Toronto
- Brampton

What We've Heard: Key Messages

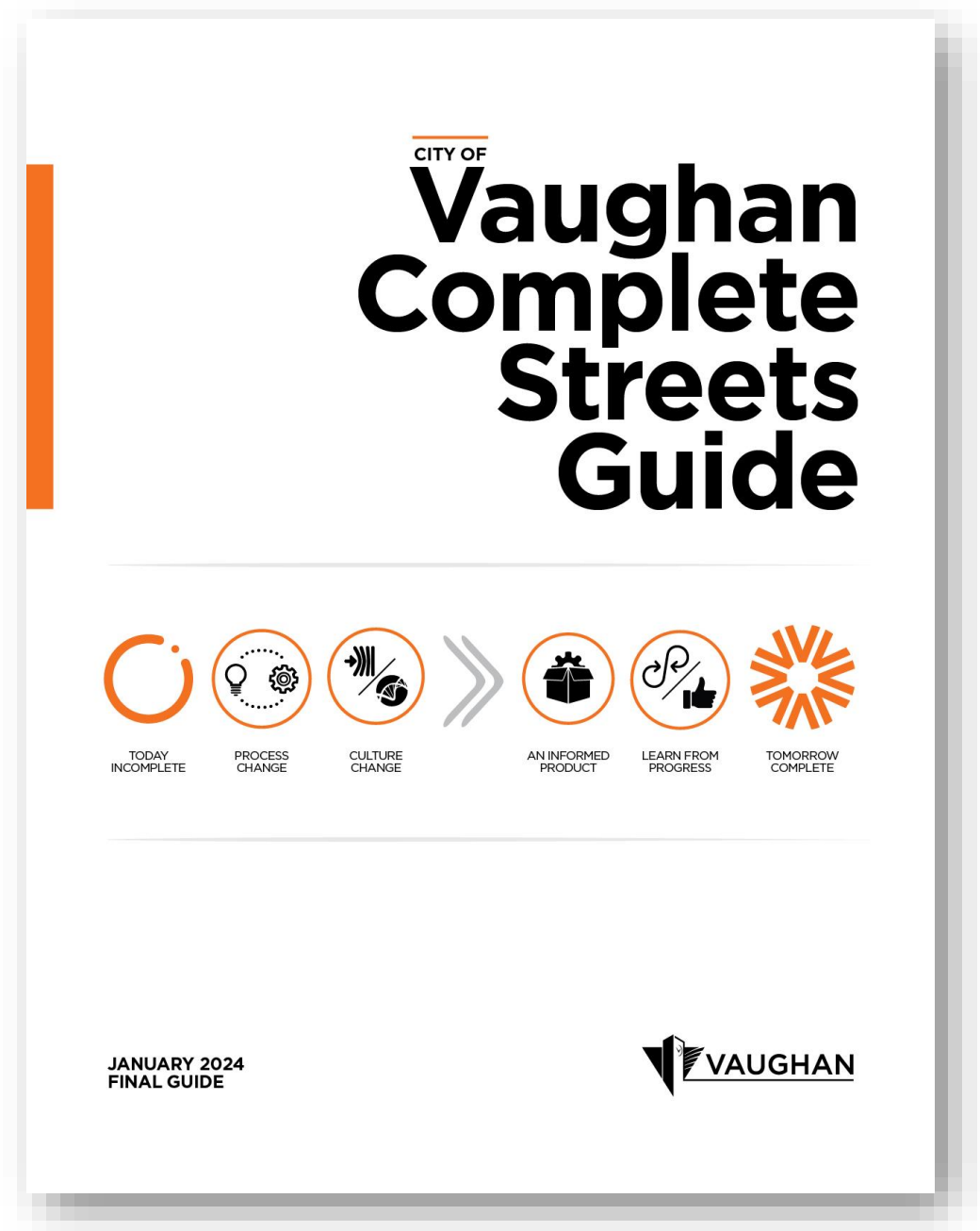
- **Safety first for vulnerable users.**
- **Traffic calming.**
- **Continuous and dedicated cycling network.**
- **Enhanced streetscapes.**
- **Improved maintenance of streets.**
- **More traffic controls (four way stops, signals); improved timing (coordinated / time of day).**
- **On-street parking along Main Streets to support local retail.**

Guide Overview

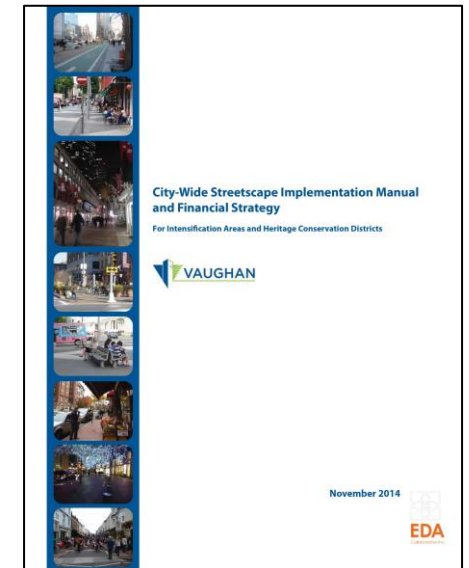
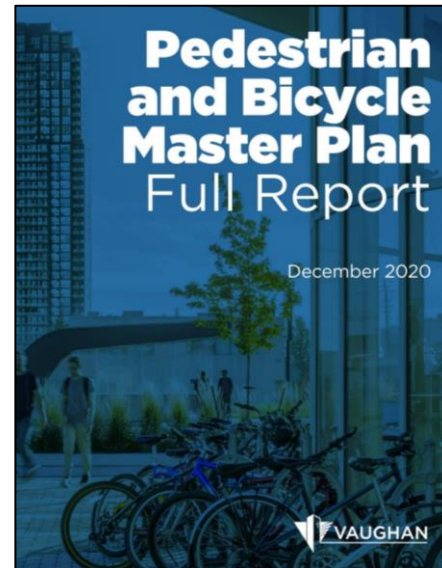
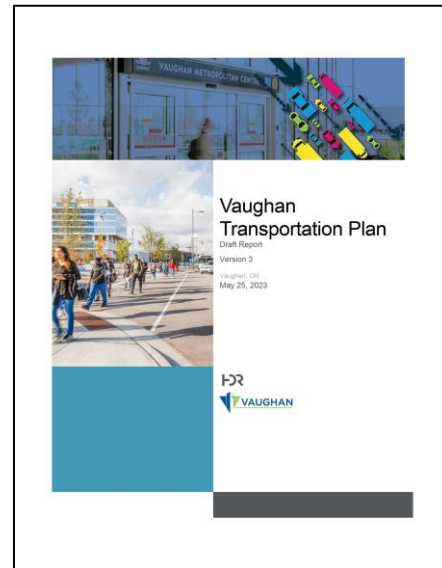
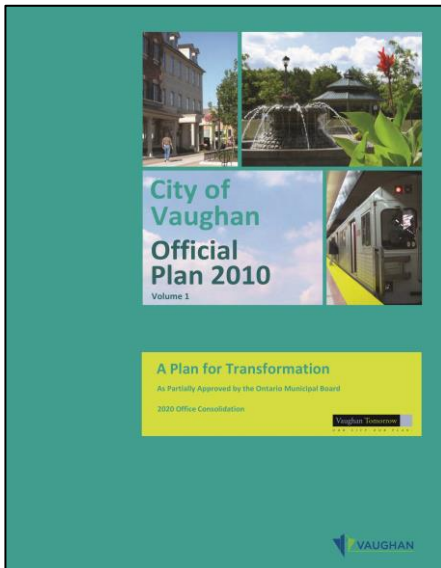
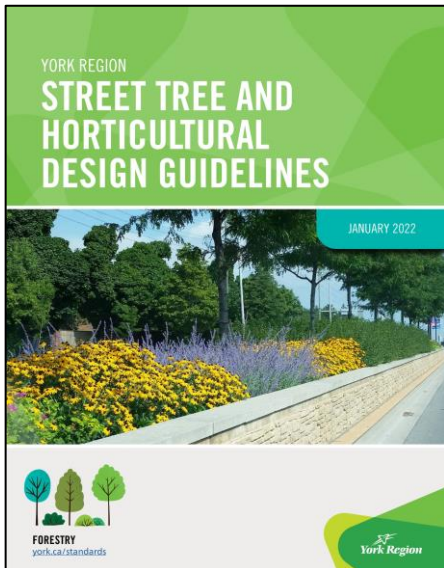
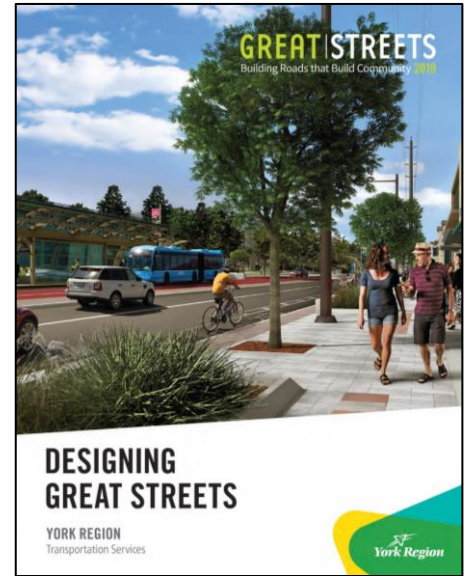
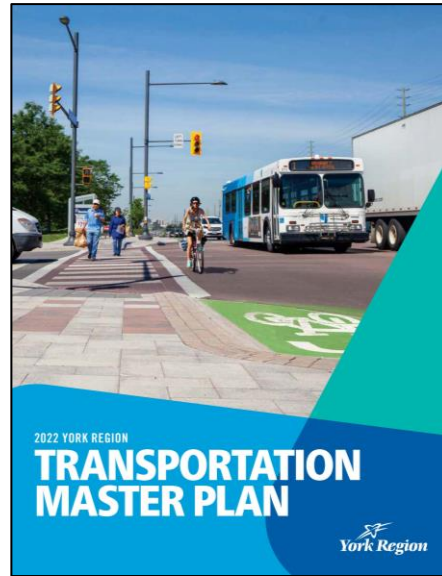
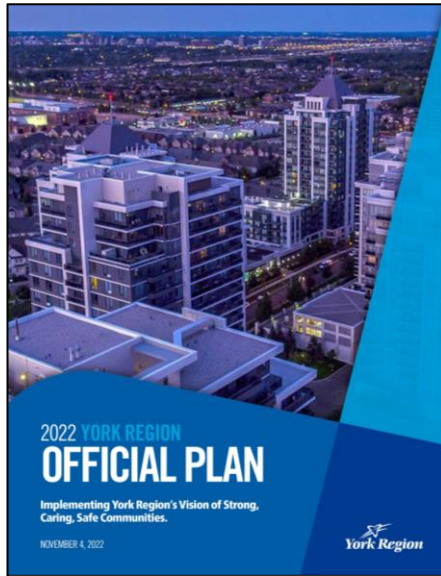
Vaughan Complete Streets Guide (VCSG) Process Change + Safety First

- City's reference for street design policies, process and techniques.
- Defines project delivery process to inform decisions and trade-offs in achieving Complete Streets.
- Illustrates potential applications of the Complete Streets approach.
- Provides guidance for street elements with designing for vulnerable users the highest priority.

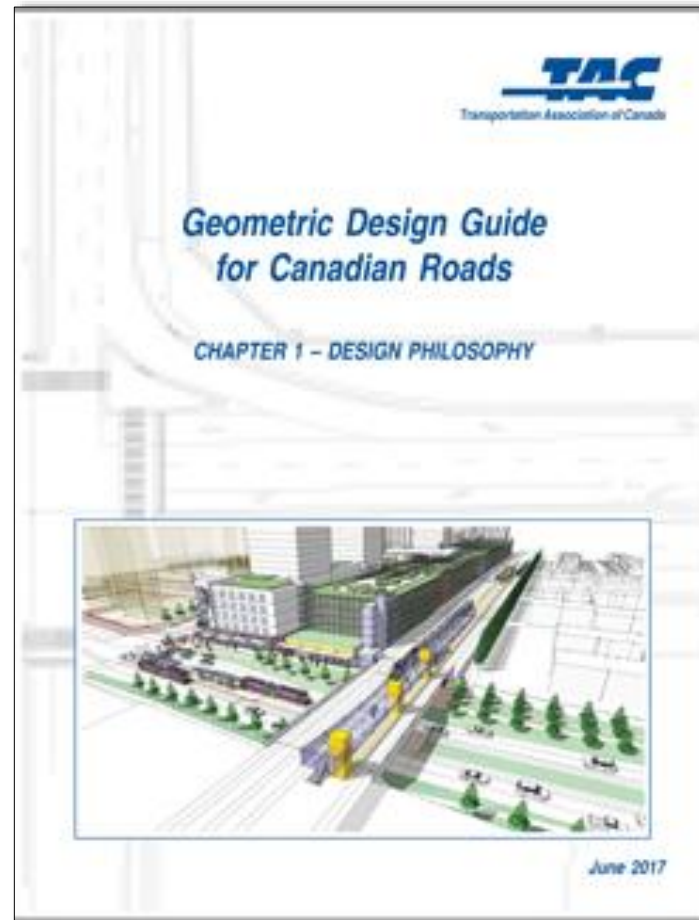
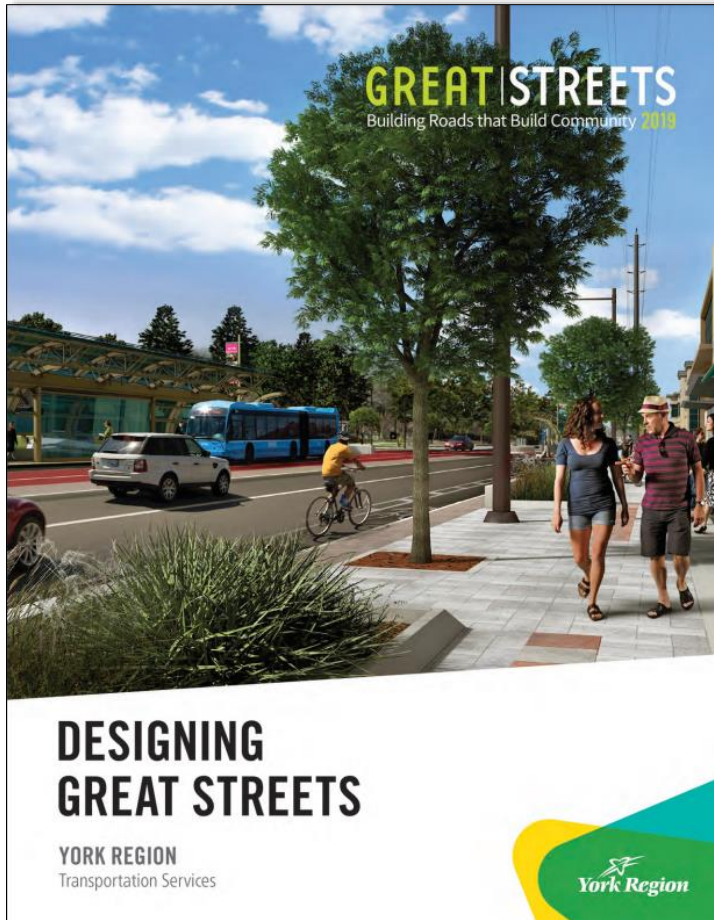
Providing a safer user experience is the Guide's prime directive.



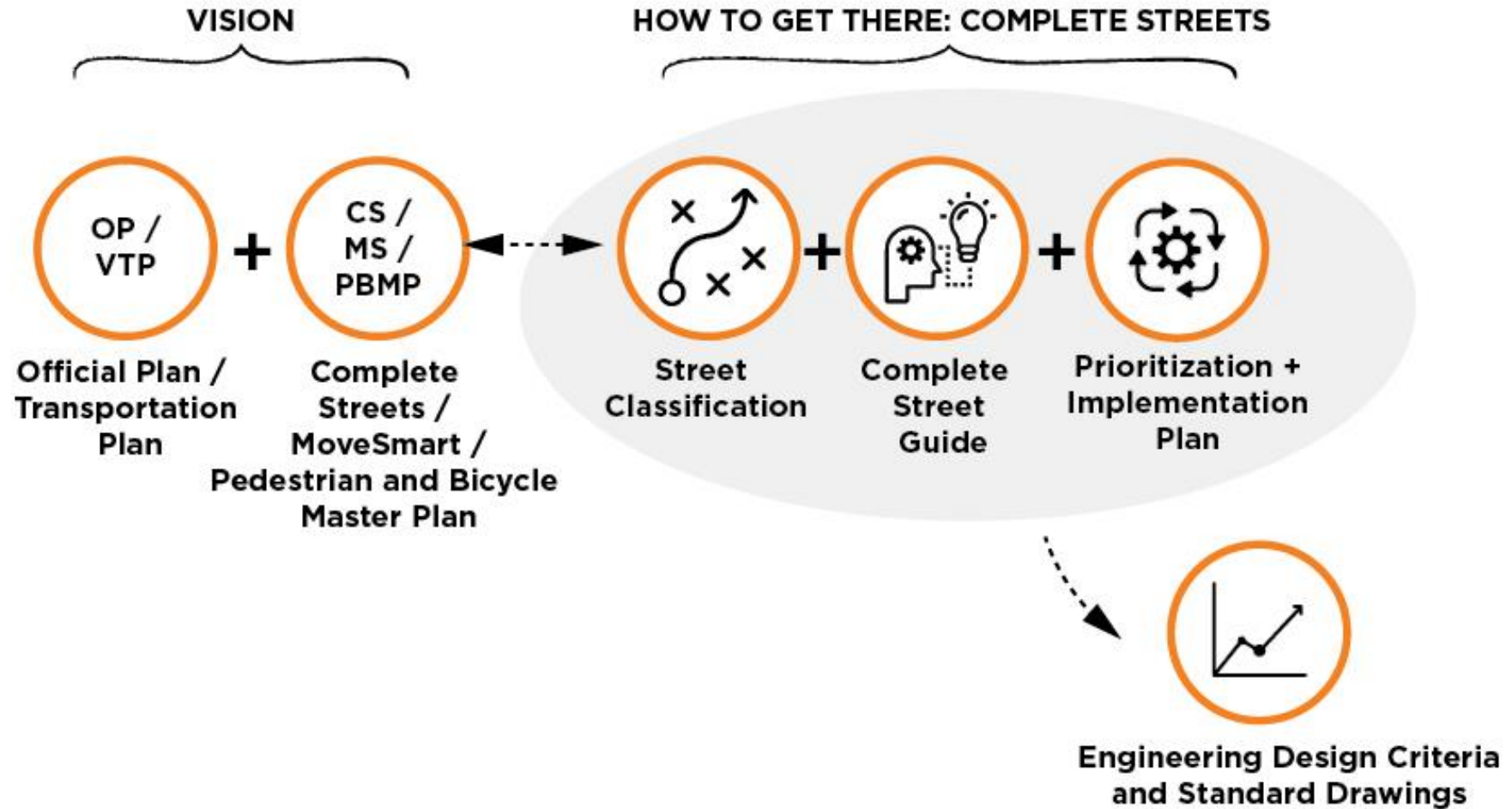
Policy Context



Recent Best Practices



Approach to the Guide



Guiding Principles



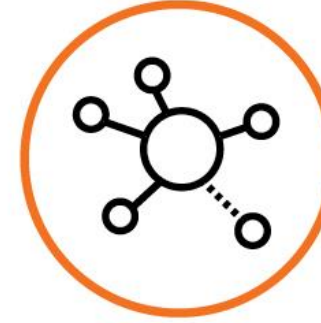
SAFE STREETS FOR ALL USERS



STREETS FOR A HEALTHY COMMUNITY



STREETS THAT SUPPORT EXISTING AND FUTURE CONTEXT



STREETS THAT REDUCE TRANSPORTATION NETWORK GAPS



SUSTAINABLE + RESILIENT STREETS



STREET AS PLACES



ADAPTABLE + FUTURE READY STREETS



STREETS THAT SUPPORT A VIBRANT ECONOMY

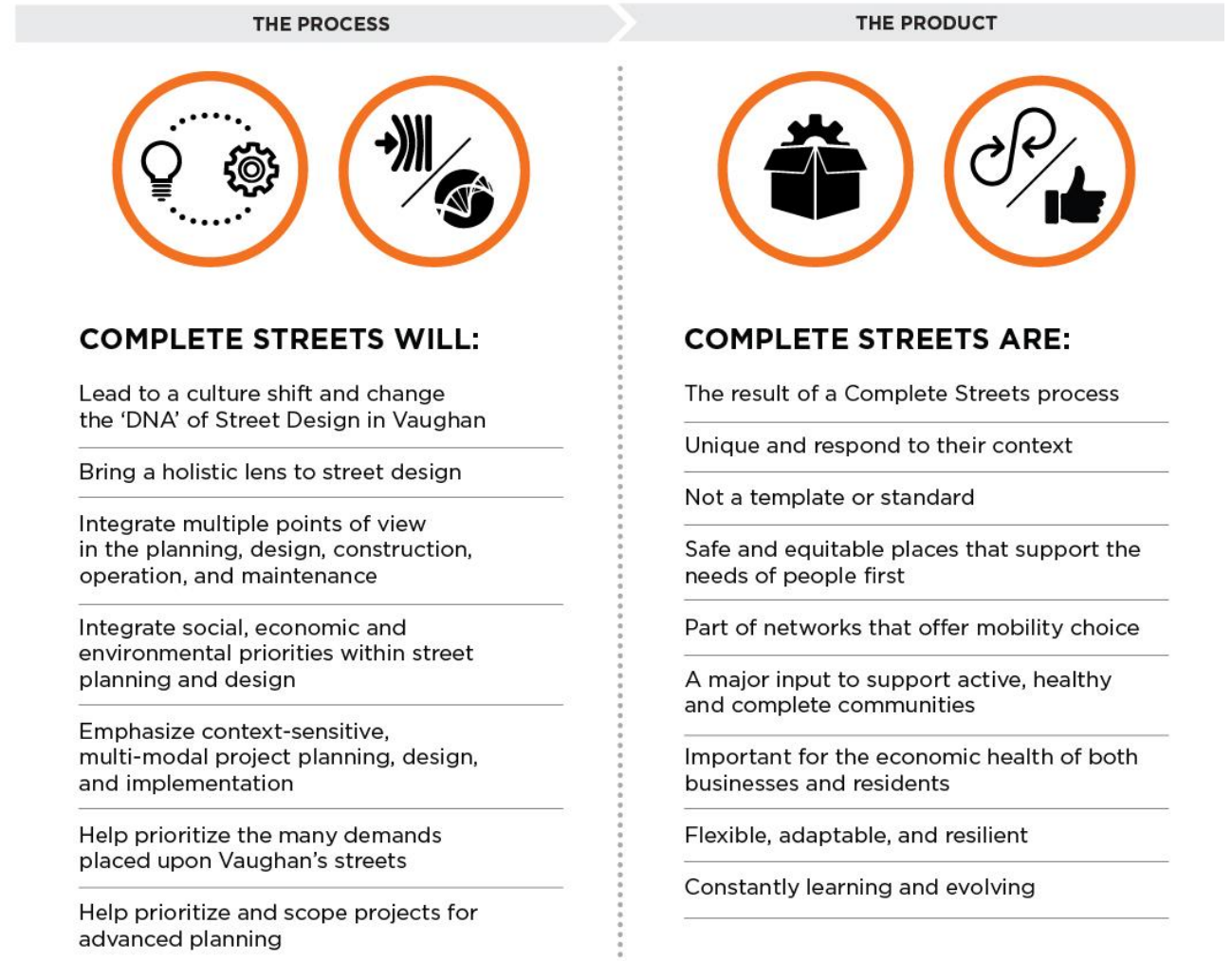
What's New in the VCSG?

- Greater emphasis on **safe movement of people** (pedestrians, cyclists and vulnerable users) along with goods and vehicles.
- Guidance on improving existing project processes, oversight and compliance to embed the **CS approach**.
- Updated criteria from best practices like the **Transportation Association of Canada (TAC)**, the **Ontario Traffic Manual (OTM)**, and the **National Association of City Transportation Officials (NACTO)**.

VCSG Content

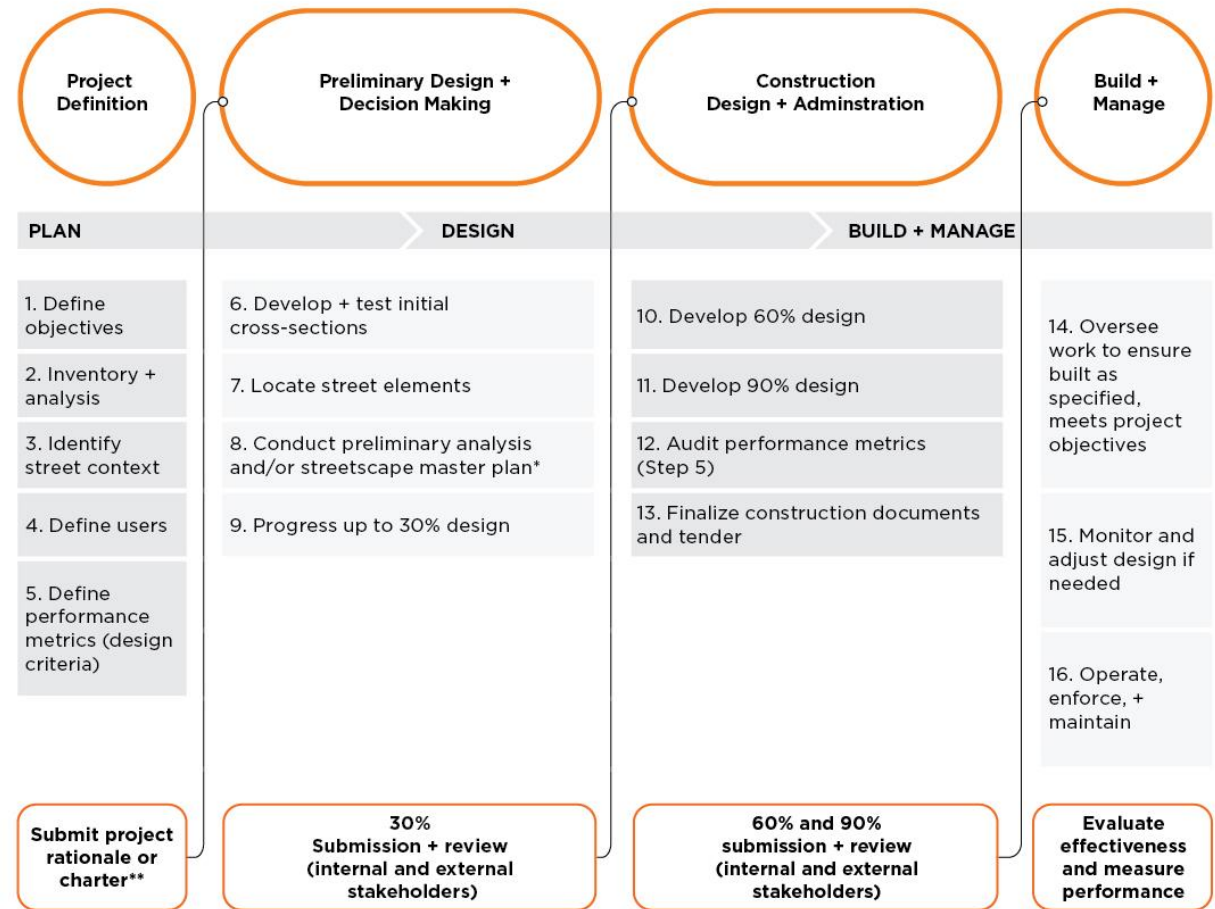
VCSG includes five chapters and appendices to help guide the planning, design and delivery of Complete Streets in Vaughan from two perspectives:

- **Process:** what Complete Streets will accomplish
- **Product:** what Complete Streets deliver when following a CS process



PROCESS: Project Delivery Process (PDP)

- Step-by-step description of how the project team will integrate CS into each stage of project.
- Is primarily written for Capital and Development Projects but can be applied to all project types.
- This workflow represents an ideal circumstance and can adapt to different projects and situations.



Notes:

*City to confirm when streetscape masterplans are applicable.

**City to confirm if and when project charters are used.

PROJECT DELIVERY PROCESS

- Project Stages
- Reviews

DEMONSTRATIONS: Collector to Collector (Intensification)

Existing

3.4

INTENSIFICATION: COLLECTOR TO COLLECTOR

The intersection of two collector streets is common. As the level of traffic increases in Vaughan, collectors begin to resemble arterials. Usually, a collector is the primary route out of a neighbourhood, and it is used by all ages, abilities, and modes.

EXISTING TYPICAL CONDITIONS

Lane width. One street has a typical 4-lane cross section, while the other has a four lanes plus a left turn lane. Both seem oversized for collectors.

Corner radii. The corners were probably designed to allow large but infrequent trucks to turn into the curb lane.

Bicycle facilities. None.

Traffic calming. None.

Crosswalks. The crosswalks are just two striped lines, which may be faded from age and winter weather. The stop line is too near the crosswalk.

Accessibility. The crosswalks meet at the apex of the sidewalk, so there is only one pedestrian ramp with detectable warning strips (DWS).

Intersection control. There is a typical traffic signal with a leading turn signal and Right-Turn-On-Red (RTOR).

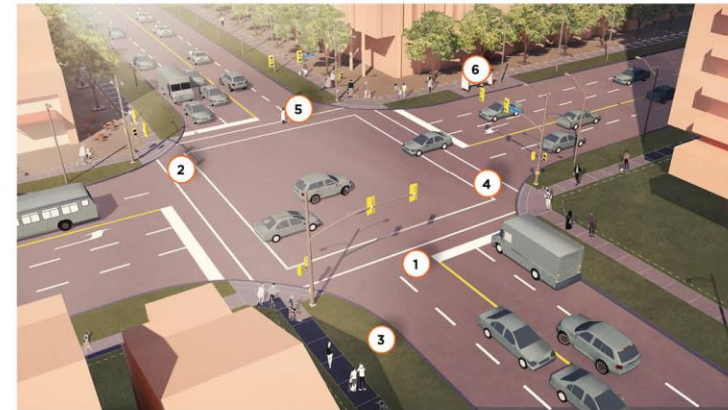
Sidewalks. The sidewalks are not of sufficient width to support anticipated pedestrian volume.

Transit. The bus stop is near-side.

Street Trees. Existing street trees and GI along Regional Major Collectors as per York Region standards.

EXISTING CONDITIONS

- 1 4+ lanes
- 2 Large corner radii
- 3 Typically no bike facilities
- 4 Simple crosswalks
- 5 Typical traffic signal
- 6 Near-side bus stop



DEMONSTRATIONS: Collector to Collector (Intensification)

Retrofit

RETROFIT

Lane width. The 4-lane street is converted to three lanes with bike lanes. Convert the 5-lane street to four lanes with bike lanes. The left lane may become a left turn lane as warranted. The lane widths are reduced so that buffer can be added adjacent to the bike lane.

Corner radii. With the addition of bike lanes, turns are farther from the corner. A striped section is added with bollards to keep drivers from cutting the turn and out of the bike box.

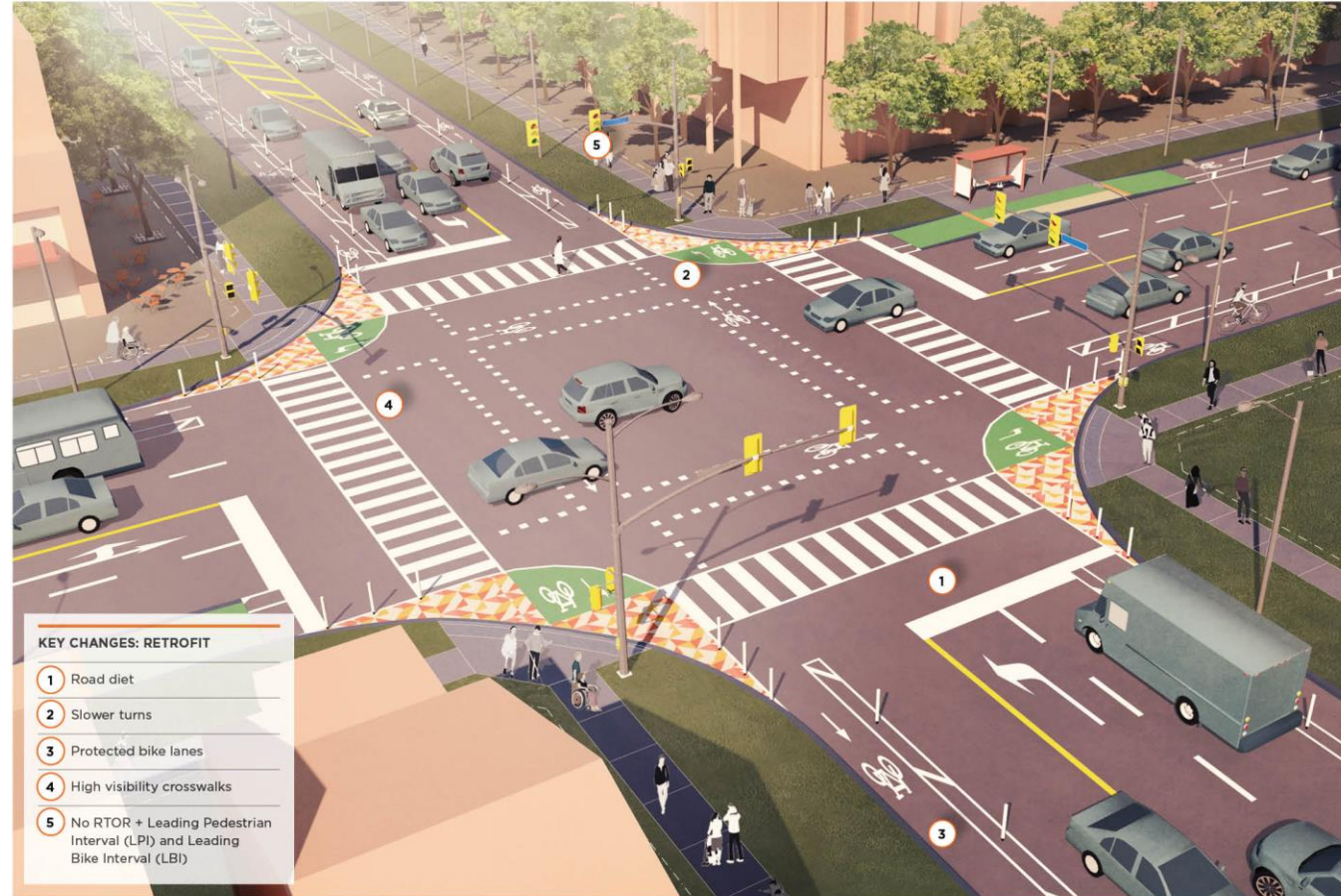
Bicycle facilities. Protected bike lanes are added, where absent, as part of the road diet. Turning pockets are placed at the corners to allow cyclists to wait as they complete a 2-stage turn. The bike lanes are dashed through the intersection.

Crosswalks. The crosswalks are relocated to allow for the bicycle lanes. They are striped with "ladders". The stop lines are set back.

Intersection control. Right-Turn-On-Red (RTOR) is removed. The leading left turn signal is replaced with leading pedestrian and bicycle indicators, which is consistent with legally required yielding by turning drivers. There may be a lagging left turn.

Transit. TA shelter is added to the bus stop. A queue-jump may be added.

Street Trees. Existing street trees of a useful size to be retained and protected.



DEMONSTRATIONS: Collector to Collector (Intensification)

Reconstruction

RECONSTRUCTION

Corner radii. Landscaped curb extensions are installed. This further codifies the changes of the retrofit.

Bicycle facilities. The bicycle lanes are converted to cycle tracks. The bike boxes are converted to a protected intersection.

Crosswalks. With the curb extensions and cycle tracks, the crosswalks are shortened. There are mini crosswalks at the cycle tracks.

Accessibility. Pedestrian ramps and detectable warning strips (DWS) are added at each crosswalk (not at the apex of the corner).

Intersection control. None.

Sidewalks. The sidewalks are widened.

Transit. Consider moving bus stop to far-side as shown.



KEY CHANGES: RECONSTRUCTION

- 1 Landscaped curb extensions
- 2 Cycle tracks
- 3 Far-side bus stop

CROSS-SECTIONS: Major Collector (Intensification)



CROSS-SECTIONS: Local (Community)



What's Not Included?

The Guide Is Not....

- A **'solution'** for every street project.
- **Engineering standards** for different elements within street cross-sections.
- **Area / corridor specific** guidance for streets.
- Guidance for **implementation** of Operations and Maintenance of streets.

Next Steps

- **Analyze and summarize what we heard today.**
- **Consider input / revise accordingly.**
- **Finalize and submit the Guide, with project completion by end of February 2024.**

