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Purpose + Methodology

The 109 Streetscape Design Guidelines were developed with Envision 109: The 109 Streetscape Design Vision, published in 2019. This Vision focuses on improving the pedestrian experience, supporting local business and increasing sustainability. These guidelines support this vision through an enhanced public realm, expanded urban tree canopy, alley pedestrianization and Low-Impact Development (LID). With the knowledge that this long-term vision may not be realized for another 20 years when the roadway is due for reconstruction, Envision 109 articulated conceptual scenarios for redevelopment as it occurs in the interim. This document aligns with this long-term vision, and describes in further detail streetscape guidelines for redevelopment that may occur along 109 Street in the ensuing years.

The primary goal of this document is to provide guidance to the City and developers for improvements to the public realm as redevelopment incrementally occurs. Developers are often required to rebuild the fronting public realm that can include sidewalks, plantings, and furnishings.

These guidelines direct investment in the public realm that improve the quality and consistency of the streetscape of 109 Street. The public realm along 109 Street is of varying character and accommodates a range of functions, and the guidelines identify three key development types to which different guidelines apply.

An analysis of the corridor was undertaken and development types were identified based on existing land uses along 109 Street.

Based on existing land uses, the development types include: **pedestrian commercial**, residential, and parks + open space.

As identified in Envision 109, the corridor differs in character north and south of Whyte Avenue. North of Whyte is primarily commercial with a higher volume of pedestrians, and south of Whyte is primarily residential. The recommended streetscape treatments are notably different in this manual, with more hardscape treatments in the commercial areas north of Whyte, and more passive softscape treatments south of Whyte.



How To Use This Document User's Checklist distance available (between existing property Identify 1.0 Development Type Size streetscape zones (as defined in Spatial Distance **Complete Streets Design & Construction** Utility Constraints Standards) accordingly with respect to spatial distance available. 2.0 Determine Target Dimensions for Zones arrangement. The sidewalk should ideally be separated from the road by a boulevard 3.0 Adapt (furnishing zone); however, adaptations may Utility Conflicts be required in the event of utility conflicts that cannot be re-aligned. Furnishing Zone Type 3. Apply streetscape elements and material Through Zone Type treatments. Underground utilities Frontage Zone Type determine if trees may be planted. Materials 4.0 are to be simple and consistent, but can vary Apply somewhat according to development type Streetscape Elements and location either north or south of Whyte Material Treatments Avenue. 5.0 **Unique Conditions** 4. Address unique conditions. Incorporate transit stops and address transitions with Transition to Existing Conditions existing site conditions. Transit Zones

Identify the land use type, existing spatial lines and curbs), and utility constraints.

- 2. **Confirm & adapt streetscape zone**

Definitions of key terms, illustrative examples, and case studies are all provided below.

Alley Pedestrianization

Definitions

The following definitions and descriptions are in alignment with the Complete Streets Design and Construction Standards (2018). Understanding the terminologies will assist in the selection of treatments which reflect the surrounding environment and affect desired outcomes.

Spatial distance

Spatial distance refers to the dimension between the existing curb and the property line, measured in a generally perpendicular direction.



Definitions

Streetscape zones

Streetscape zones often consist of different streetscape functions which all demand sufficient space. According to the City of Edmonton's Complete Streets Design and Construction Standards, there are three zones that accommodate various streetscape elements of a complete street:

Frontage zone -

This is the space generally between the building and the property line, adjacent to the through zone. The frontage zone supports an extension of the land uses along the street that contribute to an enhanced pedestrian experience. In this zone, the key design elements may include a spillover of at-grade active uses, featured facade articulations, on-site public open spaces, etc.

Through zone

This space provides a clear and unobstructed path of travel for pedestrian circulation to access the land uses along the street, and is separated from the roadside by an appropriate furnishing zone.

Furnishing zone -

The furnishing zone is the space adjacent to the curb, providing an area for signs, street trees, utility posts, street furnishings, snow storage, transit passenger amenities, etc.



1.0 Identify Development Type, Spatial Distance, Utility Constraints

Development Types 1.1

109 Street's land use zones are a mixture of commercial, residential, and park and open space uses. For the purpose of these guidelines, groupings of land uses have been created to address desired outcomes at the interface of the public realm and private land use. Pedestrian commercial uses are better supported by a public realm that accommodates spillover functions including patios and retail, whereas residential uses seek a balance between privacy and attractiveness. Parks and open spaces are primarily City owned assets, with less constraints when allocating space for defined streetscape zones.

Pedestrian Commercial

Existing pedestrian commercial zones are concentrated north of Whyte Avenue, with some established and emerging commercial nodes along southern portions of the corridor. Pedestrian commercial areas focus on ground floor, street-oriented retail and other businesses that benefit from a higher degree of hardscape materials and furnishings that include pavers, planters, and seating, to compliment the commercial uses that spill out onto the street.

Residential

Residential uses are primarily concentrated south of Whyte Avenue, and include mixed use developments with both groundfloor, street-oriented residential units and commercial uses. This development type benefits from a thoughtful demarcation of public and private space which also contributes to a comfortable and attractive streetscape. Passive measures such as planted boulevards and screening can increase this demarcation but should maintain visual connectivity between public and private spaces. Mixed use developments require a balanced streetscape approach to complement both land uses, and is elaborated upon in the case studies.

Parks + Open Space

Parks, schools and similar civic uses are generally distributed along the corridor. Religious assembly are not addressed in these guidelines as these types of development are unlikely to be seen within the corridor. Parks and open spaces on 109 Street are primarily City owned and by their nature are subject to less spatial constraints. Consequently, it is feasible to achieve the intended design targets by infringing on the titled parcels of land if required.









See relevant case study







See relevant case study

2.0 Determine Target Dimensions for Streetscape Zones

2.1 Type 1: Pedestrian Commercial



The **pedestrian commercial** type aligns with typical commercial land uses along the 109 Street Corridor. Front setbacks are typically limited to provide a continuous streetwall that builds on the existing strength of the corridor as a pedestrian area.

Owing to a time in the past when the zoning bylaw allowed it, several properties today have surface parking along 109 Street, and this is counter to the planning goals of today and will not be supported in a redevelopment scenario. **Pedestrian commercial** properties are primarily concentrated north of Whyte Avenue, with small pockets of retail and commercial south of Whyte. All frontage zones are to be developed with a hardscape treatment as illustrated to accommodate higher pedestrian volumes and the spillover of retail uses into the public realm.





Spatial distance >= 5m

4m <= Spatial distance < 5m



See relevant case study

Because of constraints in the spatial distance available along the corridor, in some instances it will be necessary to prioritize a through zone of sufficient width to maximize pedestrian use and commercial retail activity. To maintain this through zone it may be necessary to:

- Reduce and/or eliminate the furnishing zone or frontage zone.
- Negotiate a setback to accommodate the furnishing and/or frontage zone.



3m <= Spatial distance < 4m



Spatial distance < 3m

Determine Target Dimensions for Streetscape Zones 2.0

2.2 Type 2 : Residential



The **residential** type aligns with typical residential land uses (including direct control zones) along the 109 Street corridor and may include some ground-floor commercial uses. Front setbacks for this development type vary greatly and are as described in the Zoning Bylaw (latest version).

The main goals of the public / private interface for the **residential** type include balancing residential desires for screening and privacy, while maintaining adequate visual connections between the street and building uses. Having 'eyes on the street' from windows and patios is an important Crime Prevention Through Environmental Design (CPTED) strategy and contributes to improved pedestrian safety.





See relevant case study

A mixed use building with both residential and commercial uses should treat its furnishing and frontage zones with increased hardscape and furnishing treatments similar to the **pedestrian commercial** type. See residential case studies for an example. In this scenario, attention should be given creating proper transitions in the public realm interface between commercial and residential uses, and in particular, ensuring streetscape and landscape treatments are complimentary yet distinctly legible.

For residential only developments, planters or other means should be used for dividing and screening the public / private interface to create more of a sense of a yard for residents, and to enhance the public realm for passing pedestrians. A 2.5m through zone is suitable as a general maximum for this type. In the quieter residential areas south of Whyte large pedestrian volumes are not foreseen, and more space can be assigned to the furnishing zone or frontage zone.



B

3m <= Spatial distance < 4m



Spatial distance < 3m

2.0 Determine Target Dimensions for Streetscape Zones

2.3 Type 3 : Parks + Open Space



The **parks + open space** type reflects City owned parks, provincially owned schools, religious assemblies and similar civic uses along 109 Street. While there are currently two churches in operation along the corridor, it is not foreseen that new religious institutions will be developed, and therefore no guidelines are provided.

City ownership of public park spaces along 109 Street provides greater flexibility in accommodating ideal zone widths when existing spatial distances are constrained. In this instance, it is recommended that the titled property of park spaces is used to achieve desired through zone and furnishing zone widths.





See relevant case study



Spatial distance varies



Spatial distance varies

Confirm and Adapt Streetscape Zone Arrangement 3.0

3.1 Identify Furnishing Zone Arrangement & Treatment



Confirm and Adapt Streetscape Zone Arrangement 3.0

3.1 Identify Furnishing Zone Arrangement

No Conflicts

Underground Conflict In Furnishing Zone

Above Ground Utility Conflict With Through Zone



Ideal Furnishing Zone



Adapted Furnishing Zone



Re-aligned Furnishing Zone

3.0 Confirm and Adapt Streetscape Zone Arrangement

3.2 Identify Through Zone Arrangement



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3.0 Confirm and Adapt Streetscape Zone Arrangement

3.3 Commercial Frontage Zones: Provide Appropriate Space and Treatment for Complimentary Uses

Objectives

The frontage zone for commercial uses describes the zone between the facade and through zone, that acts as an extension of the building by accommodating patios and other complimentary, spillover uses. It is particularly important on 109 Street north of Whyte Avenue, where street-related retail and pedestrian activities are more common and encouraged. By integrating potential patio spaces and spillover uses, this zone could be designed to foster street life and increase the commercial character and public life of 109 Street.

Guidelines

- 1. Adjacent uses may occupy this zone for outdoor displays, café or restaurant seating, and plantings, with appropriate permits. In areas with retail at-grade, this zone should be wider to accommodate active at-grade uses.
- 2. Elements in the frontage zone should not impede the clear pedestrian through zone in any manner.
- 3. Overhanging signage and awnings which provide temporary refuge for pedestrians are encouraged.
- 4. Where there are continuous building setbacks, the depth of frontage zones should be determined on a case-by-case basis.



Back to development type 1

See material treatments for frontage zone

Confirm and Adapt Streetscape Zone Arrangement 3.0

3.4 Residential Frontage Zones: Provide Appropriate Space and Treatment for Complimentary Uses

Objectives

The frontage zone of residential uses provide people with direct pedestrian access to their front door, and creates a mutually beneficial relationship between private developments and public streets. This public / private interface is important in providing an enhanced public realm for passing pedestrians through the use of plantings and furnishings, while providing a degree of screening and privacy for residents along the 109 street.

Guidelines

- 1. Frontage zone minimum dimensions will be primarily defined and governed by front setbacks as required under the Zoning Bylaw.
- 2. A balance should be sought between maintaining a visual connection between the public and private realm, while providing a level of screening and privacy for private residential uses.
- 3. Trees, planters, and lighting within the frontage zone must be comprehensively considered together with existing street trees and pedestrian amenities.
- 4. Primary (common) building entries should be located facing 109 Street and should be distinctly legible through prominent architectural treatments such as pavers or concrete sandblasting to make them more visually prominent in the streetscape.
- 5. Entries and access to at-grade or underground parking facilities should not be directly off of 109 Street but rather from an alley or avenue.









Landscaping, low walls, terracing, and green screens are often employed in residential settings to demarcate buildings and provide appropriate transitions and privacy, while enhancing the pedestrian experience.

Back to development type 2

See material treatments for frontage zone

Streetscape Design

Street trees and planter edges offer an extension of the building interface into the public realm, creating a transition from the activity of the street, and ensuring a safe and relaxing pedestrian environment. A consistent green edge can also define an attractive residential edge that contributes to street character.



4.0 Apply Streetscape Elements + Material Treatments

4.1 Public Art & Place

The intention of these guidelines is to harmonize a more consistent pedestrian environment and material treatment of 109 Street. While there are many functional and aesthetic benefits of an improved and more consistent public realm, it is recognized that planning guidelines, when too rigorously applied, can lead to a uniformity that lacks an urban richness and cultural detail. Interventions that are thoughtfully designed, well integrated, and rooted in the art and culture of the region and local context of 109 Street are desired and encouraged.



Pitt Street Mall





Stock Exchange Street





The Delta Gardens Calgary





Roemer Plaza





Community Based



Apply Streetscape Elements + Material Treatments 4.0

NORTH OF WHYTE AVENUE

1	BOULEVARD TREES	
2	TREE GRATE	n
3	BENCH WITH WOOD SEAT AND CONCRETE BASE	
4	STRUCTURAL SOIL CELLS	
5	PAVER – DARK COLOUR ACCENT BORDER	A
6	PLANTER AS DIVIDER	L



Avenue planting Tree grate Little-leaf Linden or American Elm. Rain 1.2x1.2 or 1.2x2.5m heel proof, expandable cast ductile iron by Iron Additional species diversity may be encouraged by Urban Forestry Age Designs





Seating elements Western Red Cedar timber seating on concrete base. Stainless steel armrests



Structural soil cells Where applicable to meet City soil volume targets





Charcoal colour concrete accent Moduline Series Stone 100mm x 460mm x 80mm

COMMON

7	PAVERS - DARK FURNISHING & ANCILLARY ZONE	and the second
8	ROADWAY LIGHTING	
9	PEDESTRIAN LIGHT	C. C. Serie
10	BOLLARDS	7
11	DERO HOOP BIKE RACK	Charcoal colour paving stone
12	LITTER RECEPTACLE	Moduline Series Stone 100mm x 460mm x 80mm Running bond pattern
13	RAISED BED BOULEVARD PLANTINGS	Kunning bond pattern
14	SAW-CUT CONCRETE THROUGH ZONE & CROSSWALKS	
15	DECORATIVE CONCRETE CROSSWALK	5
16	TWSI – TACTILE WARNING SURFACE INDICATOR	
17	MOVABLE TABLE	10
18	MOVABLE CHAIR	Bollard
19	PAVERS – FRONTAGE ZONE	Annapolis – Landscape Forms 6'' x 33'' Black powder coat



Roadway lighting Luminaire: Classic Style - Lumec Pole: City approved supplier, taper round, black powder coating



Bike rack Dero Hoop bike rack Surface mounted. Stainless finish



Luminaire: Classic Style - Lumec Pole: City approved supplier, taper round, black powder coating



Waste receptacle Lakeside Litter – Landscape Forms Top open. 21" x 36" x 35 Gal. Stainless finish



Pedestrian light Luminaire: Classic Style - Lumec Pole: City approved supplier, taper round, black powder coating



Raised planting bed edge 150mm height, concrete curb Battered profile



stamping

Saw-cut concrete Broom finish concrete with saw-cut joints. Typical scoring 1000-2000mm



TWSI with Truncated Domes Armor-Tile Cast in Place 12" x 12" Kinesik Engineered Products Inc.

SOUTH OF WHYTE AVENUE





Little-leaf Linden or American Elm. Additional species diversity may be encouraged by Urban Forestry



At-grade planting bed Salt and pollution resistant shrub species

Go back to furnishing zone arrangement



Bench Austin – Landscape Forms 1800mm length. Wood seat & back Powder coated metal supports



Structural soil cells Where applicable to meet City soil volume targets



Go back to through zone arrangement



5.0 Address Unique Conditions

5.1 Transition from Proposed to Existing Adjacent Conditions

There may be instances where the streetscape treatment of a proposed development requires a transition to that of an adjacent, existing development. A potential through zone and furnishing transition is illustrated below.

PROPERTY LINE REDEVELOPMENT REDEVELOPMENT SETBACK LIR R PROPERTY **PROPERTY LINE** 2 S. 202 **109 STREET** TREED BOULEVARD AND SHRUB PLANTINGS EXISTING STREETLIGHT POLE CONFLICT

Note: Location and design of sidewalks relative to existing street trees to be in conformance with Design and Construction Standards – Volume 5 Landscaping.



Address Unique Conditions 5.0

5.2 Transit Zones (Bus Stops)

Bus stops will typically be accommodated in the furnishing zone. The orientation, type, and arrangement of bus stops on 109 Street is going to be governed by the existing spatial distance, and arrangement of the furnishing zone and through zone.

Furnishing Zone is 2.3m or Greater (Preferred) Amenity Pad as per CSDCS

Note: Refer to Complete Street Design and Construction Standards for the size and configuration of transit stops and amenity pads.

Facing-in Transit Zones:

Bus shelter opening should be oriented towards the through zone, facing the buildings to ensure accessibility. Amenities will be located to avoid conflict with bus doors and ramps.

All Other Conditions



adjacent to a monowalk. Bus shelter openings should be oriented towards the monowalk, facing the road.

5.0 Address Unique Conditions

5.3 Potential Alley Pedestrianization

The 109 Street Area Redevelopment Plan and Envision109 both identify the opportunity to, as redevelopment occurs along the corridor, redevelop alleys as pedestrian spaces either partially or fully closed to vehicular traffic. Where existing east-west alleys are already backed by north-south alleys parallel to 109 Street, closures or shared pedestrian spaces can be considered as part of development planning and analysis.

Where parallel north-south alleys do not yet exist, pedestrianization can happen over a longer time frame as redevelopment of private property occurs. Private developments may provide north-south alley connections toward the rear of 109 facing developments, transforming the closed east-west alley into patios and courtyards to improve pedestrian connectivity and introduce additional open space amenity.





DEVELOPMENT THAT INCORPORATES PUBLICLY ACCESSIBLE PEDESTRIAN SPACE 200 AVE



Redeveloped properties that incorporate publicly accessible pedestrian space



The **pedestrian commercial** case study explores a potential redevelopment of a commercial property along the 109 Street corridor. If alley pedestrianization is possible, redevelopment should explore the creation of pedestrian spaces to improve pedestrian connectivity and introduce additional open space amenity. Tree spacing should be to City design and construction standards and subject to setbacks for utilities and sight lines.





6.2.1 Type 2 : Residential with Ground Floor Commercial

This **residential** case study explores a potential mixed-use redevelopment with street oriented residential units and corner retail. These types of mixed-use developments should allow for more hardscape pavers and trees in grates in the furnishing zone. Tree spacing should be to City design and construction standards and subject to setbacks for utilities and sight lines.





6.2.2 Type 2 : Residential

This **residential** case study explores a potential multi-family redevelopment where a treed boulevard is provided. As is the case in some land use zones, this development is able to reduce its front setback requirement from 4.5m to 3m by providing a treed boulevard. Tree spacing should be to City design and construction standards and subject to setbacks for utilities and sight lines.





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6.3 Type 3 : Parks + Open Space

The **parks + open space** case study explores a typical park space along the corridor. In this example, underground utilities prevent boulevard tree planting; instead, the furnishing zone incorporates shrub planting as well as decorative pavers. The case study has a constrained 3.5m spatial distance, but is able to use some of the titled land of the park to improve the pedestrian environment of 109 Street.

