

# 2019 Strathcona County Design and Construction Standards update

## Urban transportation-related sections

Council Meeting  
October 8, 2019

Transportation Planning and Engineering

# Introduction

- history
  - Strathcona County's Design and Construction Standards document
  - previous updates
- proposed updates
  - Volume 1
    - Section 2: Approval Process
    - Section 4.1: Roads (Urban Service Area)
    - Section 7: Standard Drawings
  - Volume 2
    - contract-related sections
    - Section 7: Construction Specifications

# Strathcona County Design and Construction Standards document

- content developed by multiple departments in consultation with industry experts
- used by internal and external parties
- applies to design and construction projects in Strathcona County
- ensures safe and consistent practices

# Previous updates

- previously four separate documents:
  - Urban Service Area (last updated 2005)
  - Open Space Development Standards (last updated 2006)
  - Rural Service Area (last updated 2007)
  - Standard Form Construction Documents (last updated 2008)
- 2011: updates and amalgamation to form Design and Construction Standards
- 2015: updates to Wastewater Collection and Water Distribution System requirements (Volume 1, Sections 4.2 and 4.3)

# Proposed update

- changes to roadway design and construction methods since last update
- updates maintain continuity for former Urban Services Area and incorporate modern practices
- thorough review of multiple sections, collaboration with internal departments, and consultation with third-party utilities
- worked with the Urban Development Institute (UDI), received full support

# Volume 1, Section 2: Approval Process

Description	Section	December 2011 Standards	Proposed September 2019 Standards
Erosion and Sediment Control	2.1.10	N/A	to be considered on all projects
Hydraulic Network Analysis	2.2.1.7	N/A	to be submitted with Engineering Design Brief
Wastewater System Evaluation	2.2.1.8	N/A	evaluation to be submitted with Engineering Design Brief
Site Plan, Erosion and Sediment Control Plan, Landscape Plan	2.4.4.1, 2.4.4.7, 2.4.4.8	N/A	plans to be submitted with Development Permit applications

# Volume 1, Section 4.1: Roads (Urban Services Area)

Description	Section	December 2011 Standards	Proposed September 2019 Standards
road classifications and traffic volumes	4.1.3.2	Table 4-1 included volumes for residential collectors only	Table 4-1 includes volumes and primary function for all roads; added divided collector; removed undivided arterial
Access Management on Divided Roadways section	4.1.6	N/A	full section added
driveway locations on undivided roadways	4.1.7.6, 4.1.7.10, 4.1.7.11	N/A	specified requirements for driveway locations; specified minimum driveway and intersection spacing
pavement structures	4.1.13.3, 4.1.13.4	structures specified for hot-mix asphalt	added Superpave Gyratory Compactor asphalt mixes; updated minimum structures
Temporary Roads and Turnarounds section	4.1.22	N/A	full section added
Road Classification and Geometric Design Summary table	Table 4-7	N/A	summary table added

# Volume 1, Section 7: Standard Drawings

Description	Drawing	December 2011 Standards	Proposed September 2019 Standards
Developer Site-Specific Contributions	41006	N/A	added drawing
Sightline Diagrams	41008, 41009, 41010	N/A	added drawings
Auxiliary Lane Geometry	41011	N/A	added drawing
Cul-de-sac Bulb	41012, 41013	41301	added sidewalk connection to Public Utility Lot (PUL)
divided collector roadway cross-sections	41119, 41120	N/A	added drawings
Bus Stop Pad	41121, 41122	N/A	added drawings



# Volume 2, contract-related sections

- approved under authority of Chief Commissioner's Bylaw 21-2015
- multiple sections removed:
  - Section 1A: Notice to Tenderers
  - Section 1B: Summary of Work
  - Section 2: Instructions to Tenderers
  - Section 3: General Conditions of the Contract
  - Section 4: Special Provisions
  - Section 5: Tender Form
  - Section 6: Agreement and Bond Documents
  - Section 8: Construction Drawings

# Volume 2: Construction Specifications

Description	Section	December 2011 Standards	Proposed September 2019 Standards
clubroot testing and management	various	N/A	added requirements for clubroot testing and clubroot management plan
Superpave Gyratory Compactor asphalt mixes	various	N/A	added requirements for testing, design and placement of Superpave Gyratory Compactor mixes
Full Depth Asphalt Reclamation section	405	N/A	full section added
Fillcrete section	505	N/A	full section added
pavement markings type and maintenance	701 (3.6.2, 3.10)	required types and maintenance periods were incomplete/ unclear	clarified sections and added missing information

# Conclusion

- recommendations
  - Strathcona County Design and Construction Standards be approved
  - administration be authorized to make non-substantive amendments
- next steps
  - update open space sections of Strathcona County Design and Construction Standards
  - future projects: Computer-Aided Design (CAD) Standards and rural road sections

# Questions?