

OUTLINE PLAN & LAND USE REDESIGNATION SUPPORTING INFORMATION LOC 2014 - 0190 December 2014





Outline Plan & Land Use Redesignation Supporting Information

Prepared for:

Prepared on behalf of:

Prepared by:

In Consultation With:

The City of Calgary

Maple Projects Inc.

Brown & Associates Planning Group

Hab-Tech Environmental Intelligent Futures Inc. ISL Engineering and Land Services Tetra Tech EBA

City File:

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Appendices

A. Outline Plan

THE FOLLOWING APPENDICES ARE UNDER SEPARATE COVER

Geotechnical Evaluation Highland Park Engagement Process Summary Report Level 1 Biophysical Impact Assessment Phase 1 Environmental Site Assessment Slope Stability Report Storm Water Management Memorandum Transportation Impact Assessment





1.0 Introduction

1.1 The Highland Village Green Vision

Imagine.....an urban village within the existing Highland Park community: a welcoming place to live, shop, work, and play. Highland Village Green offers this unique opportunity in a safe and engaging environment. Existing services such as schools and places of worship, are sustained with the new population; shops are encouraged to locate here due to the new found vibrancy; open spaces have their own individual characteristics while at the same time, provide a cohesive "glue" that links the neighbourhood with other adjacent ones.

Highland Village Green is safe. Attractive landscaping and streetscapes provide all residents with safe and convenient access through and outside the area.

Highland Village Green is uniquely situated with its short travel distances to the airport, northeast employment areas or the Downtown. Bus Rapid Transit service on Centre Street North is abundant, offering residents every opportunity to access all areas of the City. Light Rail Transit with a nearby station is imminent and the area is well-positioned to support this service through its strategically intensified residential apartments near Centre Street.

Confederation and Queens Parks to the southwest provide an active recreational purpose with the linear open spaces of Highland Village Green providing the link to Nose Creek in the east.

Highland Village Green's central city location, multi-modal accessibility, and proximity to employment areas in northeast Calgary provide a foundation for a vibrant urban village, and as such, it has established its own unique, and complete "sense of place."

1.2 The Plan

Figure 1: The Plan



1.3 Planning History

The original housing development in the Highland Golf Course area began in the late 1950s. The former Highland Park Golf Course comprises a total area of approximately 20.83 hectares (51.47 acres) of which 4.09 hectares (10.11 acres) are City owned rights-of-way, in addition to a number of easements that exist through the site.

The Highland Park Golf Course ceased operation in 2012, prior to Maple Projects Inc. purchasing the land. During its operation, the golf course was privately owned and accessible only to fee-paying golfers.

Following the progress of The City of Calgary's Transforming Planning initiative, the landowner's goal was to enter into a consultative process, which would reflect the vision, goals and principles of the surrounding communities to redevelop the golf course land. Prior to starting detailed planning on the former golf course land, Brown and Associates Planning Group on behalf of Maple Projects Inc. met with City Administration to discuss the establishment of a more collaborative and participatory community planning and consultative process. Initial engagement by City Administration was very positive.

Maple Projects Inc. and its planning consultants believed that success would require an overall activity plan based on a model of shared understanding, with the process aimed to be highly collaborative and strategic. As part of the development team, Intelligent Futures, a firm that "believes that a more creative and collaborative approach is needed to build a better tomorrow" was retained for the Public Engagement Program.

Intelligent Futures' approach involved engaging stakeholders at the ground level so that the planning of the design was created and "owned" by those who were most affected by it. As the landowner's initial plan was to build multi-residential units and some commercial elements that would revitalize the property, provide accessible green space and offer housing options for the community of Highland Park, it empowered the engagement process to be more creative and collaborative. With a blank canvas, Maple Projects approached the community to truly seek their ideas on how the development can best benefit Highland Park and the surrounding areas.

Public engagement with the Highland Park, Thorncliffe, and Greenview communities began in November 2013. The first two phases of the public engagement program has been successfully completed. The Outline Plan and Land Use Redesignation application reflects the public engagement process to date. Phase three will involve the discussion of more detailed design concepts/layouts where it will be of benefit to have The City of Calgary Corporate Planning Applications Group at the table with residents. Refer to *Section 3.0 Public Engagement Process* and *Figure 2: Planning History Timeline*.

Figure 2: Planning History Timeline



Project Team Start July 2013

Initial phases of the project begin.

Met with City Planning November 2013

Phase 1 Monday, November 4th - Monday, December 2nd 2013

Clubhouse sessions held Tuesdays and Thursdays running from 4pm - 8pm and Saturdays 11am - 3pm

Phase 2 Thursday, January 23rd - Wednesday, February 12th, 2014

Clubhouse sessions held every Thursday 4pm - 8pm Sunday, January 26th 11am - 3pm Saturday, February 6th 11am - 3pm

Phase 2 Workshop Sunday, February 9th 2014

3 sessions: 9am - 11am, Noon - 2pm, 3pm - 5pm

Pre-Application Meeting May 7th 2014

Application Submittal August 2014

1.4 Outline Plan & Land Use Redesignation

The Outline Plan and Land Use Redesignation for Highland Park — former Golf Course land is intended to serve as the framework for subdivision and the development of the land. The Outline Plan identifies the development parcels, defines the road network, and provides provisions for Municipal Reserve (public park space) and the public realm. Equally, the land use and intensity framework enable a vibrant neighbourhood to be developed over time.

The Outline Plan and Land Use Redesignation application for the former Highland Park Golf Course land has been prepared to:

- Meet the vision of the *Municipal Development Plan (MDP)* to intensify in more established areas
- Address the development patterns that have evolved throughout the area
- Refine and enhance the historical and physical location assets of the land into a vibrant neighbourhood that meets the needs of its residents and the existing Highland Park residents in a unique and exciting manner

Figure 3: Birds Eye View from Open Space Looking East





2.0 Background

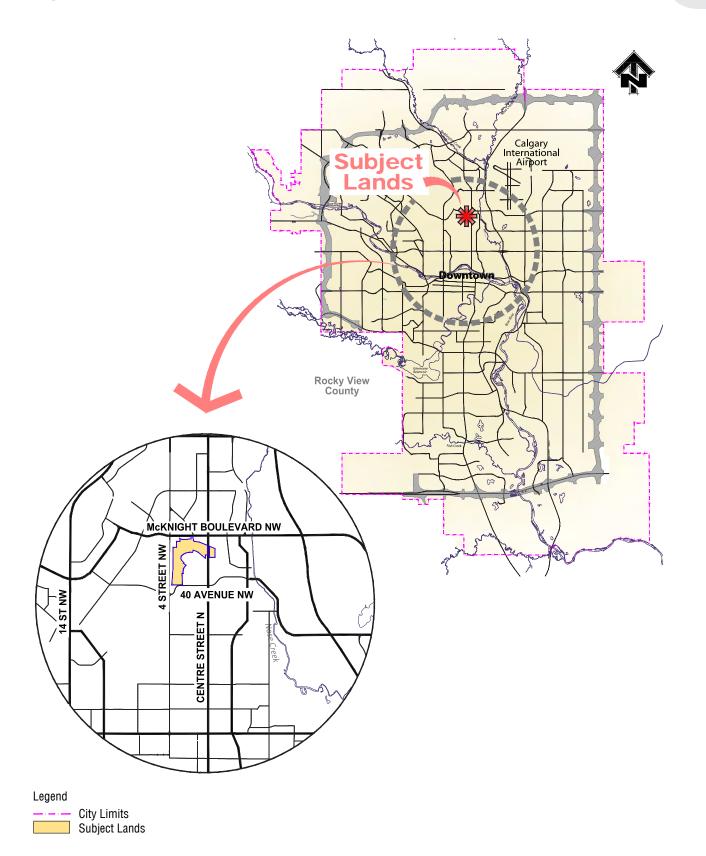
2.1 Location

The former Highland Golf Course land is located 4.5 km (2.8m) north of Downtown Calgary, Alberta, within the community of Highland Park. The land is bounded on the:

- West by the ridge of a valley and low density residential housing fronting 4 Street NW. Immediately west of 4 Street NW lies the community of Highwood.
- North by the ridge of a valley and low density residential housing fronting McKnight Boulevard NW (Arterial Street) and Laycock Drive NW. A portion of these lands are within the southern boundary of the community of Thorncliffe.
- East by the ridge of a valley and low density residential housing fronting 2 Street NW and 44 Avenue NW and the most easterly edge by community reserve. The community of Greenview and the Greenview Industrial Park lies immediately east of Centre Street.
- South by 40 Avenue NW (collector). James Fowler Senior High School lies immediately south of 40 Avenue NW and commercial uses lie along Centre Street.

See Figure 4: Location

Figure 4: *Location*



2.2 Community Context

The residential communities of Queens Park Village, Highwood, Thorncliffe, Greenview, Tuxedo Park, and Mount Pleasant along with the Greenview Industrial Area surround the former Highland Park Golf Course land. The majority of the development site forms part of the Highland Park community with the most northerly portion forming part of the Thorncliffe community. Shopping, employment and residential opportunities exist along Centre Street North. The site represents an opportunity to plan and develop this underutilized land to benefit the community.

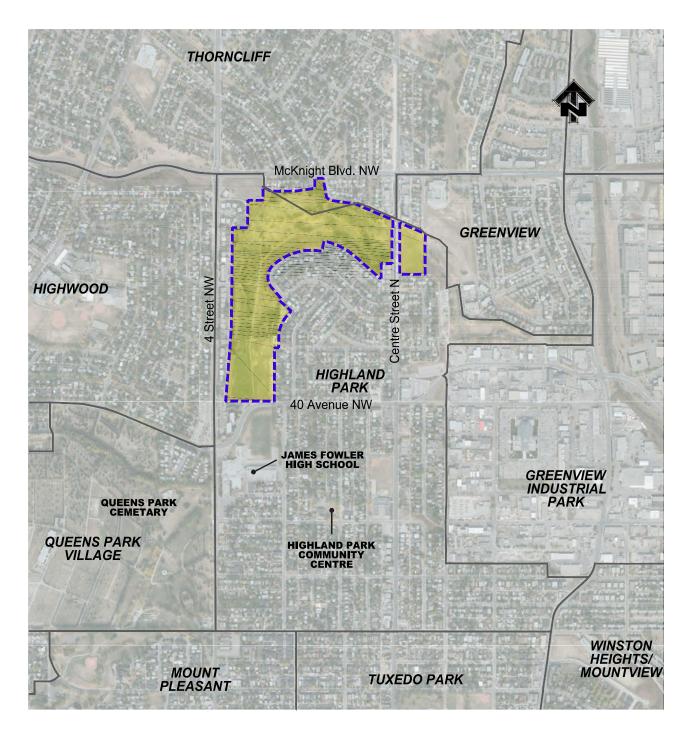
The land is strategically located on the edge of the inner city, surrounded by developed communities and services. Low to medium density residential development surrounds the site. The housing tenure in Highland Park has notably more renters (66%) than the city average (27.2%); this is in keeping with the number of apartment units (68.8%) located in the community compared to the city average (26.8%). These structures are most often located along the edges of the community. Confederation Park and Nose Hill Park are located in close proximity. The Queens Park Cemetery occupies the south-western corner of the neighbourhood, and the Highland Golf Course is developed to the north. The site offers the potential to connect to these regional neighbouring open space corridors.

The topography of the subject lands can be generally described as gently rolling, with some significant slopes along the edges in the northern areas. The subject lands contain mature trees, both deciduous and coniferous in type, many of which are significant in size and height. Most of the trees are clustered in linear arrangements lining the fairways of the former golf course.

Adjacent uses to the north, east and west of the site along the ridge of the shallow valley are primarily residential, single detached to the north and east and multi-dwelling development to the west. South of the site is James Fowler High School.

See Figure 5: Community Context

Figure 5: Community Context



Legend

Outline Plan Boundary Subject Lands

2.3 Land Ownership

Highland Village Green Outline Plan comprises a total of 20.83 hectares (51.47 acres) more or less and is presently owned by:

• Maple Projects Inc., a Canadian real estate company that develops multiresidential projects as well as oversees a large rental portfolio. The company also manages hotels and commercial office space (16.74 ha/41.36 ac).

•

271 43 Avenue NW

• 4444R 4 Street NW

• 4628 Centre Street NE

• 4785 Centre Street NW

• The City of Calgary (4.09 ha/10.11 ac).

Highland Village Green is situated on lands with the following municipal addresses:

- 340 40 Avenue NW
- 4627 Centre Street NW
- 4824R 4 Street NW 4785 Centre Street NE
- 11 Laycock Drive NW
- 352 40 Avenue NW
 - 421 McKnight BV NW 420 44 Avenue NW

Highland Village Green is situated on lands with the following legal description:

- Plan 8338HR Block 1, 2, 3, 4, 5, 6
 S872GT; RW; 24
 609GU;RW;24
- 5925GT; RW; 24 8153GV; RW; 24

See *Figure 6: Land Ownership* and refer to the application package materials for a copy of the current title, existing encumbrances on the subject property, and Letter of Authorization from Maple Projects Inc.

As noted on the Outline Plan, The City lands have been included within the Outline Plan boundary to ensure a comprehensive design. A Letter of Authorization has been provided for these lands to be included in the Outline Plan and Land Use Redesignation application.

The subject land is unique in nature. The 20.83 hectares (51.47 acres) are not contained within a contiguous parcel, as seen in typical applications. When the former golf course was developed, agreements were made with The City of Calgary to contain significant utility servicing connections (4.09 hectares/10.11 acres) through the subject site (see *Section 2.6: Physical Characteristics — Existing Site Conditions*). As such, the proposed development contains 'development parcels' throughout the plan area, thus forcing an innovative response to the development areas within the site.



Legend

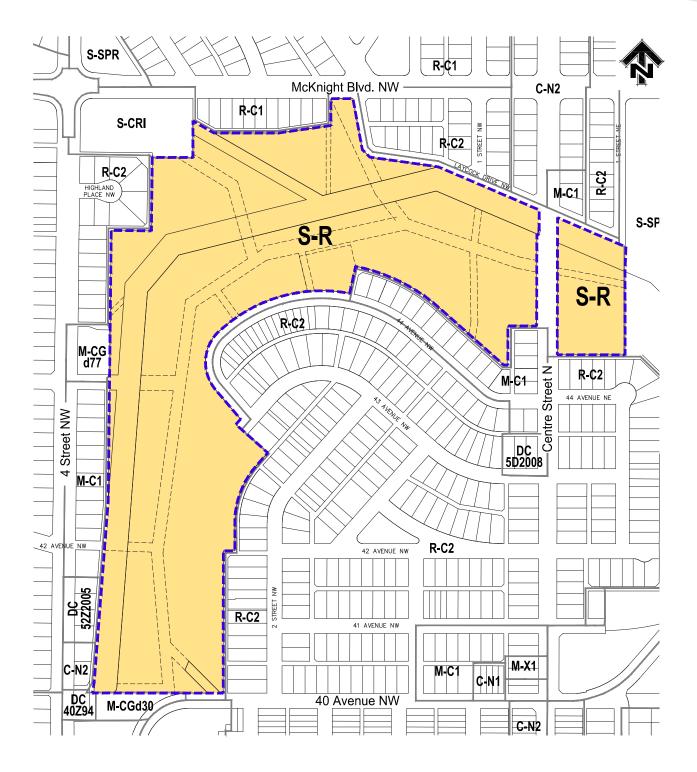


Outline Plan Boundary Maple Projects Inc. 16.82ha/41.56ac The City of Calgary 4.09ha/10.11ac O

2.4 Existing Land Uses within the Outline Plan

The Outline Plan area currently has a Special Purpose – Recreation (S-R) District land use designation that reflects the original golf course and country club use. The subject land is unique in nature as it is heavily sloped and encumbered by utility rights-of-way and easements. The subject land has minimal existing development with the only development being in the form of a clubhouse, parking lot and underground utilities. When the private golf course was developed, agreements were made with The City of Calgary to contain significant utility servicing connections (4.09 hectares/10.11 acres) through the subject site.

See Figure 7: Existing Land Uses.



Legend



Outline Plan Boundary Special Purpose - Recreation District (S-R) \mathcal{O}

2.5 Adjacent Land Uses & Services

RESIDENTIAL & COMMERCIAL:

The existing structure of the land that lie outside the Outline Plan area includes low and medium density residential, neighbourhood commercial, surface parking lot, community, city and regional infrastructure districts and a street network that services those existing uses. The adjacent residential dwelling units consist of single-dwelling, semi-detached dwelling, and multi-dwelling buildings. A strip mall and a gas station development are located along Centre Street to the north of the site. The low-rise scale of the existing residential uses and the slope/grades of the subject land will act as a transitional zone from the low-density communities to the moderate development pattern proposed in the Outline Plan. These surrounding communities will be connected into the former Golf Course lands via a "spine road" and a number of pathway connections.

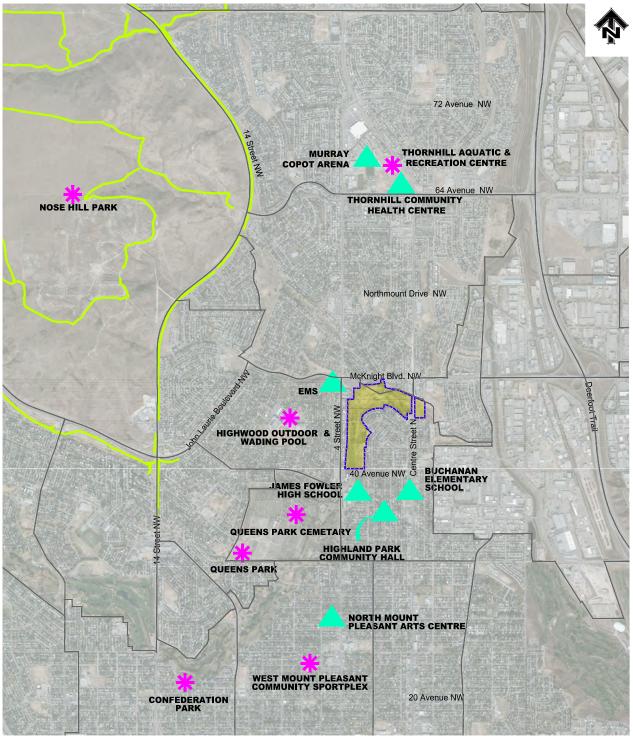
ROADWAYS:

4 Street NW, McKnight Boulevard NW, Centre Street N and 40 Avenue NW, are roadways that border the Highland Village Green Outline Plan area. Maple Projects Inc. proposes to tie into 4 Street NW, 40 Avenue NW and Centre Street N in order to minimize the impact of new vehicles on the Highland Park community and the adjacent communities.

SERVICES:

Existing services, such as adjacent recreational uses (Highwood Outdoor and Wading Pool, West Mount Pleasant Community Sportsplex, Thornhill Aquatic & Recreation Centre, Confederation Park, Nose Hill Park, Queens Park), institutional buildings/facilities (Buchanan Elementary School and James Fowler High School) and playing fields, Highland Park Community Hall and park, Nose Hill pathway system, North Mount Pleasant Arts Centre, Thornhill Community Health Centre, Murray Copot Arena and Queens Park Cemetery) will be utilized as a result of the development of the former Highland Park Golf Course land.

See Figure 8: Adjacent Land Uses



Legend

Outline Plan Boundary
 Subject Lands
 Nose Hill Pathway System

Parks / Open Spaces
 Facilities

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2.6 Physical Characteristics - Existing Site Conditions

EXISTING ENVIRONMENTAL CONDITIONS

Through an analysis of the environmental background studies performed on the Outline Plan area, a series of physical existing site conditions were identified that act as opportunities and/or constraints on the proposed Highland Village Green development. As an infill site, the land in the Outline Plan area is considered previously disturbed. The analysis review has identified:

TOPOGRAPHY

• The site is surrounded by slopes (escarpments) with gradients ranging from 11% to 75%. The site topography within the valley is nearly flat with surface grades estimated to be less than 2%. A variety of assessments were undertaken to determine if there are any areas of the subject land that deem the site undevelopable or create development challenges.

GEOLOGY

• The results of the analysis were generally not consistent with the published surficial geology maps, which expected to consist of sand and silt, however; fill materials at the surface and clay and sand underlying fill materials were encountered.

ENVIRONMENTAL CONTAMINATION

• No sour gas, natural gas, abandoned wells, or pipelines have been identified.

WETLAND AREAS

• Two temporary wetlands (Class II) were found in the property area. Each wetland is fed by a small temporal water channel, which originates at the lower portion of the slope.

VERTEBRATE SPECIES AT RISK

- No amphibian, mammal or reptile species at risk were found on the property.
- Swainson's hawk was the only species at risk detected within the property area, as a "fly-over" during breeding songbird point count surveys. The fragmented nature of the property and surrounding area reduces the likelihood of the occurrence of resident Swainson's hawks.
- The former golf course property is not considered to be a viable wildlife corridor. Human encroachment has fragmented potential corridors, specifically those linking the Highland Village Green property and adjacent waterways and semi-native pastures.

NATIVE VEGETATION AND RARE PLANTS

- The native ecological integrity of the property has been significantly reduced by past land clearing/re-seeding activities (i.e., golf course construction, operation and maintenance) and subsequent non-native plant species invasion. Development of this low quality (ecological) land will not result in a significant negative effect on wildlife habitat or vegetation in the study area.
- No rare plant species or rare plant communities were observed on the property during focused spring surveys.

NOXIOUS AND PROHIBITED NOXIOUS WEEDS

 One prohibited noxious (nodding thistle) and six noxious (common burdock, garden bluebell, creeping thistle, yellow clematis, hound's-tongue and black henbane) weeds were found on the property. The majority of these weeds will be removed by the proposed development.

EXISTING PEDESTRIAN LINKAGES

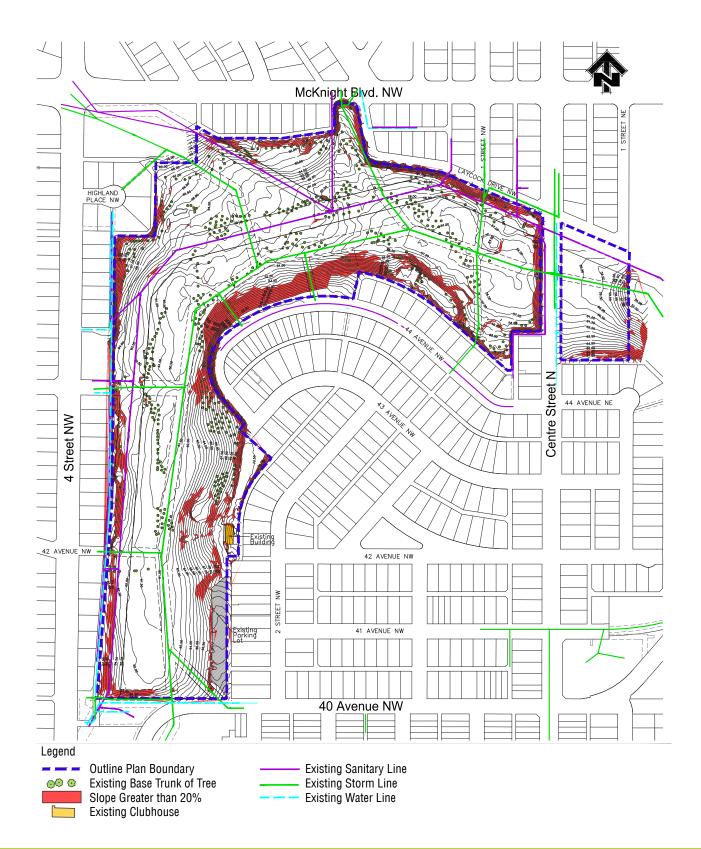
- During its operation, the golf course was privately owned and accessible to feepaying golfers. The site is not considered publicly accessible.
- A Bikeway, on-street signed route, runs along the south boundary of the site on 40 Avenue NW.
- The Regional Pathway runs along 4 Street NW and 40 Avenue NW up to 41 Avenue NE.

EXISTING ENGINEERING SERVICES AND SHALLOW UTILITIES

- When the private golf course was developed, agreements were made with The City of Calgary to contain significant utility servicing connections through the site.
- The site is currently serviced with a 2400mm X 1800mm concrete storm duct running through the middle within a 50 foot (15.24m) utility right of way, a 750mm concrete sanitary sewer line running through the middle of a 100 foot (30.48m) utility right of way parcel and water service is currently available all around the site.
- Other sanitary sewer pipes drain through the site within various utility right of ways.

As a result of the sanitary right-of-ways owned by The City of Calgary, the subject lands encompassing approximately 20.83 hectares (51.47 acres) can be formed into three natural sub-areas. Centre Street N dissects the subject lands creating a fourth sub-area in the most easterly area.

See Figure 9: Physical Characteristics



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2.7 Opportunities and Constraints

The former golf course land has several significant design challenges based on its past use, as well as easement and infrastructure elements that extend beyond the site into the community. See *Figure 10: Opportunities and Constraints*

Key considerations include:



The City owns a portion of the lands within the former golf course for a significant sanitary sewer line.

CHALLENGE: The location of the line restricts the ability to develop the lands comprehensively, and limits the location of buildings, trees and other features.



There are a significant number of utility easements crossing the land.

CHALLENGE: The location of these additional utility lines also restricts the ability to develop the land comprehensively, and will limit the location of buildings, trees, and other features.



The site has significant slopes and has had fill (uncompacted) placed in some areas over the years.

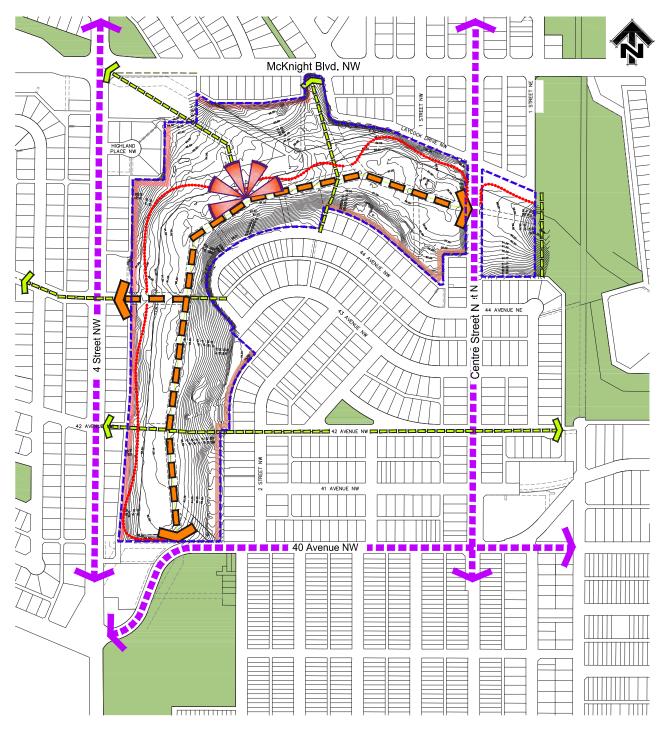
CHALLENGE: The slopes and fill areas required additional study on how best to work with the grade so that grading of steep and critical slopes is minimized.



Municipal Reserve (open space) will be required on the land.

CHALLENGE: To provide functional open spaces for the community while accommodating easements and slope considerations.

Figure 10: Opportunities and Constraints



Legend



Outline Plan Boundary Adjacent Open Space Urban Spine Main Transit Corridor



Transition Lane Frontage View to Nose Hill Pathway/Pedestrian Link 🗖 💳 Vehicle Access

The site is in a depression relative to surrounding lands, limiting choices for stormwater drainage design.

CHALLENGE: Part of the site will need to be filled and raised in order to meet City of Calgary guidelines for overland drainage, and to provide cover over the storm trunk that runs through the site (the top of which is currently exposed to the open air). The stormwater plan must provide a variety of drainage measures to manage run-off throughout the site, and will leverage opportunities to integrate drainage features in the open space and street systems.



A minimum of three access points will be required to support vehicle and emergency \checkmark access for the development area. It is also desirable to provide a continuous road network, without dead-ends.

CHALLENGE: Access points to surrounding roadways are limited in some cases due to steep grades, abrupt elevation changes, and the short distances to existing intersections. Access is not desirable through the existing residential streets in Highland Park.

V The Municipal Development Plan identifies Centre Street as an Urban Corridor.

CHALLENGE: The City of Calgary is continuing to work on future plans for transit corridors in north Calgary. The site will need to be planned to accommodate a variety of different options on the Centre Street corridor.



The site is located within an established community. Boundary roads such as 4 Street NW, 40 Avenue NW, Centre Street N and McKnight Boulevard are shared with adjacent communities.

CHALLENGE: To sensitively integrate new infill development into an established area, bringing benefits to both new and existing residents.

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2.8 Additional Supporting Studies

The following supporting studies have been prepared and are provided under separate cover:

ENGINEERING

- Transportation Impact Assessment,
 - ISL Engineering and Land Services, August 2014 To be provided prior to circulation
- Level 1 Biophysical Impact Assessment, HAB-TECH environmental, July 2014
- Storm Water Management Memorandum, ISL Engineering and Land Services, September 2014
- Phase 1 Environmental Site Assessment, Global Engineering and Testing Ltd., July 2014
- Geotechnical Evaluation, Tetra Tech EBA Inc., August 2014
- Slope Stability Report, Tetra Tech; August 2014

COMMUNITY DRAINAGE IMPROVEMENT STUDY

• A Community Drainage Improvement Study is currently being scoped out by The City. This study is to be undertaken in conjunction with the circulation of the Outline Plan/Land Use Redesignation application.

ENGAGEMENT

 Highland Park Engagement Process Summary Report, Intelligent Futures, August 2014

HISTORICAL RESOURCES IMPACT ASSESSMENT

• A Statement of Justification for Historical Resources Act Clearance as an initial step and Historic Resource Impact Assessment, if needed, will be completed prior to any stripping and grading occurring on the site.

Public Engagement 3.0 **Process**

3.1 Introduction

OUR ENGAGEMENT PROCESS

relmagining: A New Future for the former Highland Golf Course is a comprehensive engagement process designed to collect ideas and opinions from the public. There were two primary phases of engagement with the community over approximately four months. The feedback from the community was instrumental in developing the concept that is presented in this submission package. Using a wide variety of engagement techniques, the project team heard a variety of opinions and ideas about the future of the course. The following captures the key steps in the process and what was heard.

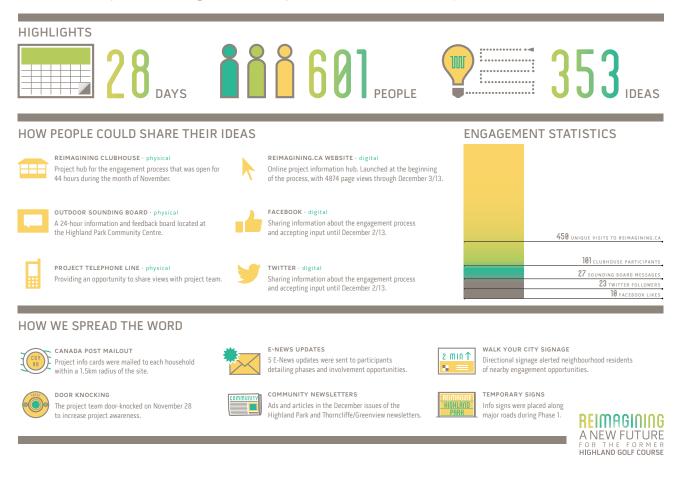
PHASE 1

The initial phase ran from November 4th to December 2nd 2013, with area residents sharing their feedback online, via telephone and email, on a community sounding board, and at the temporary engagement centre established at the former golf course Clubhouse. The infographic, *Figure 11: Phase 1 Engagement*, captures the highlights of this process.

During the first phase of public engagement of re-imaging the Highland Park Golf Course, we heard a range of viewpoints on development — these ranged from completely opposed and wanting to see a park, to very open to development. Themes that came out as being the greatest wins for the community include sound traffic and stormwater management planning as well as providing ample green space throughout the site.

OUR FIRST PHASE OF ENGAGEMENT

From Nov 4 to Dec 2, we asked the community to share their ideas for how the redevelopment of the former golf course could positively contribute to the community's future. Our key question was "How could redevelopment of the golf course improve life in the community?



From all participant groups combined, we heard 353 responses to the question "How could the redevelopment of the former Highland Golf Course improve life in the community?" From these 353 responses, eight distinct themes emerged:

- Parks and Recreational Activity
- Property Value
- Traffic
 - Housing

- Stormwater Management
- Design
- Commercial Development

lousing

Community Values

Discussion on parks and recreational activity, traffic, housing and stormwater management stood out as the most prominent issues during this phase of engagement. Some of the most commonly heard feedback from these four themes includes:

"Traffic is already congested, the side streets can't handle any more traffic."

Many indicated that they do not want to see through-fare access to the site between 44 Avenue and 40 Avenue and 3 Street and Centre Street. Participants hope to see potential traffic bottlenecks on roads surrounding the former golf course addressed.

"I would like to see a continuation of the Confederation Park pathway system."

Many participants hoped that a large amount of green space would be maintained.

"Like to see a senior complex; so many people would like to stay in the area."

In addition to seniors housing, a prominent theme was the variety of opinions in the community's desire for affordable housing.

"[Stormwater] from 4th Street pools to well over a metre in depth at the intersection of 44th Avenue NW, completely overwhelming the existing sewers."

This feedback was used by the project team in the development of two high-level development concepts, which formed the basis of the second phase of engagement.

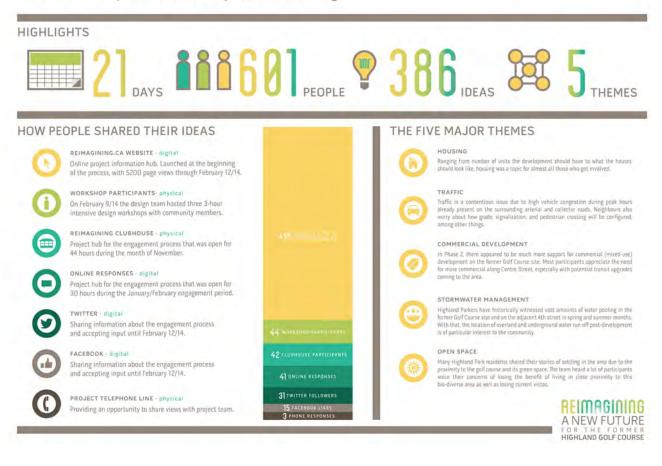
Phase 2

During the second phase of the project, two concept designs for the future redevelopment of Highland Park's Golf Course were shared with the public. Both concepts responded to all themes heard in the first phase with some variation in delivery of the recreational and open space as well as streetscape layout. These concepts were informed by the first phase of public engagement as well as the technical work of the project team and alignment with City policies. The infographic in *Figure 12: Phase 2 Engagement* captures the process during this phase.



OUR SECOND PHASE OF ENGAGEMENT

From Jan 23 to Feb 12, we asked the community to share their feedback on two redevelopment concepts proposed for the former golf course lands. Our key questions were what the community likes about the concepts, and what they would like changed.



After three weeks of engagement with over 600 participants, both in person and online, the overwhelming favour was toward Concept A (with 91% of respondents preferring this design). From all participant groups combined, we heard 386 responses to our questions during this Phase. From the 386 responses we heard 5 distinct themes come out from this Phase, including:

- Housing
- Traffic
- Commercial Development
- Water Management
- Open Space

The most prominent of these concerns was surrounding open space availability, water management and housing.

HOUSING

- From number of units the development should have to what the buildings should look like, input regarding housing was a topic of interest for almost all those who got involved and covered a wide range of opinion.
- Consideration for all demographics from families and singles to seniors and professionals was also reoccurring in the engagement feedback.
- The community expressed concern about increased traffic on roads surrounding the site. Considerations of access, signalization and integration with transit for the plans are an important component to ensuring that the proposed development allows for mobility options.





COMMERCIAL DEVELOPMENT

- There was general support for commercial along Centre Street, with community members recognizing an opportunity for improved services in the community.
- Most hesitation around commercial development was focused on uses considered to be undesirable, such as pawn shops and liquor stores.

WATER MANAGEMENT

- Many residents showed concern about how development will impact, and be impacted by an area that has experienced flooding in previous years.
- It was clear that clarity around how water management will be addressed will be a key part to the plans for the area.

OPEN SPACE

- Most participants indicated that they would like to see considerable green space on the proposed site as they believe they are losing a great deal with the closure of the former golf course. This was also seen as the most important way that the development could benefit the entire community, as opposed to only benefitting the future residents of this particular development.
- It was heard from the group at the Clubhouse Workshop that people found the linear path system very desirable and they hoped to see it landscaped with natural materials. In addition to this, participants hoped to see a natural flow between the linear path and the park/plaza spaces it connects to.

This feedback was used by the project team in the development of the proposed development concept that is found in this submission package.



4.0 Framework

The following regulatory framework has provided guidance to the development of the Outline Plan and Land Use Redesignation for the former Highland Park Golf Course land:

- Calgary Municipal Development Plan (MDP)
- Calgary Transportation Plan (CTP)
- City of Calgary Land Use Bylaw

These regulatory framework documents are discussed in this report.

4.1 Calgary Municipal Development Plan

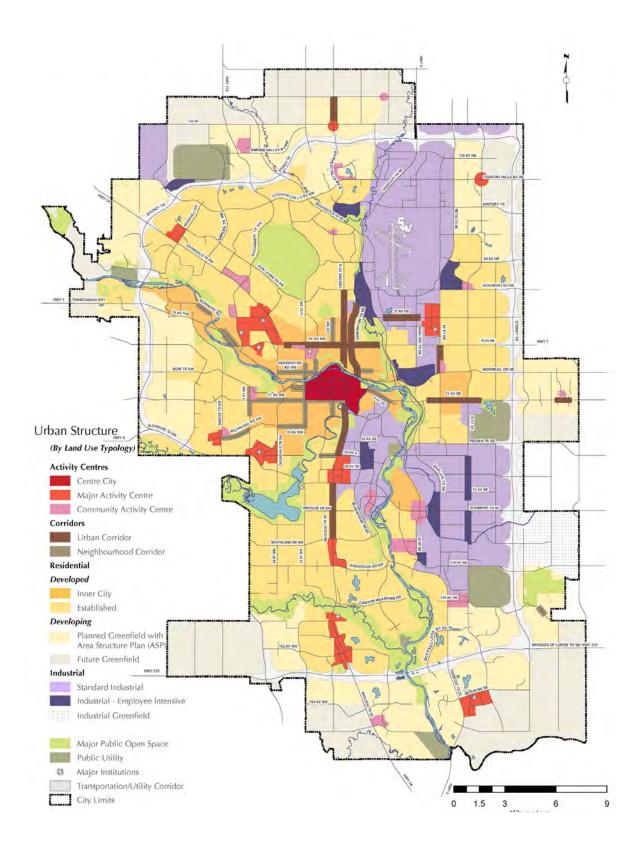
The City's *Municipal Development Plan (MDP)* and associated *Calgary Transportation Plan (CTP)* are the guiding policy documents for the former Highland Park Golf Course lands. Among other City standards and applicable more detailed policies, it is the *Municipal Development Plan* that will guide the planning, transportation and associated considerations of the redevelopment of these lands. Policies relevant to the Highland Park Community and former Highland Park Golf Course are illustrated below:

2.2 Shaping a more compact urban form 2.2.1 Vibrant, transit-supportive, mixed-use Activity Centres and Corridors Objective Build and diversify urban activities in Activity Centres and Corridors.

Activity Centres and Corridors

- a. Direct a greater share of new growth to the Activity Centres and Corridors ... in a manner that:
 - i. Provides compact, mixed-use, high-quality urban development;

Figure 13: Municipal Development Plan - Urban Structure



- ii. Concentrates jobs and people in areas well served by primary transit service, located close to transit stations and stops;
- v. Provides a mix of employment, residential, retail and service uses that support the needs of adjacent communities;
- vii. Creates an urban environment and streets that promote walkability and local connectivity.
- b. Plan the development of Activity Centres and Corridors appropriate to the local context by:
 - Maintaining compatibility, avoiding dramatic contrast in height and scale with low density residential areas through limits on allowable heights and bulk of new development;
 - Creating transitions in development intensity between low density residential areas and more intensive multi-unit residential or commercial areas;
 - iv. Massing new development to frame adjacent streets in a way that respects the existing scale of the street;
 - vi. Providing public systems, including connecting pathways that facilitate direct, convenient, comfortable and safe pedestrian movement to transit, recreational uses and other services.

2.2.2 A transit-supportive land use framework

Objective Establish a land use framework that optimizes population and job growth within walking distance of transit.

Transit-supportive density and uses

a. Locate transit-supportive land uses, including higher-density residential and employment developments, within Activity Centres and Corridors supported by the Primary Transit Network. b. Increase development densities in proximity of the Primary Transit Network by targeting residential and employment intensities within 400 metres of transit stops, in areas deemed appropriate through the Local Area Planning process and in accordance with the Typology thresholds

2.2.4 Complete communities

Objective Foster distinctive, complete communities with a strong sense of place.

Complete communities

 a. Support the development of complete communities to ensure a compact and well-designed urban form that efficiently utilizes land and infrastructure, provides housing choices at transit-supportive densities, local services and employment and promotes mobility options.

2.2.5 Strong residential neighbourhoods

Objective Reinforce the stability of Calgary's neighbourhoods and ensure housing quality and vitality of its residential areas.

Neighbourhood infill and redevelopment

- a. Encourage growth and change in low-density neighbourhoods through development and redevelopment that is similar in scale and built form and increases the mix of housing types such as accessory suits, semi-detached, townhouses, cottage housing, row or other ground-oriented housing.
- b. Support development and redevelopment that provides a broader range of housing choice in local communities to help stabilize population declines and support the demographic needs of communities.
- c. Encourage higher residential densities in areas of the community that are more extensively served by existing infrastructure, public facilities and transit, appropriate to the specific conditions and character of the neighbourhood.

d. Encourage redevelopment that incorporates green infrastructure solutions and shared energy efficiencies.

Large redevelopment sites

e.To the greatest extent possible, new development should be integrated into the fabric of the surrounding communities.

2.3 Creating great communities

2.3.1 Housing

Objective Ensure a choice of housing forms, tenures and affordability to accommodate the needs of current and future Calgarians and create sustainable local communities.

Housing Diversity and choice

- a. Provide for a wide range of housing types, tenures (rental and ownership) and densities to create diverse neighbourhoods that include:
 - A mix of housing types and tenures, including single detached, ground-oriented (e.g., duplexes, row houses, attached housing, accessory dwelling units and secondary suites), medium- and higher density and mixed-use residential developments; and,
 - A range of housing choices, in terms of the mix of housing sizes and types to meet affordability, accessibility, life cycle and lifestyle needs of different groups.
- b. Promote a broader range of housing choice for all ages, income groups, family types and lifestyles by:
 - Promoting innovative housing types, such as co-housing, live/work and cottage and carriage housing and accessory dwelling units, as alternative means of accommodating residential growth and providing affordable housing options; and,

2.3.2 Respecting and enhancing neighbourhood character

Objective Respect and enhance neighbourhood character and vitality.

Policies

- a. Respect the existing character of low-density residential areas, while still allowing for innovative and creative designs that foster distinctiveness.
- b. Ensure an appropriate transition of development intensity, uses and built form between low-density residential areas and more intensive multiresidential or commercial areas.
- c. Ensure infill development complements the established character of the area and does not create dramatic contrasts in the physical development pattern.
- d. Ensure that the preparation of Local Area Plans includes community engagement early in the decision making process that identifies and addresses local character, community needs and appropriate development transitions with existing neighbourhoods.

2.3.4 Parks, open spaces and outdoor recreation

Objective Create quality public parks, open spaces and other community amenities, and make leisure and recreation activities available to all Calgarians.

A high-quality public park system

- a. Provide a high-quality park and open-space system to meet the varying needs of Calgarians.
- b. Create a comprehensive and connected park, pathway and open-space system that links neighbourhoods, public parks, plazas and squares and the river valleys.

Land use, location and design

- g. Provide neighbourhood parks within a five-minute walk of all residents.
 - i. Plans for new communities should include a hierarchy of parks and public spaces interconnected to adjacent neighbourhoods by pathways and complete streets.
 - j. Plan land uses adjacent to public parks that are supportive and enhance the vitality of both existing and new open spaces.
 - k. New development adjacent to the public pathway system should maintain existing connections to pathways or provide new linkages.
 - I. Encourage higher quality parks near high-density residential buildings to act as a local amenity and places for community gathering, with greater focus on site design qualities than the quantity of park space.
 - n. Locate and design public gathering areas within parks and public open spaces to optimize sun exposure during midday hours.

Inclusive, accessible, safe parks

- o. Ensure that all public parks, open spaces and amenities are fully accessible and promote public safety.
- ensure that all parks, open spaces and amenities are located and designed in accordance with principles of universal access and barrierfree design.
- s. Design parks in a way that is compatible with nearby residential and provides for active recreation and passive recreational needs that are appropriate for all age groups.

Outdoor recreation

t. Develop and maintain open spaces, parks, recreational, sport and cultural facilities to provide for active recreation and passive recreational needs that are appropriate for all age groups and abilities.

- u. Support linear parks and linkages, where appropriate, to promote connectivity and facilitate walking and cycling.
- v. Recognize the role of complete streets and the sidewalk system as another means to provide amenity and recreation opportunities, particularly in dense neighbourhoods such as the Centre City, Activity Centres and Corridors, where additional land for traditional park space is more difficult to assemble.

2.3.7 Foster community dialogue and participation in community planning

Objective Promote community education and engagement.

Community Participation

- a. Recognize that community planning processes are critical implementation tools for refining and realizing the vision of the MDP.
- b. Work with the broad public and local community groups in planning for the future of local neighbourhoods.
- c. Provide for effective community consultation and participation in projects of significance to The City and local communities.
- d. Local planning studies will ensure the necessary resources and time frames to undertake community planning projects in a manner that is responsible, thorough, transparent and includes participatory community planning and consultation.

2.4.2 Built form

Objective Promote site and building design that contributes to high quality living environments, attractive, walkable, diverse neighbourhoods & communities.

Site and building design

- b. The ground and lower levels of developments should demonstrate a strong relationship to the human scale and contribute positively to the public realm and street.
- c. Encourage the development of low and mid-rise buildings to achieve the desired intensity of development.

2.4.3 Enhancing the public realm

Objective Enhance the public realm and promote pedestrian use through the coherent and collaborative design of streets, building interfaces and public spaces.

Policies

- a. Design streets and sidewalks to encourage pedestrian comfort, safety and linkages between neighbourhoods, open spaces and adjacent land uses.
- b. Safe pedestrian connections, transit shelters, bicycle parking, benches and clear wayfinding signage should be provided to facilitate all travel modes.
- c. Provide sufficient and uniform sidewalk width to allow for comfortable and safe pedestrian traffic, the planting of trees and additional landscaping and wayfinding elements. Sidewalks should enhance the visual character of streets, with landscaping and buffer planting used to reduce the impacts of vehicle traffic.
- e. Consider seasonal factors when designing the public realm.

2.5.3 Complete Streets

Objective Increase the attractiveness, convenience and safety of all modes of transportation by creating a new selection of multi-modal streets that emphasize different modes of transportation, incorporate elements of green infrastructure and function in the context of surrounding land uses.

Policies

a. Ensure that land use strategies complement the Complete Street policies contained in Part 3 of the CTP.

2.6.4 Ecological networks

Objective Maintain biodiversity and landscape diversity, integrating and connecting ecological networks throughout the city.

Connecting nature

 Create an interconnected open space system within and between watersheds to ensure that the ecological integrity of open spaces and parks are recognized and protected as the most critical element of Calgary's green infrastructure.

3.4 Corridors

3.4.1 General Corridor policies

Land use policies

a. Corridors should provide for a broad mix of residential, employment and retail uses.

Public Realm policies

 q. Create a human-scale environment along the Corridor by generally encouraging a maximum of a 1:2 building height to right-of-way width ratio. Additional height should be considered through the Local Area Plan.

3.4.2 Urban Corridors

Land Use Policies

e. The Urban Corridor should contain a broad range of employment, commercial and retail uses as well as housing (form, tenure, and affordability) to accommodate a diverse range of the population. Apartments, mixed-use developments and ground-oriented housing are encouraged.

4.2 Calgary Transportation Plan

The Calgary Transportation Plan (CTP) provides policy direction on all aspects of the city's transportation system. The policies contained in the CTP were prepared concurrently with and are linked directly to the Municipal Development Plan (MDP).

3.1 Transportation choice

ObjectiveMaintain automobile, commercial goods and emergency vehicle
mobility in Calgary while placing increased emphasis on sustainable
modes of transportation (walking, cycling and transit).

Policies

- a. The needs of sustainable modes of transportation (walking, cycling and transit) should be considered in all transportation planning projects.
- b. Pedestrians and cyclists should be given the highest priority in the planning, design, operation and maintenance of transportation infrastructure in Activity Centres and Corridors.

3.2 Walking and cycling

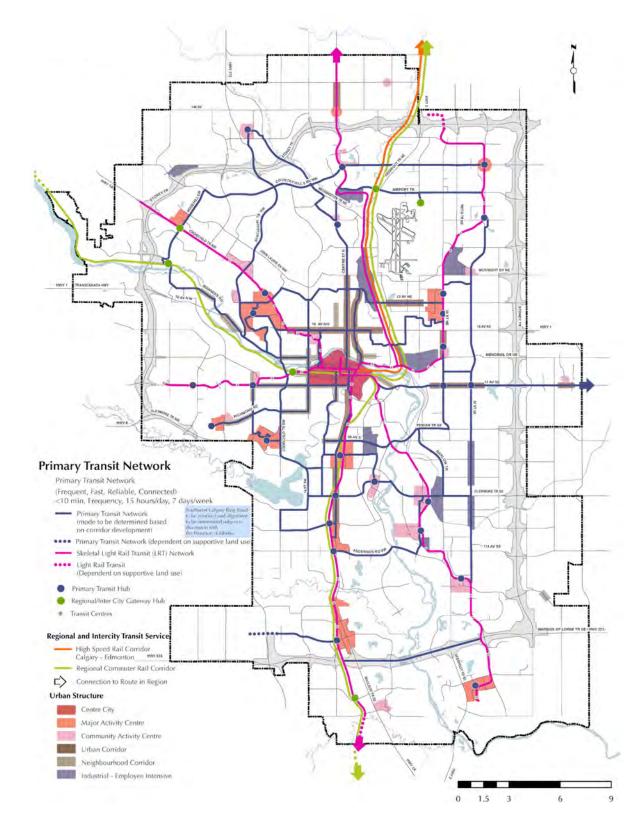
Objective To make walking and cycling attractive and convenient through the provision of additional or enhanced infrastructure, and through land use planning that brings homes, jobs, services and amenities closer together.

Policies

- a. Pedestrian and bicycle routes should be provided throughout the city.
- b. The type of cycling facilities implemented on the Primary Cycling Network should be based on the surrounding land uses and right-of-way restrictions. Cycling facilities should also be enhanced as redevelopment of corridors along the Primary Cycling Network occurs.



Figure 14: Calgary Transportation Plan -Primary Transit Network



- c. The amount, directness, connectivity, accessibility, comfort, character and safety of pedestrian and bicycle routes should be increased.
- d. The quality of pedestrian and bicycle environments should be emphasized in all transportation studies and in all future development or redevelopment plans for Activity Centres, Corridors, TOD sites and residential communities.
- g. Safe, barrier-free walkways and pathways should be provided in community designs to reduce pedestrian and bicycle distance to transit service and community amenities.

3.3 Transit

ObjectiveTo provide a safe, accessible, customer focused public transit servicethat is capable of becoming the preferred mobility choice of Calgarians.

Expanding the Calgary Transit network

 h. Community design should minimize pedestrian street walking distance to transit service (i.e., a bus zone or LRT station) to 400 metres or less in all areas of the city. In recognition of unusual circumstances, up to five per cent of the area population (i.e., dwelling units) may be located beyond 400 metres street walking distance from transit service.

3.7 Complete Streets

ObjectiveIncrease the attractiveness, convenience and safety of all modes of
transportation by creating a new selection of multi-modal streets that
emphasize different modes of transportation, incorporate elements of
green infrastructure and function in the context of surrounding land uses.

Planning, design and maintenance of Complete Streets

a. The road and street design parameters and operational processes must adhere to the priorities set out in the Road and Street Palette for each mode of transportation, as shown in Figure [15] of the CTP.

Figure 15: Calgary Transportation Plan -The Road and Street Palette



Legend

Accommodated with High Standards Accommodated with Variable Standards

Not Required, or Poor Performance is Accepted

Note: Access to emergency services and incorporation of emergency evacuation routes must be considered in the design of all road and street types.

- b. Roads and streets must be designed with consideration for the context of surrounding land uses, and should incorporate universal access principles.
- c. The road and street design must consider which elements are appropriate in each Complete Street zone based on the function of the transportation facility and adjacent land use context.
- d. Design speed (and resulting operating speed) should be selected based on the function of the transportation facility and adjacent land use context. All other road and street design elements must be set to complement intended operating speed.
- e. Intersection spacing should be determined to optimize mobility and connectivity of all transportation modes based on the priority set out in Figure 3 of the CTP.
- f. Intersections should be designed to accommodate the needs of all users safely.
- i. Snow clearing should be handled in such a way that it does not interfere with pedestrian and bicycle movement of Urban Boulevards, Neighbourhood Boulevards and Parkways, once these streets have been upgraded to meet the design guidelines for their classification.

Access

n. All new and retrofit roads and streets should provide adequate access for emergency vehicles, waste and recycling, street maintenance and other city services to meet their legislative policy requirements.

Green infrastructure

- o. All new and retrofit road and street designs should incorporate green infrastructure strategies to contribute to the environmental health and visual aesthetics of the urban fabric.
- In all designs, natural processes should be maintained and re-established by conserving, protecting and restoring habitat quantity and quality.
 Watersheds should be protected by filtering roadway run-off.

q. Native vegetation and a layered tree canopy should be incorporated within corridors to reduce the urban heat island effect and improve air quality.

Public Realm

r. The public realm design for streets should adhere to the public realm policies set in Parts 2 and 3 of the MDP.

Utilities and line assignments

- s. The priority alignment and placement for shallow utilities infrastructure (trenches and above-ground equipment) should be as follows:
 - I. in back alleys and lanes;
 - II. in shallow utility easements on private property;
 - III. Within right-of-way, placed in the roadside zone; and
 - IV. Within right-of-way under the roadway (i.e., parking, shared or bike lanes or paved shoulders).
- t. Deep utilities should be located so that manholes and appurtenances do not interfere with the movement of pedestrians, cyclists and vehicles.

Collaboration and public engagement

v. Residents, businesses and other stakeholders should be engaged and encouraged to actively participate in the development of street design and landscaping standards in order to foster a community's sense of place and the ownership of Complete Streets over time.

3.12 Environment and Transportation

Objective Protect air, land, water and biodiversity in the planning, design, operation and maintenance of all transportation infrastructure.

Policies

- a. Protect the quality and quantity of water in urban environments by mimicking natural hydrology in the design and operation of transportation infrastructure.
- c. Preserve and enhance biodiversity to support the natural environment in and around mobility corridors.

3.13 Infrastructure management

ObjectiveUse best infrastructure management practices to keep Calgary`s
transportation infrastructure safe and reliable, and minimize future
expenditures by optimizing the life-cycle of existing and future facilities.

Policies

e. Environmental best practices must be incorporated into all infrastructure management activities to minimize impact on the environment and integrated green infrastructure.

4.3 City of Calgary Land Use Bylaw (1P2007)

The Land Use Bylaw is the final regulatory tool that establishes a framework to evaluate and render decisions on development permit applications. This is accomplished through a land use redesignation process, which outlines permitted and discretionary uses of land and specifies relevant development standards. The subject property is currently zoned Special Purpose Recreation (S–R) District. The land was designated to accommodate the former nine-hole private golf course and country club.

The following standard land use districts are proposed: Multi-Residential – Contextual Medium Profile (M-C2), Multi-Residential – High Density Low Rise (M-H1), Multi-Residential – High Density Medium Rise (M-H2), Commercial – Corridor 1 (C-COR1 f3.5h48), Special Purpose – School, Park, and Community Reserve (S-SPR) and Special Purpose – City and Regional Infrastructure (S-CRI) Districts are presented in *Section 6.0: Land Use Redesignation* of this report.

Future zoning of the lands shall be developed in accordance with the direction and intent of the *Municipal Development Plan* and *The City of Calgary Land Use Bylaw.*

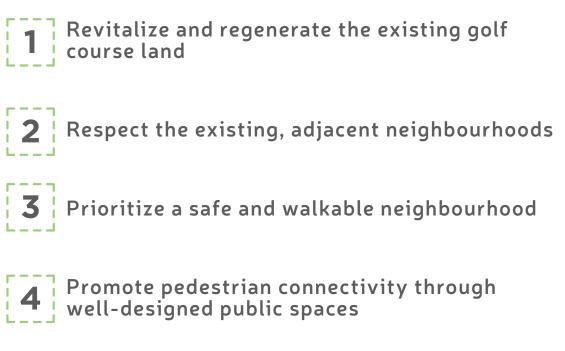




5.0 The Plan

5.1 The Ten Guiding Principles

The vision for Highland Village Green incorporates the principles articulated in the *Municipal Development Plan* as a basis for reorganizing the physical plan as well as reconceiving the target land use mix and distribution. The vision will be achieved through the following ten Guiding Principles:



5 Contribute to a vibrant, mixed-use commercial/ residential urban corridor

Accommodate density in order to support existing 6 | municipal services (e.g., transit), area schools, and places of worship

7 Promote uniqueness in built-form and site design due to existing conditions

8 Target housing markets that offer choice to all residents

9 Prioritize streetscape and landscaping design

10 Create a multi-modal access network

5.2 The Highland Village Green Neighbourhood

Highland Village Green is designed to implement the Ten Guiding Principles into a unique urban neighbourhood within the Highland Park Community. The "heart" of the neighbourhood is created through the vibrant naturalized park corridor and "outdoor room" park system. The corridor and park system are designed to bring people to and through the neighbourhood while integrating high-quality multi-dwelling residential buildings and retail opportunities for the community as a whole.

The neighbourhood is a mix of multi-dwelling residential buildings such as street and stacked townhouses, three to four-storey terraced apartments and eight to twelve-storey apartments aligning the transitoriented Centre Street "Urban Corridor." Commercial opportunities along Centre Street contribute to the vitality of those living in the neighbourhood as well as those using the open space system as they walk and bike through the neighbourhood. The unique landscape of the land have created a neighbourhood with a mix of interesting building types and open spaces that respond to natural and man-made slopes, and special connectivity opportunities for the pedestrian or bicyclist to the surrounding residential neighbourhoods and broader community.

Highland Village Green is focused around an urban central roadway that connects to Centre Street at the north, 40 Avenue NW at the south and 4 Street NW at the west. A pedestrian open space corridor follows the alignment of the roadway spine albeit separated. The combination of the roadway and open space corridor have created unique parcels of land by which a variety of unique residential building parcels have been created to connect and integrate with the landscape and the surrounding residential neighbourhoods and open space connections.

It is envisioned that higher-density building types along Centre Street will provide the opportunity for a potential grocery store and neighbourhood retail opportunities such as coffee shops and personal services. The opportunity exists for the commercial to further support the transit-oriented Urban Corridor such that local residents can walk for neighbourhood services as well as use this commercial amenity as they commute with transit to and from work to the Downtown or elsewhere.

Highland Village Green is planned to contribute a high-quality mix of residential housing, parks and pathways, and streetscape/urban design to the Highland Park community.

See Figures 16 - 19.

Figure 16: *Mixed-Use Concept*





Figure 17: 44 Avenue Terraced Concept





Figure 18: Terraced Multi-Residential





Figure 19: Four Storey Multi-Residential Concept





5.3 The Urban Design Framework

The open space framework for the redevelopment of Highland Park Golf Course consists of a unique mix of public parks and pathways. The intent of the open space plan is to provide for a diversity of active and passive play, informal recreation and leisure and the opportunity for social greeting, meeting and larger community gatherings. The quality of the open space system is anticipated to support the density, multi-generational programming and land uses proposed in the plan area.

Buildings will be placed and articulated such that shadows are minimized on adjacent parcels, streets, and the open space. It is anticipated that buildings will strive to have a streetwall of no more than four stories in order to maximize sunlight access to the street.

The development within the Highland Park Golf Course is intended to be internally harmonious and to minimize the negative impacts on surrounding communities. The open space system and built-form are designed with the sunlight preservation study of the typical shadows expected in March, June, September and December at 10:00 am and 4:00 pm Mountain Daylight Time. During these times of the year, there is minimal impact of shadows on the adjacent residential communities. See *Figures 20 (a + b): Shadow Study – March, Figures 21 (a + b) Shadow Study – July, Figures 22 (a + b): Shadow Study – September* and *Figures 23 (a + b): Shadow Study – December*.

Figure 20a: Shadow Study - March 21, 10am



Figure 20b: Shadow Study - March 21, 4pm



Figure 21a: Shadow Study - June 21, 10am



Figure 21b: Shadow Study - June 21, 4pm



Figure 22a: Shadow Study - September 21, 10am



Figure 22b: Shadow Study - September 21, 4pm



Figure 23a: Shadow Study - December 21, 10am



Figure 23b: Shadow Study - December 21, 3pm

Note: The sun sets around 4:30pm in December



Land Use 6.0 Redesignation

6.1 Background

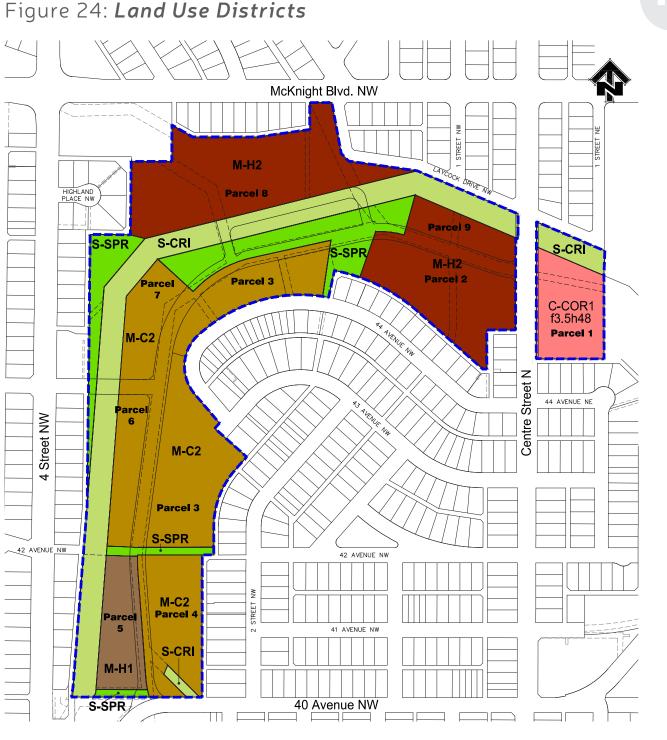
The current land use district for the subject land is Special Purpose – Recreation (S-R) District; which recognized the former use as a golf course and country club.

6.2 Proposed Land Use Districts & Statistics

The land use redesignation area of 20.83 (51.47 acres) is proposed to be addressed with six land use districts. The proposed land use districts include: Multi-Residential – Contextual Medium Profile (M-C2), Multi-Residential – High Density Low Rise (M-H1), Multi-Residential – High Density Medium Rise (M-H2), Commercial – Corridor 1 (C-COR1 f3.5h48), Special Purpose – School, Park and Community Reserve (S-SPR), and Special Purpose – City and Regional Infrastructure (S-CRI). These districts are summarized in *Table 1: Proposed Land Use Districts and Statistics*. See *Figure 24: Land Use Districts*.

LAND USE DISTRICTS	PARCEL	HECTARES	ACRES
Commercial - Corridor 1 (C-COR 1 f3.5h48)	1	1.16	2.87
Multi-Residential - High Density Medium Rise (M-H2)	2, 8, 9	5.83	14.41
Multi-Residential - Contextual Medium Profile (M-C2)	3, 4, 6, 7	6.86	16.95
Multi-Residential - High Density Low Rise (M-H1)	5	0.96	2.37
Special Purpose – School, Park and Community (S-SPR) Reserve		2.24	5.53
Special Purpose - City and Regional Infrastructure (S-CRI)		3.78	9.34

Table 1: Proposed Land Use Districts & Statistics



Legend

- Outline Plan Boundary M-C2 Multi-Residential - Contextual Medium Profile District M-H1 Multi-Residential - High Density Low Rise District M-H2 Multi-Residential - High Density Medium Rise District C-COR1 f3.5h48 Commercial - Corridor 1 District S-SPR Special Purpose - School, Park & Community Reserve District
- S-CRI Special Purpose City and Regional Infrastructure District

7.0 Outline Plan

7.1 Background

The former Highland Golf Course land has been the subject of discussion over the last forty plus years. The topography, access and drainage issues, and multiple utility services through the site have required a variety of assessments to determine if there are any areas of the subject land that deem the site undevelopable or create development challenges.

The development of the land is guided by The City of Calgary's *Slope Adaptive Development Policy and Guidelines* as the slope adaptive guidelines applies to those slopes with a slope angle of 20% or greater. The proposed development addresses the impacts of the slope on the land and minimizes extensive grading and need for large retaining walls. The concept plan achieves the proposed densities by working with the topography and organizing the development parcels so that grading of steep slopes is minimized.

Given that there is no east – west street connections through the site to the existing residential neighbourhood to the east, a pedestrian pathway connecting this property from 4 Street NW to 44 Avenue NW will be significant for pedestrian connectivity. The intention of the development is to raise the grades across the site to ensure positive drainage, proper connections into the existing road network surrounding the site, and provide appropriate depths for site servicing.

In addition to the development challenges, the adoption of the *Municipal Development Plan* encourages a more diverse and vital intensification within established areas of the city. The Outline Plan and Land Use Redesignation applications respond to these challenges and City policy. From a regulatory perspective, the subject land requires a Land Use Redesignation. It is clear that such an amendment is both anticipated and strongly supported by the *Municipal Development Plan* because of the great improvement to housing diversity and pedestrian connectivity to and through the site that comes with the land use. Detailed in this supporting information, via the enclosed design drawings, are the specifics as to how the subject site manages to meet the *MDP* policy intent:

- minimal impact on established areas in terms of access, traffic, parking, and obstruction of views
- provides a degree of physical separation (e.g., a road, green belt, alternate use, or change in natural grade) from the surrounding neighbourhood
- housing types include low and medium rise multi-residential housing that is close to transit, services and amenities
- siting, design and building forms contribute to desired neighbourhood character

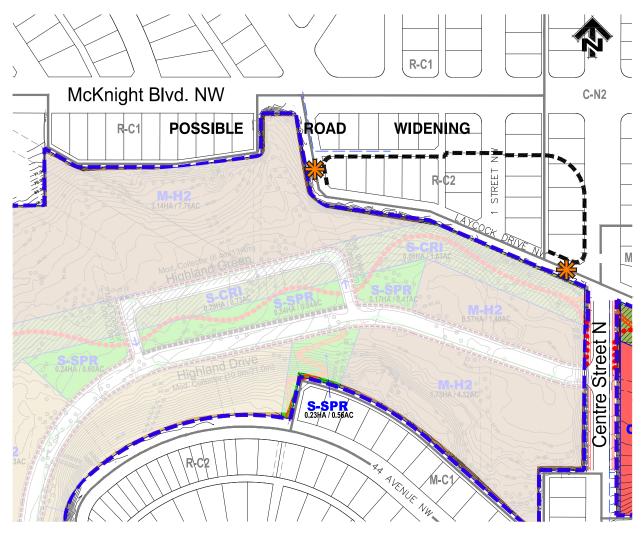
With this, it is anticipated that the Highland Village Green application will be recognized as a noteworthy example of an appropriate Land Use Redesignation that aligns with The City's planning principles and meets long-term community needs.

7.1.1 ADJACENT NORTHERLY RESIDENTIAL CELL SHADOW PLAN

A cell of residential development consisting of primarily single residential units sits atop of the north escarpment. A shadow plan for potential redevelopment opportunities in the SW quadrant of the McKnight / Centre Street intersection is shown in *Figure 25: Adjacent Northernly Residential Cell Shadow Plan.* Current City plans are to expand McKnight Boulevard, leaving a small residential pocket with a right-in / right-out access onto McKnight Boulevard and a right-in / right-out access to Centre Street. The "orphaned" properties will be connected to the former Golf Course land through the proposed pedestrian network. Vehicular access from these residential cells to the subject land is not appropriate for the following reasons:

- The northern edge of the subject land is bound by a steep escarpment, and the adjacent residential area is at a significantly higher elevation. Roadway connections would be highly disruptive to existing topography.
- Street connections between the northern cell and the Highland Village Green site introduce additional disruptions to the linear park system, which is undesirable.
- Access to the remnant parcels is well accommodated by the looped right-in / right-out accesses on McKnight Boulevard and Centre Street.
- Land ownership in the area is still largely fragmented, with no evidence of consolidation or preparation for redevelopment at this time.

Figure 25: Adjacent Northernly Residential Cell Shadow Plan



Legend



Outline Plan Boundary Right-in / Right-out Opportunity

7.2 Neighbourhood Layout

The former golf course land is proposed as a neighbourhood within the Highland Park community. The proposed neighbourhood provides a seamless transition to the existing residential community through a series of walkways, pathways, and the street network offering a variety of residential housing units within the community in order to link residents to each other and to their neighbourhood.

The plan focuses on the following elements as key to achieving a balanced and integrated neighbourhood:

- Balance the overall mix of residential uses in the community to create a multigenerational community
- Integrate the open space to compliment the residential housing units and the surrounding area
- Concentrate the retail services as part of the Centre Street Urban Corridor that is accessible by transit, and walkable to people living and working in the community
- Provide for a density and mix of uses to generate sufficient transit ridership and critical mass to support the proposed retail program and amenity services
- Organize the development parcels and integrate parks and open spaces to foster pedestrian and vehicular connectivity within the site and, where possible, to adjacent neighbourhoods

Figure 26: Bird's Eye View of the Open Space Looking South

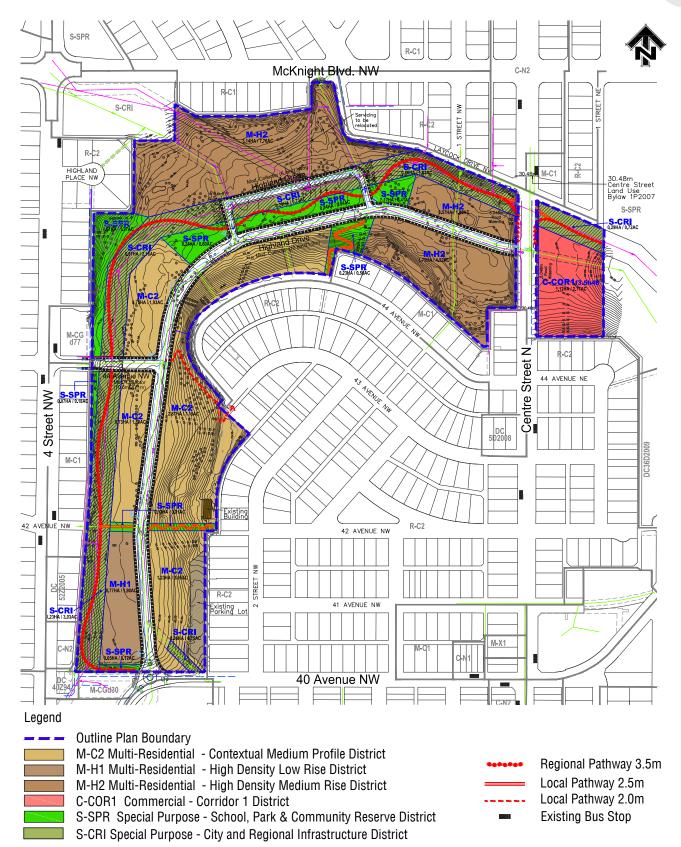




7.2.1 OUTLINE PLAN

The Outline Plan has been prepared with a spine road running through the centre of the site along the route of the major stormwater trunk. This layout promotes access for pedes-trians, bicyclists and vehicles, and optimizes development by integrating most of the storm trunk within a public road right-of-way. The spine road respects the historical and physical characteristics of the land by incorporating them into a well-connected pedestrian and open space system to support the residents living, working and playing in the community and further connecting to surrounding communities. It incorporates six land use districts ranging from multi-residential to mixed-use commercial/residential along Centre Street North. The land use districts are supported by a complete streets road network, public and semi-public open space network, and municipal servicing. See *Figure 27: Outline Plan.*

Figure 27: Outline Plan



7.2.2 MINOR REPLOTTING SCHEME

A minor replotting scheme needs to be undertaken as part of the Outline Plan and Land Use Redesignation submission for the Highland Village Green project involving land owned by Maple Investments Inc. and The City of Calgary. This replotting scheme will be implemented through

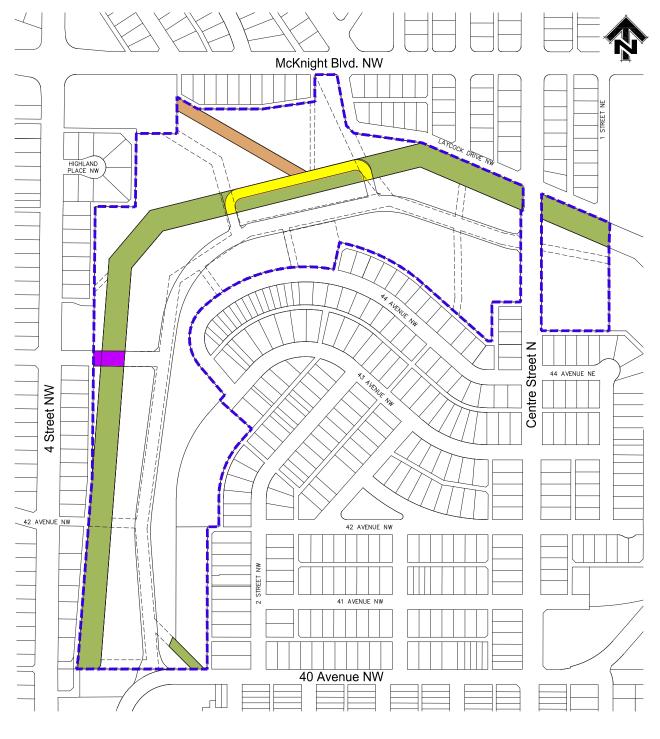
- the land use redesignation application for the project, which will designate the lands owned by the two parties
- subdivision applications, which will consolidate and re-subdivide the lands owned by The City into the Highland Village Green project

A Letter of Authorization from Corporate Properties on behalf of The City of Calgary to include City-owned land in the Highland Village Green Outline Plan and Land Use Redesignation application is included with the submission.

Figure 28: Minor Replotting Scheme shows the minor replotting scheme proposed for the development, which includes incorporating portions of utility rights-of-way into the project as follows:

• The lands shown in brown represent a utility right-of-way owned by The City, which will be consolidated with the land owned by Maple Investments Inc. and further subdivided as part of the project.

Municipal Reserve is owing on these transfer lands.



Legend

— — Outline Plan Boundary — — Utility Right of Way (URW)



City URW to be registered as Road right-of-way (0.32ha/0.78ac) City URW to be used as Residential Development (0.28ha/0.70ac) City URW to be registered as Road right-of-way (0.08ha/0.20ac) City URW to be maintained as URW • The lands shown in purple represent a utility right-of-way owned by The City, which a portion of land will be dedicated as road right-of-way.

Municipal Reserve is owing on these lands.

- The lands shown in yellow represent a utility right-of-way owned by The City, which will be dedicated as road right-of-way and further subdivided as part of the project.
- The lands shown in green represent utility right-of-way owned by The City, which will be maintained as a right-of-way and serve as an open space corridor.

In addition to the proposed replotting scheme, discussion with The City is required to accommodate required land at the south end of the subject site for the proposed roundabout.

7.2.3 OUTLINE PLAN STATISTICS

The Outline Plan Statistics reflect the land use districts and density envisioned and combined establish a neighbourhood within the community of Highland Park. The Outline Plan is reflective of an anticipated development program for the type of use, location and intensity of use and how these translate into the built-form envisioned for the neighbourhood. The use(s) and intensity is established and further designed to create and support a vibrant urban community. See *Table 2: Outline Plan Statistics*.

Table 2: Outline Plan Statistics

OWNERSHIP	Ha	Ac	%
MAPLE PROJECTS INC.	16.74	41.36	
The City of Calgary	4.09	10.11	
GROSS DEVELOPABLE AREA	20.83	51.47	100
Residential	11.84	29.25	56.8
M-C2	5.61	13.86	
M-H1	0.77	1.90	
M-H2	5.46	13.49	
Commercial	1.12	2.77	5.4
C-COR1 (f3.5h48)	1.12	2.77	5
Municipal Reserve — S-SPR (MR)	1.74	4.3	10.4*
Required Municipal Reserve	1.67	4.12	
Public Utility Lots & Roads (S-CRI)	6.13	15.15	29.4
Public Utility Lots	3.40	8.4	
Roads	2.73	6.75	
DENSITY	Units	Units per Hectare	Units per Acre
Anticipated Density	2071	99.4	40.2

*Calculation shows the percentage of MR owing for Maple Project Inc. only.

7.3 Housing composition and Density

The anticipated development program for each parcel established the envisioned housing composition for the neighbourhood. See *Table 3: Housing Composition and Density* for a summary of the anticipated Housing composition by number of units.

Table 3: Housing Composition and Density

HOUSING TYPE	Anticipated Units	Anticipated Housing %		
Commercial - Corridor 1 (C-COR1 f3.5h48)	347	17		
Multi Residential - High Density Medium Rise (M-H2)	961	46		
Multi Residential - High Density Low Rise (M-H1)	161	8		
Multi-Residential - Contextual Medium Profile (M-C2)	602	29		
TOTAL	2,071	100		
Anticipa	99.4			
Anticipa	40.2			



Figure 30: Centre Street Looking South





The application proposed the following anticipated built-form and unit calculation:

Table 4: Built Form and Unit Calculations

Parcel	Site Area (ha)	Site Area (ac)	Anticipated Building Form	Anticipated Residential Footprint (m2)	Anticipated Floor Area (m2)	Anticipated Retail Space (m2)	Anticipated Units (apt-93m2)	Anticipated Parking Stalls (units*1.4)	
1	1.12	2.77	Vertical Multi-Use (Retail + Residential -9 - 12 Storeys)	3,251	32,304	4,505	347	487	
2	1.75	4.32	Terraced Apartments (4-8 Storeys)	6,148	37,830		407	570	
3	2.87	7.10	Terraced Apartments - Slope Adaptive (2 - 4 Storeys)	7144	22,976		247	318	
4	1.23	3.05	Apartments (4 Storeys)	3,411	13,644		147	206	
5	0.77	1.90	Apartments (4 - 8 Storeys)	2,481	15,012		161	226	
6	0.73	1.80	Apartments (4 Storeys)	2,328	9,312		100	140	
7	0.78	1.93	Apartments (4 Storeys)	2,512	10,048		108	151	
8	3.14	7.76	Apartments (2 - 8 Storeys)	8,835	37,811		407	570	
9	0.57	1.40	Apartments (4 - 8 Storeys)	2,310	13,666		147	206	
MR/RD/PUL	7.87	19.45						0	
Total	20.83	51.47			192,603	4,505	2071	2874	
*Easements included in parcel area calculations									
Anticipated Residential Density (upha)				99.4					
Anticipated Residential Density (upa)				40.2					

Transportation 8.0 & Connectivity

8.1 Roadway Network

The linear orientation of the site lends itself strongly to having a primary spine road that extends continuously through the north-south and east-west segments of the site. Advantages of this Highland Drive spine road include:

- a single corridor that can become a thematic focal point for the community
- access to all fragmented areas of the site
- alignment with the existing major storm and sanitary utility corridors that traverse the site
- a complement to the proposed parallel Open Space corridor that links the Confederation Park / Queens Park open space system (from the southwest), through the site to Nose Creek system (to the northeast)
- support of a range of external access point

With the planned density of up to 2,071 residential units, a minimum of three access points are required for both traffic management and emergency access purposes. Numerous options were considered for access, but are constrained in some cases by existing development, steep grades or access management requirements on the external roadways. Ultimately, the plan has been built around three public street access points, as follows:

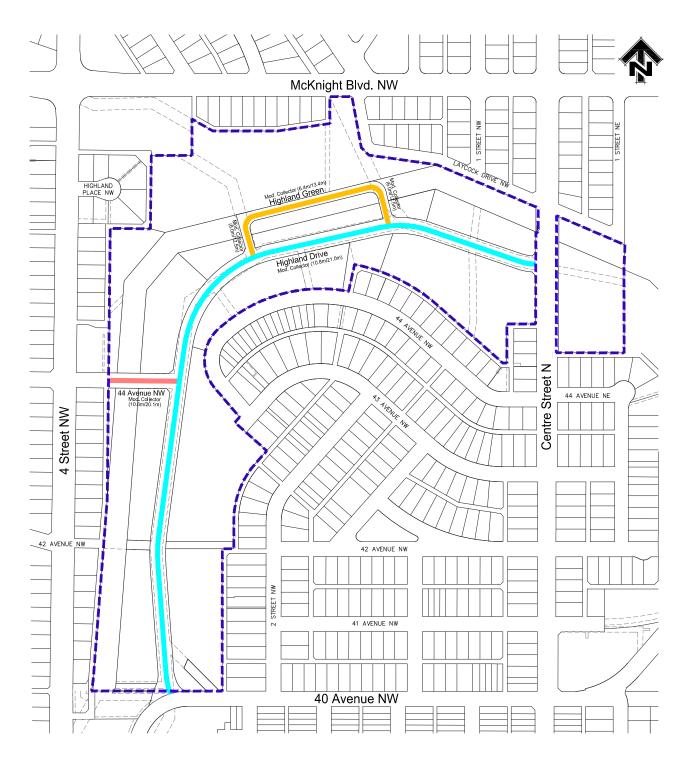
- South Access connecting the Highland Drive to 40 Avenue NW. Intersection options at 40 Avenue NW remain under review at the time of the application, and may include a stop-controlled intersection or a roundabout.
- West Access a side connection to the existing intersection at 4 Street / 44 Avenue NW, which would be upgraded with a new traffic signal.
- East Access connecting the Highland Drive to Centre Street, this would include a traffic signal control and localized extension of the bus-only lanes on this important transit corridor.

A key consideration in development of the road network was to ensure that there are no through connections to the existing residential streets of Highland Park. This was a top community transportation priority reflected in the public engagement phases.

To support development in the northern part of the site, the plan also proposes one gated emergency access off 4 Street NW through the rear lane behind Highland Place. The emergency access route would provide a second access point for the northerly parcel, allowing it to develop with the expected density. Overall, the planned street network will support the anticipated traffic demands for Highland Village Green, while minimizing impacts to existing communities. Specific benefits include:

- No vehicular access is proposed between Highland Village Green and the existing residential streets of Highland Park. This ensures that no increased traffic demand would be seen on local residential streets.
- The external access points provide direct, convenient access to the regional routes and desire lines required to reach all destinations in the city. Access restrictions could have had a desultory effect – for example, if Centre Street had been limited to right-in / right-out access, then all inbound demand to the higher-density northern part of the site would have had to have detoured via 40 Avenue NW to the south access point, creating a much larger flowthrough on these streets. As proposed, the access points minimize the need or desire for such use.
- All access points will have effective traffic control via traffic signals or roundabouts.

See Figure 31: Road Network.



Legend

Outline Plan Boundary

Highland Drive - Modified Collector (10.8m/21.0m)

44 Avenue NW - Modified Collector (7.9m/20.1m) Highland Green - One-way-park Street - Modified Collector (6.0m/12.5m) & (6.4m/13.4m)

8.2 Street Classifications and Cross-Sections

Three public streets are proposed within the community:

- Highland Drive the main spine road connecting through the site from 40 Avenue N to Centre Street
- 44 Avenue NW the connector road to 4 Street NW
- Highland Green a one-way street providing access to the northern-most lots, behind the central park area

Proposed cross sections for each street are provided with the application, and reflect some customization relative to the original City of Calgary cross-sections, which we believe will help accentuate the character of the proposed community. Specific discussion of each section is provided below:

44 Avenue NW will have daily traffic in the range of 5000 vpd, and is a custom section designed to match the existing 20.1m right-of-way along 44 Avenue NW, comparable to the Collector Street standard. The proposed roadway would have a 10.6m travelled surface, which will be used for the development of left turn bays at both the 4 Street NW and Highland Drive intersections. On-street parking would not be permitted. Accommodation of this width will require minor widening of the existing section of 44 Avenue NW, which will also allow for widening the existing sidewalk to a full 2.0m width. The sidewalk will be monolithic on the existing section of 44 Avenue NW, to minimize impacts on the existing grading within the road right-of-way.

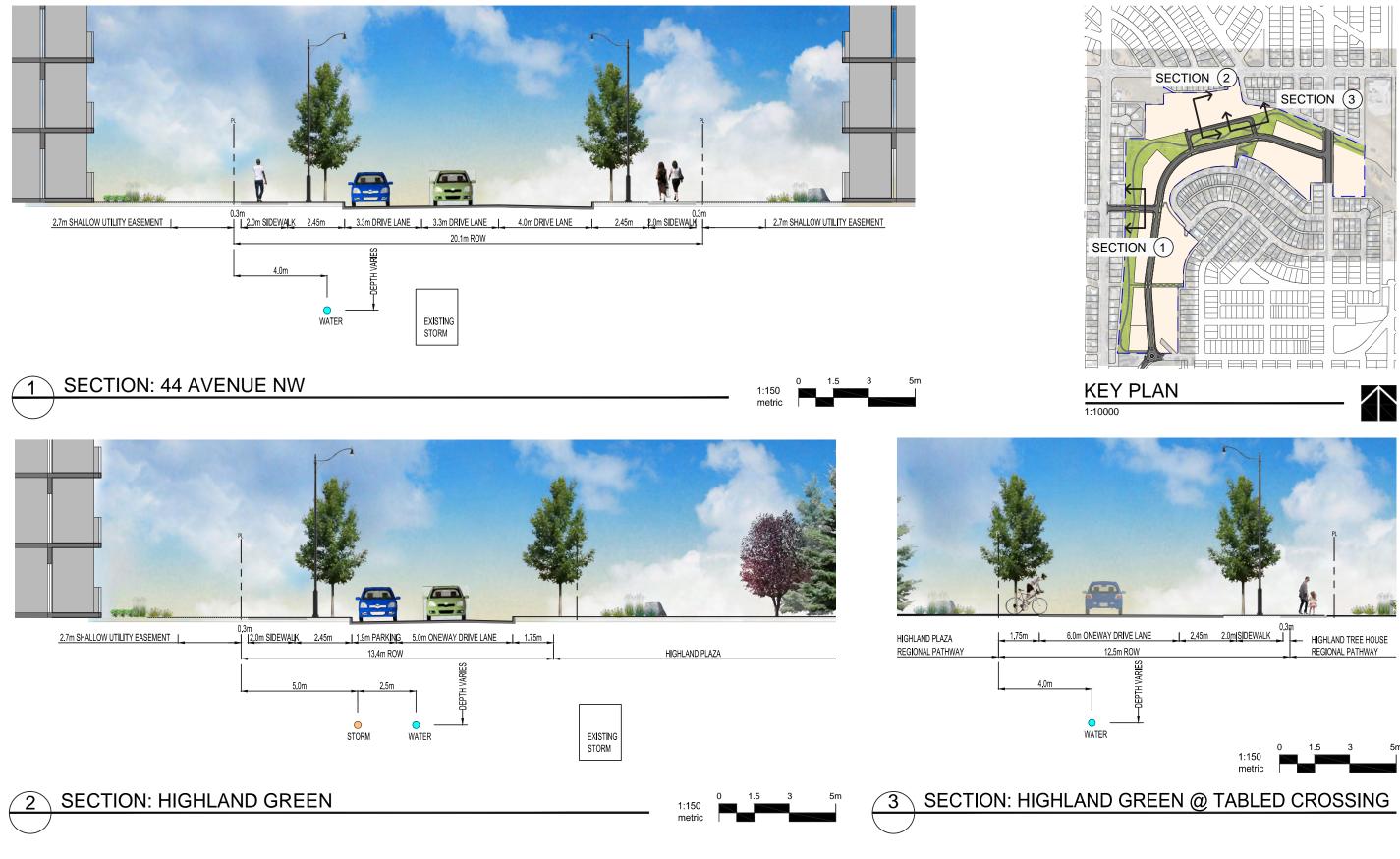


- Highland Green will have daily traffic in the range of 2000 vpd, and is adapted for one-way use based on The City of Calgary Collector Street standards. The northern leg of the street has a proposed right-of-way of 13.4m, which allows for a total paved width of 6.9m, with on-street parking and a standard 4.75m boulevard adjacent to the residential side of the street. On the park side of the street, a narrower 1.75m boulevard is provided to allow for typical maintenance requirements along the edge of the road, but otherwise the roadside environment will blend directly into the park. The north-south segments of the street will have a total paved width of 6.0m within a 12.5m right-of-way, to meet minimum requirements for Fire Access, and no on-street parking. It is proposed that a significant portion of the north-south segments will be "tabled" to be level with the grade of the central park area, with priority right-of-way provided for pedestrians, cyclists and park users. The tabling of the street will provide clear definition of this mixed-use area.
- Highland Drive will have daily traffic in the range of 3000 to 6000 vpd, and is based on The City of Calgary 21.0m Collector Street standard. The specific customization elements in this case include: a 10.8m driving surface (3.3m lane +2.1m parking zone in each direction); 2.0m separate sidewalks; and no dedicated cycling lanes. The primary cycling route through the site will be in the park space, which runs directly parallel to Highland Drive and obviates the need for a second facility. At intersections, it is proposed that the road will have curb bump-outs, without carrying the parking lanes through. This will enhance pedestrian connectivity and visibility across the street and provide space for stormwater management elements.
- A 29.0m right-of-way containing a 5.0m urban corridor is being proposed for Centre Street N. At this time, the *Land Use Bylaw* identifies a 30.48m required right-of-way for Centre Street N from Laycock Drive to 40 Avenue NW.

See Figure 32: Street Cross-Sections



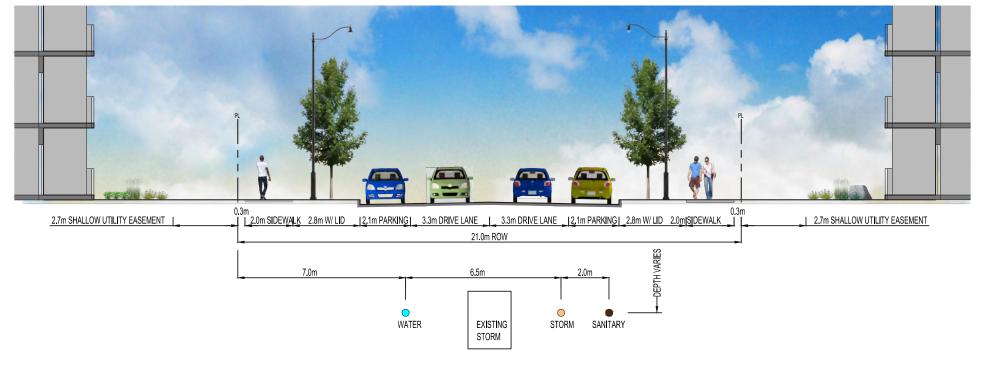
Figure 32: Street Cross-Sections



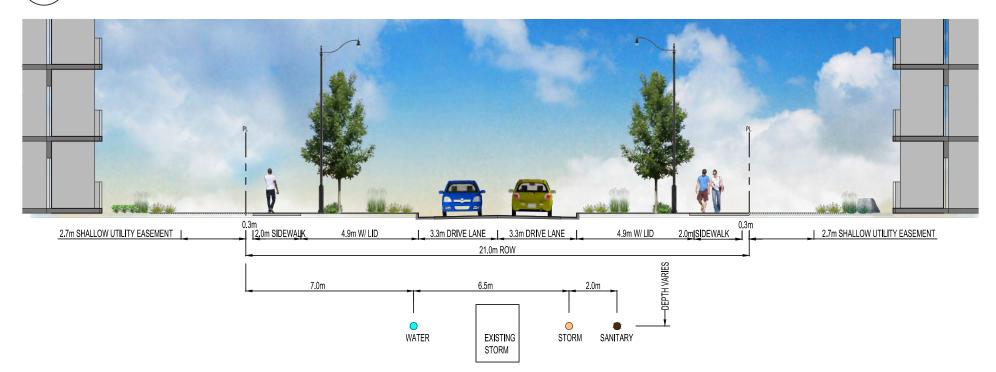


Kighland Village Green

Figure 32: Street Cross-Sections (Continued)

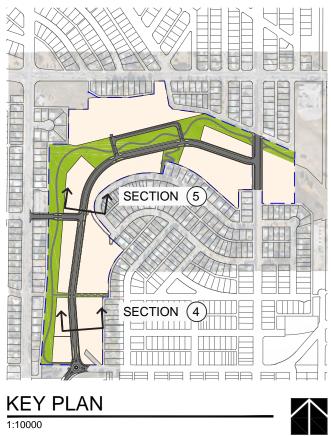


		SECTION: HIGHLAND DRIVE WITH PARKING		0	1.5	3	5m
1	<u> </u>	SECTION. HIGHLAND DRIVE WITH PARKING	1:150				
7	<hr/>		metric				



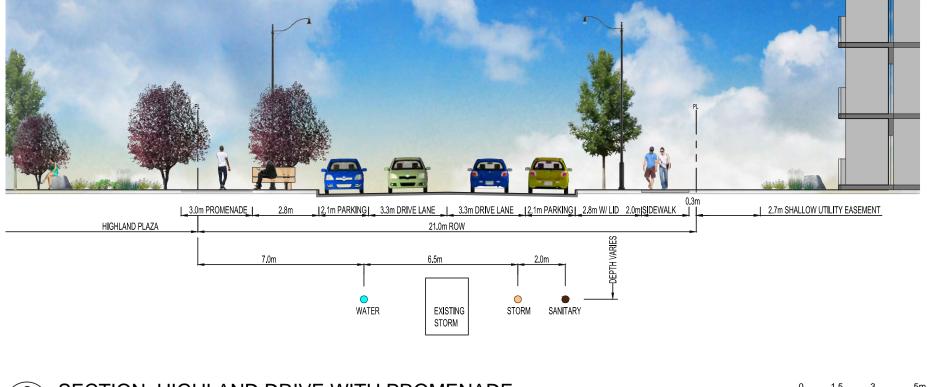
SECTION: HIGHLAND DRIVE WITH CURB EXTENSION 5







Kighland Village Green







SECTION: CENTRE STREET NW

1:150 metric



1:10000







Kighland Village Green



8.3 Surrounding Infrastructure Improvements

Surrounding roadway improvements are being finalized as part of the Transportation Impact Assessment, but are expected to include:

- Centre Street N / Highland Drive Intersection provision of a signalized intersection, and extension of the Bus-only lanes.
- 4 Street NW / 44 Avenue NW Intersection provision of a signalized intersection.
- 40 Avenue NW / Highland Drive Intersection a single-lane roundabout is an optimal geometric and operational solution for this access, and is reflected on the proposed plan. The use of a roundabout has two constraints, which have been reviewed with Transportation and will be considered in review:
 - 1. The roundabout requires a small property impact on The City of Calgary housing site on the west side of 40 Avenue NW.
 - 2. The roundabout is located at the bottom of a steep downgrade (~11%) from the east.

8.4 Transportation Demand Management

Several transportation demand management strategies are being reviewed for the site as part of the Transportation Impact Assessment. It is expected that the key strategies will be:

- Transit the site is surrounded by high quality transit routes, particularly the Centre Street Transitway. Direct walking connections to transit stops have been prioritized in the plan.
- Cycling the site is strategically located along the Confederation to Nose Creek corridor, which in turn allows for high quality Downtown access along the Nose Creek Valley. The linear park system proposed through the site will promote this connection.
- Car Sharing the site is within the Car2Go home zone. Priority parking locations for Car2Go vehicles will be evaluated at the individual Development Permit stages, with the potential for designated, publicly accessible stalls on-street or, in some cases, on-site.

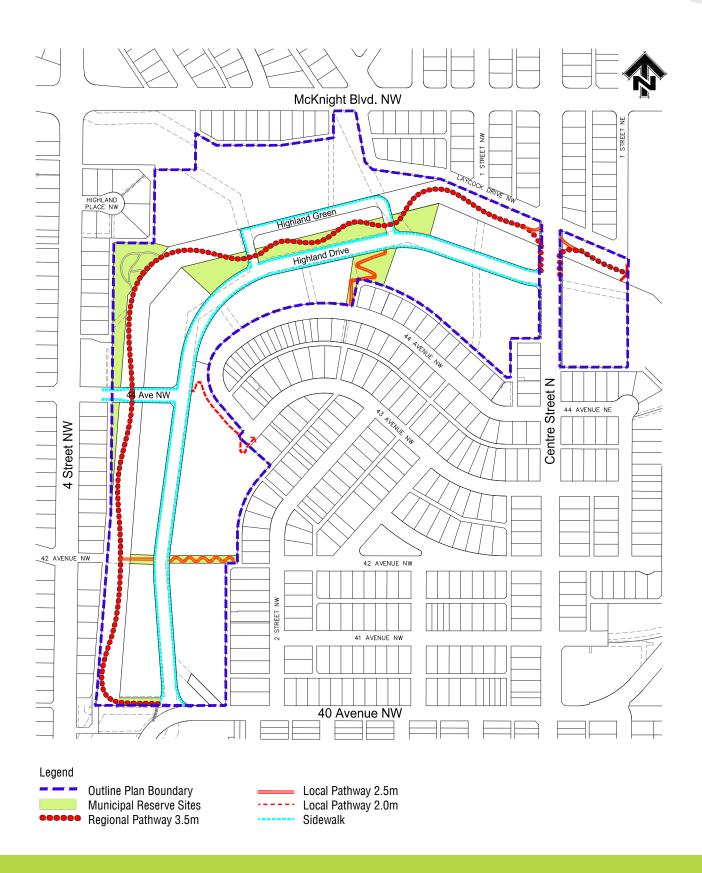
8.5 Pedestrian and Bicycle Connectivity

Pedestrian and bicycle connectivity is a priority through the site. The Highland Drive spine road and proposed linear park system provide direct, high quality active modes connections to all parts of the site, with external connections strategically located to enhance connectivity with surrounding communities and corridors. Key external connections will include:

- 40 Avenue NW both the Highland Drive and linear park systems will provide connections south to 40 Avenue NW.
- 42 Avenue NW a continuous east-west pathway connection will be provided through the site, connecting from 4 Street NW to the existing east-west regional pathway through Highland Park. This connection has a mid-block crossing on Highland Drive, which will be accommodated with curb extensions.
- 44 Avenue NW pedestrian connections will be provided from the west on 44 Avenue NW, and then connect east into Highland Park through the adjacent sites.
- McKnight Blvd NW / 4 Street NW a local connection through the central park to the northwest corner of the site will be determined through the review process. Beyond this intersection, this connection provides connectivity to Nose Hill Park.
- Highland Green a major connection will be provided from the central park area to the upper level of Highland Park.
- Centre Street both the Highland Drive and linear park systems will provide connections east across Centre Street, via the signalized intersection crossing. The frontage along Centre Street will also accommodate 4.5m pedestrian / cycling realm for north-south travel along Centre Street N, consistent with Complete Streets guidelines for Urban Boulevards.

See Figure 33: Pedestrian and Bicycle Connectivity

Figure 33: Pedestrian and Bicycle Connectivity



8.6 Transit Statement

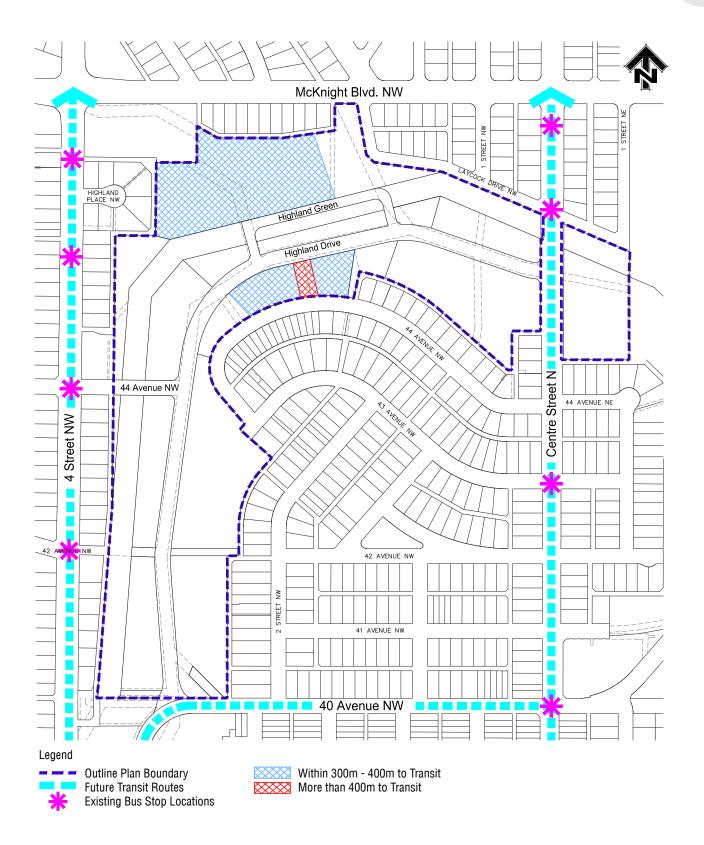
Though Calgary Transit has confirmed that transit service will not be provided directly through the site, there are many existing transit routes to rely on. The area is serviced by three regular bus routes, five express bus routes and two Bus Rapid Transit routes, including:

- Transit Route 2 (Killarney / 17 Avenue / Mt. Pleasant) This is a standard route that travels between the 78 Avenue NW bus terminal in Huntington Hills and the 45 Street SW LRT station in Glendale, via the Downtown core. Route 2 travels along 4 Street NW and has multiple transit stops adjacent to the Highland Park site on 4 Street NW between Highland Place NW and 40 Avenue NW.
- Transit Route 3 (Elbow Drive / Sandstone) This is a standard route that travels between Sandstone bus terminal and Fish Creek Park bus terminal, via the Downtown core. Route 3 travels along Centre Street N and has multiple transit stops adjacent to the Highland Park site on Centre Street N between McKnight Blvd NW and 40 Avenue NW.
- Transit Route 62 (Hidden Valley Express South) This is an express route that travels between the Downtown and the community of Hidden Valley. In the AM peak, buses travel southbound from Hidden Valley to the Downtown, and vice versa in the northbound direction in the PM peak, with an irregular frequency of 10 to 15 minutes. No off-peak or return service is provided. Route 62 travels along Centre Street N and the nearest transit stop is located at Centre Street / 40 Avenue N for both the northbound and southbound directions.
- Transit Route 64 (MacEwan Express) This is an express route that travels between the Downtown and the community of MacEwan. In the AM peak, buses travel southbound from MacEwan to the Downtown, and vice versa in the northbound direction in the PM peak, with an irregular frequency of 6 to 15 minutes. No off-peak or return service is provided. Route 64 travels along Centre Street N and the nearest transit stop is located at Centre Street / 40 Avenue N for both the northbound and southbound directions.



- Transit Route 72 / 73 (Circle Route) This is a circumferential / crosstown service with Route 72 traveling in the clockwise direction and Route 73 traveling in the counter-clockwise direction. The route provides direct service to a number of major destinations including Brentwood LRT station and the University of Calgary in the northwest, Whitehorn LRT station in the northeast, Ogden Industrial Area in the southeast, and Mount Royal University in the southwest. Routes 72 / 73 travel along 40 Avenue NW and the nearest transit stops are located at both 40 Avenue / Centre Street N and 40 Avenue / 4 Street NW. It is understood that Calgary Transit intends to upgrade the Circle Route to Primary Transit status in 2014, providing maximum 10 minute headways throughout the day.
- Transit Route 109 (Harvest Hills Express) This is an express route that travels between the Downtown and community of Harvest Hills. In the AM peak, buses travel southbound from Harvest Hills to the Downtown, and vice versa in the northbound direction in the PM peak, with an irregular frequency of 11 to 21 minutes. No off-peak or return service is provided. Route 109 travels along Centre Street N and the nearest transit stop is located at 40 Avenue / Centre Street N for both the northbound and southbound directions.
- Transit Route 116 (Coventry Hills Express) This is an express route that travels
 between the Downtown and community of Coventry Hills. In the AM peak,
 buses travel southbound from Coventry Hills to the Downtown, and vice versa
 in the northbound direction in the PM peak, with an irregular frequency of 5 to
 10 minutes. No off-peak or return service is provided. Route 116 travels along
 Centre Street N and the nearest transit stop is located at 40 Avenue / Centre
 Street N for both the northbound and southbound directions.

- Transit Route 142 (Panorama Express) This is an express route that travels between the Downtown and the community of Panorama. In the AM peak, buses travel southbound from Panorama to the Downtown, and vice versa in the northbound direction in the PM peak, with an irregular frequency of 10 to 15 minutes. No off-peak or return service is provided. Route 142 travels along Centre Street and the nearest transit stop is located at 40 Avenue / Centre Street N for both the northbound and southbound directions.
- BRT 300 (Airport / City Centre) Bus Rapid Transit Route 300 travels between the Downtown and the Calgary International Airport with a peak frequency of 20 minutes. The BRT route runs on Centre Street N and the nearest transit stop is located at Centre Street / 40 Avenue N for both the northbound and southbound directions. Both transit stops have enhanced shelter and bench amenities.
- BRT 301 (North / The Downtown) Bus Rapid Transit Route 301 travels between the Downtown and the North Pointe bus terminal with a peak frequency of 5 minutes. The BRT route runs on Centre Street N and the nearest transit stop is located at Centre Street / 40 Avenue N for both the northbound and southbound directions. Both transit stops have enhanced shelter and bench amenities.



The site has very good transit coverage from these existing services. The following table summarizes the walking distance to existing transit stops.

Table 5: Transit Coverage

Walking Distance to Transit	Number of Lots (max)	Percentage	Transit Friendly Guidlines
Less than 300m	1864	90.0	70
300m - 400m	192	9.3	25
More than 400m	15	0.7	5
Total	2071	100	100

Centre Street remains a candidate corridor for future north-central LRT service, and as an interim measure will be the primary corridor for the Green Line Transitway connecting north-central Calgary through the Downtown to the South Hospital campus in southeast Calgary. These services will be present on the doorstep of the Highland Park development, and can have a mutually beneficial relationship with the development area by providing strong transit service, which in turn supports intensified development and provision of a strong ridership pool in this area.

See Figure 34: Transit Network.



8.7 Parking Strategy

Generally, it is expected that parking supply for the development will conform with *The City of Calgary Land Use Bylaw* requirements. The primary on-site parking supply is expected to be below grade, and surface parking will be located within or to the rear of the individual parcels, and not adjacent to the public streets. On-street parking is provided throughout the neighborhood, and it is recommended that visitor / loading requirements be considered with a mix of on-street and on-site stalls. Priority on-street parking spaces may be proposed for Car2Go at the individual Development Permit stages.

9.0 Open Space

9.1 Open Space Overview

The Highland Village Green Open Space Plan sets forth a cohesive arrangement of public spaces, including Municipal Reserve (MR) lands, streetscape and integrated stormwater facilities. Planned, designed and programmed as an integrated plan for the community, the public spaces aim to serve anticipated passive and active recreation needs of the neighbourhood and connect to the broader community. The open spaces seek to preserve trees and connectivity for the pedestrian within and through the neighbourhood. See *Figure 35: Overall Open Space Plan.*

Figure 35: Overall Open Space Plan





LEGEND

-	RIVER STONE AND ROCK MULCH
280	TREE PLANTING
0	EXISTING TREE TO REMAIN
20	BERM
	SHRUB PLANTING
-	BENCH
•	BOULDERS
0	PICNIC TABLE
ACE	OVERALL LAYOUT PLAN
	1.5000 D 10 20 30 50m



, /

9.2 Municipal Reserve

The City of Calgary requires that 10% of lands within a proposed subdivision be dedicated as Municipal Reserve (MR) lands. In the case of the proposed Highland Village Green Outline Plan, a total of 1.67 ha/4.13 ac including a deferred reserve caveat (79103727) of 0.2 ha/.49 ac is required. See *Table 6: Required Municipal Reserve Calculations for Maple Projects Inc.*

Table 6:Required Municipal Reserve Calculations
for Maple Projects Inc.

TITLED	Ar	ea	Required MR 10% of Area		
PARCEL	Ha	Ac	Ha	ac	
1					
2	12.23	30.21	1.22	3.02	
3					
4	0.07	0.18	0.00	0.00	
5	1.98	4.89	0.20	0.49 ¹	
6	1.39	3.43	0.14	0.34	
NW34	1.15	2.84	O.11	0.28	
TOTAL	16.82	41.55	1.67	4.13	

1. Deferred Reserve Caveat (79103727) for 0.2 ha (0.49 ac), which equals the required 10%

Refer to Figure 6: Land Ownership.

The proposed outline plan is providing 1.74 ha/4.3 ac of Municipal Reserve. There is an over-dedication of 0.07 ha/0.17 ac or approximately 0.4%. See *Table 7: Calculations of Proposed MR* and *Figure 36: Municipal Reserve.*

Maple Projects Inc. will provide the required 10% and will therefore work with The City of Calgary to reduce any over-dedication through the Outline Plan process. At this time, it is assumed that municipal reserve for a school will not be required. It is anticipated that the Joint Use Committee and School Boards will be circulated the application for review and comment on this aspect on the Municipal Reserve dedication.

SITE #	Site	Ha	Ac	% of Outline Plan Area
1	Regional Pathway connection to 40 Avenue NW	0.05	0.12	
2	Regional Pathway connection to 42 Avenue NW	0.13	0.31	
3		0.58	1.45	
4		0.24	0.60	
5	Central Green	0.34	0.84	
6		0.17	0.41	
7	Regional Pathway connection to 44 Avenue NW	0.23	0.56	
Subtotal (Proposed MR)		1.74	4.30	10.4

Table 7: Calculations of Proposed MR



9.3 Public Open Space Areas

The following key considerations and City of Calgary requirements have been integral to the planning and design process to identify valuable open space opportunities and the dedication of MR lands for the redevelopment of Highland Park:

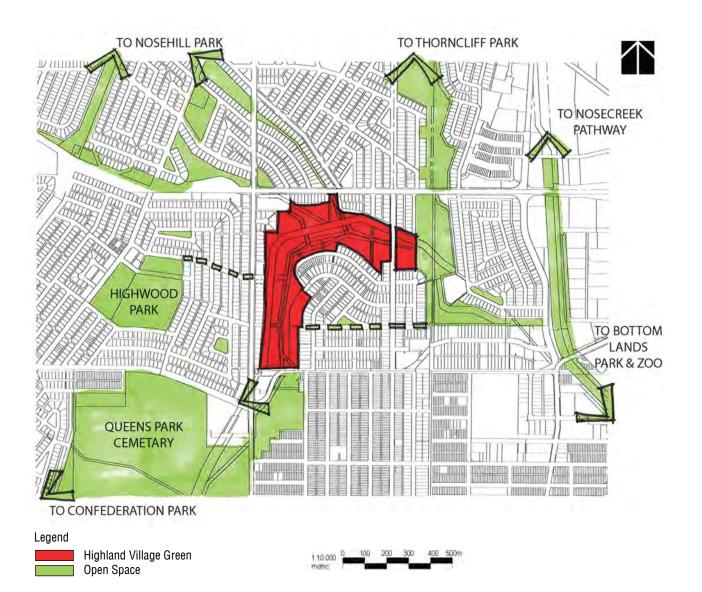
- 1. Connected Parks & Pathways
- 2. Accessible Neighbourhood Parks
- 3. Diverse Programming Opportunities
- 4. Focus on Quality

9.3.1 CONNECTED PARKS & PATHWAYS

The redevelopment of Highland Park Golf Course presents a significant opportunity to contribute to The City of Calgary's existing parks and open space network. The development of a continuous open space corridor within the subject lands will provide open space connectivity and pathway connections to Confederation Park, Nose Hill Park and the Fish Creek Pathway that currently do not exist. See *Figure 37: Regional Context*.

Highland Village Green's overall open space plan focuses on the potential to physically and functionally become an important junction for connectivity while providing for a diversity of active and passive recreation and leisure opportunities for future local residents. The vision includes designating MR land use; where practical, to preserve existing mature trees; and incorporating design elements that will support the inclusion of "green" infrastructure to help manage the storm water associated with the redevelopment of the lands.

Figure 37: Regional Context



9.3.2 ACCESSIBLE NEIGHBOURHOOD PARKS

The overall concept proposes merging and using an existing 30m wide utility Right-of-Way (ROW) with designated MR to create a contiguous open space corridor to access and connect to some of north Calgary's most significant regional open space amenities. The rich development of both naturalized (primarily ROW lands) and manicured landscapes (primarily MR lands) are planned for Highland Village Green. The corridor is further enhanced by a 3.5m wide regional pathway that will accommodate both pedestrians and cyclists. It also includes open space and pathway connections to the immediate and adjacent residential neighborhoods.

9.3.3 DIVERSE PROGRAMMING OPPORTUNITIES

Opportunities for active and passive play, informal and structured recreation and leisure and for social greeting, meeting and gatherings are offered within the open space corridor. The regional pathway layout is designed to transition and integrate the naturalized and manicured landscapes while clearly delineating the different maintenance regimes adding value to Park's operational considerations.

The proposed corridor's manicured landscapes are centrally located. This open space area, called Highland Common, is proposed for more structured play and leisure activities. The design has anticipated future residents will comprise a diversity of age and family groups. The provision for a possible future urban community garden has also been included here.

The proposed corridor's naturalized landscapes seek to protect and enhance habitat and the spatial integrity of existing parks and naturally occurring networks. The design is proposed for more informal play and leisure activities and will have a positive influence on recreational pedestrian and bicycle networks locally and regionally. The recreation and leisure, combined with interpretive and learning value associated with the naturalized landscape and green infrastructure, offers year round and unique seasonal experiences.

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9.3.4 FOCUS ON QUALITY

Highland Village Green anticipates the integration of natural networks and the potential of their integration with urban uses. The quality and livability of the neighbourhood will further benefit from pedestrian friendly streetscapes and their role in the overall open space system. The profile of the proposed primary roadway offers a pedestrian-oriented environment encouraging walking and biking throughout the community. Additionally, an enhanced streetscape design is proposed for key locations at Highland Common and at the regional pathway crossing on Centre Street.

Attention to the streetscape design will provide for more opportunities for social engagement ultimately activating the streetscape and creating a stronger "sense of community". The proposed streetscape design incorporates a tree planted infiltration trench to further support the inclusion of "green" infrastructure as part of the overall open space vision.

9.4 Open Space Design Concepts

The proposed Open Space Plan for Highland Village Green integrates and comprises the following design concepts:

- 1. Naturalized Park Corridor
- 2. Highland Common
- 3. Urban Streetscape and Interface
- 4. Tree Preservation

9.4.1 NATURALIZED PARK CORRIDOR

Central to the open space concept is a continuous green corridor and 3m wide regional pathway that follows the alignment of a 30m wide utility ROW, from one end of the proposed development to the other. This corridor provides an open space connection to a network of existing regional parks and is directly accessible from adjacent and future residential areas.

The corridor will offer a naturalized park setting and remnant stands of mature trees. Low maintenance seed mixtures, native shrubs and trees will be planted to enhance the environment in the corridor. The naturalized landscape will play a role to increase the ecological diversity and habitat. Trees and structures will be setback a minimum of 4.5m from the utility given shoring for excavation and repair, if necessary, will require a 9m clearance.

The concept provides for indigenous and loose materials, such as tree snags, logs, sandy seams and rock outcrops to promote informal play areas, exploration and learning. Reconnecting to nature supports positive change in urban neighborhoods improving the experiential quality of the open space, especially for children. Furnished rest stops are proposed along the pathway for cyclists and pedestrians. See *Figures 38 (a + b): Naturalized Park Corridor Concept - West.*

In the context of this naturalized open space, some MR has been dedicated to preserve a large stand of mature trees. Under the canopy of this poplar grove, a picnic terrace is proposed. For large gatherings or just for quiet picnics, the concept provides for tables, a gravel trail, barbeque area, picnic shelter and an open lawn area for informal lawn and field games. This poplar grove is anticipated to become a favorite destination and landmark given the immediate benefits to provide shade and shelter. See *Figure 38 (c): Naturalized Park Corridor Concept - Picnic Terrace.*

The design concept for the naturalized corridor provides opportunities to bike, stroll, explore, relax, play and socialize. Reconnecting with nature is key to the park concept. Provisions for an infiltration trench to management storm water is an integrated component of the corridor. See *Figure 38 (d) Naturalized Park Corridor Concept - East.*

Figure 38 (a): Naturalized Park Corridor Concept - West



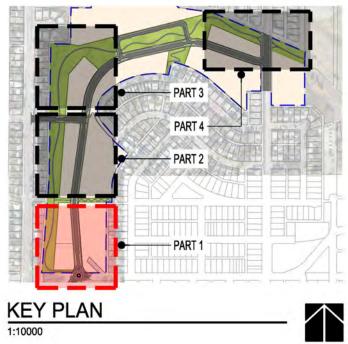






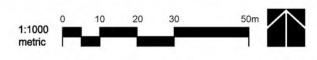






LEGEND

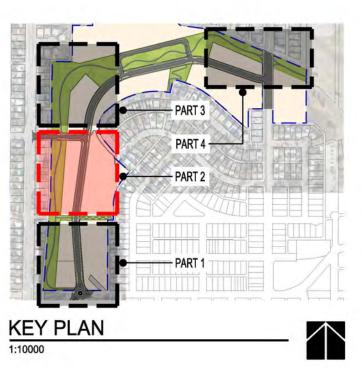
and Allera	RIVER STONE AND ROCK MULCH
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	TREE PLANTING
+	EXISTING TREE TO REMAIN
0	BERM
	SHRUB PLANTING
	BENCH
10	BOULDERS
PART 1 - LA	YOUT PLAN



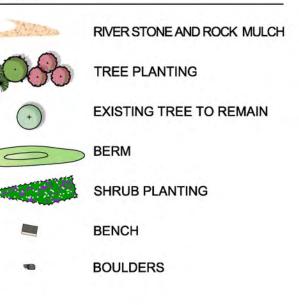


# Figure 38 (b): Naturalized Park Corridor Concept - West

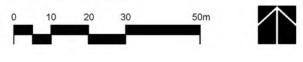




### LEGEND



# PART 2 - LAYOUT PLAN





## Figure 38 (c): Naturalized Park Corridor Concept - Picnic Terrace





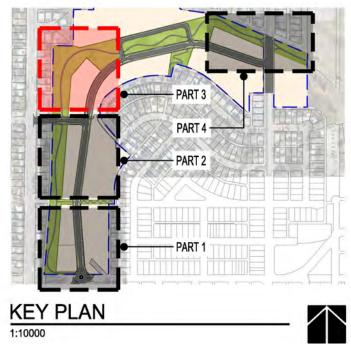
**EXISTING SITE** 



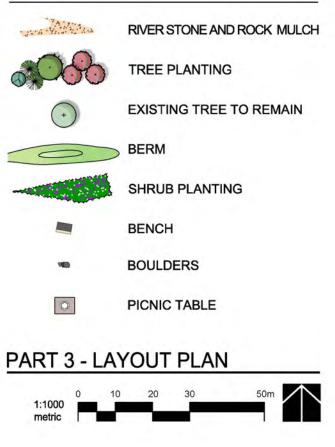
DESIGN CONCEPT

**TYPICAL VIEW** 





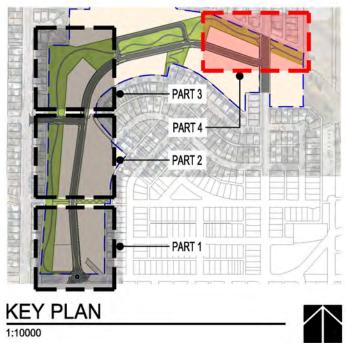
### LEGEND

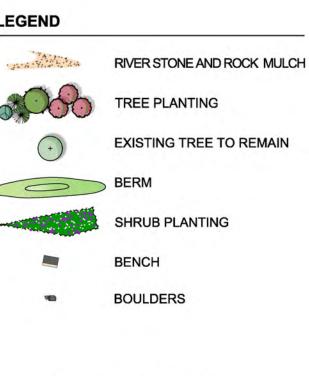


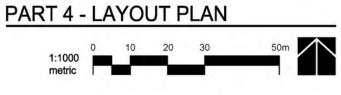


### Figure 38 (d): Naturalized Park Corridor Concept - East











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### 9.4.2 HIGHLAND COMMON

The Highland Common is centrally located and envisioned as a vibrant community meeting and play space. The area is integral to the park corridor and interfaces with both the regional pathway system and streetscape. The design concept incorporates play lots for young children and older children, a formal plaza with contemplative seating areas, a flexible lawn for informal games and gatherings and streetscape elements. The regional pathway facilitates the integration of Highland Common into the overall open space concept providing a rich diversity of recreation and leisure opportunities. See *Figure 39 (a): Highland Common Concept - Overall.* 

Highland Common comprises four distinct and connected "outdoor rooms", each designed for different activities and user experiences.

Highland Rocks incorporates physical activities for kids to climb, swing, jump, or bounce a basketball. The focus of the program is on motor skills. A key feature of the area is a natural rock outcrop. See *Figure 39 (b): Highland Common Concept - Highland Rocks*.

Highland Plaza provides for social and contemplative spaces with formal and informal seating areas to read, meet with friends or just relax. Users have a choice of seating environments from a quiet semi-enclosed formal garden setting, to an open lounge style seating area perfect for people watching, to informal seating on the open lawn with friends and family. The promenade provides for an active and engaging urban interface between the plaza and the streetscape intended for people to meet and greet. See *Figure 39 (c): Highland Common Concept - Highland Plaza*.

Highland Tree House focuses on the cognitive opportunities for younger children to use their imagination and role-play. In this area the "tree house" style structures can become a pirate ship or a castle. The large sand base area includes hand pumps for children to further explore their imagination building sand dams, motes and water channels to float their make shift boats. See *Figure 39 (d): Highland Common Concept - Highland Tree House*.

Highland Point offers views to Nose Hill Park and to the community open space corridor. This terraced landscape and pathway connects people from the existing residential area to the Plaza Promenade. To "survey", from a biophilic design standpoint, is part of our cultural past and these types of experiences strengthen our bond and attachment to the landscape. See *Figure 39 (e): Highland Common Concept - Highland Point.* 

# Figure 39 (a): Highland Common Concept - Overall







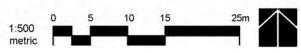




Figure 39 (c): Highland Common Concept - Highland Plaza



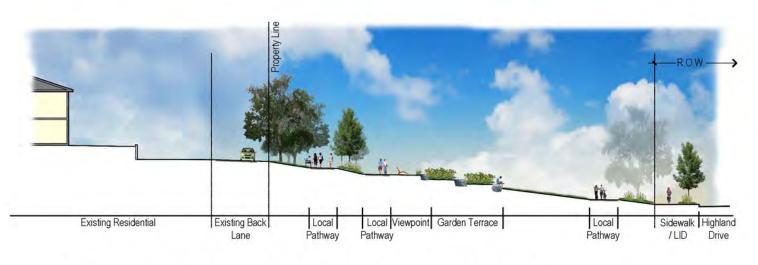






# Figure 39 (e): Highland Common Concept - Highland Point





SECTION: HIGHLAND POINT THROUGH VIEWPOINT



EXISTING SITE

# TYPICAL VIEW



### DESIGN CONCEPT





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## 9.5 Tree Preservation

Planning efforts have been made to maintain existing trees where possible. Overall, it is estimated that 49 trees, currently existing within the proposed park corridor, have been identified for preservation. Given the age and condition of the existing trees, transplanting those trees impacted by the grading is not being contemplated. Additional trees are being preserved through a MR dedication adjacent the ROW. See *Figure 40: Tree Preservation Plan* and *Figures 41: Tree Preservation / Protection Plan* for the location of trees to be preserved.

### 9.6 Streetscape

The streetscape presents the opportunity to be an integral component of the open space system. A pedestrian-oriented environment will promote more walking and biking in the community, provide more opportunity for social encounters and overall will help to create a strong "sense of community". Additional design elements and furnishings have been considered for the interface of the regional path at Center Street N to prevent mid-block crossing and at the interface of Highland Drive and Highland Plaza to promote the promenade and increased programming opportunities. Highland Drive will incorporate tree planted infiltration trenches to support the inclusion of "green" infrastructure to help manage the storm water associated with the redevelopment. See *Section 8.0: Transportation & Connectivity* for the proposed streetscape profiles and cross sections for Highland Village Green.

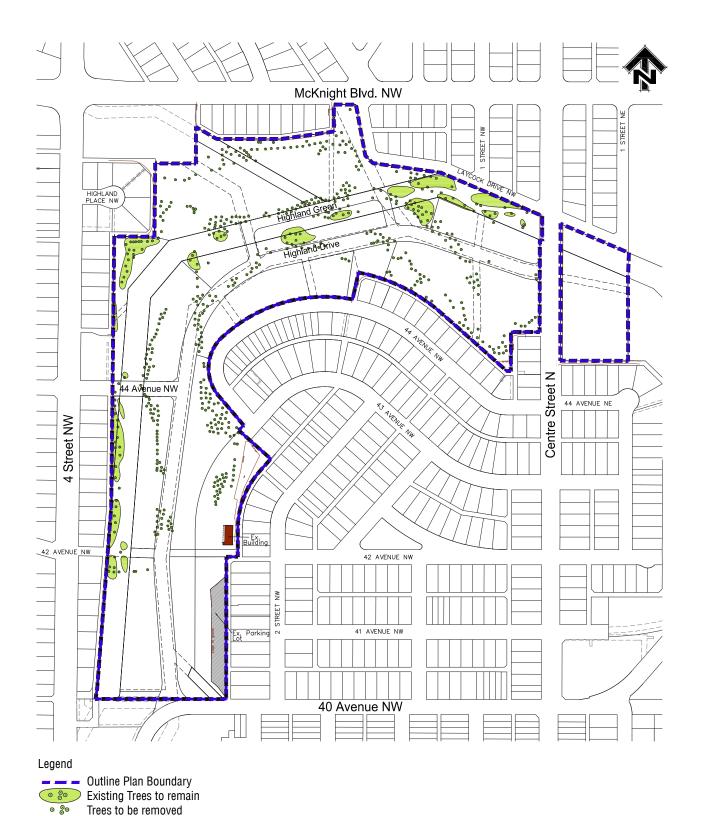
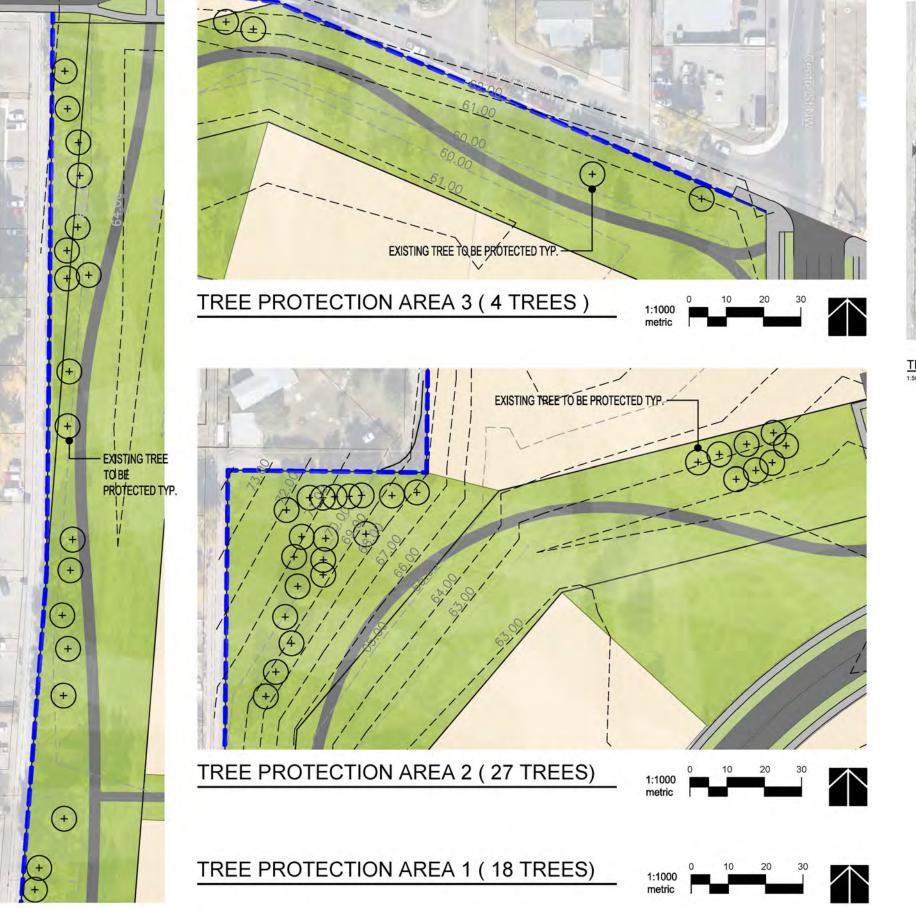
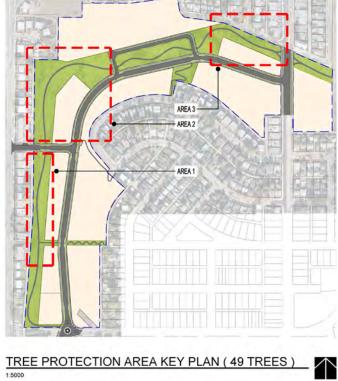


Figure 40: Tree Preservation Plan

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# Figure 41: Tree Preservation/Protection Plan







# *Kighland* Village Green



# 10.0 Municipal Servicing

The overall site is considerably constrained by a number of sewers running generally from south to north and east to west. In some way, many of these utilities are located in a somewhat hap-hazard manner, not necessarily conducive to development. See *Figure 42: Municipal Servicing.* 

# 10.1 Grading

The site is currently located within the remnants of the old Confederation Creek draw. Over the last 70 years, the draw has been filled in, encroached on from adjacent communities, and crossed with utilities. The site has been used for various fill operations for past City of Calgary projects. The proposed grades of the site will again be substantially filled to accommodate the proposed development. There are many reasons for this necessity.

Firstly, the current storm sewer duct that runs through the site has, for much of its length, NO cover. In fact, the top of the duct is exposed to the surface and has been used in the past as a pathway. It would not be possible to tie services to the storm sewer at any point with the existing grades. Also, the storm duct is likely susceptible to surcharging with the existing grades. Raising the grades permits acceptable servicing, protects the storm sewer and greatly lessens the potential of surcharge.

Secondly, there is no acceptable overland drainage escape route from the current site. Currently storm water can only escape overland to the east at Centre Street, where it would pond over 5 metres deep. Residences and buildings cannot be located under such conditions, and as such the grades need to be raised to permit the safe conveyance of overland drainage.

Finally, as road connections are required (and shown) at Centre Street and 40 Avenue NW, the current grades do not permit safe connections. The site must be raised to permit these roadway connections.

# 10.2 Sanitary Sewer

The site is currently serviced with a 750mm concrete sanitary sewer running within a 100 foot (30.48m) wide right-of-way parcel. This right-of-way parcel is similar to a road right-of-way, and the land is owned by The City of Calgary. This utility and R/W parcel is considered a major constraint to the site and will not be relocated.

Other sanitary sewer pipes drain through the site within various URW. All but two sewer pipes will be retained and incorporated into various private sites and road rights-of-way. The two pipes considered for relocation are located in the northern portion of the site, servicing from McKnight Blvd, and are considered hap-hazardly located. The current development plan is to re-locate these sanitary sewers to be adjacent and aligned to the existing storm sewers.

The existing sanitary trunk and existing storm sewer trunk (main roadway) through the site do not coincide. For this reason, a new sanitary sewer will be located within the road right of way providing the majority of service throughout the site. Ties from the new sanitary sewer main to the existing 750mm trunk will be made at proposed road right-of-ways. It is estimated that 250mm and 300mm pipe sizes will adequately service the site. The parcel east of Centre Street will tie as a service connection to the existing available sewers in Centre Street.

# 10.3 Stormwater Management

The site is currently serviced with a major 2400mm X 1800mm concrete storm duct running through the middle within a 50 foot (15.24m) utility right-of-way (URW). This utility is considered a major constraint to the site and will not be re-located. The development plans are to locate the main spine road (public road r/w) through the site over top of this storm sewer and incorporate it as a utility within a road right-of-way. Other significant storm sewer pipes drain through the site within various URW. These URW and storm utilities will be retained and the various private sites will be designed to accommodate these utilities.



# Figure 42: Municipal Servicing



The City of Calgary, Water Resources has published their *Interim Stormwater Management Guidelines*. These guidelines are highly restrictive in terms of flow rate, annual volume release, and water quality. Much of the site runoff will be run through low impact development facilities, smaller storm sewers, and ending with an oil / grit separators prior to discharging back into the existing system. We currently anticipate tying into the existing storm trunk at two or three locations. The parcel east of Centre Street will be serviced separately as a service connection directly to Centre Street.

# 10.4 Water

Water service is currently available all around the site. The development plan is to connect to existing water services coinciding with the proposed road connections. Service is available at 44 Avenue and 4 Street NW, Centre St N, and within 40 Avenue NW. A 250mm water line will be extended easterly from 44 Avenue and 4 Street NW into the site to connect to the spine road, and be extended north and easterly to Centre Street. A 200mm water line will be extended south to connect into 40 Avenue. Hydrants will be spaced based on multi-dwelling residential coverage requirements. The site east of Centre Street will tie to the existing watermain in Centre Street.

# 10.5 Shallow Utilities

The development plan is to service the majority of the site from the adjacent development. Three phase power will be required for elevators and air conditions on some of the sites, which will be extended from existing systems. The developer will engage and consult with the various shallow utility providers to determine the layout and needs of the site.

# 10.6 Waste and Recycling

All of the proposed land uses will require subsequent approvals after the land use is redesignated. These approvals include development and building permit applications. Waste and Recycling within each of the individual private sites will be subject to the requirements of these future applications.



# 10.7 Emergency Services

All of the proposed land uses will require subsequent approvals after the land use is re-designated. These approvals include development and building permit applications. Emergency Services within each of the individual private sites will be subject to the requirements of these future applications. All public roads within the development are to be designed to The City of Calgary standards, which already include emergency services access design elements.

# 10.8 Snow Storage

All of the proposed land uses will require subsequent approvals after the land use is redesignated. These approvals include development and building permit applications. Snow Storage within each of the individual private sites will be subject to the requirements of these future applications.





# Growth 11.0 Management

# 11.1 Transportation

There are no regional off-site improvements anticipated that would be required for full build-out of the site.

## ROUNDABOUT AT 40 AVENUE NW AND HIGHLAND DRIVE NW

A roundabout is being proposed as the recommended intersection treatment at 40 Avenue NW. The roundabout will be designed to minimize traffic disruptions during construction. The roundabout will be constructed by Maple Projects Inc. in association with Phase 3 of the development.

All internal roads will be at the expense of the developer.

# 11.2 Utility Servicing

The development does not anticipate any City costs related to storm, sanitary or water servicing.

### **STORM SEWER**

The regional storm trunk is located within the site. The policies and restrictions imposed on new development by The City of Calgary, Water Resources limits the inflows to a zero net increase. The capacity of the storm trunk will not be affected.

### SANITARY SEWER

The regional sanitary trunk is located within the site. Capacity constraints have not been identified at this time, and no upgrades are anticipated.

### WATER

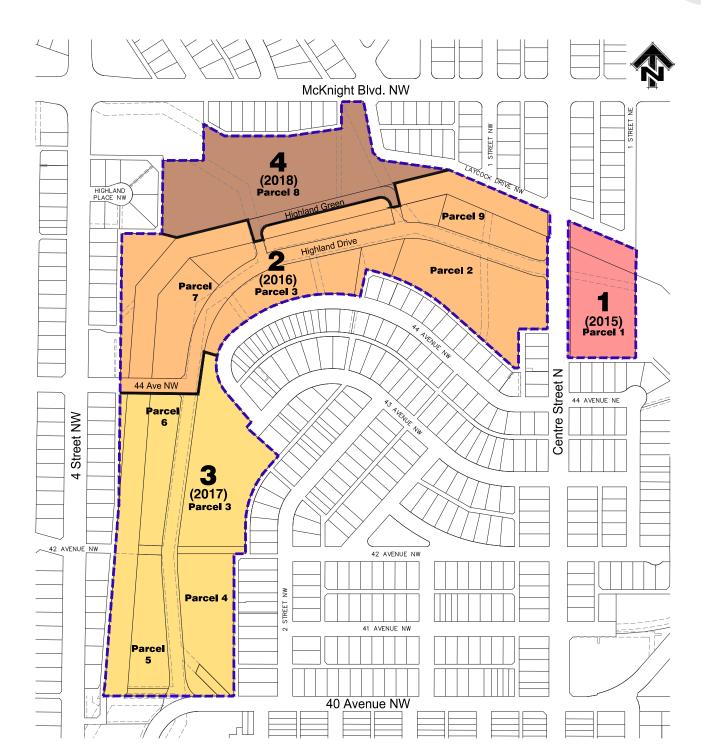
Capacities related to water service to the site is governed by the anticipated fire flow requirements. Pipes will be installed to accommodate this, and connect to the surrounding water system. No upgrades are anticipated.

# Plan 12.0 Implementation

## **12.1 DEVELOPMENT PHASING STRATEGY**

Maple Projects Inc. is planning four phases within the Highland Village Green neighbourhood over the next several years. The phasing of the Outline Plan Area will commence on the parcel east of Centre Street North and then proceed on the west side of Centre Street. Development will proceed southward towards 40 Avenue NW as illustrated in *Figure 43: Development Phasing Strategy*. The anticipated phasing scenario for development of the site is provided below:

Phase 1	Parcel 1 (east of Centre Street N), starting in 2015;
Phase 2	Parcels 2, portion of 3, 7, and 9, starting in 2016;
Phase 3	Parcels 3, 4, 5 and 6, starting in 2017; and
Phase 4	Parcel 8, starting in 2018.



Phase 1

Phase 2

# Figure 43: Development Phasing Strategy

Legend

- - - Outline Plan Boundary

(2016) Year to Begin

Phasing Boundary

Phase 3

Phase 4



# Outline Plan & Land Use Redesignation



OUTLINE PLAN & LAND USE REDESIGNATION SUPPORTING INFORMATION

December 2014