



# Edmonton Main Streets Guideline

# Edmonton Main Streets **Guideline**

Prepared for the **City of Edmonton**

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## 1.2 WHY DO WE NEED A MAIN STREETS PROGRAM?

In 2013, the City of Edmonton adopted Complete Streets Guidelines which outline a design process based on the philosophy that designing a street should reflect the surrounding area's context, land uses, and users. A complete street is designed to integrate all road users safely, including pedestrians, cyclists, motorists, truck drivers, and public transportation users of all ages and abilities. The Complete Streets Guidelines view roadways as "essential infrastructure that shape our urban form, impact our economic well-being and act as vital components of our community and quality of life."

While the Complete Streets Guidelines are to be used in the design of "all new and rehabilitation projects that take place on public road right-of-way" (as per Policy C573A), Main Streets are different from other streets. Main streets are inherently more complicated because they are both mobility links and people places; as such, the public, businesses, stakeholders, and City Council have expectations that both the process and the delivery of the design will be of the highest possible quality.

The purpose of defining and identifying Main Streets is twofold:

- They will generally be subject to an enhanced and consistent Complete Streets design approach.
- They will generally be subject to different capital and operating funding support than other roads in Edmonton.

## 1.3 MAIN STREETS PRINCIPLES

The following Principles will guide the planning, design, and operation of Main Streets in Edmonton. They are based on the Complete Streets Principles defined in City of Edmonton Policy C573A and the Edmonton Complete Streets Guidelines.

### Vibrant All Seasons People Places

Main Streets are vibrant and attractive places for people, especially people on foot, in all seasons.

### Travel Options

Main Streets provide safe and accessible travel options for all users and trip purposes, with an emphasis on creating places for pedestrian activity.

### Network of Streets

Main Streets support a network of streets that together accommodate all users and allow for efficient and high quality travel experiences.

### Adaptable

Main Streets are adaptable to accommodate the many functions and uses of the street.

### Contribute to Sustainability

Main Streets contribute to the sustainability and resiliency of the city.

### Cost Effective & Provide Value

Main Streets are cost effective investments that increase value and provide benefits to their surrounding communities and the city.



## 1.4 EDMONTON'S MAIN STREETS

The Edmonton Main Streets Guideline, and associated funding program, is to be used for all existing Main Streets in the City of Edmonton. Edmonton's Main Streets are identified through a process that evaluates streets based on a number of criteria and characteristics. The Main Streets identification process and the listing of existing Main Streets is a separate document.

While neighbourhood-level main streets, nodes, or districts and new or greenfield main streets are not the focus of the Main Streets funding program, that does not preclude them from being designed to an enhanced standard as laid out in this Guideline.





# 2.0 MAIN STREETS APPROACH

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Planning and designing Main Streets requires a *multidisciplinary approach*. This can be achieved in different ways including multidisciplinary teams, review committees, and other approaches.

This section outlines the parameters for planning, designing, operating, and renewing Edmonton's Main Streets to an enhanced level.

## 2.1 DESIGN PARAMETERS

- Main Streets have *street oriented buildings* and are generally lined with *commercial and a mix of supportive residential and employment uses*.
- Main Streets are *pedestrian priority* areas and their *operations will be optimized for pedestrians*. The highest priority mode for these streets is pedestrians while transit can also be a high priority. The remaining modes should be ranked according to the context of the specific street. The Pedestrian Through Zone should not be interrupted by motor vehicle accesses and driveways.
- Main Streets have bicycle parking and are typically served by a *parallel bicycle route, with a focus on improving network connections*.
- Main Streets design focuses on fulfilling the Principles throughout the week, rather than prioritizing traffic capacity for commuter peak periods. As a result, *they may exhibit congestion for motor vehicles during peak travel periods*.
- Main Streets have *design speeds no greater than their posted speeds and the maximum design speed is 50 km/hr*. During peak periods, operating speeds will likely be lower than the posted speed due to traffic volumes.



- Main Streets *have narrow lane widths* that encourage lower vehicle speeds and create pedestrian oriented places while supporting transit service.
- Main Streets design *does not increase the amount of public right of way allocated to the Travelled Way.*
- Main Streets are differentiated through the *provision of an Ancillary Zone* which is flexible space used to support the activity of the adjacent lands and helps create great people places.
- Main Streets are *designed, constructed, maintained, and renewed to an enhanced standard* to support the Main Streets Principles in all seasons.

## 2.2 MAIN STREET DESIGN ZONES

The Main Street right of way is divided into six design zones that provide different functionality for people accessing, spending time, and travelling through Main Streets. The following defines each Main Street Design Zone.

### 2.1.1 Adjacent Lands

This space provides active land uses such as ground floor retail and food and beverage establishments that attract people to Edmonton's Main Streets and generate pedestrian activity.

### 2.1.2 Frontage Zone

Adjacent to the building, this space is used as a support and/or extension of the active land uses along Edmonton's Main Streets. Uses can include ground floor retail displays, café seating,



MAIN STREET DESIGN ZONES

temporary signage, lineup areas, and other activities to support active use of the street by people and businesses.

### 2.1.3 Pedestrian Through Zone

This space provides an area for pedestrian mobility for people of all ages and abilities to access the various pedestrian oriented destinations along and around Edmonton's Main Streets.

### 2.1.4 Furnishing Zone

This space provides an area for signs, light and signal poles, street trees, transit stops, and benches in addition to underground utilities to support Edmonton's Main Streets as destinations and people places.

### 2.1.5 Ancillary Zone

Located between the travelled way and the furnishing zone, this space provides the opportunity for various permanent and temporary pedestrian oriented uses depending on the context and characteristics of the Main Street. The use of this flexible space can vary between blocks and along an individual block. Uses can include parklets, patios, motor vehicle or bicycle parking, loading zones, accessible parking, curb extensions, transit stops, and taxi stands.

### 2.1.6 Travelled Way

This space provides an area for travelling through a Main Street area or to access Main Street destinations for people travelling by automobile and transit, and for the delivery of goods. In non-peak hours, some of this space may be used as an area for parking and loading and can also be closed at times to motor vehicles to host events and festivals.



While the Main Streets design process is outlined here, it is not intended to produce identical designs for every Main Street. It is fully anticipated the Main Streets design process will produce unique designs that are representative of the context of each Main Street, respecting local character and public input.

## 2.3 MAIN STREET DESIGN PROCESS

The process to design Main Streets is based on balancing both their mobility link and people place functions. Because of this dual role, designing Main Streets to create an attractive, vibrant, and comfortable place for people is complex.

The design process is not linear and requires an iterative approach to confirm details and assess assumptions as different design options are created. This process should include open, transparent, and participatory engagement with the public and stakeholders. In this way, the Main Streets Design Process is consistent with the process outlined in the Edmonton Complete Streets Guidelines.

Starting with the guidance outlined by the Main Streets Principles and the more detailed *Main Streets Design Parameters*, the *Main Streets Design Process* outlines the steps to allocate space within the public right of way to the Main Street Design Zones. As options are generated for a specific Main Street design, the proportion of space dedicated to the Travelled Way should be evaluated and compared to ensure the designs are supporting an environment prioritized for pedestrians. This evaluation process is included in the Main Streets Examples section for reference. The overall objective of the Design Process is to ensure Main Streets “are streets that will be designed to act as strong community places.”

The following outlines the iterative steps of the Main Streets Design Process.

1. **Available Width:** Determine the road right of way width along the Main Street.
2. **Number of Through Lanes:** The default number of general purpose travel through lanes is one in each direction as a starting point. Some Main Streets may require an additional through lane to appropriately serve the mobility link function but additional lanes should not be added to achieve high levels of service for motor vehicles.

**NOTE:** A Main Street may include transit lanes and/or an ancillary zone as described below. The ability to provide these is dependent on the design decisions for the travelled way (through lanes and left turn bays). As such, Main Streets should be limited to a maximum of four general purpose travel through lanes (i.e., two in each direction).

3. **Intersection Geometry:** Review the turning movements at intersections along the entire Main Street corridor, particularly intersections with major streets, to determine whether left turn bays may be required based on the expectation of congested peak hour operations. Right turn bays are not provided along Main Streets because they increase pedestrian crossing distances and reduce pedestrian visibility.

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4. **Reserved Lanes:** Review the need for reserved lanes that are dedicated to transit, taxis, bicycles, etc. With regard to transit, if there is a need for improved reliability or a documented on-time arrival issue, curbside peak hour transit lanes should be considered.
  5. **Pedestrian Through Zone Width:** The width should be tailored to support anticipated pedestrian demands with a desired minimum of 3.0m. Narrower widths may be necessary along constrained Main Streets (e.g., 20.1m right of way).
  6. **Ancillary Zone:** The provision of this space and its width are selected to provide additional amenity space for people to use (e.g., patios, parklets) and to accommodate parking and loading.
  7. **Furnishing Zone Width:** The minimum width (including the curb) is dictated by the width necessary to support trees and underground soil structures (e.g., soil cells).
  8. **Frontage Zone:** The minimum width of the frontage zone depends on the intended use of the space (e.g., seating, displays, advertising boards). Providing this design zone may not be possible in all cases due to right of way width. In those cases, the functionality of the frontage zone may be able to be accommodated on private property through building setbacks or in the furnishing or ancillary zones.

The design of the **Adjacent Buildings** will be informed through Main Streets Zoning that specifies requirements for street oriented buildings and active land uses to generate pedestrian activity. The Main Streets Zoning may also inform setbacks to support the inclusion of frontage zones on private property.

**Utilities** for Main Streets are generally already in place and the design guidance for the Main Street Design Zones can accommodate their typical locations. During the design of Main Streets, the existing location of utilities should be reviewed and shifted, if necessary and possible, to improve the design of the street.

The site-specific design decisions for the elements outlined in the Main Streets Design Toolkit will be determined through the design process for each Main Street on an individual basis. These details include the type of surface materials and the exact location and number of benches, for example.



# 3.0 EDMONTON MAIN STREETS DESIGN TOOL KIT

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This section outlines the Main Streets Design Toolkit which provides descriptions for Design Elements that can be incorporated into each Main Street Design Zone. The functional requirements for each Design Element are specified including considerations for their implementation. Other references are also listed that designers can access to further inform the design of Main Streets.

## 3.1 ADJACENT LANDS GUIDELINES

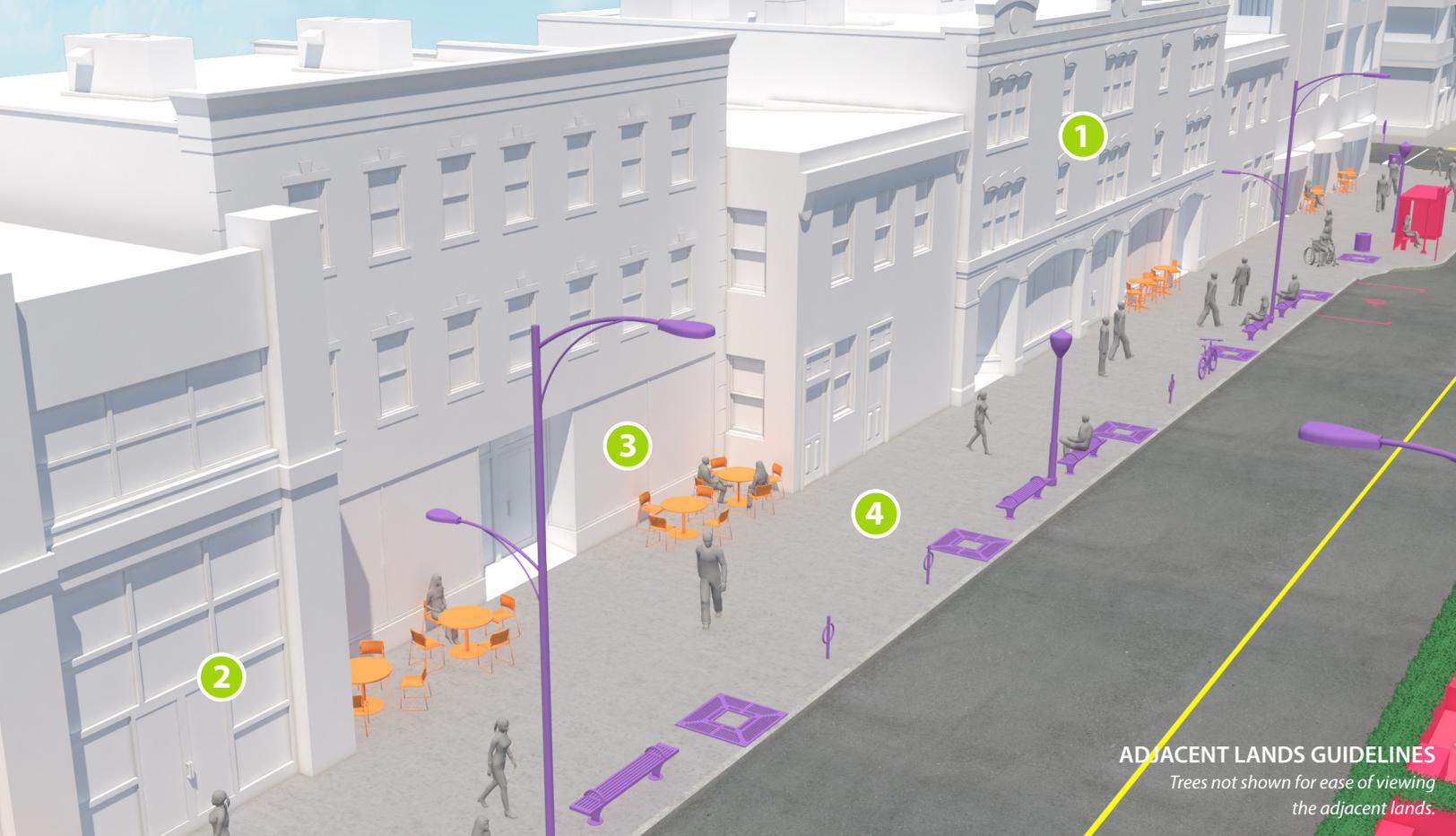
### 3.1.1 Land Uses

#### Description

Identified Main Streets in Edmonton will already be characterized by a mix of active land uses that support high levels of pedestrian activity along the street, particularly at the street level, throughout the day and night.

#### Requirements

A diversity of active land uses should be encouraged on Main Streets at the street level. Land uses such as retail, restaurants, entertainment, services, and civic land uses such as libraries, all contribute to generating pedestrian activity and increasing the attractiveness of Main Streets as destinations for people throughout the day and night. The addition of new motor vehicle oriented land uses, such as drive through restaurants, motor vehicle repair shops, or wholesale retail sales, should not be permitted.



**1** The number of people and jobs along Edmonton’s Main Streets can be increased by adding residential and/or office uses to upper storeys of buildings that have commercial uses at street level. Increasing the density of residential or office development (or both) will result in greater activity on Main Streets, strengthening their vibrancy.

### 3.1.2 Building Orientation

#### Description

Buildings which are oriented toward the street prioritize and support pedestrian activity rather than vehicular activity, contributing to a stronger sense of place on Main Streets. Buildings which are located with minimal setbacks from the public right of way and which have frequent pedestrian entrances to buildings help to support a comfortable and engaging atmosphere for people. Buildings which face away from the street will focus pedestrian activity away from the Main Street.

#### Requirements

**2** All buildings in Main Street areas should be oriented towards the Main Street with frequent

pedestrian entrances to the public right of way. Consideration should be given to placing limits on the length of individual building frontages or specifying minimum building entrance spacing to increase the frequency of building entrances. By doing so, Main Streets will be pedestrian scaled. Maintaining this pedestrian scale is also important where it already exists.

Minimum setbacks should be established to allow for desirable activities to occur on the adjacent lands as extensions to the frontage zone in the public right of way. Appropriate setbacks may differ based on street context. Some Main Streets may have more space to devote to the frontage zone than others due to the available right of way. Establishing setback requirements are especially helpful where constrained rights of way make it difficult to provide space for the frontage zone on public right of way. However, it should be noted that private lands should not be counted upon to replace public space for people. If setbacks are provided, the space should permit uses such as outdoor patios or small plazas that are devoted to people [see also guidance on [Parking Location](#)].

Maximum setbacks from the street should also be considered to limit the distance buildings may be removed from the edge of the public right of way. Excessive setbacks will detract from a sense of enclosure of the street and decreases the connection between buildings and the activities on the sidewalk. Maximum setbacks tied to the combined width of the frontage, pedestrian through, and furnishing zones should be considered [see also guidance on [Building Design](#)].

In areas with historic buildings, approaches to minimum and maximum setbacks should be developed that respect the established built form environment.

### 3.1.3 Building Design

#### Description

The design and attractiveness of buildings is of substantial interest to pedestrians because they move more slowly than other users of the street. Building design should therefore support the creation of a positive pedestrian environment through building transparency, avoidance of blank façades, and encouragement of adequate building height to support a sense of enclosure along Main Streets.

#### Requirements

- 3 Buildings should be required to have a high degree of transparency (i.e., the degree of visibility through a building façade) at the street level, creating positive visual connections between the public street and the interior of buildings. Façade design requirements should also support visual interest and the avoidance of blank walls which interrupt the relationship between people on the street and those within buildings.

Although not all Main Streets will be characterized by multi-storey buildings, where zoning permits the development of multi-storey buildings, regulations should support the creation of a defined street wall via minimum building or podium heights to create a pedestrian-scaled environment. Building height or podium height maximums should also be considered to reduce wind and winter climatic impacts.

#### Other References

More information on transparency can be found in the Edmonton Transit Oriented Development Guidelines (Pages 27, 31 & 32).

The Institute of Transportation Engineers *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach* includes recommendations regarding building height to street width ratios.

More information on winter-friendly design can be found in Edmonton's Winter City Design Guideline.

### 3.1.4 Parking Location

#### Description

Motor vehicle parking for people accessing a building is typically provided off-street in parking lots or parking structures. The location of this parking can impact the comfort and safety of pedestrians and the ability for Main Streets to be people places.

#### Requirements

No surface parking areas should be permitted between the public right of way and the fronts of buildings. Wherever possible, parking should be located underground or at the rear of buildings, with access from an alley or side street [see also guidance on [Driveways & Motor Vehicle Access Location](#)].

Where buildings may have side yards, surface parking located at the sides of buildings should be avoided wherever possible, as this breaks up the continuity of active uses along the street frontage. Limiting this sort of site design could be achieved by requiring surface parking to only be located to the rear of buildings, and/or through minimum frontage requirements for buildings along a Main Street.

Where a parkade structure is located on a Main Street, retail bays or other active uses should be provided in the structure where it fronts the street. This is particularly important on the ground floor, but is also desirable on upper storeys, where fronting active uses, such as offices, can be used to screen parking areas from the street [see also guidance on [Land Uses](#)].

### 3.1.5 Driveways and Motor Vehicle Access Location

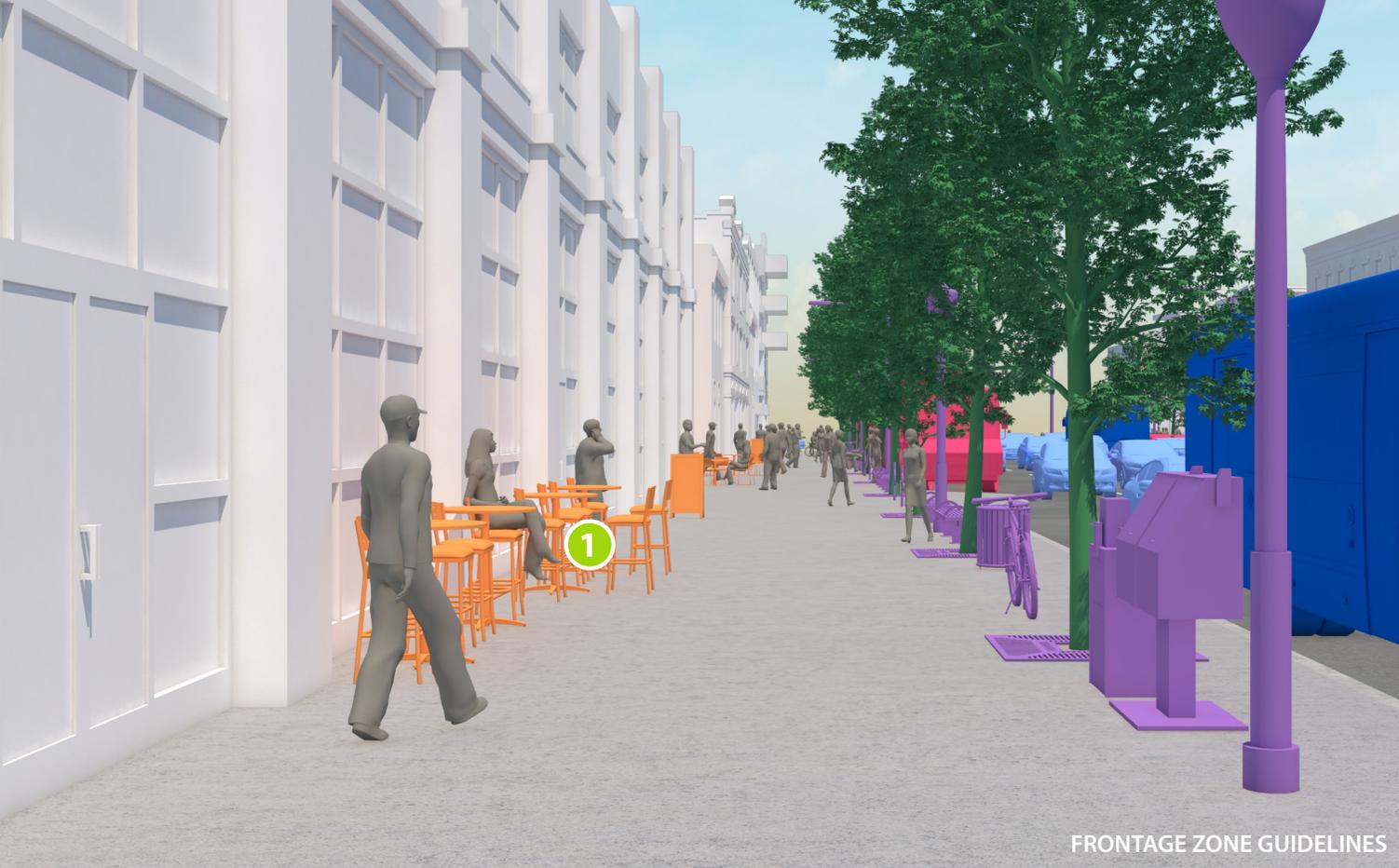
#### Description

Motor vehicle access to buildings and their associated parking is typically provided via alleys or driveways. Driveways located along Main Streets interrupt the continuity of the pedestrian through zone and create conflict points between pedestrians and motor vehicles.

#### Requirements

- 4 Motor vehicle access to adjacent lands and buildings along Main Streets should only be provided from side streets or alleys. Existing driveways along Main Streets should be removed when possible to provide a continuous and uninterrupted pedestrian through zone.

If existing driveways cannot be removed, the design of the driveway slope (i.e., the ramp that provides transition from the roadway grade to the sidewalk grade) should be located in the furnishing and/or ancillary zones to maintain a consistent and flat grade for the pedestrian through zone [see also guidance on [Accessibility & Universal Design](#)]. In addition, the materials used for the frontage, pedestrian through, and furnishing zones should be continued across the driveway location to reinforce the pedestrian orientated design.



FRONTAGE ZONE GUIDELINES

## 3.2 FRONTAGE ZONE GUIDELINES

### 3.2.1 Frontage Zone Width

#### Description

The frontage zone is space that allows activities from private property to spill out onto the street and acts to provide a buffer for pedestrians from buildings and opening doors. To avoid infringing upon the pedestrian through zone, Main Street frontage zones should be sized to permit adequate space for desired activities within it which may include sidewalk sales, advertising boards, outdoor displays, café seating, and lineup areas related to night time uses.

#### Requirements

- 1 The wider a frontage zone is, the greater the variety of functions it can perform for the Main Street. The following dimensions are recommended to accommodate different activities:
  - Minimum of 0.3m accommodates shy space from buildings for people walking along the pedestrian through zone.

- Minimum of 0.9m accommodates advertising boards, other small signage, and lineup areas.
- Minimum of 1.2m accommodates display and sales tables plus standing space for browsing shoppers. This width also accommodates small restaurant tables with seating for two people plus circulation space for serving staff.
- Minimum of 1.75m accommodates restaurant tables with seating for four people plus circulation space for serving staff.

In constrained locations (i.e., 20.1m right of way), the functions of the frontage zone may have to be provided via setbacks on the adjacent lands [see also guidance on [Building Orientation](#)]. However, due to existing development on Main Streets, it may take decades for setback space to be provided through site redevelopment, and some sites may not redevelop at all, particularly heritage properties. This will limit the ability to provide a frontage zone on public or private right of way along constrained Main Streets. In these circumstances, the functionality of the frontage zone may be provided in the furnishing and/or ancillary zone(s).



### 3.3 PEDESTRIAN THROUGH ZONE GUIDELINES

#### 3.3.1 Pedestrian Through Zone Width

##### Description

The Pedestrian Through Zone is the area where people walk, interact with one another, and access businesses. This zone is fundamental to Main Street success and creating a people place.

##### Requirements

A person walking requires 0.75m of lateral space while someone being accompanied by a child, with a service animal, or with wheeled luggage requires 1.2m. A wheelchair width is 0.90m and a person using a wheelchair requires about 1.5m to turn 180 degrees.

**1** The preferred pedestrian through zone width for Main Streets is 3.0m to accommodate the higher pedestrian volumes and to allow people to walk in groups. Where this is not possible, the width of the pedestrian through zone needs to be carefully considered. Reducing the width to 2.0m allows a person with a child to pass another person but should only be considered for short segments [see also guidance on [Accessibility & Universal Design](#)].

#### 3.3.2 Accessibility & Universal Design

##### Description

Edmonton's Main Streets need to be designed to accommodate travel by the full spectrum of pedestrians including those that use mobility aids. An accessible pedestrian through zone allows people of all ages and abilities to travel to, travel through, and access buildings along Edmonton's Main Streets.

## Requirements

- 2 Accessible pedestrian curb ramps are a sloped transition between the pedestrian through zone and crosswalks marked across the travelled way and should be provided at every Main Street intersection.
- 3 Accessible curb ramps should be separated to provide one ramp for each crossing direction at the intersection as opposed to a combined curb ramp. This can be achieved due to the reduced corner radii used along Main Streets [see also guidance on [Corner Radii](#)].

Accessible curb ramps are best located along the continuous path of the pedestrian through zone.

- 4 Accessible curb ramps should include high visibility tactile walking surface indicators (sometimes referred to as tactile ground surface indicators).

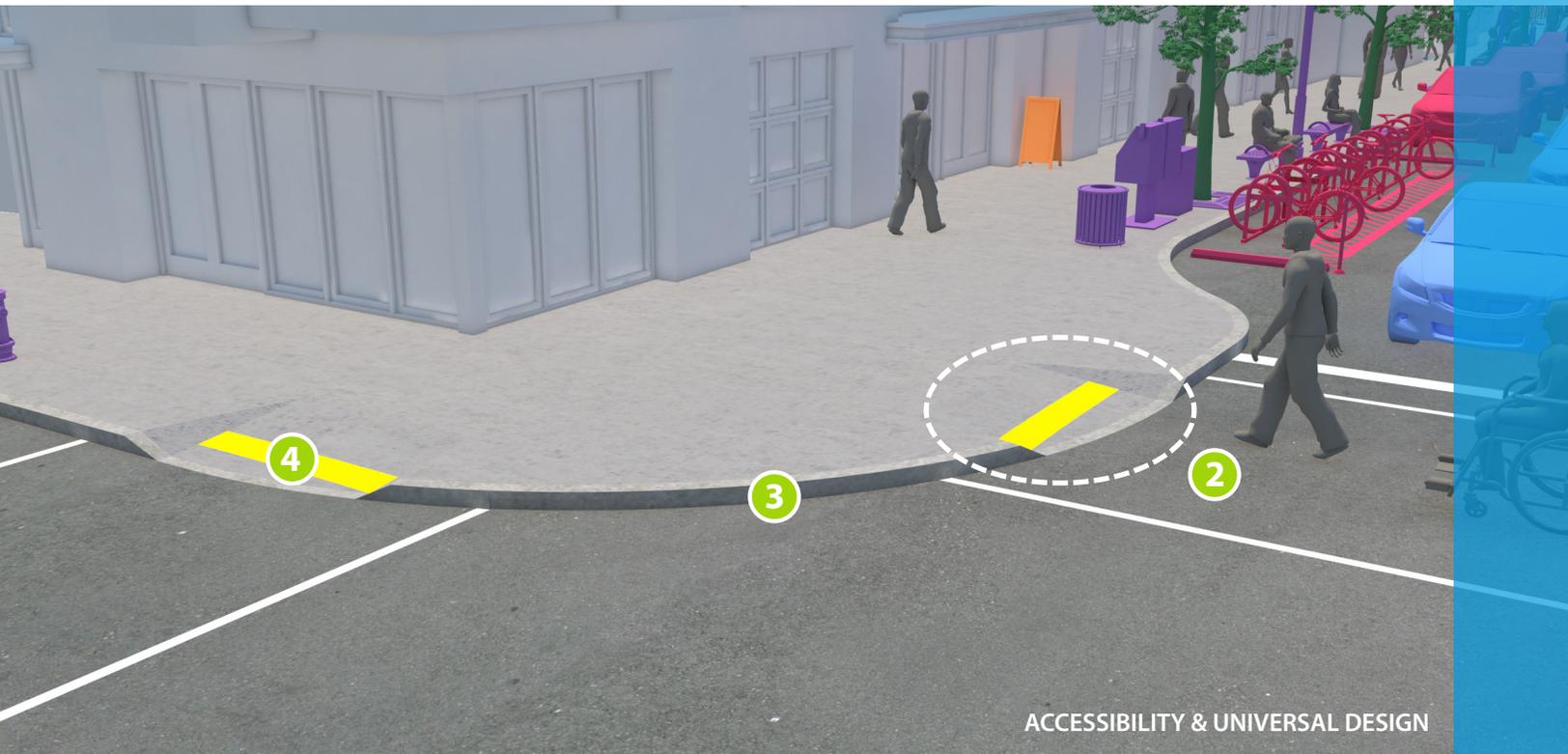
Along Main Streets, the width of accessible curb ramps should be equal to the pedestrian through zone width and a minimum of 2.0m to allow a wheelchair user to pass a person walking while navigating the change in grade. The ramp slope should be between 1:20 (5%) and 1:15 (6.7%).

## Other References

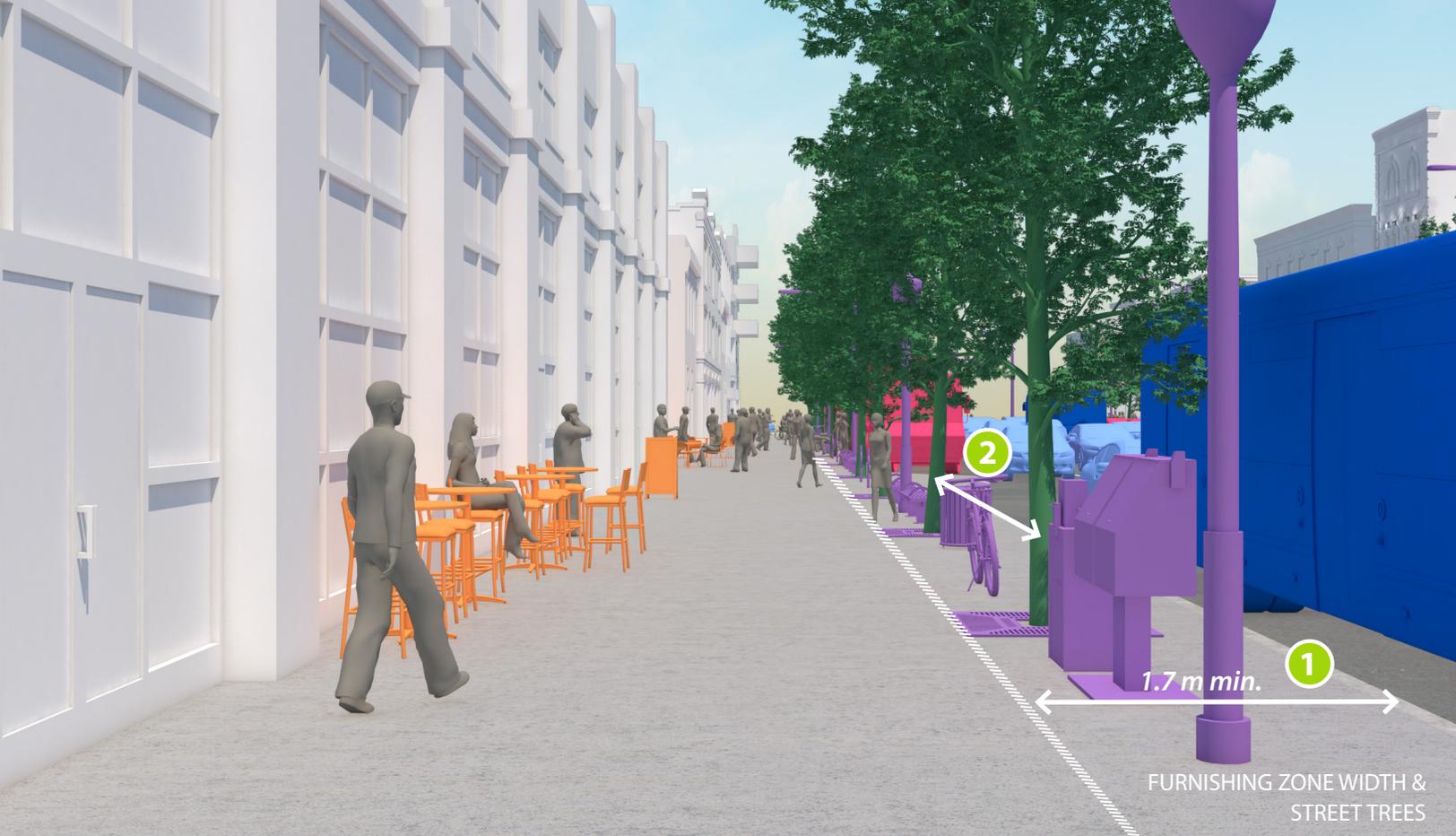
The City of Edmonton's Seniors Declaration and Vision for an Age-Friendly Edmonton Action Plan provide considerations for planning, designing, and operating the city for all ages and abilities.

Edmonton and Alberta have a number of guides related to accessibility and universal design that are relevant resources including the Edmonton Checklist for Accessibility & Universal Design in Architecture (2008), the Alberta Barrier Free Design Guide (2008), and the Alberta Design Guidelines for Pedestrian Accessibility (2000).

Other resources include the Canadian Standards Association's "Accessible design for the built environment" published in 2012 and [www.universaldesign.com](http://www.universaldesign.com) is a website that shares emerging information on universal design.



ACCESSIBILITY & UNIVERSAL DESIGN



### 3.4 FURNISHING ZONE GUIDELINES

#### 3.4.1 Furnishing Zone Width

##### Description

The width of the furnishing zone can be tailored to the elements that are included in a Main Street’s design and their functional requirements. A wider furnishing zone provides greater separation from the travelled way for pedestrians, creating a more comfortable people place, and increasing the space available for furnishings, particularly street trees.

##### Requirements

- 1 Based on the possible furnishing zone elements, the preferred minimum width of the furnishing zone is 1.7m measured from face of curb. This width accommodates the width of the curb and sufficient soil volume via soil cells to support the growth and health of mature street trees. Wider furnishing zones increase the comfort for people walking by increasing separation from motor vehicles, and are particularly beneficial if an ancillary zone is not provided.

If the minimum furnishing zone width cannot be accommodated at a specific location along a block of a Main Street (e.g., an encroaching building), reducing the width of the furnishing zone at that location could be considered to ensure the continuous minimum width of the pedestrian through zone. In these instances, it may not be possible to accommodate trees. However, the furnishing zone is critical to the character, comfort, and safety of Main Streets and, as such, reductions to the furnishing zone width should only be considered in exceptional circumstances.

#### 3.4.2 Hard Surfacing

##### Description

The hard surfaced furnishing zone allows for a number of uses within the furnishing zone and better supports deliveries, loading, and unloading of people and goods.

## Requirements

The furnishing zone should be designed as a hard surface through the use of pavers, concrete, or other material type that maintains access to/from the pedestrian through zone for people travelling with mobility aids. Considerations should be given to visually delineating the furnishing zone for aesthetic and Universal Design purposes. Hard surfaced furnishing zones also support maintenance and operation in all seasons (e.g., snow clearing). The edge of the furnishing zone adjacent to the pedestrian through zone can also incorporate a tactile delineator strip or band to warn users of the possibility of street furniture and other potential hazards or activities that may exist in the furnishing zone [see also guidance on [Accessibility & Universal Design](#)].

### 3.4.3 Street Trees & Landscaping

#### Description

Street trees and landscaping are located in the furnishing zone and can include a variety of species. Street trees and landscaping are critical elements of Edmonton's Main Streets and should be prioritized accordingly due to their contributions to adding nature to an urban space, providing climate control (micro-climates) from heat, wind, and rain, reducing traffic speeds, improving pedestrian safety, and adding value to adjacent properties.

#### Requirements

The spacing of trees is dependent upon the tree species.

- 2 In most cases, a maximum spacing of 10m is adequate to allow for healthy growth and maintain an adequate tree canopy. To further support tree health, soil cells should be provided to ensure the soil volume is sufficient for long term growth. For example, mature trees with an 8m diameter tree canopy require about 20m<sup>3</sup> of soil if sharing a trench with other street trees or

30m<sup>3</sup> if in their own beds. The soil volume can be located under a combination of the furnishing zone, pedestrian through zone, and ancillary zone or travelled way.

Other landscaping can be included and may be particularly appropriate in locations where utilities or other elements constrain the furnishing zone width and/or depth. It may also be possible to incorporate stormwater management devices and designs within the furnishing zone (and possibly the ancillary zone) [see also guidance on [Curb Extensions](#)].

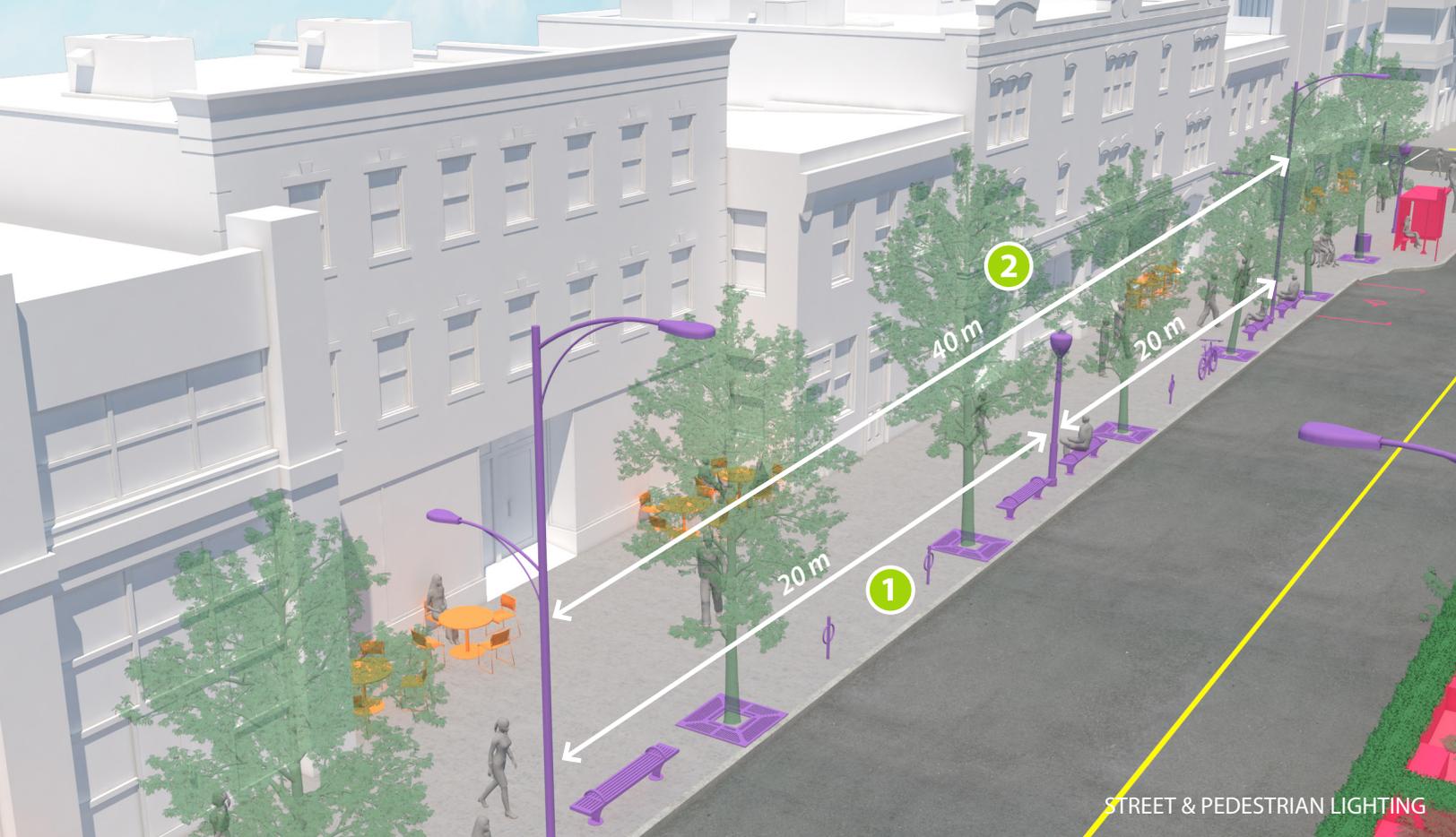
The spacing of trees and lighting should be selected to be compatible [see also guidance on [Street & Pedestrian Lighting](#)]. Street trees and other landscaping should not be placed too close to intersections to ensure adequate sightlines are maintained (e.g., not within 7.5m).

#### Other References

Volume 5: Landscaping of the City of Edmonton Design and Construction Standards provides more detailed guidance on tree spacing requirements by tree species.

Section 4.1.5 of the Complete Streets Guidelines includes further information on landscape and streetscape locations and separations.

Edmonton's Urban Forest Management Plan (2012) provides additional information on the strategy for managing and enhancing the city's urban forest.



### 3.4.4 Street & Pedestrian Lighting

#### Description

Street and pedestrian lighting is used to illuminate the public road right of way. Pedestrian oriented lighting contributes to pedestrian safety, security from harm and crime, and supports Main Streets as places.

#### Requirements

- 1 Pedestrian lighting should be placed with a maximum spacing of about 20m and be located approximately 5m above the sidewalk surface to provide sufficient illumination of the pedestrian through zone. This spacing also works well with typical spacing for street trees [see also guidance on [Street Trees & Landscaping](#)]. Pedestrian lighting can be affixed to the same pole as street lighting or on separate poles.
- 2 Luminaires for lighting the travelled way spaced every 40m complements the 20m pedestrian lighting spacing. Street lighting should also be added to traffic signal poles to increase the illumination and safety of intersections [see also guidance on [Pedestrian Crossings](#)].

#### Other References

Section 4.1.5 of the Complete Streets Guidelines includes further information on landscape and streetscape locations and separations and Section 4.2.3 has further information on pedestrian oriented lighting.

The Edmonton Transit Oriented Development Guidelines also provides guidance on pedestrian-scaled lighting and spacing ( Public Realm Guidelines – Public Boulevard section, Figure 53).

The City of Edmonton Road and Walkway Lighting Construction and Material Standards (Volume 6 of the Design and Construction Standards) has more information about lighting design including pedestrian and decorative street lighting poles.

### 3.4.5 Transit Stops & Shelters

#### Description

Transit stops are the fundamental interface for people accessing, loading, and unloading from buses or other transit vehicles. Main Streets are destinations that strongly benefit from frequent transit service along the street and transit stops that are safe, accessible, and comfortable for transit passengers.

## Requirements

Transit stops are hard surfaced and accessible from the pedestrian through zone, and can include architecturally appealing designs to fit the rest of the Main Street urban design. Typically located at the far-side of intersections, transit stops are a minimum length of 9.0m; however, on Main Streets with frequent transit service or served with articulated buses, the preferred minimum length is 14m.

The recommended width of transit stops is 2.5m (measured from face of curb) to accommodate boarding, particularly for those using wheelchairs or other mobility aids and should be clear of trees and street furniture to avoid interference with bus doors. A minimum 2.1m wide by 2.0m long accessible space must be provided at the head of the bus stop for bus ramp deployment and boarding by passengers using mobility aids [see also guidance on [Accessibility & Universal Design](#)].

In many cases along constrained Main Streets, the width available for the transit stop will be 1.7m (based on the minimum furnishing zone width required to accommodate street trees). In these cases, the length of the transit stop may have to be extended and transit passengers waiting, loading, and unloading may cause interruptions for people walking in the pedestrian through zone [see also guidance on [Transit Platforms](#)].

Transit shelters should be considered at all stops to support use of transit by people in all seasons, particularly at stops where significant boardings occur or are expected. Shelters may be incorporated into the design of the adjacent buildings.

Transit stops should also include benches, transit service information, waste receptacles, and bicycle parking.

## Other References

More information on transit stop locations, accessibility, and amenities can be found in Sections 4.4.1 and 4.4.2 of the Edmonton Complete Streets Guidelines.



TRANSIT STOPS & SHELTERS

### 3.4.6 Street Furniture

#### Description

Street furniture includes functional and decorative elements that support the function and use of the street and the creation of a people place. For Main Streets, additional street furniture, not mentioned elsewhere in the Guideline, includes poles for traffic signals, benches, bicycle parking, flower pots, waste receptacles, bollards, banners, tables and chairs, advertising boards, signal boxes/traffic controllers, fire hydrants, pay parking stations, newspaper boxes, wayfinding, sign poles, and public art.

#### Requirements

The amount and type of street furniture will vary depending on the adjacent building locations and orientation, the number of people using an area, the width available for the furnishing zone, the presence of an ancillary zone and/or frontage zone, and the characteristics and design of the travelled way. In general, all Main Streets should provide waste receptacles, benches, and bicycle parking as well as necessary functional items (e.g., traffic signal poles, traffic controllers/signal boxes, fire hydrants, etc.). While the furnishing zone is the primary location for street furniture, these elements can also be included in the ancillary zone.

The design of the street furniture can be used to achieve more than one purpose (e.g., seating and art, planter and seating). The furnishing zone surface material (e.g., pavers, concrete, etc.) needs to allow for installation of street furniture [see also guidance on [Hard Surfacing](#)]. When designing street furniture, consideration must also be given to their long term maintenance and the need to replace damaged pieces.

#### Other References

Section 4.2.3 of the Complete Streets Guidelines includes further information on street furniture and amenities.

### 3.4.7 Auxiliary Power

#### Description

Auxiliary power is used to provide electricity to elements or uses in the public right of way. Auxiliary power along Main Streets can be used for electrical receptacles, signs, benches, bollards, and other elements in support of Main Streets programming and their unique character.

#### Requirements

Auxiliary power should be provided along all Main Streets. Receptacles are typically attached to tree grates and/or street lighting poles and should be readily accessible to support outdoor lighting, festivals, and other events. The design and placement of auxiliary power, and the elements that use the electricity, need to be carefully designed with consideration given to utilities and drainage.

### 3.4.8 Utilities

#### Description

Utilities include sewer, water, gas, power, and telecommunications. Utilities are provided on the majority of streets and their placement can be in any of the design zones as well as along alleys that are parallel to Main Streets.

#### Requirements

Utilities are provided to service the buildings along Main Streets, the infrastructure that is included along Main Streets, and the communities surrounding Main Streets. In most cases, utilities are already located along Main Streets according to design guidance from the City of Edmonton and overhead power has been relocated either underground or to a parallel alley. The design of Main Streets should include a review of the existing location of utilities and whether relocations could improve operations or reduce maintenance costs [see also guidance on [Routine Repairs and Enhanced Renewal](#)].

#### Other References

The City of Edmonton's Design and Construction Standards and the Complete Streets Guidelines Section 4.1.6 provide additional guidance on utility placement.



- 1 Motor vehicle parking
- 2 Loading and delivery zone
- 3 Accessible Parking
- 4 Curb extension (intersection)
- 5 Curb extension (midblock)
- 6 Transit platform
- 7 Parklet
- 8 Bicycle parking corral

### 3.5 ANCILLARY ZONE GUIDELINES

#### 3.5.1 Ancillary Zone Width

##### Description

The ancillary zone provides a flexible space that can accommodate a number of different uses along a Main Street and along each block to reflect the unique requirements of the street users and adjacent lands. Ancillary zones provide an enhanced buffer for pedestrians from motor vehicles and also allows for the flexible allocation of this space to active uses that are critical to Main Streets being places for people.

##### Requirements

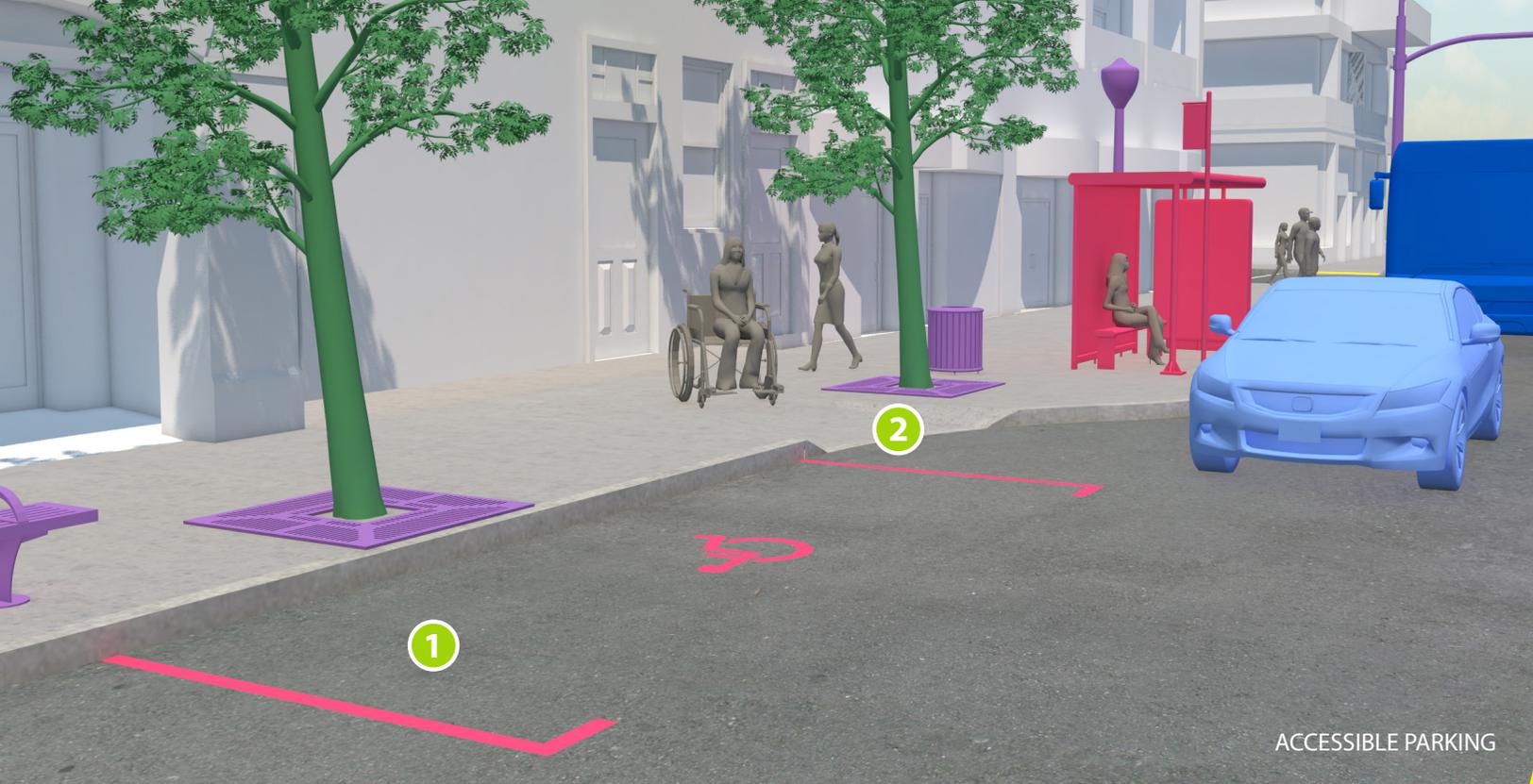
The preferred width of the ancillary zone is 2.5m measured from the face of curb. This width is based on the width of on-street parking stalls which are the widest element typically accommodated in the ancillary zone.

All other elements and uses of the ancillary zone can be accommodated within this width including curb extensions, parklets or patios, bicycle corrals, and transit platforms. The width of the ancillary zone may need to be increased, by extending into the furnishing zone, to accommodate accessible parking [see also guidance on [Accessible Parking](#)].

#### 3.5.2 Parking, Loading & Deliveries

##### Description

Parking and curbside space dedicated to loading/unloading and deliveries provides access to Main Streets for people arriving by motor vehicles and can accommodate deliveries of goods required by businesses. On-street parking, loading, and delivery spaces can also reduce traffic speeds and can act as a buffer from moving traffic for pedestrians.



ACCESSIBLE PARKING

## Requirements

The recommended width of on-street motor vehicle parking and loading zones is 2.5m measured from face of curb. Parking and loading zones can be marked with pavement markings to encourage people to park as close to the curb as possible.

The recommended width can accommodate food trucks (while queuing space for their customers can be accommodated within the furnishing zone). Taxi stands and car share parking can also be accommodated by the recommended width.

Where there is a high frequency of deliveries by larger vehicles, a wider ancillary zone may be provided and potentially accommodated by reducing the width of the furnishing zone for a short segment. Similarly, at transit stops where buses are stopped for longer periods of time (i.e., timing points), a wider ancillary zone may also be required. The location of loading/delivery zones and transit timing points should not be mixed.

Additional motor vehicle parking can also be included on side streets where opportunities allow.

## Other References

More information related to motor vehicle parking can be found in Section 4.1.3 of the Edmonton Complete Streets Guidelines.

## 3.5.3 Accessible Parking

### Description

- ① Accessible parking is motor vehicle parking that is dedicated through signs and possibly pavement markings for the use of people that have parking placards for persons with disabilities. The ancillary zone provides the opportunity for dedicated 24 hour accessible parking, increasing the accessibility of Main Streets to a broader range of people.

### Requirements

The width requirements for accessible parking are generally consistent with motor vehicle parking [see also guidance on [Parking, Loading & Deliveries](#)] but may require additional width to accommodate wheelchair access for the driver to get into and out of the vehicle. The increased width to accommodate accessible parking can be achieved by reducing the width of the furnishing zone for a short segment at the location of the accessible parking space(s).

- ② In addition, a curb ramp can be constructed to provide additional access for people whose vehicles are outfitted with lifts or other methods of access.

## Other References

The City of Edmonton's Seniors Declaration and Vision for an Age-Friendly Edmonton Action Plan provide considerations for planning, designing, and operating the city for all ages and abilities.

The City of Toronto Accessibility Design Guidelines (pages 14 and 15) provide additional information on the design of accessible parking.

### 3.5.4 Curb Extensions

#### Description

Curb extensions extend the curb into or toward the travelled way at intersections and midblock crossings. In doing so, curb extensions increase comfort and safety of Main Streets by reducing pedestrian crossing distances of streets, increasing the visibility of pedestrians to passing drivers, increasing the visibility for drivers turning onto or off of Main Streets, reducing motor vehicle operating speeds, and increasing the available pedestrian queuing area.

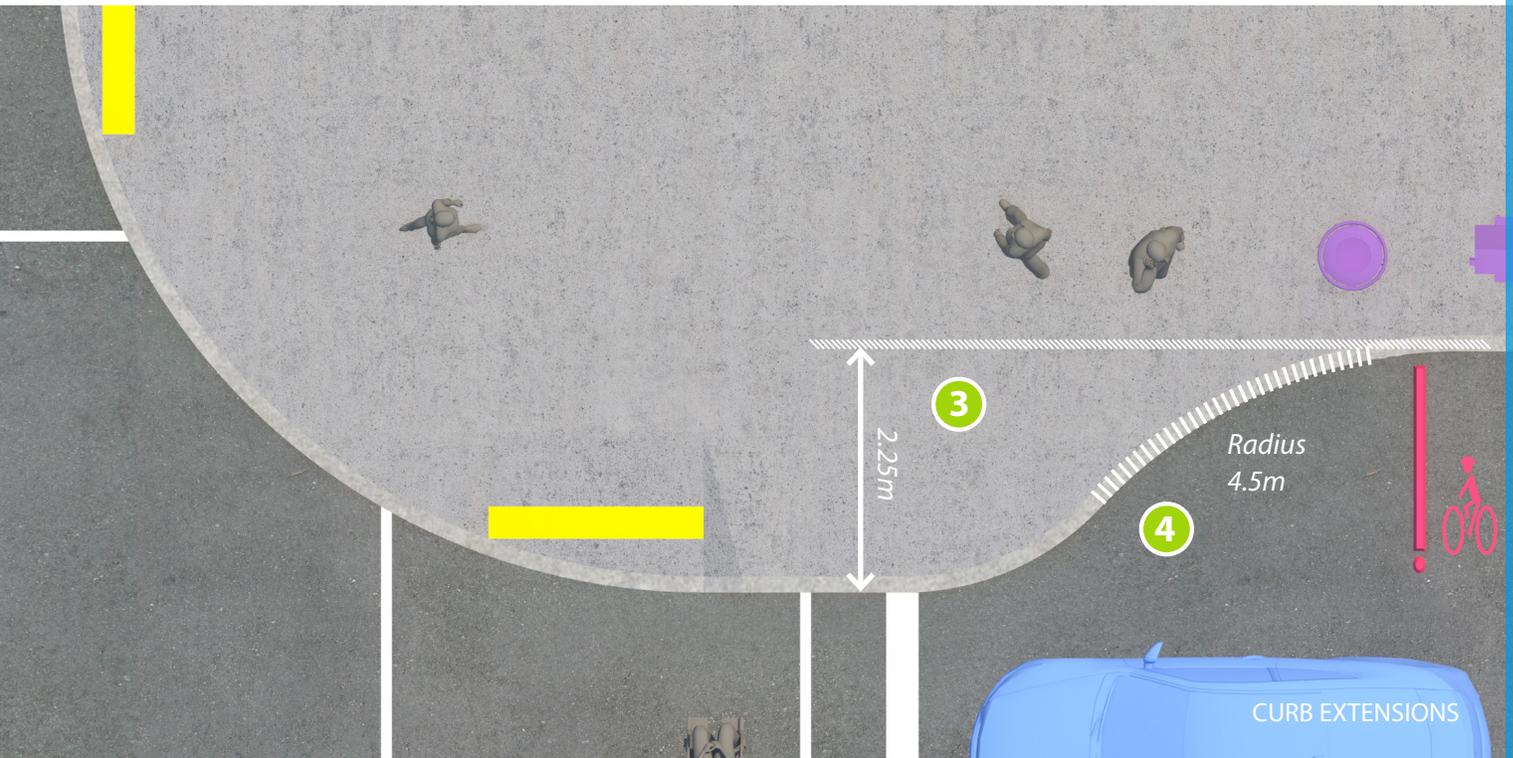
#### Requirements

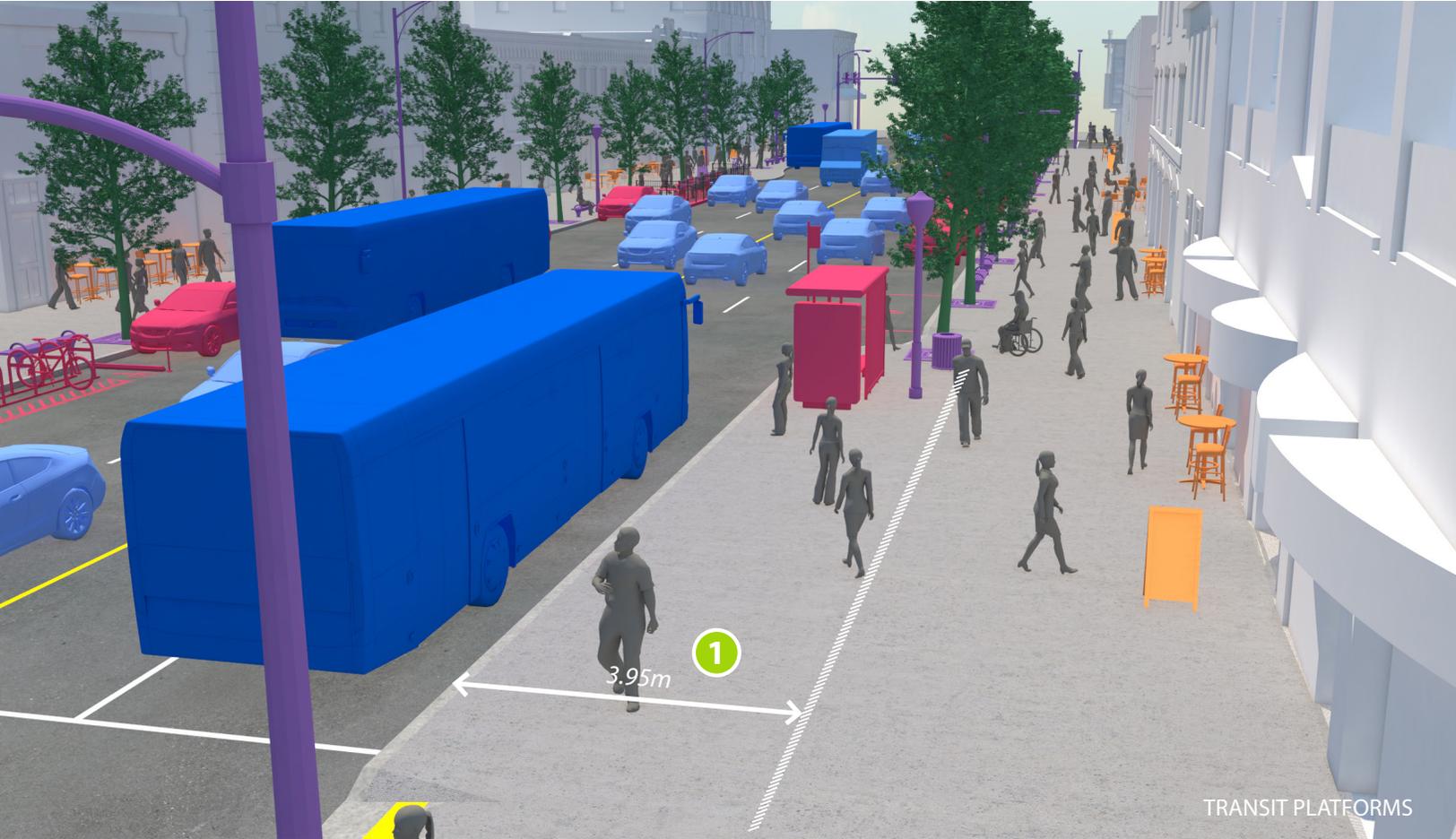
- 3 Curb extensions are typically 2.25m in width (measured from face of curb which allows for a 3.45m travel lane adjacent to the curb) and at least 6.0m long.
- 4 A radius of 4.5m allows street sweeping and snow removal equipment to navigate the inside curves of the curb extension.

Curb extensions can also be spaces to locate traffic signal poles, bicycle parking, newspaper boxes, benches, on-street pay parking stations, and other uses such as bio-swales. The placement of these types of street furniture must consider intersection sightlines.

#### Other References

More information on curb extensions can be found in Section 4.2.2 of the Edmonton Complete Streets Guidelines.





### 3.5.5 Transit Platforms

#### Description

Transit platforms are enhanced transit stops that are incorporated with a longer curb extension. Transit platforms provide additional passenger space for waiting, loading, and unloading, provide space for additional or expanded amenities, and improve Main Street transit service reliability by removing the need to merge back into traffic after picking up or dropping off passengers.

#### Requirements

Transit platforms can accommodate additional stop amenities due to the increased space available.

- 1 If provided, Main Streets can accommodate a transit platform width of 3.95m (2.25m from the ancillary zone and 1.7m from the furnishing zone). This width allows various enhanced transit stop amenities to be included (e.g., benches, information kiosks, bicycle parking, larger transit shelters, etc.) [see also guidance on [Transit Stops](#)].

If a Main Street design includes one travel lane in each direction, consideration should be given to constructing near-side transit stops to improve sightlines for pedestrians at intersections.

#### Other References

More information on transit stop locations, accessibility, and amenities can be found in Sections 4.4.1 and 4.4.2 of the Edmonton Complete Streets Guidelines.

### 3.5.6 Boardwalks

#### Description

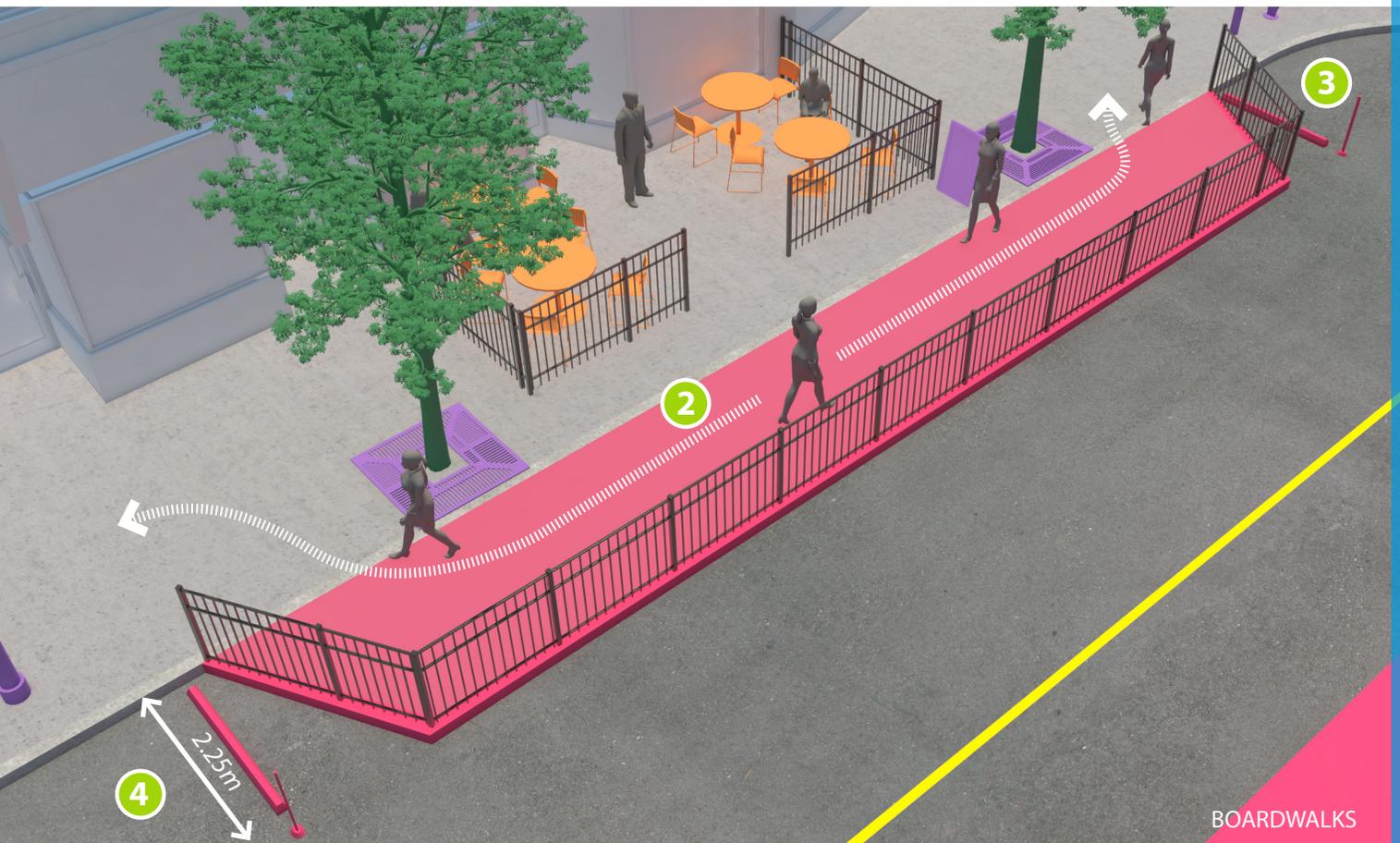
**2** Boardwalks are temporary or permanent walking platforms that route pedestrians through the ancillary zone and connect to the pedestrian through zone via the furnishing zone. Boardwalks can be used along Main Streets to provide an expanded and/or diverted pedestrian through zone in constrained locations or where food and beverage establishments serve alcohol requiring their patio to be attached to the building.

#### Requirements

When provided, boardwalks should include a flush transition from the curb to avoid tripping hazards.

**3** Boardwalks include curb stops and flex posts with reflective tape at each end, a wood surface, and railing around the boardwalk.

**4** Boardwalks are typically 2.25m wide (measured from face of curb) while their length varies by location. The design of the boardwalk structure should not impede surface stormwater drainage from flowing along the street underneath the boardwalk. Boardwalks are typically temporary elements that are installed during warmer months. Year-round boardwalks will require additional considerations for maintenance and snow clearing.



BOARDWALKS



### 3.5.7 Parklets & Patios

#### Description

- 1 Parklets are small scale public parks while
- 2 Patios are typically associated with an adjacent business. Parklets and patios are located in the flexible space provided by the ancillary zone and provide additional public congregating space along Main Streets to support them as destinations and places for people.

#### Requirements

Parklets and patios can be temporary or permanent structures and should include a flush transition from the curb to avoid tripping hazards or, in the case of parklets, may include ramps to

transition from the sidewalk to the street. Parklets may, and patios typically, include a wood surface and railing around their edge (i.e., along the edge between the ancillary zone and travelled way) and may also include curb stops and flex posts with reflective tape at each end. For some temporary installations, the surface may be the asphalt or paving material of the ancillary zone. Seating and tables or other street furniture (e.g., flower pots) can be added to parklets and patios.

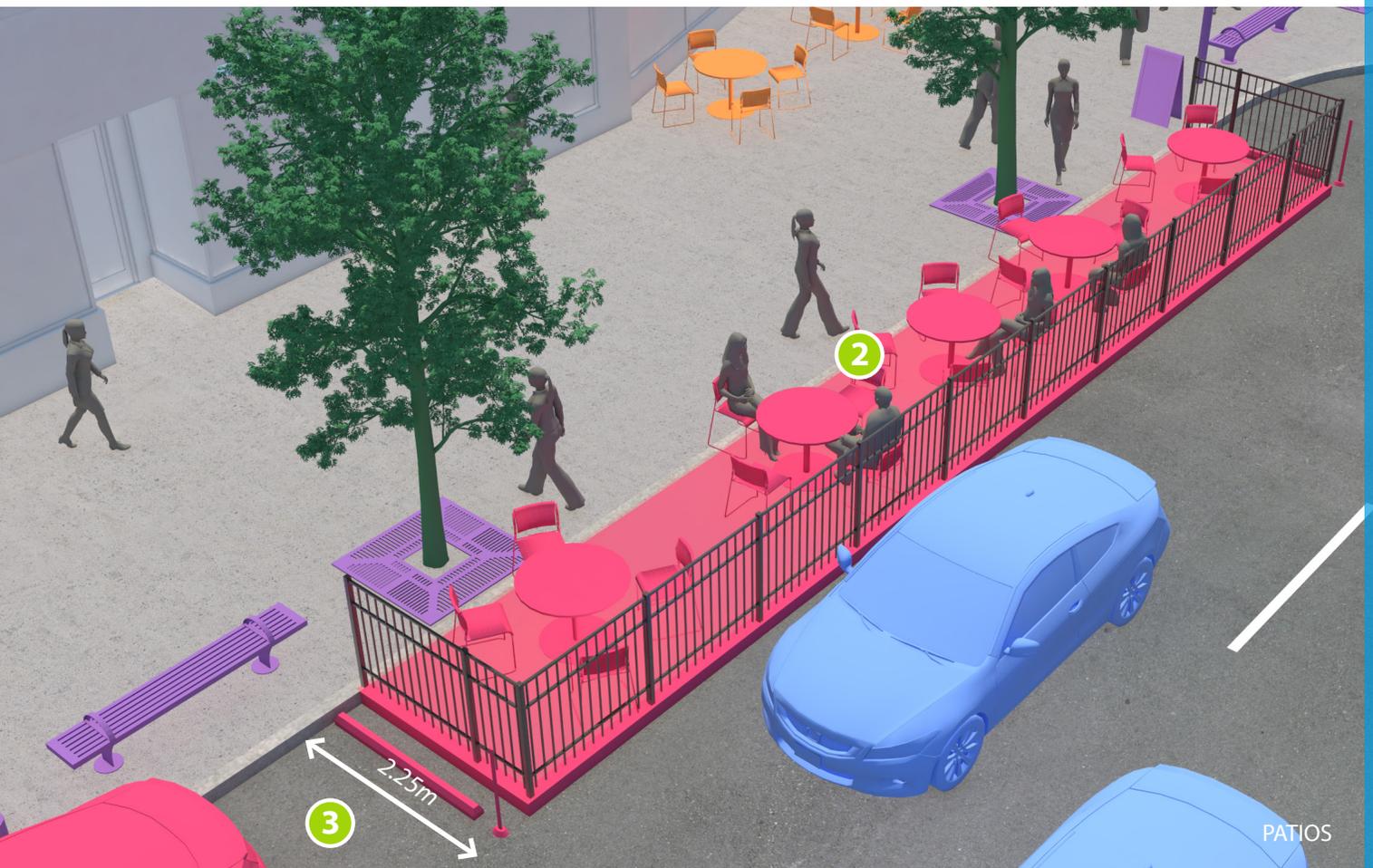
- 3 Parklets and patios are typically 2.25m wide (measured from face of curb) while their length varies by location. The design of a parklet or patio structure should not impede surface stormwater drainage from flowing along the

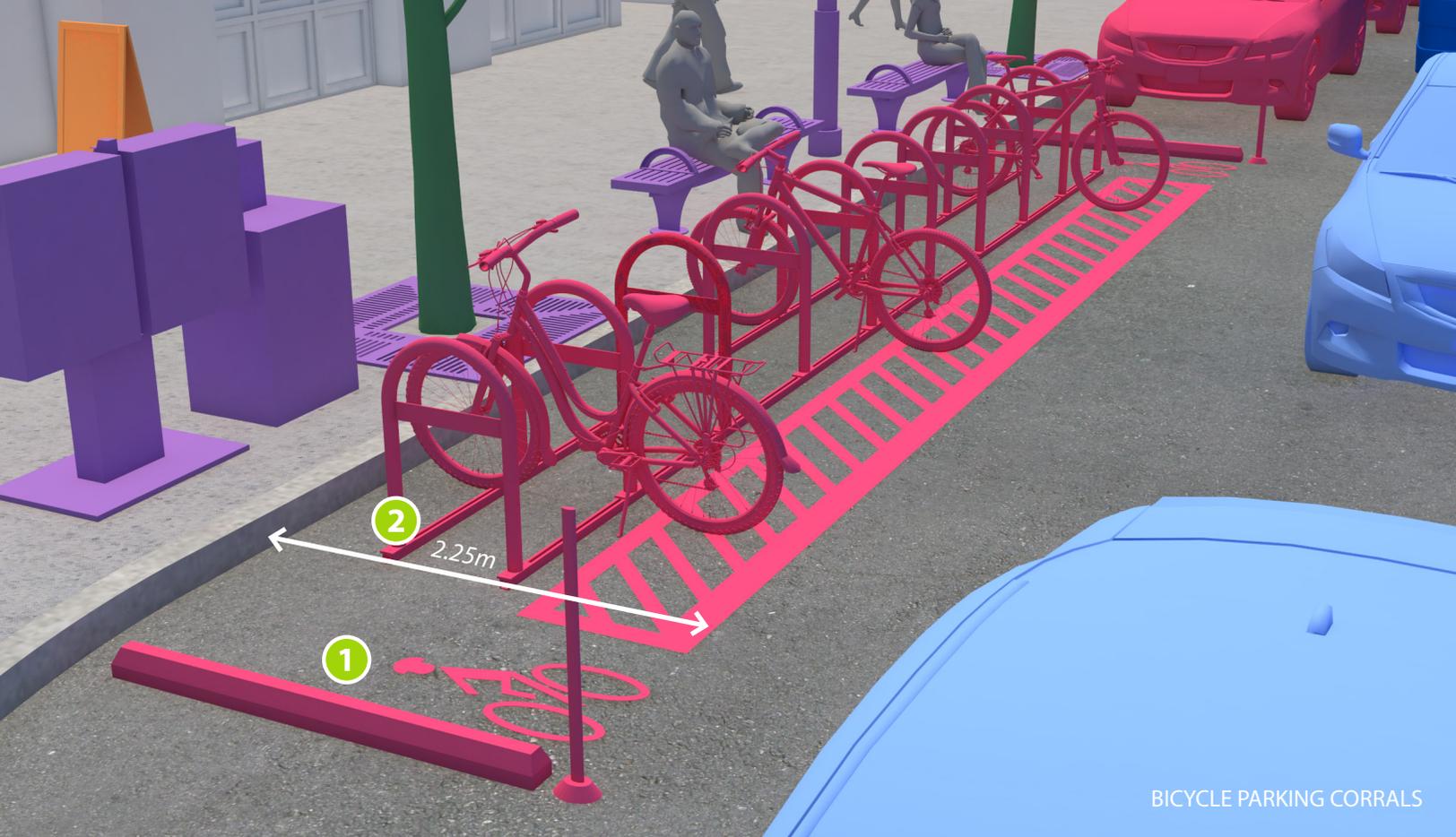
street underneath the parklet or patio. For year-round installations, further considerations related to snow clearing and street sweeping need to be incorporated into the design including the material selection.

The design of each parklet or patio can be distinct to reflect the unique character of the Main Street and, in the case of patios, the adjacent business associated with the patio.

### Other References

The 2013 NACTO Urban Street Design Guide includes additional information on the planning and design of parklets and patios (page 77).





BICYCLE PARKING CORRALS

### 3.5.8 Bicycle Parking Corrals

#### Description

Bicycle parking corrals are arrangements of bicycle parking located in the ancillary zone. Bicycle parking corrals support access to Main Street businesses by more people while increasing safety for pedestrians by removing parked bicycles from the furnishing zone, decreasing encroachment of parked bicycles into the pedestrian through zone, and improving sightlines at intersections.

#### Requirements

Bicycle parking corrals can be temporary or permanent and typically replace one or two motor vehicle parking stalls with bicycle parking, providing 16 bicycle parking spaces in the space of 2 motor vehicle parking spaces. Bicycle corrals are typically located near intersections to increase their access to multiple bicycle routes.

- 1 Bicycle corrals should include areas allowing people to pull into and dismount from their bicycles within the corral.
- 2 The location of the rack should ensure that the rear of parked bicycles extend up to 2.25m from the face of curb.

## 3.6 TRAVELLED WAY GUIDELINES

### 3.6.1 Design Speed

#### Description

Design speed is the speed selected as a basis to establish appropriate geometric design elements for a particular section of road. The speed of motor vehicles operating along a Main Street impacts the comfort and safety of pedestrians and, as such, lower design speeds are more supportive in the creation of people places.

## Requirements

Main Streets have design speeds no greater than their posted speeds (i.e., speed limits). The maximum design speed for Main Streets is 50 km/hr. During peak periods, operating speeds will likely be lower than the posted speed due to congestion.

## Other References

More information on speed management and road safety can be found in the engineering section of the City of Edmonton's Vision Zero: Edmonton Road Safety Strategy.

### 3.6.2 Lane Widths

#### Description

Lane widths represent the width of general purpose travel lanes that are used by motor vehicles, goods movement vehicles, and transit and can also be used by people riding bicycles. Lane widths have significant effects on the perception and behaviour of all users and, as such, Main Street lane widths are selected to encourage lower vehicle speeds and create pedestrian oriented places while supporting transit service.

## Requirements

Main Streets have narrow general purpose travel lanes to support lower operating speeds and increase safety. The following lane widths are used for Main Streets to create a place for people and support the mobility link function of the street. Lane widths are measured to the face of curb, lane marking, or parking lane:

- Adjacent to a curb: 3.45m (to accommodate transit and goods movement and prevent driving on the gutter)
- Adjacent to parking: 3.2m
- Non-curbside lanes (left turn bays, inside lanes when more than one through lane): 3.05m

## Other References

More information on lane widths can be found in Section 4.1.1 Roadway Design, Travel Lanes and Lane Widths of the Edmonton Complete Streets Guidelines.

The recommended lane widths are also based on existing widths along many of Edmonton's Main Streets.



### 3.6.3 Number of Lanes

#### Description

The number of general purpose travel lanes determines the motor vehicle carrying capacity of a street. For Main Streets, the number of through lanes and turn lanes impact pedestrian safety and comfort, and the ability to create a people place. Main Streets are pedestrian priority areas and the traffic carrying function of Main Streets is not a parameter to be maximized.

#### Requirements

- 1 The default number of general purpose travel through lanes is one in each direction as a starting point. Some Main Streets (i.e., those with 30m+ rights of way) may require an additional through lane in each direction to appropriately serve the necessary mobility link function; however, additional through lanes need to take

into account that Main Streets are congested during peak hour operations and should not be widened to achieve high levels of service (LOS) for motor vehicles [see also guidance on [Traffic Operations](#)].

- 2 The maximum number of through lanes is four (i.e., two in each direction).

Turning movements at intersections, particularly intersections with major streets, should be reviewed to determine whether left turn bays may be required. Like the review of the number of through lanes, the review of left turn bay requirements should be based on the expectation of congested peak hour operations [see also guidance on [Traffic Operations](#)].

Right turn bays and channelized right turn bays should not be included along Main Streets. Right turns for motor vehicles will be accommodated in the curbside lane.

### 3.6.4 Corner Radii

#### Description

A corner radius is constructed to connect the curbs along two intersecting streets. For Main Streets, smaller corner radii are preferable to increase pedestrian comfort and safety by reducing pedestrian crossing distances, reducing motor vehicle turning speeds, and increasing the available pedestrian queuing area.

#### Requirements

Corner radii should be based on the effective turning radius (i.e., the actual travelled path of a turning vehicle) of the largest frequent vehicle type maneuvering a right turn at an intersection corner. The vehicle used for designing the corner radii of Main Streets will be a Medium Single Unit Truck (MSU: 10m length, 2.6m width) with a turning speed of 5 km/hr. At Main Street intersections with major streets, a transit bus (BU-12) may be required as the design vehicle depending on transit volumes and operations. In these circumstances, encroachment into non-curb-side lanes on the street the bus is turning onto will be included in the evaluation of the effective turning radii and the resulting corner radii.

The encroachment should not extend into opposing traffic lanes unless an advanced stop bar is used to shift the opposing stopped motor vehicles away from the intersection.

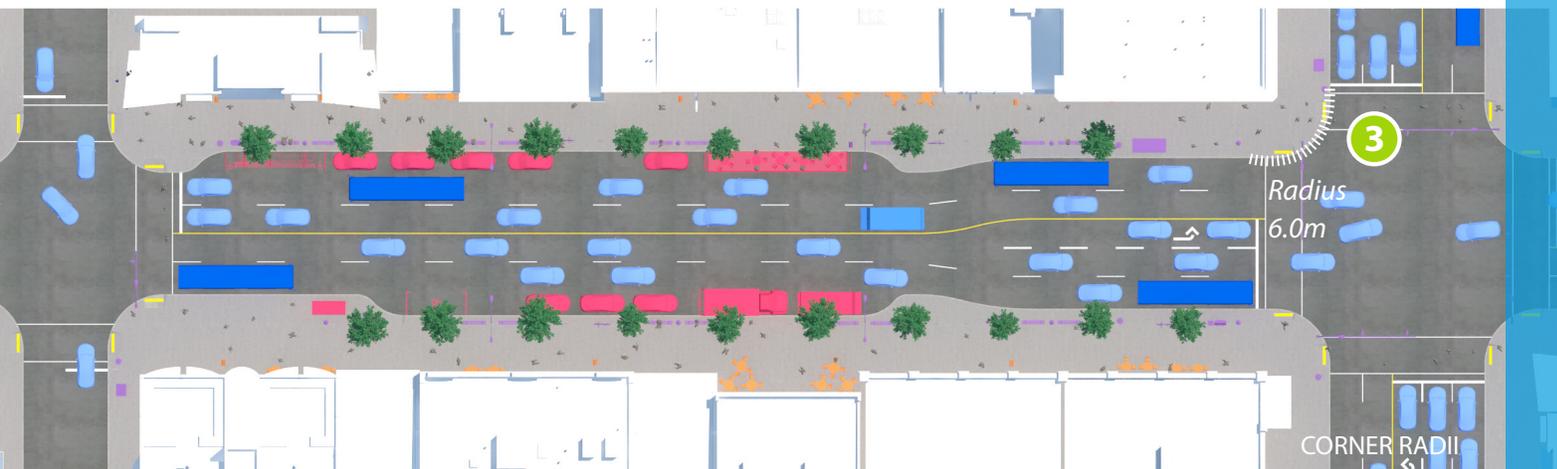
- 3 Based on a review of turning movements and the effective turning radii, corner radii of 6.0m can likely be provided in most cases, and in all cases, corner radii along Main Streets should not exceed 10m. The minimum radius based on turning requirements of snow clearing equipment is 4.5m.

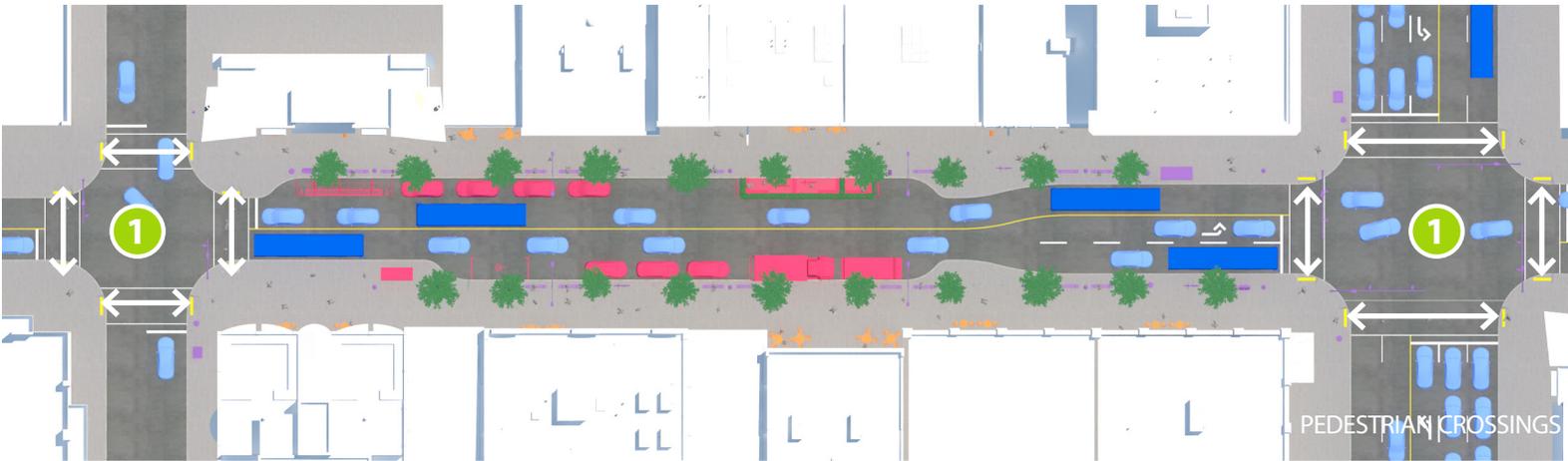
#### Other References

More information on corner and effective turning radii can be found in Section 4.2.4 of the Edmonton Complete Streets Guidelines.

The City of Toronto Curb Radii Guidelines (January, 2015) provides additional information and evaluation of corner and effective turning radii requirements.

The NACTO Urban Street Design Guide also includes additional information on corner radii and illustrations for advanced stop bars (pages 117 to 119).





### 3.6.5 Pedestrian Crossings

#### Description

Pedestrian crossings are locations marked with signs, pavement markings, and/or traffic control devices to explicitly define right of way for people walking across the travelled way from one side of a street to the other. The design and location of Main Street pedestrian crossings need to be based on providing safe and frequent crossings for the high numbers of people walking along them.

#### Requirements

- 1 Main Streets are designed to generate pedestrian travel to the many destinations along both sides of the streets and should be designed to support pedestrian crossings at every intersection and at every leg of each intersection. The design of pedestrian crossings should incorporate curb ramps with tactile walking surface indicators at each crossing [see also guidance on [Accessibility & Universal Design](#)].

The Main Streets Guideline outlines a number of design elements that, when included, reduce people's exposure to moving motor vehicles while crossing a Main Street and the streets that intersect the Main Street [see also guidance on [Main Streets Design Process, Number of Lanes, Lane Widths, Corner Radii, Curb Extensions](#)]. These design elements contribute to the safety and comfort of Main Street pedestrian crossings by reducing the distances pedestrians travel to cross a street, specifically the travelled way.

The pedestrian crossing distance of major streets that intersect Main Streets will be controlled by the same design elements used to improve the safety of pedestrians crossing a Main Street.

For intersections of minor streets and Main Streets, pedestrian crossing distances of 9.0m are common and should be considered the maximum. The minimum crossing distance should be 6.5m to accommodate access and turning movements onto the minor street by fire and rescue services and garbage trucks.

In addition to these design elements, pedestrian crossings can include signs, pavement markings, tactile walking surface indicators, and traffic or pedestrian signals to further support the safe and comfortable crossing of Main Streets. Using these traffic controls explicitly define pedestrian right of way at Main Street intersections (and midblock).

The evaluation of traffic controls needs to take into account current and future motor vehicle volumes, pedestrian volumes, and pedestrian desire lines. Traffic signals or pedestrian signals may be warranted at all intersections along a Main Street to accommodate the demands for people to cross the street and to increase their safety while doing so. Traffic or pedestrian signal poles and/or overhead signs should be located in the furnishing or ancillary zones and should include street lighting to increase illumination of the pedestrian crossings [see also guidance on [Traffic Operations, Traffic & Pedestrian Signal Timing, and Street & Pedestrian Lighting](#)].

### 3.6.6 Transit Lanes

#### Description

Transit lanes are vehicle lanes that are reserved through pavement markings and/or signs for the exclusive use of transit vehicles (and can include taxis and bicycles) during peak hours or throughout the day. Providing transit lanes along Main Streets, typically for peak hour operation, can increase the reliability and service efficiency of transit.

#### Requirements

Transit lanes can be provided along Main Streets in the curb lane during peak periods or for all hours. If an ancillary zone is provided, the transit lane will be located between the ancillary zone and general purpose travel lanes for motor vehicles. Where an ancillary zone is not provided, the transit lane will be located against the curb and adjacent to the furnishing zone and typically is in operation during peak hours while being used for parking, loading, and deliveries in non-peak periods. Curbside transit lanes are 3.45m in width (measured to the face of curb) or 3.2m (measured to the edge of parking spaces). In addition to signs, transit lanes can also be designated through the use of red coloured asphalt or pavement markings.

## 3.7 OPERATION & MAINTENANCE GUIDELINES

### 3.7.1 Traffic Operations

#### Description

Traffic operations includes the traffic controls, traffic signal timing, and lane configuration (i.e., number of lanes, provision of turn lanes, etc.) and the analysis of travel along a street in terms of level of service (LOS; a function of delay) and the ratio of traffic volume to capacity (v/c ratio).

#### Requirements

Traffic operations along Main Streets may be congested during peak travel periods and may be congested during non-peak periods. The design of Main Streets, including traffic operations, is optimized for pedestrians rather than prioritizing traffic capacity for commuter peak periods.

The design of Main Streets as people places requires the acceptance of peak hour motor vehicle LOS of F and v/c ratios of 1.0. To maintain the mobility link function of Main Streets during peak periods, turn restrictions at minor intersections may be considered.

### 3.7.2 Traffic & Pedestrian Signal Timing

#### Description

Signal timings for traffic and pedestrian signals control the amount of time provided to a particular direction of travel and/or mode of travel over the course of a given period of time and can be coordinated at one intersection with intersections located before and after it. The design of signal timings for Main Streets can be used to facilitate walking.

#### Requirements

The design of Main Street traffic signals, including signal timing, should be based on prioritizing pedestrian movement. Traffic signals designed with short cycles minimize delay for pedestrians caused by waiting for the signal to change. This design approach better serves pedestrian travel and access to destinations on both sides of Edmonton's Main Streets. This may require signal timing that is not based on nor maximizes motor vehicle progression [see also guidance on *Traffic Operations*]. Other signal phasing options could be considered along Main Streets including pedestrian scrambles [see also guidance on *Accessibility & Universal Design and Pedestrian Crossings*].

### 3.7.3 Transit Priority Measures

#### Description

Transit priority measures are strategies used to decrease transit operating delays and/or improve travel time reliability, particularly for transit services in mixed traffic. The reliability of transit is an important factor to supporting the accessibility of Main Streets.

## Requirements

Transit priority measures can include traffic signal priority, transit activated signals, and transit queue jumps [see also guidance on [Transit Lanes](#)]. Transit queue jumps can be located in the ancillary zone or travelled way depending on the design of the street.

## Other References

Transit Priority Measures are further described in Section 4.4.3 of the Edmonton Complete Streets Guidelines.

### 3.7.4 Winter Operations & Snow Clearing

#### Description

Streets require maintenance in all seasons to allow people to use them and access the destinations they serve. For Main Streets, street sweeping in the spring, summer, and fall and snow clearing and removal in winter are critical elements to support access of Main Streets in all seasons for people of all ages and abilities and arriving in a variety of modes.

#### Requirements

Existing practice along many of Edmonton's Main Streets is for an enhanced snow clearing and removal standard for the travelled way and ancillary zone (if provided) where snow is stored temporarily as a windrow in the centre of the street before removal. This practice is recommended for all Main Streets due to the significant curbside activity that occurs along Main Streets including loading/unloading and parking.

The snow clearing of the frontage, pedestrian through, and furnishing zones is facilitated through the design of these zones. By appropriately spacing street furniture and using hard surfacing for these zones, snow clearing can be facilitated using a combination of shovels and/or mechanical equipment. Snow is typically cleared onto the ancillary zone and/or travelled way by the adjacent property owners and then further plowed and removed along with the snow from those zones.

## Other Requirements

The Winter City Design Guideline provides additional considerations and ideas to enhance the winter experience of Edmonton and its streets.

### 3.7.5 Routine Repairs

#### Description

Routine repairs occur when there is minor damage to surface infrastructure along a street or when underground infrastructure is renewed and the surface infrastructure is removed and replaced as a result. The materials that are used to replace the surface infrastructure impact the continuity of the design and possibly the function of Main Streets.

#### Requirements

Routine repairs of Main Streets, including underground repairs, should be completed such that the surface and replacement materials are the same as those used prior to the repair. For example, using asphalt as a repair material for concrete or paver stone sidewalks is not acceptable. Winter repairs for utility breaks, for example, could be completed with asphalt as a temporary measure only, that would then be replaced to the enhanced standard in the spring/summer.

### 3.7.6 Business Associations

#### Description

Business Associations are created by the business community with the support of the City of Edmonton along a street or within an area to support the operation of Business Revitalization Zones.

#### Requirements

While not every Main Street currently has or requires a Business Association, the City will facilitate Main Street businesses to create Business Associations, if desired, and support existing or new Business Associations in programming and operating Main Streets including initiatives such as overhead street illumination, seasonal street decorations, and hosting festivals/events.

## Other References

Edmonton City Policy C462B outlines the policy for establishing and operating a business revitalization zone.

### 3.7.7 Community Organizations

#### Description

Community organizations exist throughout Edmonton and can represent a specific neighbourhood, a geographic area, a specific topic of interest, an event, an activity, and for others reasons or purposes.

#### Requirements

The City will support community organizations with resources, such as community building staff (e.g., community recreation coordinators), and/or other supports to allow these organizations to contribute to the vibrancy and programming of Main Streets.

### 3.7.8 Programming

#### Description

Programming is an opportunity to enhance and maximize the use of space by providing activities in spaces within the public right of way along Main Streets.

#### Requirements

Programming can be undertaken by the City of Edmonton, Business Associations, and Community Organizations in partnership or individually to add events and activities to Main Streets. Programming can occur in any of the Main Street Design Zones, including the travelled way, and can occur in all seasons and at all times of day for all ages and abilities.

## 3.8 RENEWAL & FUNDING

### 3.8.1 Enhanced Renewal

#### Description

Renewal is the design and construction process by which existing infrastructure is replaced with new infrastructure to correct deficiencies in quality, functionality, or performance. Renewal construction projects can provide an opportune time to use the Main Streets Design Process and implement Main Street enhancements.

#### Requirements

Implementing enhanced Main Street designs should occur at the time of roadway renewal. Main Streets should not be renewed as “like for like” projects unless the existing design of a Main Street has already gone through the Main Streets design process and the context and conditions of the street have not changed since the existing design was constructed.

Main Street enhancements can also be implemented as a separate design and construction process if renewal work is not scheduled in the near future and changes to the street design are a priority.

The roadway renewal design process may also include coordination and consideration of land use and urban design analysis for the adjacent lands along the Main Street and the properties along intersecting streets.

### 3.8.2 Funding & Implementation

Main Street Funding Programs and Implementation Plans will be developed in 2016.



# 4.0 MAIN STREETS EXAMPLES

4.1	20.1m Right Of Way	40
4.2	23.1m Right Of Way	43
4.3	30.4m Right Of Way	46

The following provides three examples for Main Streets in Edmonton that were prepared based on the Main Streets Principles, Design Parameters, Design Process, and Design Toolkit.

The examples include the following rights of way:

- 20.1m: Streets in Edmonton with this public right of way width include 118 Avenue and Stony Plain Road.
- 23.1m: Streets in Edmonton generally with this public right of way width include 124 Street (23.1m with segments of 20.1m) and 107 Avenue (24.3m).
- 30.4m: Streets in Edmonton with this public right of way width include Whyte Avenue and Jasper Avenue.

## 4.1 20.1m RIGHT OF WAY

The 20.1m right of way represents an example of a constrained Main Street in Edmonton based on 118 Avenue from 82 to 97 Streets. The example design includes the following design elements:

- One lane in each direction for motor vehicles (3.2m in width, 3.45m when next to curbs to accommodate the gutter)
- A left turn bay for motor vehicles at the major intersection
- Transit operating in mixed traffic
- Ancillary Zones of 2.5m on both sides of the street. Elements incorporated include:
  - Curb Extensions
  - Transit Platform
  - Accessible Parking
  - Motor Vehicle Parking
  - Goods and Delivery Loading Zones
  - Bicycle Parking Corral
  - Boardwalk
- Hard surfaced Furnishing Zones of 1.7m on both sides of the street including the following elements:
  - Street trees (with soil cells)
  - Street and Pedestrian Lighting
  - Transit Stop and Shelter
  - Street furniture (benches, waste receptacles, traffic signal poles at major and minor intersections, bicycle parking)
  - Utilities (hydrants, traffic signal controllers)
- Pedestrian Through Zones at reduced widths (2.65m) on both sides and curb ramps with high visibility tactile walking surface indicators
- Frontage Zones are provided on private property through setbacks of buildings within the adjacent lands (and in combination with an Ancillary Zone boardwalk)



20.1 m STREET VIEW



20.1 m PEDESTRIAN VIEW



20.1 m PLAN VIEW

Based on the 20.1m Main Streets design, the allocation of space for each Design Zone was analyzed to compare the Main Streets design to the existing conditions. The following series of tables provide the analysis and show the reduction in the proportion of space allocated to the Travelled Way.

#### Allocation of Space for 20.1m Main Street Example – Midblock

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	6.6m	33%	0m	68%
Pedestrian Through Zone			5.3m	
Furnishing Zone			3.4m	
Ancillary Zone			5.0m	
Travelled Way	13.5m	67%	6.4m	32%

#### Allocation of Space for 20.1m Main Street Example – Minor Intersection

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	6.6m	33%	0m	66%
Pedestrian Through Zone			5.3m	
Furnishing Zone			3.4m	
Ancillary Zone			4.5m	
Travelled Way	13.5m	67%	6.9m	34%

#### Allocation of Space for 20.1m Main Street Example – Major Intersection

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	4.3m	21%	0m	50%
Pedestrian Through Zone			5.3m	
Furnishing Zone			4.8m	
Ancillary Zone			0m	
Travelled Way	15.8m	79%	10.0m	50%

## 4.2 23.1m RIGHT OF WAY

The 23.1m right of way represents an example of a medium width Main Street in Edmonton based on 124 Street from Jasper Avenue to 107 Avenue. The example design includes the following design elements:

- One lane in each direction for motor vehicles (3.2m in width, 3.45m when next to curbs to accommodate the gutter)
- A left turn bay for motor vehicles at the major intersection
- Transit operating in mixed traffic
- Ancillary Zones of 2.5m on both sides of the street. Elements incorporated include:
  - Curb Extensions
  - Transit Platform
  - Accessible Parking
  - Motor Vehicle Parking
  - Goods and Delivery Loading Zones
  - Bicycle Parking Corral
  - Parklet
- Furnishing Zones of 1.7m on both sides of the street including the following elements:
  - Street trees (with soil cells)
  - Street and Pedestrian Lighting
  - Transit Stop and Shelter
  - Street furniture (benches, waste receptacles, traffic signal poles at major and minor intersections, bicycle parking)
  - Utilities (hydrants, traffic signal controllers)
- Pedestrian Through Zones of 2.95m on both sides (slightly reduced width from the desired minimum) and curb ramps with high visibility tactile walking surface indicators
- Frontage Zones of 1.2m on both sides of the street that are wide enough for tables and seating for two as well as retail display tables



Based on the 23.1m Main Streets design, the allocation of space for each Design Zone was analyzed to compare the Main Streets design to the existing conditions. The following series of tables provide the analysis and show the reduction in the proportion of space allocated to the Travelled Way.

### Allocation of Space for 23.1m Main Street Example – Midblock

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	7.9m	34%	2.4m	72%
Pedestrian Through Zone			5.9m	
Furnishing Zone			3.4m	
Ancillary Zone			0m	
Travelled Way	15.2m	66%	6.4m	28%

### Allocation of Space for 23.1m Main Street Example – Minor Intersection

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	7.9m	34%	2.4m	70%
Pedestrian Through Zone			5.9m	
Furnishing Zone			3.4m	
Ancillary Zone			0m	
Travelled Way	15.2m	66%	6.9m	30%

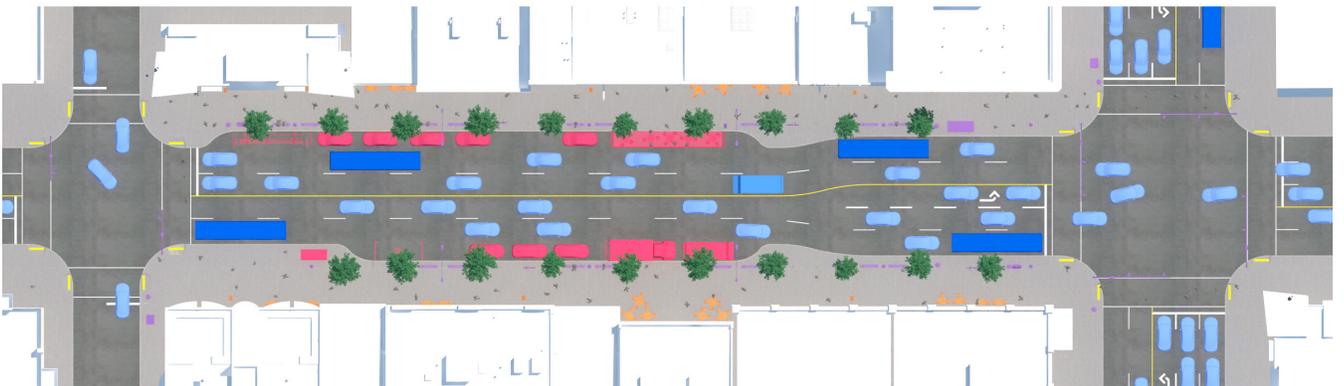
### Allocation of Space for 23.1m Main Street Example – Major Intersection

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	6.6m	29%	2.4m	57%
Pedestrian Through Zone			5.9m	
Furnishing Zone			4.8m	
Ancillary Zone			0m	
Travelled Way	16.5m	71%	10.0m	43%

### 4.3 30.4m RIGHT OF WAY

The 30.4m right of way represents an example of a wider Main Street in Edmonton based on Jasper Avenue from 97 Street to 124 Street. The example design includes the following design elements:

- Two lanes in each direction for motor vehicles (3.2m wide lanes when adjacent to parking, 3.45m wide when next to curbs to accommodate the gutter, 3.05m wide non-curbside lanes)
- A left turn bay for motor vehicles at the major intersection
- Transit operating in mixed traffic
- Ancillary zones of 2.5m on both sides of the street. Elements incorporated include:
  - Curb Extensions
  - Transit Platform
  - Accessible Parking
  - Motor Vehicle Parking
  - Goods and Delivery Loading Zones
  - Bicycle Parking Corral
  - Patio
- Furnishing zones of 1.7m on both sides of the street including the following elements:
  - Street trees (with soil cells)
  - Street and Pedestrian Lighting
  - Transit Stop and Shelter
  - Street furniture (benches, waste receptacles, traffic signal poles at major and minor intersections, bicycle parking)
  - Utilities (hydrants, traffic signal controllers)
- Pedestrian through zones at 3.0m on both sides and curb ramps with high visibility tactile walking surface indicators
- Frontage Zones of 1.75m on both sides of the street that are wide enough for tables and seating for four



Based on the 30.4m Main Streets design, the allocation of space for each Design Zone was analyzed to compare the Main Streets design to the existing conditions. The following series of tables provide the analysis and show the reduction in the proportion of space allocated to the Travelled Way.

#### Allocation of Space for 30.4m Main Street Example – Midblock

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	8.4m	28%	3.5m	59%
Pedestrian Through Zone			6.0m	
Furnishing Zone			3.4m	
Ancillary Zone			5.0m	
Travelled Way	22.0m	72%	12.5m	41%

#### Allocation of Space for 30.4m Main Street Example – Minor Intersection

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	8.4m	28%	3.5m	57%
Pedestrian Through Zone			6.0m	
Furnishing Zone			3.4m	
Ancillary Zone			4.5m	
Travelled Way	22.0m	72%	13.0m	43%

#### Allocation of Space for 30.4m Main Street Example – Major Intersection

Design Zone	Existing Width (Total)	Proportion of Public Right of Way – Existing	Main Street Width (Total)	Proportion of Public Right of Way – Main Street
Frontage Zone	8.4m	28%	3.5m	47%
Pedestrian Through Zone			6.0m	
Furnishing Zone			4.8m	
Ancillary Zone			0m	
Travelled Way	22.0m	72%	16.1m	53%

# Edmonton Main Streets **Guideline**

Prepared for the **City of Edmonton**

Prepared by Stantec Consulting Ltd.

