



Downtown & The Quarters Downtown

Streetscape Design Manual

GREEN & WALKABLE

JANUARY, 2019

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About this Manual

The streets form an essential part of the public realm in Downtown and The Quarters Downtown. Since the adoption of The Quarters Downtown Area Redevelopment Plan in 2009 and the Capital City Downtown Plan in 2010, there has been a significant reinvestment in the Downtown. This Green & Walkable Downtown Street Design Manual has been developed to provide design guidance to those making decisions related to the design of Downtown Edmonton streets, including City staff, policymakers and private parties.

The Manual contains three sections of design guidance:

- the Street Typology and Street Types, or system for categorizing rights-of-way, and further organizes streets into distinct cross-sectional zones;
- the Design Zone Recommendations, which provides direction on placement and organization of streetscape elements;
- and Character Areas & Streetscape Elements, a collection of streetscape furnishings and materials approved for use based on distinct Character Areas within Downtown and The Quarters Downtown.

The mandate of the Green + Walkable Downtown Street Design Manual is to establish design guidelines that will promote a sustainable,

cohesive, and pedestrian-friendly public realm in order to enhance the identity of Downtown, The Quarters Downtown, and their respective neighbourhoods, increase functions for street-front retail, patios, and other public realm amenities, create predictability for adjacent private improvements to the sidewalks, and balance the aesthetics and pedestrian amenity with maintenance and cost efficiency. While the Manual is intended to provide direction on elements found within the pedestrian realm, such as street furniture, utilities, planting and paving, as well as mobility elements including sidewalk and crosswalk specifications, it also addresses elements found elsewhere in the right-of-way that impact the character and functionality of the street for pedestrians and other users.

It is recommended this Manual be reviewed every five years to confirm consistency with other Policy, Standards, and Guidelines; incorporate lessons learned; confirm availability of recommended streetscape elements; and respond to changing design practices and technologies.

The design direction contained within the Manual is intended to provide clear direction on the design requirements for the improvement of streetscapes in Downtown and The Quarters Downtown.

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1.0

Introduction

Purpose and Applicability

This Manual is developed in response to the need to create a reference tool that describes the design requirements and streetscape elements for the streets in Downtown and The Quarters Downtown.

The Manual is necessary to:

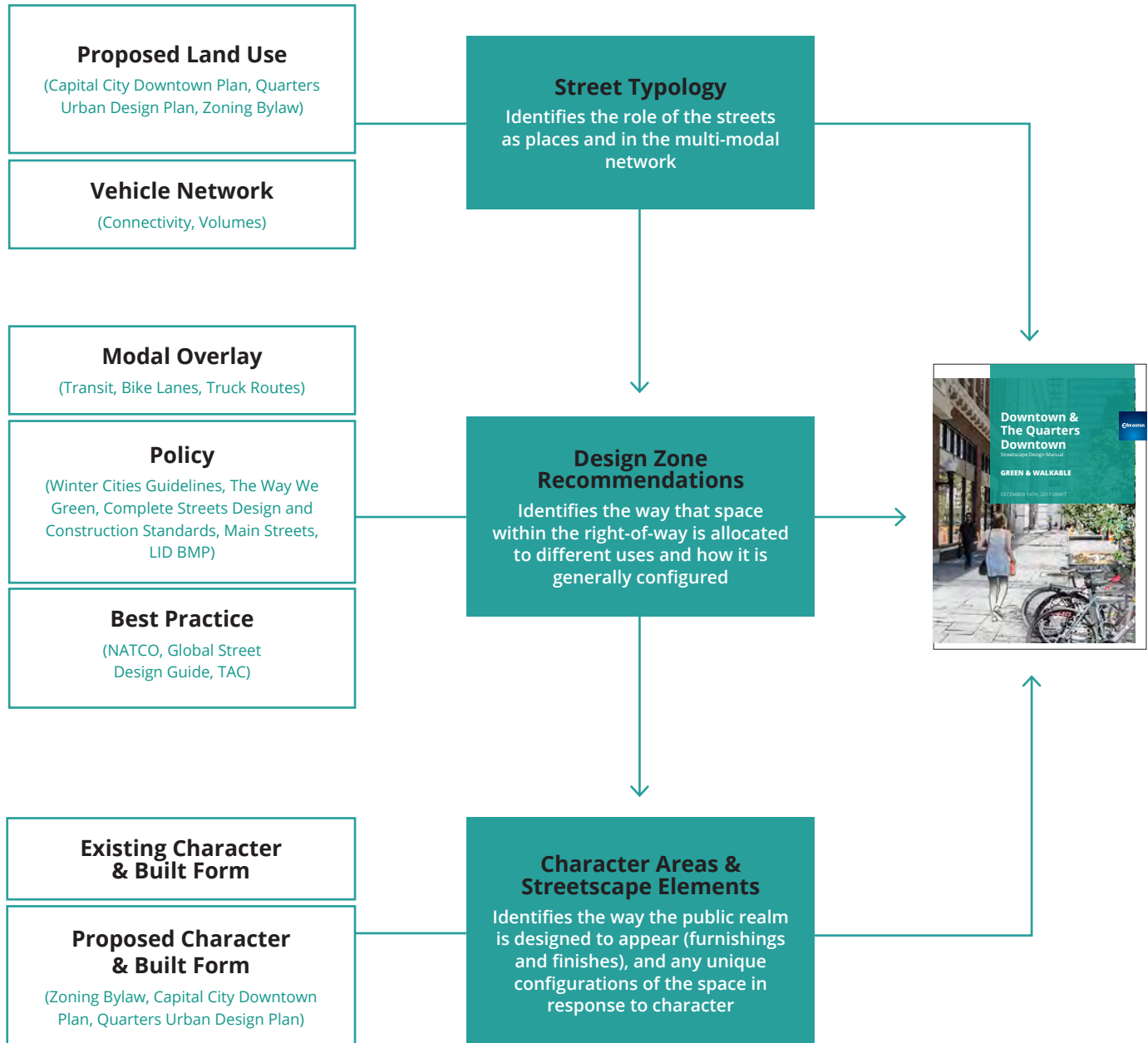
- Establish a clear hierarchy for the streets in Downtown and the Quarters through the creation of a street typology;
- Provide long-term clarity on the vision of public realm and character areas in Downtown and The Quarters Downtown;
- Address procurement and maintenance challenges by optimizing the quantity and variety of streetscape elements being implemented;
- Create predictable outcomes for street design by establishing a set of standard design requirements and streetscape elements;
- Create predictable expectations for developers and the public to support downtown investments;
- Develop recommendations that balance utility, function, aesthetics, pedestrian amenity, constructibility, ease of procurement, durability, maintainability, and cost.

The range of materials and furnishings are optimized to the identified suite of elements that are readily available to service and maintain. This is to offer clarity for operation, maintenance, affordability, and procurement.

DEVELOPMENT OF STREETScape TYPOLOGY AND MANUAL

Over an eighteen month period between 2016 - 2018, the Streetscape Typology & Manual was prepared through an extensive consultation process consisting of meetings with internal and external stakeholders and two public information sessions. Input from this engagement

process directly influenced the recommendations in the Manual. The basis of the Manual is derived from numerous City policies and best practice research. The graphic below illustrates the inclusion and reference to the various applicable City policies.



ALIGNMENT WITH CITY PLANS AND GUIDELINES

This Manual is designed to both build upon and address gaps in other City of Edmonton plans, guidelines, and policies that direct roadway design, transportation modes, planning, and urban design in the study area. The Downtown Streetscape Design Manual project began with a general inventory and analysis of the entire study area and a review of the existing documents and master plans guiding development in the study area. A number of City of Edmonton documents informed the project objectives and street typology, including:

- The Capital City Downtown Plan (Bylaw 15200);
- The Capital City Downtown Community Revitalization Levy Plan;
- The Quarters Downtown Area Redevelopment Plan and Urban Design Guidelines;
- The Quarters Downtown Community Revitalization Levy Plan;
- The Way We Move Transportation Master Plan;
- Complete Streets Design and Construction Standards (CSDCS);
- Main Streets Guidelines;
- Downtown Bike Network;
- Winter City Design Guidelines;
- Light Efficient Community Policy;
- Draft Creative Lighting Master Plan;
- The Way We Green Environmental Strategic Plan;
- Low Impact Development;
- Best Management Practices Design Guide;
- Access Design Guide 2017;
- Pedestrian Wayfinding Design Standard;
- Breathe: Edmonton Green Network Strategy;
- Downtown Public Places Plan.

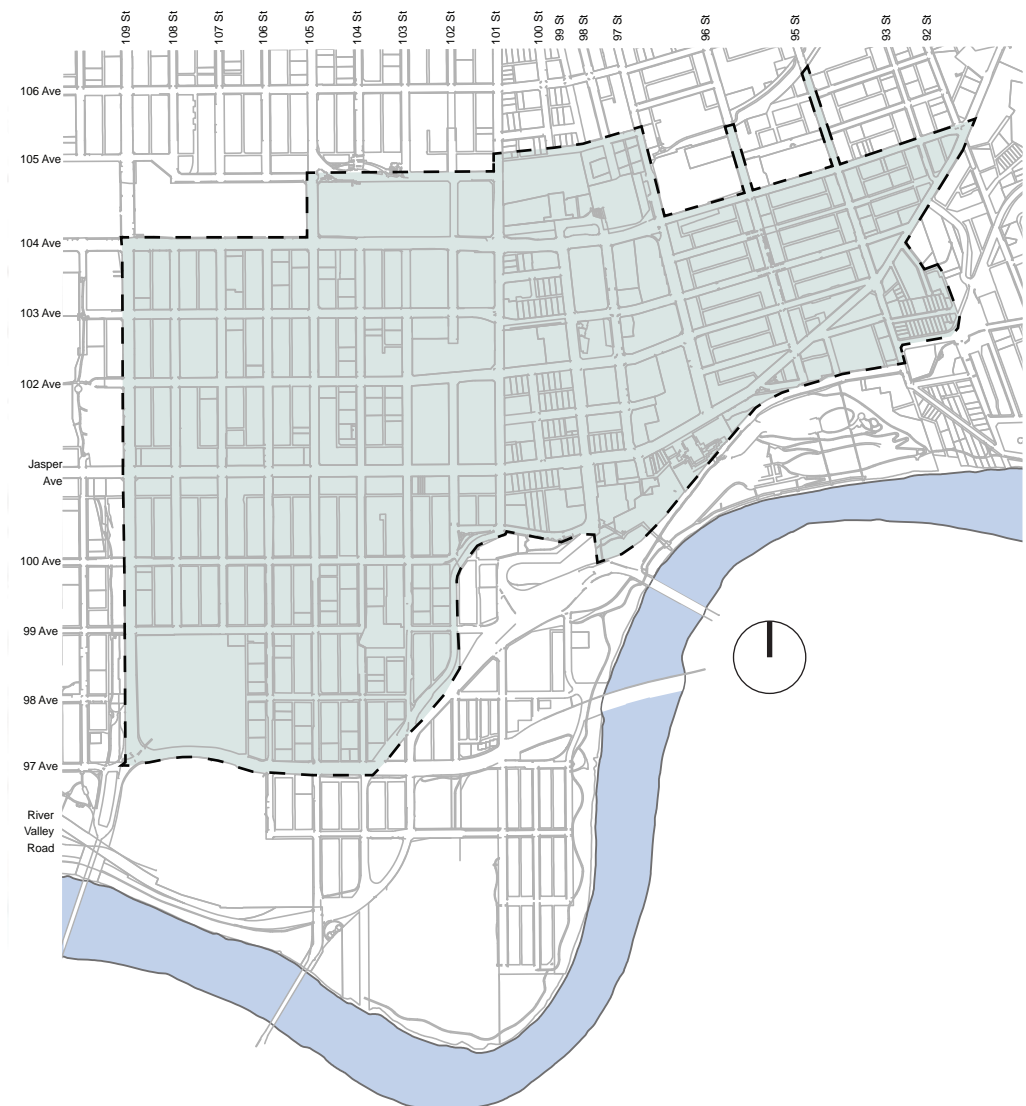
In particular, this Manual is designed to advance planning initiatives identified in Downtown from the Quarters Downtown Area Redevelopment Plan and Capital City Downtown Plan onward. The Capital City Downtown Plan identified “green and walkable” streets as a catalyst project for Downtown redevelopment, and the Capital City Downtown Community Revitalization Levy provided funding for streetscape improvements. In recent years, a series of planning efforts including the Quarters Downtown Urban Design Plan have addressed elements of street design within subareas of Downtown, but no set of policies are yet developed that seek to create a cohesive identity for Downtown as a whole. Additionally, custom streetscapes implemented previously, over a period of decades, have resulted in a wide variety of unique treatments on streets including Jasper Avenue, Heritage Trail, Rice Howard Way, Capital Boulevard, and other prominent streetscapes.

Most recently, new street design standards have been developed for the City as a whole – the Main Streets Guideline, and Complete Streets Design and Construction Standards. These standards do not offer specific guidance for Downtown streets, with their unique contexts and resulting character. This Manual proposes strategies specific to the streets of Downtown and the Quarters Downtown.

Design Manual Area

The Design Manual area boundaries are those boundaries identified by the Downtown and The Quarters Downtown Area Redevelopment Plans, and loosely defined as 92 Street to 109 Street and 97 Avenue to 104 Avenue. Streets that received recent improvements or are part of planned improvements – 96 Street (The Armature between Jasper Avenue and 103A Avenue), 104 Street, 108 Street, Heritage Trail, 102 Avenue LRT corridor, 104 Avenue, Rice Howard Way, and Jasper Avenue – are not covered as part of the design recommendations, however, the design vision for these streets, as well as the description and identification of the streetscape elements, are included in the appendix of this Manual.

STREETScape MANUAL EXTENTS AREA MAP



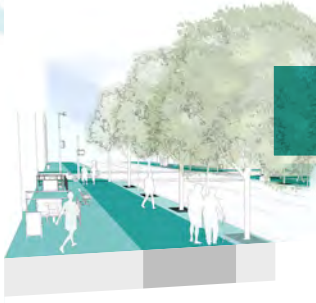
Using the Document

The Design Manual should be used in conjunction with the Complete Streets Design and Construction Standards (CSDCS). The standards defined in CSDCS take precedence over the guidelines outlined in this streetscape design Manual.



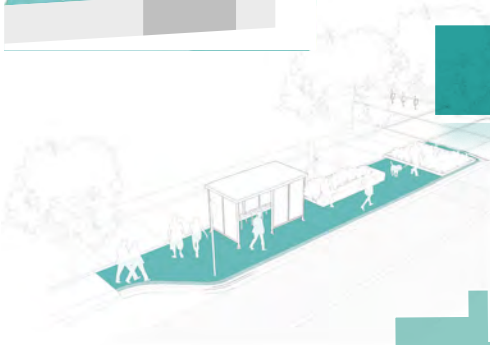
Project Initiation

- Identify scope of work and applicable guidelines and standards. Refer to section 2.0 for Goals and Guiding Principles.
- Capital Improvements (City led)
 - Development Application (Developer led)



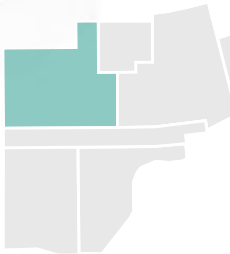
Identify Street Type

Refer to section 3.0 Street Typology to identify the street type, and section 4.0 Street Type to identify the design requirements.



Define Zones & Allocation of Space

Refer to section 5.0 Design Zone Recommendations for guidance on design for specific streetscape zones. Refer to CSDCS for additional design standards.



Identify Character Area

Refer to section 6.0 Character Areas and Street Elements to identify which character area the street is in and define material and furnishing palette to be applied.

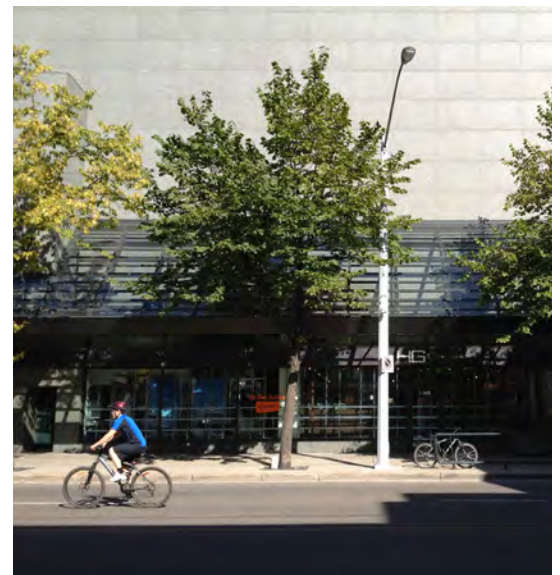


Apply Streetscape Elements

Refer to section 6.0 character areas and street elements for guidance on the specific streetscape design.

Balancing Design with Existing Conditions

Downtown streets have a number of valued existing assets that add to the pedestrian and cycling experience. Of note are mature street trees, the Downtown Bike Network, and both existing overall City and privately led streetscape improvements. Their value is to be respected and retained where feasible when applying this Manual's recommendation.



2.0

**Goals and
Guiding Principles**

Goals and Guiding Principles

One of the primary objectives of this Manual is to lay the foundation for phased improvements to the pedestrian realm. These improvements are to create the attractive environment necessary to support increased resident, worker and student populations and attract visitors and tourists to Downtown and The Quarters Downtown.

Based on the analysis of existing conditions, the lessons learned from previous downtown streetscape improvements, and engagement with stakeholders, key themes are identified and overarching goals and principles created to help guide the project. These goals inform the development of the street typology, design recommendations, and the selection of streetscape elements.

GOAL 1 Pedestrians are the priority

Guiding Principles:

- Place pedestrians above all other users as directed by the Walking and Wheeling Priority for Downtown and The Quarters Downtown defined by the Complete Streets Design and Construction Standards.
- Create streets that are convenient, safe, well-lit, well-connected, and comfortable for walking;
- Design for Universal Accessibility on all streets.
- Incorporate intersection treatments that allow for space to stand and circulate, curb ramps and marked crosswalks in all directions, and pedestrian priority signal cycles.
- Incorporate pedestrian wayfinding elements.

GOAL 2 Create a well designed public realm

Guiding Principles:

- Develop a refined and consistent streetscape quality for Downtown and The Quarters Downtown that is aesthetically pleasing, and recognizes and enhances the identified character areas.
- Provide comfortable walk widths, abundant street trees, reduced street furniture clutter, well-lit spaces, and durable materials.
- Streetscape elements will be durable, maintainable, safe, easily procured, and consist of a limited number of designs, with the option of some flexibility or uniqueness in high-profile projects.
- Select a palette of streetscape elements for use on selected streets in the Downtown and the Quarters Downtown in order to manage costs and consistency.
- Recommend design approaches and products that simplify procurement and maintenance of streetscape elements in the future.
- Contribute to the city-wide green open space network by providing trees and planting which create habitat, reduce air pollution and improve air quality.

GOAL 3

Public realm as an incentive to private investment

Guiding Principles:

- Demonstrate commitment to high quality design.
- Provide design guidance that enables a high level of operations, maintenance, and upkeep.
- Offer clarity and predictability to private developers about the character of the public realm in the different areas of Downtown and the Quarters Downtown.

GOAL 4

Streets as places

Guiding Principles:

- Create an attractive, comfortable, and inviting environment that promotes active uses and creates destinations.
- Provide opportunities for placemaking as a means to represent the different character areas, create social opportunities, recognize history, and incorporate opportunities for public art and interpretation.
- Demonstrate qualitative characteristics that are intuitively experienced by users – beauty, comfort, community, safety.
- Identify and reinforce the unique character areas within Downtown and The Quarters Downtown.

GOAL 5

Promote well-being

Guiding Principles:

- Provide safe places to walk, gather, and linger.
- Foster physical health by creating opportunities for walking in comfort through design, and by incorporating dedicated bicycle infrastructure where identified in the Bike Network plans.
- Provide mental health benefits by offering opportunities for social interaction that enable alternatives to alleviate personal isolation, through creating a dignified environment for all users.

GOAL 6

Transformative

Guiding Principles:

- Align street designs with broader City goals and policies around sustainable transportation, densification, and environmental resiliency.
- Identify opportunities to reallocate space within the right-of-way to support objectives such as safety, pedestrianization, placemaking, vibrancy, marketability.
- Respond to the intended future land uses (zoning) rather than the existing land use.

3.0

Street Typology

Typology

Proposed and desired conditions are used to establish the typology. A successful streetscape will balance the needs depending on the modal priority of the street. The typology classifies streets by surrounding context, including right-of-way width, building type, land use, and roadway travel function. Understanding the typology will assist in the selection of treatments which reflect the surrounding environment, accommodate all modes, reflect policy direction, and affect desired outcomes as complete streets.

Methodology

Best practice in development of streetscape design guidance is to examine and understand the land use, urban design context and mobility requirements of each street.

The following methodology informs the street typology for Downtown and The Quarters Downtown. It is based on research into North American best practices as articulated in streetscape Manuals, and complete streets guidelines used by a number of cities. The methodology is as follows:

Identify land use context, taking into account the current built form, zoning and projected future build-out.

Within downtown, there are both large- and small-scale residential and commercial or mixed-use areas (e.g. “Commercial Core” and “Neighbourhood” areas). There are distinct districts within downtown with different architectural and urban design characters.

Identify the role in the vehicular network, including network connectivity and current and potential future traffic volumes.

Some streets have special demands placed on them by their roles as arterials or major routes for vehicular traffic, including travel between neighbourhoods. Others have a less important role to play in providing vehicular mobility, and may be prioritized for alternate opportunities.

Combine these to form street types.

There should be a limited number of types, to enable discretion in design with an overall clarity in direction.

Develop modal priority overlays.

Selected streets may have been identified through other planning efforts or may in practice serve as important routes for travel by transit, bike or other modes. These priorities should be reflected in the design guidance for those streets.

Study Area Analysis

A number of influences define the street typology. Refer to the appendix for a complete analysis and diagrams that represent the study of the influencing factors on the development of the recommended street typology. The following section illustrates key findings in the development of the recommended typology.

Findings

Role in the Vehicular Network

Only a few downtown streets provide connections between downtown and surrounding neighbourhoods and are thus “major” streets under the City of Edmonton definition of “a major transportation route between different areas of the City”¹. These include²:

North-south streets, from east to west:

- 95 Street
- 97 Street
- 100 Street (continues as McDougall Hill Road)
- 101 Street / Bellamy Hill Road
- 105 Street
- 109 Street

East-west avenues, from north to south:

- 104 Avenue / 103A Avenue
- Jasper Avenue
- 100 Avenue
- 97 Avenue

¹ Note that despite this definition, the City defines a number of downtown streets that do not connect to surrounding areas as arterials.

² Parts of Grierson Hill and Rosssdale Road lie along the southern boundary of the study area. However, these are primarily roadways providing access to downtown rather than “downtown streets,” and they are not included in this analysis or typology.

Modal Priorities

The interim modal priority overlay for Downtown and The Quarters Downtown is defined in the Complete Streets Design and Construction Standards as having a universal Walking and Wheeling priority, to be developed as city-wide modal priority networks. Within the area, there are streets that will be High Priority Cycling Corridors (Downtown Bike Network) and High Priority Transit Corridors (Valley Line LRT, Centre LRT, Transit Strategy) as directed by those specific plans.

Land Use Context

While data on the built form of existing downtown buildings was not collected as part of the Study Area analysis, current zoning was used to provide guidance in the development of the Street Typology. While current zoning is relatively complex - a total of 14 land use categories within the downtown area - broad use categories such as “Commercial”, “Mixed-Use” and “Residential” generally align within the six Downtown neighbourhoods defined by the Capital City Downtown Plan and The Quarters Downtown Area Redevelopment Plan.

For the purposes of this Manual, the current zoning and planned future land use is defined by zoning bylaw (#12800).

Street Types

Major Streets

A number of streets are defined as “Major” given their role in road network connectivity and traffic volumes, as well as existing or planned transit facilities. Major streets have a relatively high average daily traffic (ADT) count (greater than 20,000 vehicles per day), requiring multiple general purpose vehicle travel lanes to reasonably accommodate these volumes.

Neighbourhood Streets

On other streets open to vehicular traffic, existing traffic demand can be accommodated using a single lane each way, or two lanes on one-way streets, plus turn lanes at intersections with relatively high volumes of turning movements. Many of these streets currently have multiple lanes in each direction. Both interim and longer-term guidance and minimum and preferred cross-sections have been developed.

While most “non-major” or “Neighbourhood” streets have similar mobility contexts, their land use contexts vary. The primary distinction is between streets with commercial and residential frontages, which place various different requirements on the frontage zone, pedestrian through zone, furniture and ancillary zones. Two types of “Neighbourhood” streets are identified: mixed-use streets and residential streets. While the former category is a broad one, including streets in districts with distinct urban design characteristics, there are many similarities in how elements of the streetscape should be designed.

Signature Streets Requirements

Several street segments are or are planned to be “shared” streets, or streets on which the distinction between the traveled way and other zones is partly or wholly eliminated, or are pedestrian-only streets. These streets are unique opportunities to provide signature places where the traveled way behaves as an extension of the pedestrian realm. The specific functions and allocations of space for each Signature Street is determined on a case-by-case basis through the Integrated Infrastructure Services concept design process.

Alleys

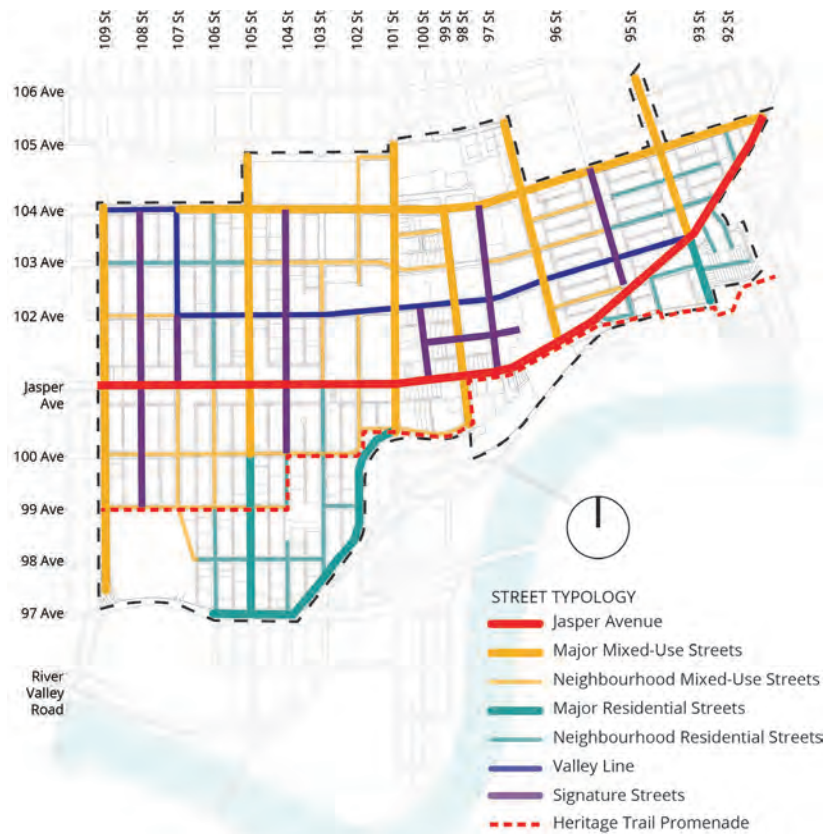
Alleys are designed primarily to provide service access to the rear of developments. These constitute a distinct type of street; in addition to providing service access, they serve as links in the pedestrian network. In some cases secondary or even primary entrances may front on an alley.

Street Typology

The downtown streets are divided into seven different types, representing the patterns of activities and land uses that define their role within the overall structure of the Downtown street network. The seven street types and the sections of the document providing relevant design guidance are:

STREET TYPE	DOCUMENT SECTION
Jasper Avenue	Appendix
Major Mixed-Use Streets	Pg. 32 - 33
Major Residential Streets	Pg. 34 - 35
Neighborhood Mixed-Use Streets	Pg. 36 - 37
Neighborhood Residential Streets	Pg. 38 - 39
Valley Line Corridor	Design for Street Pending
Signature Streets	Pg. 40 - 41 & Appendix

STREET TYPOLOGY

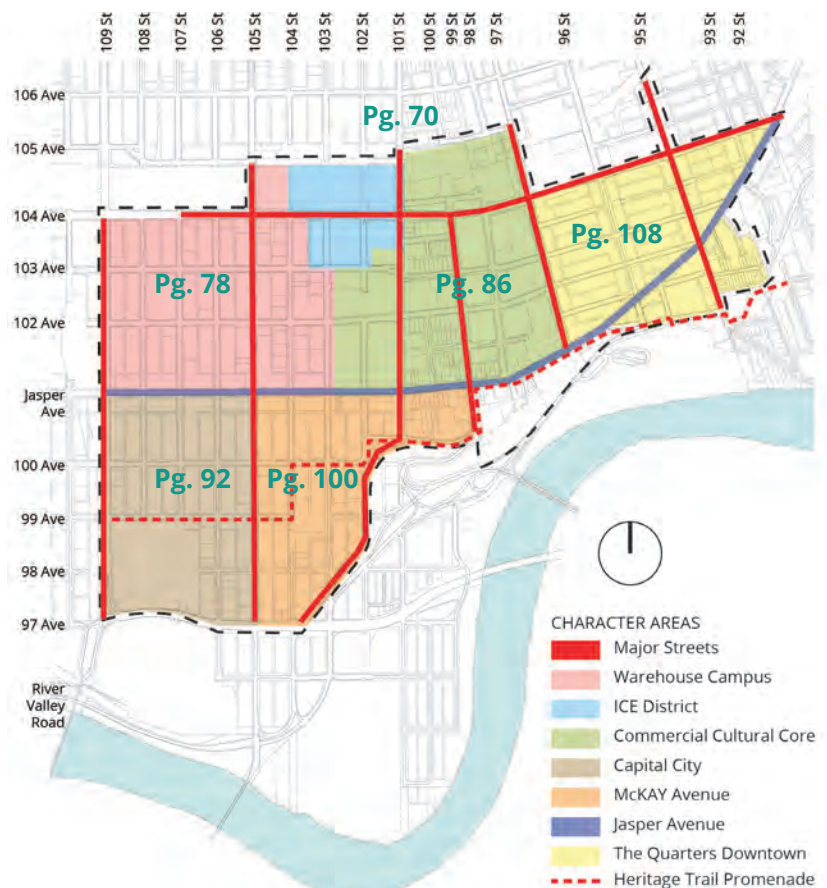


Character Areas

The Character Area boundaries do not align completely with the Neighbourhood Areas of the Capital City Downtown Plan (CCDP). However districts of this Manual are generally in conformance with its neighbourhood areas. The major streets within the Manual are proposed to be continuous in character as they pass through or beside adjoining character areas, while the neighbourhood limits defined by CCDP sometimes transition at alleys.

The exception to this is the transition between the Warehouse Campus and the Commercial Cultural Core. In this instance, 103 Street between Jasper Avenue and 104 Avenue will utilize the Warehouse Campus Streetscape elements on both sides of the street.

CHARACTER AREAS AND MAJOR STREETS



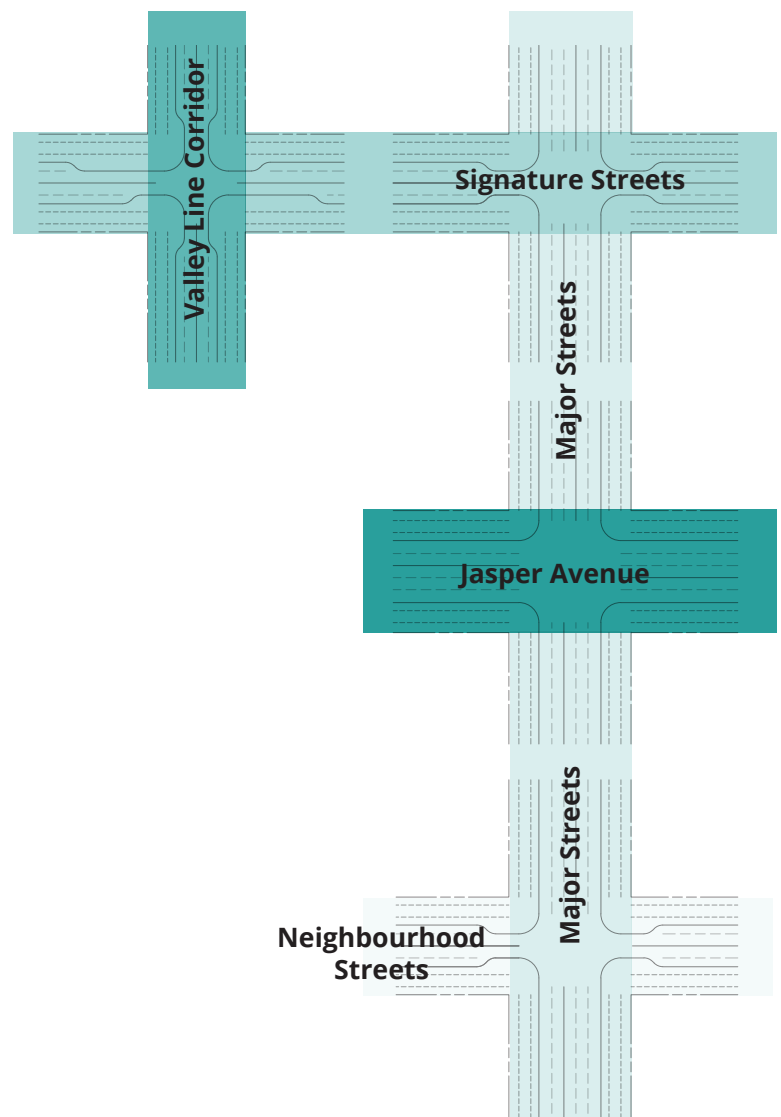
Streetscape Hierarchy

A key organizing principle of the Street Typology is the creation of the streetscape hierarchy. It prescribes the design treatment to take precedence when streets intersect. The transition is to occur at the edge of the right-of-way at each intersection.

Jasper Avenue is the exception. The first phase of Jasper Avenue New Vision (100 - 102 Street) extends the Jasper Avenue design elements to the alleys north and south of the Jasper Avenue right-of-way. The continuation of this approach is to be confirmed through the design and implementation of future phases of the Jasper Avenue New Vision.

The priority of streets within the study area is as follows:

1. **Jasper Avenue**
Edmonton's original Main Street.
2. **Valley Line Corridor**
Continuous transit corridor that crosses the city.
3. **Signature Streets**
People places that host signature events, festivals and celebrations.
4. **Major Streets**
Key links into Downtown and the Quarters. They provide bus routes and active commercial frontages.
5. **Neighbourhood Streets**
Diverse streets accommodating a wide variety of conditions and uses including cycle facilities and on-street parking.
6. **Alleys**
Connections within the grid of streets within Downtown and the Quarters. Function and character heavily influenced by the surrounding context.



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Street Types

Street Zone

While names used for zones in different places vary, and while some streets may have some but not all zones (in a few cases, streets may even be “shared spaces” with no distinct zones), the way streets are divided into functional zones by designers generally does not change from one city or neighbourhood to the next. The greatest variance is between different street types.

From property line to centerline of right-of-way, as defined by the City of Edmonton’s Complete Streets Design and Construction Standards, these zones are:

Frontage Zone

Adjacent to the property line, this space is used as a support and/or extension of the land uses along the street. Uses can include seasonal planters, ground floor retail displays, café seating, temporary signage, queuing areas, and other activities to support active use of the street by people and businesses.

Through Zone

This space provides a barrier-free area for active transportation mobility for people of all ages and abilities to access the land uses along the street.

Furnishing Zone

This space provides an area for signs, street light poles, street trees or landscaping, transit stops, and street furnishings, in addition to surface utilities. This is also the preferred location for snow storage and can be used for low impact development or overland drainage.

Ancillary Zone

Located between the Traveled Way and the Furnishing Zone, this space provides the opportunity for various permanent and temporary street uses, depending on the context and characteristics of the street. This space is typically considered “on-street”, but is not designed for through traffic of any kind. The use of this flexible space can vary between blocks and along an individual block. Uses can include vehicle parking, parklets, patios, bicycle parking, loading zones, universally designated parking, curb extensions, transit stops, and taxi stands. This space also includes the gutter, and, depending on the street design, may be used for snow storage.

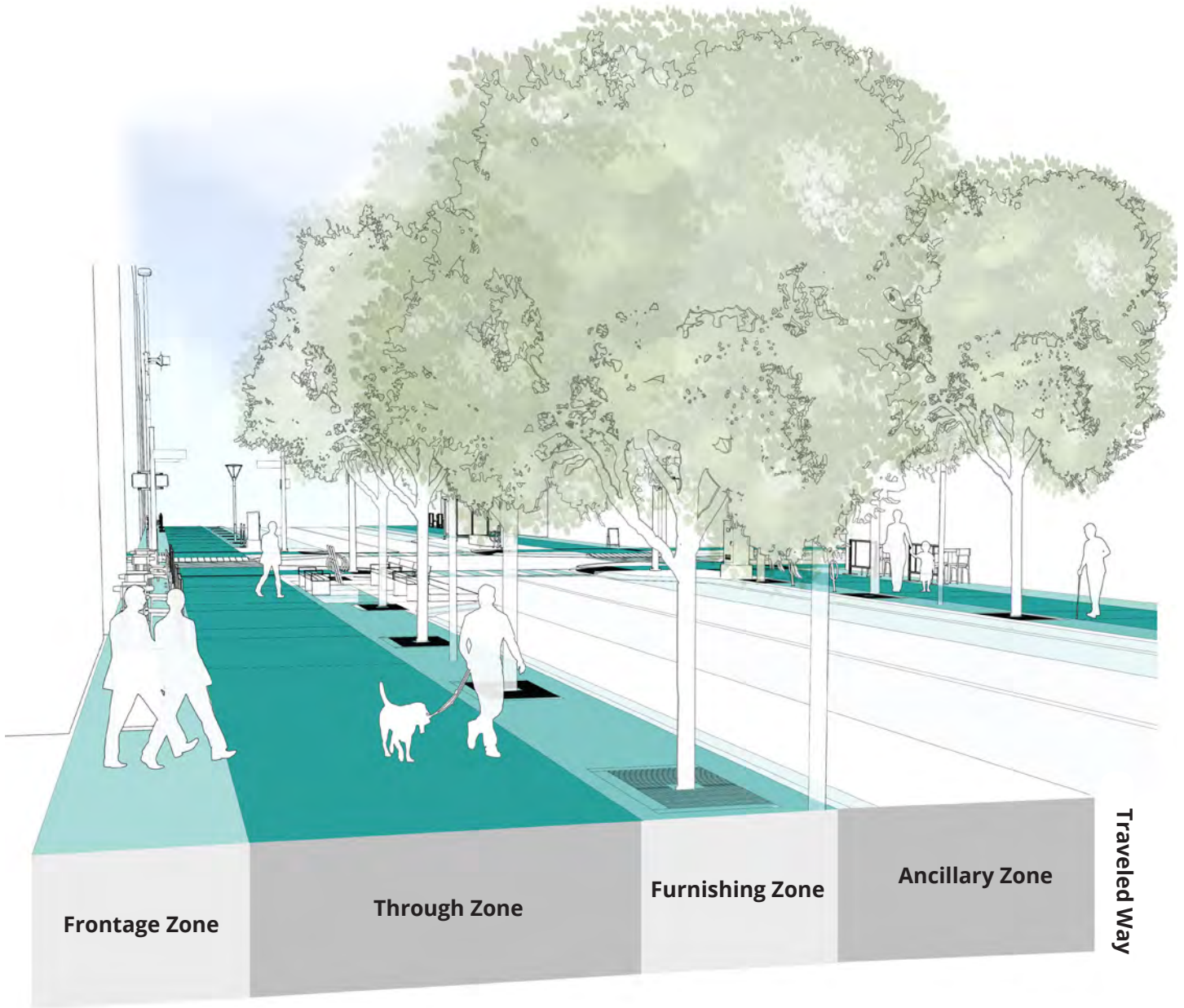
Traveled Way

This space provides an area for traveling through a street, or to access land uses along a street, for people traveling by automobile, bicycle, and transit, and for the delivery of goods. The space can include exclusive or shared/general purpose lanes for transit, motor vehicles, bicycles, and goods, and may also include centre medians or islands, refuge areas for people walking, and turning lanes. In non-peak hours, some of the traveled way may be used as an area for parking and loading, and, in some cases, can also be closed at time to motor vehicles to host events and festivals. The Traveled Way also includes space for people crossing the travel lanes.

Intersections

The area where two or more streets join or cross at-grade, including street and street side facilities for vehicular traffic and pedestrian movements. In comparison, an entrance or exit from an adjacent property (ie. driveway) is considered an access and not an intersection.

Within a single category of streets, the right-of way width may vary greatly, including narrow, constrained rights-of-way. For this reason, both minimum and target dimensions are provided for each type and zone.



Major Mixed-Use Streets

Priorities

Given the transportation requirements of the Major Streets, such as higher traffic volumes and major bus routes, specific challenges are addressed through the prioritization of the street zones.

In order to maximize pedestrian use and commercial retail activity, the Frontage Zone is prioritized over the Ancillary Zone. This allows for the passive functions of the street: cafes, patios, seating areas; to be located further away from traffic. If an ancillary zone cannot be accommodated, on-street parking may be accommodated outside of peak traffic in the curbside lane, as well as on the nearby side streets.

Constrained Locations

There are some instances, when the right-of-way is 20.12m (66 ft), where there are constraints placed upon the public realm of a Major Mixed-Use Street:

- 103A Avenue from 97 Street to Jasper Avenue
- 97 Street north of 103A Avenue
- 95 Street north of Jasper Avenue

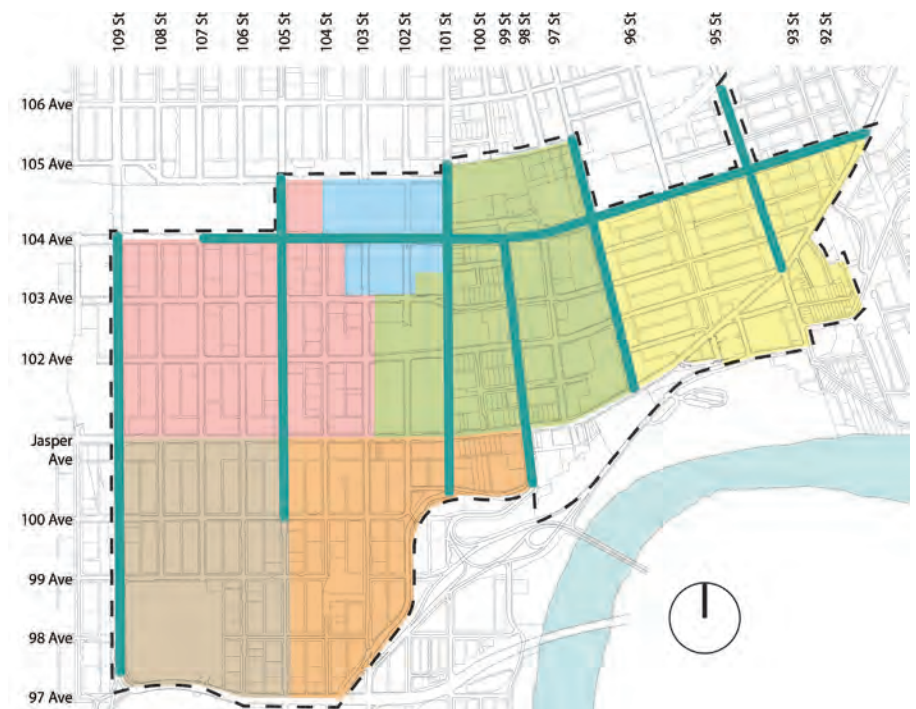
Where the public realm of a Major Mixed-Use Street is constrained, consider the following approaches:

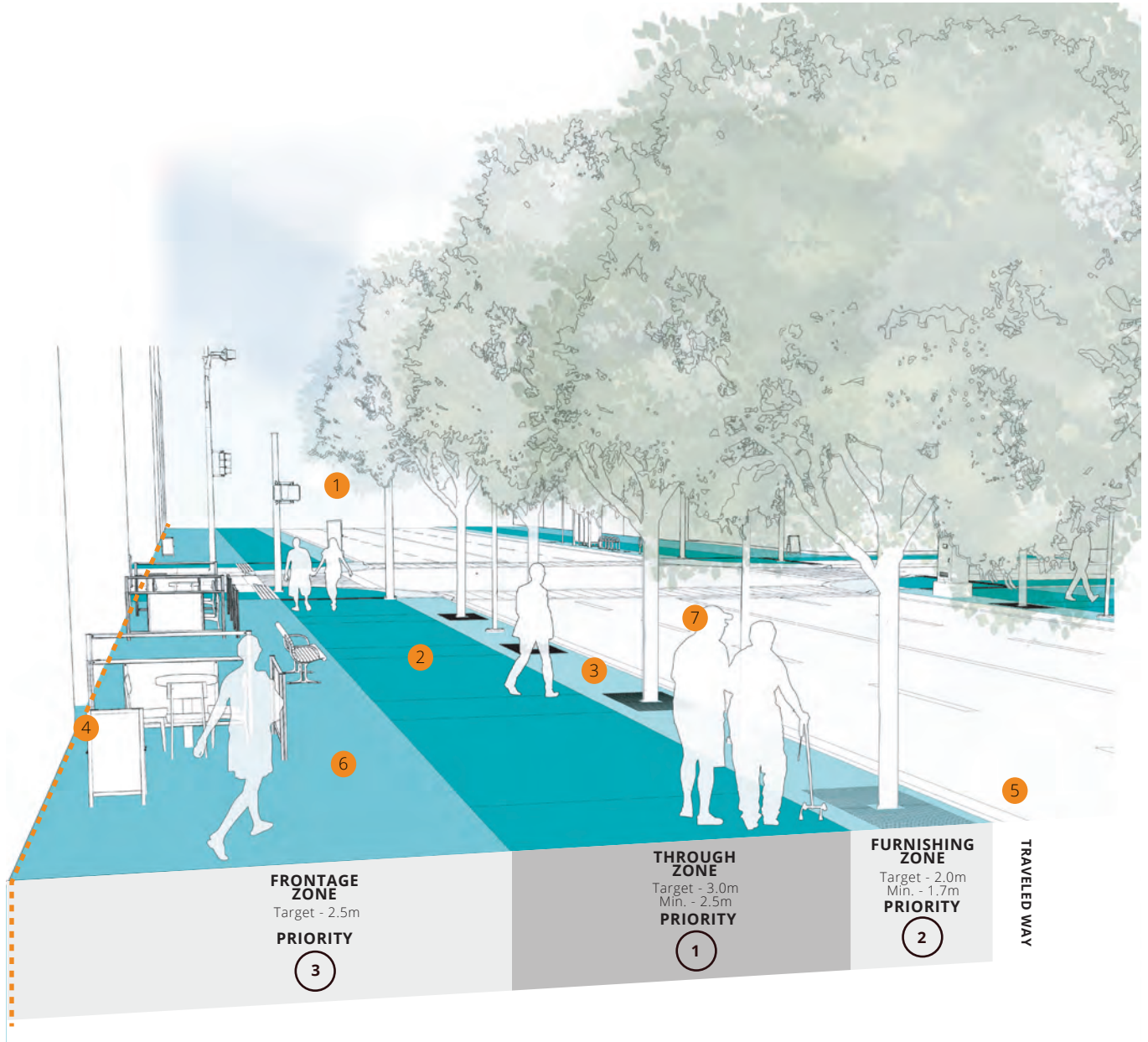
- Remove travel or turning lanes from the Traveled Way if the traffic volumes allow.
- Reduce or eliminate the Frontage Zone.
- Obtain a design exemption through the Integrated Infrastructure Services concept design process to reduce the width of the Furnishing Zone
- Reduce the width of the Through Zone.

Modal Overlays

Major Streets within the study area contain bus routes and so bus stops and other facilities will be required within the right-of-way. Specific requirements will be determined by ETS during the Concept Design process.

MAJOR MIXED-USE STREETS





Major Mixed-Use Streets are defined both by their adjacent land uses and their connection to the surrounding communities. Major Mixed-Use Streets have active ground floor uses, such as commercial / retail or office and institutional, that support an animated frontage and public realm.

These streets are characterized by:

- ① Extending and connecting with surrounding and outlying communities.
- ② A public realm with broad sidewalks and continuous tree planting.

- ③ Clear furnishing zone to buffer between through zone and vehicle zones.
- ④ Buildings that address the street with formal entrances and support activities that provide animation.
- ⑤ Up to two lanes, with turning options with left turn turning options each way. Two to three lanes each way could be considered on 109 Street and 104 Avenue.
- ⑥ Large frontage zone, where space permits, for patios and street front displays.
- ⑦ Anticipated higher pedestrian volumes.

Major Residential Streets

Priorities

Given the transportation requirements of the Major Streets, such as higher traffic volumes and major bus routes, specific challenges are addressed through the prioritization of the street zones.

In order to maximize pedestrian uses, reflect the residential character of the street and reinforce the Major Streets as gateways into Downtown and The Quarters Downtown, a Landscaped Furnishing Zone is prioritized over an Ancillary Zone. If an Ancillary Zone cannot be accommodated, on-street parking can be accommodated outside of peak traffic in the curbside lane, as well as on the nearby side streets.

Given that there are few commercial frontages on Major Residential Streets, and that most residential developments have a setback required on-site, a Frontage Zone is not considered necessary on this street type. In specific circumstances a Frontage Zone of 0.3m can be provided to accommodate utilities

Space can be taken from the Through Zone and allocated to the Landscaped Furnishing Zone if a 3.0m wide sidewalk is not required.

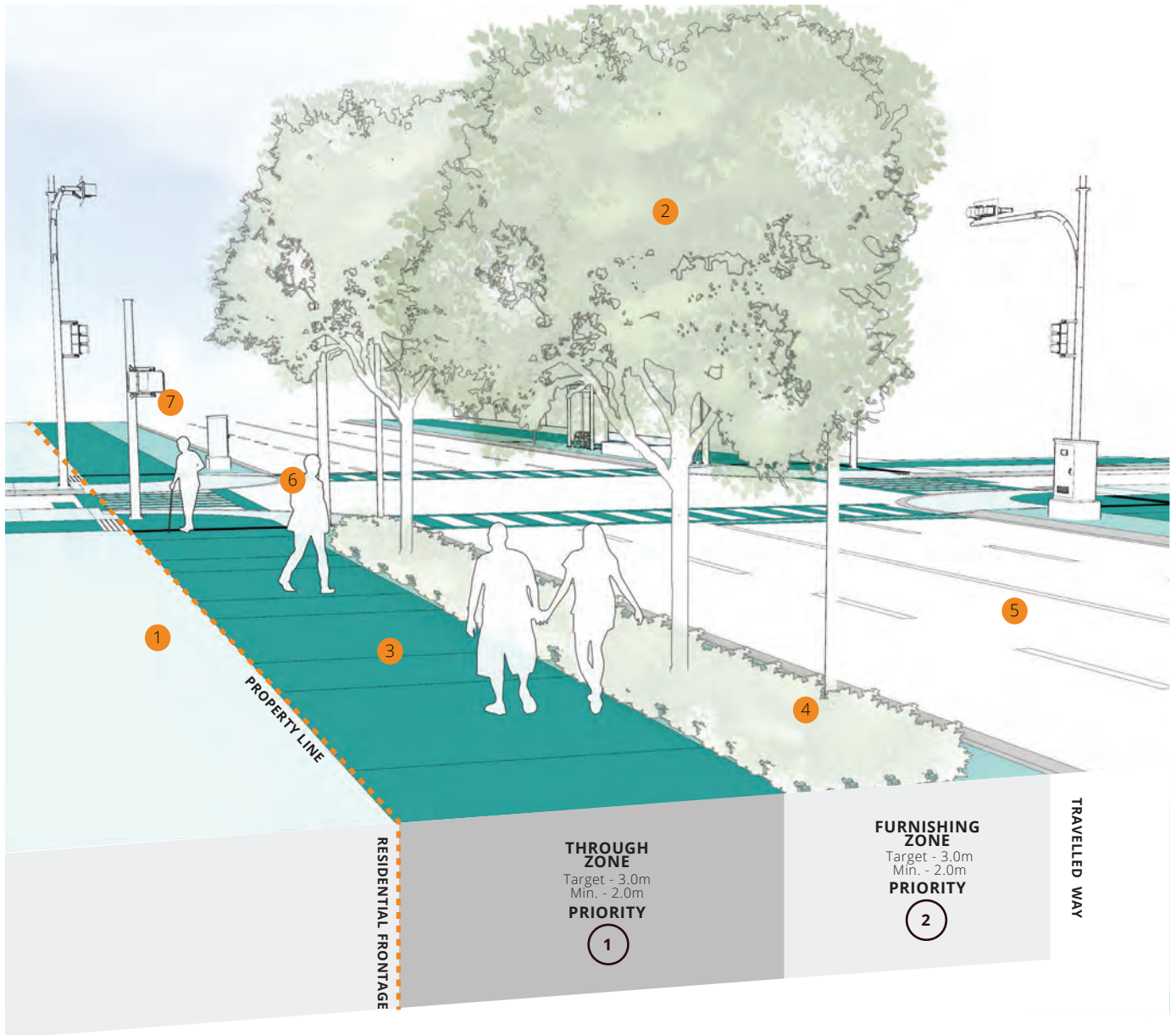
Additional Ancillary Zone can be allocated from the Landscaped Furnishing Zone.

Modal Overlays

Major Streets within the study area contain bus routes and so bus stops and other facilities will be required within the right-of-way. Specific requirements will be determined by ETS during the Concept Design process.

MAJOR RESIDENTIAL STREETS





Major Residential Streets are defined both by the adjacent land uses and their connection to the surrounding communities. Major Residential Streets provide a generous buffer between the pedestrian realm and the vehicular right-of-way, and are predominantly lined with residential frontages.

These streets are characterized by:

- 1 Display gardens, stoops and porches offering places to address and interact with the street and offer a sense of habitation.
- 2 Tree lined boulevards
- 3 Generous sidewalks to provide separation from vehicle traffic.

- 4 Incorporation of planting in the furnishing zone. Where feasible Low Impact Development (LID) stormwater management facilities can also be incorporated.
- 5 Up to two lanes, with turning option each way for streets with a current ADT > ~20,000.
- 6 Pedestrian volumes may be lower than in mixed-use areas, but pedestrian comfort and safety remain a priority.
- 7 Signalized intersections that provide safe and convenient crossings for pedestrians.

Neighbourhood Mixed-Use Streets

Priorities

Given the lower traffic volumes on Neighbourhood Streets, there is typically enough space within the right-of-way to accommodate each of the design zones, even when bus routes or cycle facilities are present.

In order to maximize pedestrian use and commercial retail activity, the Frontage Zone is prioritized over the Ancillary Zone. This allows for the passive functions of the street: cafes, patios, seating areas; to be located further away from traffic. If an Ancillary Zone cannot be accommodated due to a cycle facility or a bus route, on-street parking should be accommodated on the nearby side streets.

Constrained Locations

There are some instances, when the right-of-way is 20.12m (66 ft), where there are constraints in the Neighbourhood Mixed-Use Street Type:

- 103 Avenue from 96 Street to 97 Street
- 102A Avenue from 96 Street to 97 Street
- 101A Avenue from 96 Street to 97 Street

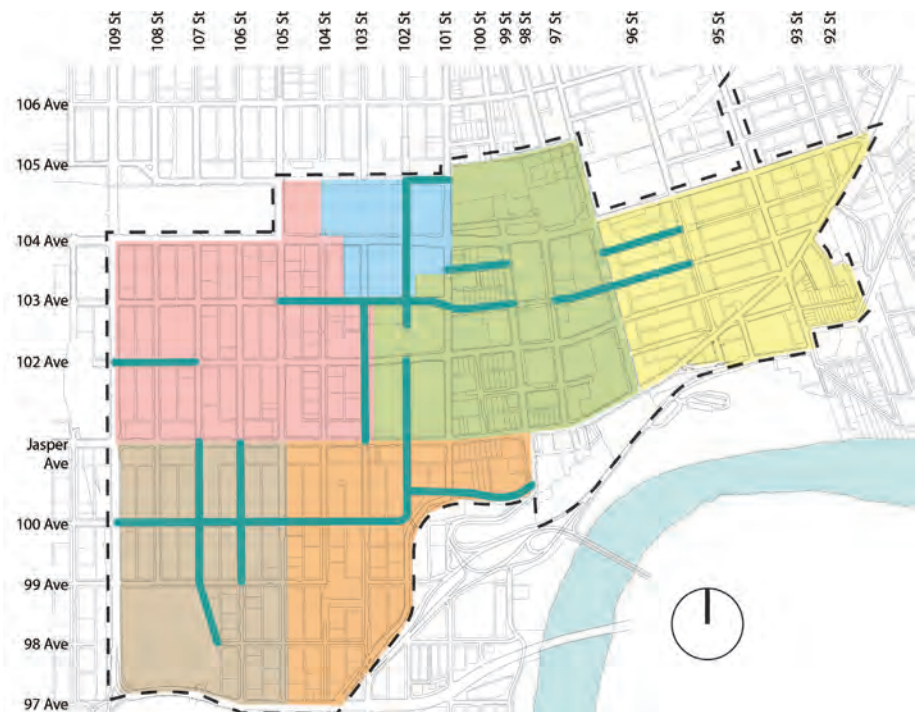
In these locations, the Through Zone is constrained, and choices may need to be made to create the best possible scenario. The following options are available to maximize the public realm:

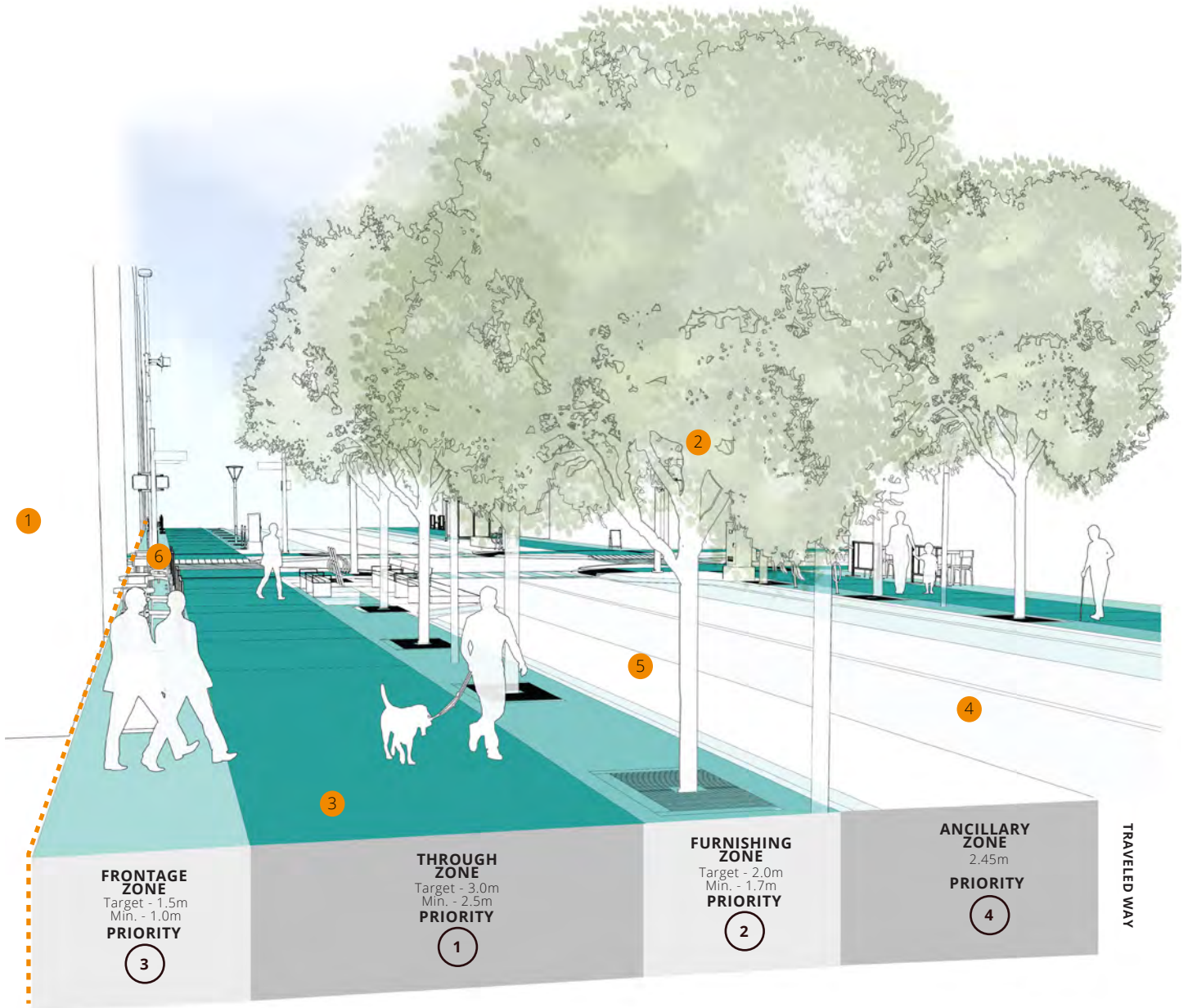
- Reduce or eliminate the Frontage Zone. The function of the Frontage Zone (patios, cafes, etc.) may be provided within a setback located on the adjacent property if the zoning allows.
- Narrow the Furnishing Zone to 1.7m.

Modal Overlays

Neighbourhood Streets within the study area contain both cycle facilities and bus routes. Specific requirements will be determined by the City and ETS during the Concept Design process.

NEIGHBORHOOD MIXED USE STREETS





Neighbourhood Mixed-Use Streets have lower traffic volumes though may have significant pedestrian volumes depending upon the adjacent land uses. They facilitate active uses of ground floor commercial and live/work spaces. These human-scale streets are comfortable, and create spaces to linger and connect with the local community.

These streets are characterized by:

- 1 Mixed-use buildings, with tall, transparent, ground-floor live/work and commercial spaces.
- 2 Generous tree-lined sidewalks.
- 3 Because traveled way on Neighbourhood streets is limited in size, where ROW is generous, pedestrian realm may be very wide.

- 4 Recommend no more than one travel lane in either direction with left turn lanes at locations with high numbers of turning movements. Right turn movements should be accommodated in a shared through/right turn lane.
- 5 On-street parking and ancillary zones should be provided where space permits.
- 6 A common setback or build-to line (with occasional interruptions).

Neighbourhood Residential Streets

Priorities

Given the lower traffic volumes on Neighbourhood Streets, there is typically enough space within the right-of-way to accommodate each of the design zones, even when bus routes or cycle facilities are present.

In order to maximize pedestrian uses and reflect the residential character of the street, a Landscaped Furnishing Zone is prioritized over an Ancillary Zone. If an ancillary zone cannot be accommodated due to a cycle facility or a bus route, on-street parking should be accommodated on the nearby side streets.

Given that there are few commercial frontages on Neighbourhood Residential Streets, and that most residential developments have a setback required on-site, a Frontage Zone is not considered necessary on this street type. In specific circumstances, a Frontage Zone of 0.3m can be provided to accommodate utilities.

Space can be taken from the Through Zone and allocated to the Landscaped Furnishing Zone if a 3.0m wide sidewalk is not required.

Constrained Locations

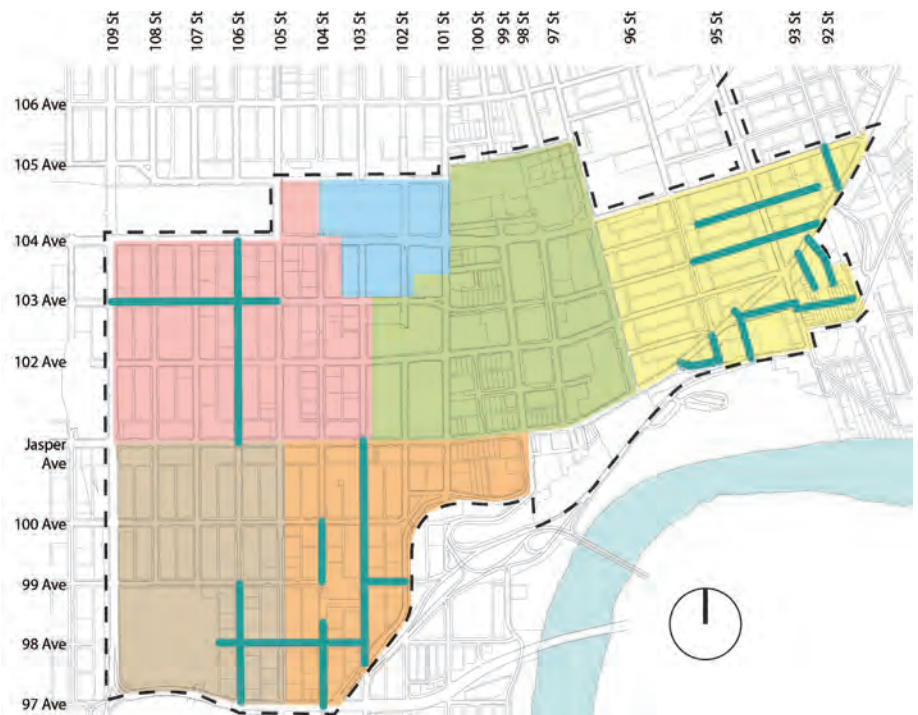
If the public realm of a Neighbourhood Residential street is constrained, consider the following options:

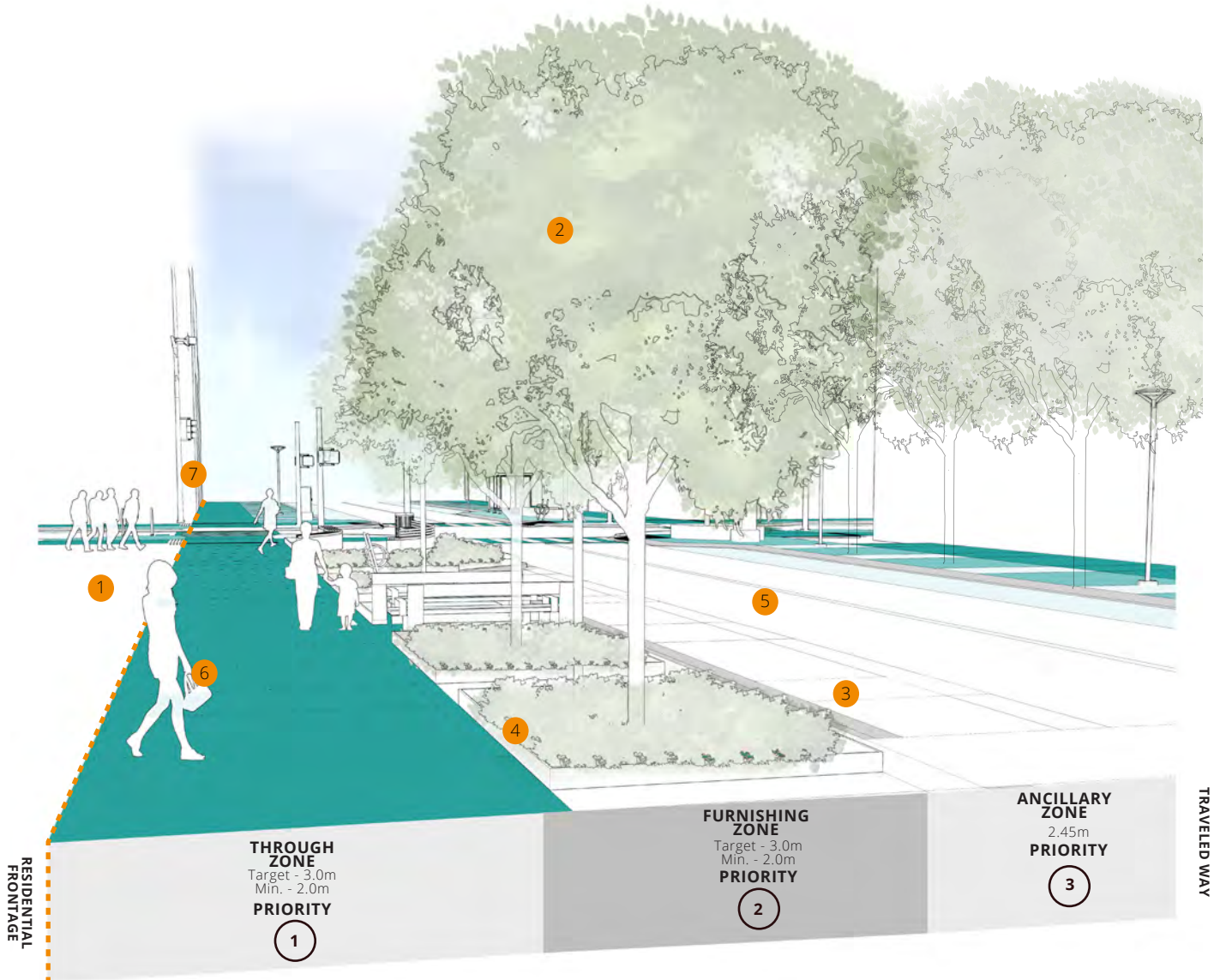
- Remove the Ancillary Zone from one or both sides of the street.
- Narrow the Landscaped Furnishing Zone to 2.0m.

Modal Overlays

Neighbourhood Streets within the study area contain both cycle facilities and bus routes. Specific requirements will be determined by the City and ETS during the Concept Design process.

Neighbourhood Residential Streets





Neighbourhood Residential Streets are characterized by their fine-grained network of residential frontages. With ample opportunity for display gardens, stoops and porches, Neighbourhood Residential Streets provide places to interact with and connect to the street.

These streets are characterized by:

- 1 Display gardens, stoops and porches offering places to address and interact with the street and offer a sense of habitation.
- 2 Tree lined boulevards and generous sidewalks to promote walking as the prominent means of circulation, taking advantage of the slower pace of traffic.
- 3 On-street visitor parking on each block where space permits.

- 4 Incorporation of planting in the furnishing zone. Where feasible Low Impact Development (LID) stormwater management facilities can also be incorporated.
- 5 Recommend no more than one travel lane in either direction with left turn lanes at locations with high numbers of turning movements. Right turn movements should be accommodated in a shared through/right turn lane.
- 6 Because traveled way on Neighbourhood streets is limited in size, where ROW is generous, public realm may be very wide.
- 7 Ground floors consisting of individual grade oriented dwelling units that are oriented to the street to promote social activity and natural surveillance.

Signature Streets

Capital Boulevard (108 Street), 104 Street, Rice Howard Way, 99 Street, and the Armature (96 Street) are identified as signature streets.

These streets are identified as having a clear and purposeful pedestrian priority. They are where the line between pedestrian and vehicular space is intentionally blurred and pedestrians, cyclists, and vehicles share the right-of-way. Future analysis should be provided on case by case basis for shared streets. This designation is ideal for streets where vehicle use is low or not required and may also be applied to pedestrian-only streets with similar streetscape requirements.

These streets are characterized by:

- Broad tree-lined sidewalks with amenities.
- Opportunities for the integration of public art and monuments.
- Cafés, dining, and entertainment opportunities at-grade.
- Ability to be closed to vehicle traffic to facilitate celebrations, festivals and events.
- Innovative Low Impact Development (LID) stormwater features are encouraged to be incorporated into streetscape design.
- Generally exist in mixed-use areas where pedestrian volumes are high and vehicular requirements are low.
- A pedestrian focused road surface.
- Rolled curb or flush transition.

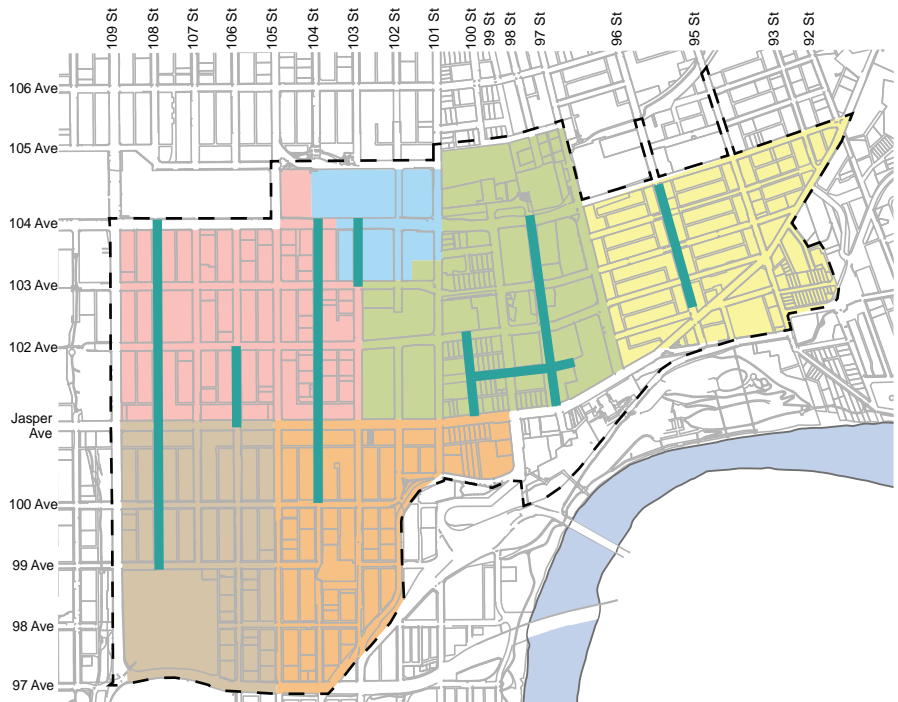
Future Signature Streets

107 Street between Jasper Avenue and 102 Avenue is the proposed location for the future Warehouse District Park as well as the location to future connections to the Valley Line LRT. These uses may see the street transform into a multi-modal open space with limited vehicle access or be absorbed into the park itself. 106 Street will also become a significant edge to the park and should account for its character.

99 Street between Jasper Avenue and 103A Avenue forms the eastern edge of the Civic Precinct. As the public realm of the Civic Precinct is improved over the coming years, 99 Street is imagined as an extension City Hall, Churchill Square, Stanley Milner Library, the Citadel Theatre, Winspear Centre, the Royal Alberta Museum and the Art Gallery of Alberta. The street acts as a portion of the Downtown Bike Network, connecting 102 Avenue to the west and 102A Avenue to the east.

The design of future Signature Streets will be determined through the Integrated Infrastructure Services Concept Design Process. Considerations such as the assignment of right-of-way between user types, special pavement markings, wayfinding signage, and special bylaws must be identified as potential requirements.

Signature Streets



Notes

1. Refer to appendix a.1 for additional information on signature street designs.

108 Street



96 Street



104 Street



99 Street

Design for street pending

Rice Howard Way (101A Avenue)



107 Street

Design for street pending

West (100A Street. West side)



Alleyway

Alleyways are designated rights-of-way that predominately provide service access, parking, waste management access, and utility servicing. Alleys are valuable spaces in the streetscape network, and provide opportunity for placemaking, enhanced connectivity, and public art.

Where the alley is abutted by active uses: residential, commercial or retail entrances, parks or plazas; the property owner or developer may upgrade the finishes and amenities within the alley. Improvements are limited to surface finishes, enhanced lighting affixed to private property, and public art. Consideration must be given to the operational requirements of the alley: utilities, waste management, service and delivery vehicles as well as CPTED principles and sight lines for vehicles entering and exiting.

These spaces are characterized by:

- Narrow cross-section with limited/no setback.
- Predominantly hard-surface to facilitate operational requirements.
- Provision of overhead and underground utilities.
- Pedestrian and cyclist accommodation in a shared setting with vehicular traffic.
- Provision of sufficient lighting for pedestrian and cyclist users.
- Potential for smaller scale commercial or residential frontages as density and demand increases.



Street type Summary

The dimensional make up of the streetscape for each street type is summarized below along with the corresponding modal overlay characterizing the traveled way.

PUBLIC REALM DESIGN ZONES

	FRONTAGE		THROUGH ZONE		FURNISHING / LANDSCAPE		ANCILLARY	MODAL OVERLAYS
	Target	Minimum	Target	Minimum	Target	Minimum	Target	
MAJOR MIXED USE	2.5m	0.0m	3.0m	2.5m	2.0m	1.7m	N/A	Bus Routes
NEIGHBOURHOOD MIXED USE	1.5m	1.0m	3.0m	2.5m	2.0m	1.7m	2.45m	Downtown Bike Network Bus Route
MAJOR RESIDENTIAL	0.0m	0.0m	3.0m	2.0m	3.0m	2.0m	N/A	Bus Route
NEIGHBOURHOOD RESIDENTIAL	0.0m	0.0m	3.0m	2.0m	3.0m	2.0m	2.45m	Downtown Bike Network Bus Route

TYPOLOGY

5.0

**Design
Recommendations**

Street Zones

The following Street Zone descriptions and design recommendations are in alignment with the Complete Streets Design and Construction Standards (2018).

Frontage Zone

Function

The space adjacent to the building face is used as a support and/or an extension of the land uses along the street. Uses can include ground floor retail displays, café seating, temporary signage, lineup areas, and other activities to support active use of the street by people and businesses.

Frontage Zones are prioritized over Ancillary Zones on Major Mixed-Use Streets in order to provide amenity for pedestrians and businesses that is further removed from vehicle traffic that is typically higher in volume and moving at higher speeds.

On streets with constrained public realm space, the frontage zone may be provided on the adjacent property within a building setback. Where this occurs, the design of the setback on private property is encouraged to respond to the streetscape character and incorporate the same materials and design elements.

Frontage Zones are not provided on residential streets as the land use and typical activities are focused on access to residential buildings. In some instances of the residential zones within the study area, setbacks are required on the adjacent properties, providing space for necessary services or amenities.

Dimensions

Dimensions will vary based upon the amount of space available. A target dimension of 2.5m is utilized on Major Mixed-Use Streets and 1.5m on Neighbourhood Mixed-Use Streets. Smaller spaces can still be effective, particularly if they are combined with space within the setback of an adjacent property.

Surface Treatment

The Frontage Zone should be paved in the same material with the same patterning and finishing as the Through Zone. Provide a clear delineation, such as a continuous joint in the surface material between the Frontage and Through Zones.

FRONTAGE ZONE

Intent

1. Material and texture accent to provide visual delineation between edge of Through Zone and Frontage Zone.
2. Paving pattern and material of Frontage Zone should match Through Zone.
3. Patio and seating areas should be located in the frontage zone and not encroach the Through Zone. In cases where patio seating does encroach into the Through Zone, appropriate space for pedestrian circulation should be maintained.



Through Zone

Function

This space provides an area for active transportation mobility for people of all ages and abilities to access the land uses along the street. It is typically reserved for people walking or in wheelchairs.

The Through Zone is intended to remain clear and unobstructed for its entire length to support a pedestrian priority and minimize hazards to those with visual impairment or other mobility challenges.

Dimensions

A target dimension of 3.0m is utilized for the through zone on all streets. This width provides space for two people walking abreast to be passed by a single person without requiring any deviation from the path of travel. Larger groups can pass each other comfortably with some deviation required.

On Residential streets, a minimum width of 2.0m is appropriate due to the lower anticipated volumes of pedestrian traffic.

The Through Zone may be wider than the target dimension on any street type should specific site conditions dictate. However, the Furnishing Zone on a mixed use street should not be made smaller than the target dimensions to provide a wider Through Zone. Space may be taken out of the Frontage Zone of a Mixed Use street or the landscape furnishing zone of a Residential street if the trade-off is required.

THROUGH ZONE

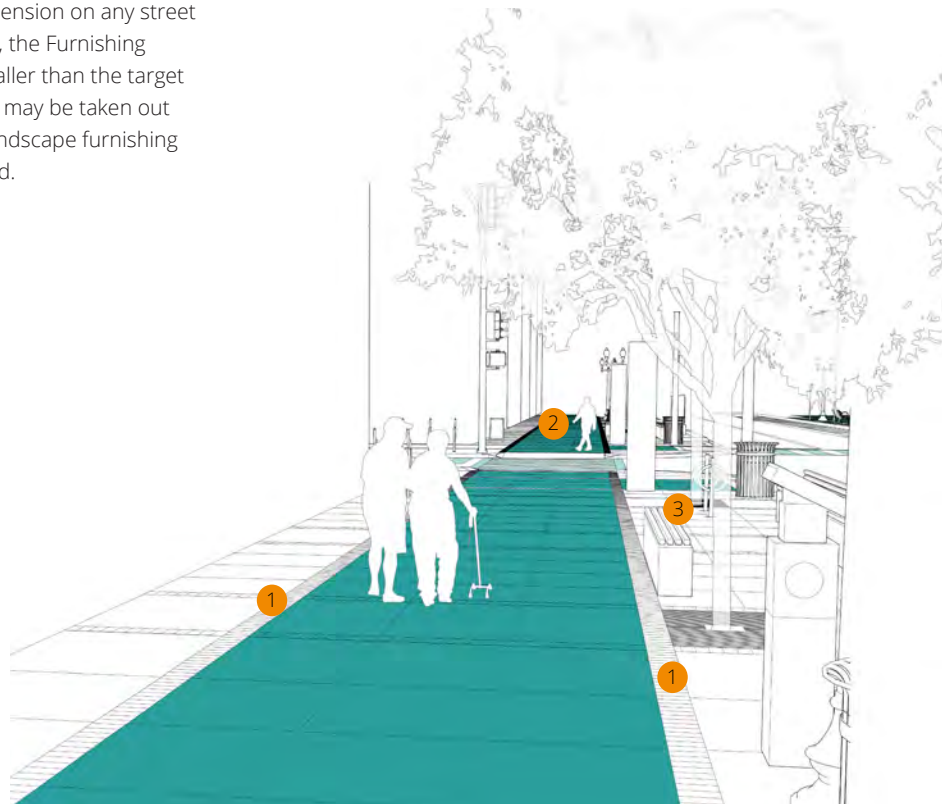
Intent

1. Material and texture to provide visual delineation at edge of Through Zone.
2. Through Zone should align across intersections.
3. Furnishings and seating should not encroach into the Through Zone area.

Surface Treatment

The Through Zone should be paved consistently with a slip-resistant finish. A visual contrast in surface treatment should be provided at the interface between the Through Zone and Furnishing Zones and at other conflict points: intersections of Through Zones, vehicular site accesses, alley accesses and other locations where paths of any travel modes intersect.

Refer to the Street Types section and Section 6: Character Areas & Street Elements for specific requirements.



Furnishing Zone

Function

This space provides an area for signs, street light poles, street trees or landscaping, transit stops and benches in addition to underground and surface utilities. This is also the preferred location for snow storage and can be used for low impact development or overland drainage.

The space also serves as a transitional space between the Ancillary Zone and the Through Zone and is used to accommodate vehicle doors and pedestrian unloading from parked vehicles. The Furnishing Zone may also act as an extension of the Ancillary Zone by accommodating patios and amenity spaces.

Additional elements that may be included in the furnishings zone include: bicycle parking, parking kiosks, planters, wayfinding, and litter receptacles. Furnishings, trees and light poles should be aligned with each other along the length of the Furnishing Zone in order to minimize visual clutter. Transit stops must conform to the Complete Streets Design and Construction Standards.

TREE PLANTING & SPACING

Intent

Street Trees shall be provided continuously and at a regular spacing on all Street Types. Where continuous rows of existing street trees exist, space new trees to fit within the spacing of the existing ones.

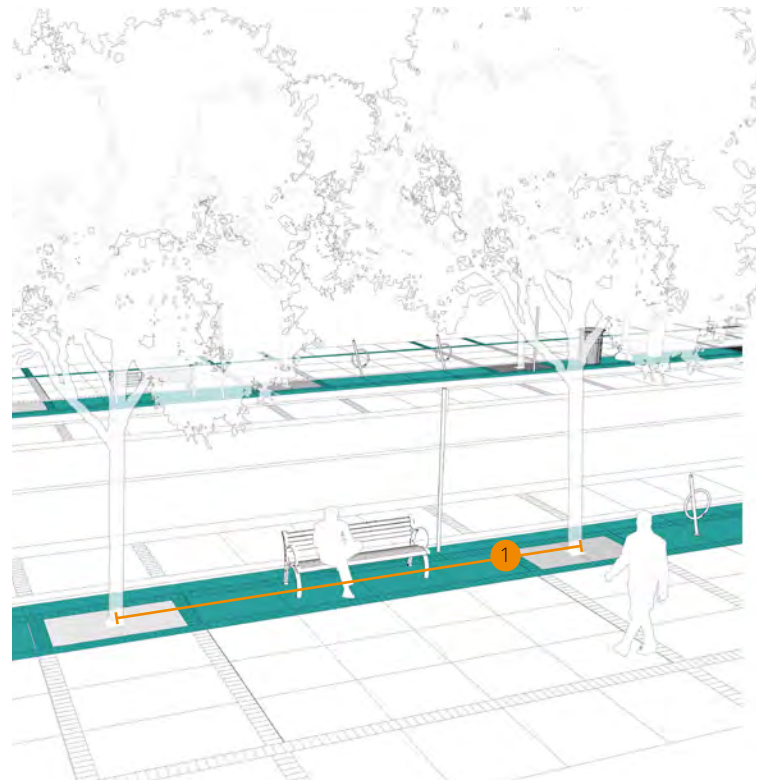
All trees should be provided with adequate soil volumes to improve establishment and to grow to a mature size and form that is true to the species and variety. Soil may be provided via structural soil cells or in open beds. Required soil volumes are provided in the City of Edmonton Design and Construction Standards.

Tree grates are to be utilized on Mixed-Use Streets adjacent to the Ancillary Zone to allow for increase circulation space. Tree guards can be provided where required. Trees may be planted in open planting beds or raised planters adjacent to the Traveled Way or at corner bulbs if space permits.

1. Street trees with high canopies should be spaced between 5.0 - 8.0m, depending upon the species and the conditions of the street. Coordinate tree spacing with light poles, so that light poles are located mid-way between two trees. Trees should also be coordinated with transit stop locations and ensuring no sightline obstruction for signage.

Dimensions

The width of the Furnishing Zone is determined by the accommodation of requirements for planting beds, tree grates, snow furrows, furnishings and best practices.

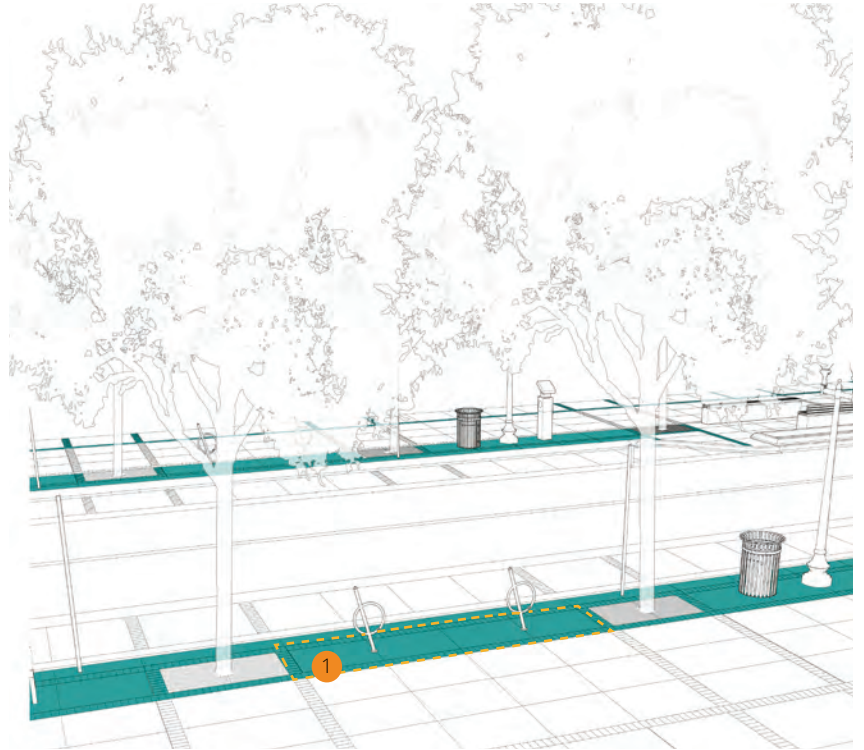


BIKE RACKS

Intent

Bike racks should be aligned parallel to the Furnishing Zone to minimize bikes overhanging the Through Zone. Where space permits bike racks can be installed perpendicular to the Through Zone, ensuring bikes do not overhang into the Through Zone. Where space permits consider racks that accommodate more than two bikes.

1. Center bike racks within the Furnishing Zone to align with trees, light poles and other furnishings.
2. Minimum 3.0 m between racks.
3. A minimum of 0.9m width and 2.0m length is required for two bikes to park at one rack.
4. Racks should be a minimum from 0.75m from the Through Zone.
5. Provide space at some bike racks for bike trailers.

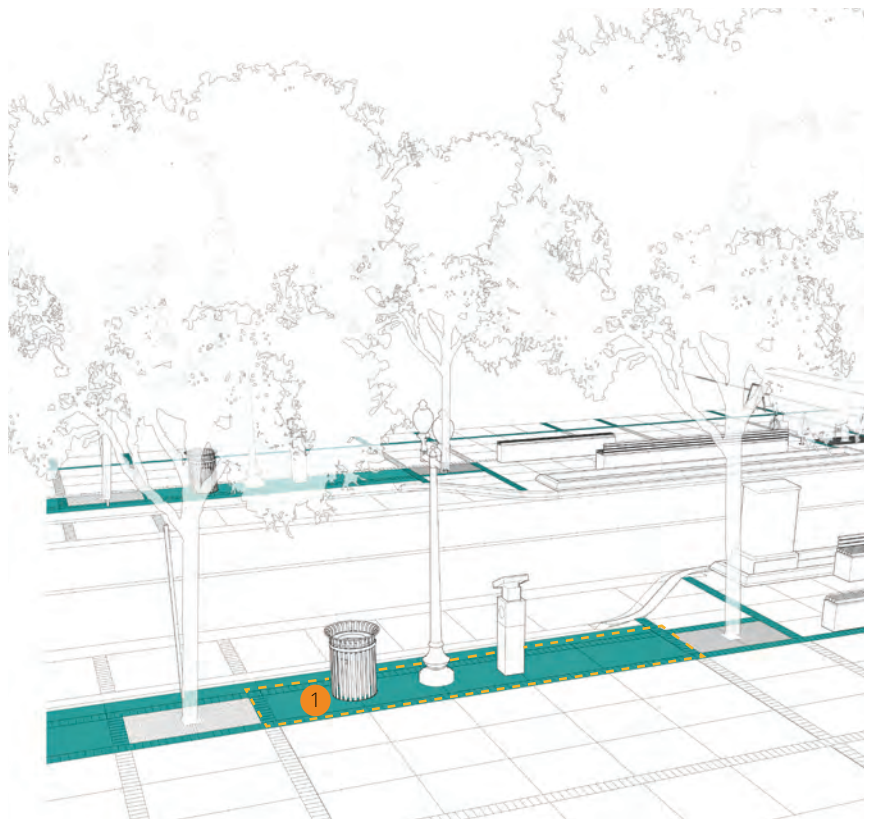


GROUPING OF FURNISHINGS

Intent

Clustering of elements to preserve space for pedestrian amenities, ensuring proper setbacks are met.

1. Whenever possible, group street furniture: parking pay kiosks, litter receptacles, utility cabinets, bike racks and light poles; to minimize clutter and free up space within the Furnishing Zone for circulation and future adaptation.
2. Whenever possible, place litter receptacles closer to intersections and mid-blocks or where requested.



SEATING

Intent

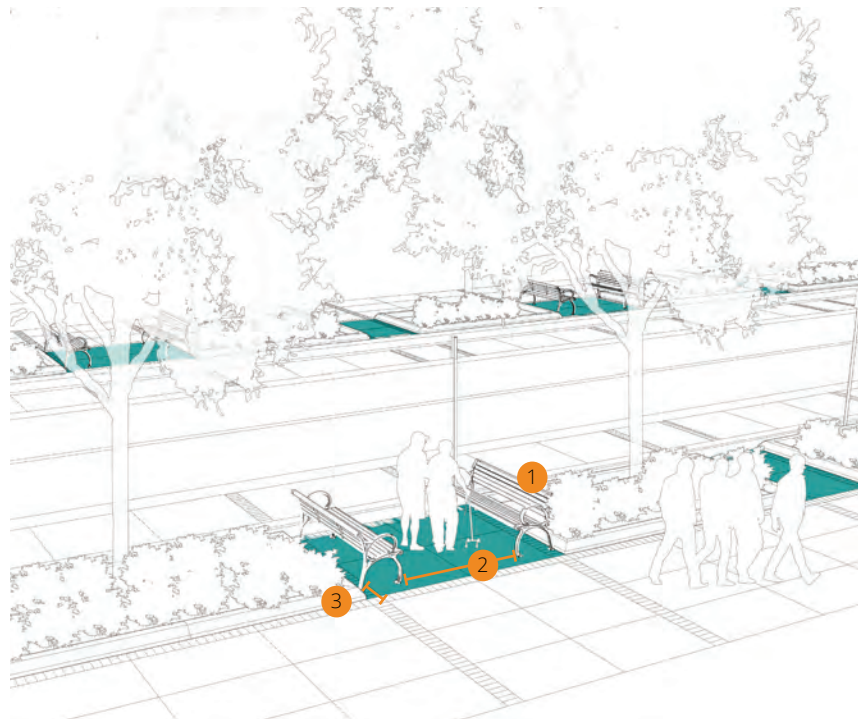
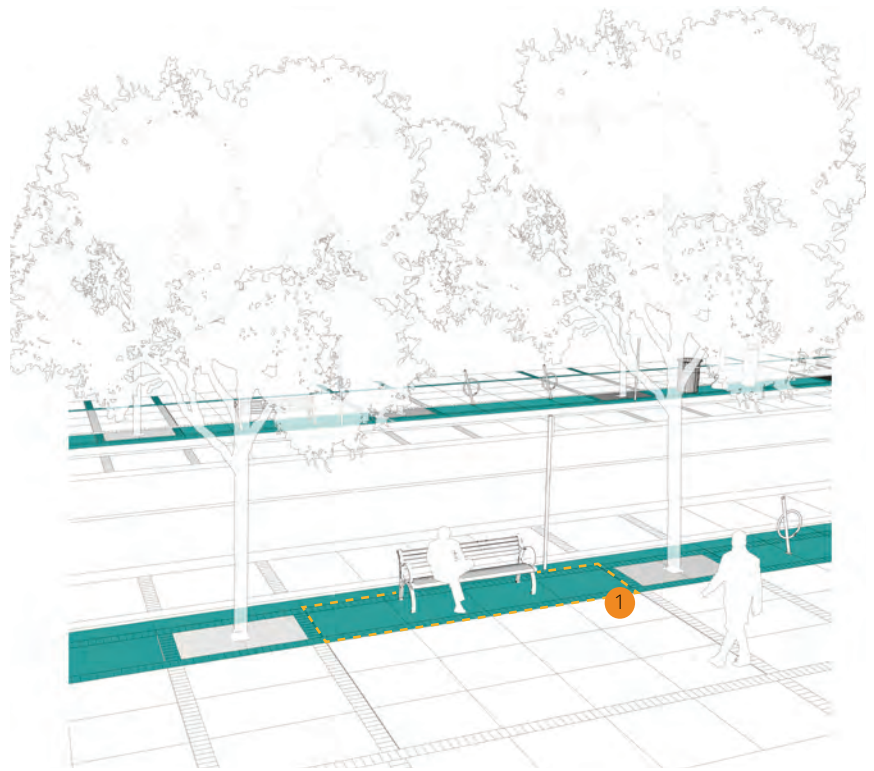
Only surface mounted benches are to be used within Furnishing Zones adjacent to Ancillary Zones to allow for maximum flexibility for future adaptation of the street.

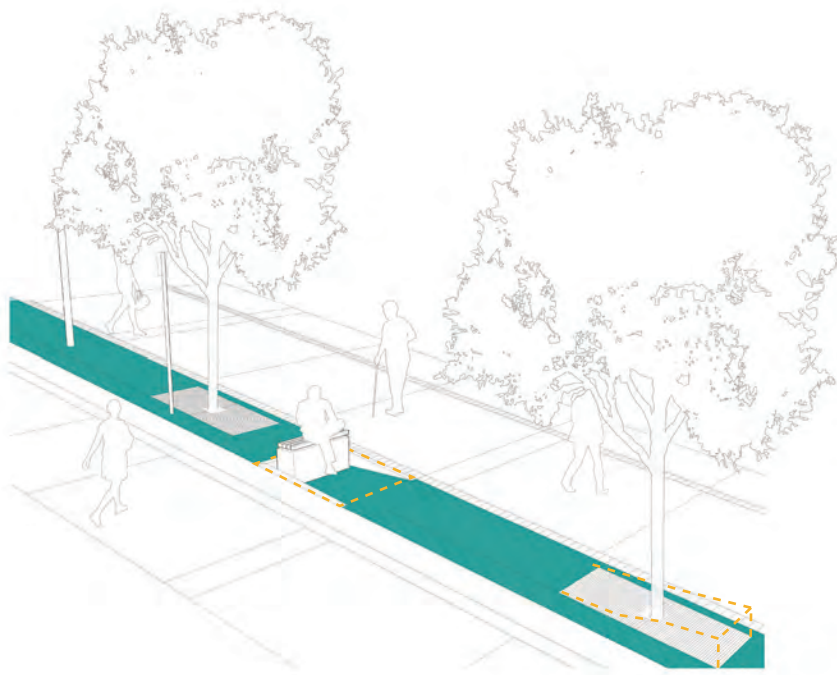
Seating should be focused at street corners, but mid block benches can be provided where desired. Benches should be located within the furnishing zone adjacent to the Ancillary Zone. Ensure benches are placed with enough room to allow sufficient space for circulation for strollers and wheelchairs, and to create a 'quieter' space. Where space permits seating can be accommodated with planting in the Furnishing Zone. Benches should be located to provide clearance from the Through Zone with seating embedded in planted areas, to create a more pleasant environment for lingering. Seating may be oriented parallel to the Through Zone or perpendicular depending on the context and space available.

1. Ensure benches are located with appropriate distance from the curb face adjacent to Ancillary Zones to accommodate vehicle door swings and circulation. Allow area between the bench and the Through Zone to accommodate feet, bags, and mobility aids.
2. Seating elements such as benches are not required to face each other, particularly if they have backs.
3. Seating should conform to The City Access Design Guide.

Intent

1. Any seating elements should be located to provide appropriate separation from vehicle travel lanes, Ancillary Zones and bike facilities in the Traveled Way.
2. Spacing is to meet Access Design Guideline.
3. Adequate clear space from Through Zone.





STREETS ON HILLS

Intent

Seating should be provided on streets on hills to provide points of pause and rest for pedestrians. Seating elements should be designed to provide a level and accessible landing area. Partially raised edges around tree grates, landscaping or sunken areas could be used for additional seating where feasible. Provide levelled seating parallel to the street with height adjusted as per slope.

UTILITY FURNITURE (CABINETS, TRANSFORMERS)

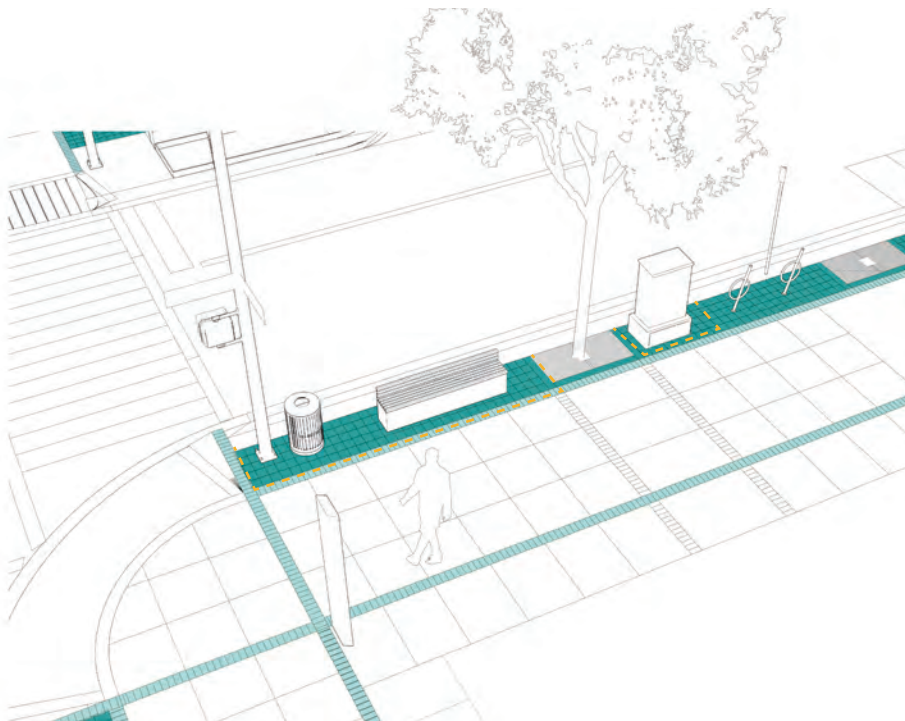
Intent

Whenever possible utility furniture should be located below grade or in alleys.

Where utility furniture is required in the right-of-way it is to be located within the Furnishing Zone and be coordinated with tree locations and other street furniture.

If the utility furniture is located at the intersection, attempt to integrate it with planting beds to provide some visual screening while maintaining access for operations and maintenance. Consider how utility boxes can be incorporated into the function of the street and its furnishings.

Above grade utility furniture should not be located in the Through Zone or the Frontage Zone.



PAGE INTENTIONALLY

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Planting in the Furnishing Zone

Function

This space provides an area for signs, street light poles, street trees, ornamental planting and seating in addition to underground and surface utilities. Where an Ancillary Zone is provided adjacent to the planting area, paved areas will be required to offer access between the Ancillary Zone and Through Zone without damaging the planting. If the planting consists of turf grass, paved access will not be required.

Where feasible, the Planting Area may function as a Low Impact Development (LID) stormwater management facility such as a bioswale or a rain garden. The planning and design of this facility should comply with the City of Edmonton Low Impact Development Best Management Practices Design Guide and be completed on a case-by-case basis in coordination with EPCOR Drainage and the City of Edmonton.

Planting in the Furnishing Zone should be provided primarily on Residential street types. On Mixed-Use streets, paving in the Furnishing Zone should generally be provided with trees planted in tree grates. Planting can be provided where it does not impede pedestrian mobility.

Dimensions

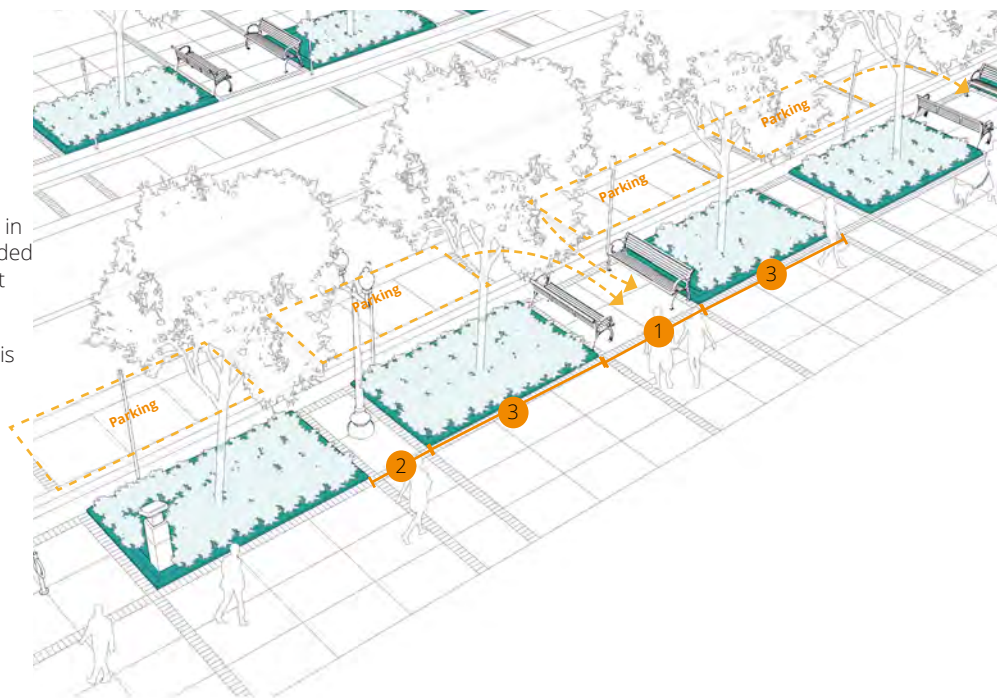
There is no target dimension for the planting area. Rather, it should consist of any space not utilized for the Traveled Way, Ancillary Zone (on Neighbourhood streets), and the Through Zone. A recommended minimum dimension of 2.0m is utilized to provide sufficient soil volume and space for mature plant masses.

CIRCULATION FROM PARKING

Intent

Provide primary and secondary circulation in alignment with barrier-free design guidelines

1. Ensure primary circulation routes are provided to allow for access from parking in the ancillary zone. If furnishings are provided ensure minimum clear space in alignment with Access Design Guide.
2. Secondary access should be provided. This area can also accommodate furnishings ensuring minimum clear space for circulation is achieved.
3. Planting beds should be provided in alignment with tree spacing.



Ancillary Zone

Function

Located between the Traveled Way and the Furnishing Zone, this space provides the opportunity for various permanent and temporary street uses depending on the context and characteristics of the street. This space is typically considered “on-street”, but is not designed for through traffic of any kind. The use of this flexible space can vary between blocks and along an individual block. Uses can include protected bicycle lanes, vehicle parking, parklets, patios, bicycle parking, loading zones, universally designed parking, curb extensions, transit stops and taxi stands. This space also includes the curb and gutter and, depending on the street design, may be used for snow storage.

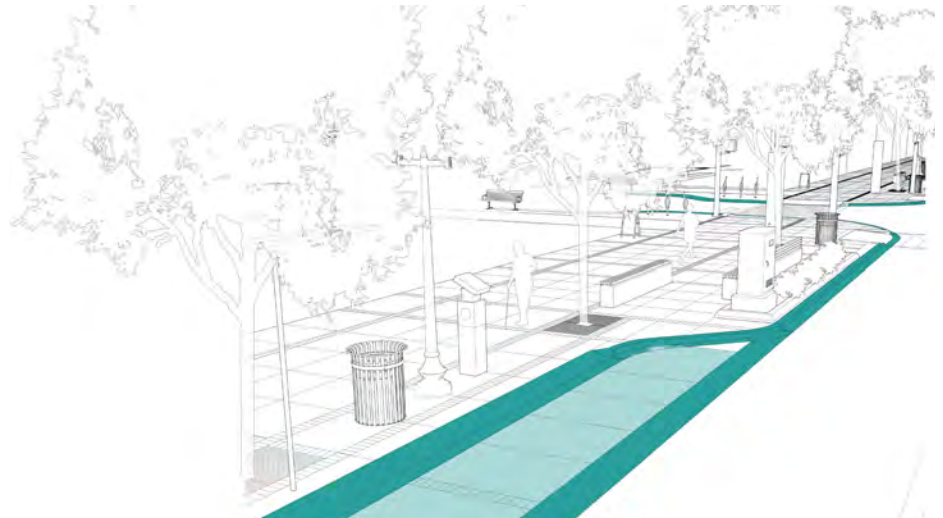
CURB & VERGE

Intent

Where feasible, rolled curbs should be used adjacent to Ancillary Zones to support pedestrian uses and improve accessibility. The verge should receive a surface finish that provides some visual contrast with the Furnishing Zone to delineate the curb for people with visual or cognitive impairment. Vertical curb configuration at transit stops should be used, as in alignment with the CSDCS. Drainage should be accommodated in a swale adjacent to the traveled way or in the curb and gutter adjacent to the Furnishing Zone if the grade allows. This will be confirmed during design.

Dimensions

A minimum required dimension of 2.45m (can be larger where appropriate) is utilized for the Ancillary Zone as per the Complete Streets Design and Construction Standards.



SURFACE TREATMENT

Intent

Ancillary Zone should ideally be paved in the same materials as the sidewalk. Patterns and finishing should match, or at a minimum replicate, the Furnishing Zone.



Curb extension in Ancillary & Furnishing Zone

Function

Curb extensions (sometimes called bulb outs) can also be spaces to locate traffic signal poles, wayfinding, extra space, bicycle parking, newspaper boxes, benches, on-street pay parking stations, landscaping, fire hydrants, and other uses such as LID Stormwater Management Systems. The placement of these types of street furniture or planting must consider intersection sight-lines and underground utilities. Custom seating elements that use a selected set of materials outlined in Section 6 may be considered here. Curb extensions are best located where there is existing or proposed on-street parking, corners with marked crosswalks in high activity areas, locations with demonstrated safety issues for people walking and wheeling, wide streets, school crosswalks, or mid-block crossings.

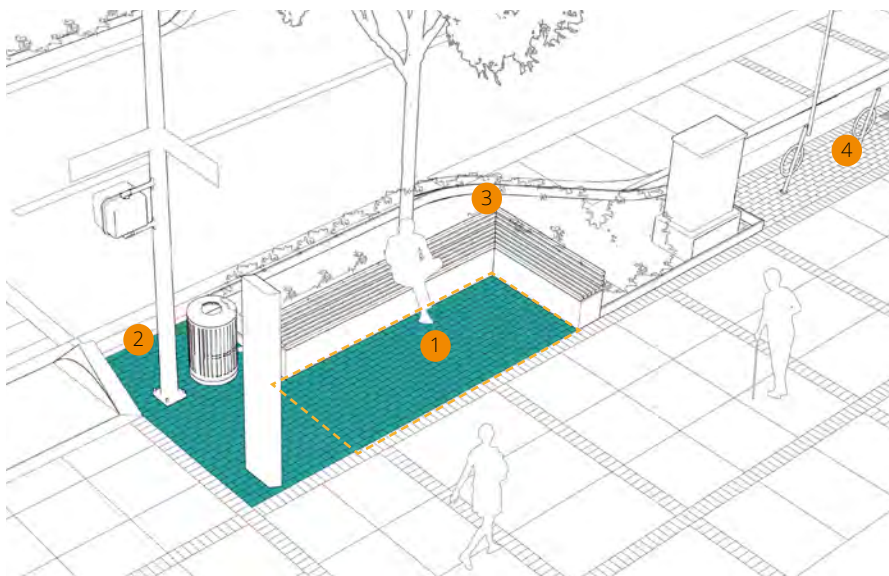
Dimensions

Curb extensions are typically between 2.0 -2.5m in width (measured from face of curb of the street prior to the curb extension to the face of curb of the curb extension) and at least 6.0 m long. A minimum radius of 4.5 m allows street sweeping and snow removal equipment to navigate the inside curves of the curb extension. Curb extensions have the potential to impact longitudinal drainage. This should be addressed by providing either a drainage line along the edge of lane line or providing additional catch basins. Consider existing catch basins that are connected to combined sewers when planning the locations of amenity areas and transit stops.

Surface Treatment

All curb extensions and amenity areas are designed utilizing the Streetscape Elements for the Character Area that the street is located within. Refer to Section 6: Character Areas & Street Elements for requirements.

Open planting beds are used to buffer seating areas from roadway traffic and create a more pleasant environment for lingering. Planting increases the sensory experience of users by providing colour, smell, texture and sound.

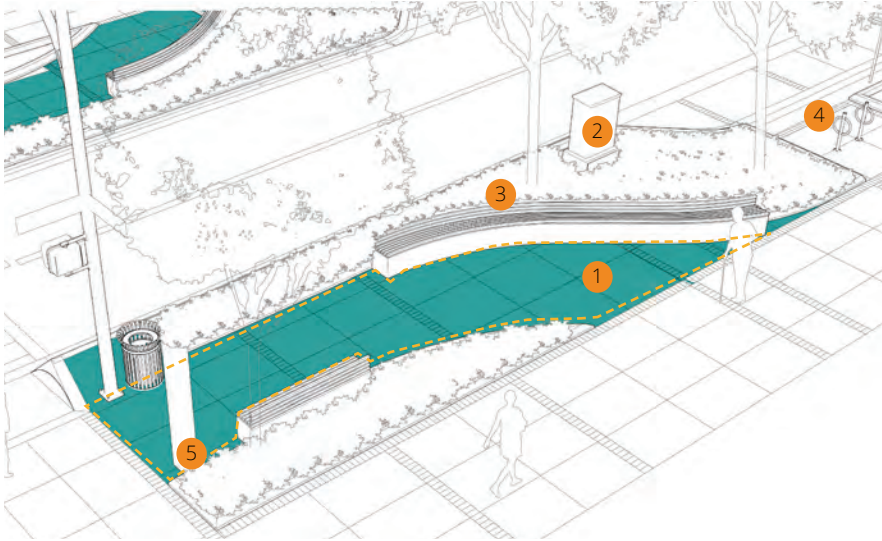


AMENITY AREA

Intent

Curb extensions are incorporated wherever practicable to improve visibility, shorten crossing distances and provide space for amenities, traffic signal equipment and pedestrian way finding .

1. Paving material and pattern of the Furnishing Zone should continue to the street corner.
2. Space should be provided for utilities.
3. Seating should be incorporated at street corners.
4. In constrained areas bike parking should be located in the Furnishing Zone.

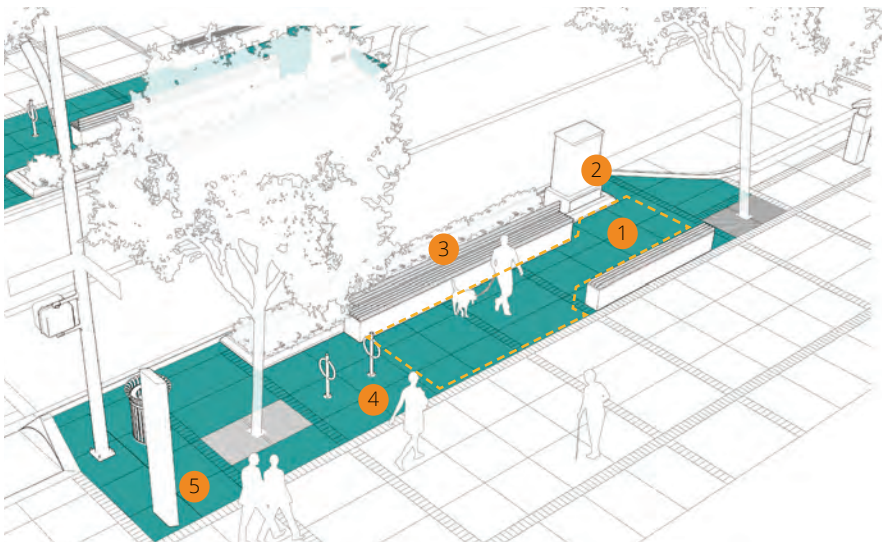


RESIDENTIAL

Intent

On Residential Streets, Amenity Areas should be dedicated to providing amenities for the surrounding residents and visitors. Spaces should be allocated to planting and seating to create spaces for lingering and social engagement.

1. Paving material and pattern of the Furnishing Zone should continue to the street corner.
2. Space should be provided for utilities.
3. Seating should be incorporated ensuring sufficient space for users.
4. Bike parking should be located in the Furnishing Zone.
5. Locate pedestrian wayfinding close to intersection of sidewalks and provide space for standing outside of the Through Zone.
6. Comfortable and flexible seating elements with low maintenance costs. Catalogued benches and modular pre-cast concrete seating elements with timber top recommended over onsite poured concrete seating.

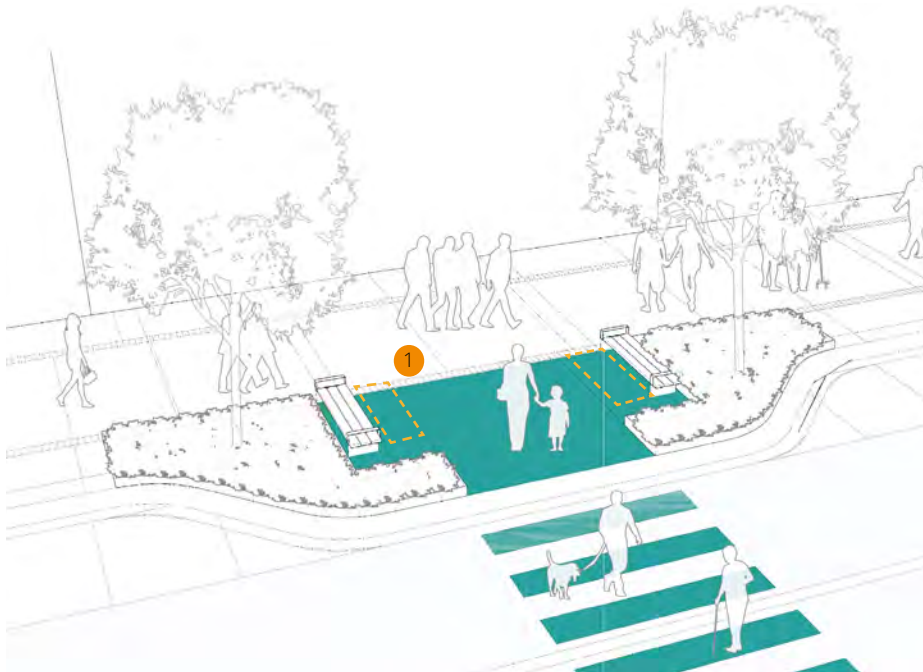


MIXED USE

Intent

On Mixed-Use Streets, Amenity Areas may be designed with more open hard surfaces to allow for a greater flexibility of uses for the adjacent businesses.

1. Paving material and pattern of the Furnishing Zone should continue to the street corner.
2. Space should be provided for utilities.
3. Seating should be incorporated ensuring adequate area for circulation.
4. Multi rack bike racks should be accommodated.
5. Locate pedestrian wayfinding close to intersection of sidewalks and provide space for standing outside of the Through Zone.
6. Comfortable and flexible seating elements with low maintenance costs. Catalogued benches and modular pre-cast concrete seating elements with timber top recommended over onsite poured concrete seating.



MID BLOCK

Intent

Mid-block bulbs allow for shorter crossing distances and provide space for planting and amenities. Ensure pedestrians attempting to cross the street are clearly visible to oncoming drivers.

1. Seating should be provided ensuring adequate clear space for circulation.



NO CURB EXTENSION

Intent

Where a corner bulb cannot be provided furnishing and amenities should be provided at street corners in the Furnishing Zone.

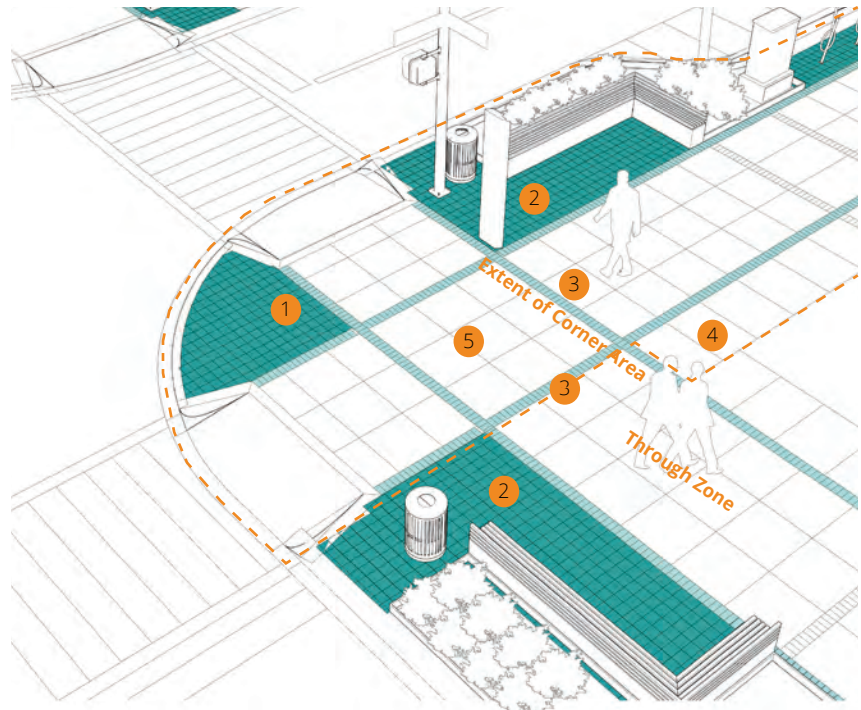
1. Paving material and pattern of the Furnishing Zone should continue to the street corner.
2. Space nearest intersection should be provided for utilities.
3. Seating may be incorporated at street corners
4. Extent of corner area to extend to Through Zone.
5. Traffic control box is located in the Furnishing Zone provided its located to ensure no sightline obstruction.
6. Locate pedestrian wayfinding close to intersection of sidewalks and provide space for standing outside of the Through Zone.

Corners

CORNERS WITH BULBS (Bi-Directional Ramps)

Intent

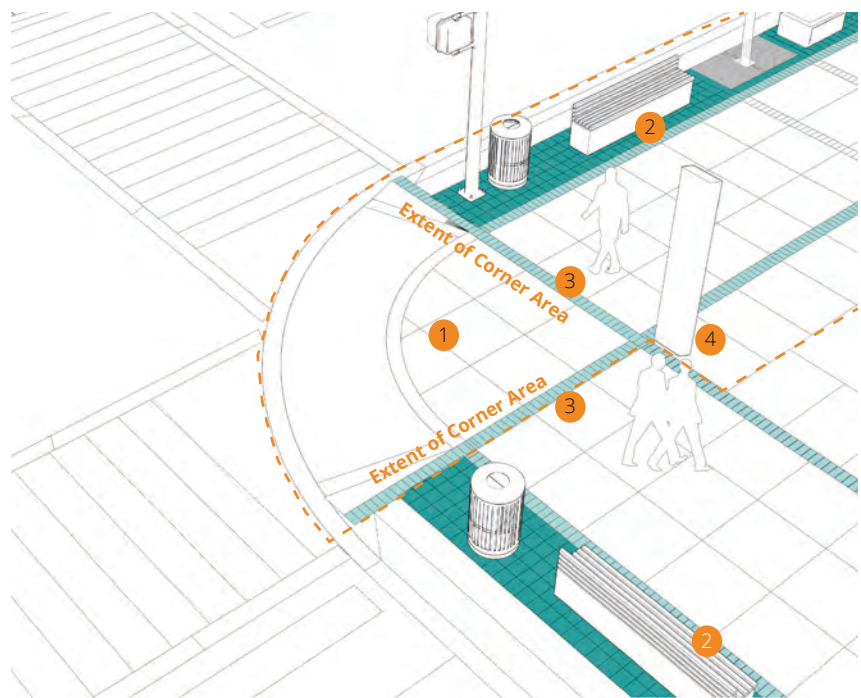
1. Corner areas material and pattern should match Furnishing Zone in all character areas in alignment with street type hierarchy.
2. Amenity areas in furnishing zone should extend to extent of corner areas.
3. Through Zone should extend to extent of corner area.
4. Frontage Zone finish should extend to extent of corner area.
5. Corner areas material, pattern and accent should match Through Zone in all character areas in alignment with street type hierarchy.
6. Options to add street names or art within the corner areas could be considered.



CORNERS WITH NO BULBS (Uni-Directional Ramps)

Intent

1. Corner areas material and pattern should match Through Zone in all character areas in alignment with street type hierarchy.
2. Furnishing Zone should extend to extent of corner areas. Where space allows seating should be provided.
3. Through Zone should extend up to extent of corner area. A material transition should be provided.
4. Frontage Zone finish should extend to extent of corner area.
5. Options to add street names or art within the corner areas could be considered.



Transit Stops

Function

Transit stops on curb extensions (also known as transit platforms) are enhanced transit stops that are incorporated into a longer curb extension. They provide additional space for passenger waiting, loading, and unloading; provide space for additional or expanded amenities; and improve transit service reliability by removing the need for buses to merge back into traffic after picking up/dropping off passengers.

Dimensions

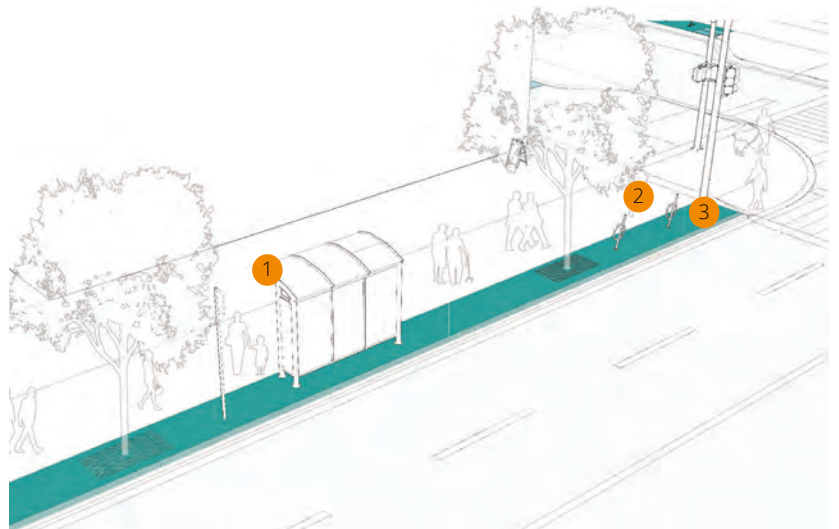
If provided, streets can accommodate a transit platform width of up to 4.25 m by using space from the Ancillary Zone and the Furnishing Zone. This width allows various enhanced transit stop amenities to be incorporated (e.g., benches, information kiosks, bicycle parking, larger shelters, etc.). Where pavers are provided in the transit area shelters should be installed on concrete, and coordinated with the paving. The length of the curb extension should be determined by the length requirement of the bus stop. Transit stops are usually placed on the far side of intersections for visibility and safety reasons. The standard shelter has a 2m x 3m footprint, with the 2m width being the minimum standard required for wheelchair accessibility.

CONSTRAINED TRANSIT STOPS

Intent

Where curb extensions cannot be provided, the bus stop amenities will be provided within the Furnishing Zone to maintain an unobstructed Through Zone.

1. Orient shelters with the opening oriented to the Through Zone.
2. Locate amenities to avoid conflict with bus doors and ramps.
3. Paving material and pattern of the Furnishing Zone should continue to the street corner.

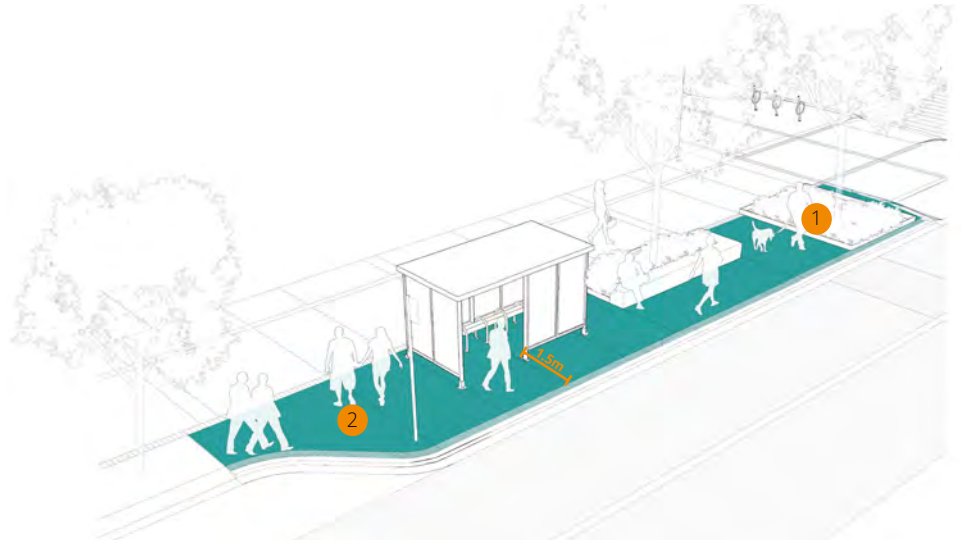


RESIDENTIAL TRANSIT STOPS

Intent

Bus stops on Residential streets include shelters and open landscape beds. Ensure sufficient space is provided for barrier-free circulation and queuing. Locate amenities to avoid conflict with bus doors and ramps.

1. Generous planting areas should be provided in residential areas, ensuring ETS stop requirements are achieved.
2. Paving material and pattern of the Furnishing Zone should continue to the street corner.

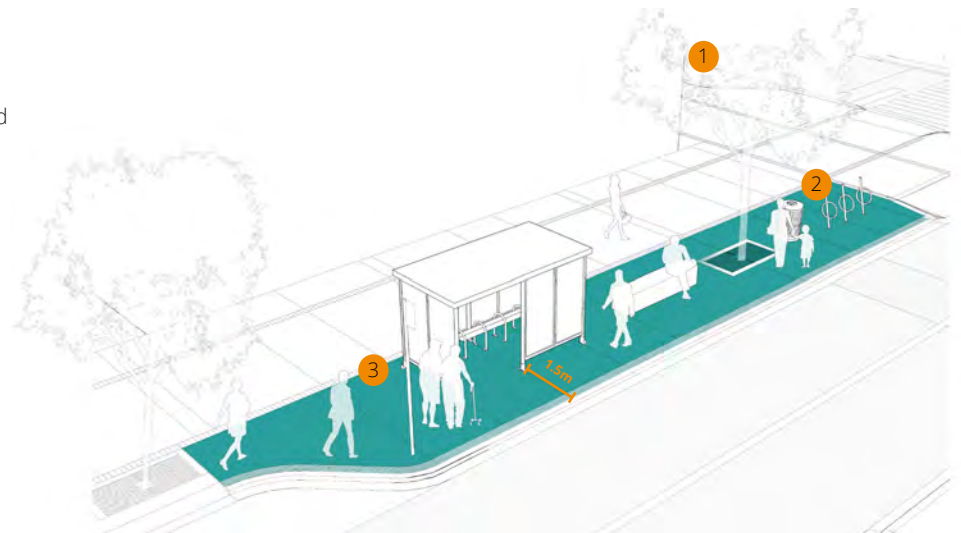


MIXED USE TRANSIT STOPS

Intent

Bus stops on Mixed-Use streets include shelters and additional paved space for queuing and amenities.

1. Continue tree planting approach from Furnishing Zone into transit stop. Continue alignment and install trees in grates.
2. Provide other pedestrian amenities such as seating, litter receptacles, bike racks and pedestrian wayfinding, ensuring ETS stop requirements are achieved.
3. Paving material and pattern of the Furnishing Zone should continue to the street corner.



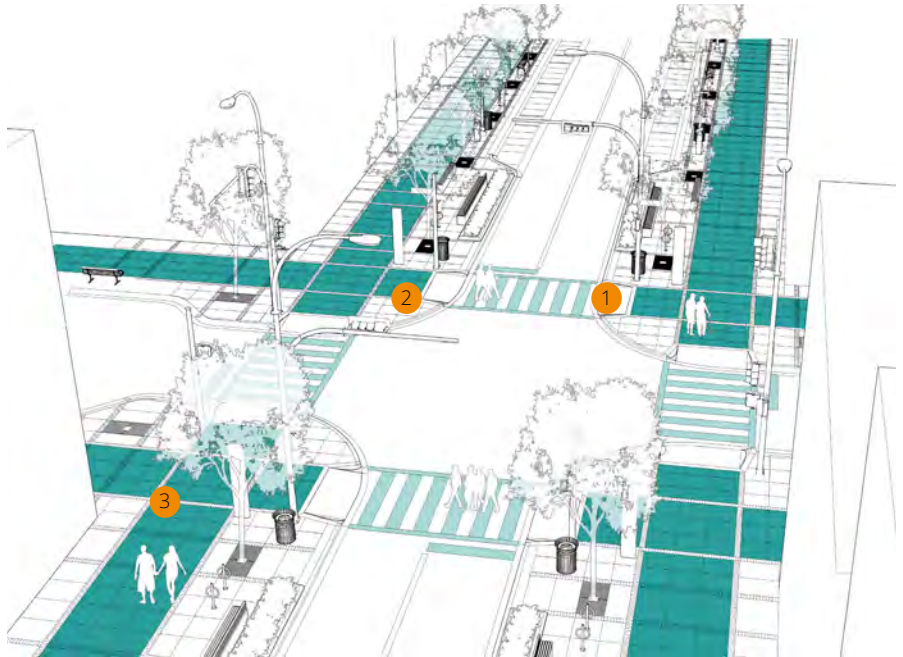
Intersections

CONFIGURATION & ALIGNMENT

Intent

Through Zone, curb ramps and crosswalk markings are aligned across all intersections to minimize amount of navigation required.

1. Curb ramps are the full width of up to 3m of Through Zone, with traversable flares.
2. Wherever possible, provide separate curb ramps for each direction of travel.
3. Provide contrast accent material and texture at intersections of Through Zones.

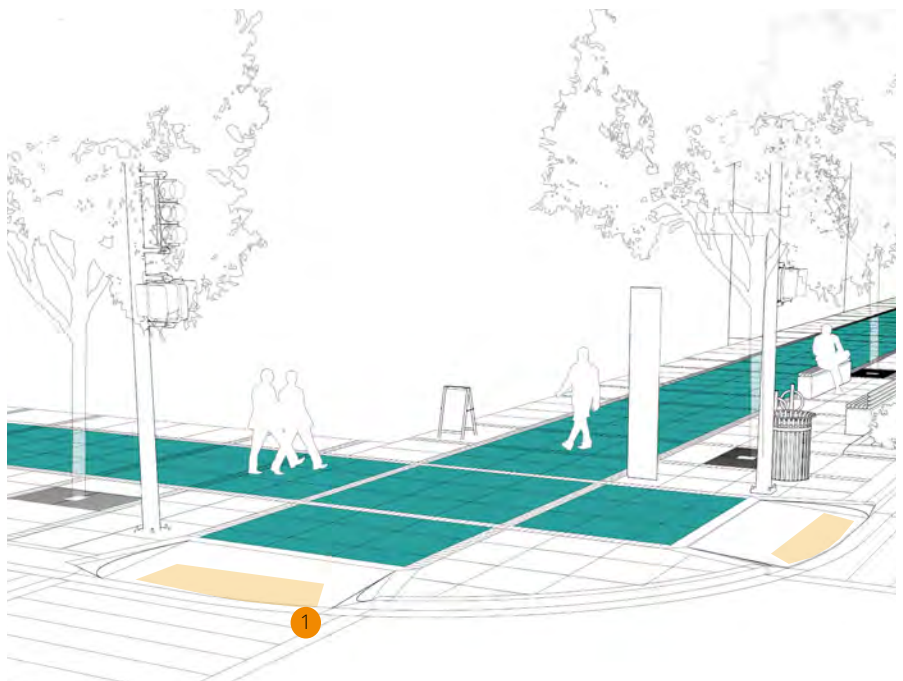


TACTILE WALKING SURFACE INDICATOR AT CURB RAMP

Intent

Curb ramps to be equipped with tactile walking surface indicators (TWSI's), whether they are located at an intersection or mid-block, to make the person walking and wheeling aware they are entering a hazard area and to direct their travel through the area.

1. Locate TWSI at curb ramps in alignment with TWSI design guidelines.

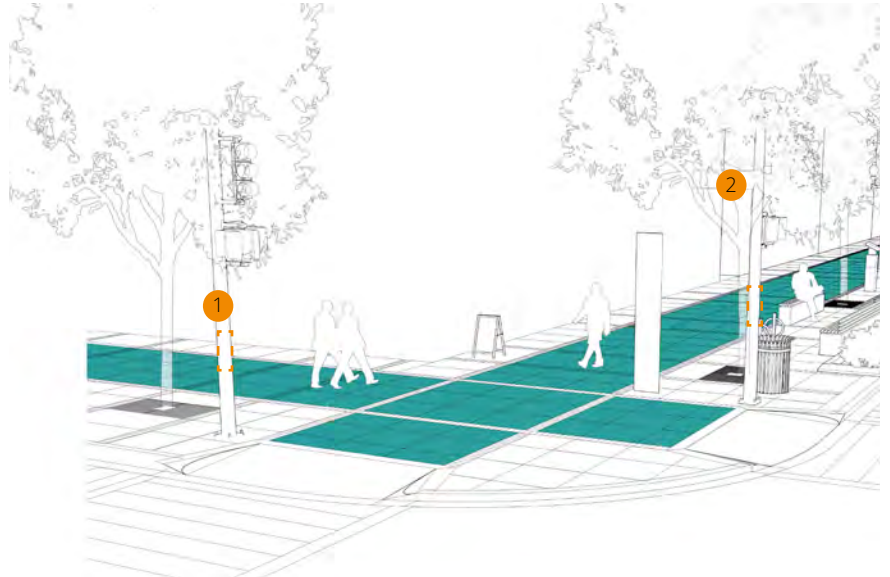


PUSH BUTTON

Intent

Push buttons for audible signal are consistently located at each intersection to increase the predictability of its location for those with visual impairment.

- Buttons should be placed on the traffic signal pole adjacent to the Through Zone for one direction of travel and a stand-alone Pedestrian Fixture pole should be installed adjacent to the other direction of travel.
- Poles to incorporate street sign blades.



Alley Intersection

Intent

Alley intersections are locations for potential conflict between pedestrians and vehicles. Provide visual clues to the location where the alley crosses the public realm such as bands of contrasting or tactile paving across the Through Zone or by locating bollards within the Furnishing Zone.

- Continue surface treatment and level of Furnishing Zone, Through Zone and Frontage Zone, across the access to signify to drivers that they are crossing the pedestrian realm, and maintain highest level of convenience and safety for pedestrians.
- Commercial crossings should be used rather than curb return access in order to promote lower travel speeds. The ramp portion of the crossing should be constrained to the width of the Furnishing Zone where feasible.
- Whenever possible, locate alley accesses on a curb bulb to improve visibility of vehicles entering traffic and increase pedestrian safety.
- Ensure sight lines within bulb are kept clear for both pedestrians and drivers.



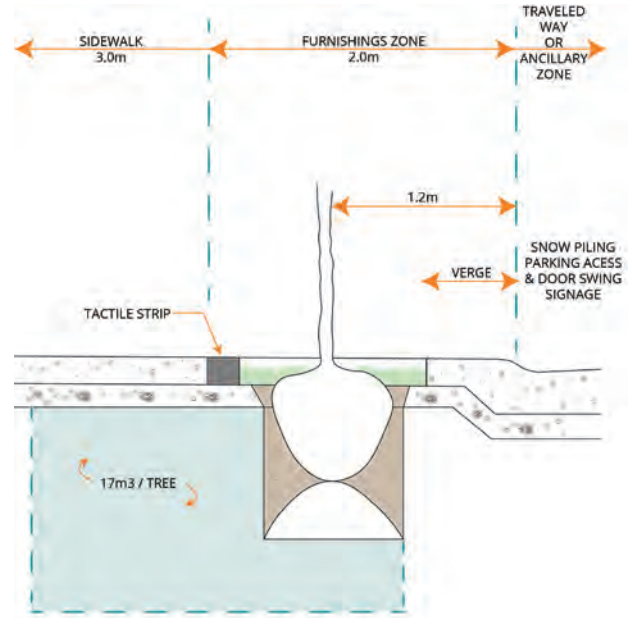
Planting

TREE GRATE

Intent

Structural soil cell systems are utilized to provide continuous soil volumes for street trees. Tree grates are utilized on Mixed-Use Streets to increase mobility in areas of higher pedestrian traffic and allow access for maintenance and care.

Provide a clear space (verge) between the roadway and tree grate to facilitate pedestrians entering/exiting parked cars and roadway operations such as snow clearing and street sweeping.

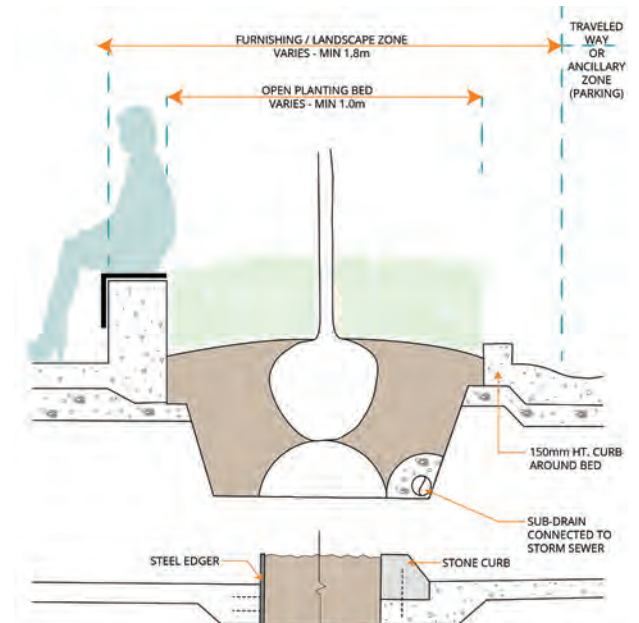


PLANTING BED

Intent

Open planting beds are utilized throughout Downtown and the Quarters Downtown on all Street Types on Mixed-Use Streets, planting beds are located at Curb Extensions where a dedicated pedestrian amenity space is desired. On Residential streets, planting beds are utilized continuously along the length of the block, in both the Furnishing Zone and in Curb Extensions. All planting beds are to have sufficient soil depths for the plant material specified as well as a sub-drain connected to the storm sewer. Native planting and species should be given preference. Raised edges are used to protect planting and soils from damages caused by snow clearing, de-icing salts and high pedestrian activity.

Wherever possible, incorporate seating wall edges to the planting beds to provide additional seating opportunities.



Tree Guards

Intent

Many trees and new planting are removed or killed as a result of vandalism. Tree guards could be used to protect new trees to allow them sufficient time to get established and mature.

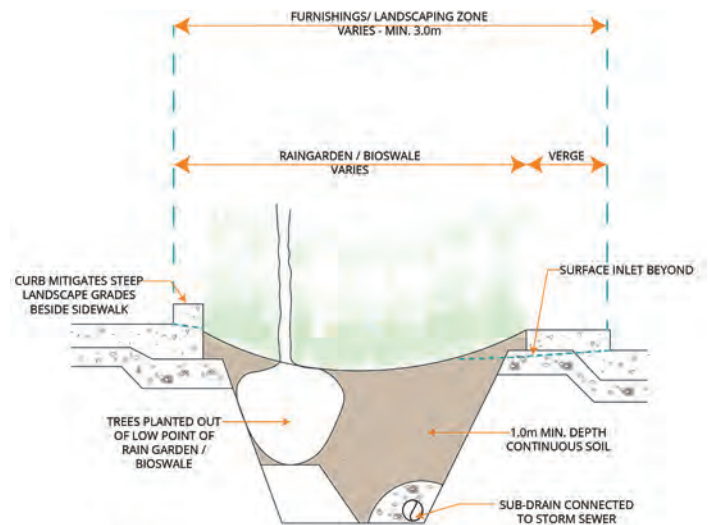
LID INFRASTRUCTURE

Intent

Consider the use of Low Impact Development (LID) storm water management facilities wherever practicable.

Surface facilities such as Bioswales and Rain Gardens are better suited to Residential Streets where additional space is allocated to the planting in the Furnishing and Ancillary Zones. Mixed-Use Streets are better served with below-grade facilities utilizing soil cells such as Box Planters.

LID facilities are designed in accordance with the City of Edmonton Low Impact Development Best Management Practices Design Guide (current edition).



Existing Tree

Existing trees that are in good condition within right-of way are to be retained. Tree protection strategies are to be implemented throughout any construction works as per City guidelines.

Lighting

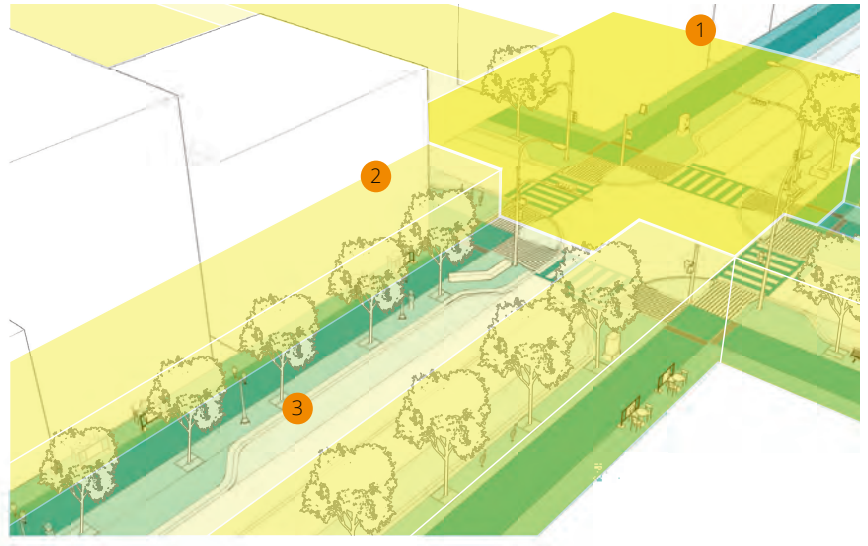
LIGHTING

Intent

Lighting is a critical component of the streets network. The design of lighting within the right-of-way is focused on increasing pedestrian safety and for establishing a comfortable pedestrian environment through the utilization of appropriate scaled fixtures, luminance, uniformity, and light colour temperature.

Light levels vary in intensity based on the zone of the street:

1. Intersections and mid-block crossings are most brightly lit as they are the locations with the greatest potential conflict between pedestrians, cyclists and vehicles.
2. The Through Zone is well-lit with high levels of uniformity.
3. The Traveled Way is lit to minimum City standards in order to accentuate the light levels of the public realm and intersections and minimize the quantity of conspicuous roadway light poles.
4. Coordinate the spacing and locations of light poles with trees to create a consistent rhythm of these two elements which will help to establish a pedestrian scale within the public realm.
5. Target a spacing of minimum 30m for pedestrian light poles along the street with a height of 4m - 5m to the light fixture.
6. Lighting elements identified in this Manual have been approved for use by the City. Additional elements will not be permitted.



TREE LIGHTING

Intent

Tree lighting is provided on Major Streets and Signature Streets only to emphasize their prominence in the street network of the study area and to minimize the quantity of lighting infrastructure requiring maintenance.

- Provide a duplex receptacle at each tree along these streets as per the City standard detail for plugging in the light strings.

Interim Interventions

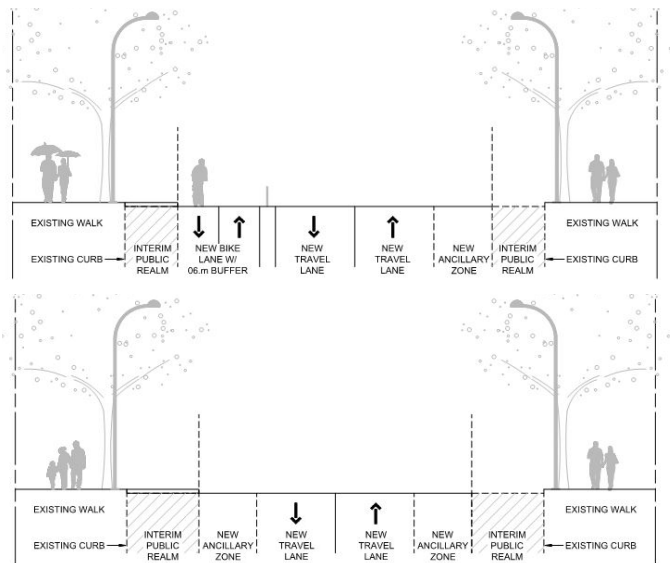
INTERIM INTERVENTIONS

Intent

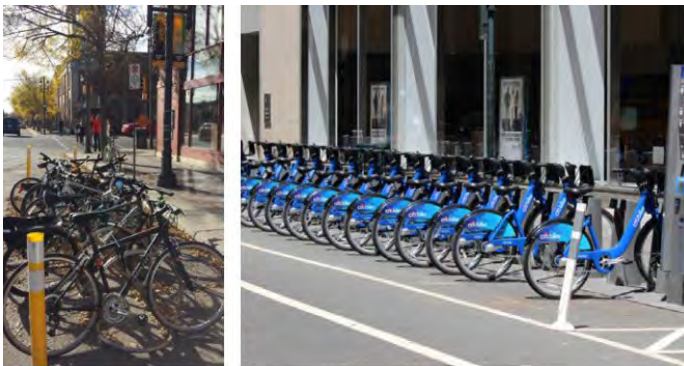
There will be instances, over time, where due to changes in land use, demographics or cultural behaviors there will be opportunities to change the function of the street without fully reconstructing it. These changes may range from permanent (conversion of vehicle parking to bike parking) to quite short-term (parklet for a couple of weeks).

In each instance the improvements are designed in accordance with applicable guidelines standards and requirements as directed by the City.

POTENTIAL LOCATIONS FOR INTERIM INTERVENTIONS



BIKE INFRASTRUCTURE



BUS STOPS



RECLAIMING ROAD WAY



PATIOS



6.0

**Character Areas &
Street Elements**

Major Streets



BASIS OF DESIGN

Intent

The major streets are to share strategic design characteristics to create a level of consistency in character through elements of lighting and planting along with amenities such as seating and litter receptacles. In tandem with achieving consistency, the streetscapes are to respond to the unique conditions along each street.

A balance is achieved within the streetscapes whereby the objective of achieving a pedestrian friendly setting is balanced with the Traveled Way requirements. Street elements to achieve this balance are identified primarily as planting, lighting, and amenity furniture.

The major residential streets are characterized by an extensive mix of tree and mass shrub plantings setting a more domestic character. The major mixed use streets are distinguished by trees surrounded by grates. In both, the predominant use of arcades of tall growing deciduous canopy trees builds on one of the Downtown's primary streetscape characters of established and mature boulevard trees.

Exceptions

100 Street between 103A Avenue and Jasper Avenue to utilize Civic Precinct paving materials and finishes, and selected streetscape elements to respond to the surrounding neighbourhood character.

105 Street north of Jasper Avenue to utilize Warehouse District paving materials and finishes, and selected streetscape elements to respond to the surrounding neighbourhood character.

With both exceptions roadway and pedestrian lighting are to remain as per the Major Streets requirements.

Existing Streetscape Assets

The existing trees define much of the character of Downtown and add to the livability of its street environments. They are to be protected and enhanced wherever feasible.

104 Avenue:

- The esplanade of the triple row of established Patmore Ash trees along the frontage of MacEwan University.
- The streetscape specific to Ice District and the arena
- The preservation of Siberian Elm trees at the Royal Alberta Museum along with the addition of the second walk

105 Street

- Mature boulevard tree plantings north of 100 Avenue

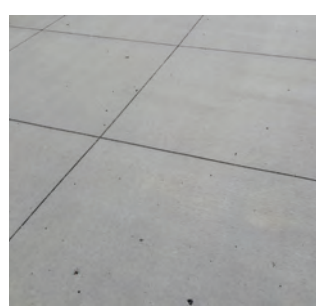
100 Street

- The east side with its distinctive lighting, street trees, grates and paving associated with Churchill Square and City Hall.

MATERIALS, FINISHES & PRODUCTS



Stainless Steel Silver Powder Coat Black Granite



Paving Material
Through Zone

- Poured concrete with sawcut joints.
- Typical scoring at 1000-2000mm, to vary with site conditions
- Broom Finish



Paving Material
Furnishing Zone & Through Zone Banding

- Holland stone pavers over concrete base
- Size -100mm x 200mm x 80mm
- Running bond pattern parallel to the curb
- Black granite colour



Traveled Way Lighting

- Tapered octagonal pole
- Finish - Silver powder coated or approved finish over pre-galvanization

Basis of Design-
Luminaire-City Lighting Standards;
Pole-Single Davit Pole



Pedestrian Lighting

- Tapered round pole
- Finish - Silver powder coated or approved finish over pre-galvanization

Basis of Design-
Lumec Urbanscape



Bike Racks

- Bike racks to allow the frame and at least one wheel to be locked.
- Inverted U Racks
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Stainless steel or equivalent approved finish
- Crossbars recommended; and can include street number/name

Custom Racks

- Art or themed racks acceptable if operationally acceptable.

Basis of Design-Reliance Foundry



Litter Receptacle

- Surface mount
- Stainless Steel #4 polish
- Vertical Slot pattern
- Flat Top manufactured from thick gauge stainless steel to minimize vandalism
- 32 Gallon Capacity, plastic receptacle liner
- Plastic coated stainless steel cable lanyard lid attachment
- Options for bottles/cans recycling tray could be included

Basis of Design Product:
Urban Park Fairmont



Bollard

- NPS Schedule 40, type 316 stainless steel pipe, 114mm diameter
- Base-165mm diameter, 19mm thick, type 316 stainless steel base plate with (4) 21mm diameter holes for anchor bolts
- Surface mounted with base plate cover over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Options for reflective strips could be included
- Finish-Satin

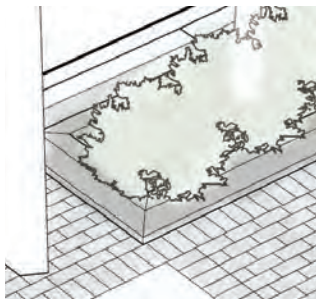
Basis of Design-Reliance Foundry
-R-7183 Bolt Down Bollard



Bench

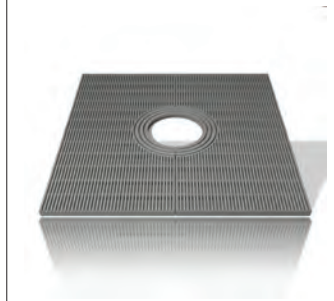
- 1200mm to 1800mm length with seat height between 450mm to 500mm
- Ergonomic design, backed with end arms in all applications
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Timber or HDPE plastic slats for seat and back.
- Wood finishes to be integral and homogeneous
- Stainless Steel metal support
- Comply with Edmonton Access Design Guide

Basis of Design Product:
Landscape Forms, Austin



Planting Beds and Edges

- 150mm height, concrete curb 45° battered profile at the outer edges



Tree Grates

- Walkable, to comply with Access Design Guide
- 1219 (4') Square
- Ductile Iron or Cast Aluminium with additional reinforcement to withstand loads of sidewalk clearing equipment.
- Adjustable opening to accommodate tree growth
- Silver colour painted over pre-galvaniation

Basis of Design-Jamison 2000, Urban Accessories



Seating Elements

- Black granite or brick base or precast concrete modular systems or cast-in-place concrete base
- Timber seating
- Stainless steel armrests, mounting assembly and fastening hardware



Tree Guards

- Two piece steel guard surface mounted over the tree grates.
- Finish-Silver powder coated or an approved coating over pre-galvanization.

Basis of Design- Fillmore, Urban Accessories

PLANTING



Existing Trees

Existing trees that are in good condition within right-of way are to be retained. Tree protection strategies are to be implemented throughout any construction works as per City guidelines.



“Avenue” Planting

Brandon or American Elm

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.



“Street” Planting

Prairie Spire or Patmore Ash

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.

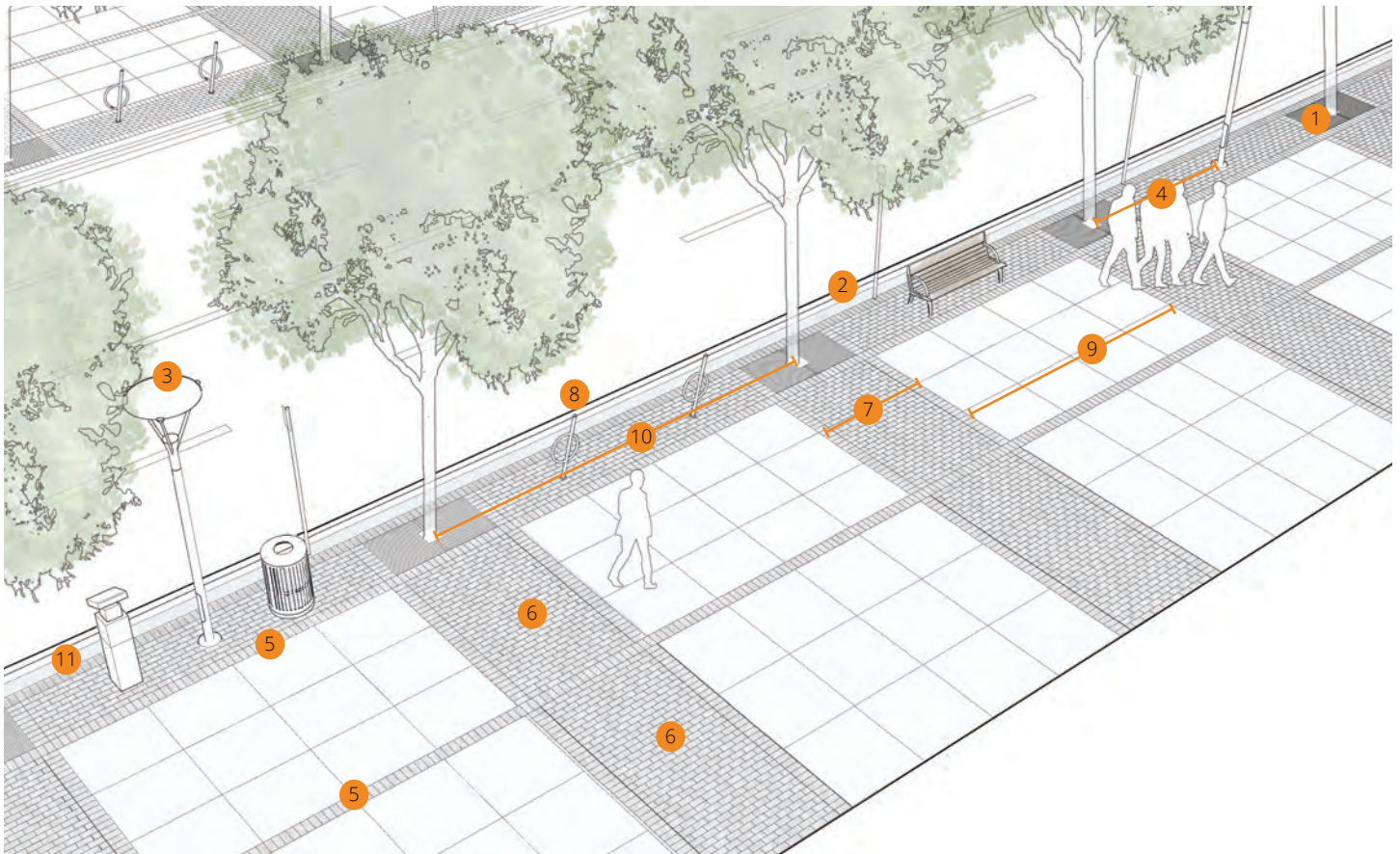
MAJOR MIXED USE

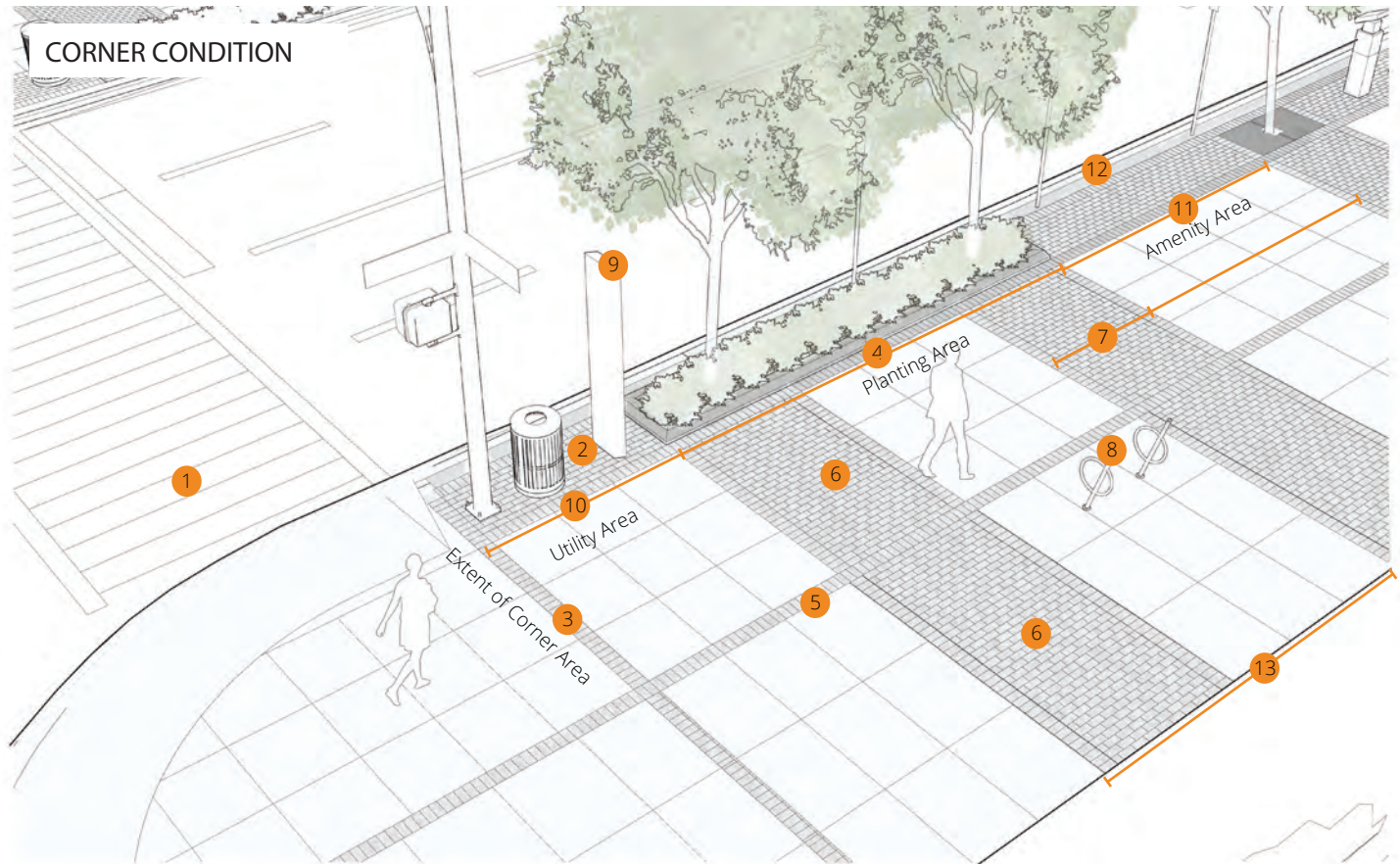
Intent

1. Tree planting with tree grate to be accommodated in Furnishing Zone. Soil cells should be provided to ensure minimum soil volume.
2. Straight face curb beside travel way.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates.
8. Bike parking should be aligned with through zone. Aligned with score pattern.
9. Three score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS.



MID BLOCK CONDITION





Intent

1. Crosswalks should be provided and be a minimum 4.0m wide. Crosswalk to align with Through Zone. A minimum of 4m wide crosswalk should be provided and align with the through zone. Distinct surface treatments, if required, ideally tie into the character of Major Streets or character initiatives underway.
2. Furnishing Zone paving material and pattern should continue to intersection.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed can be provided to buffer pedestrians from Traveled Way. Tree and shrub planting in beds.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.
7. Paving pattern to align with tree planting.
8. Bike parking should be provided at street corners. Where space permits racks can be installed perpendicular to Through Zone or multi-racks can be provided.
9. Wayfinding signage should be accommodated at street corners.
10. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
11. Provide seating elements where space permits.
12. Verge from face of curb to be provided in general alignment with CSDCS
13. Paving pattern to continue to corner. Equally spaced scoring.

Notes

1. Mid block rhythm to continue to street corner.
2. Design of corner configuration may vary as a response to context.
3. Where custom furniture is provided design should ensure flexibility for future street configurations.
4. Custom seating features can be integrated with planting bed.

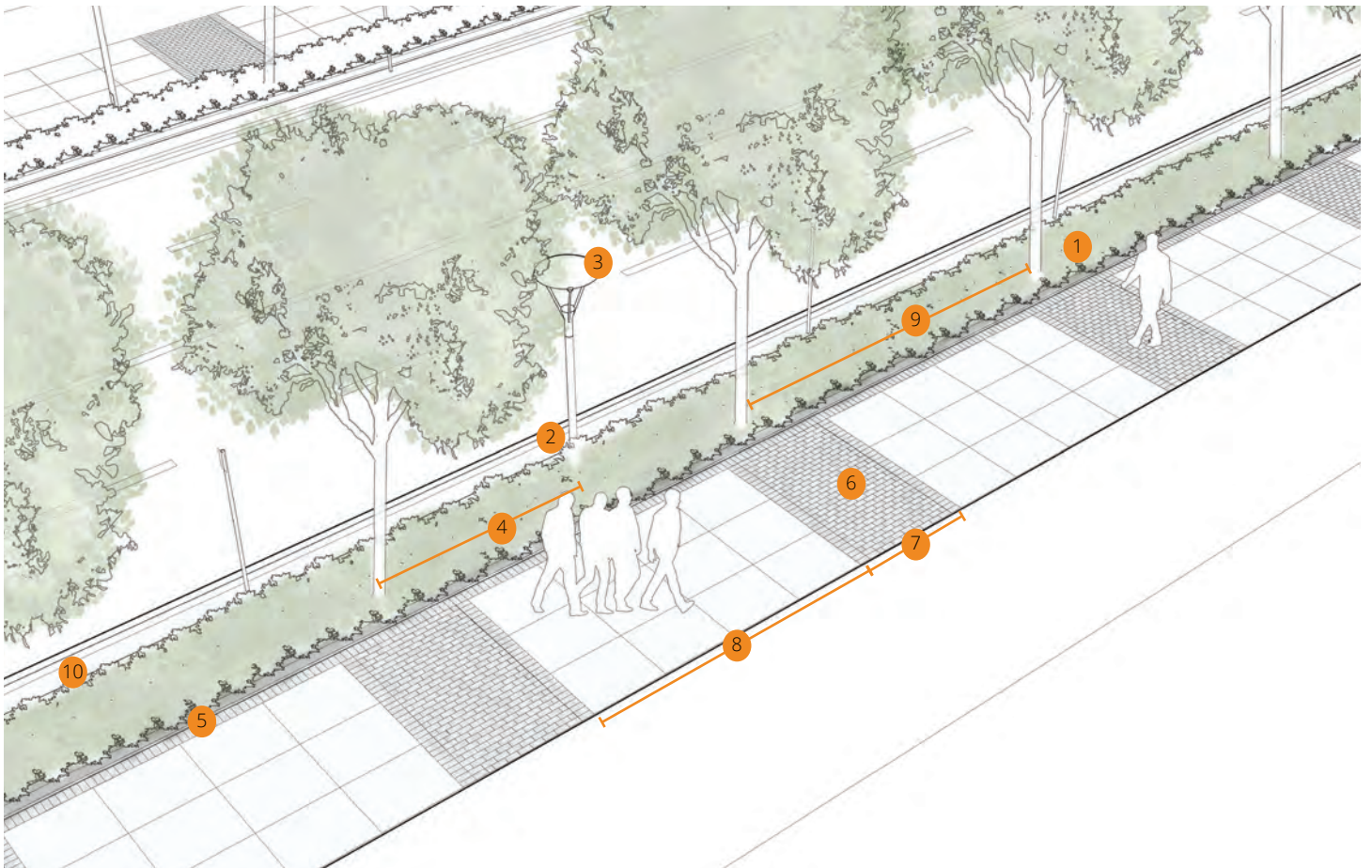
MAJOR RESIDENTIAL

Intent

1. Tree and shrub planting in planting bed.
2. Straight face curb beside travel way.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone.
7. Paving pattern to align with tree spacing.
8. Three score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
9. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
10. Verge from face of curb to be provided in general alignment with CSDCS.



MID BLOCK CONDITION





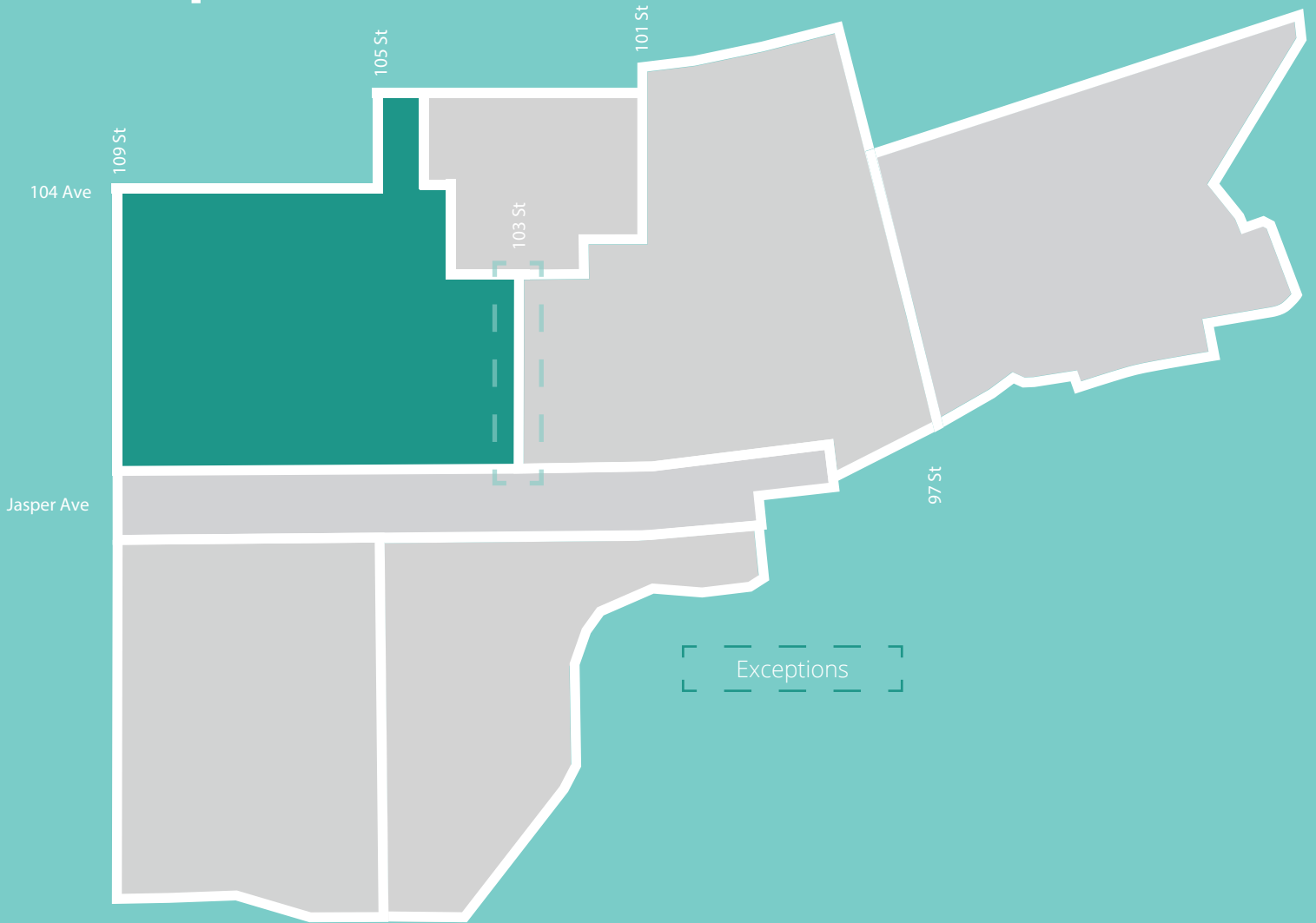
Intent

1. A minimum of 4m wide crosswalk should be provided and align with the through zone. Distinct surface treatments, if required, ideally tie into the character of Major Streets or character initiatives underway.
2. Furnishing Zone paving material and pattern should continue to intersection.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed can be provided to buffer pedestrians from Traveled Way. Tree and shrub planting in beds.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone.
7. Paving pattern to align with tree planting.
8. Bike parking should be provided at street corners. Where space permits racks can be installed perpendicular to Through Zone or multi-racks can be provided.
9. Wayfinding signage should be accommodated at street corners.
10. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
11. Provide seating elements where space permits.
12. Verge from face of curb to be provided in general alignment with CSDCS.
13. Paving pattern to continue to corner. Equally spaced scoring.

Notes

1. Mid block rhythm to continue to street corner.
2. Design of corner configuration may vary as a response to context.
3. Where custom furniture is provided design should ensure flexibility for future street configurations.
4. Custom seating features can be integrated with planting bed.

The Warehouse Campus



BASIS OF DESIGN

Intent

The street grid within the Warehouse Campus typify the Hudson's Bay Reserve survey that is characterized by broad rights-of-way of 80 feet (24.5m) intersecting at approximately 320 feet and 800 feet spacings. The broad right-of-way enables considerable opportunity in its make-up between Traveled Way and streetscape. The bike grid is in place along 106 Street and 102 Avenue.

The area's early development for warehousing associated with the former railway yard at the MacEwan University site remains a dominant characteristic. Accommodated in brick masonry of two to four storey buildings, they are now being converted for residential and office functions. This character is capitalized on in recent residential tower podium developments. Developments such as Norquest College set themselves apart through an alternate material palette.

Supporting the intent for the area as mixed use residential, there are a number of streetscape opportunities within the Traveled Way and Furnishing Zones. Alternate planting strategies may be investigated in the Furnishing Zone in combination with dimensions associated with the Through Zone.

The material and elements palette recommended addresses the area's architectural heritage through accent paving, selective use of stone and metals.

Exceptions

To facilitate with the transition between the Warehouse District and Commercial Core Character Areas, 103 Street between Jasper Avenue and 103 Avenue is to utilize Warehouse Campus Streetscape Elements on both sides of the street.

Existing Streetscape Assets

- 106 Street and 107 Street along limited block faces have significant arcades of mature Patmore Ash trees to be retained.
- Recent streetscapes along 108 Street (Capital Boulevard) and 104 Street each create pedestrian oriented character, where the Through Zone and Furnishings Zones are widened. Carriageway straight face curbs are replaced with swale type ones.
- 104 Avenue along the north side is characterized by the triple arcade of mature Ash trees.
- Blocks of 107 Street, 104 Avenue, and 102 Avenue are the alignment of the proposed West LRT.

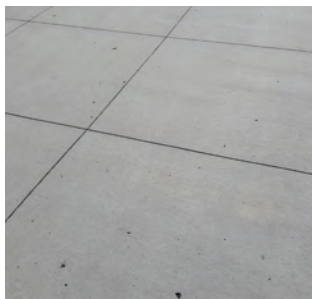
MATERIALS, FINISHES & PRODUCTS



Black Powder Coat

Red Brick

Sand Blast Concrete



Paving Material

Through Zone

- Poured concrete with sawcut joints.
- Typical scoring at 1000-2000mm, to vary with site conditions
- Broom Finish



Paving Material

Furnishing Zone & Through Zone Banding

- 'Sandblasted' concrete finish with sawcut joints
- Typical scoring 1000-2000mm, to vary with site conditions

Accents

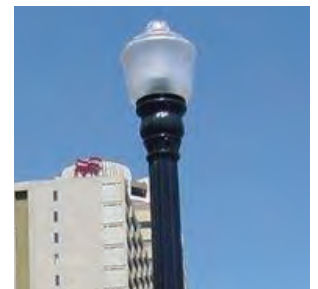
- 'Red brick' paving stone
- Holland Stone over concrete base
- 100mm x 200mm x 80mm
- Soldier course



Traveled Way Lighting

- Tapered octagonal pole
- Finish - Black Powder coated or approved finish over pre-galvanization

Basis of Design- Luminaire - City Lighting standards; Pole-Single Davit Pole



Pedestrian Lighting

- Glenora lamp pole
- Finish- Black powder coated or approved finish over pre-galvanization
- Target spacing 40-50m
- Minimum spacing 30m

Basis of Design- Signify Metroscope



Bike Racks

- Bike racks to allow the frame and at least one wheel to be locked.
- Inverted U Racks
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Painted black finish over pre-galvanization
- Crossbars recommended; and can include street number/name

Custom Racks

- Art or themed racks acceptable if operationally acceptable.

Basis of Design - Reliance Foundry



Litter Receptacle

- City of Edmonton standard
- Black
- Concrete base
- Option for logo or medallion for branding

Basis of Design-City of Edmonton Design



Bollard

- Decorative bollard
- Black powder coated
- 990mm height,
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).

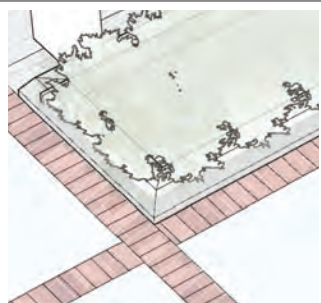
Basis of Design Product: Reliance Foundry, R-7691



Bench

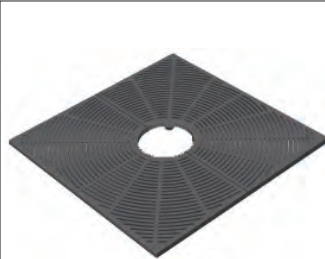
- 1200mm to 1800mm length with seat height between 450mm to 500mm
- Ergonomic design, backed with end arms in all applications
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Timber or HDPE plastic slats for seat and back.
- Wood finishes to be integral and homogeneous
- Black powder coated metal support
- Comply with Edmonton Access Design Guide

Basis of Design-Oliver James Site Furnishings, Heritage



Planting Beds and Edges

- 150mm height, concrete curb 45° battered profile at the outer edges



Tree Grates

- Walkable, to comply with Access Design Guide
- Cast iron
- Square 1219mm or rectangle 1219mm x 1828mm
- 406mm diameter tree opening
- Black painted over pre-galvanization

Basis of Design: Norwood Foundry, R-8710, R-8811



Seating Elements

- Tyndall stone or red brick or precast concrete modular systems or cast-in-place concrete base
- Timber seating
- Black powder coat stainless steel armrests, mounting assembly and fastening hardware



Tree Guards

- Two piece steel guard surface mounted over the tree grates.
- Finish-Black powder coated or approved coating over pre-galvanization.

Basis of design product-Fillmore from Urban Accessories.

PLANTING



Existing Trees

Existing trees that are in good condition within right-of way are to be retained. Tree protection strategies are to be implemented throughout any construction works as per City guidelines.



"Avenue" Planting

Brandon or American Elm

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.



"Street" Planting

Prairie Spire or Patmore Ash

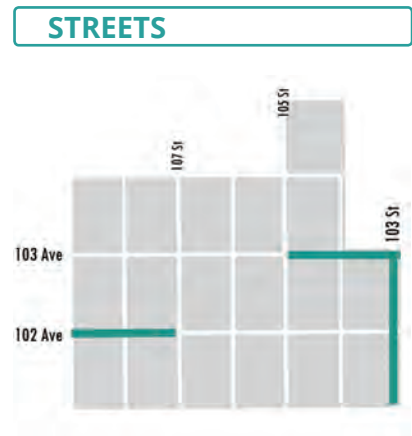
Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.

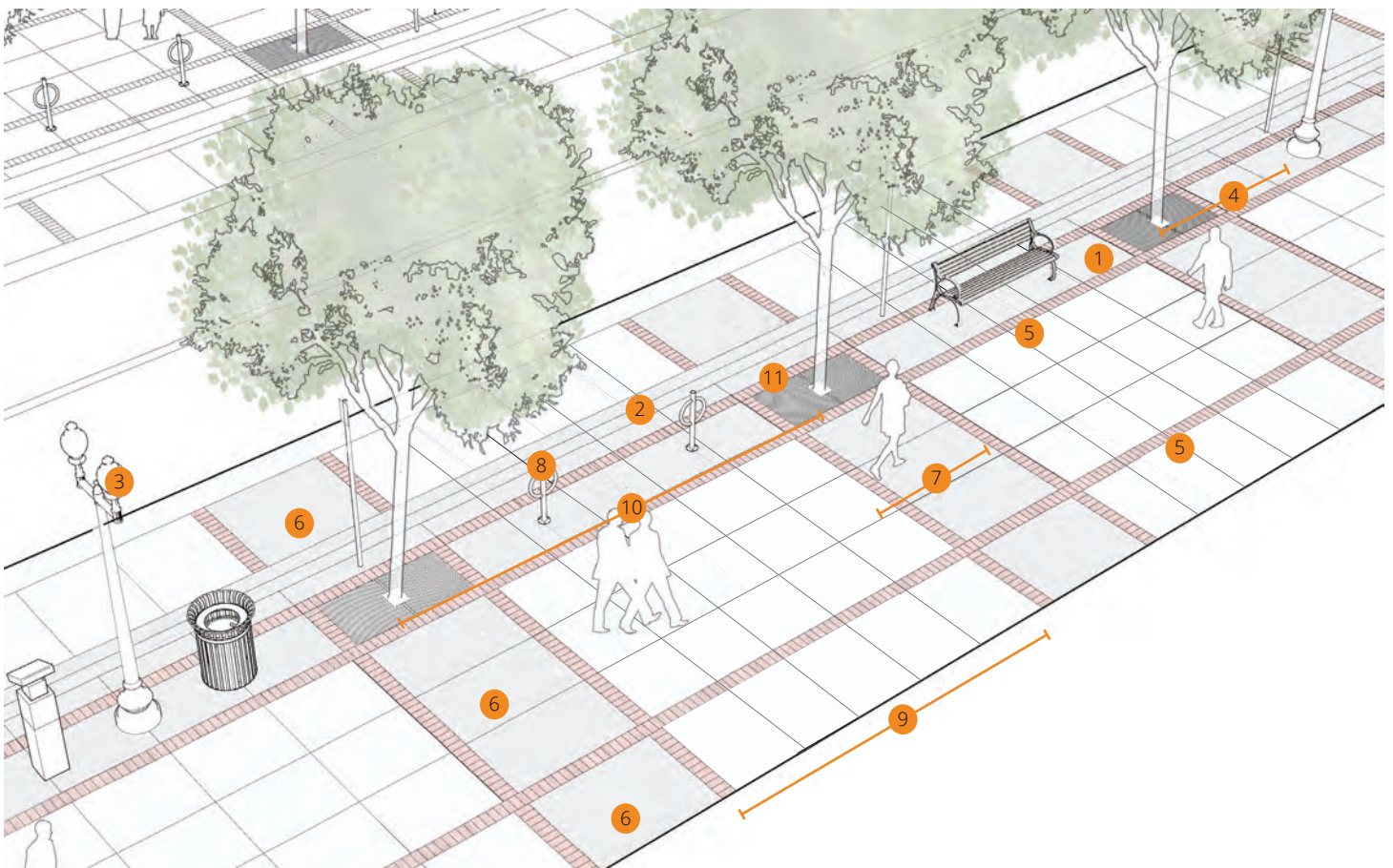
NEIGHBOURHOOD MIXED USE

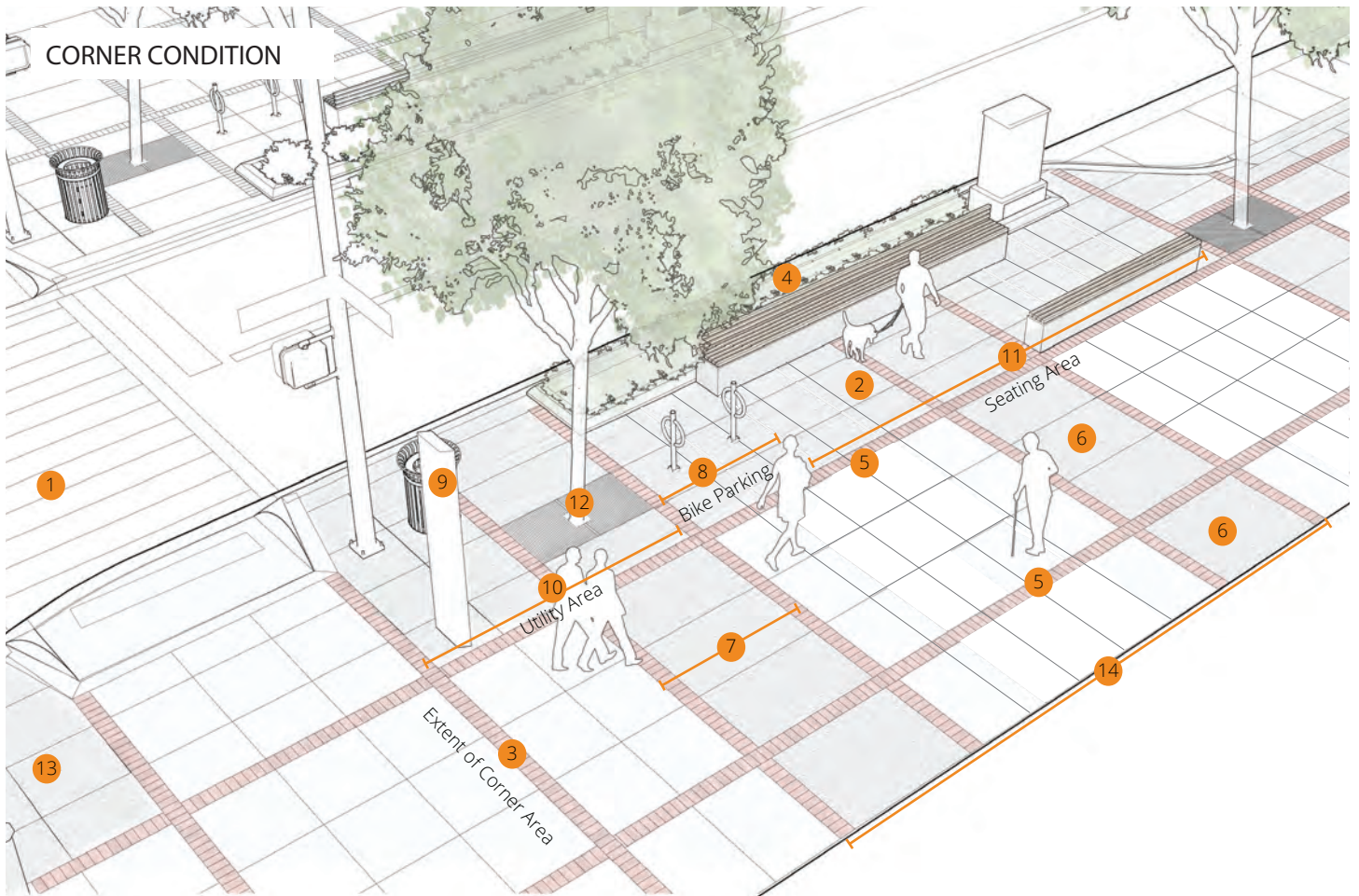
Intent

1. Tree planting with tree grate to be accommodated in Furnishing Zone. Soil cells should be provided to ensure minimum soil volume.
2. Roll face curb. Incorporate relevant scoring to tie into scoring patterns in the furnishing and through zone.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Ancillary Zone, Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates.
8. Bike parking should be aligned with through zone. Aligned with score pattern.
9. Four score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.



MID BLOCK CONDITION





Intent

1. A minimum of 4m wide crosswalk should be provided and align with the through zone. Distinct surface treatments, if required, ideally tie into the character of the Warehouse Campus or character initiatives underway.
2. Amenity area paving pattern and material to match Furnishing Zone.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed should be provided to buffer pedestrians from Traveled Way. Where space permits traffic control boxes should be located in this area.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates with four score joints equally spaced between the bands.
8. Bike parking should be provided at street corners. Where space permits racks can be installed perpendicular to Through Zone or multi-racks can be provided.
9. Wayfinding signage should be accommodated at street corners.
10. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
11. Where area allows custom seating elements may be provided. Backed or backless based on configuration.
12. Trees should be planted with tree grates.
13. Furnishing Zone material to continue at corner.
14. Paving pattern to continue to corner. Four score joints should be equally spaced.

Notes

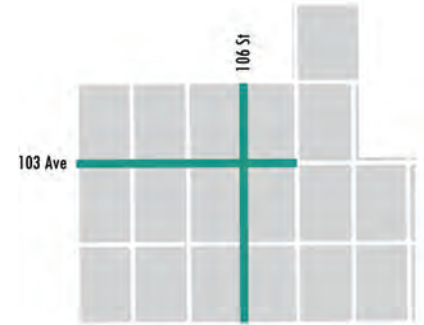
1. Mid block rhythm to continue to street corner.
2. Where a corner bulb cannot be provided Furnishing Zone material and pattern should continue to intersection. Refer to section 5.0 for additional guidance.
3. Design of corner configuration may vary as a response to context.
4. Where custom furniture is provided design should ensure flexibility for future street configurations.

NEIGHBOURHOOD RESIDENTIAL

Intent

1. Tree and shrub planting in planting bed.
2. Roll face curb, incorporate relevant scoring to tie into scoring patterns in the furnishing and through zone.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone Edge.
6. Furnishing Zone paving pattern and material to extend through Ancillary Zone, Through Zone, and Frontage Zone.
7. Paving pattern to align with tree spacing and space between landscaped beds.
8. Bike parking should be provided. If space allows can be installed perpendicular to Through Zone.
9. Four score joints should be equally spaced between tree grates or circulations space (see # 12 & 13).
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.
12. Primary circulation minimum 1800mm clear space.
13. Secondary circulation minimum 1200mm clear space.

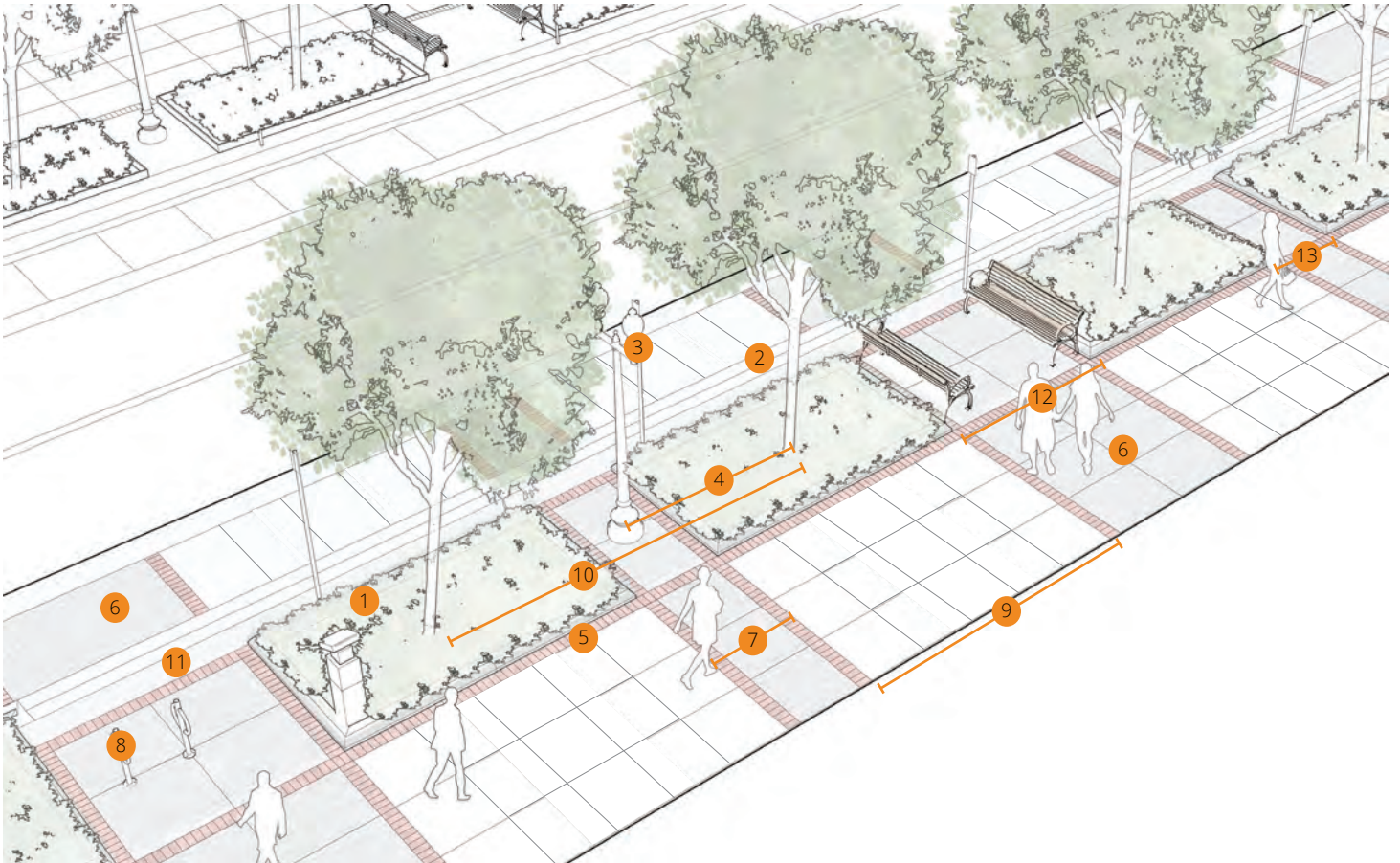
STREETS

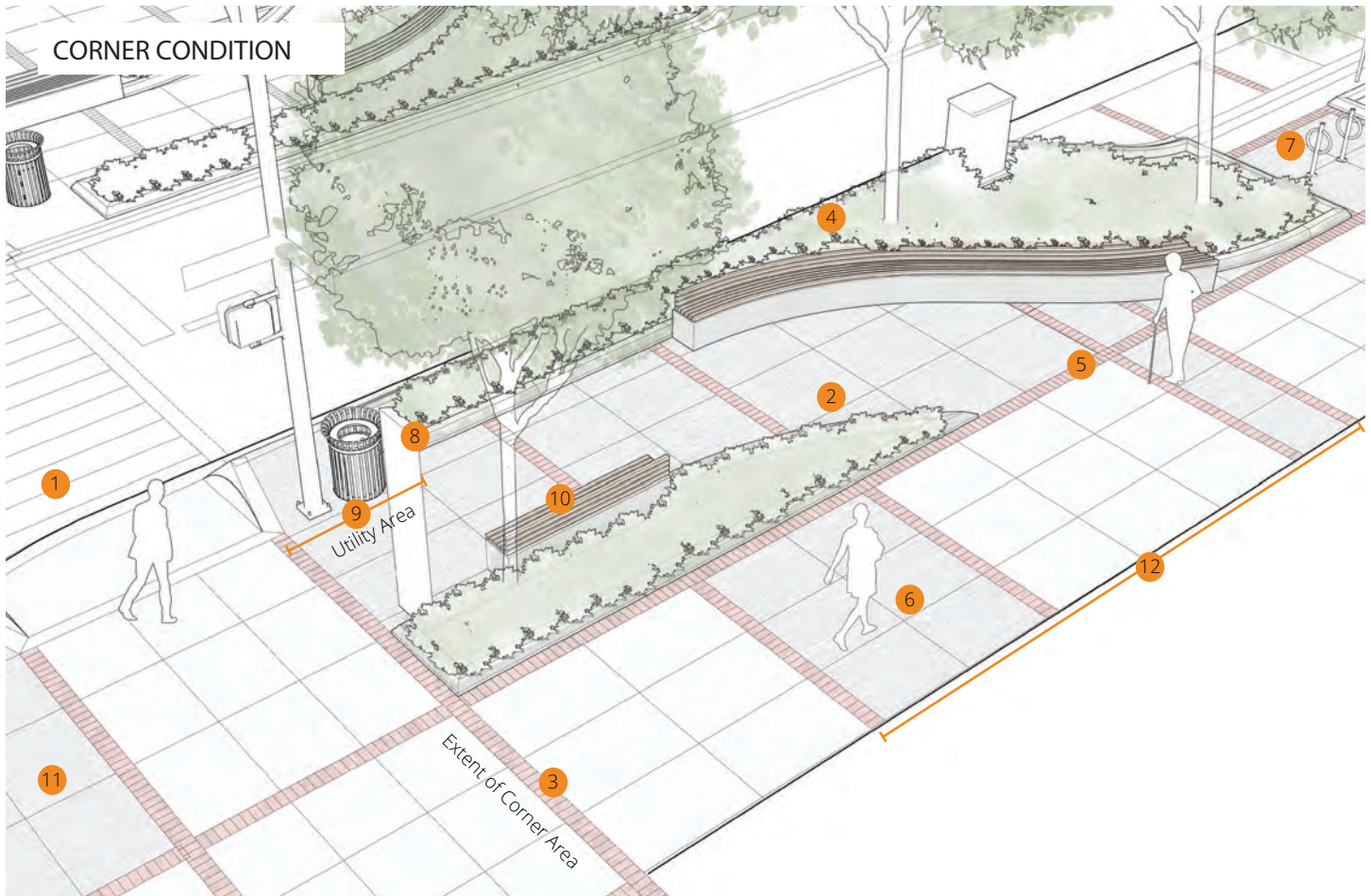


Notes

1. Alternatively seating features can be integrated with planting bed.

MID BLOCK CONDITION





Intent

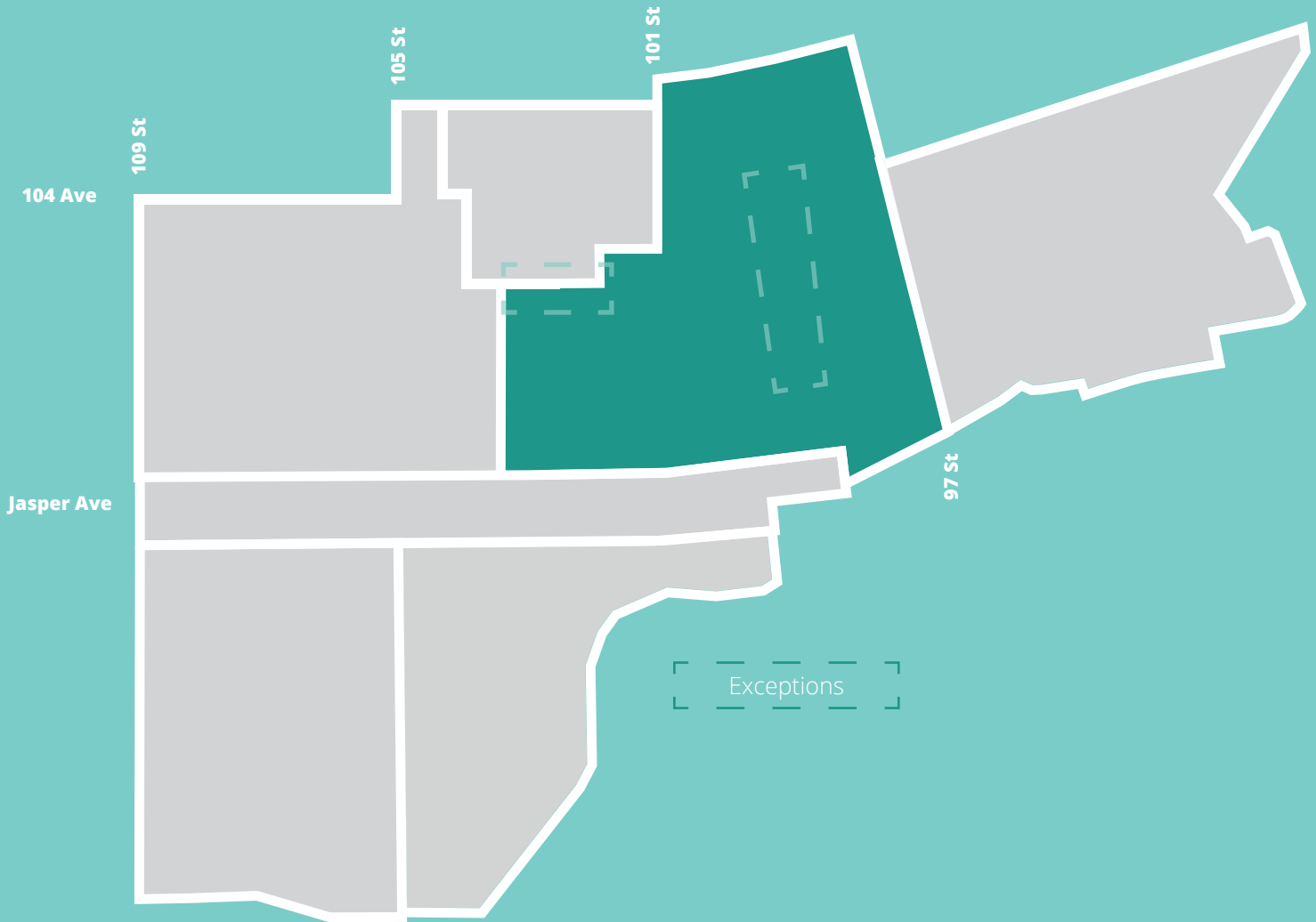
1. A minimum of 4m wide crosswalk should be provided and align with the through zone. Distinct surface treatments, if required, ideally tie into the character of the Warehouse Campus or character initiatives underway.
2. Amenity area paving pattern and material to match Furnishing Zone.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed should be provided to buffer pedestrians from Traveled Way. Where space permits traffic control boxes should be located in this area.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.

7. Bike parking should be provided at street corners. Where space permits racks can be installed perpendicular to Through Zone or multi-racks can be provided.
8. Wayfinding signage should be accommodated at street corners.
9. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
10. Where area allows custom seating elements may be provided. Backed or backless based on configuration.
11. Furnishing Zone material to continue at corner.
12. Paving pattern to continue to corner. Equally spaced scoring.

Notes

1. Mid block rhythm to continue to street corner.
2. Where a corner bulb cannot be provided furnishing zone material and pattern should continue to intersection. Refer to section 5.0 for additional guidance.
3. Design of corner configuration may vary as a response to context.
4. Where custom furniture is provided design should ensure flexibility for future street configurations.

Commercial Cultural Core



BASIS OF DESIGN

Intent

The Commercial Cultural Core is the distinctive business district of Downtown. Its streets are the address for both commercial office and retail oriented developments. The concentration of development is leading to the creation of specialized streets. They are transforming through the rapid implementation of both destinations, such as the ICE District, Royal Alberta Museum, and recent infrastructure improvements, such as the LRT (NAIT line and Valley Line). Together, an increasingly walkable area is being created, enabling an ease of pedestrian access throughout the area.

The material and elements palette recommended addresses the area's cultural and contemporary nature through paving and furnishings that support the evolving character.

Exceptions

In order to facilitate the transition between the Commercial Cultural Core and ICE District, 103 Avenue between 104 Street and 101 Street is to utilize the same roadway and pedestrian lighting as ICE District.

Existing Streetscape Assets

Streetscape improvements are in place or designed underway for several of the Core streets.

- Rice Howard Way, in association with Enbridge Centre (formerly Kelly-Ramsey), along its 100A Street and 101A Avenue frontages.
- ICE District, with portions of 104 Avenue completed in association with the arena.
- Civic Precinct, including 102A Avenue between City Hall and Churchill Square, and 99 Street to the Museum.

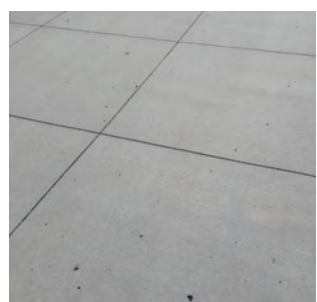
MATERIALS, FINISHES & PRODUCTS



Stainless Steel

Silver Powder Coat

Black Granite



Paving Material Through Zone

- Poured concrete with sawcut joints.
- Typical scoring at 1000-2000mm, to vary with site conditions
- Broom Finish



Paving Material Furnishing Zone & Through Zone Banding

- Holland stone pavers over concrete base
- Size -100mm x 200mm x 80mm
- Running bond pattern parallel to the curb
- Black granite colour



Traveled Way Lighting

- Tapered octagonal pole
- Finish - Silverpowder coated or approved finish over pre-galvanization

Basis of Design-
Luminaire-City Lighting Standards;
Pole-Single Davit Pole



Pedestrian Lighting

- Tapered round pole
- Finish - Silver powder coated or approved finish over pre-galvanization

Basis of Design-
Lumec Urbanscape



Bike Racks

- Bike racks to allow the frame and atleast one wheel to be locked.

Q racks

- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Stainless steel or equivalent approved finish

Basis for design product:
City of Edmonton 'Q' rack

Custom Racks

- Art or themed racks acceptable if operationally acceptable.



Litter Receptacle

- Surface mount
- Stainless Steel #4 polish
- Vertical Slot pattern
- Flat Top manufactured from thick gauge stainless steel to minimize vandalism
- 32 Gallon Capacity, plastic receptacle liner
- Plastic coated stainless steel cable lanyard lid attachment
- Options for bottles/cans recycling tray could be included

Basis of Design Product:
Urban Park Fairmont



Bollard

- NPS Schedule 40, type 316 stainless steel pipe, 114mm diameter
- Base-165mm diameter, 19mm thick, type 316 stainless steel base plate with (4) 21mm diameter holes for anchor bolts
- Surface mounted with base plate cover over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Options for reflective strips could be included
- Finish-Satin

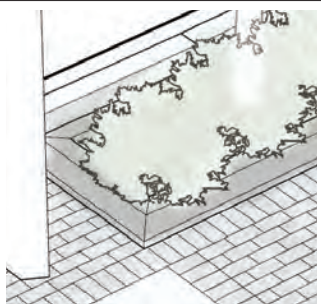
Basis of Design-Reliance Foundry
-R-7183 Bolt Down Bollard



Bench

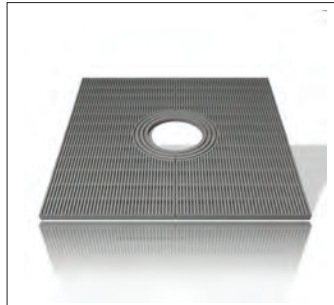
- 1200mm to 1800mm length with seat height between 450mm to 500mm
- Ergonomic design, backed with end arms in all applications
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Timber or HDPE plastic slats for seat and back.
- Wood finishes to be integral and homogeneous
- Stainless Steel metal support
- Comply with Edmonton Access Design Guide

Basis of Design Product:
Landscape Forms, Austin



Planting Beds and Edges

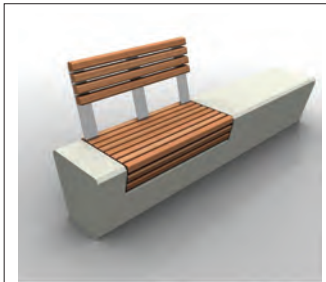
- 150mm height, concrete curb 45° battered profile at the outer edges



Tree Grates

- Walkable, to comply with Access Design Guide
- 1219 (4) Square Ductile Iron or Cast Aluminium with additional reinforcement to withstand loads of sidewalk clearing equipment.
- Adjustable opening to accommodate tree growth
- Silver colour painted over pre-galvanization

Basis of Design-Jamison 2000, Urban Accessories



Seating Elements

- Black granite or precast concrete modular systems or cast-in-place concrete base
- Timber seating
- Stainless steel armrests, mounting assembly and fastening hardware



Tree Guards

- Two piece steel guard surface mounted over the tree grates.
- Finish-Silver powder coated or an approved coating over pre-galvanization.

Basis of Design- Fillmore, Urban Accessories

PLANTING



Existing Trees

Existing trees that are in good condition within right-of way are to be retained. Tree protection strategies are to be implemented throughout any construction works as per City guidelines.



“Avenue” Planting

Brandon or American Elm

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.



“Street” Planting

Prairie Spire or Patmore Ash

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.

NEIGHBOURHOOD MIXED USE

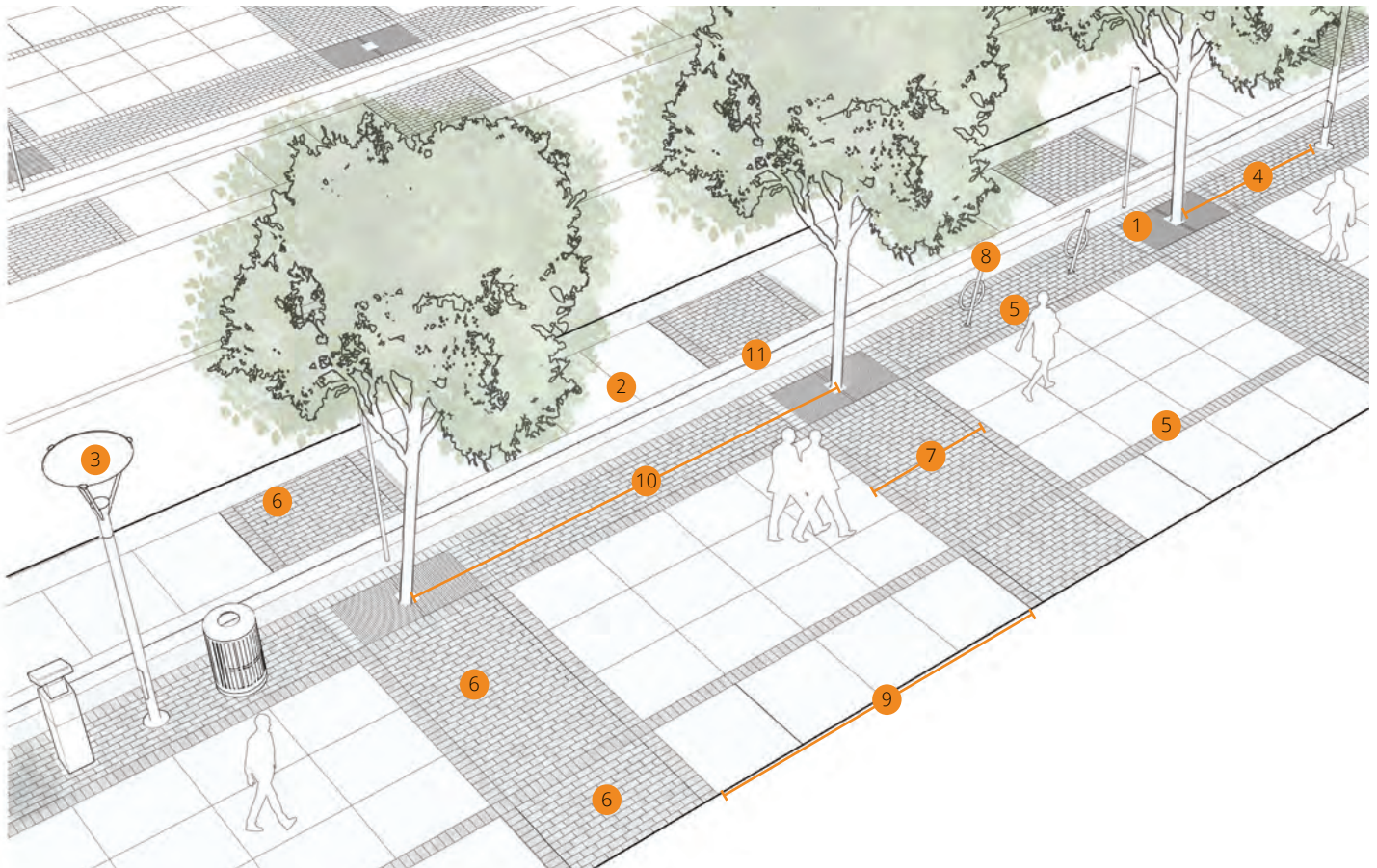
Intent

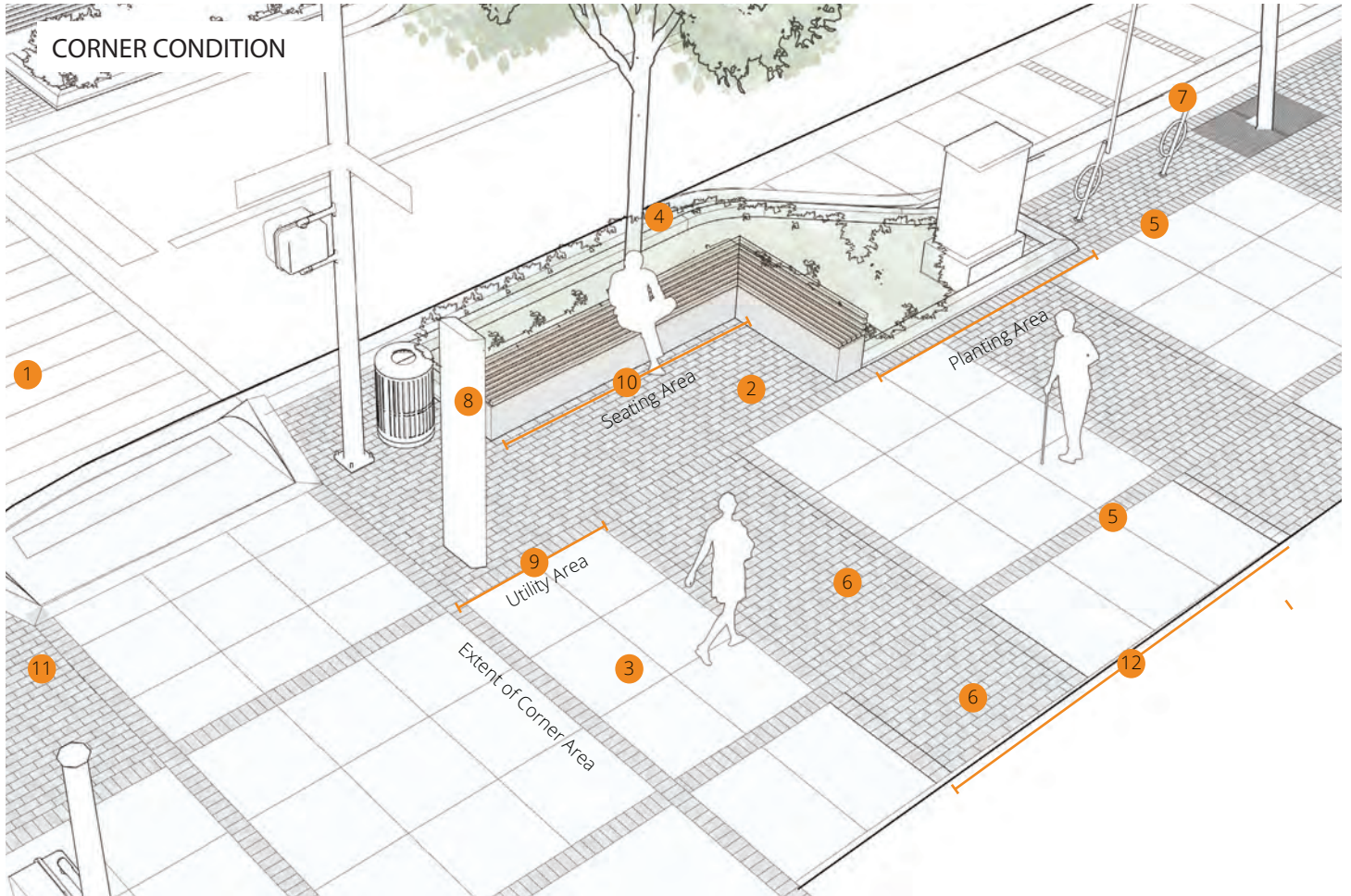
1. Tree planting with tree grate to be accommodated in Furnishing Zone. Soil cells should be provided to ensure minimum soil volume.
2. Roll face curb. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Ancillary Zone, Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates.
8. Bike parking should be aligned with Through Zone. Aligned with score pattern.
9. Three score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.

STREETS



MID BLOCK CONDITION





Intent

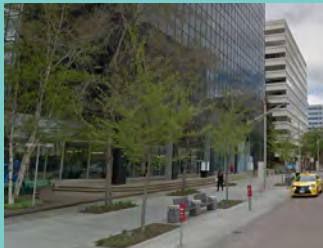
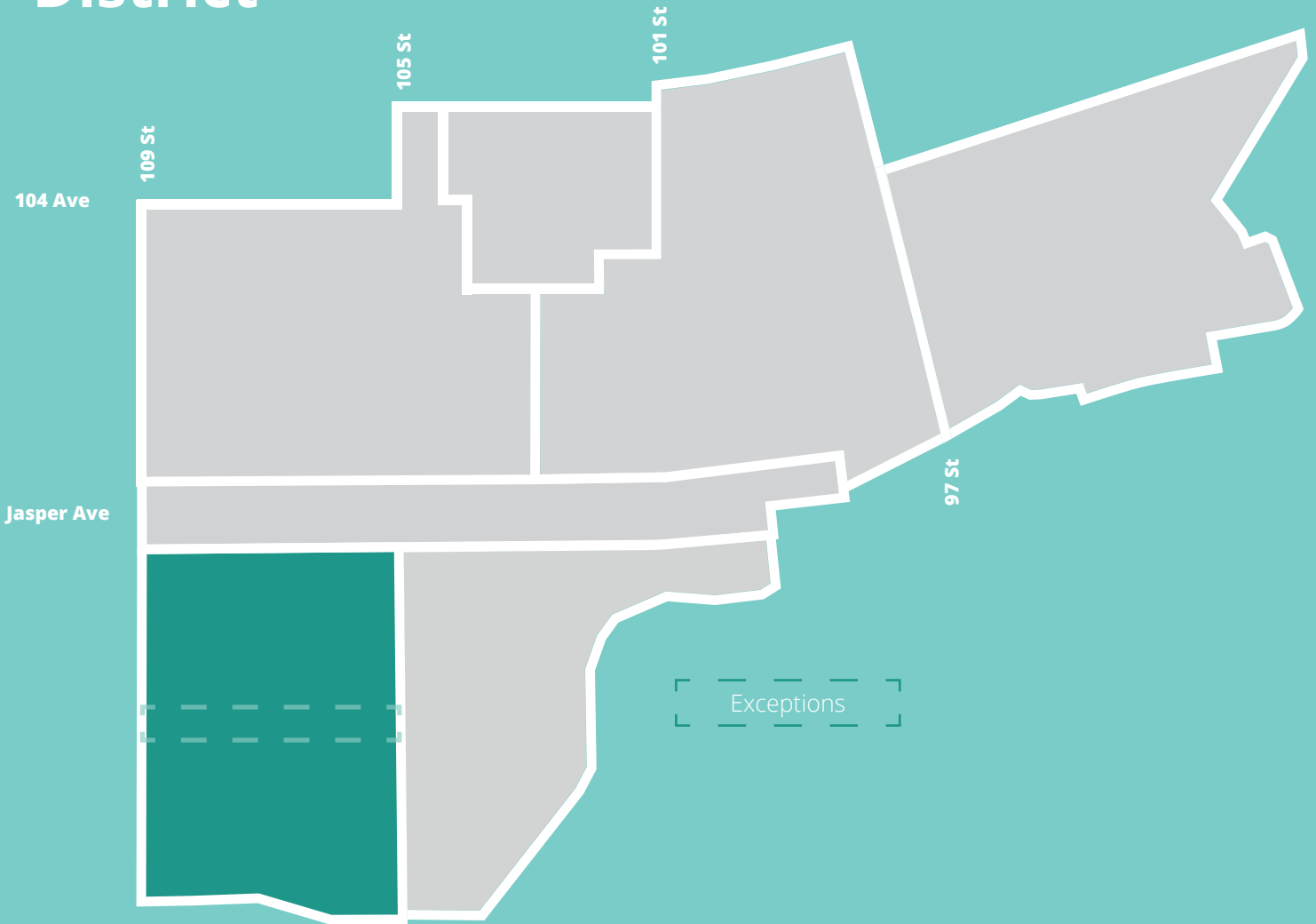
1. Crosswalks should be provided and be a minimum 4.0m wide. Crosswalk to align with Through Zone. A minimum of 4m wide crosswalk should be provided and align with the through zone. Distinct surface treatments, if required, ideally tie into the character of Commercial Culture Core or character initiatives underway.
2. Amenity area paving pattern and material to match Furnishing Zone.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed should be provided to buffer pedestrians from Traveled Way. Where space permits traffic control boxes should be located in this area.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.

7. Bike parking should be provided at street corners. Where space permits racks can be installed perpendicular to Through Zone or multi-racks can be provided.
8. Wayfinding signage should be accommodated at street corners.
9. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
10. Where area allows custom seating elements may be provided. Backed or backless based on configuration.
11. Furnishing Zone material to continue at corner.
12. Paving pattern to continue to corner. Equally spaced scoring.

Notes

1. Mid block rhythm to continue to street corner.
2. Where a corner bulb cannot be provided Furnishing Zone material and pattern should continue to intersection. Refer to section 5.0 for additional guidance.
3. Design of corner configuration may vary as a response to context.
4. Where custom furniture is provided design should ensure flexibility for future street configurations.

Capital City District



BASIS OF DESIGN

Intent

The Capital City District is characterized by the Legislature Grounds, Capital Boulevard (108 Street) and the surrounding major office buildings. The area is envisioned as a commercial office sector with at-grade commercial uses along Capital Boulevard and with mixed-use residential along the adjacent streets.

Streetscape Design in the Capital City District should draw on finishes and furnishings from the Legislature Grounds and Capital Boulevard. Buff colored pavers should be utilized, with accents of black granite to provided continuity and connection throughout the district.

Exceptions

Heritage Trail runs along a number of streets within the Capital City District Character Area. The Heritage Trail streetscape treatment is applied along the south side of those streets, while the Capital City streetscape treatments is applied to all other streets within the Character Area.

Existing Streetscape Assets

- 108 Street (Capital Boulevard) celebrates the Legislature with a pedestrian oriented streetscape. Its material selection incorporates selected materials from the recent Legislature 'Federal Building and Centennial Plaza' development.
- 99 Avenue (Heritage Trail), renews Heritage Trail from 107 Street to west of 108 Street, in a simplified form utilizing its tree grates and selected paver details.
- 107 Street, south of 99 Avenue has a broad tree lined sidewalk that reintroduces the street grid to this portion of the grounds.
- 100 Avenue, north side stately boulevard trees are notable for their continuity and close spacing of 3.0 to 5.0 metres extending from 109 Street east to 102 Street. The associated grass boulevard is in poor condition and the sidewalk through zone of 1.5 to 2.0 metres is narrow for the volume of pedestrian traffic.
- The bicycle network is in place along 100 Avenue.

MATERIALS, FINISHES & PRODUCTS



Stainless Steel

Buff Colour
Pavers

Tyndall Stone



Paving Material
Through Zone

- Poured concrete with sawcut joints.
- Typical scoring at 1000-2000mm, to vary with site conditions
- Broom Finish



Paving Material
Furnishing Zone & Through Zone
Banding

- Precast concrete unit pavers over concrete base
- Buff colour
- 300mm x 300mm
- Stack bond pattern

Accent

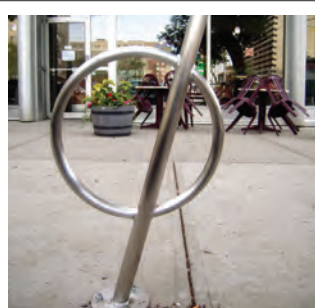
- Black granite colour holland stone pavers
- Soldier course



Traveled Way & Pedestrian Lighting

- Tapered round pole
- Finish-Aluminum/Silver powder coated or approved finish over pre-galvanization

Basis of Design-
Lumec-Sole City



Bike Racks

- Bike racks to allow the frame and atleast one wheel to be locked.

Q racks

- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Stainless steel or equivalent approved finish

Basis for design product:
City of Edmonton 'Q' rack

Custom Racks

- Art or themed racks acceptable if operationally acceptable.



Litter Receptacle

- Surface mount
- Stainless Steel #4 polish or Silver/Aluminum colour powder coated finish
- Vertical Slot
- Flat Top manufactured from thick gauge stainless steel to minimize vandalism
- 32 Gallon Capacity, plastic receptacle liner
- Plastic coated stainless steel cable lanyard lid attachment
- Options for bottles/cans recycling tray could be included

Basis of Design Product:
Urban Park Fairmont



Bollard

- NPS Schedule 40, type 316 stainless steel pipe, 114mm diameter
- Base-165mm diameter, 19mm thick, type 316 stainless steel base plate with (4) 21mm diameter holes for anchor bolts
- Surface mounted with base plate cover over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Options for reflective strips could be included
- Stainless Steel or Silver/Aluminum colour powder coated

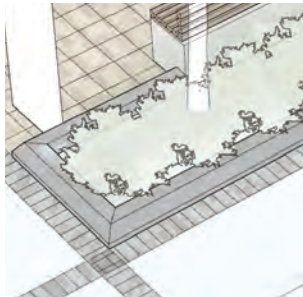
Basis of Design-Reliance Foundry
-R-7183 Bolt Down Bollard



Bench

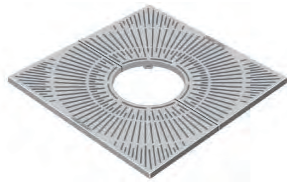
- 1200mm to 1800mm length with seat height between 450mm to 500mm
- Ergonomic design, backed with end arms in all applications
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Timber or HDPE plastic slats for seat and back.
- Wood finishes to be integral and homogeneous
- Stainless Steel/Silver colour powder coated metal support
- Comply with Edmonton Access Design Guide

Basis of Design Product:
Landscape Forms, Austin



Planting Beds and Edges

- 150mm height, concrete curb 45° battered profile at the outer edges



Tree Grates

- Walkable, to comply with Access Design Guide
- Cast iron
- Preferably square
- 454mm (18") diameter
- Tree opening
- 1219mm square or rectangle
- 1219mm x 2438mm
- Silver/Aluminum painted over pre-galvaniation

Basis of Design Product:
Norwood Foundry, R-8706 1A



Seating Elements

- Tyndall stone or precast concrete modular systems or cast-in-place concrete base
- Timber seating
- Stainless steel armrests, mounting assembly and fastening hardware



Tree Guards

- Two piece steel guard surface mounted over the tree grates.
- Finish-Silver/Aluminum powder coated or an approved coating over pre-galvanization.

Basis of Design- Fillmore, Urban Accessories

PLANTING



Existing Trees

Existing trees that are in good condition within right-of way are to be retained. Tree protection strategies are to be implemented throughout any construction works as per City guidelines.



"Avenue" Planting

Brandon or American Elm

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.



"Street" Planting

Prairie Spire or Patmore Ash

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.

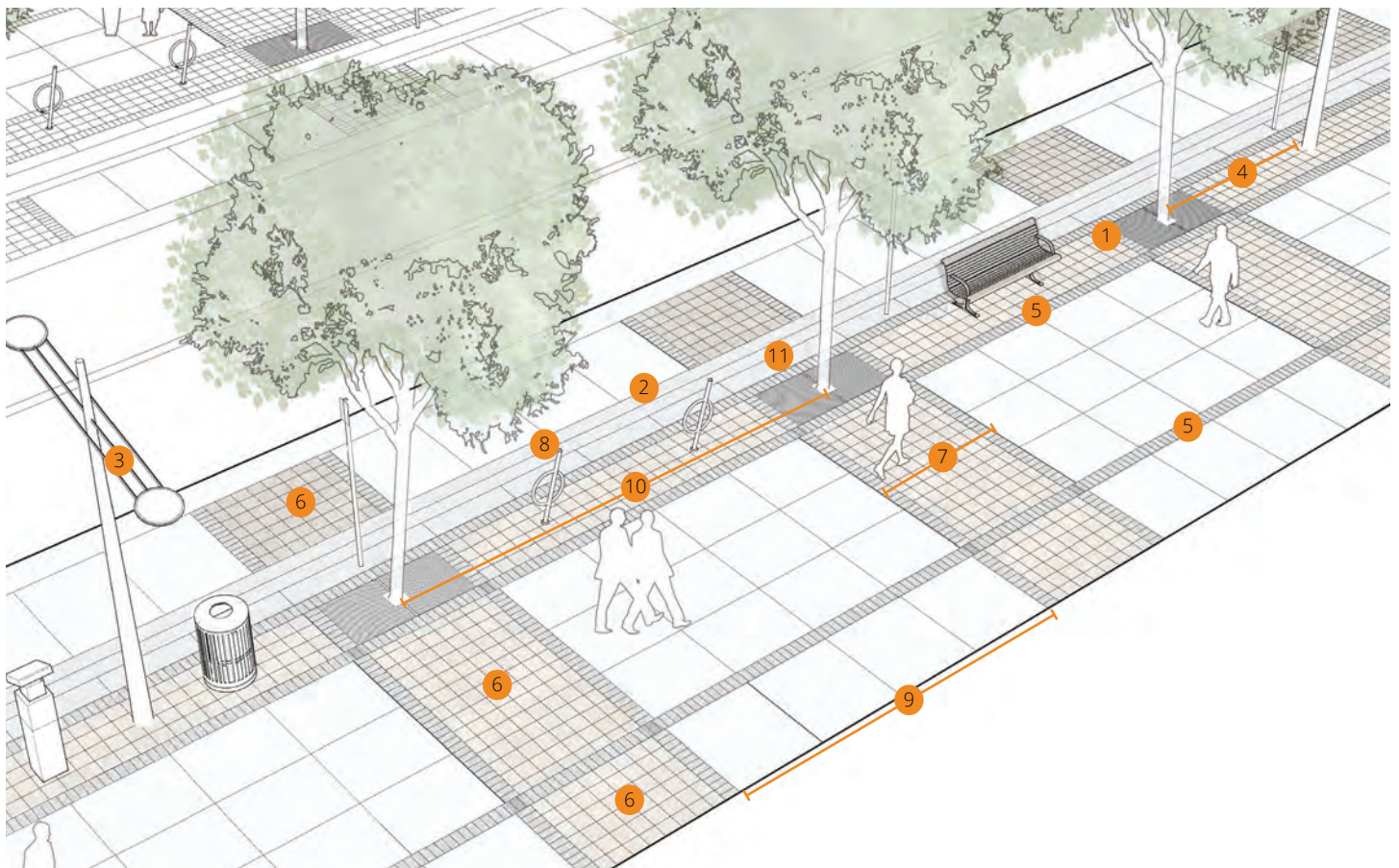
NEIGHBOURHOOD MIXED USE

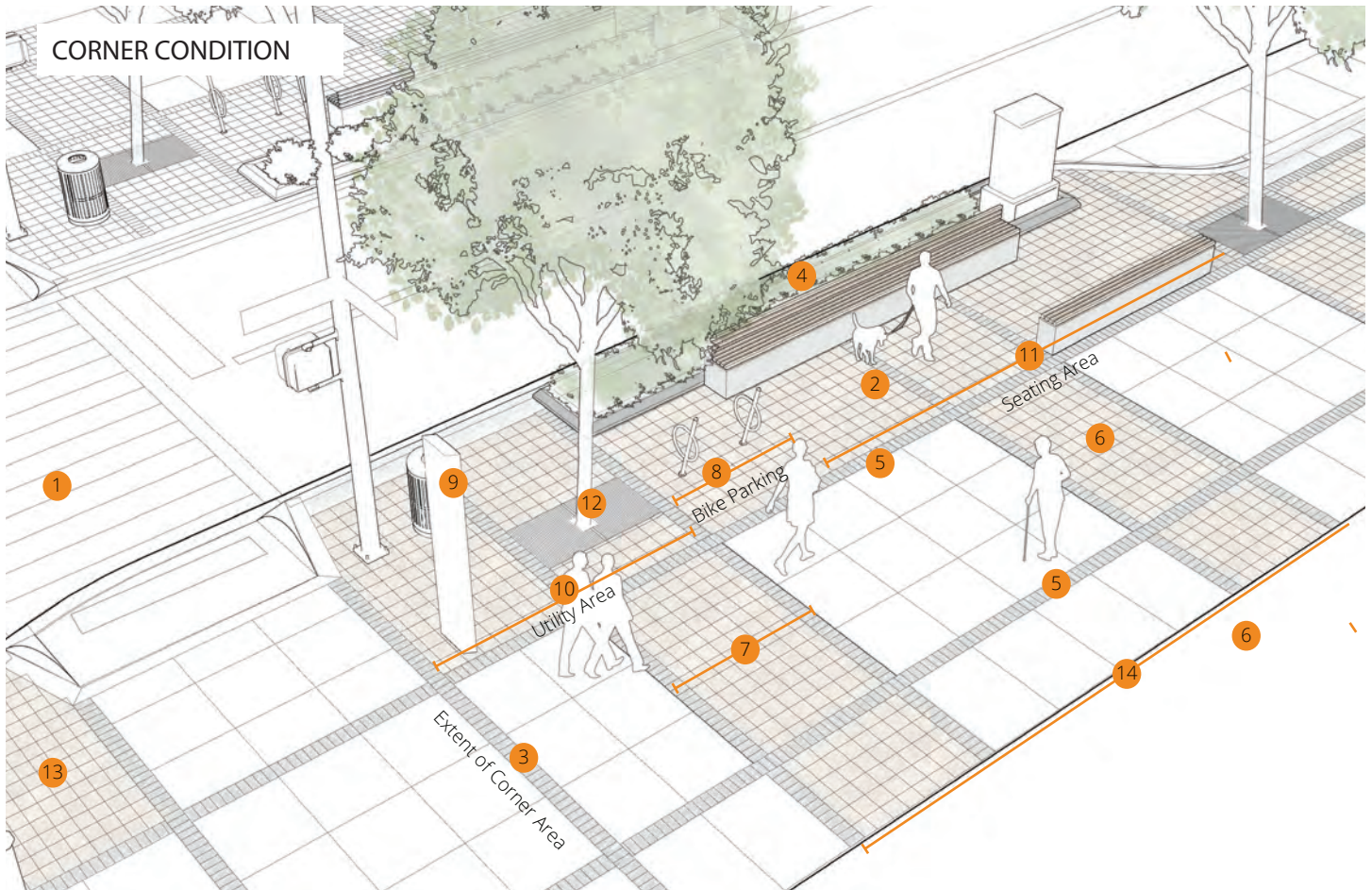
Intent

1. Tree planting with tree grate to be accommodated in Furnishing Zone. Soil cells should be provided to ensure minimum soil volume.
2. Roll face curb. Incorporate relevant scoring to tie into scoring patterns in the furnishing and through zone
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Ancillary Zone, Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates.
8. Bike parking should be aligned with through zone. Aligned with score pattern.
9. Three score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.



MID BLOCK CONDITION





Intent

1. Crosswalks should be provided and be a minimum 4.0m wide. Crosswalk to align with Through Zone. A minimum of 4m wide crosswalk should be provided and align with the through zone. Distinct surface treatments, if required, ideally tie into the character of the Capital City District or character initiatives underway.
2. Amenity area paving pattern and material to match Furnishing Zone.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed should be provided to buffer pedestrians from Traveled Way. Where space permits traffic control boxes should be located in this area.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates.
8. Bike parking should be provided at street corners. Where space permits racks can be installed perpendicular to Through Zone or multi-racks can be provided.
9. Wayfinding signage should be accommodated at street corners.
10. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
11. Where area allows custom seating elements may be provided. Backed or backless based on configuration.
12. Trees should be planted with tree grates.
13. Furnishing Zone material to continue at corner.
14. Paving pattern to continue to corner. Equally spaced scoring.

Notes

1. Mid block rhythm to continue to street corner.
2. Where a corner bulb cannot be provided Furnishing Zone material and pattern should continue to intersection. Refer to section 5.0 for additional guidance.
3. Design of corner configuration may vary as a response to context.
4. Where custom furniture is provided design should ensure flexibility for future street configurations.

NEIGHBOURHOOD RESIDENTIAL

Intent

1. Tree and shrub planting in planting bed.
2. Roll face curb, incorporate relevant scoring to tie into patterns in the furnishing and through zone.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone Edge.
6. Furnishing Zone paving pattern and material to extend through Ancillary Zone, Through Zone, and Frontage Zone.
7. Paving pattern to align with tree spacing.
8. Bike parking should be provided. If space allows can be installed perpendicular to Through Zone.
9. Two score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.
12. Primary circulation minimum 1800mm clear space.
13. Secondary circulation minimum 1200mm clear space.

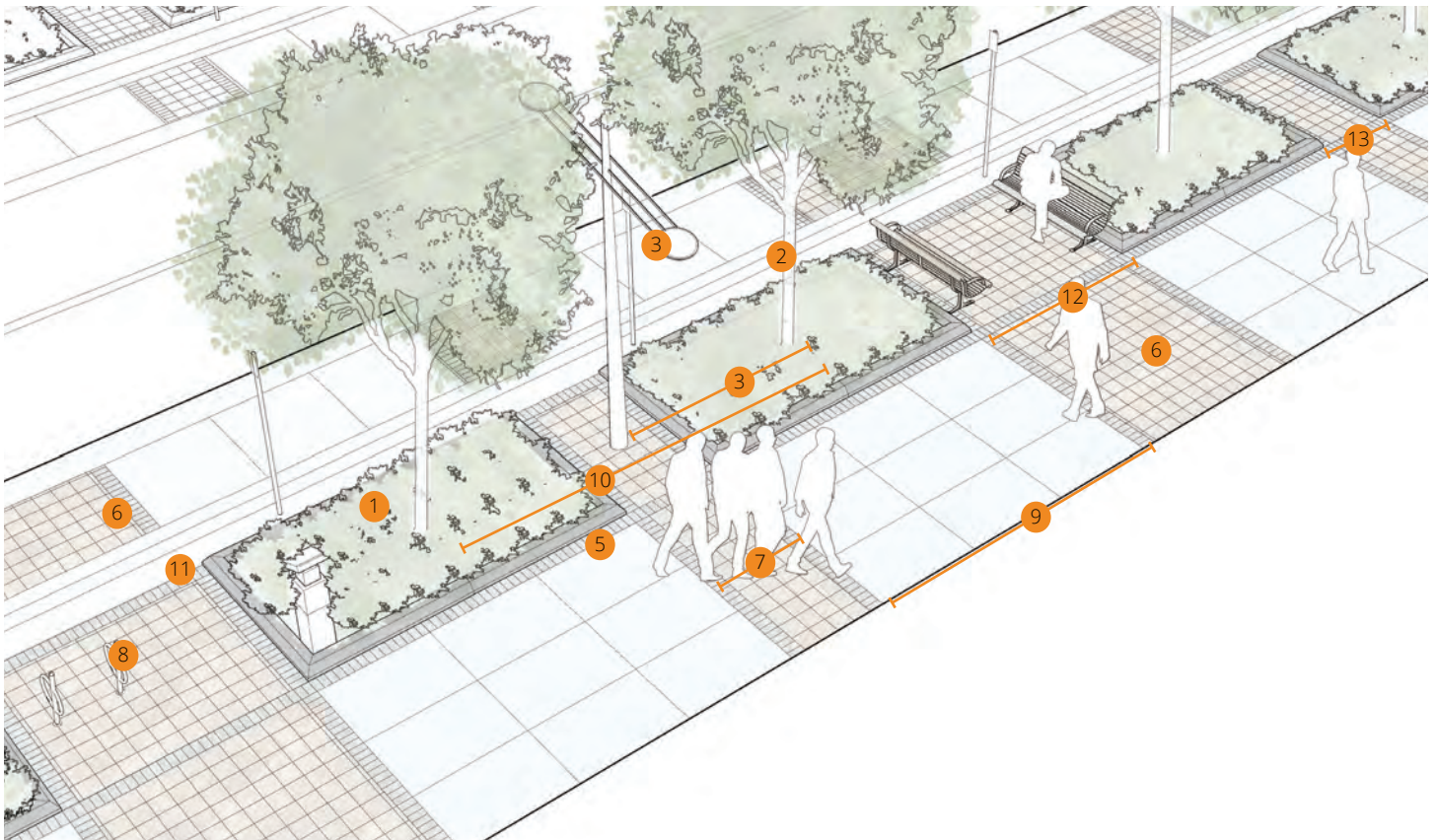
STREETS

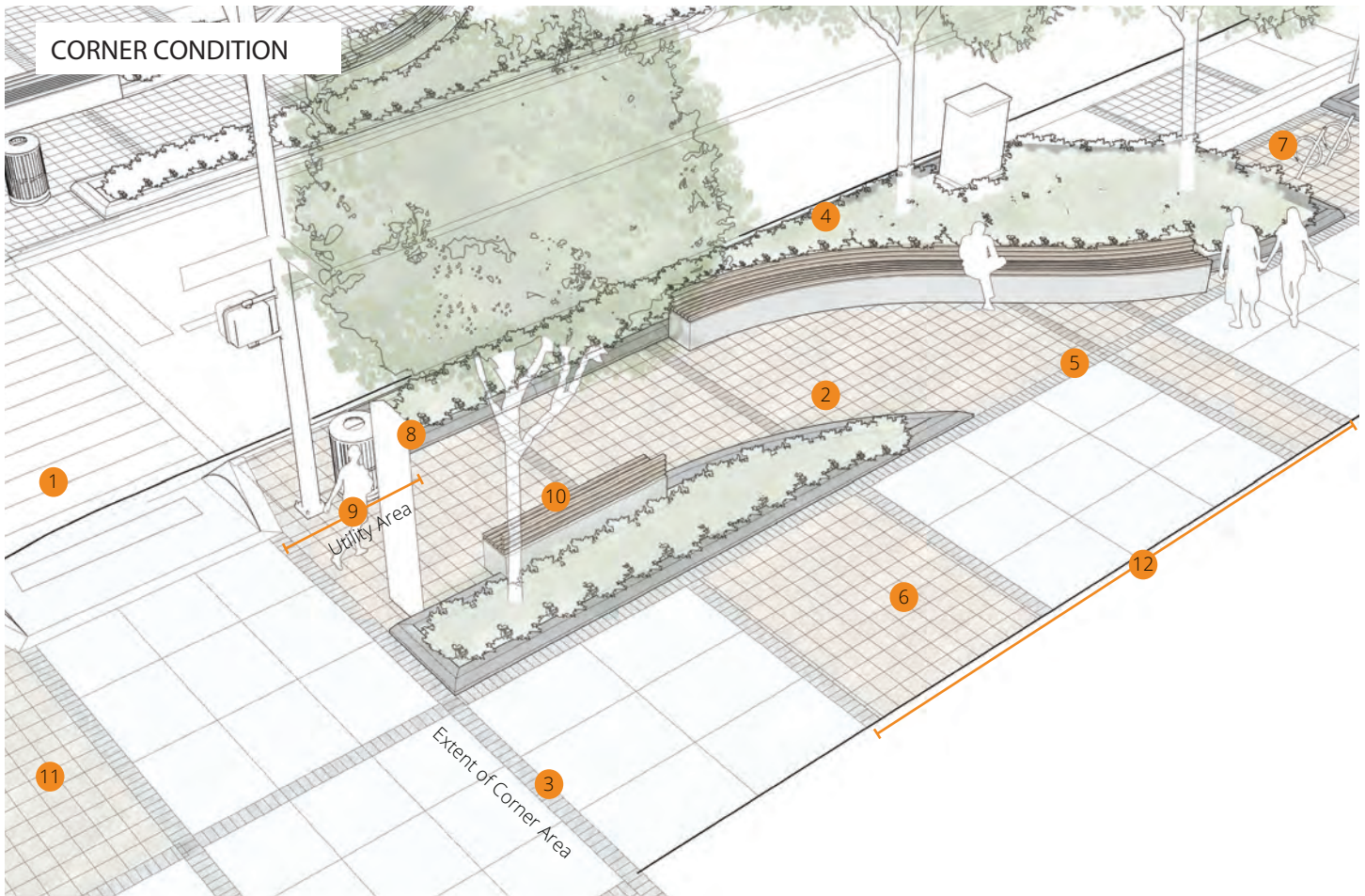


Notes

1. Alternatively seating features can be integrated with planting bed.

MID BLOCK CONDITION





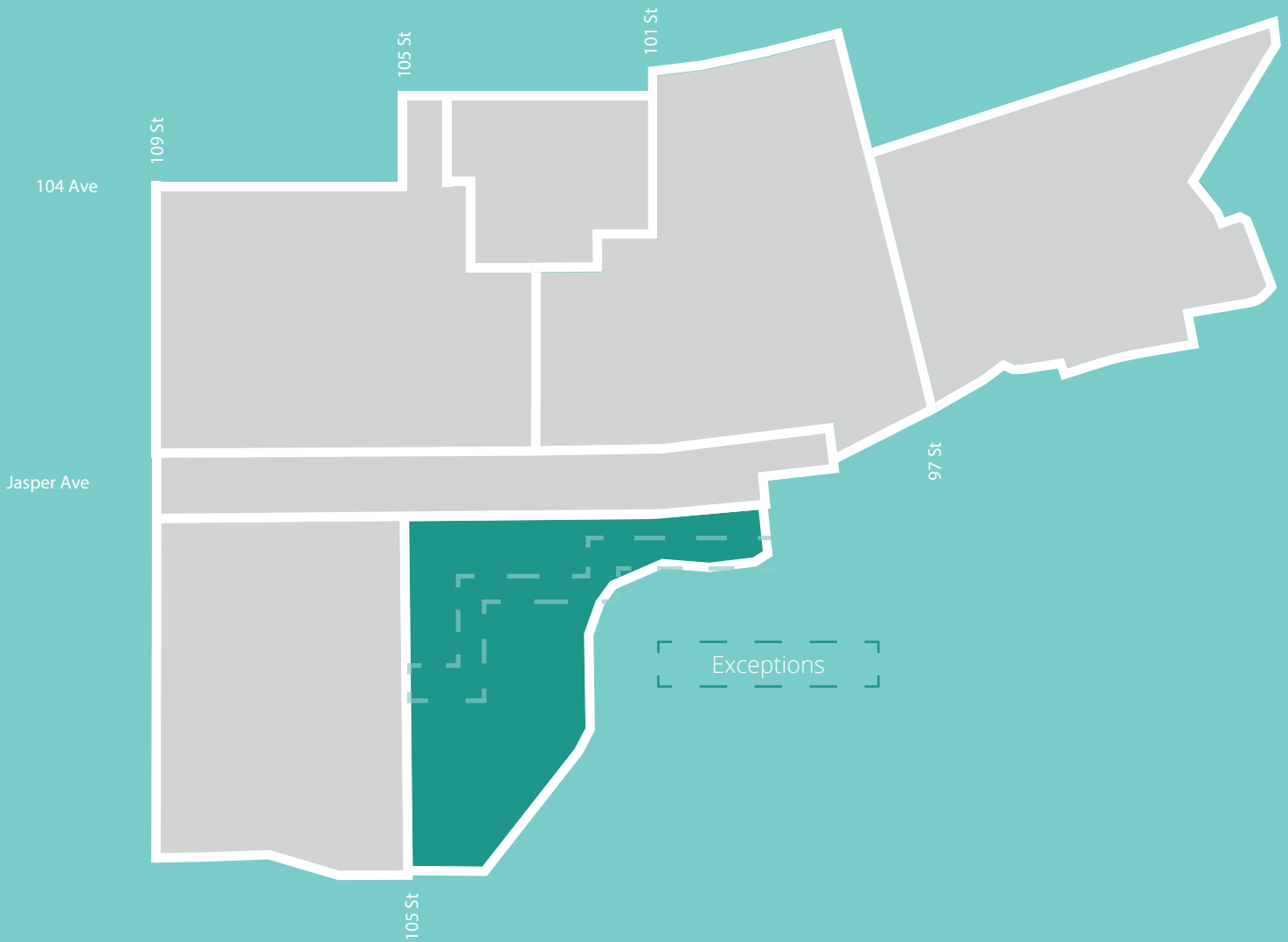
Intent

1. Crosswalks should be provided and be a minimum 4.0m wide. Crosswalk to align with Through Zone. Distinct surface treatments, if required, ideally tie into the character of the Capital City District or character initiatives underway.
2. Amenity area paving pattern and material to match Furnishing Zone.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed should be provided to buffer pedestrians from Traveled Way. Where space permits traffic control boxes should be located in this area.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.
7. Bike parking should be provided at street corners. Where space permits racks can be installed perpendicular to Through Zone or multi-racks can be provided.
8. Wayfinding signage should be accommodated at street corners.
9. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
10. Where area allows custom seating elements may be provided. Backed or backless based on configuration.
11. Furnishing Zone material to continue at corner.
12. Paving pattern to continue to corner. Equally spaced scoring.

Notes

1. Mid block rhythm to continue to street corner.
2. Where a corner bulb cannot be provided furnishing zone material and pattern should continue to intersection. Refer to section 5.0 for additional guidance.
3. Design of corner configuration may vary as a response to context.
4. Where custom furniture is provided design should ensure flexibility for future street configurations.

McKay Avenue



BASIS OF DESIGN

Intent

The streetscapes support and add to the livability of McKay Avenue as a high density residential oriented mixed use area. The areas situation overlooking and extending down into the valley creates opportunities to develop streetscapes taking advantage of panoramic views and notably sloping streets and rights-of-way. Where feasible, stairways and places to rest are sited on the steeply inclined streets.

The residential streets are characterized by an extensive mix of tree and mass shrub plantings setting a more domestic character. The predominant use of arcades of tall growing deciduous canopy trees builds on the existing mature tree lined boulevards such as 104 Street and 106 Street.

The material and elements palette recommended addresses the area's heritage character and draw on elements from Heritage Trail through accent paving, lighting and selective use of stone and metals.

Exceptions

Heritage Trail runs along a number of streets within the McKay Avenue Character Area. The Heritage Trail streetscape treatment is applied along the south side of those streets, while the McKay Avenue streetscape treatments is applied to all other streets within the Character Area.

Existing Streetscape Assets

- 100 Avenue, north side stately boulevard trees are notable for their continuity and close spacing of 3.0 to 5.0 metres extending from 109 Street east to 102 Street. The associated grass boulevard is in poor condition and the sidewalk through zone of 1.5 to 2.0 metres is narrow for the volume of pedestrian traffic.
- 99 Avenue, 104 Street and 100 Avenue (Heritage Trail), are the Heritage Trail with its notable paving, lamp posts, and tree grates.

MATERIALS, FINISHES & PRODUCTS



Red Brick

Black Powder Coat



Paving Material

Through Zone

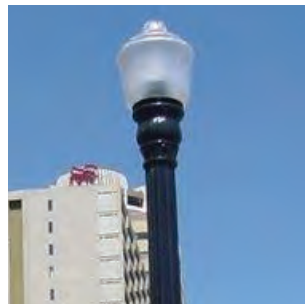
- Poured concrete with sawcut joints.
- Typical scoring at 1000-2000mm, to vary with site conditions
- Broom Finish



Paving Material

Furnishing Zone & Through Zone Banding

- Red brick paving stone
- Holland stone over concrete base
- 100mm x 200mm x 80mm
- Herringbone paving pattern



Traveled and Pedestrian Way Lighting

- Traditional Glenora lamp pole
- Finish-Black powder coated or approved finish over pre-galvanization
- Target spacing 40-50mm Minimum spacing 30mm

Basis of Design-Glenora Pole



Amenity Area Planting Bed Edge

- 300mm height, double hoop, wrought iron on concrete curb
- Locally fabricated
- Black painted steel finish



Bike Racks

- Bike racks to allow the frame and at least one wheel to be locked.
- Inverted U Racks
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Painted black finish over pre-galvanization
- Crossbars recommended; and can include street number/name

Custom Racks

- Art or themed racks acceptable if operationally acceptable.

Basis of Design - Reliance Foundry



Litter Receptacle

- City of Edmonton standard
- Black
- Concrete base
- Option for logo or medallion for branding

Basis of Design-City of Edmonton Design



Bollard

- Decorative bollard
- Black powder coated
- 990mm height,
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).

Basis of Design Product: Reliance Foundry, R-7691



Bench

- 1200mm to 1800mm length with seat height between 450mm to 500mm
- Ergonomic design, backed with end arms in all applications
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Timber or HDPE plastic slats for seat and back.
- Wood finishes to be integral and homogeneous
- Black powder coated metal support
- Comply with Edmonton Access Design Guide

Basis of Design-Oliver James Site Furnishings, Heritage



Planting Beds and Edges

- 150mm height, concrete curb 45° battered profile at the outer edges



Tree Grates

- Walkable, to comply with Access Design Guide
- Cast iron
- Round
- 305mm (12") diameter tree opening
- Black colour painted over pre-galvaniation

Basis of Design Product:
Norwood Foundry, R-8834



Seating Elements

- Red brick or precast concrete modular systems or cast-in-place concrete base
- Timber seating
- Black powder coat stainless steel armrests, mounting assembly and fastening hardware.



Tree Guards

- Two piece steel guard surface mounted over the tree grates.
- Finish-Black powder coated or approved coating over pre-galvanization.

Basis of design product-Fillmore from Urban Accessories.

PLANTING



Existing Trees

Existing trees that are in good condition within right-of way are to be retained. Tree protection strategies are to be implemented throughout any construction works as per City guidelines.



"Avenue" Planting

Brandon or American Elm

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.



"Street" Planting

Prairie Spire or Patmore Ash

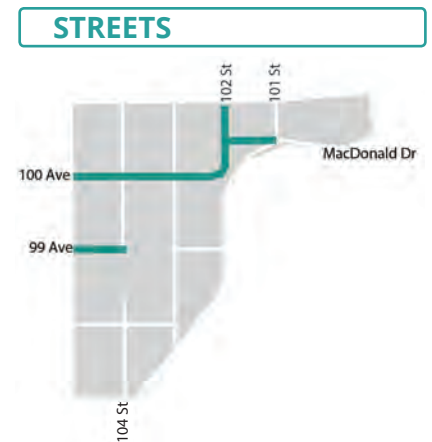
Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.

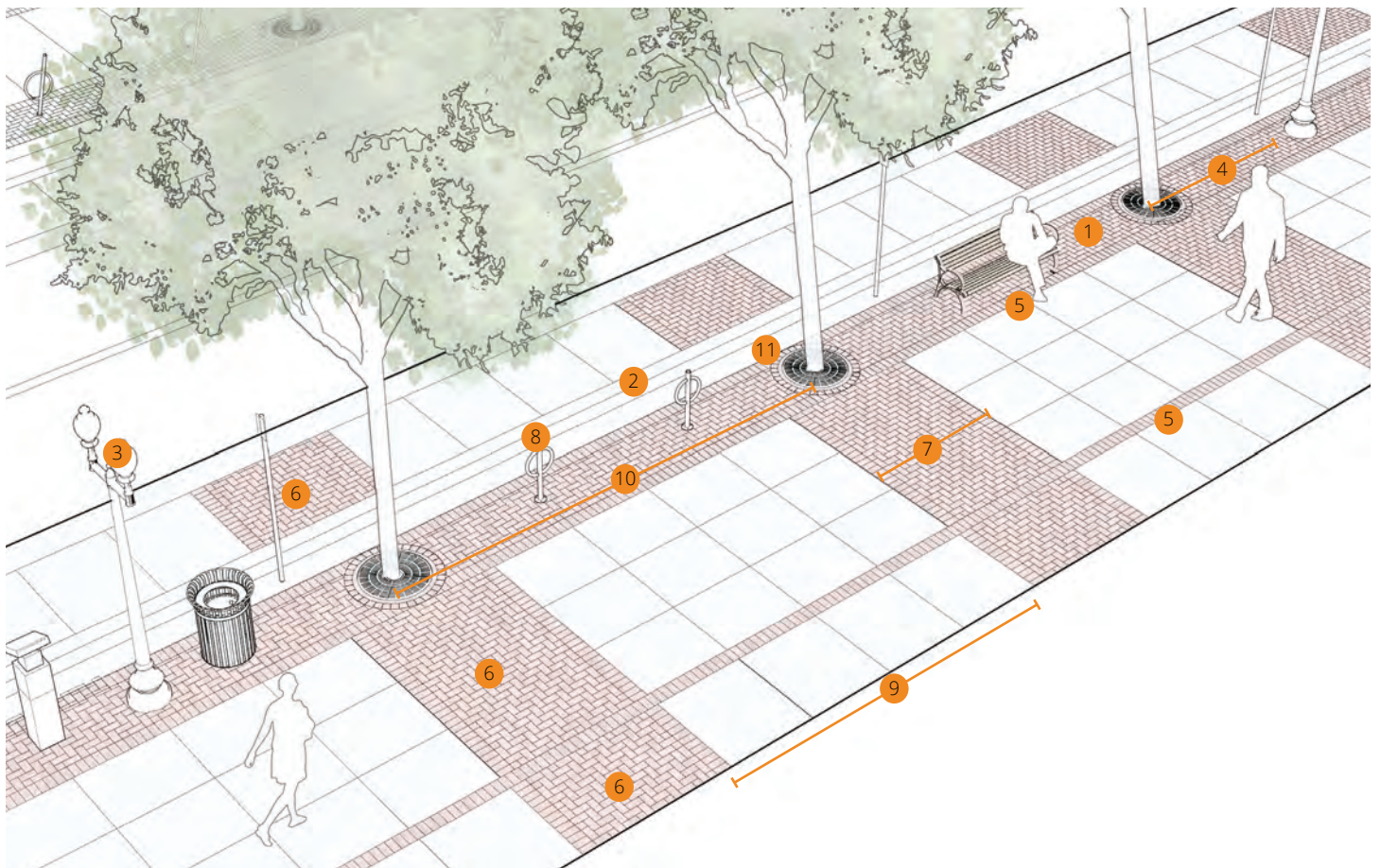
NEIGHBOURHOOD MIXED USE

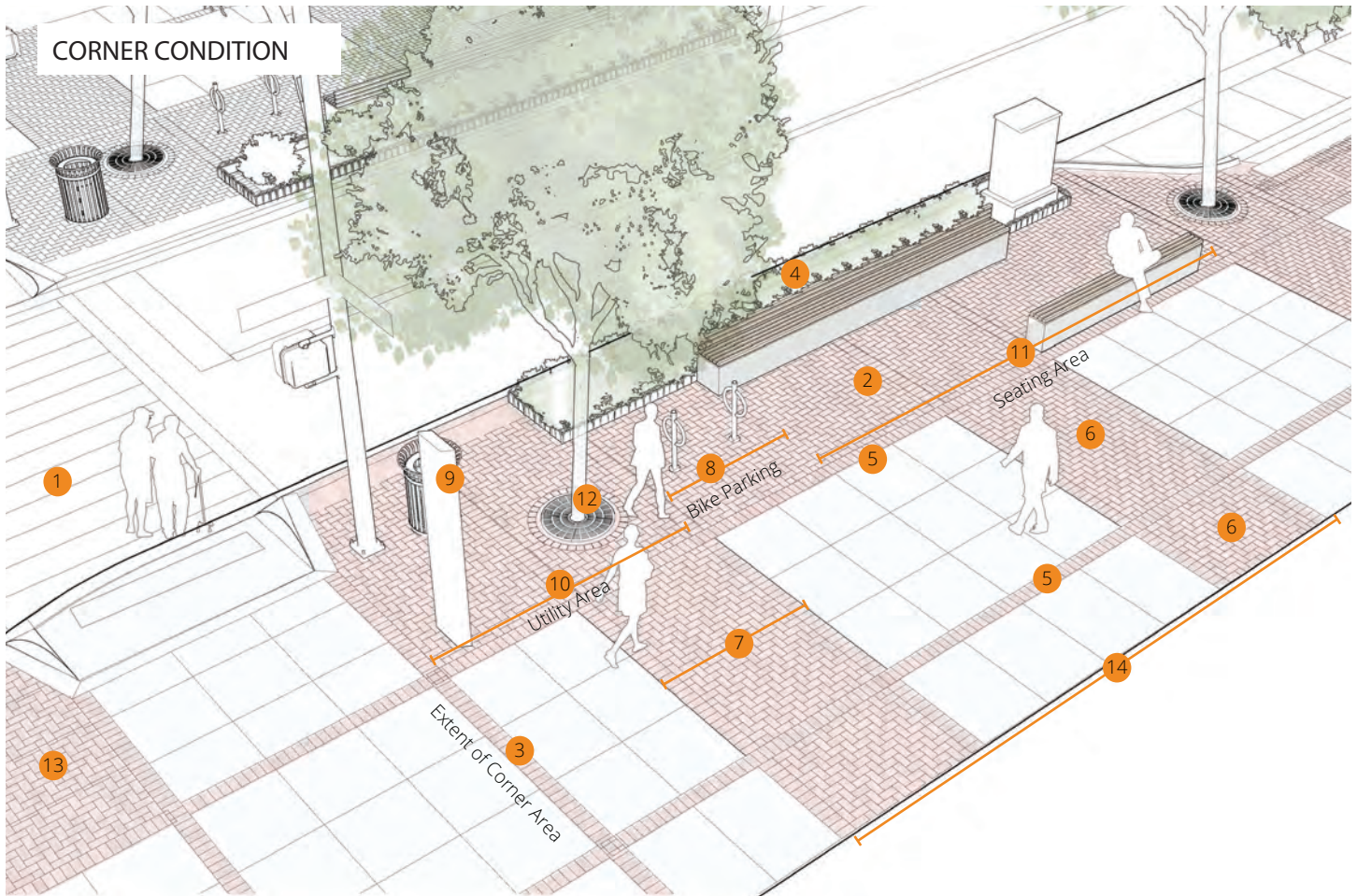
Intent

1. Tree planting with tree grate to be accommodated in Furnishing Zone. Soil cells should be provided to ensure minimum soil volume.
2. Roll face curb, incorporate relevant scoring to tie into patterns in the furnishing and through zone.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Ancillary Zone, Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates.
8. Bike parking should be aligned with through zone. Aligned with score pattern.
9. Three score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.



MID BLOCK CONDITION





Intent

1. Crosswalks should be provided and be a minimum 4.0m wide. Crosswalk to align with Through Zone. Distinct surface treatments, if required, ideally tie into the character of the Mackay Avenue District or character initiatives underway.
2. Amenity area paving pattern and material to match Furnishing Zone.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed should be provided to buffer pedestrians from Traveled Way. Where space permits traffic control boxes should be located in this area.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates.
8. Bike parking should be provided at street corners. Where space permits racks can be installed perpendicular to Through Zone or multi-racks can be provided.
9. Wayfinding signage should be accommodated at street corners.
10. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
11. Where area allows custom seating elements may be provided. Backed or backless based on configuration.
12. Trees should be planted with tree grates.
13. Furnishing Zone material to continue at corner.
14. Paving pattern to continue to corner. Equally spaced scoring.

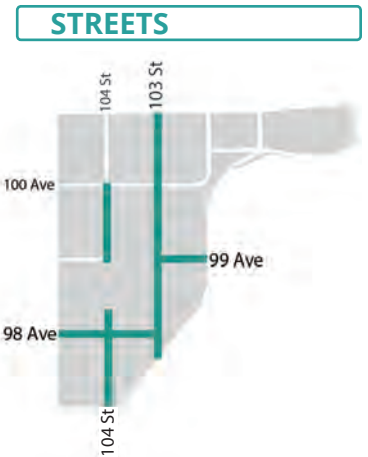
Notes

1. Mid block rhythm to continue to street corner.
2. Where a corner bulb cannot be provided Furnishing Zone material and pattern should continue to intersection. Refer to section 5.0 for additional guidance.
3. Design of corner configuration may vary as a response to context.
4. Where custom furniture is provided design should ensure flexibility for future street configurations.

NEIGHBOURHOOD RESIDENTIAL

Intent

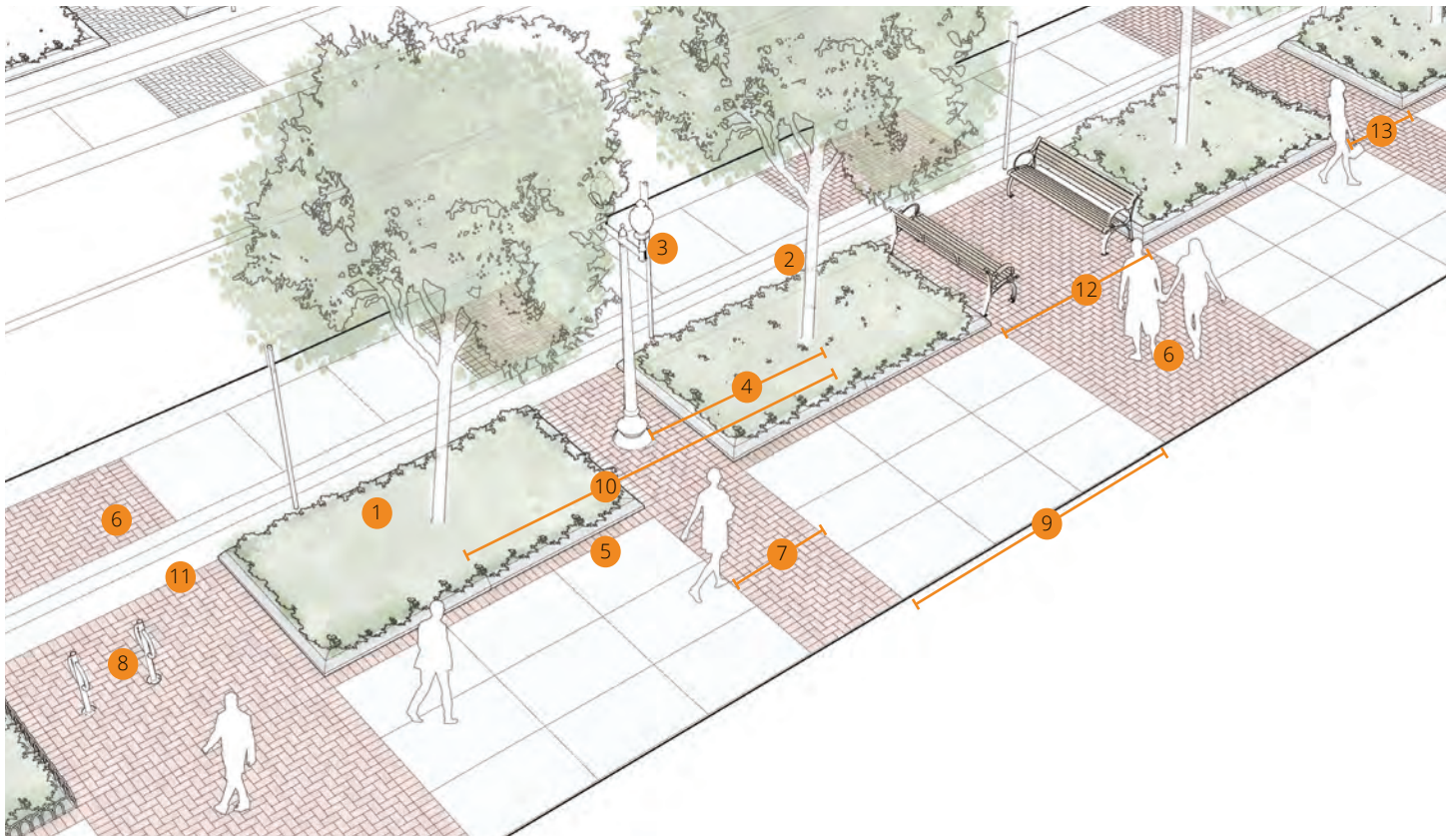
1. Tree and shrub planting in planting bed.
2. Roll face curb, incorporate relevant scoring to tie into patterns in the furnishing and through zone.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone Edge.
6. Furnishing Zone paving pattern and material to extend through Ancillary Zone, Through Zone, and Frontage Zone.
7. Paving pattern to align with tree spacing.
8. Bike parking should be provided. If space allows can be installed perpendicular to Through Zone.
9. Two score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.
12. Primary circulation minimum 1800mm clear space.
13. Secondary circulation minimum 1200mm clear space.

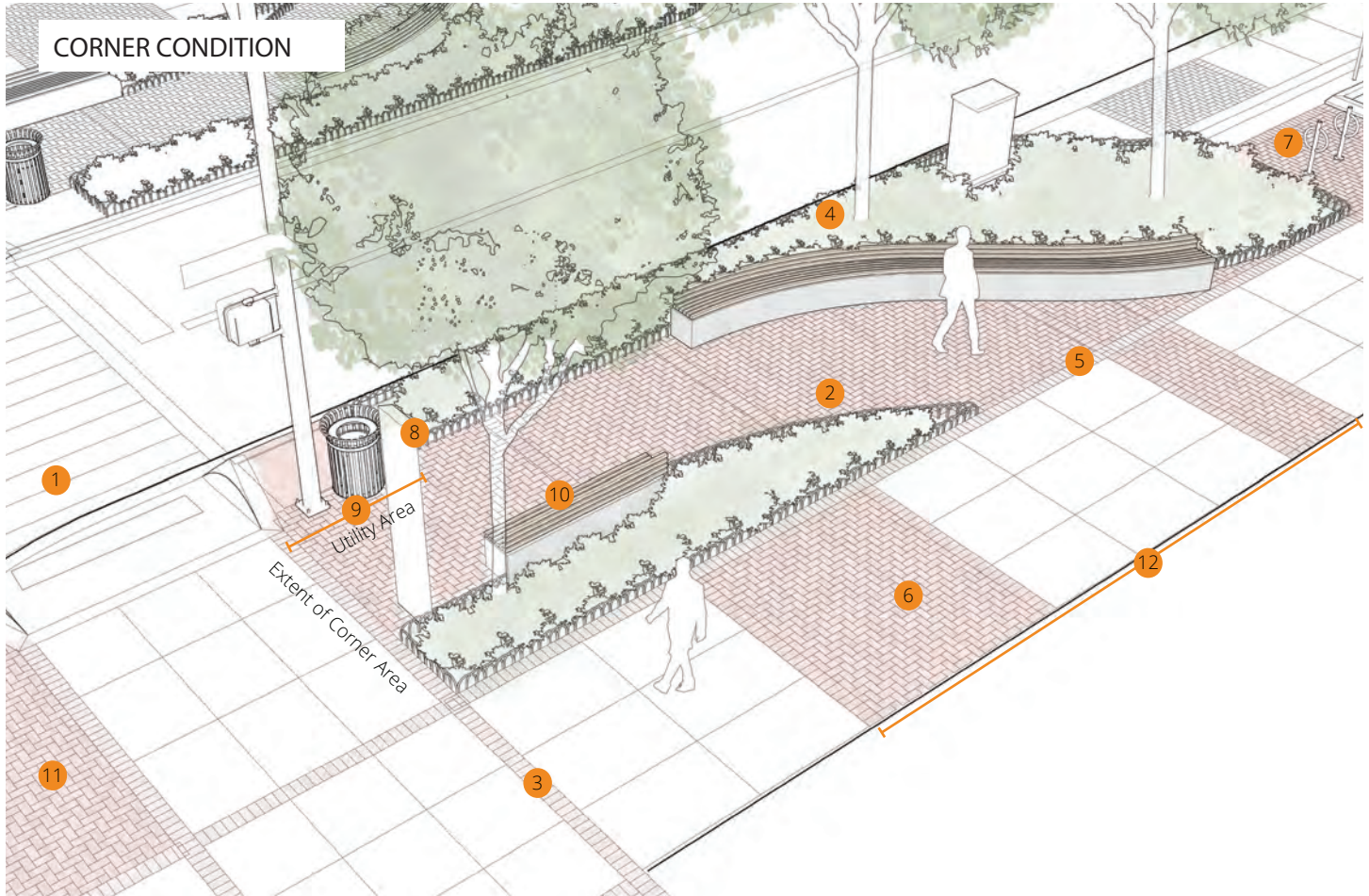


Notes

1. Alternatively seating features can be integrated with planting bed.

MID BLOCK CONDITION





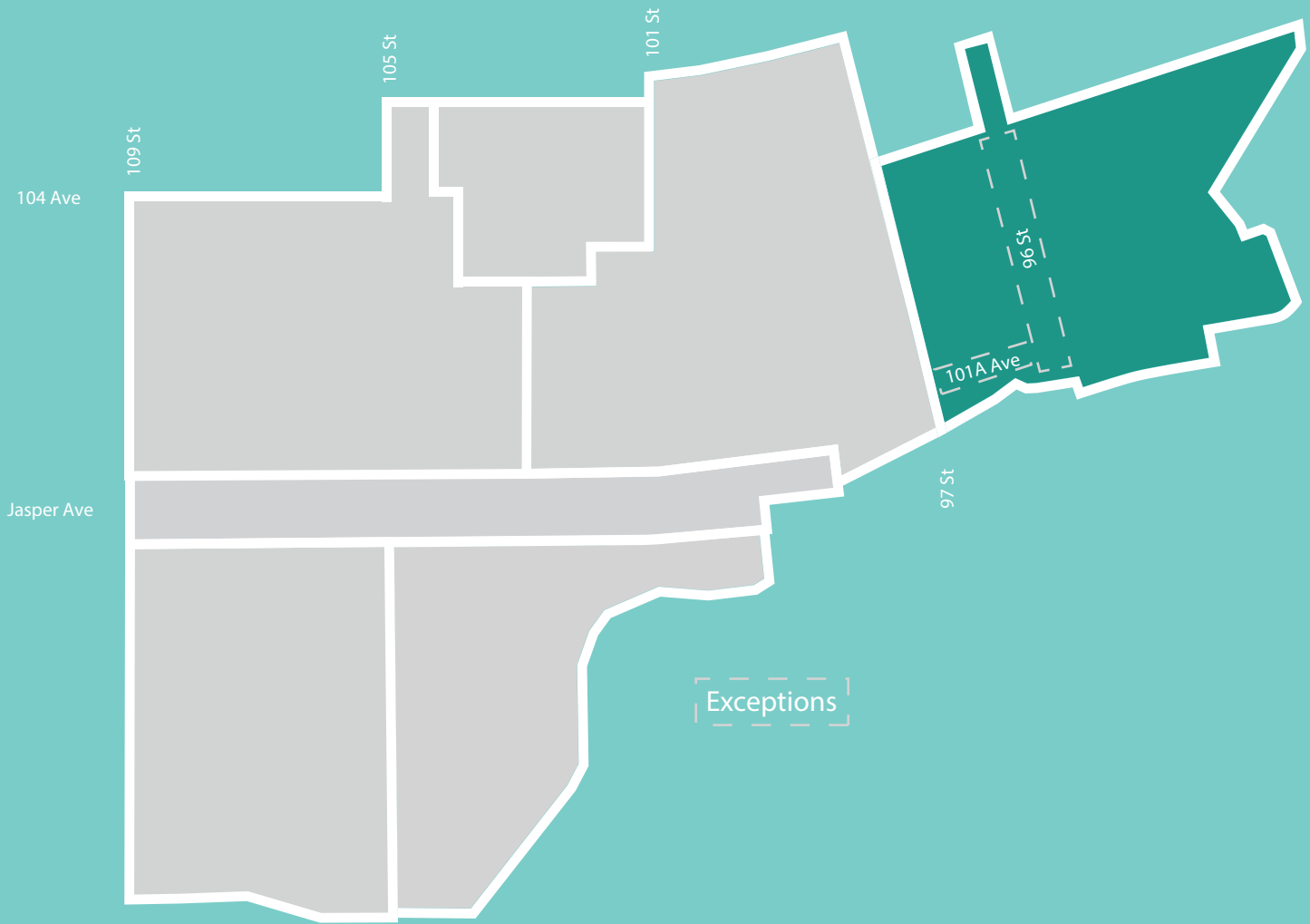
Intent

1. Crosswalks should be provided and be a minimum 4.0m wide. Crosswalk to align with Through Zone. Distinct surface treatments, if required, ideally tie into the character of the MacKay Avenue District or character initiatives underway.
2. Amenity area paving pattern and material to match Furnishing Zone.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed should be provided to buffer pedestrians from Traveled Way. Where space permits traffic control boxes should be located in this area.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Through Zone, and Frontage Zone.
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10. Where area allows custom seating elements may be provided. Backed or backless based on configuration.
11. Furnishing Zone material to continue at corner.
12. Paving pattern to continue to corner. Equally spaced scoring.

Notes

1. Mid block rhythm to continue to street corner.
2. Where a corner bulb cannot be provided furnishing zone material and pattern should continue to intersection. Refer to section 5.0 for additional guidance.
3. Design of corner configuration may vary as a response to context.
4. Where custom furniture is provided design should ensure flexibility for future street configurations.

Quarters Downtown



BASIS OF DESIGN

Intent

The Quarters Downtown is expected to accommodate between 18,000 to 20,000 residents when fully built-out. The area is planned around sustainable community design principles featuring a wide mix of housing types, and significant at-grade retail streets. The area is characterized by its strong connection to the North Saskatchewan River Valley. The Armature (96 Street) is a pedestrian oriented 'Green Street' that runs into the heart of the neighbourhood. Design elements for the streets in the Quarters Downtown were established through the design and implementation of the Armature (completed in 2016).

Exceptions

101A Avenue within The Quarters Character Area will have a 'heritage' streetscape character as per The Quarters Downtown Urban Design Plan. The streetscape treatment has been established on the half-block immediately west of 96 Street (the Armature). This treatment will apply for the remainder of 101A Avenue between 96 Street and 97 Street, and east of Jasper Avenue between 95A Street and 95 Street. 96 Street north of 103A Avenue will follow the Quarters Downtown Character, but will likely carry furnishing elements from the Armature through to the LRT crossing.

Existing Streetscape Assets

- The Armature (96 Street) as a significant pedestrian oriented amenity and address.

MATERIALS, FINISHES & PRODUCTS



Stainless Steel

Black Powder Coat

Black Granite



Paving Material

Through Zone

- Poured concrete with sawcut joints.
- Typical scoring at 1000-2000mm, to vary with site conditions
- Broom Finish



Paving Material

Furnishing Zone & Through Zone Banding

- 'Sandblasted' concrete finish with sawcut joints
- Typical scoring at 1000-2000mm, to vary with site conditions

Accent

- Black granite colour holland stone pavers over concrete base
- Solider course



Traveled Way & Pedestrian Lighting

- Tapered round pole
- Finish-Black powder coated or approved finish over pre-galvanization

Basis of Design- Lumec-Sole City



Bike Racks

- Bike racks to allow the frame and at least one wheel to be locked.
- Inverted U Racks
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Stainless steel or equivalent approved finish
- Crossbars recommended; and can include street number/name

Custom Racks

- Art or themed racks acceptable if operationally acceptable.

Basis of Design-Reliance Foundry



Litter Receptacle

- Surface mount
- Stainless Steel #4 polish
- Vertical Slot pattern
- Flat Top manufactured from thick gauge stainless steel to minimize vandalism
- 32 Gallon Capacity, plastic receptacle liner
- Plastic coated stainless steel cable lanyard lid attachment
- Options for bottles/cans recycling tray could be included

Basis of Design Product: Urban Park Fairmont



Bollard

- NPS Schedule 40, type 316 stainless steel pipe, 114mm diameter
- Base-165mm diameter, 19mm thick, type 316 stainless steel base plate with (4) 21mm diameter holes for anchor bolts
- Surface mounted with base plate cover over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Options for reflective strips could be included
- Finish-Satin

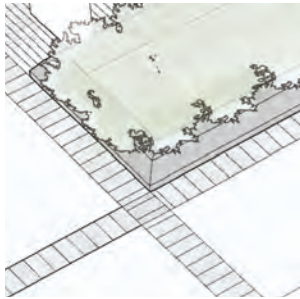
Basis of Design-Reliance Foundry -R-7183 Bolt Down Bollard



Bench

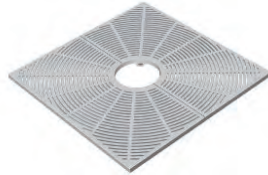
- 1200mm to 1800mm length with seat height between 450mm to 500mm
- Ergonomic design, backed with end arms in all applications
- Surface mounted over concrete (in case of pavers, anchors going through the pavers into the concrete base).
- Timber or HDPE plastic slats for seat and back.
- Wood finishes to be integral and homogeneous
- Stainless steel metal support
- Comply with Edmonton Access Design Guide

Basis of Design Product: Equiparc, EP 1990



Planting Beds and Edges

- 150mm height, concrete curb 45° battered profile at the outer edges



Tree Grates

- Walkable, to comply with Access Design Guide
- Cast iron
- 454mm (18") diameter
- Tree opening
- 1219mm square or rectangle
- 1219mm x 2438mm
- Silver colour painted over pre-galvaniation

Basis of Design Product:
Norwood Foundry, 8710



Seating Elements

- Black granite or precast concrete modular systems or cast-in-place concrete base
- Timber seating
- Stainless steel armrests, mounting assembly and fastening hardware



Tree Guards

- Two piece steel guard surface mounted over the tree grates.
- Silver powder coated or an approved coating over pre-galvanization

Basis of design product-Fillmore from Urban Accessories.

PLANTING



Existing Trees

Existing trees that are in good condition within right-of way are to be retained. Tree protection strategies are to be implemented throughout any construction works as per City guidelines.



"Avenue" Planting

Prairie Spire Ash, Tuxedo White Ash, Red Oak

Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.



"Street" Planting

Prairie Spire or Patmore Ash

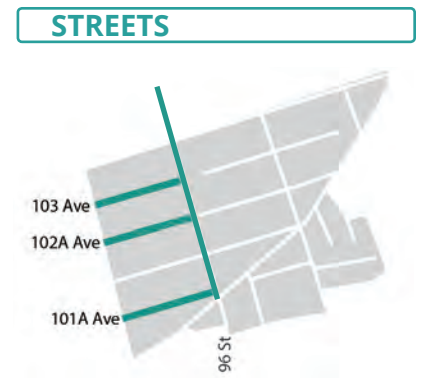
Alternative

Tilia, Other suitable species as per Appendix F of Design and Construction Standards for Landscaping.

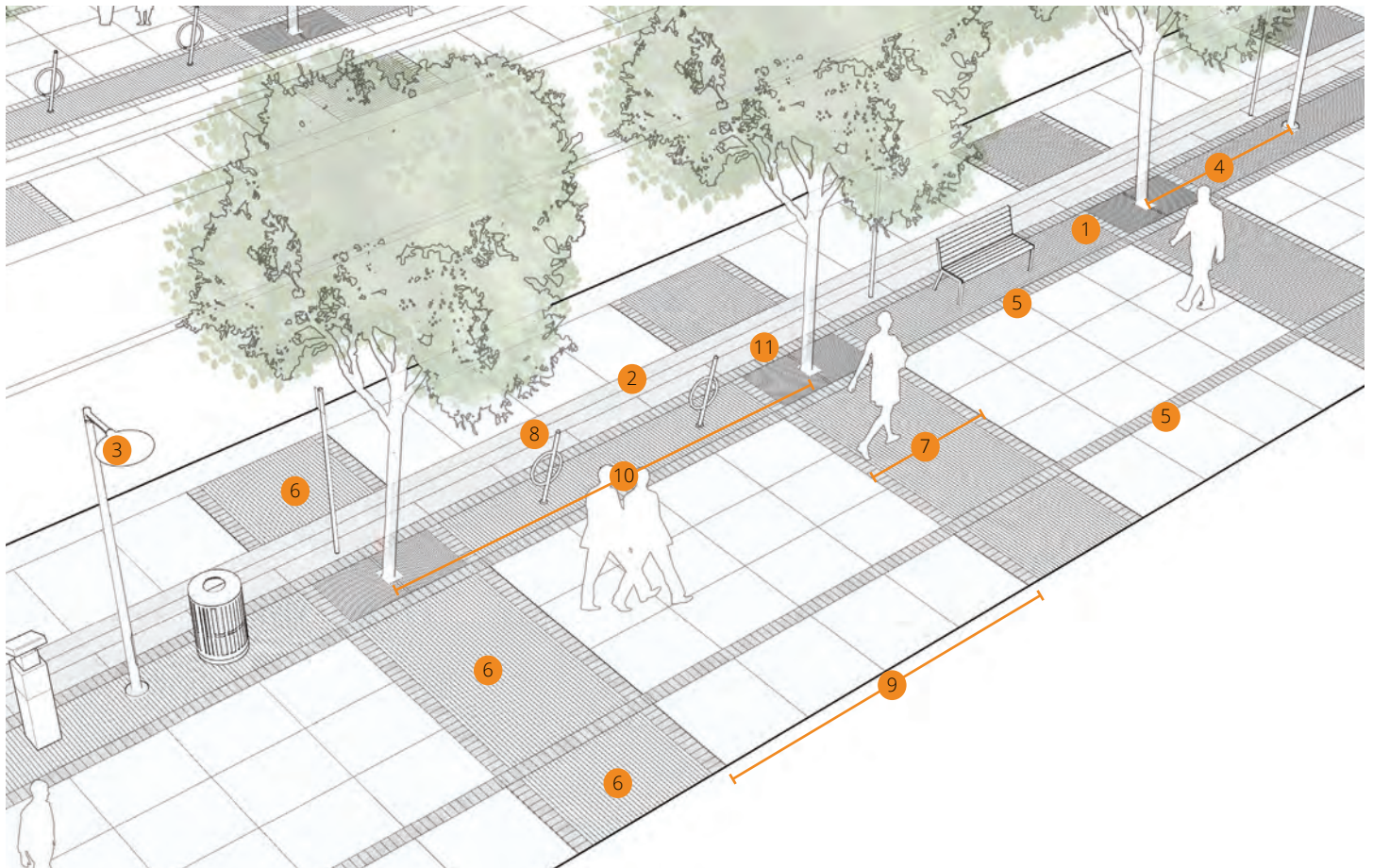
NEIGHBOURHOOD MIXED USE

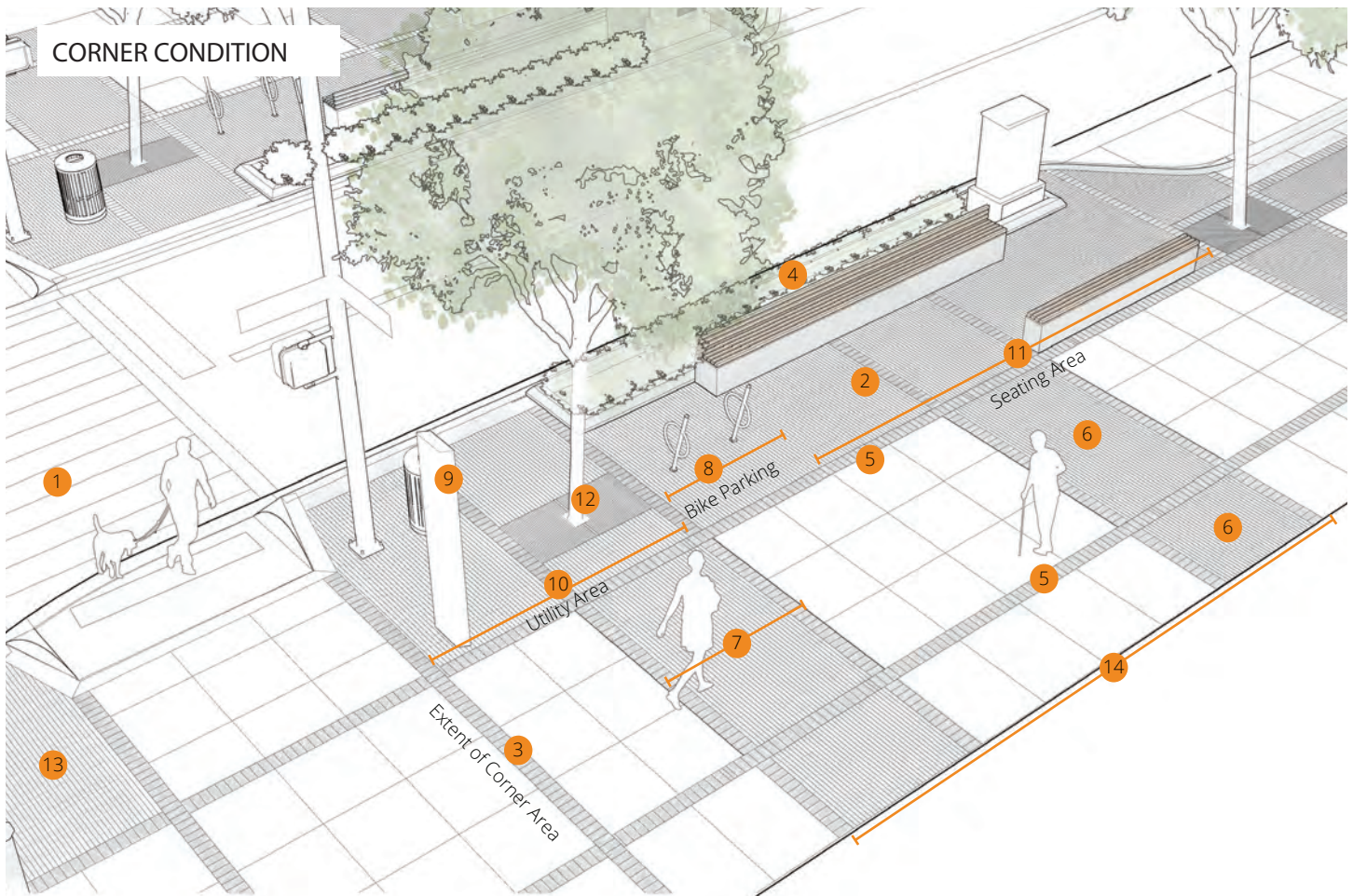
Intent

1. Tree planting with tree grate to be accommodated in Furnishing Zone. Soil cells should be provided to ensure minimum soil volume.
2. Roll face curb. incorporate relevant scoring to tie into patterns in the furnishing and through zone.
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone edge.
6. Furnishing Zone paving pattern and material to extend through Ancillary Zone, Through Zone, and Frontage Zone.
7. Paving pattern to align with edges of tree grates.
8. Bike parking should be aligned with Through Zone. Aligned with score pattern.
9. Three score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.



MID BLOCK CONDITION





Intent

1. Crosswalks should be provided and be a minimum 4.0m wide. Crosswalk to align with Through Zone. Distinct surface treatments, if required, ideally tie into the character of the Quarters District or character initiatives underway.
2. Amenity area paving pattern and material to match Furnishing Zone.
3. Material transition should be provided at Through Zone to denote intersection.
4. Planting bed should be provided to buffer pedestrians from Traveled Way. Where space permits traffic control boxes should be located in this area.
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10. Area nearest the intersection should be provided for furnishings such as litter receptacles, traffic signals and wayfinding signage.
11. Where area allows custom seating elements may be provided. Backed or backless based on configuration.
12. Trees should be planted with tree grates.
13. Furnishing Zone material to continue at corner.
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Notes

1. Mid block rhythm to continue to street corner.
2. Where a corner bulb cannot be provided Furnishing Zone material and pattern should continue to intersection. Refer to section 5.0 for additional guidance.
3. Design of corner configuration may vary as a response to context.
4. Where custom furniture is provided design should ensure flexibility for future street configurations.

NEIGHBOURHOOD RESIDENTIAL

Intent

1. Tree and shrub planting in planting bed.
2. Roll face curb. incorporate relevant scoring to tie into patterns in the furnishing and through zone
3. Pedestrian lighting is encouraged and should occur as pedestrian stand alone or combination with street lighting pole.
4. 3.0m minimum separation between tree and light pole.
5. Material to denote Through Zone Edge.
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7. Paving pattern to align with tree spacing.
8. Bike parking should be provided. If space allows can be installed perpendicular to Through Zone.
9. Two score joints should be equally spaced between tree grates. Score pattern varies with tree spacing and context.
10. Street tree spacing should range between 5-8m. Existing mature and healthy trees should be preserved and integrated into the streetscape design.
11. Verge from face of curb to be provided in general alignment with CSDCS. Incorporate relevant scoring to tie into patterns in the furnishing and through zone.
12. Primary circulation minimum 1800mm clear space.
13. Secondary circulation minimum 1200mm clear space.

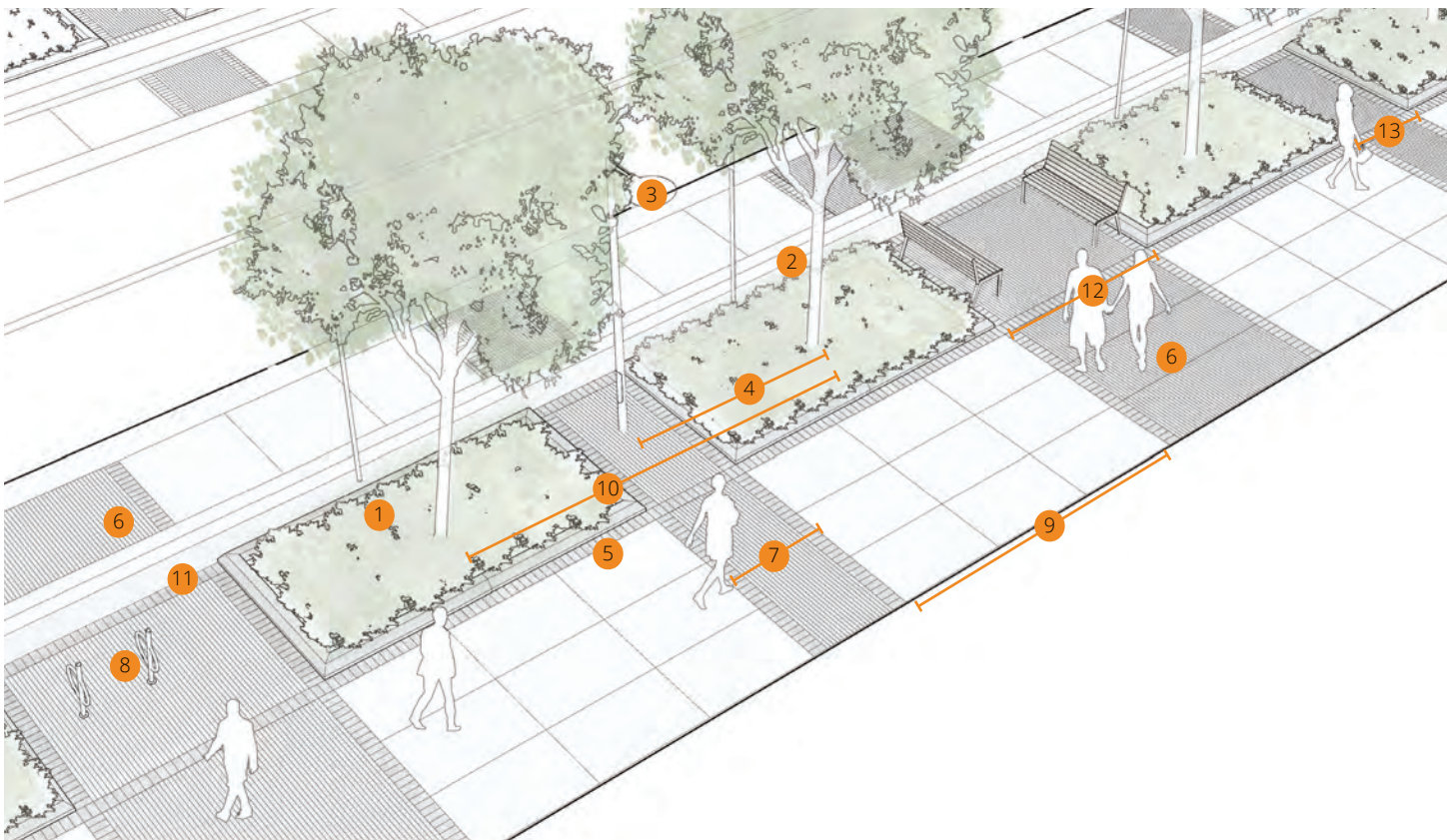
STREETS

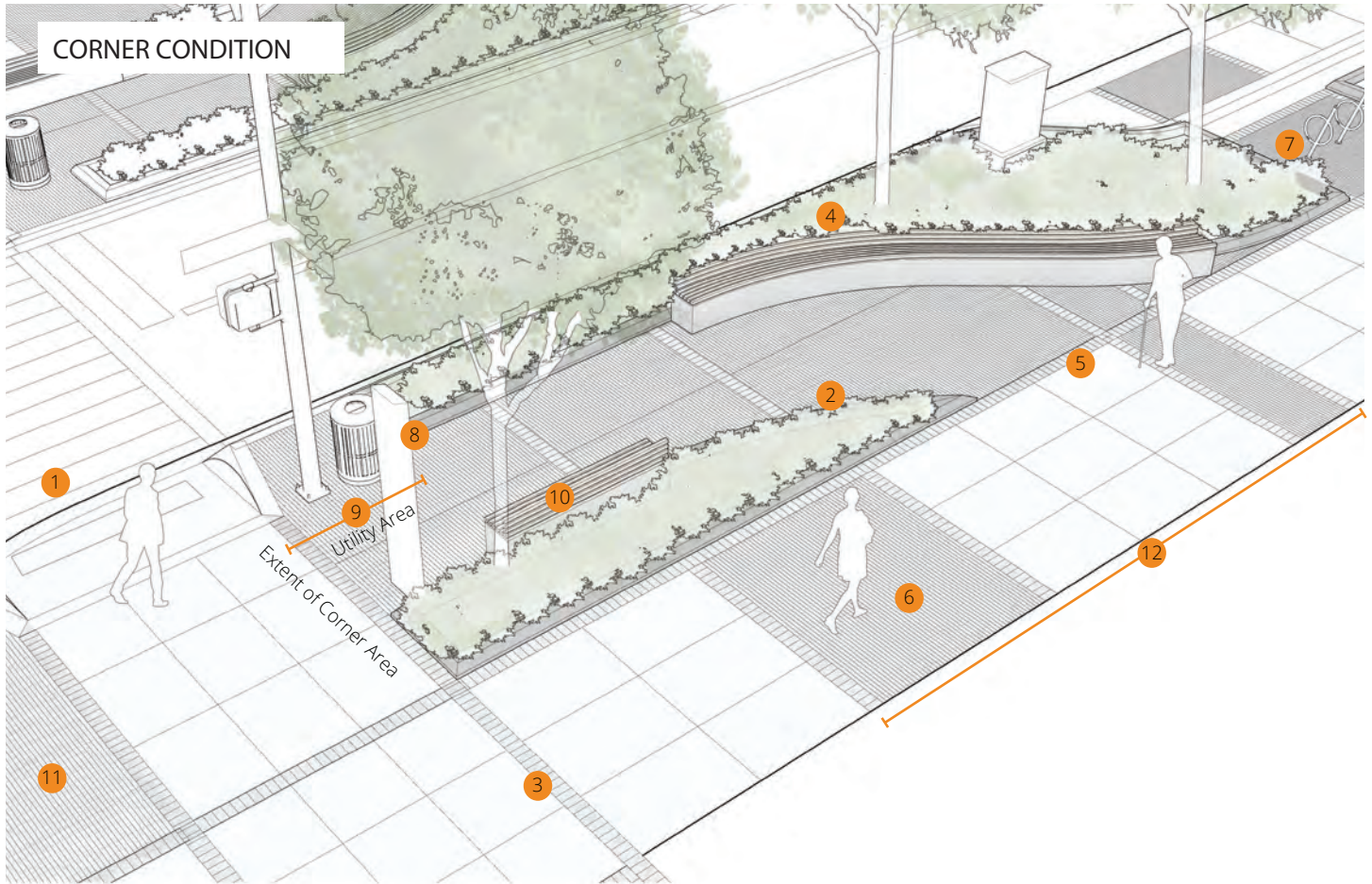


Notes

1. Alternatively seating features can be integrated with planting bed.

MID BLOCK CONDITION





Intent

1. Crosswalks should be provided and be a minimum 4.0m wide. Crosswalk to align with Through Zone. Distinct surface treatments, if required, ideally tie into the character of the Quarters District or character initiatives underway.
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4. Where custom furniture is provided design should ensure flexibility for future street configurations.

a.1

**Understanding
Existing Streetscape
Design**

Existing Conditions

The quality of the pedestrian realm in Downtown and The Quarters Downtown is highly variable. Some streets provide an interesting, safe, and attractive experience for pedestrians while others are uninviting and vehicle-oriented.

Since the 1980s, several streets in Downtown and The Quarters Downtown have undergone streetscape improvements that included widened sidewalks, high quality paving, enhanced lighting, and street furniture. However, the majority of streets in Downtown and The Quarters Downtown were constructed to the standard roadway guidelines of the time, which did not anticipate the level of pedestrian activity foreseen in the Capital City Downtown Plan. As a result, many streets within the Downtown and The Quarters Downtown do not provide a comfortable, barrier-free, attractive walking environment.

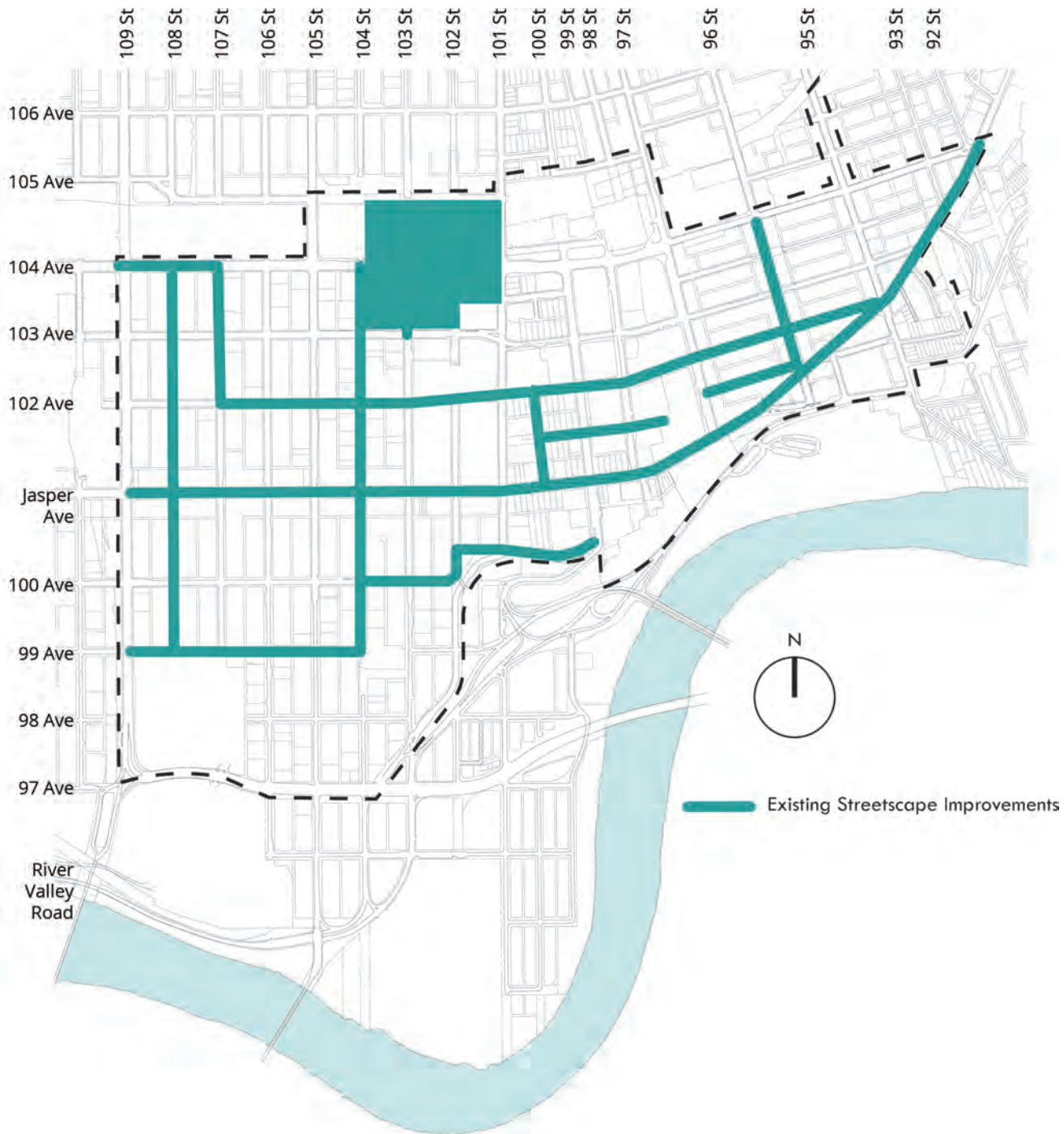
The following pages highlight a number of streetscapes within Downtown and The Quarters Downtown that have undergone improvements either recently or in the past, or are currently in planning and construction stages for redevelopment. The information identifies the many different styles and treatments present in the study area.

Interface with adjacent properties

Recognizing the value of an appealing street environment, many developers or property managers have made improvements to the pedestrian realm adjacent to their developments. These are often governed by a Municipal Improvement Agreement, which assigns responsibility for long-term maintenance and upkeep. These improvements are opportunities for harmonizing the street and the adjacent development, and are a cost effective way to improve the pedestrian realm for the City, however, they often do not coordinate with nearby streetscapes.

Unimproved Streetscapes

The majority of streets in Downtown and The Quarters feature a simple, utilitarian concrete sidewalk, typically with minimal street furniture, and roadway geometry that favors swift vehicle movement. Over time, many of these streets will be redeveloped through a number of different processes and catalysts.



HERITAGE TRAIL



Year Built: Late 1980's

Location: Consists of improvements to one side of the street tracing the approximate trail alignment leading from the old town of Edmonton (Jasper Avenue & 96 Street) to Fort Edmonton located south of the Legislature. The trail connects a number of heritage sites and buildings.

Character Elements: 'Heritage' look and feel.
Brick pavers and 'Glenora-style' street lights.



JASPER AVENUE



Year Built: Late 1980's / 2013

Location: Downtown Edmonton's Historic Main Street.
 100 Street - 102 Street: Completed in 2015 as part of the Jasper Avenue New Vision Project.
 97 Street - 100 Street, 102 Street - 109 Street: Completed in the 1980s.

Character Elements: 100 Street - 102 Street: Contemporary look and feel, high quality materials including custom granite furniture.
 97 Street - 100 Street, 102 Street - 109 Street: 1980s Modern' look and feel - red pavers, green painted metal street furniture.



RICE HOWARD WAY



Year Built:

Early 1980's

Location:

101A Avenue and 100A Street - Pedestrian priority area separated from high traffic volumes. Frontage adjacent to Enbridge Centre has been reconstructed by the developer in 2016 to a 'contemporary' style. Concept planning for a redesign is underway.

Character Elements:

'Heritage' look and feel.
Brick pavers on roadway, mostly swale-type curbs, 'Glenora-style' street lights.



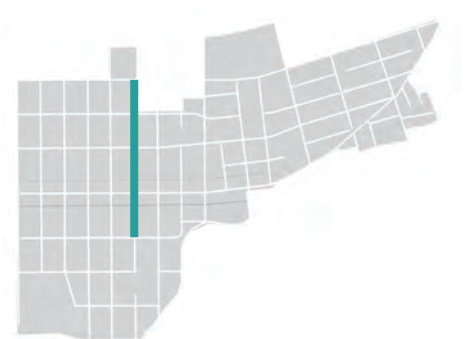
104 STREET PROMENADE



Year Built: 1999

Location: 104 Street from 100 Avenue to 104 Avenue.
Narrowed roadway with widened sidewalks, rolled curbs, and island medians at intersections.

Character Elements: 'Heritage' look and feel.
Brick paver accent bands, 'Glenora' style street lights.



108 STREET



Year Built: 2014

Location: Also known as “Capital Boulevard”. 108 Street from 99 Avenue to 104 Avenue. Ceremonial boulevard connecting Alberta Legislature to MacEwan University. Narrowed roadway with widened sidewalks, swale-type curbs, and island medians at mid-block crossings.

Character Elements: ‘Contemporary’ look and feel.
Extensive use of Tyndall stone.
Custom street lights and traffic signals with masonry base structures.



96 STREET



Year Built:

2016

Location:

Also known as “The Armature”

Identified in Quarters Urban Design Plan to be the central spine of the Quarters area.

96 Street from Jasper Avenue to 103 A Avenue.

Narrowed roadway. Traffic flow alternates between two-way, and one-way with contra-flow bike lane. Concrete headers and swale-type curbs.

Extensive use of Low Impact Development features.

Character Elements:

‘Contemporary’ look and feel.

Multi-tone pavers, granite crosswalks, custom benches, prominent public art.



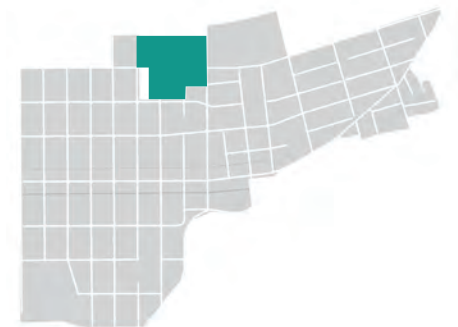
ICE DISTRICT



Year Built: 2016

Location: Streets and Avenues adjacent to Rogers Place and Ice District. Will be developed in phases as construction progresses.

Character Elements: 'Contemporary' look and feel.
Grey unit pavers, upgraded bollards, benches.
Multiple digital media elements and 'gateway markers'.



Lessons Learned

Streetscape Elements

One consequence of the past approach to streetscape development has been a proliferation of different streetscape elements throughout the Downtown. Each streetscape project has been handled individually, with the designers of each project selecting materials and designs that create a distinct look and feel. In some cases, custom-designed streetscape elements have been used.

While the distinctive elements on each project are often attractive and create a unique character, the approach has created challenges in procurement, cost, maintenance, and design.

Cost: Custom streetscape elements carry a premium price due to the original design and engineering work required. These costs are also difficult to budget for.

Maintenance: Custom streetscape elements and paving create significant maintenance challenges. In many cases, spare parts are not provided to roadway maintenance crews, so any repairs or replacements may not match the original character. Even when spare parts are provided, or when 'catalogue' elements are used, the multiplicity of different elements in use requires that a multitude of different elements are kept in storage.

Design: Where streets with highly distinct characters intersect, the multiplication of contrasting streetscape elements can create a disjointed, non cohesive appearance.

Interface with private property: The paving treatment extending onto private property often is inconsistent with that within the right-of-way.

Trends: In many cases streetscape elements can reflect a specific design trend of the period they were installed. There is a desire for streetscape elements to be timeless and iconic to Edmonton as they will hopefully be in place for 50 or more years.

Across the Downtown and The Quarters Downtown, there are many different paving patterns, street lights, tree grates, bollards, garbage cans, bike racks, benches, etc., creating a fragmented public realm.



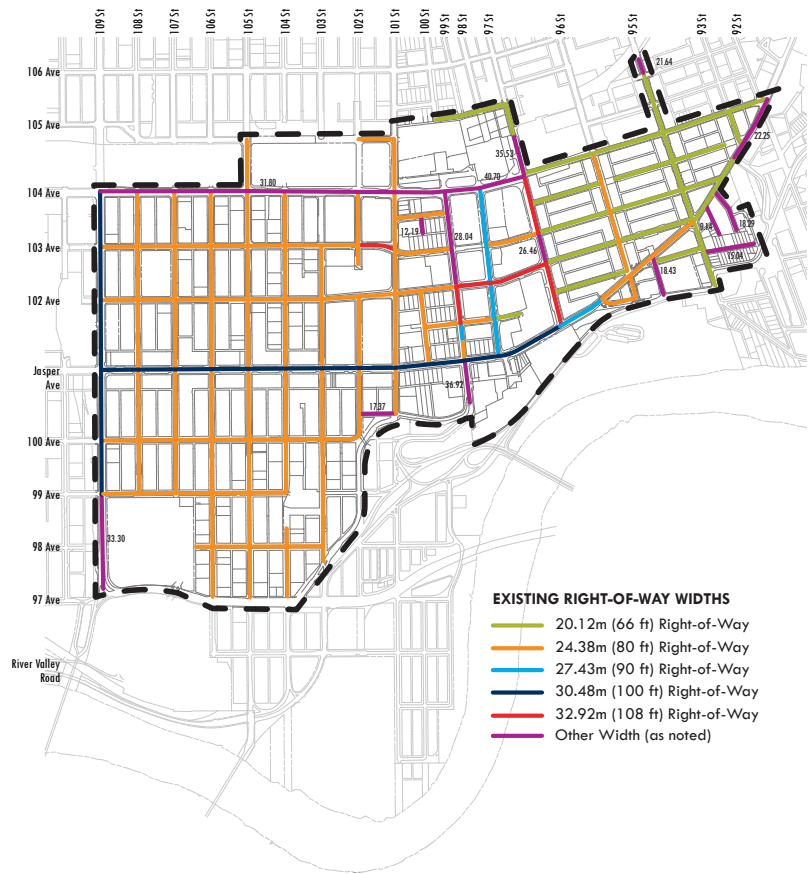
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Building the Typology

RIGHTS OF WAY

The right-of-way of a street includes not just the roadway, between curb lines, but the entire publicly-owned area between property lines, including sidewalks and other elements, such as landscaped areas. Widths of the rights-of-way of streets in the study area are shown on the map. Rights-of-way vary, but there are a few standard widths shared by multiple streets, ranging from relatively narrow (20.12 metres or 66 feet) to quite wide (32.92 metres, or 108 feet).

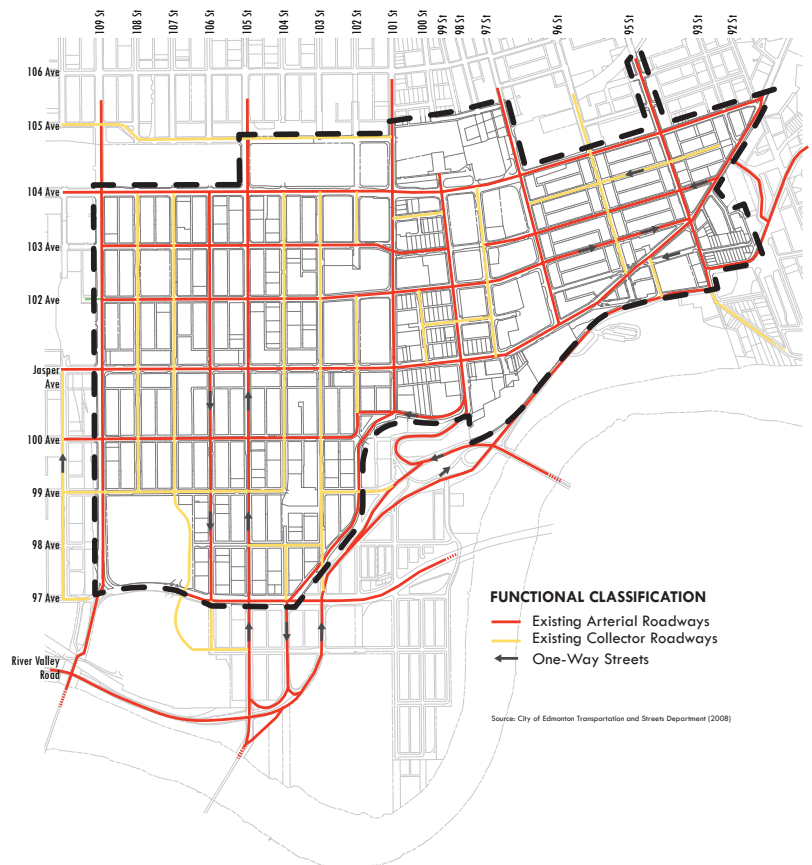
The former is found almost exclusively in the Quarters, while the latter is limited to select blocks of 97 Street and 100 Street. Most dimensions are somewhere in between, with the most common width – 24.38 metres, or 80 feet – occurring on streets in the western half of the study area, generally west of 101 Street. Notably, 109 Street and Jasper Avenue are mostly 30.48 metres or 100 feet wide.



FUNCTIONAL CLASSIFICATIONS

Functional classification is a system for categorization of streets based on role in the vehicular network. The City of Edmonton defines an arterial as “a road that serves as a major transportation route between different areas of the City.” Collectors, generally speaking, are secondary streets connecting arterial streets to local streets, while local streets provide neighborhood access. Arterial and collector roadways within the study area as defined by the City of Edmonton (under the Transportation System Bylaw, #14931) are shown on the map. The also distinguishes existing one-way streets.

Notably, all continuous or “through” east-west streets in the northern part of the study area are designated arterials, as are segments of a pair of discontinuous streets to the south. North-south, roughly half of streets are designated arterials. Most remaining streets (not alleys) are designated collectors. Most streets also accommodate two-way travel. Where streets are one-way, they are paired with parallel streets to form “couplets” allowing travel in both directions.



Source: City of Edmonton Transportation and Streets Department (2008)

VEHICLE TRAFFIC VOLUMES

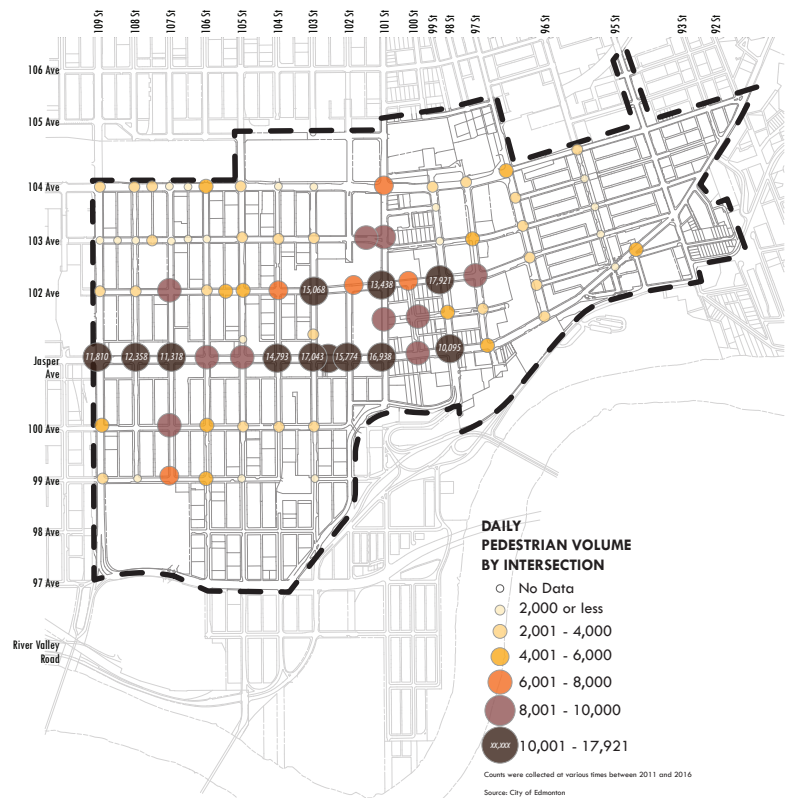
Traffic volumes are generally expressed in terms of average daily (24-hour) traffic, or ADT. ADT on select streets, as measured by the City of Edmonton in 2015, is shown in Figure. A few streets carry relatively high volumes of traffic, most notably 97 Avenue, which provides access to downtown across the North Saskatchewan River on the James MacDonald Bridge and has ADT of more than 40,000. Among downtown streets, only 97 Avenue west of 104 Street, 109 Street, and 104 Avenue have ADT of more than 30,000, while segments of Jasper Avenue west of 97 Street, and 101 Street north of 103 Avenue, have ADT of between 20,000 and 30,000.

While the capacity of a roadway varies depending on a number of factors, including a community's tolerance for congestion, ADT below approximately 20,000 can generally be accommodated using just a single travel lane in each direction, so long as there are separate turn lanes or pockets where there are high volumes of turning movements.



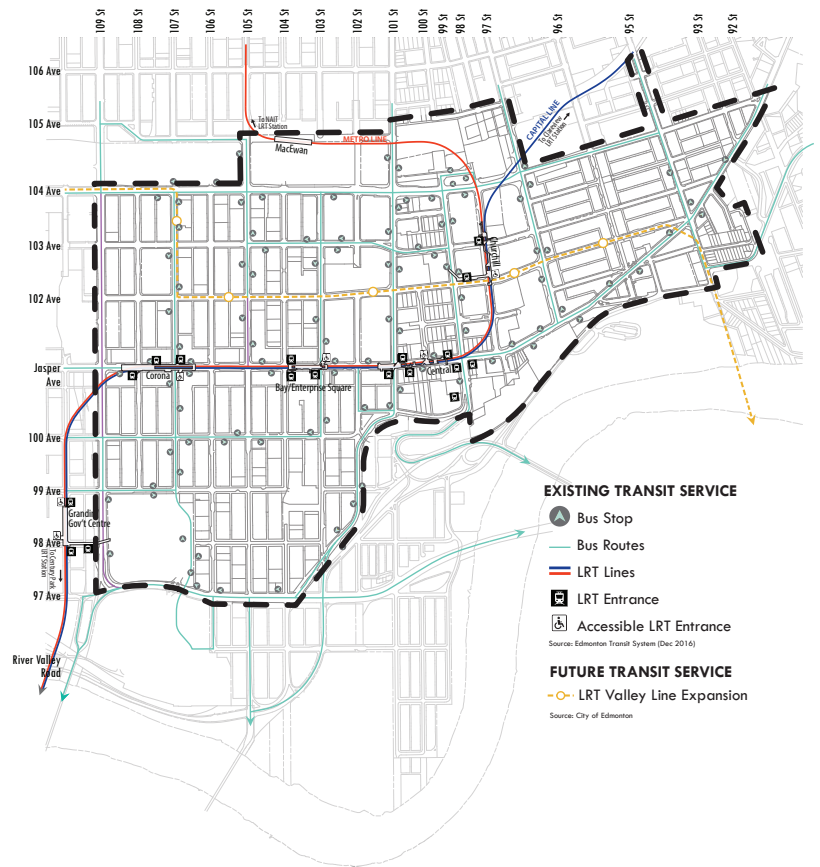
PEDESTRIAN VOLUMES

Pedestrian volumes shown on the map are expressed as daily totals collected at various times between 2011 and 2016. Information represents the pedestrian activity at intersections only. The highest concentrations of pedestrian activity are concentrated in the Commercial Core sub-area, along Jasper Avenue between 109 Street and 99 Street and along 107 Street and 102 Avenue. These areas correspond to employment sectors and institutional uses located within the study area.



TRANSIT SYSTEM

Existing Edmonton Transit Service (ETS) fixed-route transit lines and stops are shown in Figure, as are planned future light rail transit (LRT) lines. Buses currently operate on numerous downtown streets, although the highest volumes are found on Jasper Avenue and 101st Street. The Capital and Metro light rail lines are generally underground within the study area, with station entrances located primarily on or adjacent to Jasper. Among planned LRT lines, only the Valley Line will be built in the coming years; it will run at-grade on 104 Avenue, 107 Street and 102 Avenue.



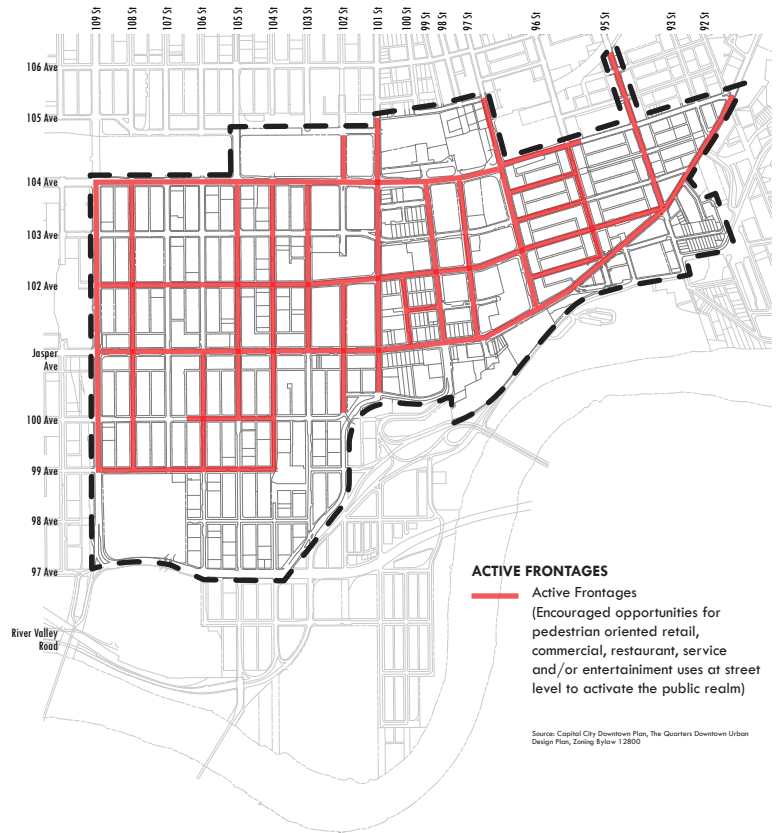
BICYCLE NETWORK

This map shows all designated bicycle routes and facilities in and around Downtown and The Quarters Downtown. These facilities form a well-connected network of high-quality bike routes providing access to points within a few blocks of the entire downtown area. The bicycle network includes a number of different types of facilities, such as Signed On Road Bike Routes, 24 Hour and Peak Hour Shared Lanes, Shared Use Pathways, Bike Friendly Streets, and Protected Bike Lanes.



ACTIVE FRONTAGES

Active frontages are an important aspect of the public realm. They enhance the street environment and help support areas that people can walk and linger and activate the public realm. The map identifies active frontages in the Downtown and Quarters Downtown area.



Modal Priorities

The Complete Streets Guidelines state that the following modes should be included in context-specific modal hierarchies taking into account modal priority networks as well as roadway function and land use:

- Pedestrians
- Cyclists
- Transit
- Goods Movement
- Autos

A “universal” modal hierarchy is recommended for downtown streets, with modes prioritized in the order shown above. This means that design elements favoring pedestrians should be prioritized over those for cyclists, cyclists over transit, and so on. All users should be safely accommodated; however, where “trade-offs” between elements benefiting different users are necessary, the modal hierarchy should guide these decision-making processes (for example, facilities for cyclists should be prioritized over transit-priority treatments).

This universal modal hierarchy should be adjusted on modal-priority streets to prioritize the mode in question. Pedestrians are the most exposed and sensitive users of the street and should always be the highest priority (particularly in a downtown context where pedestrian volumes are high), and because capacity for vehicles is an element of the street typology itself (in its definition of “major” streets, which may include multiple lanes each way for traffic), there is no “auto-priority network”. However, the following hierarchies may be used on modal-priority streets:

Bicycle-priority streets¹

- Pedestrians
- Cyclists
- Transit
- Goods Movement
- Autos

Transit-priority streets

- Pedestrians
- Transit
- Cyclists
- Goods Movement
- Autos

In some cases, streets may be designated as priority for more than one mode. In these cases, the universal modal hierarchy should be consulted as to which of the two modes should be prioritized if there are conflicts (e.g., bicycles over transit on streets prioritized for both). The prioritization of the different modes or users is articulated in Section 4 of the Manual through the design recommendations.

The bicycle-priority network is shown on the modal priority map; it includes both the “Downtown Bike Network” or “all ages and abilities” routes initially installed in 2017 by the City as well as City-designated bicycle routes providing key connections to surrounding neighbourhoods. No transit-priority network is shown, as Edmonton Transit Service is currently in the process of revising its route network.

¹ The hierarchy for bicycle-priority streets is identical to the universal modal hierarchy.

Modal Priorities

The map below shows streets and areas in which one or more modes of transportation (e.g., transit) has been prioritized over other modes by the City, as a matter of policy. Such policies are useful in development of a streetscape typology, as they provide clear guidance on design priorities (e.g., transit-only lanes should be prioritized over other elements on streets that have been identified as transit-priority), although conflicts can arise when two or more modes have been prioritized on the same street.

The following are a few observations made from the Modal Priorities Figure:

- “Bike-priority” street segments here are those included in the Downtown Bike Network.
- Existing Capital Line and Metro Line LRT is generally underground. Valley Line LRT runs generally at grade within the study area.
- Most of downtown is within a pedestrian priority area.
- There are a few streets on which more than one mode is prioritized, including 102 Avenue (part of the Downtown Bike Network, and a future LRT route).

MODAL PRIORITY MAP



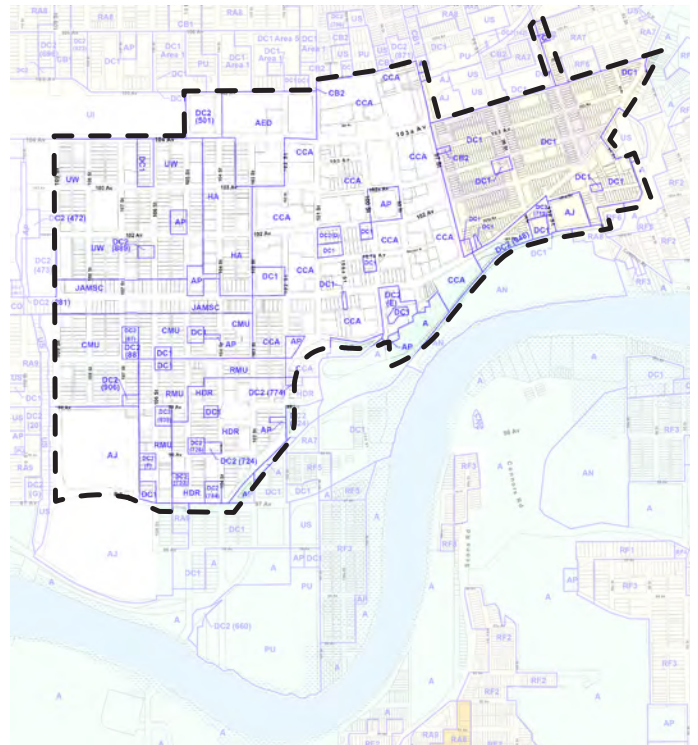
Land Use Context

While data on the built form of existing downtown buildings was not collected as part of the Study Area analysis, current zoning can provide guidance in development of a street typology. This is shown in Figure 10. Figure 11, meanwhile, shows downtown districts as defined by the Capital City Downtown Plan and the Quarters Downtown Area Redevelopment Plan (referred to as the Plans).

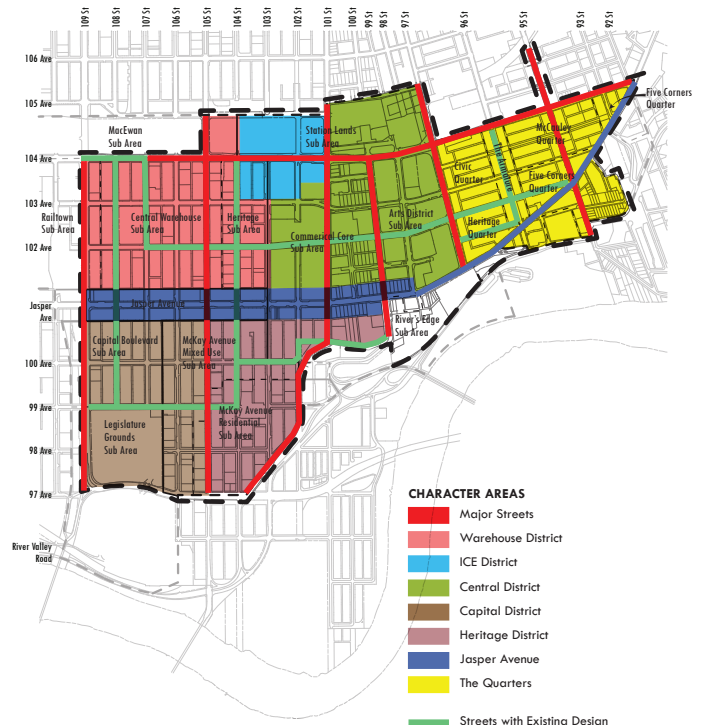
While current zoning is relatively complex – a total of 14 land use categories within the downtown area – broad use categories such as commercial generally align with the six downtown neighbourhoods defined by the Plans:

- The Quarters is a redevelopment area that is envisioned as mixed-use, consisting of commercial, residential and institutional uses (primarily residential in the McCauley Quarter).
- The Commercial Cultural Core, as its name suggests, is a mixture of office, retail and civic uses. Note that this district includes the arena-centered but otherwise largely commercial Ice District between 101 and 104 Streets and between the Metro Line LRT right-of-way and 103 Avenue.
- The Warehouse Campus is a historic light-industrial area undergoing adaptive reuse and redevelopment into a mixed commercial and residential area.
- Jasper Avenue is a retail corridor.
- McKay Avenue is a mixed-use area to the north and west, transitioning to a residential neighbourhood to the southeast.
- The Capital City District is primarily civic, including government offices.
- Within each neighbourhood, the City has defined sub-areas with distinct characters, such as the Heritage Sub Area within the Warehouse Campus. In order to maintain a reasonable number of street types, however, land uses contexts must be categorized broadly for this exercise. The influence of the sub-area characteristics is reflected in the design recommendations and streetscape element selection.

ZONING



CHARACTER AREAS



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