

Summary of Land Use and Mobility Recommendations

KEYSTONE HILLS CORE PLAN

Major Activity Center & Urban Corridor

City of Calgary, Alberta November 12, 2014

TT2014-0890 Keystone Hills Core Plan - Att 1.pdf ISC: Unrestricted

INTRODUCTION

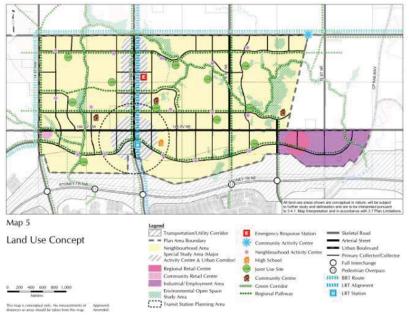
INTRODUCTION

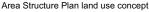
Purpose and Scope of the Plan

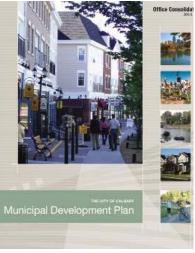
In August 2012 Calgary City Council approved the Keystone Hills Area Structure Plan (ASP) for lands lying north of Stoney Trail between 14 Street West and Deerfoot Trail in North Calgary. The plan includes basic policy criteria and ideas for a Major Activity Centre (MAC) and Urban Corridor (UC) located on Centre Street North between Stoney Trail and 160 Avenue North. The ASP requires the preparation of a Special Study for the MAC and UC to provide more details regarding the location, form and design criteria for both types of areas.

Planning Context

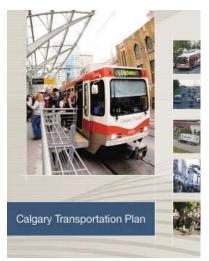
Area Planning: In 2009 City Council approved a new Municipal Development Plan (MDP) and Calgary Transportation Plan (CTP). These plans were supported by a set of Sustainability Objectives and a series of other plans such as the Calgary Transit Plan, Calgary Complete Streets Guide and Calgary Transit Oriented Guidelines. In June 2010 City Council approved the North Regional Context Study which established the Keystone Hills MAC as the primary activity centre in north Calgary and confirmed the alignment of the north LRT Line on Centre Street north of Stoney Trail.







Calgary Municipal Development Plan



Calgary Transportation Plan



Keystone Hills Area Structure Plan

INTRODUCTION



Keystone Hills Core area today

Internal Stakeholders

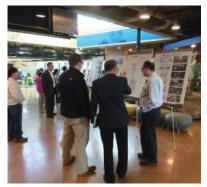
Shawn Small – City of Calgary
Jeffery Xu – City of Calgary
Paul Donker – City of Calgary
Cameron Matwie – City of Calgary
Scott Lockwood – City of Calgary
Feisal Lakha – City of Calgary
Tony Tam – Calgary Transit
Jonathan Lea – Calgary Transit

Developers and Consultant Team

Brookfield Residential Properties Genstar Development Company Brown & Associates Planning Group Bunt & Associates Colliers Consulting Civitas

City's Consultant Team

CH2M HILL ZGF Architects LLP RKP Consulting Russell Public Relations



May 2014 public open house

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The Keystone Hills Core Plan (KHCP) is the result of the Special Study and will be used by the Civic Administration to prepare appropriate amendments to the Keystone Hills Area Structure Plan. The Area Structure Plan requires such amendments to be approved by City Council prior to the approval of any outline plans or land use designations within the Special Study Area.

Based on City Council approved policies related to the MAC and UC from the Municipal Development Plan, Calgary Transportation Plan and the Keystone Hills Area Structure Plan the KCHP translates these policies into specific proposals for lands in the proposed MAC and UC.

This report is a summary of the Land Use and Mobility recommendations of the KHCP. The full report on the KHCP is still under preparation.

Plan Preparation Process

The Keystone Hills Core Plan was prepared by a consulting team led by CH2MHill. The planning process was unique in a number of ways described below.

A series of Client Meetings, Developer Meetings/Workshops, Internal Stakeholder Meetings, External Stakeholder Meetings, and Public Open Houses have been held, to date, for the Keystone Hills project. The table below summarizes the various meetings and workshops held for the project including the dates.







Excerpt of Calgary LRT Plan

INTRODUCTION

Client Meeting	Client Meeting #1 – March 14, 2013
	Client Meeting #2 – June 19, 2013
Developer Meetings /	Developer Meeting #1 – April 15, 2013
Workshops	Developer Workshop #1 – June 18, 2013
	Developer Workshop #2 – July 15, 2013
	Developer Workshop #3 – December 9, 2013 in Portland, Oregon
	Developer Workshop #4 – January 13 and 14, 2014
	Developer Meeting #2 – March 6, 2014
	Developer Meeting #3 – Early March 2014
	Developer Meeting #4 (Conference Call) – March 12, 2014
	Developer Workshop #5 – April 10 and 11, 2014
	Developer Workshop #6 – June 10 and 11, 2014
Internal Stakeholder	Internal Stakeholder Meeting #1 – April 15, 2013
Meetings	Internal Stakeholder Meeting #2 – May 15, 2013
	Internal Stakeholder Meeting #3 – May 29, 2013
	Internal Stakeholder Meeting #4 – May 14, 2014
External Stakeholder	External Stakeholder Meeting #1 – July 16, 2013
Meetings	External Stakeholder Meeting #2 - May 14, 2014
Public Open House	Public Open House #1 – March 5, 2014
	Public Open House #2 – May 15, 2014

Initial meetings (Internal Stakeholder Meeting #1 and Developer Meeting #1) were held to provide the Internal Stakeholders (City staff from other departments) and the Key Developers (Genstar and Brookfield) with an overview of the project. Internal Stakeholder Meetings (Internal Stakeholder Meeting #2 and #3) were then held to develop initial concepts and determine the approach to engage the Key Developers.

Developer Workshop #1 was held on June 18, 2013 in the CH2M HILL Calgary office to discuss the Developer Engagement Plan, the external stakeholder list, initial concepts discussed for Keystone Hills, and the Developer's outline plans. It was agreed that CH2M HILL would create a draft of common principles and circulate to The City and Developers for review. CH2M HILL would also finalize the Developer Engagement Plan and create schemes to discuss with City and Developers for next working session.

Developer Workshop #2 was held on July 15, 2013 in the CH2M HILL Calgary office. The Developers indicated that they did not agree with the principles put forth and felt that the goals, objectives and principles for the study needed to be determined before any ideas or concepts were generated. A meeting was arranged between the City and the Developers to discuss the goals, objectives and principles. Through this meeting (held on July 23, 2013) and subsequent meetings, a Memorandum of Understanding was developed and signed by The City and the Developers.

External Stakeholder Meeting #1 was held at Cardel Place in Calgary. Approximately 30 key stakeholder groups were invited, of which 12 attended and 10 feedback forms were submitted. Stakeholders were asked to provide input regarding the location of the MAC, and amenities and features that would make the community attractive to future users.



Concept A

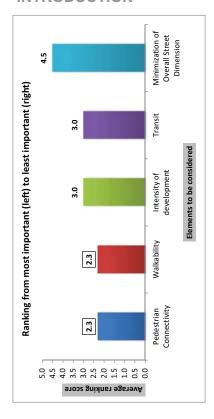


Concept B



Concept C: Preferred

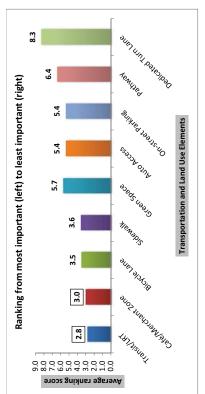
INTRODUCTION



Developer Workshop #3 was held on December 9, 2013 in Portland, Oregon. Members of the CH2M HILL team and representatives from the City of Calgary, the Developers, and the Developer's consultants travelled to Portland to tour successful examples of similar community and corridor developments.

Developer Workshop #4 held at the Browns & Associates Calgary office on January 13 and January 14, 2014. Various options were developed with differing transit and street alignments. From the workshop, it was agreed that only The City and the Developers would develop the evaluation criteria, while the CH2M HILL Team and the Developer's consulting team would develop the land use / patterns and engineering details for the options. These collaborations were carried out over the month of March, in Developer Meeting #2, #3 and #4. The evaluation criteria was presented to the CH2M HILL Team and the Developer's consulting team in Developer Meeting #2.

The City held Public Open House #1 on March 5, 2014 at the Coventry Hills Superstore in Calgary. Approximately 30 people attended. The Public Open House presented an overview of the project, introduced key planning concepts, and asked the public to provide their input regarding key elements that would make the community attractive to future users.



Developer Workshop #5 was held on April 10 and 11, 2014 at the CH2M HILL Calgary office. In addition to the normal attendees at the Developer Workshop, Alberta Health Services also attended. The workshop refined the previous options by establishing locations for the MAC and second LRT station, and resulted in three options to be carried forward for evaluation. Developer Workshop #6 was held on June 10 and 11, 2014 in the CH2M HILL Calgary Office. Prior to the workshop, all parties were asked to do their own evaluation of the options. The results were discussed in Workshop #6. In the workshop, all parties agreed that the use of the evaluation criteria was not successful in determining the preferred options. Instead, the preferred option (Concept C) was developed by identifying components where consensus was gained for the Keystone Hills Core Plan.

Preceding the last Developer Workshop, Internal and External Stakeholder Meetings were held on May 14, 2014 and a Public Open House #2 was held on May 15, 2014. These sessions were held at Cardel Place to re-establish the study overview and key planning concepts and present the three concepts developed for the Centre Street corridor, the evaluation criteria, and the next steps. Approximately 109 people attended Public Open House #2, with 61 feedback forms submitted. There were no major concerns identified by the public and many felt that the open house was useful in helping them understand the scope of the project.

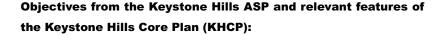
04 Keystone Hills Core Plan

VISION

VISION

Broad Vision for Keystone Hills from the ASP

"In 25 years, the Plan area is firmly established as a desirable place in which to live, work and recreate. It is a place that provides for three distinct residential Communities (A, B, C) and one Industrial/ Employment Area that function together as an integral part of the city. Each Community is walkable, culturally enriched, inclusive, diverse and sustainable, utilizing best practices in place-making and sustainable design....The focal point of the Plan Area, and of the greater north Calgary area, is the Major Activity Centre (MAC)...Supported by the Primary Transit Network, the MAC is the hub of employment, services and higher-density housing, integrated into a grid street pattern with a high quality of urban design, creating strong pedestrian connectivity and quality of public spaces."



Provide a Variety of Transportation Options; Provide Transportation Services in a Safe, Effective, Affordable and Efficient Manner That Ensures Reasonable Accessibility to all Areas of the City for all Citizens; Connect People, Goods and Services Locally, Regionally and Globally.

Primary features of the KHCP are: a connected street system, scaled and designed to be pedestrian and bicycle-friendly yet accommodate reasonable area traffic demand; a regional path and bicycle system connected directly to the rest of Keystone Hills and North Calgary (across Stoney Trail); and an urbanoriented transit corridor that connects Keystone Hills to the entire region, links to local feeder bus service, and is designed to accommodate multiple transit modes and additional stations in the future.

'Foster Distinct, Attractive Communities with a Strong Sense of Place.'

KHCP Vision will act as the urban seam along Centre Street, linking together the communities of Keystone Hills and providing the focal point for communities that will develop north of Stoney Trail over the next 50 years. This seam will include a range of mixed uses including a major activity center and multiple forms of residential development, creating a variety of urban environments that will evolve and intensify over time.



High quality public realm



Strong sense of place



Streets for all modes



Bike-friendly streets

VISION



Compact & walkable



Housing options



Green infrastructure



Natural open space resource

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Support Compact Development, Create Walkable Environments and Mix Land Uses.

The KHCP supports establishment of the MAC and UC which embodies compact development and walkable environments by its block pattern, connected street pattern, specific street standards for all modes, building height/massing/orientation requirements and by its land use mix requirements.

Create a Range of Housing Opportunities and Choices.

The KHCP supports a variety of housing options by providing a street system, street scale and design character that supports residential uses on most frontages throughout the Core Area. This will provide a variety of environments for the provision of diverse forms and intensity of housing.

Utilize Green Infrastructure and Buildings.

The KHCP encourages a system of green street infrastructure as part of Keystone Hills Core-specific street standards and through its connected street pattern, will allow storm water connectivity with Community and Neighbourhood-scaled storm water/open space facilities. The Plan also encourages innovation in green building technology and the development of district energy and waste strategies.

Preserve Open Space, Agricultural Land, Natural Beauty and Critical Environmental Areas.

The KHCP will support this policy through compact, high density design that allows significant natural feature preservation and by connecting to greenways and environmental open space in the surrounding Communities A and B and their respective Neighbourhoods.



Figure 2: Vision Plan

LAND USE



The site & downtown Calgary

Residential/retail near transit

Land Use/Intensity and Mix

General Concept

Intensity and mix of uses are key for success of the KHCP, however, intensity is planned to be in nodes – the primary node at the transit station within the MAC and a secondary node at the UC's north transit station. A density gradient and transition will occur between the nodes and secondarily to the east and west as the Core Plan Area transitions to surrounding neighbourhoods.

The MAC accomodates a combination of a Major Institutional Use, small-, medium- and large-format Retail, Flex Use and High Density Multi-family Residential. All these uses are planned within the MAC boundary and arranged around an urban grid of pedestrian/bicycle friendly access streets focused on the BRT/LRT Station. The MAC boundary encompasses land on both sides of the Transit Corridor to ensure good transit access and to encourage its integration with its abutting neighbourhoods. This urban grid of access streets is designed to provide balanced access to these land uses for all modes in attractive streetscapes. Parking ratios for all land uses should reflect the proximity to transit and the excellent pedestrian-bicycle network.



Large format retail with structured parking & residential



Healthcare center



Childcare



Large format retail with office

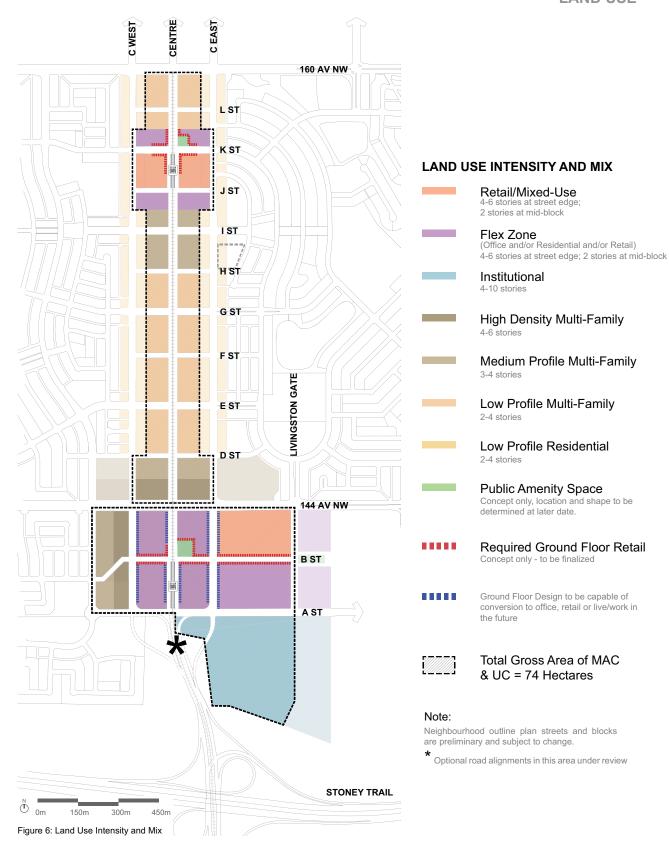


Amenity space



Housing diversity

LAND USE



LAND USE



Retail/Mixed Use

Flex Zone

Land Use Intensity and Mix Framework:

The MAC will be the highest intensity development in the KHCP. It will be required to meet the ASP densities for jobs and people, mix of primary uses and to meet the intensity requirements inherent in the recommended Land Use requirements. The MAC blocks are anticipated to accommodate a mix of land uses and building formats within a block to promote meeting one's daily needs on foot and making transit the convenient mobility choice thus creating a true urban core. The UC Core blocks near the north station can also accommodate higher intensities with a mix of uses and formats within a block. Outside of the north station core, blocks fronting Centre Street Transit Greenway can accommodate a variety of residential building formats at lower intensities, to achieve a mix of housing scale and options at a fine-grain, neighbourhood scale.



Institutional



High Density Multi-family Residential



Medium Profile Multi-family Residential -



Medium Profile Multi-family Residential -



Semi-Detached Residential



Public Amenity Space

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MOBILITY

MOBILITY:

Key transportation goals at the outset of the Keystone Hills Core Plan project called for the creation of:

- A MAC that integrates into a grid street pattern with high quality urban design, creating strong pedestrian connectivity and quality public realm including streets;
- An Urban Boulevard that prioritizes the movement of pedestrians, cyclists and transit vehicles above automobiles (now referred to as the Transit Greenway);
- A transportation pattern that supports an intense and vibrant area, with a mobility network that is highly supportive of sustainable transportation modes;
- A development pattern that will be unprecedented in Calgary's new community context.

The Calgary Transportation Plan (July 2013 update), the North Regional Context Study and the Keystone Hills ASP, identify Centre Street between 144 Avenue North and 160 Avenue North as an Urban Corridor and the area notionally centered on 144 Avenue North and Centre Street as a Major Activity Centre (MAC). Furthermore, the Inter-municipal Development Plan undertaken with the County of Rocky View identifies Centre Street as a medium priority "Regional Pathway".



Enhanced sidewalks



Bike box and buffered cycle track lane



BRT station and amenities



Low floor LRT and median platform with amenities

MOBILITY



Figure 19: MAC street grid



Traffic on urban street grid - Calgary

Road Framework:

One of the key challenges of a mobility network for the KHCP is that Centre Street is both the designated urban transit and bicycle corridor, and the "front door" to the regional roadway network for the Keystone Hills area. That is, Centre Street is the most central of three connections to the City's skeletal road network via Stoney Trail, the others being 14 Street NW and 11 St NE. This places significant competing demands on Centre Street to be the focal point of the MAC, provide the amenities expected of an urban corridor, function as the transit spine, as well as provide the vehicular mobility function of one of the key arterial network elements for the area.

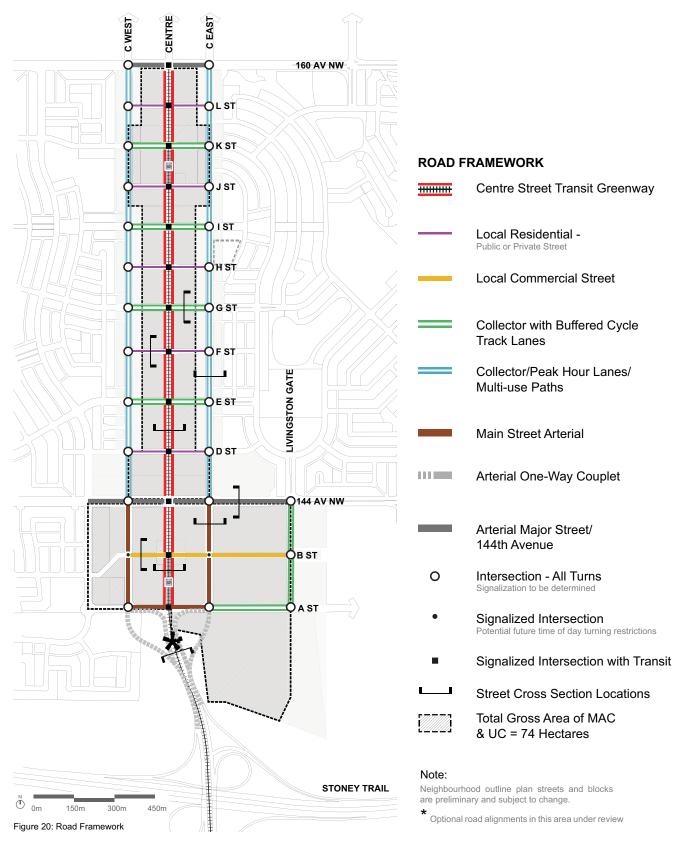
In recognition of these competing demands, the Vehicular Framework is predicated on separating the traffic mobility function from the urban corridor/transit function. This is accomplished by intentionally distributing most of the vehicular traffic to two adjacent north-south collector roadways, parallel to Centre Street (C East and C West). These serve to unload the through-traffic from Centre Street and allow it to both accommodate vehicular traffic and serve its role as a transit, cycling and pedestrian street with an active public realm and ground floor uses.

To achieve this, the scheme relies on high quality, direct connections from Stoney Trail to the parallel collector roadways east and west of Centre Street. South of 144 Avenue North, these roadways function as arterials to provide three lanes of peak period capacity in each direction on each side of Centre Street bringing regional traffic from Stony Trail to 144 Avenue North, allowing it to distribute eastwest, or continue along the parallel collectors all the way to/from 160 Avenue North. A robust east-west grid network crossing the Urban Corridor allows traffic to circulate within the KHCP area or distribute throughout the adjacent neighbourhoods.

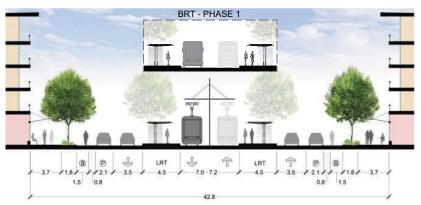
Between 144 Avenue North and 160 Avenue North, C East and C West have two lanes of peak period capacity in each direction on each side of Centre Street, while Centre Street has a single lane of traffic in each direction. Combined, Centre Street and its parallel collectors notionally provide three lanes of peak period capacity in each direction. In addition to the pair of peak direction lanes, each collector also provides for a single lane of non-peak direction capacity. These single opposing lanes provide some additional through capacity for the non-peak direction, but primarily support local trip-making.

144 Avenue North and 160 Avenue North are the east-west arterial network roadways serving the KHCP area. 144 Avenue North is planned as a four lane roadway, but with a wide median to protect for widening to six lanes if future traffic demands require it.

MOBILITY



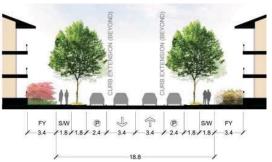
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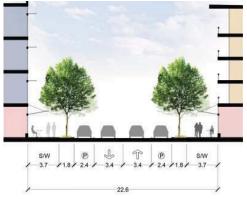
Transit Greenway/Centre Street: Station Block



Transit Greenway/Centre Street: Non-Station Block



Local Residential Public or Private Street

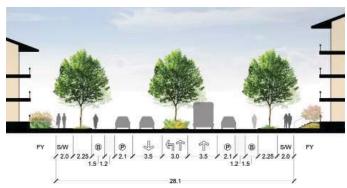


Local Commercial Street

Note

Street designs under review by City of Calgary, subject to change.

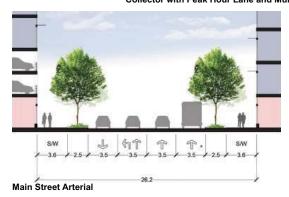
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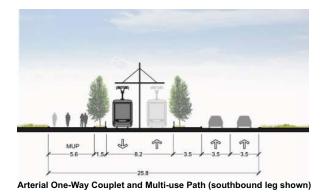


Collector with Buffered Cycle Track Lane



Collector with Peak Hour Lane and Multiuse Paths





Arterial Major Street/144th

Street designs under review by City of Calgary, subject to change.

MOBILITY



Low floor LRT station



Low floor LRT platform access



Low floor BRT



BRT Street Stop

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Transit Framework: Calgary Primary Transit Network's future North Line, is planned to be the central spine of the Keystone Hills Core area. Direct connections to major employment, retail, recreation and entertainment will be provided by this important new corridor. Phasing and funding of an initial segment of BRT to serve the station planned for the MAC, should be coordinated with the initial development in adjacent communities to encourage transit use early rather than establish car commuter behavior patterns.

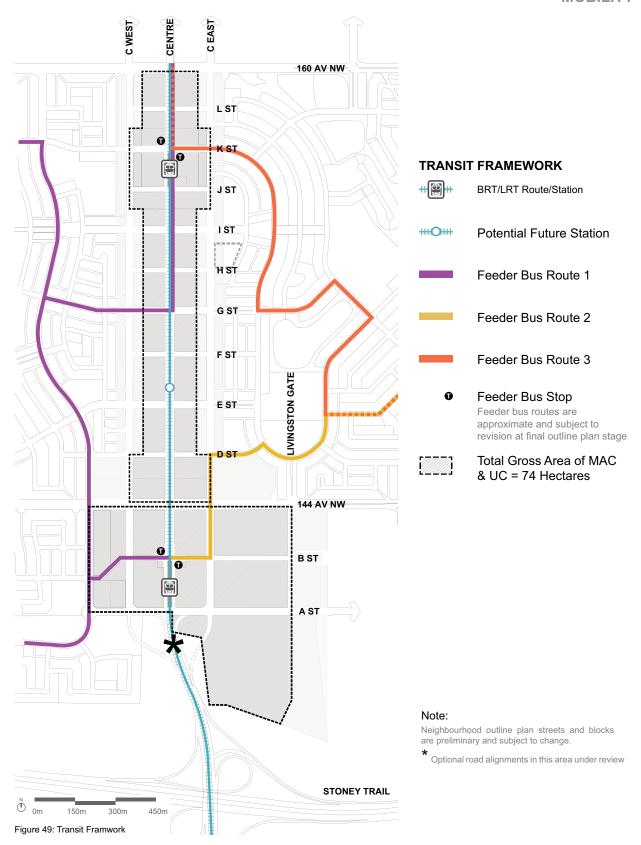
Centre Street Transit Greenway will be designed for low-floor BRT and LRT. Transit operations will be similar to Downtown Calgary with speeds complementary to adjacent traffic (slower), line-of-sight/un-gated intersections and limited pedestrian barriers along the transitway. BRT station facilities will be designed in a way that can be adapted and extended in the future for LRT when track, overhead electrification and other infrastructure is built. The transitway will be paved to accommodate buses, emergency vehicles and LRT.

Stations will have a more direct relationship to urban streetscape and adjacent plazas with low platforms. Transit architecture will reflect streetscape scale while still providing comfortable waiting in Calgary's winters. Transfers from Local Feeder Buses will occur from adjacent, intersecting collector streets with bus stops flanking both sides of Centre Street at primary transit stations or on Centre Street itself, near these stations. This is consistent with transit access in other more urban parts of Calgary.



Low floor LRT platform, median transitway

MOBILITY



MOBILITY



Merchant zone

Pedestrian Framework: Walking as a choice mode is an underlying principle in the ASP and the KHCP. Streets are planned to be pedestrian-friendly and connected; regional and local trails connecting to neighbourhood schools, parks, community centers, recreation fields and natural habitat greenways are all part of the Core Vision. Mid-block breaks/Pedestrian Mews/ Laneways - are an additional route added to the grid structure on large blocks.

Sidewalk Zones: Traditional Frontage/Merchant Zone, Pedestrian Throughway Zone, Furnishing/Landscape/Amenity Zone and Curb Zone are all recognized in the proposed Street Typology.



Pedestrian through zone



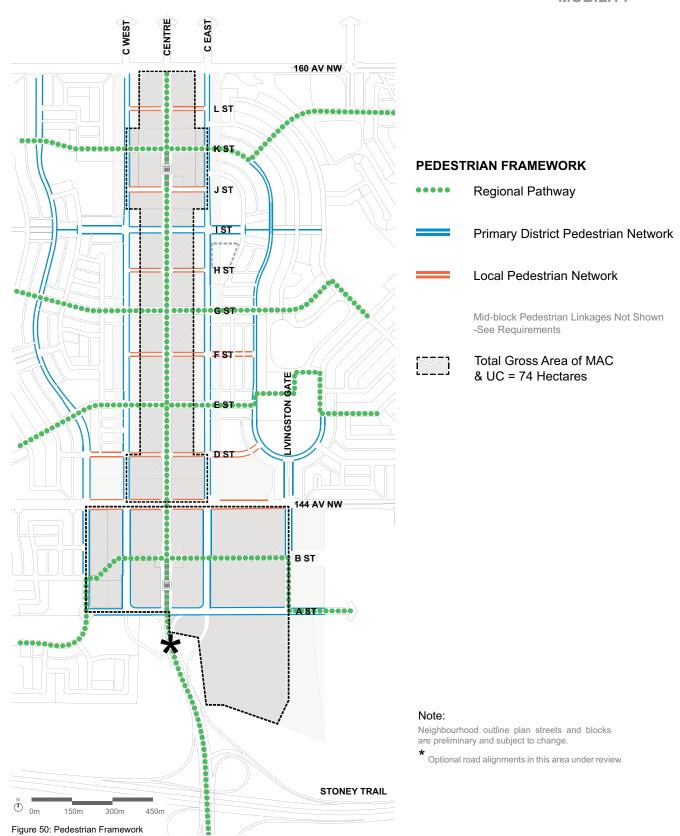
Furnishing/landscape zone





Complete streetscape

MOBILITY



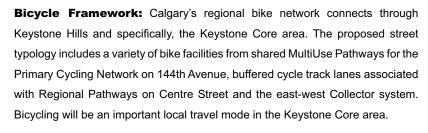
MOBILITY



Primary cycling network



Street-edge cycle track



Bike Parking: A range of facilities will be provided from ground-mounted racks in the furnishing zone of sidewalks for short-term parking to lockers and covered bike sheds near the transit stations. New developments shall provide secure bicycle parking and related infrastructure on site.

Public Bike Share program: Calgary should encourage a commercial bike share program that could be implemented in the city's mixed use, walkable districts, including the KHCP area. Natural locations for bike share stations are the two transit stations and Amenity Spaces, nearby parks and recreation centers and a major institutional use.



Secure bike shed



Public bike station

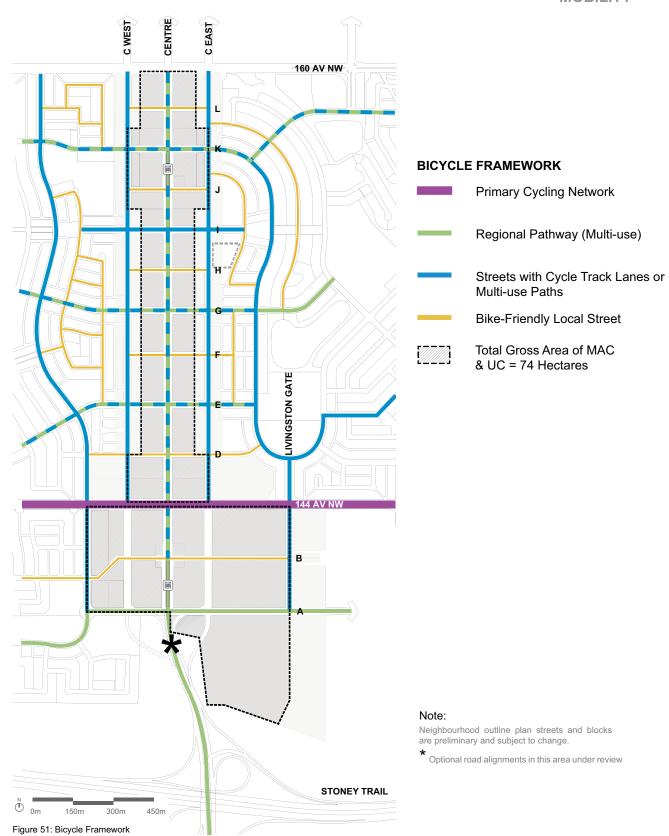


On-street bike rack



On-sidewalk shared path

MOBILITY



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KEYSTONE HILLS CORE PLAN

Major Activity Center & Urban Corridor

City of Calgary, Alberta November 12, 2014

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