

16 Avenue North Urban Corridor

Area Redevelopment Plan



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16 Avenue North Urban Corridor

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1.0 Introduction

1.1 Plan Area

This Plan focuses on 16 Avenue from 14 Street NW to 6 Street NE and includes adjacent properties to the north and south generally along 15 and 17 Avenue. The Plan boundaries and its context within the city are shown on Figure 1.

The corridor, comprising a portion of Highway 1 is a historical gateway into Calgary. As well, it sits just west of the cross-roads at Deefoot Trail where Alberta's north-south trade route intersects with the nation's major east-west roadway, the Trans Canada Highway.

While it is within the inner city, north of the Bow River, the corridor provides access to many citywide and regional destinations including: Foothills Hospital, University of Calgary, McMahon Stadium, Foothills Athletic Park, North Hill Mall, and SAIT. Four streets, 14 Street NW, 10 Street NW, Centre Street and Edmonton Trail, serve as major north-south routes connecting the corridor with downtown Calgary.

The corridor touches the communities of Capitol Hill, Mount Pleasant, Tuxedo Park, Winston Heights – Mountview, Renfrew, Crescent Heights and Rosedale. Portions of most of the communities falling within the Plan Area have low or medium density housing behind commercial development along 16 Avenue.

This Plan, originally adopted in 2007, took direction from the 2005 16 Avenue North Urban Corridor Long-range Concept Plan. A 2016 review of the Plan found the following:

- The Plan Vision, Land Uses and Heights are still reasonable and should remain in effect going forward.
- Policy overlap both within the Plan and with the Land Use Bylaw terms and regulations created difficulties in preparing and reviewing development plans.
- A refreshed, more concise format should improve readability for a wide range of stakeholders.

The Green Line North LRT (previously referred to as North Central LRT) is the north leg of the Green Line, the next new LRT line in Calgary's rapid transit network. As outlined in RouteAhead, a 30-year strategic plan for transit in Calgary, the Green Line will eventually run from North Pointe in north central Calgary to Seton in the southeast, with future extensions to the north possible in the longer term. Within this Plan Area, there will be a station at 16 Avenue N and Centre Street. A subsequent amendment to this ARP will be required to fully integrate the development of the Greenline into the policies and maps of this ARP.

Area Redevelopment Plans that abut this Plan include:

- North Hill ARP (2000) - covers the communities of Capitol Hill, Mount Pleasant and Tuxedo Park
- Winston Heights-Mountview ARP (2006)
- Crescent Heights ARP (1997).

Where there is any conflict between this Plan and any other area redevelopment plan or any non-statutory plan with respect to decisions within the Plan Area, this Plan will prevail.

Hierarchy of Plans



- **Municipal Development Plan (MDP) and Calgary Transportation Plan (CTP)** contains city-wide objectives and specific direction for moving people and goods throughout Calgary.

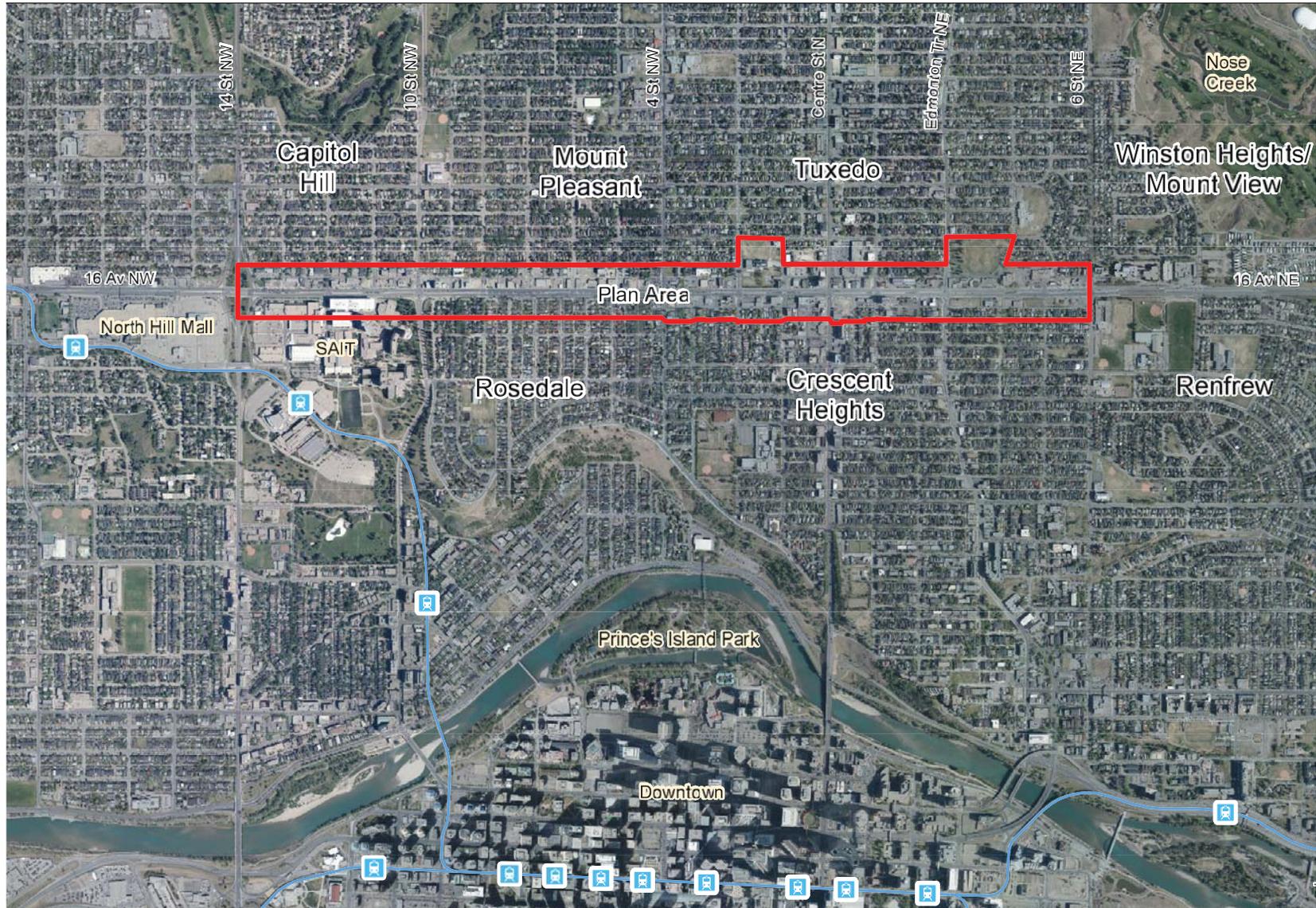


- **16 Avenue North Urban Corridor (ARP)** contains objectives and policies directing collaborative planning between The City of Calgary and Rocky View County.



- **Land Use Bylaw and other City of Calgary Guidelines and Policies.** That provide direction on specific topics.

▼ Figure 1: Plan Area Context



1.2 Vision

The vision for the Plan Area is:

A vibrant Urban Corridor that integrates land use, urban design and mobility and serves three major roles: a community builder, a people-friendly public space and a route for diverse modes of travel.

1.3 Goals

Overview

This Plan supports immediate and long-term development in the corridor along 16 Avenue. Nodes along the corridor, as shown on Figure 2 are good places for higher intensity developments.

▼ Figure 2: Nodes along the corridor



Significant mobility improvements constructed in the early 2000s provided the setting for intensified land use that supports an urban corridor style of development as described in the Municipal Development Plan.

Development proponents should be able to demonstrate how their proposal will enhance the activity and form along 16 Avenue as well as increase the accessibility to and through the area.

1. The three goals of the Plan are:

Build the Community

by:

- supporting a mix of commercial, residential and institutional uses;
- embracing the corridor as an extension of community life;
- enhancing economic viability of businesses, existing and new; and

- celebrating the unique features of 16 Avenue

Create a people-friendly public space

by:

- providing a comfortable environment for pedestrians; and
- including green spaces and an attractive landscaped streetscape.

Provide a route for diverse modes of travel

by:

- promoting alternatives to vehicle travel that are safe and efficient (e.g., walking, cycling, transit);
- providing connections into existing communities that abut 16 Avenue; and
- ensuring 16 Avenue functions as a destination and through street for vehicles.

2.0 Land Uses & Urban Design Overview

Overview

To achieve the vision, Maps 1 & 2 provide the key information for redevelopment potential of a site. The maps outline the expected uses, densities and heights. Urban Design policies in sections 3 & 4 provide guidance to refine a building's appearance and impact on the area.

This Plan identifies a number of nodes at intersections along the 16 Avenue N. corridor. The nodes, shown on Figure 2, are intended to evolve into areas of concentrated activity and act as anchors to attract people to the area. Between nodes, the corridor comprises a continuous active frontage of lower height mixed uses that attract a full mix of people arriving on foot and bicycle or by transit or vehicle.

2.1 Land Uses

1. The Land Use Concept, Map 1, outlines the nodes along the corridor by directing higher intensity uses to the nodes shown on [Figure 3](#) [Figure 2](#). Between the nodes, a string of continuous, active frontages should link to the nodes.
2. Commercial Mixed Use Areas should have predominantly commercial uses in pedestrian-oriented developments that incorporate residential uses above the main floor. New auto-oriented uses shall

be directed to those areas shown on Map 1 with the auto-oriented overlay.

3. Residential Use Areas require multi-residential uses with limited at-grade commercial uses in some locations. These uses do not preclude continued single-detached residential uses or redevelopment as such.
4. Character sites are identified on the Land Use Concept to communicate the historic and current character that makes this corridor unique. All developments and infrastructure upgrades should support their continued presence on the corridor. Thoughtful integration of new development that complement the function of the character sites is required.

2.2 Urban Design Overview

1. The urban design policies ensure that intensification of sites occurs in a sensitive manner with new buildings contributing to a pedestrian friendly streetscape.
2. Building form policies guide the massing of future development. Factors influencing building form include: sensitivity to the context, providing a feeling of enclosure

for the street and public open space and minimizing shadow and weather impacts (e.g., wind).

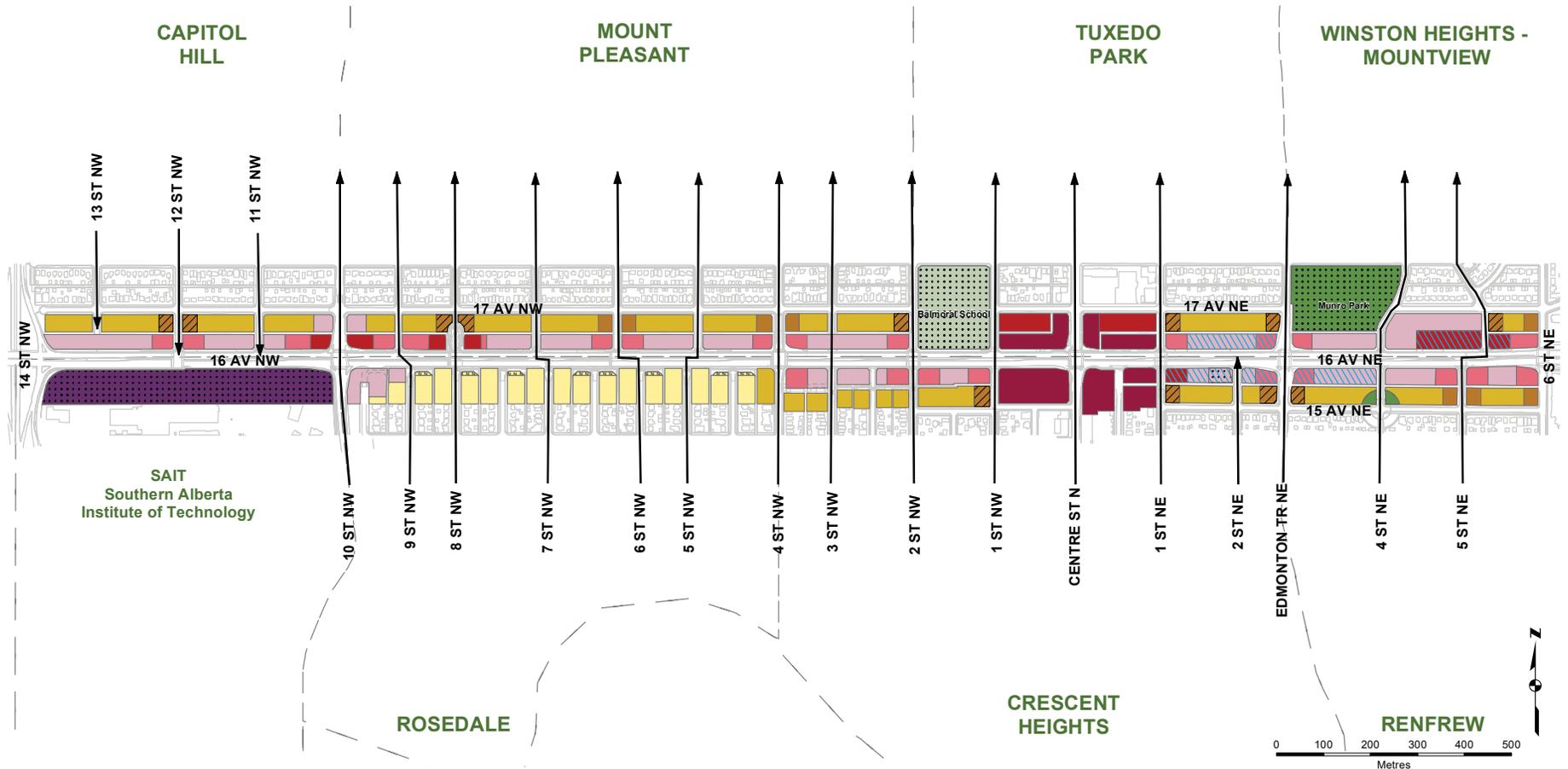
3. Building character is important to the quality of the urban experience in both residential and commercial areas. The Plan's vision supports distinctive and excellent architectural design. Examples of building character policy objectives include:
 - higher quality, durable finishing materials used, especially on façades of lower floors;
 - frequent at-grade entrances;
 - transparent commercial façades; and
 - continuous frontages except to provide: access to rear lanes for pedestrians; or publically accessible courtyards; or other calm areas of refuge, "eddies" in the main stream of activity on 16 Av NW.
4. Particular emphasis in the Plan is placed on providing appropriate building stepbacks above four storeys to reduce massing and shadowing impacts while not sacrificing the viability to develop a site. Shadow studies will be integral to informing stepback designs.

▼ Map 1: Land Uses

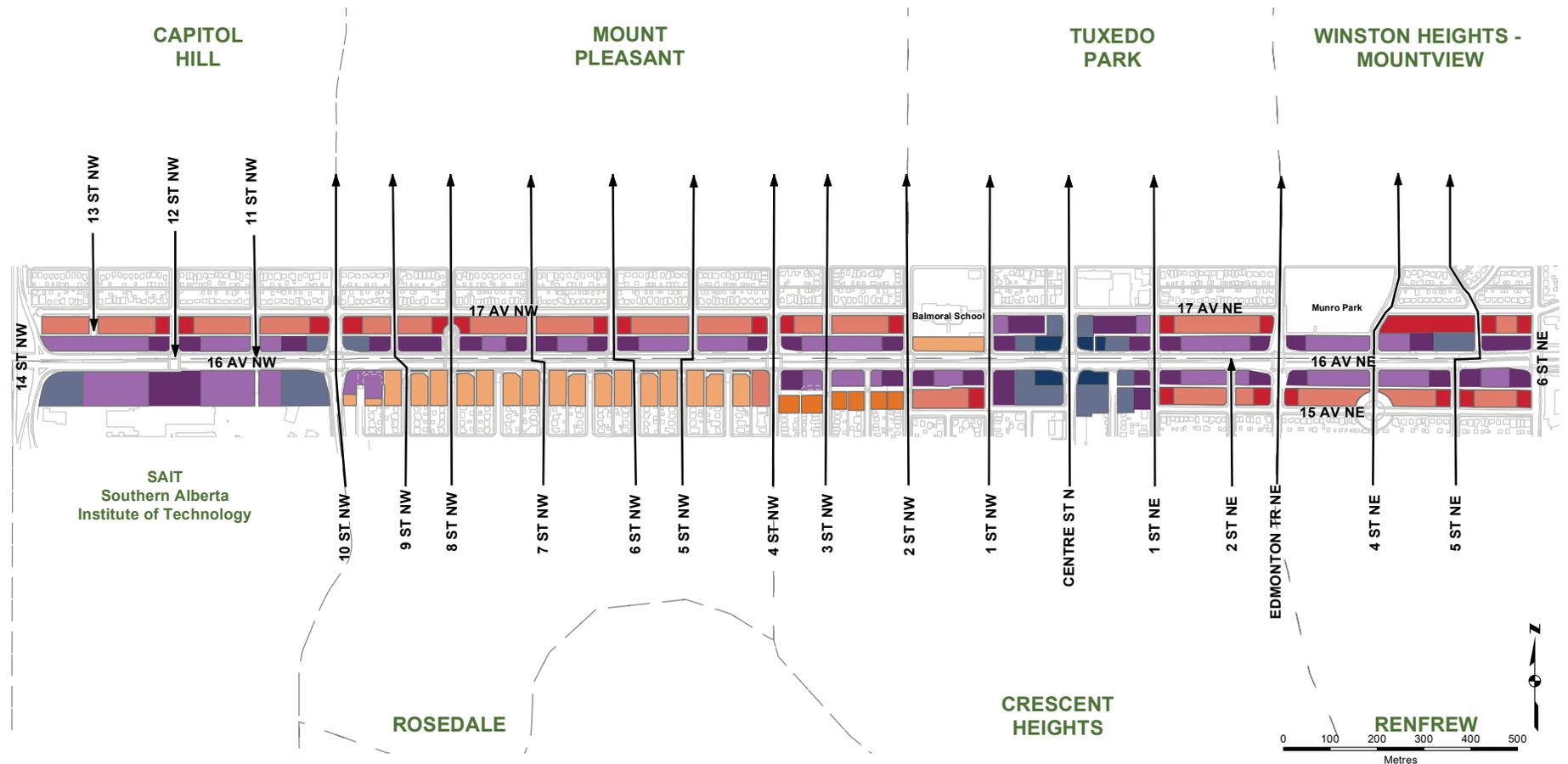
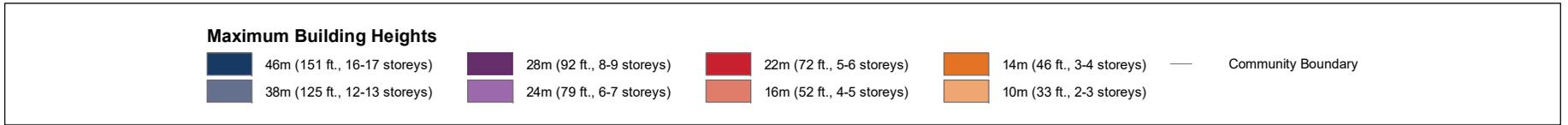
Commercial Mixed Use	Maximum Density		Residential Use	Density		Character Sites
	Commercial	Mixed Use		Minimum	Maximum	
Commercial Mixed High Density	4.0 FAR	6.0 FAR	Multi-residential Medium Density	148 uph	210 uph*	
Commercial Mixed Medium - High Density	3.0 FAR	5.0 FAR	Multi-residential Medium Density Low Minimum	72 uph		Open Space
Commercial Mixed Medium Density	3.0 FAR	4.5 FAR	Multi-residential Medium Density/Support Commercial	148 uph		Institutional
Commercial Mixed Medium - Low Density	3.0 FAR	4.0 FAR	Single-detached Residential			Community Boundary
Auto-Oriented Overlay			Single-detached Residential with Noise Attenuation			Balmoral School/Open Space

FAR = Floor Area Ratio; uph = Units Per Hectare

*Unless more units/area can be accommodated within the Land Use Bylaw FAR limits



▼ Map 2: Building Heights



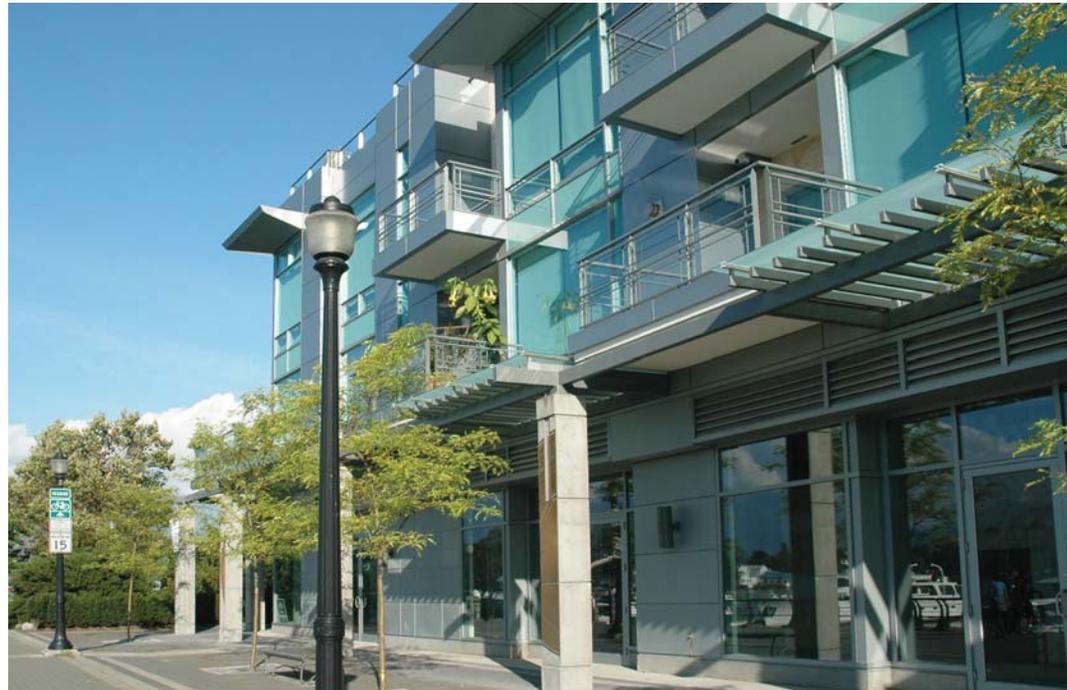
3.0 Commercial and Mixed Uses

Overview

These policies encourage predominantly commercial uses to be accompanied by residential units above the main floor. Additional density is allowed if a mixed use proposal is received for an eligible site than if a strictly commercial proposal.

3.1 Objectives

1. Support short and long-term mixed use developments and redevelopment of sites to bring new goods, services and residents closer to the seven communities and SAIT that abut the Plan Area.
2. Provide a range of local and regional commercial mixed uses serving community and regional needs.
3. Ensure new developments integrate well with adjacent residential uses.
4. Celebrate the role of 16 Avenue N. as a gateway into Calgary.



Blending public/private sidewalks and weather protection contribute to a pedestrian friendly environment.

Policy Illustration



Land Uses/Densities/Heights

See Maps 1 & 2 and policies.

Setbacks

Building setbacks from property lines provide appropriate spaces between buildings and sidewalks or lanes. Use the Land Use Bylaw with a few exceptions.

Stepbacks

For taller buildings use stepbacks to allow a transition to adjacent, shorter buildings, have buildings appear smaller, and help reduce shadow and wind related impacts.

Materials & Design

Use a mix of the highest quality materials down low where it is most visible. Design ground level areas to attract people.

Entrances

Build weather protected pedestrian areas and design entrances as a focal point of a site.

Transparency

It is more interesting and safe if people inside can see out and people outside can see in.

Recesses and Projections

Use various architectural techniques to avoid blank walls.

Rooftops

Use the roof as a gathering space, a green roof, for solar panels, etc. where possible.

Landscaping and Lighting

Use landscape design to either create gathering spaces or provide buffers for existing residents. Lighting should be scaled for pedestrians and vehicles.

3.2 Commercial Mixed Use Developments

Land Use

Commercial Mixed Use Areas are identified on Map 1.

Specific uses within the Commercial Mixed Use Areas are determined by the Land Use Bylaw.

1. New automotive-oriented uses are not permitted in Commercial Mixed Use Areas unless identified on Map 1 by the auto-oriented overlay. Examples include: auto body and paint shops, automotive services, sales and rentals, and drive-thrus.
2. Outdoor storage should not be permitted.
3. Encourage development that incorporates attractive and high quality places for pedestrians.
4. Residential uses should be above the main floor level except for residential units fronting a lane, 17 Avenue N., or 15 Avenue N.
5. In a mixed use building, the ground floor should comprise non-residential uses and a minimum of 25% of the gross floor area of the building should contain residential uses to earn the residential FAR increases.
6. Amusement Arcades, Billiard Parlours, and drinking establishments are not permitted within the portion of Plan Area that is within Rosedale.
7. Commercial uses are not permitted above the second floor in any mixed use building constructed at the southeast corner of 17 Avenue and 10 Street NW.



Building articulation, frequent entrances, and pedestrian gathering areas all contribute to a vibrant streetscape.

Density

8. The maximum density, using Floor Area Ratio (FAR), is prescribed on Map 1 and implemented via the Land Use Bylaw. Higher density is permitted if a mixed use building is developed, as indicated on Map 1.

Height

9. The maximum height is prescribed on Map 2. The number of storeys is provided for perspective/information only and does not form part of the statutory policy.
10. Where upper height limits of 38 m (about 13 storeys) are provided, those sites should develop creative landmark buildings that become a key focal point of a particular node.
11. The minimum building height is 7.5 m (about 2 storeys) except that:
 - (a) The minimum height is 24 m (about 7 storeys) on sites where the maximum height is 46 m (about 17 storeys)

- (b) The minimum height is 12 m (about 3 storeys) on sites where the maximum height is 38 m (about 13 storeys).

Setbacks

12. Setbacks along 16 Avenue N. should be zero metres. Exceptions are allowed to accommodate building articulation or features for pedestrians ie. widened sidewalks, gathering spaces.
13. The maximum setback for buildings on streets intersecting with 16 Avenue N. should be 3.0 m. Exceptions are allowed to accommodate building articulation or features for pedestrians.
14. For sites with corner cuts on 15, 16, or 17 Avenues N. site design should allow the space to provide more room for pedestrians at street corners.
15. All other setbacks are prescribed by the Land Use Bylaw.

Stepbacks

16. To create consistent streetwalls, buildings taller than 16 metres should step back along street frontages a minimum of 1.5 metres between 10-13 metres (3-4 storeys) above grade (see Policy illustration).
17. Buildings fronting 17 Avenue N. should not cast shadows on the sidewalk on the opposite side of the street between the hours of 10:00am and 4:00pm **MST** on September 21.
18. Buildings fronting 16 Avenue N. should step back at the rear to reduce the scale of the building towards the lane and reduce building shadows onto adjacent properties.



Weather protected entrances and a variety of building materials enhance the vitality of a building.

19. For buildings taller than 16m (about 4 storeys), the Development Authority will require a shadow study to show that a development's stepback(s) mitigate unnecessary shadow impacts on adjacent properties.

Materials and Design

20. On the main floor, up to 4.5 m above grade, higher quality, durable exterior finishing material such as masonry, metal, glass and/or concrete should be used. Cinder block,

stucco, and siding are discouraged on the main floor.

21. For the portion of the podium above the main floor and for the building above the podium use durable exterior finishing materials compatible with the main floor. Stucco and wood siding are acceptable above the podium. Cinder block and vinyl siding are discouraged.
24. For buildings fronting onto intersections, greater emphasis on articulation and

material variety, especially for the podium portion will be required. Give particular emphasis to the relationship of the building to the street at grade level. Accentuate the edge of the stepback at the top of the podium, (e.g. with a cornice or band of distinctive building material). Building façades should combine with landscaping, lighting, signs, and street furniture to create an attractive and dynamic urban environment.

23. Consider using construction materials that are salvaged, have recycled content, or are produced locally.

Entrances

24. Provide all building entrances at street level and facing the public sidewalk. Doorways should not be provided below grade.
25. For at-grade retail or service commercial uses, a minimum of one entrance for each 15.25 metres (50 feet) of frontage should be provided. If that is not feasible, privately maintained, publically accessible gathering spaces or design features that provide visual interest shall be required.
26. There should be no entrances from 17 Avenue N to commercial uses in Commercial Mixed Use Areas.
27. Provide entrances at block corners where corner cuts are provided. Doorways may be recessed from the maximum setback lines on the corner cuts. Accentuate entrances and corners with special design features or elements, such as outdoor art, seating areas and awnings to reinforce the



Frequent entrances and large, transparent windows activate a street.

spaces as activity areas encouraging social interaction.

Transparency

28. On the main floor, up to 4.5 metres above grade, a minimum of 40% of the façade surface should be comprised of glass to allow pedestrian views directly into businesses along the majority of the frontage. Mirrored or tinted glass surfaces should not be permitted on the main floor.
29. For the podium above the main floor and for the building above the podium,

windows may comprise less than 30% of the façade but blank walls without windows or articulation should not be permitted.

30. The Approving Authority may impose a condition of development to provide at least one opening located in the block between Edmonton Trail and 4 Street NE. The opening should be wide enough to allow Munro Park to be clearly visible from 16 Avenue N.

31. Where feasible and appropriate provide breaks in building frontages to create publically accessible areas for people to gather on the edge of the main stream activity on 16 Avenue N. These features add to the vitality and character of the street while improving pedestrian safety, comfort and convenience.

Recesses and Projections

32. For the podium above the main floor, balconies should have a minimum depth of 1.8 metres. They should have a maximum projection of 1.2 metres from the building façade.
33. To shelter pedestrians from weather, canopies and awnings on the main floor should be provided that offer a unifying element in keeping with the overall design of the building and the character of the street.
34. Doorways should be recessed from the façade of the building.

Rooftops

35. Rooftop gardens or green roofs are encouraged to reduce stormwater runoff and provide additional amenity areas.
36. All mechanical equipment should be located to minimize visual or noise impacts on adjacent properties.

Landmark Buildings

37. The importance of 16 Avenue N. as a transportation corridor and gateway to

visitors and Calgary residents should be reflected in high quality building design along 16 Avenue N. Landmark buildings and related landscaping and character features are particularly appropriate at key intersections with 16 Avenue N, including:

- 14 Street NW (west entry to Plan Area),
- 10 Street NW, Centre Street,
- 5 Street NE, and
- 6 Street NE (east entry to Plan Area).

Rear Façades

38. Ensure the design of the rear façades is compatible with the residential use on the opposite side of the lane and uses building materials of a standard similar to the front façades.
39. Where Commercial Mixed Use Areas extend the full depth of the block, development may be designed to be built over the rear lane or reroute the lane. Feasibility will be reviewed on a site by site basis where interest is expressed in developing over the lane or rerouting the lane.

Landscaping and Lighting

40. Where a parcel shares a property line with a parcel designated only for residential uses, the setback area should be soft surfaced, except for a walkway.

41. Landscape materials should be compatible with and match or exceed the quality of materials found in the adjacent public realm. Preference is for pervious paving systems that reduce stormwater runoff.
42. Outdoor lighting should not luminate beyond the boundaries of the site, unless it assists in lighting public boulevards or sidewalks.

Signage

43. Signs on private property will be regulated by the Land Use Bylaw with particular attention to preventing sign proliferation, light intrusion from signs on adjacent properties, and signs not fitting with the general character of their surrounding streetscape or building architecture.

3.3 Commercial Mixed Use – Auto

Land Use

1. Commercial Mixed Use Areas with the Auto-oriented Uses overlay are indicated on Map 1.
2. In addition to uses allowed in section 3.2 Commercial Mixed Use Developments, additional automotive oriented uses, prescribed by the Land Use Bylaw, are allowed.
3. The site and building requirements of section 3.2 Commercial Mixed Use Developments apply here, however the following requirements may be relaxed when an automotive oriented use is applied for:
 - (a) minimum building height;
 - (b) front and side setbacks; and
 - (c) entrances, transparency, recesses and projection requirements.



Auto-oriented uses on 16 Avenue can integrate with new multi-residential developments.

3.4 The Node at 16th and 10th

Overview

The intersection of 10 Street NW and 16 Avenue NW is a major node in the Plan Area. To the west is the SAIT campus, and the intersection is a major gateway to and from downtown. The southeast corner requires a scale and intensity of development that is context specific. Higher density commercial and residential development beside 16th and 10th is encouraged while ensuring that future development is sensitive to the community context and interfaces positively with neighboring low-density development.

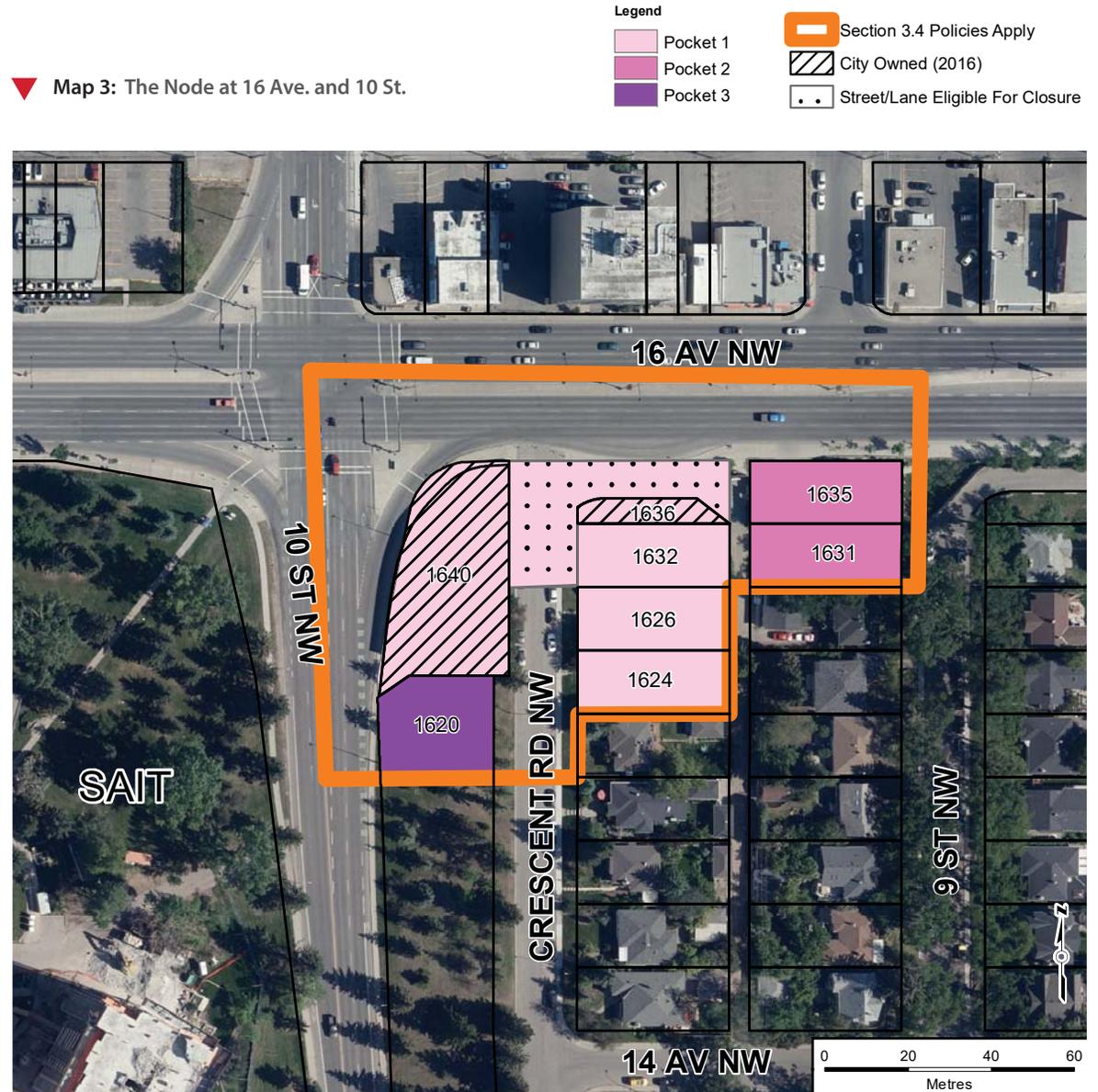
These policies encourage an attractive, medium to high density mixed use development. Existing mobility infrastructure (streets, sidewalks, transit) can support growth at this node.

Potential changes to the intersection of 16 Avenue and 10 Street are being reviewed to improve pedestrian safety, shift the existing bus lay-by on 16 Avenue west and increase the developable area on the southeast corner of the intersection.

Policies - All Pockets

1. Proposed Land Uses, Heights and development pockets for the southeast corner of the node at 16 Avenue and 10 St. NW are prescribed by Maps 1 and 3.
2. The pockets identified on Map 3 are subject to both the Commercial Mixed Use Policies in this Plan and the following context

▼ Map 3: The Node at 16 Ave. and 10 St.



specific policies. If a policy conflict arises, the policies of this section should be adhered to.

3. Use of existing land or structures for new commercial purposes prior to approval of a concept plan and associated permits should not be permitted due to:
 - lack of commercial access/egress;
 - lack of adequate buffering through required setbacks; and
 - creating commercial traffic on local residential streets.
4. New development must enhance these attributes of the area:
 - Southeast corner of a Key Node in the Plan Area.
 - a gateway to/from Downtown for many people.
 - bordered on two sides by existing low density development.

Pocket 1 

This site has frontage on both 10 Street NW and 16 Avenue NW.

Site and Building Design

5. Concept Plans are encouraged to consider the entirety of the pocket, if not all 3 Pockets. However, a development proposal for individual parcel(s) may be considered.

6. Commercial activities should be the predominant land use activity at grade on both 10 Street NW and 16 Avenue NW.
7. New development should employ measures to buffer adjacent low density housing from undue visual or noise related impacts.
8. Site design should incorporate grade changes between Crescent Road NW and 10 Street NW with a goal of minimizing negative impacts on adjacent low density housing.
9. Exterior building finishes for the first two stories should be durable high quality materials such as brick or stone, while higher elevations should incorporate a variety of materials to offer a complexity and richness of detail for the vertical surfaces.
10. Amenity spaces adjacent to existing low density residential areas should incorporate green buffers to retain privacy for existing residents.
11. If commercial uses are not feasible for properties not adjacent to 16 Avenue N or 10 Street NW a redesignation to residential uses is permitted without requiring an amendment to this Plan. The residential district chosen should not exceed the height or floor area ratio on Maps 1 & 2.
12. Stepbacks on new development greater than two stories adjacent the pocket boundary should be incorporated in an effort to minimize negative impacts (e.g. shadowing) on adjacent low density housing.

13. Maximum building setbacks are as follows:

16 Avenue	0 metres
10 Street NW	1.5 metres
Lanes	3.0 metres

Exceptions are allowed in order to accommodate building articulation and features for pedestrians. Note: there may be a requirement for a corner cut setback at the north corner of the site where the lane enters 16 Avenue NW.

Site Access and Circulation

14. Vehicular access for new developments should be from 10 Street NW and/or 16 Avenue NW only with the exception of new single detached, duplex, townhome or rowhouse developments.
15. A parallel application for a lane closure should accompany the development permit application. This closure would separate the commercial traffic from the residential uses to the south. In addition, as a condition of the closure, The City may require the applicant to construct a turning bulb at the north end of the residential land and/or dedication of a 5 metres, east-west lane connection to Crescent Road NW for the use of residential traffic.

Pocket 2 

This site fronts onto 16 Avenue N. In 2016, the site contained two buildings, one closest to 16 Avenue NW and being used for professional offices and the other being used as a single detached residence with frontage on 9 Street NW.

Site and Building Design

16. Redevelopment of this pocket should demonstrate visual and aesthetic compatibility with its residential neighbours on 9 Street NW.
17. For the entire site to be used for commercial purposes, a single comprehensive development is strongly encouraged. The site may form part of the Primary Mixed Use site and then be included in that concept plan. However, until an approved concept plan and associated permits are approved, only the lot fronting 16 Ave NW should be used for commercial purposes.
18. The design of the east facing façade and roofline of the new structure should assist in transitioning to the residential style existing on the remaining part of the streetscape of 9 Street NW.
19. The developer should construct adequate sound attenuation along the east and south boundary of the site. The City of Calgary, within normal budgetary constraints, will complete any sound attenuation measures needed on public property in order to provide full coverage of sound attenuation.
20. Commercial activities that generate high volumes of vehicle or traffic noise are strongly discouraged.

Site Access and Circulation

21. Building access to a new development should be from 16 Avenue N or from the lane only.
22. Vehicular access should only be from 16 Avenue NW.

23. All commercial parking should be screened from 9 Street N and any residential parcels.

Pocket 3



This area is presently open space. It is designated for commercial purposes but should primarily be used only for providing access to Pocket 1 from 10 Street NW.

24. This site should be incorporated into the concept plan of Pocket 1 as it is integral to providing both access to, and parking for the primary site. The site has two purposes: commercial use and open space.

25. Non-residential uses of the site are to be confined to 10 Street NW and should not be accessible for vehicles from Crescent Road NW.
26. The open space uses from Crescent Road NW to 10 Street NW are to be retained to the greatest extent possible.
27. Existing trees not able to be retained or relocated should be replaced at a minimum 2:1 ratio.



The node at 16th and 10th seeks a development to activate the southeast corner, across from SAIT.

4.0 Residential Uses

Overview

The Residential Use Areas provide for a full range of housing choices from single detached to multi-residential uses with at-grade commercial intended to serve the neighbourhoods nearby.

4.1 Objectives

1. Sensitively increase residential densities to retain and attract a wider number/range of commercial uses along 16 Avenue.
2. Increase the amount of walking, cycling and transit use in the Plan Area and vicinity.
3. Increase the variety of size and type of housing available in the Plan Area and adjacent communities.
4. Allow for small commercial uses to serve nearby neighbourhoods.



Courtyards are useful when developing beside busy corridors.

Policy Illustration



Land Uses/Densities/Heights

See Maps 1 & 2 and policies.

Setbacks

Building setbacks from property lines provide appropriate spaces between buildings and sidewalks or lanes. Use the Land Use Bylaw with a few exceptions.

Stepbacks

For taller buildings use stepbacks to allow a transition to adjacent, shorter buildings, have buildings appear smaller, and help reduce shadow and wind related impacts.

Materials & Design

Use the highest quality materials down low where it's most visible. Design ground level areas to attract people.

Entrances

Weather protected they should be a gathering space for residents and focal point of a site. Ground level units should have direct at-grade entrances.

Recesses and Projections

Use architectural techniques to avoid blank walls.

Rooftops

Use the roof as a gathering space, a green roof, solar panels, etc. where possible.

Landscape and Lighting

Use landscape design to distinguish gathering spaces and provide buffers for existing residents. Lighting should be scaled for pedestrians and vehicles.

4.2 Residential Use Developments

Land Use

1. Residential Use Areas are identified on Map 1.
2. No new single detached, semi-detached or duplex residences are permitted within multi-residential use areas.
3. The creation of lots less than 15.25 metres in width is discouraged.
4. Multi-residential with secondary suites in the rear yard are encouraged in “Multi-Residential – Medium Density Low Minimum” areas.
5. A limited range of local-oriented commercial uses should be provided on the main floor of multi-residential buildings designated “Multi-residential – Medium Density/Support Commercial”. Development criteria include:
 - a. maximum 10% of the total gross floor area of the multi-residential building should be used for commercial purposes;
 - b. each commercial use should have a maximum use area of 300 square metres (3,230 sq ft); and
 - c. entrances to the commercial uses should be located on the street, not the avenue.
6. Parking areas and parking structures, independent of any other use or service, are not permitted in multi-residential areas.



Multi-residential development with articulation, stepbacks and high quality materials.

7. Sites with limited, main-floor commercial uses should be:
 - a. located on a street intersecting with 16 Avenue and containing traffic lights to provide good access for both vehicles and pedestrians; or
 - b. adjacent to an open space to provide a public amenity in proximity to commercial uses; or
 - c. facing a Commercial Mixed Use Area across the street or lane.

Density

8. The minimum density requirements are as follows:
 - a. Medium Density Low Minimum
72 units per ha (29 units per ac)
 - b. Medium Density
148 units per ha (60 units per ac)
 - c. Medium Density/Support Commercial
148 units per ha (60 units per ac)
9. The maximum density is 210 units per ha (85 units per ac). However, the Development Authority may relax the

maximum density provided the proposed development does not exceed the maximum FAR prescribed for the site in the Land Use Bylaw.

Height

10. The maximum height is prescribed on Map 2. The number of storeys is provided for perspective/information only and does not form part of the statutory policy.

Setbacks

11. The maximum setback for buildings adjacent to 15 Avenue, 17 Avenue, or north-south streets is 3.0 metres. Exceptions are allowed to accommodate building articulation or features for pedestrians.
12. At least 75% of the at grade façade facing a public street should not exceed the maximum setback.
13. All other setbacks are prescribed by the Land Use Bylaw.
14. Landscaping of corner sites should create amenity space for pedestrians.

Stepbacks

15. Buildings taller than 16 metres (about 4 storeys) should step back along street frontages a minimum of 1.5 metres between 10-13 metres (3-4 storeys) above grade to assist in transitioning to lower density development outside the Plan Area.
16. Buildings fronting 17 [Avenue N.](#) should not cast shadows on the sidewalk on the opposite side of the street between the hours of 10:00am and 4:00pm [MST](#) on September 21.



For larger buildings, greater emphasis on articulation, frequent entrances and material variety is important.

17. For buildings taller than 16 metres, the Development Authority will require a shadow study to show that a development's stepback(s) mitigate unnecessary shadow impacts on adjacent areas.

Materials and Design

18. The main floor should use higher quality, durable materials such as masonry (brick, stone, quality simulated stone) as the predominant building finish. Stucco and siding are acceptable on the main floor

provided they are not the dominant materials.

19. The podium above the main floor and the building above the podium should use durable building finishing materials compatible with the main floor. Stucco and siding are acceptable above the main floor.
20. Articulate or define the edge of the stepback at the top of the podium, (e.g. with a cornice or band of distinctive building material).

21. Using construction materials that are salvaged, have recycled content, or are produced locally is encouraged.

Entrances

22. Provide ground floor dwelling units with individual, direct, ground-level entrances. Ground floor units adjacent to the public street or lane must have a main entrance facing the street or lane and have a direct pedestrian connection to the public sidewalk.
23. Identify shared entrances to residential buildings with landscaping, canopies or other distinguishing features.
24. “Multi-residential Medium Density/Support Commercial” should allow views into the commercial unit(s) from the street. Mirrored or tinted glass should not be permitted.
25. Entrances should not be allowed below grade.

Recesses and Projections

26. For the podium above the main floor, balconies should have a minimum depth of 1.8 metres within a maximum projection of 1.2 metres from the building façade, with glass as the predominant material for balcony guard rails.

Rooftops

27. Rooftop gardens or green roofs are encouraged to reduce stormwater runoff and provide outdoor amenity areas.



Green roofs are encouraged for additional amenity space and to reduce stormwater run off.

Landscaping and Lighting

28. Where a parcel shares a property line with a parcel designated only for residential uses, the setback area should be soft surfaced, except for walkways.
29. Landscape materials should be compatible and match or exceed the quality of materials found in the adjacent public realm. Preference is for pervious paving systems that reduce stormwater runoff.

30. Outdoor lighting should not luminate beyond the boundaries of the site unless it assists in lighting public boulevards or sidewalks.

Single-Detached Housing

31. Single detached housing may continue in accordance with the land use designations in place at the time of the Plan’s 2007 approval as per the Single-detached Residential Use areas shown on Map 1.

32. Single-detached Residential housing with noise attenuation is allowed on the parcels identified for this use on Map 1.
33. All parcels identified on Map 1 as Single-detached Residential Housing with noise attenuation were City owned in 2017. The City encourages the following conditions be met:
 - a. Sound-barrier houses will provide noise attenuation to City standards for the surrounding properties as well as for the internal occupants of the building.
 - b. The north side of all sites should be built to incorporate a continuous sound-barrier wall that is a minimum of 4m in height and have a minimum surface density of 10 kg/m². The edge of the barrier wall should extend to the north limit of the rear property line. The wall may consist of the principal building, accessory building and fence or any combination thereof.
 - c. Designs varying from the preceding height and alignment may be accepted subject to review by an acoustical expert to confirm its compliance with the requirements for noise protection of the surrounding properties.
 - d. The design of all walls facing 16 Avenue should be compatible in style and colours with the sound attenuation wall that exists on the south side of 16 Avenue between 9 Street NW and 4 Street NW.



Multi-residential development west of Balmoral school.

5.0 Character Sites & Open Spaces

Overview

16 Avenue's well-known sites and open spaces give this Plan Area its unique character. Celebrating these sites assists in attracting new development and encouraging people to work, live, shop, or eat along 16 Avenue.

5.1 SAIT - Southern Alberta Institute of Technology

Overview

The Southern Alberta Institute of Technology (SAIT) is the western anchor of the Plan Area and is a valuable asset to the adjacent communities and the city as a whole. These policies support the continued intensification of the SAIT site.

5.1.1 Objectives

1. Reinforce SAIT as an important node on 16 Avenue and recognize it as a significant post-secondary educational facility in the city.
2. Ensure that future educational facilities and their related uses fronting onto 16 Avenue and its adjacent streets are pedestrian-friendly and transit friendly.
3. Promote a unique sense of place at the western end of the Plan area that would enhance and celebrate the collegiate theme.



The SAIT Campus at the west end of the Plan Area serves over 15,000 students.

5.1.2 Policies

1. The predominant use of land on the SAIT campus shown on Map 1 should be a post-secondary polytechnic education and research facility with a range of compatible and complementary uses such as offices, research and development facilities, high-density campus housing and ancillary commercial uses.
2. Density will be determined at the development permit application stage, since the 16 Avenue frontage covers only a portion of the SAIT campus.

3. In order to maintain visual continuity a minimum building height of 7.5 metres (about 2 storeys) is required for buildings fronting onto 16 Avenue.
4. The use of landmarks, architectural features and public spaces is encouraged at the major north-south intersections with 16 Avenue to showcase the prominent role of SAIT in the post- secondary polytechnic field on 16 Avenue. Landmark building forms are particularly appropriate close to the intersections at:
 - 14 Street: taking advantage of this prominent location to create a first impression of SAIT from the west and to mark the western gateway to the Plan Area;
 - 12 Street: drawing attention to the principal pedestrian entrance to the college on 16 Avenue; and
 - 10 Street: complementing the concentration of development activity on the northern side of 16 Avenue in this location.
5. Developments should be designed to contribute to the enhancement of the pedestrian environment, by:
 - positioning buildings to create a streetscape with multiple entrances aligned to the street to facilitate way-finding and reinforce the vitality of the street; and
 - minimizing vehicular access and avoiding blank walls.
6. Building mass and building character requirements that apply to the 16 Avenue frontages of the Commercial Mixed Use areas should apply also to buildings on the 16 Avenue frontage of the SAIT campus, except that:
 - setbacks at the 12 metre podium are not required
 - the height of buildings extending back into the campus will be determined at the time of development.
7. To reflect the function of SAIT as an inner city urban campus served by major transit corridors, future development should maximize public transit as the primary

mode of travel, (e.g., by providing publicly accessible, comfortable, convenient and safe pedestrian linkages to the LRT station and to the various campus facilities).

5.2 Peters' Drive-in

Overview

An iconic Calgary fast food restaurant, Peters' Drive-In opened in 1964. Its location on 16 Avenue has been busy for decades and draws customers from all over Calgary and beyond to the Plan Area.



The well known Peters' Drive-In is located next to a new multi-storey mixed use development on 16 Avenue.

5.3 Balmoral School

Overview

Balmoral School (220 16 Av NW) was built in 1914. The site may be eligible for City or Provincial Heritage incentives.

Policies

1. Development or redevelopment shall be reviewed by the Approving Authority in accordance with Council-approved policies for historic sites.
2. In co-operation with the Calgary Board of Education, improve public access to the open space on the Balmoral School Site where it fronts onto 16 Avenue and consider improvements to it for passive recreation and educational purposes.
3. The principal uses allowed are for school authority purposes, parks and places of worship. The intention is to allow existing uses to continue and to provide for the creation of a park, in co-operation with the Calgary Board of Education, if that is the best option for increasing public access to the Balmoral School site.
4. To encourage retention and adaptive reuse of Balmoral School, the Plan supports alternative future uses, subject to a land use redesignation. These alternative uses should complement those allowed in Commercial Mixed Use areas identified on Map 1.



Balmoral School on 16 Avenue.

5.4 Unitarian Church

Overview

The Unitarian United Church (204 16 Av NW) was built in 1908. The site may be eligible for funding from The City of Calgary's Heritage Incentives Program(s).

Policies

1. Development or redevelopment directly affecting the Unitarian United Church shall be reviewed by the Approving Authority in accordance with Council-approved policies for historic sites.

2. Alternative uses that allow retention and/or adaptive reuse of the site are supported subject to land use redesignation.

5.5 Munro Park

Overview

Munro Park is a 2.8ha (7 ac) multi-purpose open space. The Commercial Mixed Use and Residential Use policies in earlier sections of the Plan provide for uses surrounding Munro Park that draw people into the park and create opportunities for overlooking onto the park from balconies and terraces.



Balmoral Bungalow School (1819 1 Street NW), located behind Balmoral School was constructed in 1913.



The Unitarian Church (204 16 Avenue NW) was constructed in 1908.



The Hicks Block (1804 1 Street NW) is an Edwardian Commercial Building built between 1906 and 1913



Beaumont Circus (15 Avenue NE & 4 Street NE) was designed as four separate pie pieces of open space that joined together to make up a 0.5 acre circle.

Policies

1. Develop and implement design strategies to strengthen the identity of Munro Park as a community gathering place providing active and passive recreational opportunities for residents both north and south of 16 Avenue.
2. Improve pedestrian access and visibility of the park for residents of the community and communities to the south of 16 Avenue.
3. Create a formalized park edge at the southwest corner and along the southern boundary of the park to improve the interface with the lane in this area.
4. Upgrade and widen the lane along the southern edge of the park to improve access to the park and to Commercial Mixed Use development south of the lane.
5. Develop formalized access points into the park to improve public accessibility.
6. Improve the urban forest by planting additional trees and landscaping.

5.6 Open Spaces

Overview

The Open Space Strategy for Established Communities, 2006 confirmed that the “quality and type of open space are more important to inner city residents than is quantity of open space” and that accessibility to the open spaces is a key factor. The Strategy also found park space deficiencies in the vicinity of 16 Avenue, especially in northern Crescent Heights.

Streetscape improvements within the 16 Avenue right-of-way and the creation of small urban spaces adjacent to the right of way will contribute to the open space experience along the corridor.

5.6.1 Objectives

1. Develop smaller hard-surfaced urban open spaces as public gathering spaces and resting stops along the corridor where feasible.
2. Improve pedestrian access and linkages to existing neighbourhood open spaces within and close to the corridor and to regional open space such as Confederation Park and McHugh Bluffs.

5.6.2 Policies

1. The Plan gives priority to improving access to the two key existing open space areas within the corridor, Munro Park and Balmoral School, and to improving linkages between the corridor and open space in the surrounding communities.
2. Retain existing public parks and open spaces.
3. Enhance the landscaping and urban forest cover in existing parks.
4. Involve the communities when re-designing open spaces to determine needs and preferences of the users.
5. Design the 8 Street Court and other closed or partially closed side streets, and the new lane between 4 Street NW and 2 Street NW south of 16 Avenue to function as small-scale urban public open spaces

with landscaping and street furniture. They should be surrounded by active pedestrian-oriented uses.

6. Enhance crosswalks on 16 Avenue to help ensure good access to open space on both sides of the Avenue.
7. Directional signage may be installed at crosswalks and at key intersections to increase awareness of open space in and close to the corridor, for example at:
 - Edmonton Trail and 5 Street NE for Munro Park;
 - 8 to 13 Streets NW for Confederation Park;
 - 1, 4, 5, 6A and 7A Streets NW for McHugh Bluffs and Bow River;
 - 2 and 3 Streets NW for Crescent Heights Park, McHugh Bluffs and Bow River;
 - Centre and 10 Street NW for Bow River; and
 - Centre and 1 Street NW for Rotary Park.

6.0 Mobility

Overview

The land use and urban design policies are supported by major policy decisions from the 2005 16 Avenue North Concept Plan. The classification of 16 Avenue NW within the boundaries of the ARP to an Urban Boulevard was confirmed in conjunction with approval of the 2009 MDP and CTP. Features of 16 Avenue include:

- The widening of 16 Avenue to six lanes;
- A landscaped median with 11 signalized breaks to provide left-turn opportunities for vehicles and clearly marked crosswalks for pedestrians;
- Boulevards widened to 6.9 metres on the north side and 4.5 metres on the south to allow for improved sidewalks and landscaping;
- A noise attenuation wall where low density residences abut the 16 Avenue right-of-way;
- Improvements to rear lanes to accommodate circulation and access for commercial and residential traffic; and
- Streetscape improvements designed to add to comfort and visual appeal for all users of the Corridor.



16 Avenue N at Centre Street N.

A 2006 Traffic Management Study for the corridor, identified traffic calming measures including some road closures & changes to access that help reduce travel speeds and shortcutting through adjacent neighbourhoods. These include full and partial road closures, traffic circles, speed humps and raised crosswalks. Measures for each community are listed in Appendix 1.

6.1 Objectives

1. Provide excellent pedestrian circulation at the block level to complement the corridor-wide improvements to the pedestrian environment.
2. Ensure adequate parking is provided to support the land uses and urban design principles in the Plan.
3. Reinforce support for transit along the corridor.

6.2 Pedestrian and Cyclist Circulation

Overview

The land use and urban design guidelines in this Plan complement the widened sidewalks, landscaping and crosswalks approved in the Concept Plan to improve the pedestrian realm. Within and surrounding development sites, pedestrian linkages will provide access from the front of buildings to the rear lanes. Pedestrian access from the rear lane parking areas will help to keep activity on 16 Avenue.

16 Avenue is not part of the Regional Pathway and Bicycle Route System, however the system includes several existing and potential bike routes across 16 Avenue. There are existing bike routes on 2 Street NW and 6 Street NE. These connections across 16 Avenue link to the McHugh Bluff Escarpment, the downtown core, Confederation Park and other regional pathway sections throughout the Corridor.

1. Encourage large developments to provide direct linkages from the rear lane to the front of buildings both in the Commercial Mixed Use and Residential Use Areas.
2. Extend the 16 Avenue landscaping and sidewalk conditions onto side streets where development is located on a corner to enhance the pedestrian environment.
3. Setbacks that may be required by The City in the future should be landscaped.
4. Should it be determined that there is no requirement for a road widening setback the setback area should be retained to enhance the pedestrian environment.
5. Pedestrian routes should be barrier-free for people of all levels of physical ability.
6. Consider future bicycle routes on 4 Street NW, 12 Street NW, 10 Street NW and on 1 Street NE.
7. Bicycle parking is required for all new developments in accordance with the Land Use Bylaw



Awnings, transparent windows and sidewalk seating encourages pedestrian traffic.

6.3 Parking

Overview

All development along the corridor should provide adequate on-site parking. Underground parking is preferred to help achieve optimum densities of development. Surface parking is largely confined to the rear of the building. Access to parking is primarily from rear lanes. These location and access constraints are imposed to help foster a pedestrian-friendly corridor including active street frontages, uninterrupted by parking lots, and continuous sidewalks, uninterrupted by driveways.

6.3.1 Commercial Mixed Use Parking

1. All Commercial Mixed Use areas should provide adequate parking on site in accordance with Land Use Bylaw. This will include potential relaxations for mixed use developments and shared parking arrangements.
2. Underground parking is preferred to surface or above grade parking. Underground parking best enables a site to reach the maximum floor area allowed. In many cases lot consolidations may be necessary to accommodate maximum densities and related parking requirements.
3. The following options should be explored to assist in development of satisfactory underground parking:
 - a. applications for underground parking areas located within the required front yard setbacks are permitted subject to confirmation it is technically feasible (e.g., location of utilities)
 - b. applications for underground parking areas that extend underneath a public lane are permitted subject to confirmation it is technically feasible and the successful transfer of ownership for that portion of the lane to the applicant/developer. The City would retain an access easement over the land to keep the lane available for public use.
4. Above-grade parking structures are permitted subject to conditions to ensure, amongst other things, that the structure:
 - (a) is compatible with the urban design requirements for Commercial Mixed Use areas;
 - (b) provides for active Commercial Mixed Uses on the main floor fronting onto 16 Avenue; and
 - (c) shields adjacent residential development from the headlight beams of parking vehicles.
5. On-site surface parking should not be permitted between buildings and property lines on 16 Avenue or the adjacent side streets.
6. On-site surface parking should be at the rear of buildings, between the building and the rear lane, except that public parking or other shared parking may be permitted at the side of buildings internal to the block.
7. Access to surface and underground or structured parking should be from rear lanes or, where it can be safely allowed, from side streets. No new driveways onto 16 Avenue should be allowed unless lane access is unavailable. The options for closing or consolidating existing driveways onto 16 Avenue is encouraged at the time of redevelopment, to minimize disruption to pedestrian movement along 16 Avenue.
8. Surface parking areas adjacent to pedestrian areas and residential uses should be hard surfaced preferably with pervious paving materials and screened through the use of landscaping and fencing. All screening material should be attractive, durable and require low maintenance. Screening should not compromise security by preventing clear views into the car parking area.
9. Public parking and public/private parking arrangements should be reviewed as part of a parking strategy study. Pending completion of the study:
 - municipal parking lots should not be disposed of unless an equivalent number of public parking stalls can be provided along the corridor at suitable locations; and
 - short-term on-street parking should be retained and expanded in the adjacent streets where possible.

6.3.2 Commercial Mixed Use with Auto-oriented Overlay

1. Parking requirements specified for Commercial Mixed Use areas apply also to land uses with the Auto-oriented Overlay except that those sections requiring rear lane access and parking at the rear of the building may be relaxed if necessary to accommodate automotive service uses only.

6.3.3 Multi-Residential Uses Parking

1. All multi-residential development should provide adequate on-site parking in accordance with the Land Use Bylaw.
2. Underground parking is encouraged in order to help achieve the optimum allowable densities. In many cases lot consolidation will be necessary to accommodate these densities and to meet the related parking requirements.
3. Above grade parking structures should not be allowed in Residential Use policy areas, as shown on Map 1.
4. On-site surface parking should not be allowed between buildings and property lines on 15 Avenue North, 17 Avenue North or the adjacent side streets.
5. On-site surface parking should be at the rear of buildings, between the building and the rear lane.
6. Access to surface and underground parking should be from rear lanes or, where it can be safely allowed, from adjacent side streets.

7. Clear directional signs for visitor parking should be appropriately located where motorists can see them. Signs in parking areas should identify stalls for visitors.

6.4 Transit

Overview

Calgary Transit strives to provide safe, accessible and reliable public transportation. Reliability and convenience is a top priority for customers taking transit.

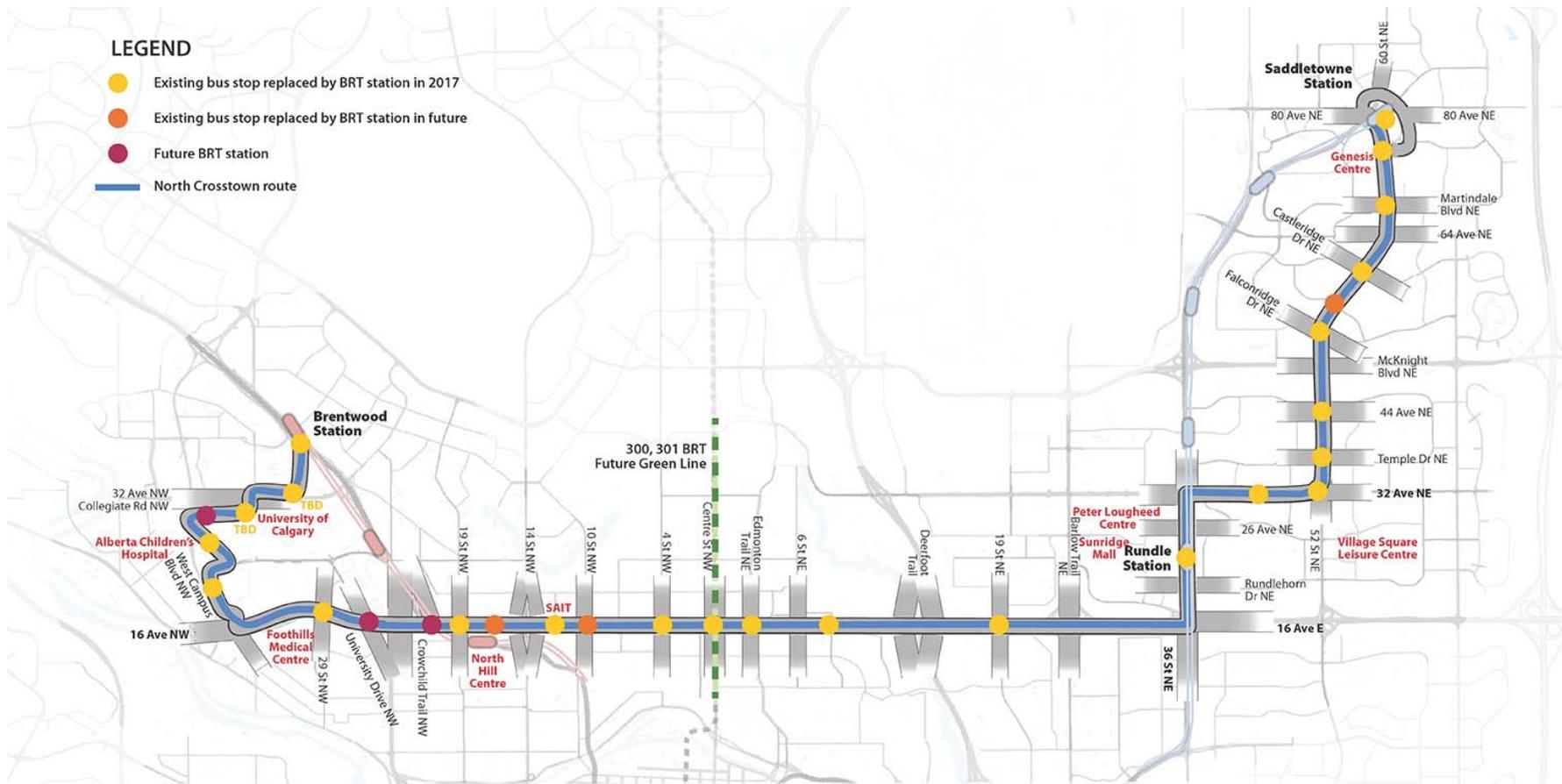
[The Green Line North LRT \(previously referred to as North Central LRT\) is the north leg of the Green Line, the next new LRT line in Calgary's rapid transit network. As outlined in RouteAhead, a 30-year strategic plan for transit in Calgary, the Green Line will eventually run from North Pointe in north central Calgary to](#)

[Seton in the southeast, with future extensions to the north possible in the longer term. Within this Plan Area, there will be a station at 16 Avenue N and Centre Street. A subsequent amendment to this ARP will be required to fully integrate the development of the Greenline into the policies and maps of this ARP.](#)

Existing bus routes that have served the Plan Area to date are to be supplemented/replaced by the North Crosstown Bus Rapid Transit (BRT) service. The BRT route (see Figure 3 will be a limited stop bus service operating in regular traffic lanes with several transit priority measures such as queue jumps and priority signals along the route. This upgraded level of transit service will begin with 10-minute service during peak hours (6:30-9:00am & 3:00-6:00pm) seven days a week, with the ability to extend 10-minute service to 15 hours per day as ridership grows.



▼ Figure 3: New North Crosstown Bus Rapid Transit Route (2017)



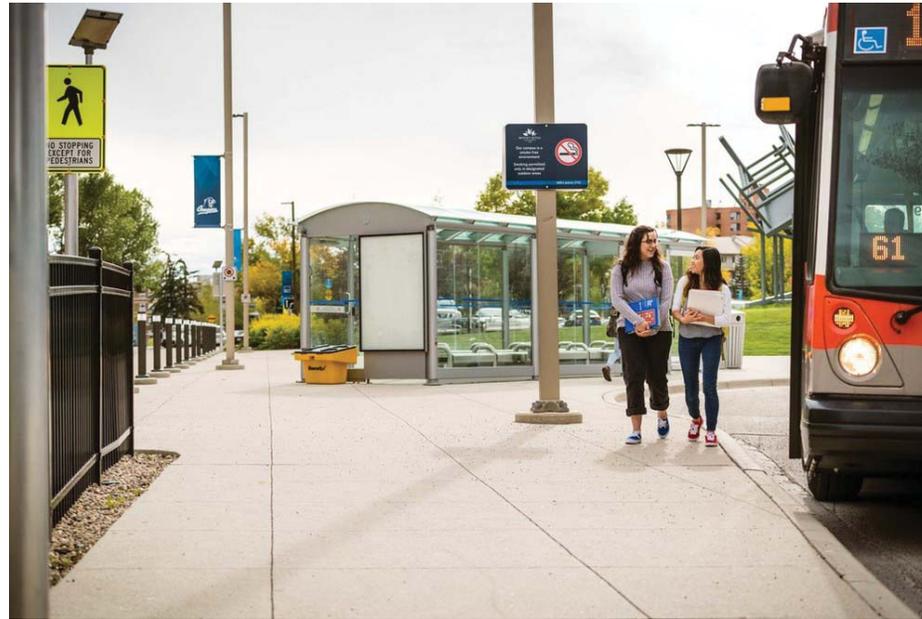
The North Crosstown BRT is detailed in The City of Calgary's Route Ahead program. It is outlined in this ARP for information only and is being implemented via other City of Calgary approved Plans.

The important east-west route across the north side of Calgary connects the Rundle LRT station, takes 16 Avenue through the Plan Area, and terminates at the Brentwood LRT Station.

All existing stops on the new BRT route will be replaced with new stations that will improve comfort and safety with: lighting; real-time information; and heating. All stations will fit within the existing right-of-way so no additional land is needed.

6.4.1 Policies

1. Locate bus stops on the far side of signalized intersections where feasible to improve safety by reducing conflicts between buses, pedestrian and turning vehicles.
2. The bus stops at 8 Street NW and 6 Street NW should coincide with pedestrian openings in the sound barrier wall on the south side of 16 Avenue.
3. New development should incorporate transit shelter or protected waiting areas, where appropriate.
4. Require transit supportive uses and design as outlined in the City of Calgary Transit Oriented Design Guidelines in areas located within a 600-metre radius of the SAIT LRT station and the Centre Street and 16 Avenue intersection.



7.0 Implementation

Overview

Successful implementation is the key to realizing the vision of the Plan. The following sections set out future actions required to successfully implement the Plan. Timing for these actions or programs will depend on City work programs and priorities.

This Plan is adopted by bylaw and is required to be amended by bylaw in accordance with the Municipal Government Act. The appendices have no legal effect. The City retains the discretion to determine when an amendment is required and when wording can bear an interpretation or when specific measurements can be varied without need for an amendment.

Any improvements or new facilities requiring municipal funding are subject to the capital/operating budget review process of The City. Recommendations here must be evaluated in relation to the needs of other communities and city-wide spending priorities.



Façade improvements to an existing building on 16 Avenue improves the aesthetic appeal.

7.1 Objectives

1. Provide guidance and direction to the land use amendment process.
2. Identify follow-up actions that should be undertaken.
3. Ensure that the vision and goals are being achieved.

7.2 Policies

Land Use Redesignations

Following Council's 2007 approval of the original 16 Avenue ARP, land use redesignations were completed in conformity with the Plan.

The land uses redesignations will account for restricted lot depths in the Commercial Mixed Use areas shown on Map 1. This may

include specific regulation or provision for the relaxation of general regulations with respect to landscaping, signs and the encroachment of signs and awnings over the 16 Avenue right-of-way.

Follow-up Actions

Parking Strategy

1. A parking study will be undertaken in order to rationalize the location of existing public parking and to explore ways to improve the availability of on-street and off-street parking within the Corridor, including on-street parking in off-peak periods along 16 Avenue.

Residential Parking Permits

2. Residential parking permit programs in adjacent communities will be reviewed periodically as redevelopment of the corridor proceeds and adjustments will be made to the programs, where appropriate, in consultation with affected residents.

Business Revitalization Zone

3. The City will assist those businesses that wish to establish a Business Revitalization Zone to promote and raise the profile of 16 Avenue as a special character area to shop, work, live and play.

Banner Program

4. The City will examine the possibility of initiating a banner program to complement the streetscape and add to the image and distinctive character of the corridor. The program would be developed and implemented in co-operation with a Business Revitalization Zone, if one is established.

Small Open Spaces

5. In addition to the open space opportunity provided at the 8 Street Court, The City will explore the opportunity of developing small open spaces as public gathering and resting places in and adjacent to the corridor. The possibility of using some of the residual public rights-of-way at the closed or partially closed side streets for such purposes will be investigated.

Urban Design Requirements

6. Ways of ensuring how the urban design requirements can effectively be applied in the Plan Area will be explored, including requesting all significant projects be reviewed by the Urban Design Review Panel.

Affordable Housing

7. In support of the Plan’s objective of creating more choices for housing, City departments, and relevant social agencies should work together to explore the opportunity of providing affordable and non-market housing units where feasible. Partnership between The City and the private sector to develop non-market housing is encouraged.
8. To facilitate the delivery of affordable and non-market housing within the corridor, the Approving Authority is encouraged to consider the following:

- Support relaxations to bylaw regulations where it is demonstrated that the relaxation is appropriate for the development and that the development is secured to ensure long-term affordability for low-income households; and
- Consider parking relaxations for proposed affordable/non-market housing development where it is demonstrated that the proposed development would have a reduced automobile ownership rate and that the development is secured to ensure long-term use for low-income households.

Traffic Management Monitoring

9. The effectiveness of the traffic management measures implemented in accordance with the 16 Avenue N Traffic Management Study approved by City Council in February 2006 will be monitored and issues identified will be addressed.
10. The incidence of shortcutting through the north-south lanes serving the residential properties south of the new lane in Crescent Heights will be monitored after the new lane is in operation. If issues are identified, remedies to be considered, in consultation with the affected residents and the community association, will include converting the lanes to one-way northbound.

Plan Monitoring

11. The policies of this Plan will be monitored for their effectiveness and adaptation to changing conditions. Amendments arising from the monitoring program will be brought forward for City Council's consideration where appropriate. City-wide sustainability indicators will be used to monitor the effectiveness of this Plan's policies over time.

Community Involvement

12. The City will continue to engage the affected communities, businesses, property owners and other affected stakeholders regarding ongoing implementation processes.

Enmax Facility

13. The City will work with Enmax to examine options for visually buffering and/or screening the Enmax facility located at 17 Avenue and 1 Street NW. The solution may include landscaping, public art or other innovative types of screening.

Sustainable Building and Site Performance Practices Methods

14. Methods of encouraging sustainable building and site performance standards will be explored including but not limited to protocols for evaluation of applications.



Good landscaping breaks up blank walls and encourages pedestrian activity.

Commercial and Residential Compatibility

15. When evaluating development permit applications for sites adjacent to lanes containing both commercial mixed use and residential, the Approving Authority should consider conditions to address planning concerns associated with commercial operations (for example, late night noise) from 10 p.m. until 7 a.m. on a case by case basis.

Appendix 1 – Community Traffic Management

Introduction

The 16 Avenue N Urban Corridor Traffic Management study arose from the previous 16 Avenue N Urban Corridor functional study and concept design. The concept design was presented to and approved by Council in February 2005. At that time Council committed to further study of the community traffic issues associated with 16 Avenue N from 14 Street NW to 6 Street NE. The Council approved budget for the 16 Avenue N Urban Corridor study included a “best guess” budget estimate for the community traffic management measures. The budget estimate will have to be re-examined to determine if there is sufficient contingency in the 16 Avenue N program budget to cover the cost of implementing the specific measures identified during this study.

Associated Engineering was hired by The City of Calgary to complete the functional design of the community traffic management measures within this study area. This study was undertaken to determine what traffic management measure the communities along the 16 Avenue N Urban Corridor required to address their traffic issues associated with the widening of 16 Avenue N.

The study area was bounded by 14 Street NW on the west to 6 Street NE on the east. The northern and southern boundaries were

generally the first 1 to 1.5 blocks north and south of 16 Avenue N the north and south limits were extended beyond this zone if the impacts on 16 Avenue N were considered to extend beyond this limit.

The communities included in the study were Capitol Hill, Mount Pleasant, Tuxedo Park, Winston Heights/Mountview, Crescent Heights and Renfrew. The community of Rosedale was excluded from the study as they have completed their community traffic study and measures have been implemented prior to and with the initial phase of the 16 Avenue N widening.

Engagement

The previous 16 Avenue N Urban Corridor study underwent various public engagement from its initiation in 2003 to the detailed design stage currently underway. The engagement included discussions about the project as a whole and included community traffic concerns during and after construction of 16 Avenue N. Those concerns regarding traffic infiltration and shortcutting were discussed and reviewed at the initiation of this study. To further define the community traffic concerns, Listen and Learn sessions were undertaken in May and June 2005. These open houses were joint meetings to discuss both the traffic issues and the land use issues. The land use issues are being

incorporated in a separate study to define land use and zoning proposed within the 16 Avenue N Urban Corridor study.

The engagement process led to the identification of the core issues and creation of preliminary maps of the optional traffic management measure within the first 1 to 1.5 blocks off 16 Avenue N for each community. Meetings with the community transportation representative(s) were conducted to ensure all the key transportation issues were identified and addressed. Public information meetings in each community were conducted in late September 2005 to explain the study, illustrate the identified traffic issues, illustrate and define the proposed traffic management options, explain the next steps in the study and receive comments. Preliminary opinion survey boundaries for each community were also presented at the meetings.

Opinion surveys for each community were developed. The opinion surveys contained an explanation for the opinion survey, an explanation of what traffic management was, background information on the study, the process followed for the study to the point of the survey, meeting dates and locations for the second information meeting for the community and the issues and possible traffic management measure options to address the issue. The response sheet was the last page of the survey.

The percentage of opinion survey responses received varied for each community. Renfrew and Crescent Heights communities had the highest response rate with just over 26% response. Mount Pleasant had close to 15% while Winston Heights/Mountview and Capitol Hill had just over 12% response rate. Tuxedo Park had the lowest response rate with just over 10%.

The opinion survey responses determined the preferred traffic management measure for each issue within the community. A majority of responses was required for a traffic management measure to be selected.

A second series of public information meetings was undertaken in late November and early December 2005 to provide the public an opportunity to view the opinion survey results and view the preferred traffic management measures plan for the community.

Preferred Plan Costs

The preferred traffic management measure plans were assessed in terms of utility impacts and traffic impacts to ensure that the proposed measure were appropriate.

Current 2005 construction costs for The City of Calgary for several traffic management measures were obtained. Costs for all types of traffic management measures were not available. To supplement the costs provided by The City of Calgary, costs from the Transportation Association of Canada (TAC) for traffic management measures were obtained. An initial cost estimate of the preferred traffic management plans for each community was computed. The initial cost estimates were calculated within a range due to the variety of

conditions of the location at which they are to be installed (e.g., size of the item, catch basin relocation, etc.).

The total estimated range of capital costs for the communities is:

Capitol Hill

\$50,000-\$74,000

Mount Pleasant

\$179,000-\$276,000

Tuxedo Park

\$40,000-\$59,000

Winston Heights/Mountview

\$63,000-\$99,000

Renfrew

\$59,000-\$118,000

Crescent Heights

\$55,000-\$165,000

The total estimated cost for all six communities is \$450,000 to \$800,000.

Conclusions and Recommendations

This study has followed The City of Calgary's guidelines for full community traffic studies but only the part of the communities directly impacted by the 16 Avenue N widening project have been studied. An accelerated schedule has been undertaken to ensure the traffic management measure would be included in Phase 2 and 3 of the 16 Avenue N Urban Corridor construction.

The study process has included public engagement, community opinion surveys and impact assessment for traffic management measures associated with the widening of 16 Avenue N for the communities of Capitol Hill, Tuxedo Park, Winston Heights/Mountview, Renfrew, Crescent Heights and Mount Pleasant.

The traffic management measure recommended for each community are summarized below and illustrated in the following maps.

Capitol Hill

- Formalize blockage on 13 Street NW
- Construct traffic circle at 17 Avenue N and 12 Street NW and implement speed humps on 12 Street NW between 16 Avenue N and 18 Avenue N
- Construct two speed humps on the alley between 16 Avenue N and 17 Avenue N for each block between 13 Street NW and 10 Street NW

Tuxedo Park

- Construct a traffic circle at 18 Avenue N and 1 Street NW and a speed hump on 18 Avenue N between 1 Street NW and 2 Street NW
- Construct speed humps on 17 Avenue N between Edmonton Trail and 1 Street NW
- Construct two speed humps on the alley between 16 Avenue N and 17 Avenue N for each block within the community

Winston Heights/Mountview

- Construct speed hump on 4 Street NW between 17 Avenue N and 18 Avenue N
- Construct curb extensions and raised crosswalk on the south side of the intersection of 17 Avenue N and 6 Street NE and extend the sidewalk on the west side from this intersection southwards to 16 Avenue N
- Construct one to two speed humps on the alley between 16 Avenue N and 17 Avenue N for each block within the community

Renfrew

- Construct two speed humps on the alley between 16 Avenue N and 15 Avenue N for each block within the community
- Construct traffic circles at the intersection of 4 Street NE and 15 Avenue N and 5 Street NE and 15 Avenue N
- Construct curb extensions on the northwest, southwest, and southeast corners of 6 Street NE and 15 Avenue N with a speed hump between 14 Avenue N and the alley to the north

Crescent Heights

- Construct permanent full closures on 3, 2A and 2 Street NW south of the proposed alley
- Construct permanent full closures on 1 and 2 Street NE just south of the alley. Remove southbound right turn restriction at the intersection of 15 Avenue N and Edmonton Trail

- Remove temporary closure of alley between Centre A Street and 1 Street NE and construct permanent partial eastbound closure along 13 Avenue N and 1 Street NE

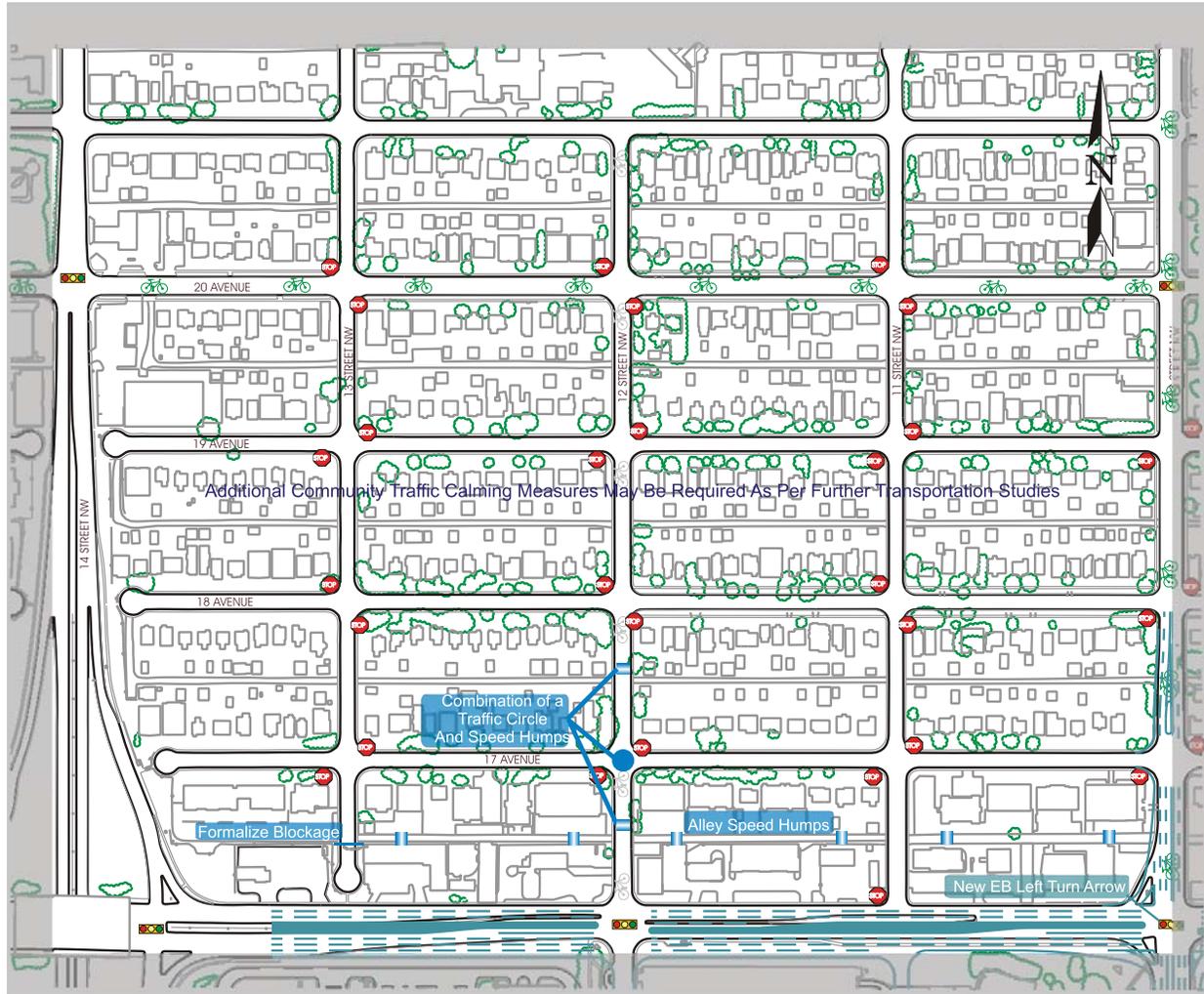
Mount Pleasant

- Implement peak time of day turn restrictions at the intersection of 10 Street NW and 17 Avenue N
- Construct a temporary partial northbound closure south of 17 Avenue N on 9 Street NW including the removal of the northbound stop sign at this intersection
- Construct a temporary partial northbound closure south of 17 Avenue N on 5 Street NW including implementation of southbound stop sign at the intersection
- Construct a raised crosswalk on the south side of the intersection of 18 Avenue N and 7 Street NW
- Construct speed hump between 17 Avenue N and the alley to the south
- Implement 4-way stop control at the intersection of 19 Avenue N and 9 Street NW
- Implement 4-way stop control at the intersection of 17 Avenue N and 7 Street NW
- Implement 4-way stop control at the intersection of 19 Avenue N and 6 Street NW
- Implement 4-way stop control at the intersection of 17 Avenue N and 6 Street NW
- Implement peak time of day turn restrictions at the corner of 17 Avenue N and 3 Street NW

- Construct a traffic circle at the intersection of 17 Avenue N and 3 Street NW
- Construct a raised crosswalk on the south side of the intersection of 17 Avenue N and 2 Street NW
- Construct speed humps along the alley between 16 Avenue N and 17 Avenue N

It is also recommended that all communities complete or undertake a full community traffic study and include an assessment and possible re-evaluation of the above recommended traffic management measures during the full community traffic study.

▼ Map E1: Capitol Hill Preferred Traffic Management Plan



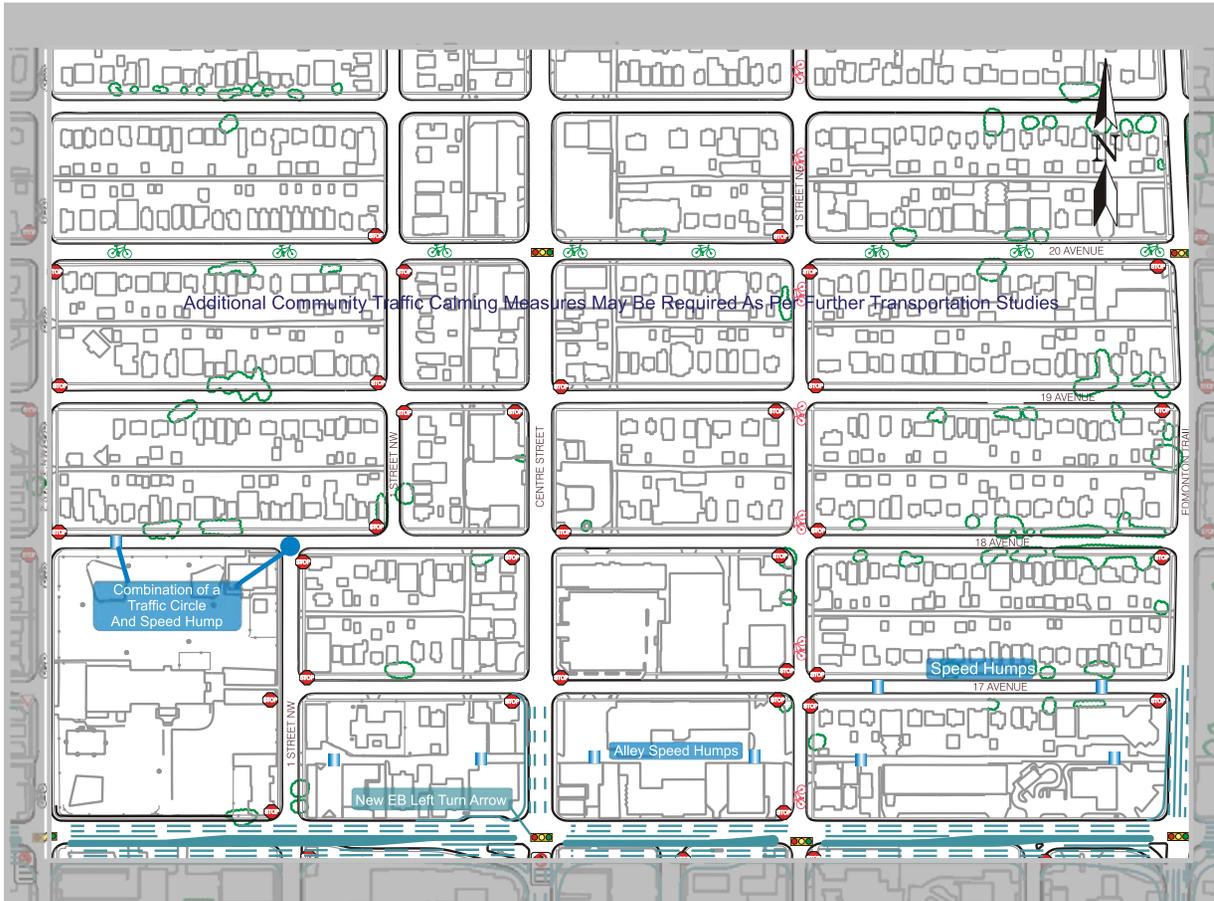
LEGEND

- Potential Traffic Management Measures
- Urban Corridor Design
- Existing On-Street Bicycle Route
- Future On-Street Bicycle Route
- Future Bicycle Lane
- Community Proposed On-Street Bicycle Route
- Existing & Proposed Traffic Signal
- Existing Stop Sign

Additional Community Traffic Calming Measures May Be Required As Per Further Transportation Studies

The City Is Not Planning To Install Additional Left Turn Arrows Initially But Signals Will Be Constructed So That If Left Turn Arrows Become Necessary They Can Be Installed.

▼ Map E2: Tuxedo Park Preferred Traffic Management Plan

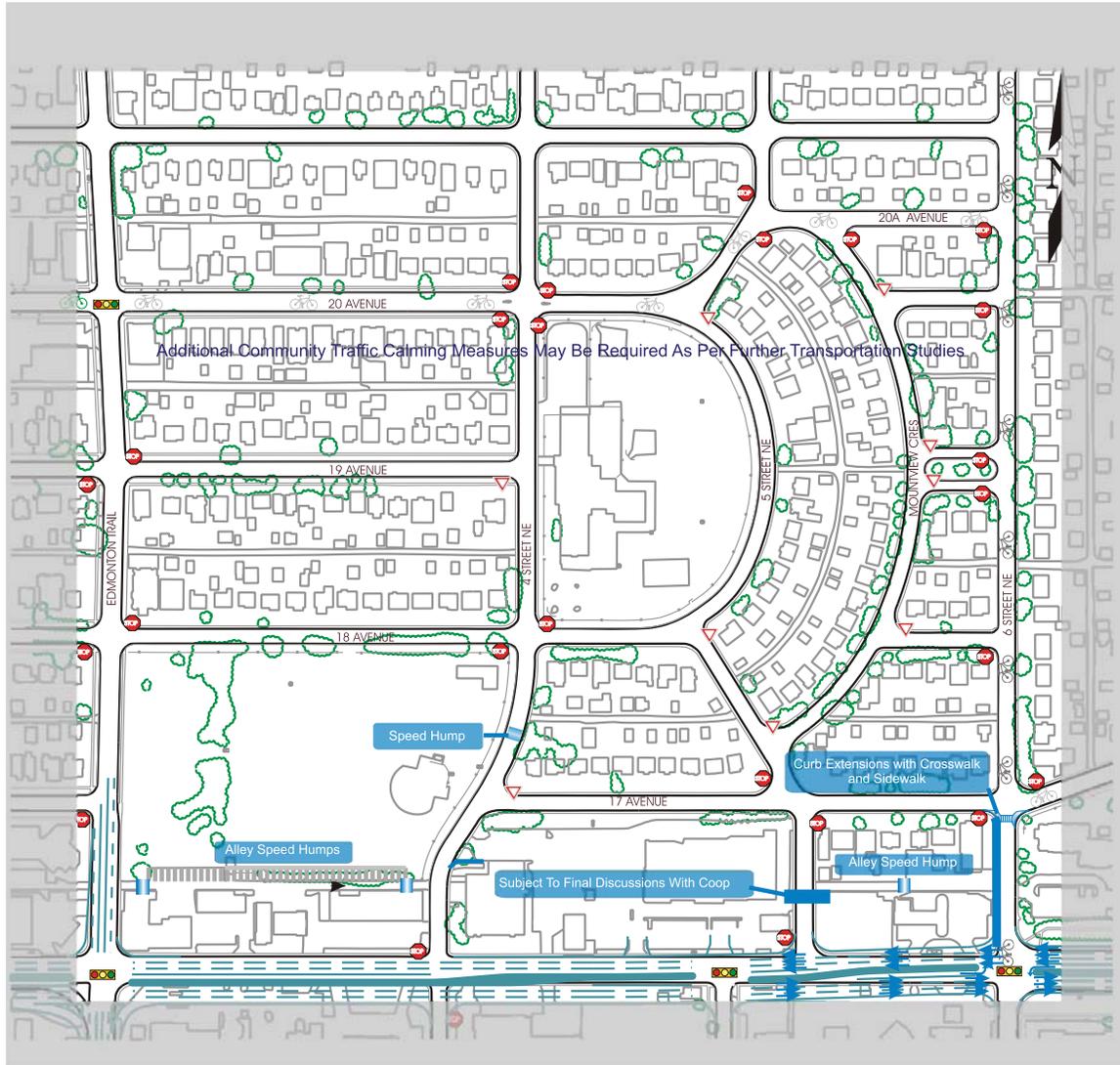


LEGEND

- Potential Traffic Management Measures
Urban Corridor Design
- Existing On-Street Bicycle Route
 - Future On-Street Bicycle Route
 - Future Bicycle Lane
 - Community Proposed On-Street Bicycle Route
 - Existing & Proposed Traffic Signal
 - Existing Stop Sign
 - Existing Yield Sign

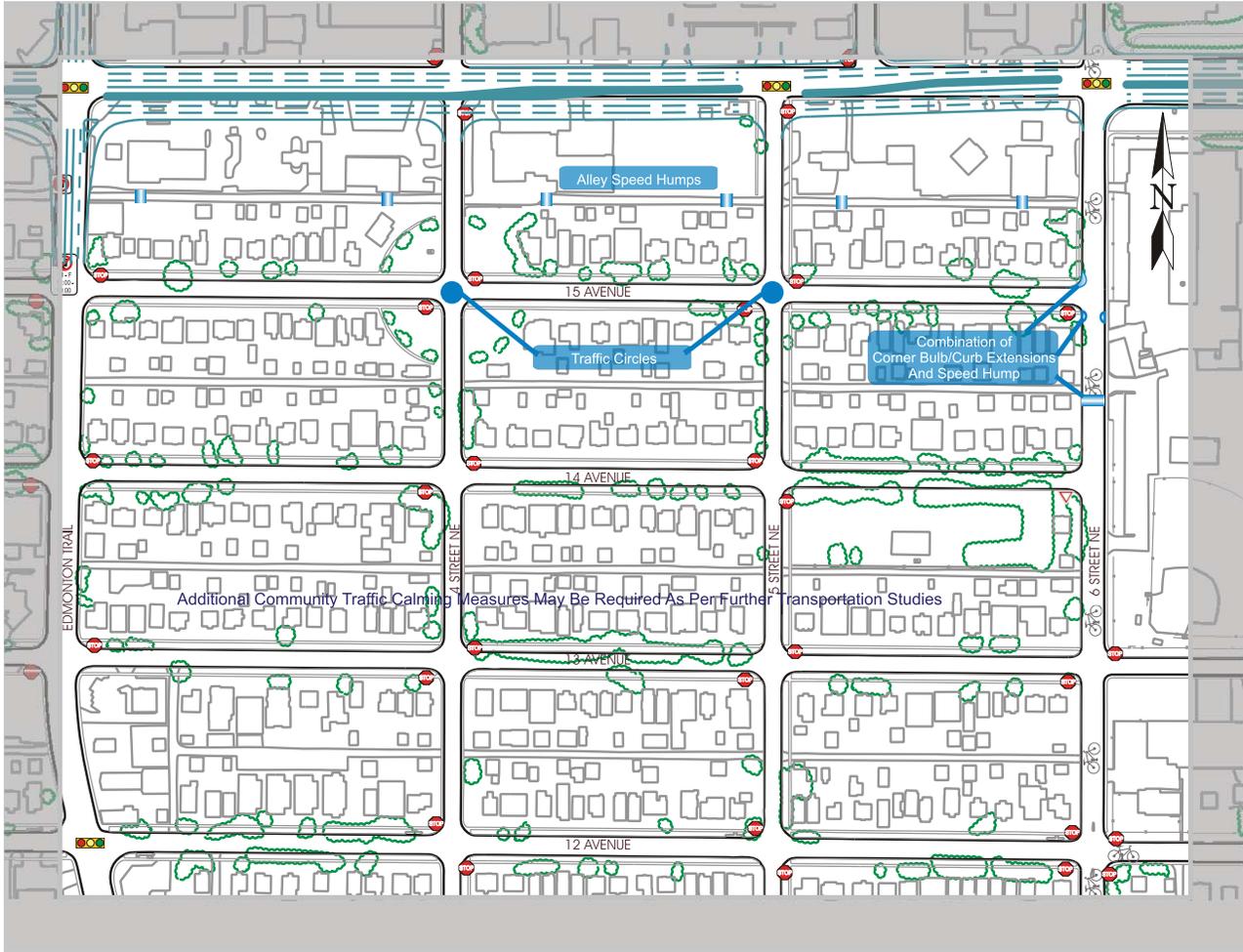
The City Is Not Planning To Install Additional Left Turn Arrows Initially But Signals Will Be Constructed So That If Left Turn Arrows Become Necessary They Can Be Installed.

▼ Map E3: Winston Heights/Mountview Preferred Traffic Management Plan



The City Is Not Planning To Install Additional Left Turn Arrows Initially But Signals Will Be Constructed So That If Left Turn Arrows Become Necessary They Can Be Installed.

▼ Map E4: Renfrew Preferred Traffic Management Plan

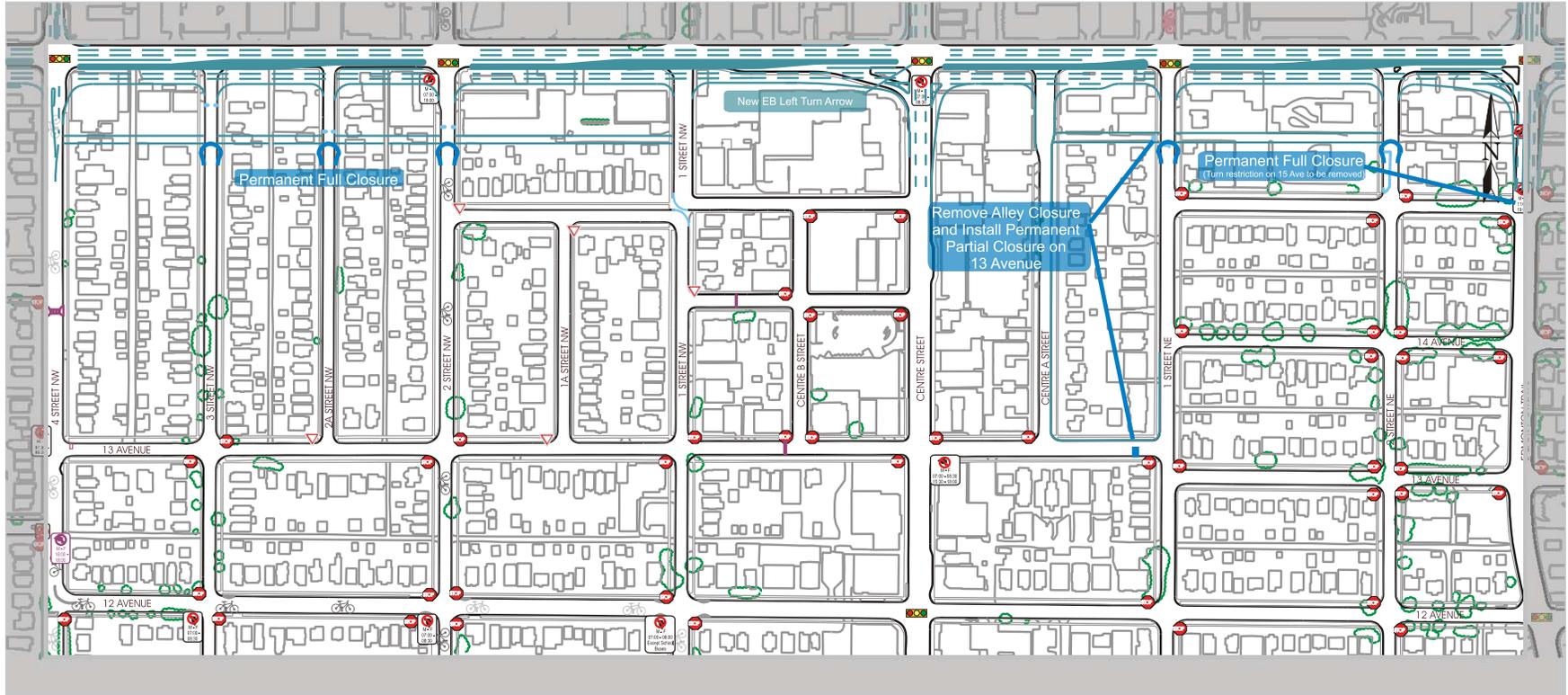


LEGEND

- Potential Traffic Management Measures
- Urban Corridor Design
- Existing On-Street Bicycle Route
- Future On-Street Bicycle Route
- Future Bicycle Lane
- Community Proposed On-Street Bicycle Route
- Existing & Proposed Traffic Signal
- Existing Stop Sign
- Existing Yield Sign

The City is Not Planning To Install Additional Left Turn Arrows Initially But Signals Will Be Constructed So That If Left Turn Arrows Become Necessary They Can Be Installed.

▼ Map E5: Crescent Heights Preferred Traffic Management Plan



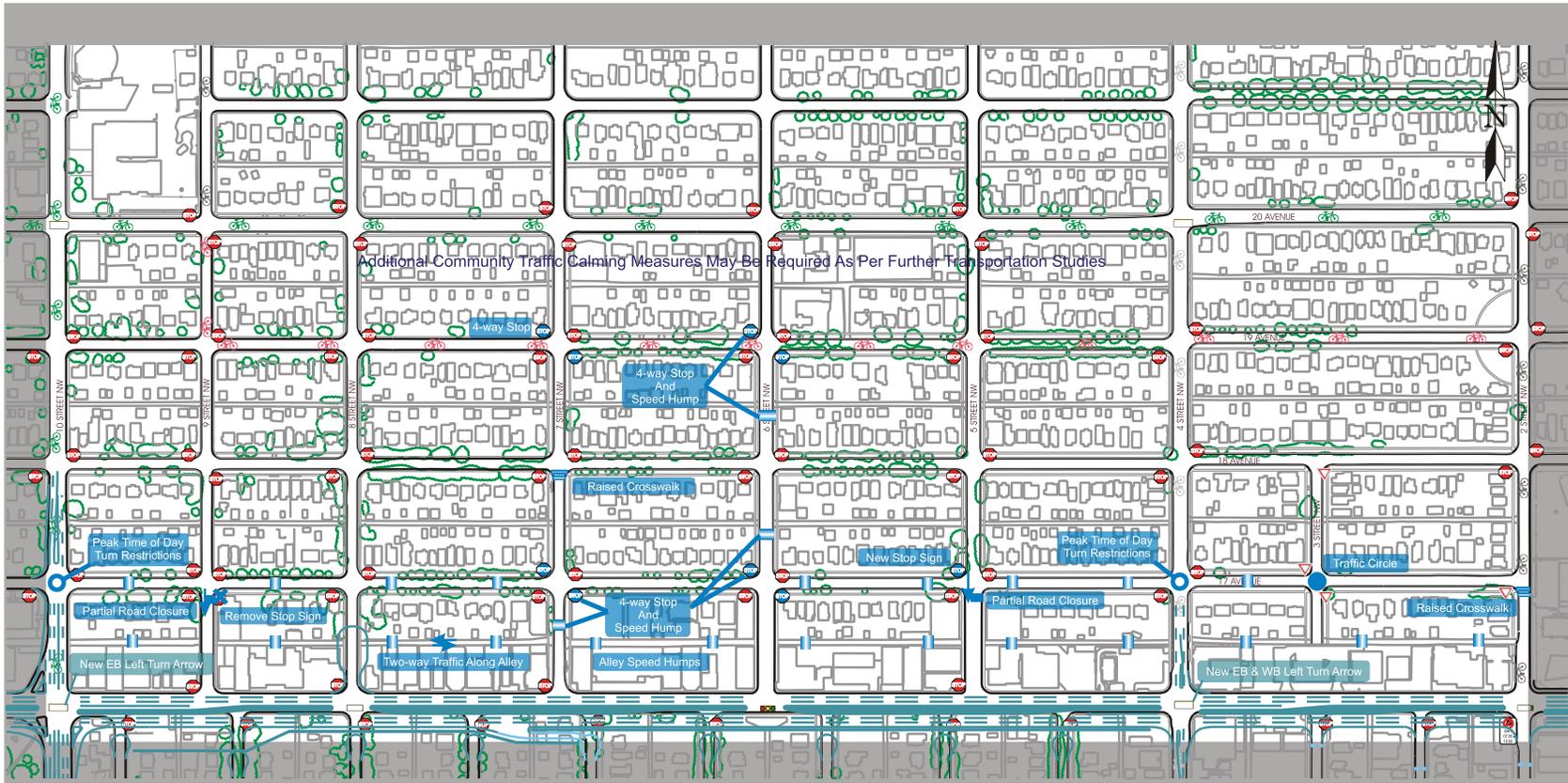
The City is Not Planning To Install Additional Left Turn Arrows Initially But Signals Will Be Constructed So That If Left Turn Arrows Become Necessary They Can Be Installed.

Scale: 500:1 (2008)
 File: CrescentHeights.ctb
 File Date: 10/11/2005

LEGEND

- | | |
|---------------------------------------|--------------------------------------------|
| Potential Traffic Management Measures | Future Bicycle Lane |
| Urban Corridor Design | Community Proposed On-Street Bicycle Route |
| Permanent T | Existing & Proposed Traffic Signal |
| Temporary Traffic Calming Measures | Existing Stop Sign |
| Existing On-Street Bicycle Route | Existing Yield Sign |
| Future On-Street Bicycle Route | |

▼ Map E6: Mount Pleasant Preferred Traffic Management Plan



The City Is Not Planning To Install Additional Left Turn Arrows Initially But Signals Will Be Constructed So That If Left Turn Arrows Become Necessary They Can Be Installed.

Date: 09/11/2019
 File: MTP16Avenue.nxd
 File Date: 10/11/2019

LEGEND

- | | |
|---------------------------------------|--------------------------------------------|
| Potential Traffic Management Measures | Community Proposed On-Street Bicycle Route |
| Urban Corridor Design | Existing & Proposed Traffic Signal |
| Temporary Traffic Calming Measures | Existing Stop Sign |
| Existing On-Street Bicycle Route | Existing Yield Sign |
| Future On-Street Bicycle Route | |
| Future Bicycle Lane | |