9 POLICIES TO SUPPORT THE PREFERRED TRANSPORTATION ALTERNATIVE

A number of policies have been developed as part of the Transportation Study Report to help facilitate the development of a more interconnected, multi-modal transportation network in the city. These policies support the preferred transportation alternative and include:

- Complete Streets;
- Road Classifications;
- Appropriate Implementation of Urban Cross Sections; and
- Sidewalk Priority.

Each of these policies is described in more detail below.

9.1 Complete Streets

The concept of 'Complete Streets', introduced in **Section 1.4**, focuses on the design, construction and maintenance of a street for all modes of transportation and all users. Although the benefits of complete streets vary by travel mode and user, they:

- Provide appropriate facilities for cars, trucks, transit, cyclists and pedestrians;
- Are safer for all users;
- Support liveable communities;
- Bring positive impacts for public health; and
- Induce economic benefits as people are attracted there.

9.1.1 Purpose and Goals

The purpose of this policy is for the City to embrace the concept of complete streets and meet the following three goals:

- Ensure that the needs of all transportation users are balanced throughout the surface transportation network;
- Create a balanced, comprehensive, integrated, fully interconnected, functional and visually attractive surface transportation network; and
- Encourage the use of the appropriate Complete Streets design standards, principles, policies and guidelines within the context of the community.

9.1.2 Policy Directions

The policy direction for the City of Greater Sudbury is to plan, design, construct, operate and maintain the transportation network to accommodate each mode of transportation and all types of system users. It should be consistent with and supportive of the local community, recognizing that all streets are different and that the needs of various users should be balanced in a flexible manner. Additional policy directions include:

- Transportation infrastructure making up the network, such as: roadways, sidewalks, street crossings, pedestrian signals, signs, street furniture, transit stops and associated infrastructure, bicycling facilities, multi-use trails and connections shall be planned, designed, constructed, operated and maintained for all transportation users.
- The planning and design of street projects will consider bicycle, pedestrian and transit facilities from the very start of the planning and design work. This will apply to all roadway projects, including those involving new construction, reconstruction, re-paving or rehabilitation of transportation infrastructure.

- Where not all users can be accommodated, reasonable efforts shall be made to identify adjacent alternative routes or methods of travel to form a safe, reliable, integrated and interconnected transportation network.
- The implementation of this policy shall reflect the context and character of the surrounding built and natural environments, enhancing their appearance. Reasonable efforts should be made to avoid and minimize impacts on those features.
- The design and development of transportation infrastructure shall be in accordance with appropriate City ordinances, codes, plans, polices and guidelines.

9.2 Road Classifications

Greater Sudbury presently has five road classifications: primary, secondary and tertiary arterial roads, collector roads and local roads. Proposed road classification criteria are provided in **Table 47**. Historically, the criteria for road classification have been based on three main elements; the function of the road and its role in facilitating vehicle travel between points of origin and destination (roadway service function), land access, and vehicle traffic flow characteristics.

9.2.1 Revised Classification – Focus on Complete Streets

In line with the vision for Complete Streets that are designed, built, maintained and operated for all modes of transportation and for all types of users, we recommend that these existing road classifications be slightly modified and also expanded to include transit, cycling and pedestrian travel modes. The road classification table has been expanded to include three new columns for provision related to transit, cycling and pedestrians, respectively.

Right-of-way widths have been revised to better define the classifications by narrowing the width to what is available today as well as what is considered to be needed in the future.

In the Transit Provision column, bus services should be considered on all except local roads. This may take the form of a rapid bus service that stops at major intersections only and may have one kilometre or more between stops, or a local bus service that would be expected to provide service at every intersection. Heavily traveled bus routes could have a combination of rapid bus and local bus service.

On secondary and tertiary arterials with a daily traffic volume in excess of 15,000 vehicles, a separated cycling facility such as a cycle track, separated bike lane or in-boulevard facility is suggested; if these are not feasible, alternate routes should be investigated. On secondary and tertiary arterials with fewer than 15,000 vehicles a day, designated cycling operating space, such as a conventional bike lane or paved shoulder, may be sufficient.

In urban areas, sidewalks should be provided on both sides of the road for arterial and collector roads and at least one side of local roads. Please refer to the sidewalk priority criteria outlined in **Section 9.4** for more details on how to prioritize constructing new sidewalks to fill in missing links in the urban sidewalk network.

One of three categories of cycling facility type has been included with representative examples of facilities for each road classification under the Cycling Provision column. The facility types include:

- Separated Facility or Alternate Routes;
- Designated Cycling Operating Space; or
- Shared Roadway.

The facility type is based on the average annual daily traffic and the design speed of the road. The nominated facility types and examples are the first step in a selection process. These are provided for general guidance in the road classification scheme. The suitability of cycling facility types for any given road should be assessed on a case by case basis to reflect context sensitive conditions.

It should be recognized that bicycles are vehicles under the Highway Traffic Act and are therefore permitted on all public roads unless restricted by the Ministry of Transportation or by a municipal bylaw. Consequently, accommodation of cycling on roads of all classifications should be considered, even when a desired facility type for specific class of roadway is not practical. For example, if a separated bike lane is suggested for a specific road class, but existing conditions reduce the feasibility of implementing this type of facility, other facility types may be considered in an effort to improve conditions for cycling. These may include a conventional bike lane, an in-boulevard active transportation path or wide curb lanes with sharrows combined with bike route signing depending on the characteristics of the route. Safety should always be a key determining factor, hence it is recommended not to formally designate and promote a bike route along arterial road classes that cannot accommodate an appropriate facility type for the context assessed.

All road classifications include sidewalks in the Pedestrian Provision column. On the higher order roads, such as primary arterials, or on any type of road in rural locations, sidewalks may not be appropriate. However, in urban areas where development is present sidewalks on both sides of the road are appropriate in order to create a complete street that provides transportation infrastructure for all road users, including pedestrians.

Table 47: Proposed Road Classifications

Class of Road	Function	Access	Right-of-Way Width (Metres)	Daily Traffic Volume	Design Speed (Kilometres per hour)	Minimum Intersection Spacing (Metres)	Other Regulations	Transit Provision	Potential Cycling Provision	Pedestrian Provision
Primary Arterial	• Connect the City with other major centres outside the City and/or separate communities within the City • Facilitate long distance person or goods movement travel through the City or between major activity areas within the City • Traffic movement primary consideration.	• Intersections with other arterial roads or collector roads • Driveways to major regional activity centres	35-45 in urban areas 45-90 in rural areas	15,000 – 50,000	60 – 100	400	• No on-street parking • Buffers between the roadway and adjacent uses in rural areas	Considered/ Reviewed for Bus service	Separated Facility or Alternate Routes[1] in urban areas Buffered paved shoulders in rural areas	Sidewalks on both sides of the road in urban areas
Secondary Arterial	• Connect two or more communities or major activity centres • Connect two primary arterial roads • Connect a community or activity centre with a primary arterial road • Traffic movement primary consideration.	• Intersection with other roads • Access from adjacent property strictly regulated and kept to a minimum	30-36	5,000 – 35,000	50 – 80	200	• No on street parking	Considered/ Reviewed for Bus service	Separated Facility / Alternate Route for roads with AADT greater than or equal to 15,000[1] Designated Cycling Operating Space for roads with AADT less than 15,000[2]	Sidewalks on both sides of the road in urban areas
Tertiary Arterial	• Connect small / rural communities • Connect communities to primary or secondary arterial roads	• Intersections with other roads • Access from adjacent property strictly regulated and kept to a minimum	30-36	5,000 – 15,000	50 – 80	200	• No on street parking	Considered/ Reviewed for Bus service	Separated Facility / Alternate Route for roads with AADT greater than or equal to 15,000[1] Designated Cycling Operating Space for roads with AADT less than 15,000[2]	Sidewalks on both sides of the road in urban areas
Collector	• Connect properties within neighbourhoods • Connect a neighbourhood with an arterial road • Provide direct access to adjacent lands	• Intersections with other roads • Regulated access from adjacent property	20 – 30	1,000 – 12,000	50 – 70	60	• On street parking may be permitted	Considered/ Reviewed for Bus service	Designated Cycling Operating Space[2]	Sidewalks on both sides of the road in urban areas
Local	• Provide direct access to adjacent lands • Connect properties within a neighbourhood to collector roads	• Intersections with collectors or other local roads • Access from adjacent property permitted	+ / - 20	Less than 1,000	30 – 50	60	• On-street parking is generally permitted • Goods movement restricted except for that having origin or destination along the road	Generally no regularly scheduled transit service	Shared Roadway[3]	Sidewalks on at least one side of the road in urban areas

1. Options may include: buffered paved shoulders in rural areas; active transportation path in rural or urban areas; separated bicycle lanes / cycle tracks in urban areas; or alternate route
2. Options may include: paved shoulders or buffered paved shoulders in rural areas; exclusive bicycle lanes or separated bicycle lanes / cycle tracks in urban areas
3. Options may include: shared lane markings (rural or urban areas); standard or wide curb lanes (rural or urban areas)

9.2.2 Road Cross Sections

New road cross sections for each road classification have been prepared to illustrate how the concept of Complete Streets can be applied to roads in Greater Sudbury. Pedestrian and cycling facilities have been shown for each classification. Road cross sections are provided in:

- **Figure 77**: Proposed Primary Arterial Road Cross Sections;
- **Figure 78**: Proposed Urban Secondary or Tertiary Arterial Road Cross Section;
- **Figure 79**: Proposed Rural Secondary or Tertiary Arterial Road Cross Section; and
- **Figure 80**: Proposed Collector Road Cross Section.

9.2.3 Reassignment of Roads to Classifications

As part of the process of revising the road classifications to incorporate Complete Streets, the current classification of roads also was reviewed to determine whether the classification met the road's intended function. In two cases, changes were made to the road classification. These include:

- New Collector Roads
    - Montrose Avenue (from Secondary Arterial)
    - Elmview Drive (from Tertiary Arterial)

Montrose Avenue presently functions as a collector road in a residential neighbourhood. It is planned to be connected to the Maley Drive extension. Even after this new connection, the road would continue to function as a collector road. The reassignment of this road to the Collector Road classification meets the current and planned use of the road.

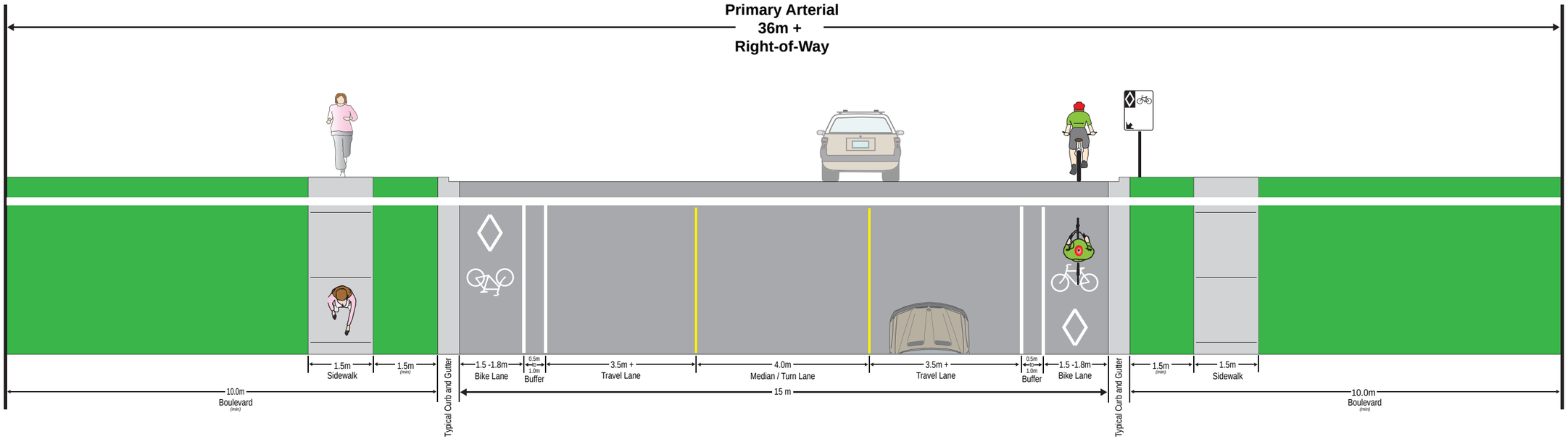
Elmview Drive is constructed with an urban cross section. This road was reclassified as a Collector Road as it primarily acts to collect traffic from residential streets in Val Therese.

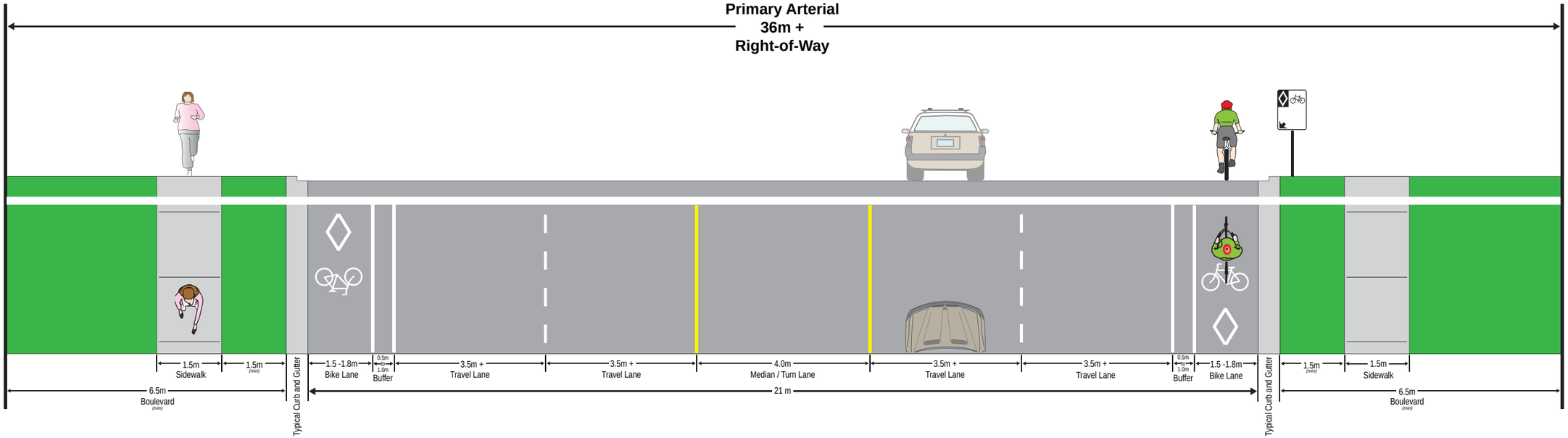
A revised road classifications map is shown in **Figure 81**.

Proposed Primary Arterial Road Cross Sections - AADT < 15,000

Figure 77

Function	Access	Right-of-Way Width (m)	Addition / Subtraction
• Connect the City with other major centres outside the City and/or separate communities within the City • Facilitate long distance person or goods movement travel through the City or between major activity areas within the City • Traffic movement primary consideration	• Intersections with other arterial roads or collector roads • Driveways to major regional activity centres	36+	





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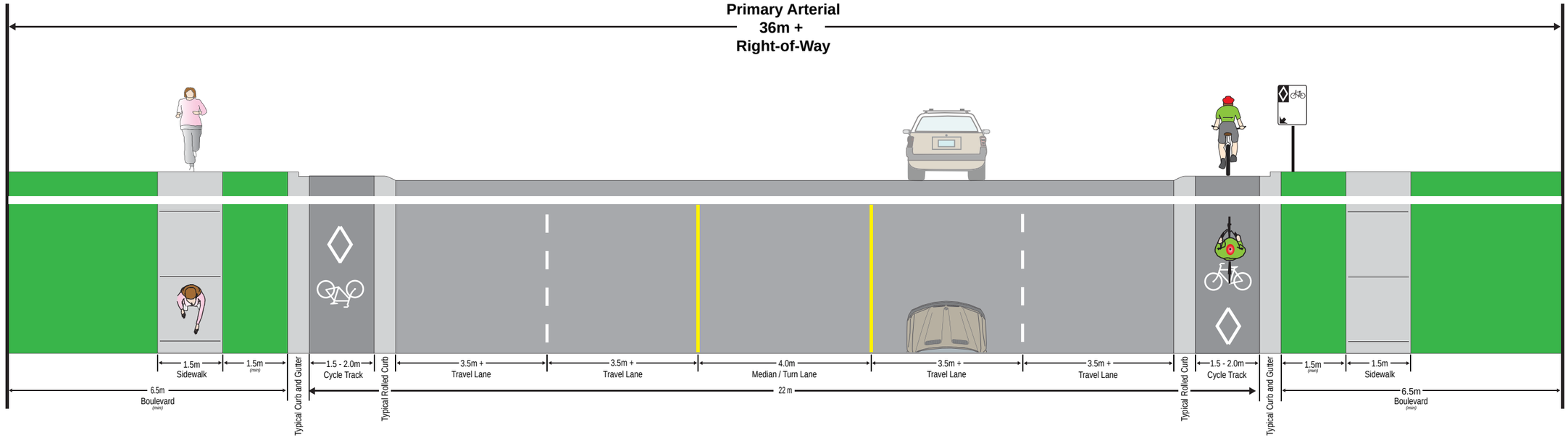
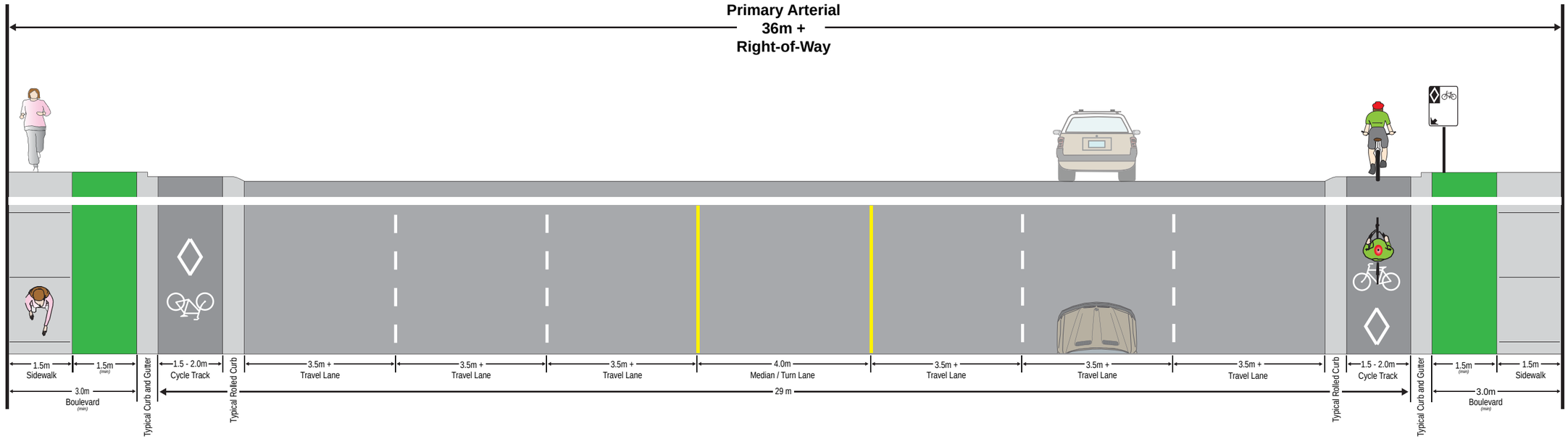
Function	Access	Right-of-Way Width (m)	Addition / Subtraction
• Connect the City with other major centres outside the City and/or separate communities within the City • Facilitate long distance person or goods movement travel through the City or between major activity areas within the City • Traffic movement primary consideration	• Intersections with other arterial roads or collector roads • Driveways to major regional activity centres	36+	





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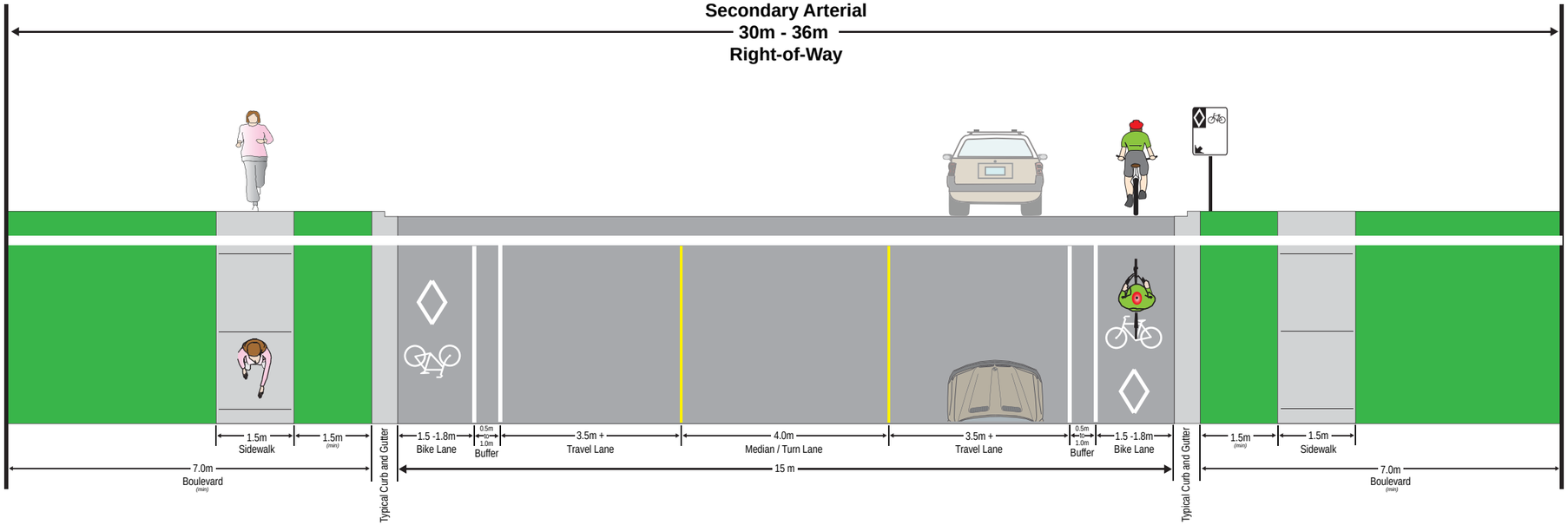
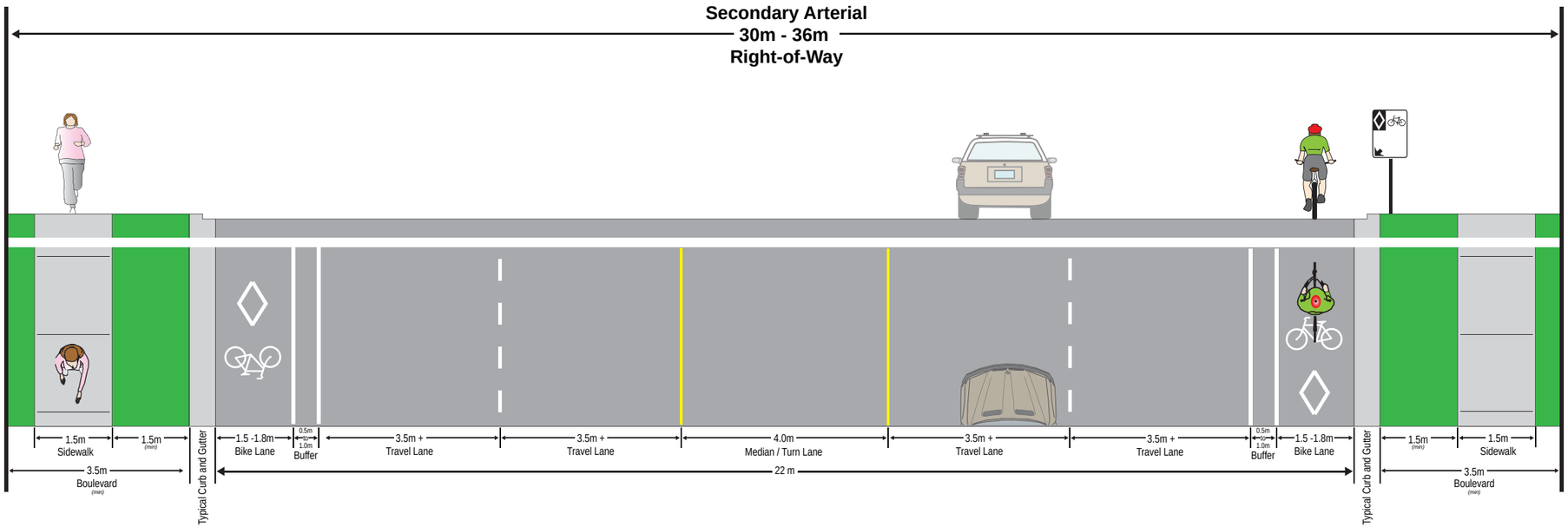
Proposed Urban Secondary or Tertiary Arterial Road Cross Sections

Figure 78

Function	Access	Right-of-Way Width (m)	Addition / Subtraction
• Connect two or more communities or major activity centres • Connect two primary arterial roads • Connect a community or activity centre with a primary arterial road • Traffic movement primary consideration	• Intersections with other roads • Access from adjacent property strictly regulated and kept to a minimum	30-36 (Urban Area)	• Montrose Avenue *(to Collector Road)* • Elmview Drive *(to Collector Road)*





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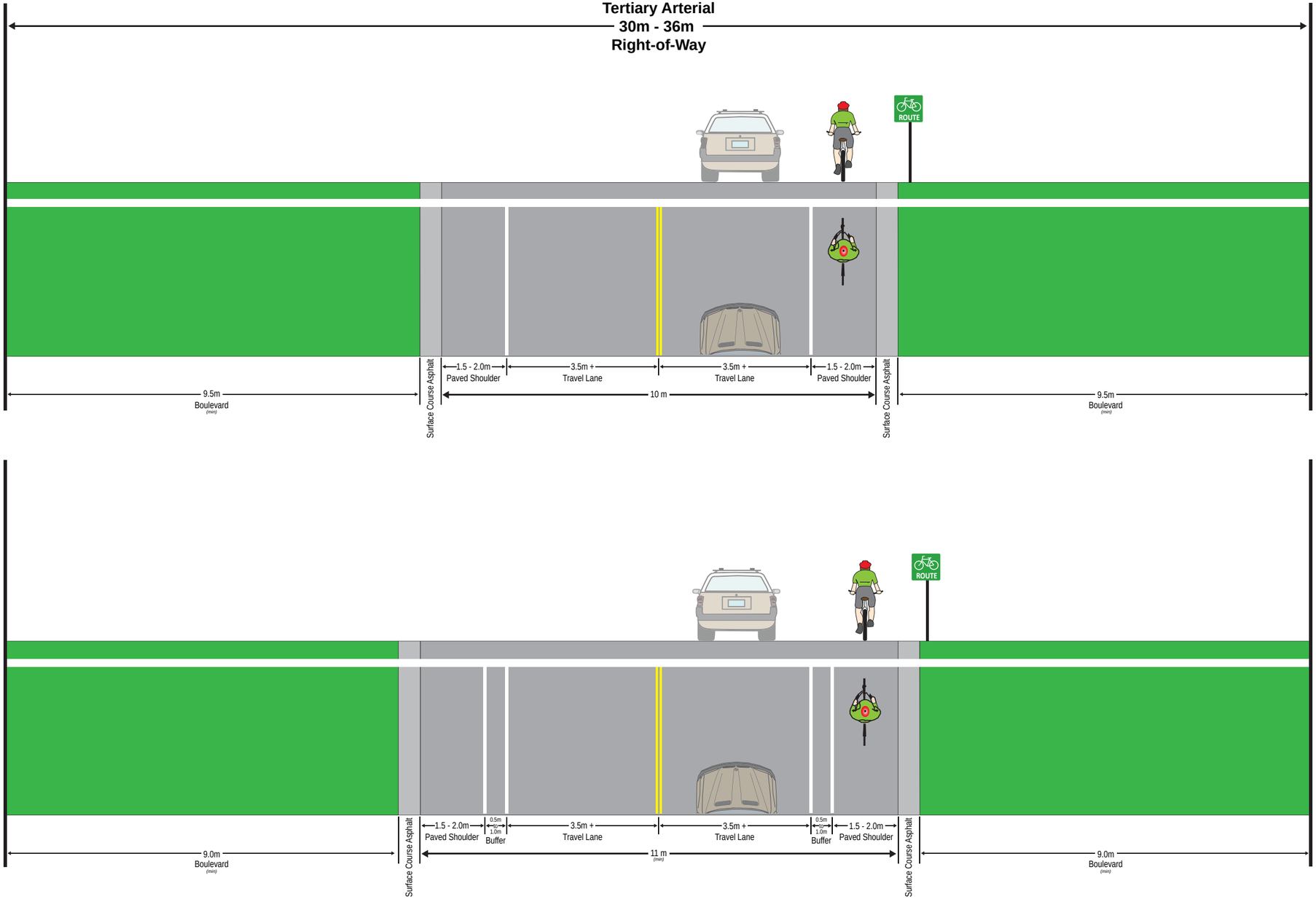
MMM GROUP

Proposed Rural Secondary or Tertiary Arterial Road Cross Sections

Figure 79

Function	Access	Right-of-Way Width (m)	Addition / Subtraction
• Connect small / rural communities • Connect communities to primary or secondary arterial roads	• Intersections with other roads • Access from adjacent property strictly regulated and kept to a minimum	30-36 (Rural Area)	



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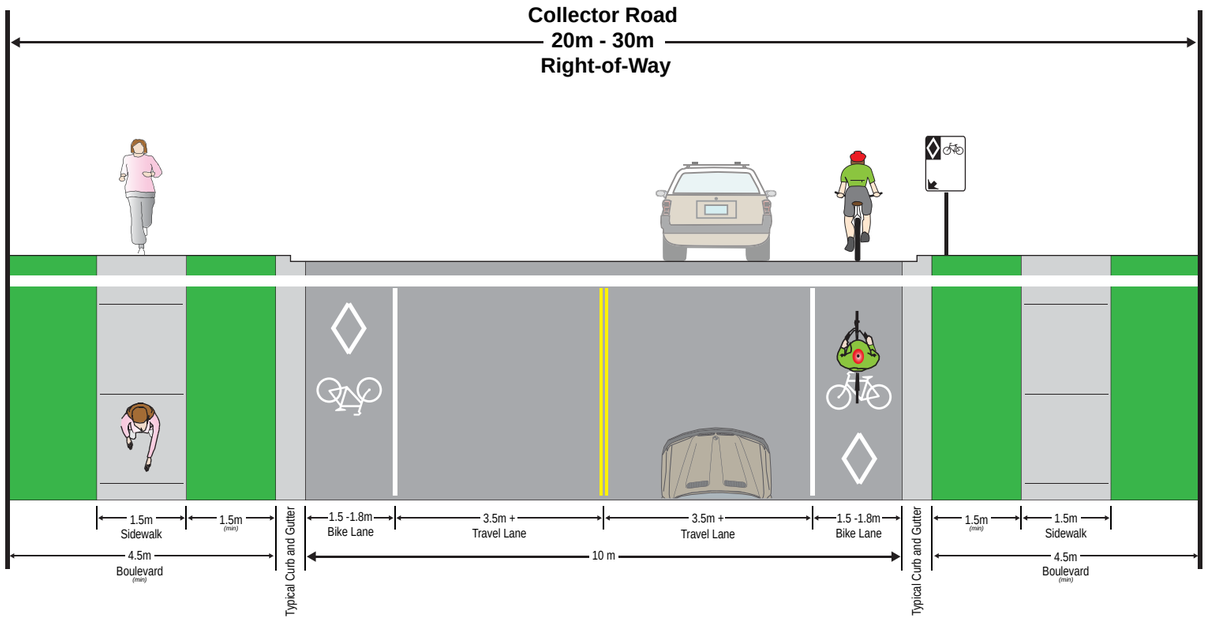
Proposed Collector Road Cross Sections

Figure 80

Function	Access	Right-of-Way Width (m)	Addition / Subtraction
• Connect properties within neighbourhoods • Connect a neighbourhood with an arterial road • Provide direct access to adjacent lands	• Intersections with other roads • Regulated access from adjacent property	20-30	• Montrose Avenue *(from Secondary Arterial)* • Elmview Drive *(from Tertiary Arterial)*



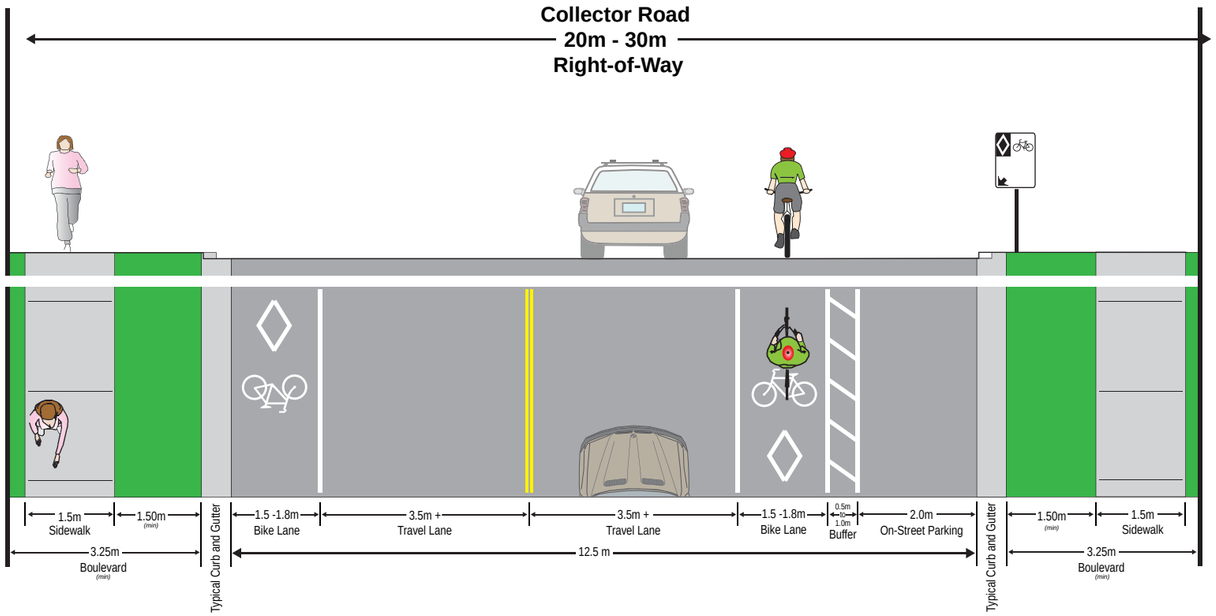


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Figure 81
Greater Sudbury Transportation Study
Revised Road Classification Map

Revisit. Review. Revise.
Revisitez. Réexaminez. Révisez.
Official Plan Review • Révision du Plan officiel

Legend

Existing Road Classification
- Existing Roads
- Existing Provincial Road / Highway

Other
- Lakes and Rivers
- Parks and Conservation Areas
- Active Railway
- Abandoned Railway

Road Classification
- Existing Roads
- PRIVATE_ROAD_CL
- Proposed Road
- Primary
- Secondary
- Tertiary
- Collector
- Bicycle Path

Draft APRIL 2015

N W E S

0 2.5 5 10 Kilometres

9.3 Appropriate Implementation of Urban Cross Sections

The conversion from rural to urban roadway cross sections is important to sustainable mobility in the City of Greater Sudbury. This will help the City achieve the goal of constructing Complete Streets that are designed, built, operated and maintained for all types of transportation and for all types of transportation network users. In addition to travel lanes for vehicles, the conversion from rural to urban cross sections provides the opportunity for the City to supply transportation infrastructure for all other transportation modes and all transportation system users, such as:

- Bus stops and bus lay-bys for transit;
- On- or off-street cycling lanes for cyclists; and
- Sidewalks for pedestrians.

To conform to the Official Plan, cross sections should only be converted in land use areas designated as 'Living Area', 'Employment Area' or 'Industrial Area.' These areas are fully-serviced by municipal sewer and water and are the primary focus of residential development. They also include the majority of the designated employment areas. The non-urban settlements, as well as the rural and waterfront areas, are typified by low density development. In many cases, the City does not currently, or plans to, provide infrastructure services for these areas and rural cross sections are expected to remain.

9.3.1 Criteria for Rural to Urban Conversion

The justification for road segments to be converted from rural to urban cross sections can be evaluated using a series of criteria, including:

- land use of the nearby area and associated pedestrian trips;
- high average annual daily traffic (AADT) values, since this can pose a safety concern for pedestrians;
- bus routes which, even when passing through an area with few pedestrian attractors, should be accessible by potential passengers without the need to walk in the roadway;
- nearby existing sidewalks and curbed segments; and
- the installation of non-transportation related infrastructure to expand a utility network or convey a water course, for example.

9.4 Sidewalk Priority

The provision of sidewalks on both sides of urban roads is significant for sustainable mobility in the City of Greater Sudbury and will help the City achieve the goal of constructing 'Complete Streets' that are designed, built, operated and maintained for users of all types of transportation, including pedestrians.

9.4.1 Criteria for High Priority Road Segments for Sidewalk Implementation

Several factors should be considered to determine whether conversion to an urban cross section alone may not be sufficient and sidewalk implementation may be warranted. These include:

- identification as a link for the provision of pedestrian or cycling facilities as part of the development of the active transportation network;
- the formal classification of the road, such as arterial, collector or local;

- the proximity to, and potential connectivity between, generators of pedestrian traffic such as hospitals, libraries, transit terminals, retirement or nursing homes, high-density housing, tourist attractions, arenas or places of work;
- the degree of commercial land use in the area;
- existing or proposed bus routes along or bisecting the segment, where providing safe access for potential passengers will encourage more people to take transit;
- the proportion of local residents who are seniors or belong to other vulnerable groups and who, compared to residents of other areas, are less agile as pedestrians and less likely to have access to an automobile;
- the distance from an elementary, secondary, or post-secondary school, which is inversely proportional to the number of children to be expected and the resultant need to separate pedestrians from traffic;
- the presence of nearby public green spaces;
- the potential of a new link to reduce local automobile trips undertaken due to its impact on cutting walking distances to nearby attractors;
- whether the link will complete an otherwise continuous sidewalk or create an isolated segment;
- the number of alternative connections with a reasonable degree of directness, particularly where physical barriers such as highways, rivers and railway lines are present;
- whether sight lines are affected by topography or physical obstructions that could increase the risk of motor vehicles colliding with any pedestrians forced to walk in the roadway; and
- the potential for redevelopment which, if anticipated to occur in the near term, may provide the opportunity for developers to fund the facilities through the site plan process.

9.5 Policy Recommendations for Rural to Urban Conversion and Sidewalks

Based upon available funding and consultation with the community, road segments can be identified and programmed for conversion to urban cross-section or for sidewalk installation. As policy in 'communities', these upgrades should:

- seek to improve facilities for transit users, cyclists and pedestrians in order to create more 'Complete Streets';
- engage the existing community to promote the benefits of the 'Complete Streets' concept and, in the case of the urban cross section, evaluate the level of enthusiasm for the conversion;
- consider the road classification since, for example, rural arterials would not be prime candidates for conversion;
- be coordinated with regularly scheduled maintenance and road works planned in the capital improvement program;
- be tied to development charges in the case of new development; and
- consider the 5-year capital budgets prepared by the City of Greater Sudbury Roads and Transportation Services and ratified by the City Council.

9.6 Transit

Transit is an important part of Greater Sudbury's transportation network. The transportation improvements in this Transportation Study Report will help Greater Sudbury Transit maintain reliable schedules because the recommended improvements help address congestion and connectivity. The active transportation network planned complements the road improvements

and will help extend the reach of transit by providing appropriate cycling and pedestrian facilities that can be used to access transit routes. The recommendation for transit is to build upon this Transportation Study Report with a detailed Transit Master Plan that leverages the planned road and active transportation improvements to encourage increased ridership and expanded coverage of the transit network.

Recommendation: Develop a Transit Master Plan to leverage the road and active transportation plans recommended in the Transportation Study Report.

9.7 Greater Sudbury Airport

Greater Sudbury Airport services city residents and businesses and is a hub for air travel to parts of Northern Ontario. The Transportation Study Report recommends improvements to Falconbridge Highway, the key arterial road linking the airport with the major population centres in Greater Sudbury. The Maley Drive widening and extension would help facilitate access to the airport from population and employment centres and the Kingsway widening could improve access into and out of the downtown. Overall, the Transportation Study Report supports Greater Sudbury Airport by providing a surface transportation network that is convenient and reliable in which to access the airport.

Recommendation: Implement road improvements that will improve travel time and access to Greater Sudbury Airport.

9.8 Rail

Rail has played a vital role in Greater Sudbury's history and continues to play an important role in the movement of goods and people. The Transportation Study Report reaffirms the Official Plan policy for the City to work with rail companies to implement any feasible relocation of existing rail lines or rail yards. Relocation would ideally enable greater road network connectivity in the city, such as the proposed Larch Street extension to Lorne Street. Relocating rail lines also could facilitate realignment of roads, such as the Frood – Regent corridor. Relocating rail lines could have transportation safety benefits in the elimination of some at-grade rail crossings. Rail lines often create barriers to surface transportation due to limited crossing points. Rail line relocation could encourage greater multi-modal connectivity when these barriers are removed.

Recommendation: Should the rail companies consider the relocation of rail lines or rail yards, the City should work with them throughout the relocation process.

9.9 Roundabouts

Roundabouts are circular intersections with unique characteristics that are defined by their distinct design and operation. They have been widely accepted as a more operationally efficient and environmentally friendly method of traffic control when supported by robust engineering analysis. In addition, roundabouts are generally safer than signalized or stop-controlled intersections due to slower operational speeds and fewer vehicular conflicts.

Recommendation: The City should develop roundabouts guidelines that could be used to help determine the appropriateness of installing roundabouts at new intersections in the city, or at existing intersections where the method of traffic control is being reconsidered.