

FOOTHILLS + M^cMAHON

CONCEPT PLAN

SEPTEMBER 2021



UNIVERSITY OF
CALGARY

b&a



FOOTHILLS + M^cMAHON

CONCEPT PLAN

Overview

The City of Calgary, in partnership with the University of Calgary, created a Concept Plan for the City-owned Foothills Athletic Park and University-owned McMahon Stadium lands. The Plan provides a road map for the future development of the site that reflects the needs of its users and the community.



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F+M

FOOTHILLS
+ M^cMAHON
CONCEPT PLAN

Concept Plan
Summary

Project Mission

As a centrally located, transit-adjacent site of regional and local importance, this project is about creating a well-conceived plan that can fully realize this site's future potential. It is about capturing the ideas of many stakeholders through a collaborative process to better coordinate future investment while addressing existing aging infrastructure.



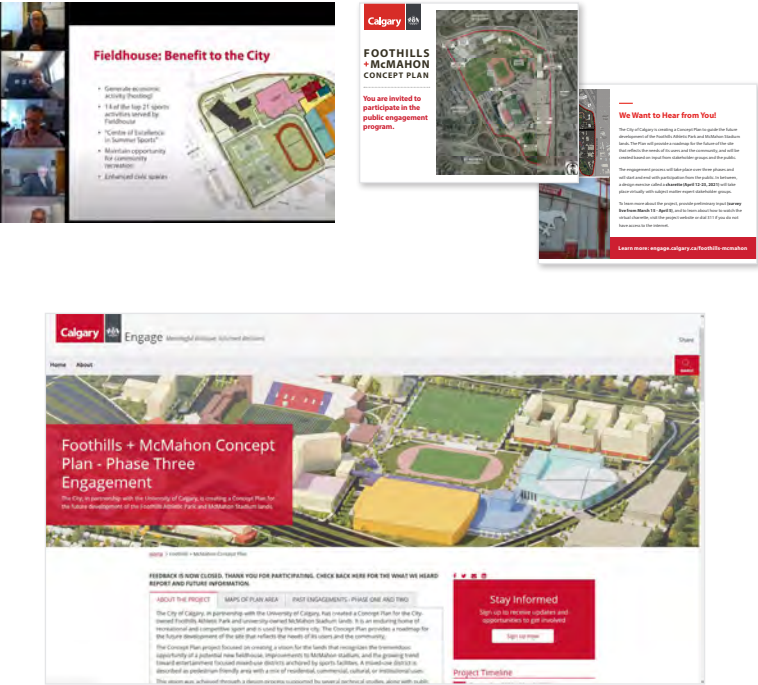
Plan Area

The Foothills + McMahon Plan Area is highly visible, occupying approximately 93 acres in Calgary's northwest, and is located along two of the city's most significant transportation corridors, Crowchild Trail and the TransCanada highway, and higher order transit networks. It currently plays an important role as a sports, recreation and cultural hub in close proximity to the University of Calgary, and major employment centres.

	ADDRESS 2915 24 Ave. NW, 2825 24 Ave. NW, 2424 University Drive NW, and 1817 Crowchild Trail NW
	SITE SIZE 93 acres (37.64 hectares)
	COMMUNITY University of Calgary (Ward 7)
	OWNERSHIP City of Calgary and University of Calgary
	CURRENT USE Foothills Athletic Park and McMahon Stadium (Special Purpose - Recreation District)



Comprehensive Engagement



The redevelopment vision was created based on input from public and stakeholder groups. The engagement process took place over three phases:



Phase One EXPLORE

Public engagement is focused on identifying how the site is used today and opportunities to enhance it through the Concept Plan process. Stakeholders and members of the public were asked to respond to an online survey of pre-charrette engagement questions that helped the project team better understand how the site is used.



Phase Two CREATE

A virtual charrette process was held over two weeks and included presentations from the Core Design Team and focused topic sessions. The charrette involved multiple engagement sessions with a broad range of stakeholder groups to provide input into creative design solutions for the project. Members of the public were invited to tune into charrette sessions to listen and learn and could also go back and review previous sessions through the project web page.



Phase Three SHARE








Following the charrette, a near final design concept was shared publicly. Public input was collected through an online survey on the draft design concept before it is finalized and moved to Council.

A New Vision for Foothills + McMahon

Located at the crossroads of the University of Calgary, The TransCanada Highway, Crowchild Trail, and Calgary’s Banff Trail Red-Line Station, Foothills+McMahon is well positioned for redevelopment into a dynamic, four-season mixed-use recreation and entertainment village anchored by two major sports venues.

Foothills+McMahon is a critical economic development opportunity showcasing best practices in transit-oriented development, multi-use stadium and recreation redevelopment, mixed use centers, and walkable, multi-modal city building.

Guiding Principles

	Minimize Wasted Space
	Shift auto-oriented focus to urban centre that maximizes walking, biking and transit
	Develop porous blocks that connect to the existing urban fabric
	Improve transit connections through placemaking
	Create a year-round sports, recreation and entertainment village
	Establish a flexible and implementable vision
	Enable strategic phasing

Concept Plan



86 acres of developable area



~2,500 units



~5,500 people



~245 hotel rooms



Density of 1.3 FAR



280,000 ft² of commercial, entertainment, and retail



25% open space



FOOTHILLS + MCMAHON CONCEPT PLAN

- 1 Multi-sport Fieldhouse
- 2 Entertainment Plaza + Stadium Front Door
- 3 Crowchild Trail, Reimagined
- 4 Enhancing Connections to the University of Calgary
- 5 Central Green Space
- 6 Activating University Drive with Mixed Use Infill
- 7 Multi-functional Internal Street Network



Multi-sport Fieldhouse

The year round Multi-sport Fieldhouse is the catalyst for redevelopment and a key element to realize this concept plan.



Entertainment Plaza + Stadium Front Door

Serves as the heart of the Concept Plan and establishes a gathering place for year-round activities, activating game-day and major events.



Crowchild Trail, Reimagined

An opportunity to reimagine Crowchild Trail between 24 Avenue and 16 Avenue NW as an Urban Boulevard and enhance the connection to the Banff Trail LRT station.



Enhancing Connections to the University of Calgary

A prominent north gateway that Improves pedestrian, transit and cycling connections to the University of Calgary and regional network.



Central Green Space

A "green finger" into the site which includes three outdoor sports fields that can be arranged and programmed to support a variety of informal and formal sports and recreation activities throughout the four seasons..



Activating University Drive with Mixed-Use Infill

Opportunities to integrate a mix of uses through redevelopment parcels that complement a "Sports Village" and future regional recreation facilities.



Multi-functional Internal Street Network

The inclusion of woonerf streets reduce the focus on the automobile and encourage walking and cycling. The shared streets can be programmed to accommodate activities such as tailgating.



An aerial photograph of a city, likely San Francisco, with a red overlay. The image shows a dense urban area with many buildings, streets, and green spaces. A large white rectangle is positioned in the top right corner, containing the number '1.0'.

1.0

**FOOTHILLS
+ M^cMAHON**
CONCEPT PLAN

**Purpose +
Approach**

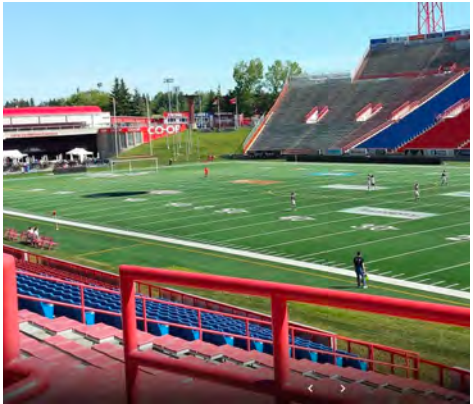
1.0

Purpose + Approach

1.1 Purpose of the Project

A highly visible, and well-positioned site within the city of Calgary, the Foothills Athletic Park and McMahon Lands (Foothills + McMahon) have been a major sport and recreation destination for more than 50 years. Although the site contains some of the city’s most popular athletic facilities, it has significant unrealized potential to be a more dynamic, year-round centre of activity that responds to the growing trend toward more urban, connected, walkable, and mixed-use places. The mix of recreational uses, entertainment venues, housing, accommodations, public space, post-secondary educational facilities, and transit-proximity make this a unique city-building opportunity for Calgary. The recent prioritization for a new Fieldhouse on these lands has urged City Council to pursue a more comprehensive community visioning and Concept Plan process that positions this investment within the context of other redevelopment opportunities on the site.

The Purpose of this report is to rationalize a new vision and Concept Plan for Foothills + McMahon that will inform future redevelopment plans. The report provides an overview of the existing conditions and background information, which has been supported by a robust public engagement program and design charrette process, to establish a conceptual planning framework for future redevelopment.



1.2 Mission

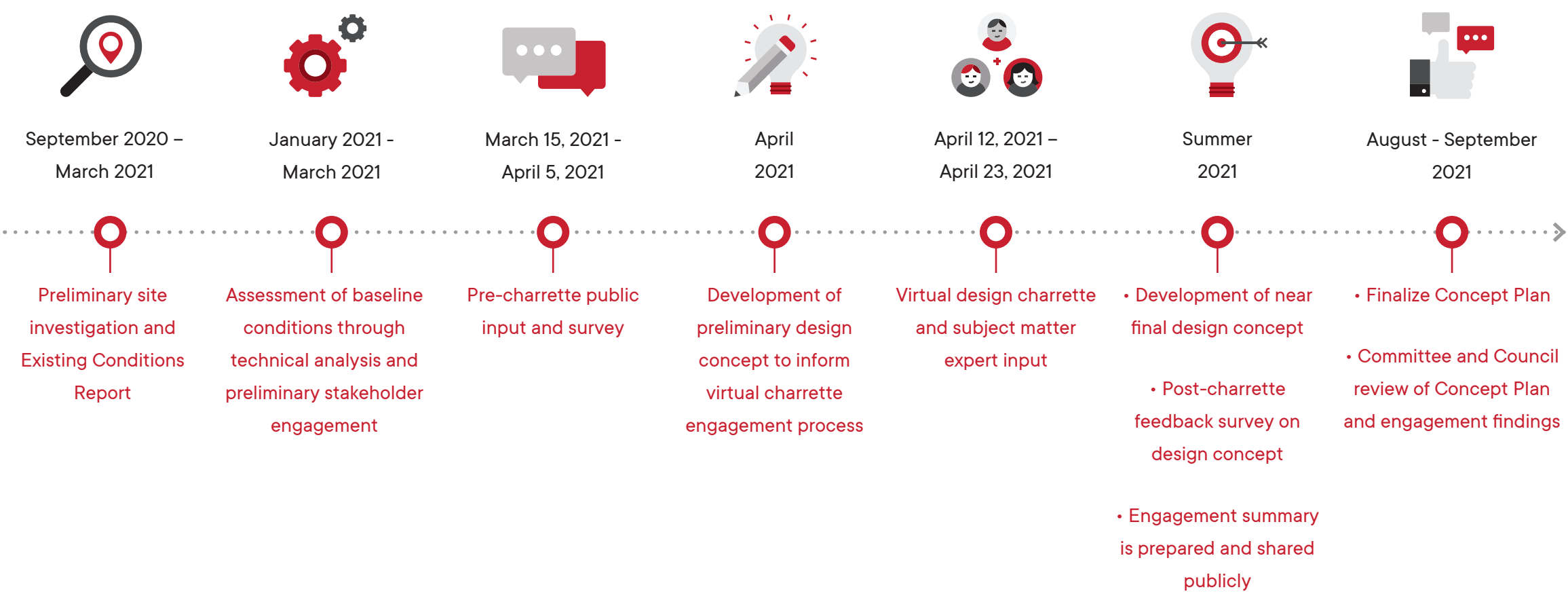
As a centrally located, transit-adjacent site of regional and local importance, this project is about creating a well-conceived plan that can fully realize this site’s future potential. It is about capturing the ideas of many stakeholders through a collaborative process to better coordinate future investment while addressing existing aging infrastructure.

What is a concept plan?

A concept plan guides and sets the stage for future planning, zoning and development activities at a particular site. It does not define the design of individual amenities, nor provide a budget or timeline for construction.



1.3 Process



1.4 Primary Stakeholders

Primary stakeholders are represented by the Foothills Athletic Park Redevelopment Advisory Committee (FAPRAC). FAPRAC is comprised of representatives from The City, including Councillors and Calgary Recreation; the University of Calgary; the McMahon Stadium Society; Sport Calgary, and Calgary Municipal Land Corporation (CMLC).

The Final Concept Plan includes the feedback and perspectives of each primary stakeholder in combination with feedback provided by additional stakeholders, community associations and the public.



FOOTHILLS ATHLETIC PARK REDEVELOPMENT ADVISORY COMMITTEE (FAPRAC)

Reporting directly to Council, the Foothills Athletic Park Redevelopment Advisory Committee (FAPRAC) was established on January 28, 2019 with a mandate to assess the redevelopment potential of the City of Calgary and University of Calgary owned lands located at Foothills Athletic Park and McMahon Stadium and report back to Council. FAPRAC will also pursue new and various options for a funding framework and partnership opportunities, to advance a Multi-sport Fieldhouse to ensure the redevelopment meets the needs of the City of Calgary.

The specific responsibilities of FAPRAC include:

- Creating a community vision and plan for the long term redevelopment of the Foothills Athletic Park and McMahon Stadium that connects and leverages existing and future infrastructure.
- Reviewing existing policy documents, infrastructure impacts and ownership/lease arrangements.
- Conducting an analysis to identify strengths, weaknesses, opportunities and threats that exist with the site and project.
- Identifying, engaging and working with key internal and external stakeholders.
- Pursuing new and various financial options for developing a funding framework with potential funding partnerships.





2.0

FOOTHILLS
+ M^cMAHON
CONCEPT PLAN

The Site

2.0

The Site

2.1 Site Overview

The Foothills + McMahon Plan Area is highly visible, occupying approximately 93 acres in Calgary's northwest, and is located along two of the city's most significant transportation corridors, Crowchild Trail and the TransCanada highway, and higher order transit networks. It currently plays an important role as a sports, recreation and cultural hub in close proximity to the University of Calgary, and major employment centres.



ADDRESS

2915 24 Ave. NW, 2825 24 Ave. NW, 2424 University Drive NW, and 1817 Crowchild Trail NW



SITE SIZE

93 acres (37.64 hectares)



COMMUNITY

University of Calgary (Ward 7)



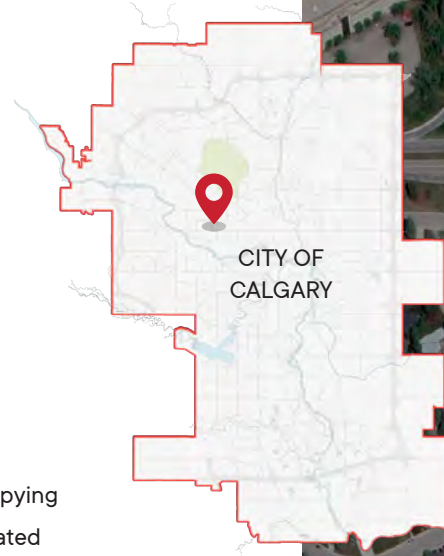
OWNERSHIP

City of Calgary and University of Calgary



CURRENT USE

Foothills Athletic Park and McMahon Stadium (Special Purpose - Recreation District)



CITY OF CALGARY

EXISTING FOOTHILLS + MCMAHON SITE

UNIVERSITY OF CALGARY

24 Avenue NW

FOOTHILLS AQUATIC CENTRE

VOLLEYDOME

LITTLE LEAGUE BASEBALL STADIUM

TENNIS COURTS

NORMA BUSH MEMORIAL AREA

FATHER DAVID BAUER OLYMPIC ARENA

SOCCER FIELDS & TRACK

FOOTHILLS BASEBALL STADIUM

VIPER'S DOME

ABSOLUTE BASEBALL ACADEMY & FITNESS

RED & WHITE CLUB

UNIVERSITY HEIGHTS

University Drive NW

MCMAHON STADIUM

ADMINISTRATION OFFICE

BANFF TRAIL

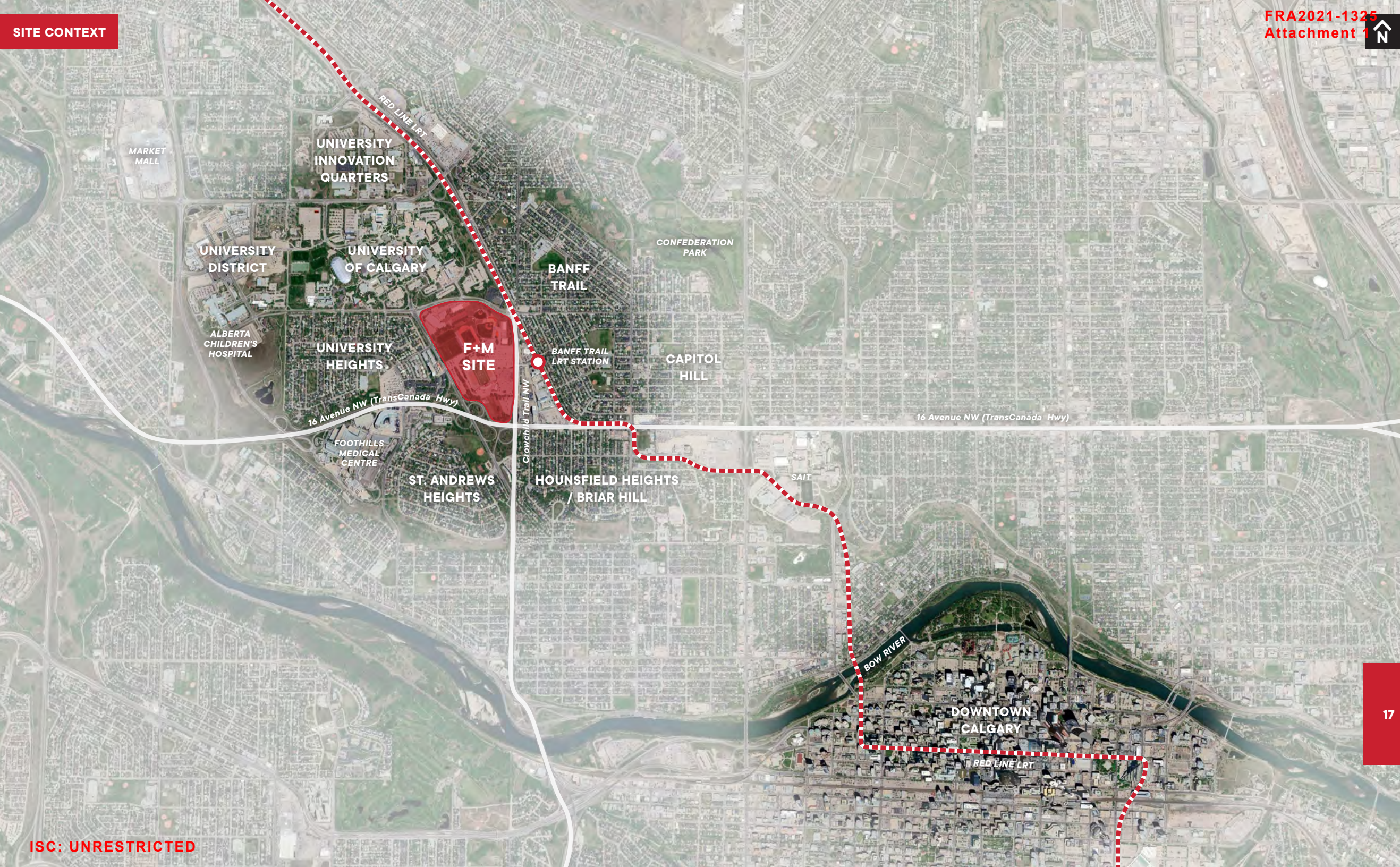
Crowchild Trail NW

16 Avenue NW (TransCanada Highway)

ST. ANDREWS HEIGHTS

GRIDIRON GARDENS SOUTH PRACTICE FIELD







2.2 Site History

The Foothills + McMahon site involves a shared history, one which has been celebrated around sport, recreation and culture for many people.

FOOTHILLS ATHLETIC PARK

Foothills Athletic Park and the facilities contained within date back to the 1960s, providing Calgarians with numerous opportunities to become involved in sports, both as participants and fans. Multiple sports teams have called the Park home, including the University of Calgary Dinos and the Calgary Cannons. The first concepts for a fieldhouse in Calgary date back over 50 years. In 1967, the Amateur Sports Council prepared an Indoor Amateur Sports Centre Feasibility Study. Over the decades, several other studies and concepts were proposed by various sport groups and organizations, however plans were deemed not feasible at the time or were put on hold.

MCMAHON STADIUM

Home of the Calgary Stampeders Football Team and the University of Calgary Dinos. McMahon Stadium was built in an astounding 103 days in 1960, replacing the dilapidated Mewata Stadium. The first game at McMahon Stadium would be played on August 15, 1960, as the Stampeders dropped a 38–23 decision to Winnipeg. The Stampeder's first victory in their new home came on August 29, 1960 as the Stamps knocked off the Saskatchewan Roughriders 23–15. McMahon Stadium also served as the site for the Opening Ceremonies for the 1988 Winter Olympics. McMahon Stadium is owned by the University of Calgary and operated by McMahon Stadium Society.

2.3 Redevelopment History

This is the first time a comprehensive concept plan combining both the Foothills Athletic Park and McMahon Lands has been completed. Individual planning efforts have occurred on each of the respective parcels, with specific facilities added over time. In January 2019, Council established the Foothills Athletic Park Redevelopment Advisory Committee to create a community vision and plan for the long-term redevelopment of the site, and The City has prioritized building a fieldhouse on the site. As such, a major multi-sport athletic facility will redefine how the site is used and the need to integrate planning for each of the parcels.

In 2019, City Council endorsed a workplan and approved \$19.8 million in start-up funding to move forward with programming, planning and design. The funding will deliver a public-private partnership review, a public engagement program, area master plan and the detailed multi-sport fieldhouse design. The Foothills Athletic Park and Fieldhouse have been extensively studied over the past decade, from several different and emerging perspectives. Whether the impetus has been community recreation, competitive athletics, new proposals, or major international events, all analyses have concluded that Foothills Athletic Park is the right location and that the Foothills Fieldhouse, as envisioned to date, would benefit Calgarians. The following timeline highlights the past initiatives that will inform the Foothills + McMahon Concept Plan.

TIMELINE OF PLANNING INITIATIVES



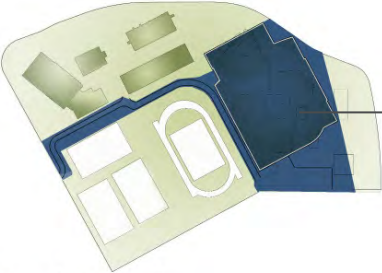
2.4 The Fieldhouse

The genesis of this recreation venue was the desire for a multi-use indoor practice and play facility capable of hosting a variety of field sports in a flexible indoor clear span space. The facility is sized to accommodate a 400m track and accommodate up to 10,000 spectators for national and international events. Additionally, it will include a full complement of community and recreation components that serve the local and regional communities. Previous studies clearly indicated a significant community demand for indoor practice and play field space (thus the term “fieldhouse”) and gymnasiums. The identified demand for the full complement of recreation amenities typical of a regional recreation centre became the larger justification for the Foothills facility, while the construction of a large flexible indoor clear span space capable of hosting national and international tournaments and competitions for multiple sports would provide an exceptional venue found nowhere else in Canada

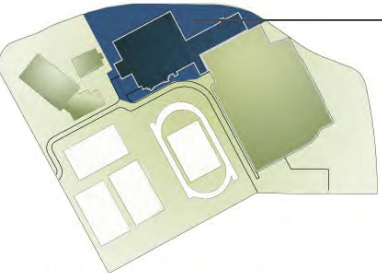
The proposed redevelopment at Foothills Athletic Park is much more than the typical regional recreation centre. This facility is planned to accommodate a broad variety of outdoor field sports as part of complex of competition capable facilities integrated within a regional recreation centre, including a multi-lane pool in the natatorium, multiple gymnasia, and IIHF and NHL ice sheets. As the Fieldhouse design progresses, the Foothills + McMahon Concept is an opportunity to identify potential improvements to the public realm and reconsider how the site integrates with the greater community.



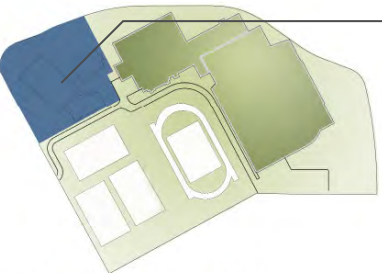
POTENTIAL FIELDHOUSE PHASING



Phase 1 - Proposed



Phase 2 - Future Construction



Phase 3 - Future Decommission

New Fieldhouse
and access

New Aquatics Centre
and Ice Facilities

Future Development
Consideration of
Father David Bauer
Centre



2.5 Planning + Policy Context

Future development of the Concept Plan area must occur within the context of Calgary’s statutory and non-statutory plans. As such, the Calgary Municipal Development Plan (MDP), South Shaganappi Communities Plan, and TOD Guidelines, direct future development. In addition to City plans, the University of Calgary’s Long Range Development Plan, governed by the Post Secondary Learning Act, will impact development on the University-owned lands. In the context of city-wide policy, Administration deems Foothills + McMahon to align with the 2019–2022 Service Plans and Budgets in the following ways.

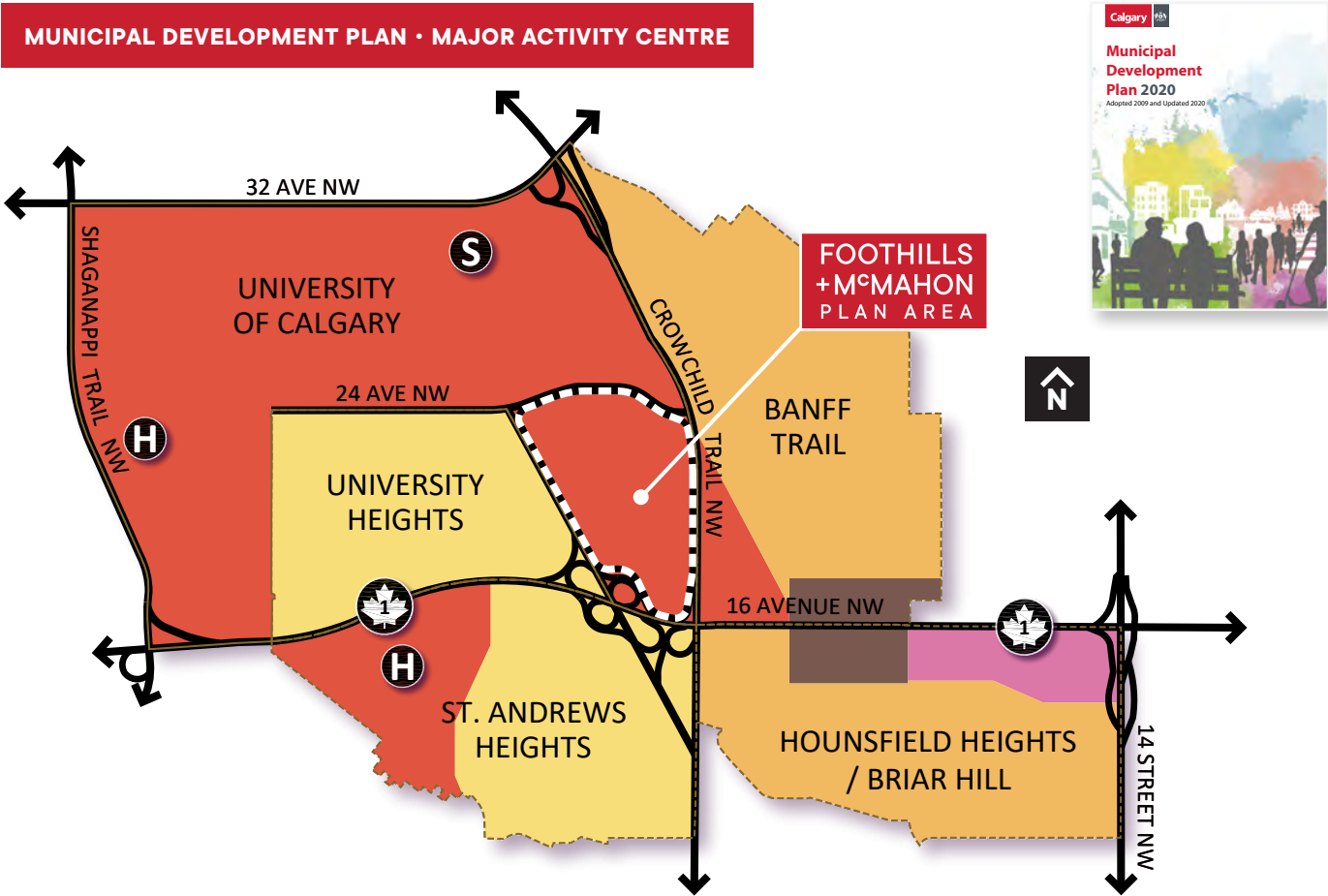
- ✓ **A city of safe and inspiring neighbourhoods.** This area would become a community hub that leverages existing partnerships and City facilities. It would also contribute to the economic, social and cultural needs of communities and integrate facilities.
- ✓ **A healthy and green city.** The fieldhouse and redevelopment program would provide recreation opportunities that are accessible, affordable and inclusive. It would create public spaces that connect people.
- ✓ **A well-run city.** The fieldhouse and redevelopment program would intentionally invest in infrastructure and assets that support our service delivery and contribute to the quality of life for Calgarians.

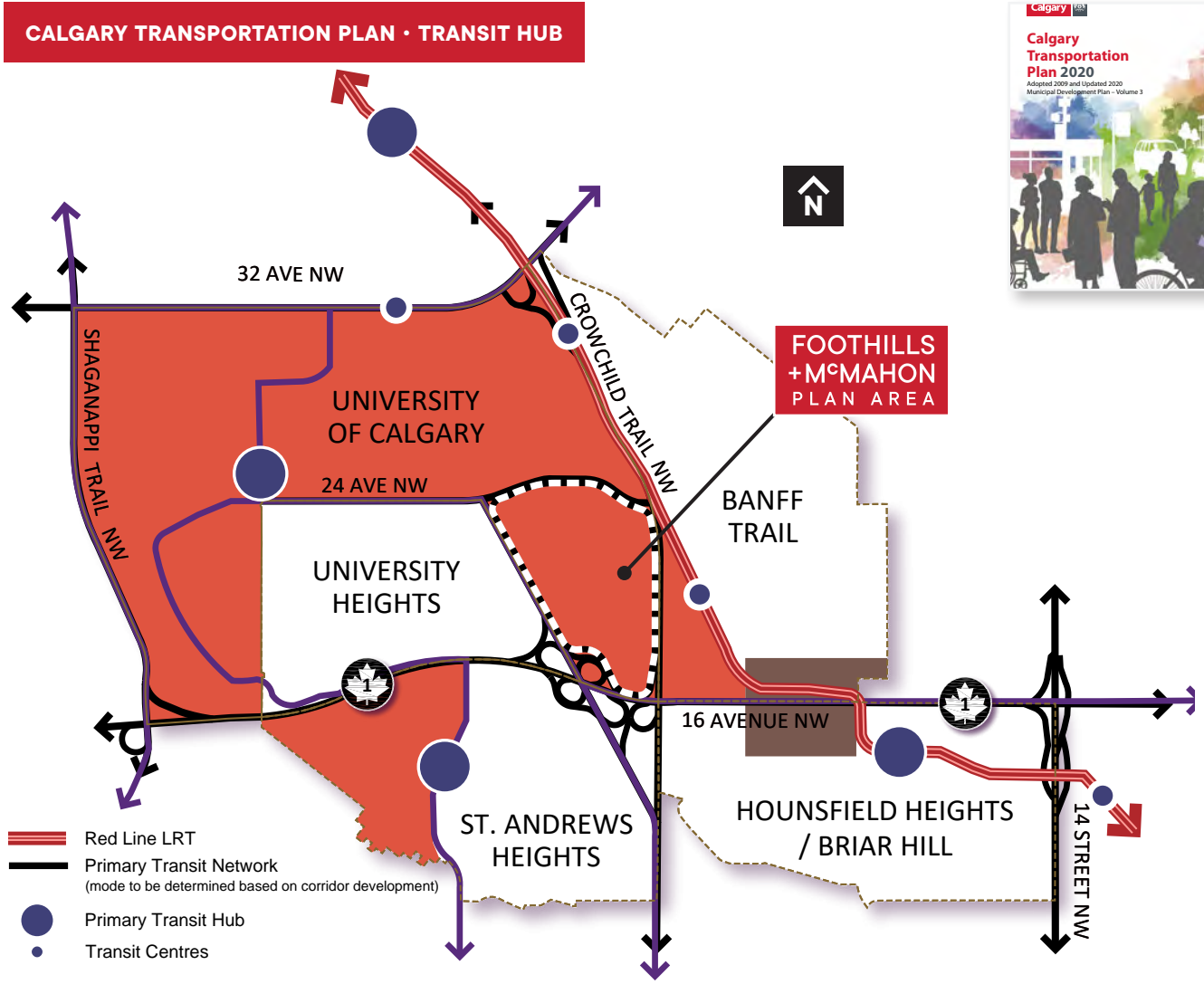
2.5.1 SITE SPECIFIC POLICY

MUNICIPAL DEVELOPMENT PLAN

The MDP designates the subject site as a Major Activity Centre, meaning it should be an area of major mixed-use destination central to larger residential or business catchment areas, located along a Primary Transit Network, containing transit stops. The Plan Area is central to a large residential area, planned TOD (Banff Trail), employment generator and major institution, being the University of Calgary.

The Major Activity Centre designation supports redevelopment of the Plan Area to accommodate a broad mix of uses at varying densities and building heights.





CALGARY TRANSPORTATION PLAN

The Plan Area is exceptionally located from a transit and vehicular perspective, benefiting from its proximity to the Primary Transit Network (Red Line LRT), Transit Centres, and the skeletal road network. Calgary Transportation Plan (CTP) policies support redevelopment in an effort to provide a range of sustainable and safe transportation options for Calgarians.

The Foothills + McMahon Concept Plan provides opportunities to enhance walking and cycling options within the Plan Area to further align with the CTP.



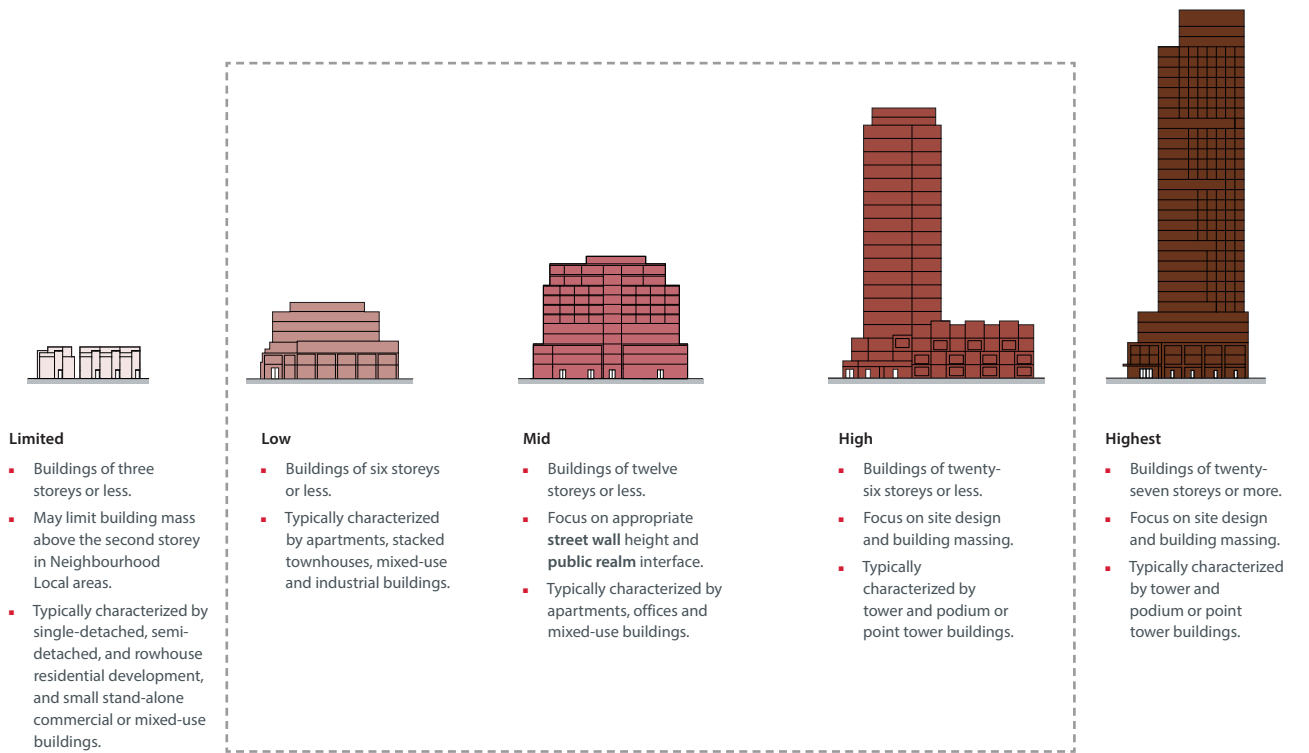
THE GUIDE FOR LOCAL AREA PLANNING

The Guide For Local Area Planning ("The Guide") directs how Calgary will evolve and change to achieve great communities. It applies to local plan areas, therefore does not directly apply, at this time, to the Plan Area. The Guide, however, offers a good reference for redevelopment planning in the city, specifically offering insights into urban form and the appropriate range of built form typologies at varying scales.



The figure to the right identifies the classification system, which has five building scale modifiers that form the basis for future land use bylaw districts. In determining the appropriate scale of development for this site it is appropriate to take the existing policy direction, while understanding the opportunity to realize the Plan Area's full potential. As the MDP and South Shaganappi Area Plan identify, the site is appropriate for intensification that may include a variety of scales. The Plan Area's significant locational advantages make it more appropriate for a higher scale of development.

GUIDE FOR LOCAL AREA PLANNING • RANGE OF FORM AND SCALE





SOUTH SHAGANAPPI
COMMUNITIES AREA PLAN

The Plan Area is within the South Shaganappi Communities Area Plan (SSCAP). This Plan includes a number of statutory plans within it and identifies the Plan Area as Policy SS6: McMahon Stadium Major Activity Centre.

The SSCAP generally supports redevelopment proposals for the site, referring to the potential mixed-use redevelopment as a **“Sports Village,”** identifying significant opportunity to improve connectivity with transit and the surrounding communities.



SSCAP POLICY SS6



- Subject lands
- Plan area
- Red line LRT
- Policy SS6 - McMahon Stadium
- Major Activity Centre
- Established residential area
- Inner city residential
- Parks and open space

SOUTH SHAGANAPPI COMMUNITIES AREA PLAN





Transit-Oriented Development
Implementation Strategy

TRANSIT-ORIENTED DEVELOPMENT (TOD) IMPLEMENTATION STRATEGY

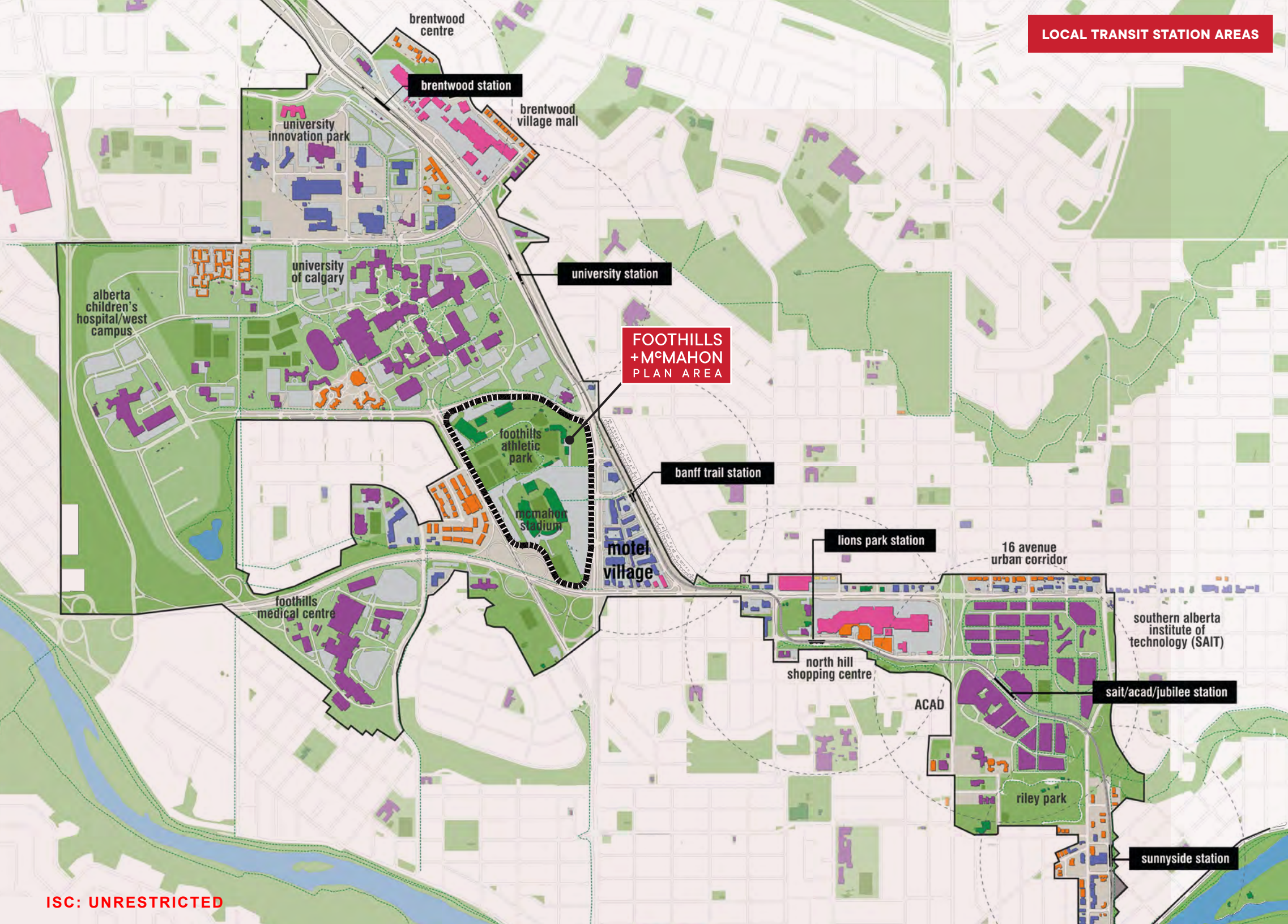
Foothills + McMahon is a prime candidate for future TOD focused planning and investment based on the location and underutilized characteristics associated with a typical greyfield site. The City has approved several TOD policies and guidelines that have been incorporated in local area plans. The City, however, has not been as proactive in support of cultivating market interest in TOD and creating a predictable system of providing capital improvements. In this specific case, The City has a significant opportunity to redevelop land to enhance mobility and housing options for residents, broaden the range of services and amenities available in communities, contribute to the unique character of the neighbourhood and drive economic activity.

A significant portion of the Concept Plan Area falls within 600 metres of the Banff Trail LRT Station, with the northern portion within 600 metres of the University LRT Station. Working with Administration, there may be opportunities to further align TOD investment and planning as the Concept Plan Area redevelops, specifically to improve connections to the Banff Trail Station.

OPPORTUNITIES FOR TRANSIT-ORIENTED DEVELOPMENT

- **Focus on placemaking** – development around transit stations can contribute to placemaking across the city through unique design elements including scale, mix of uses and public art.
- **Understand the needs of communities** – the process of planning TOD in communities can give The City and developers a better understanding of what is important to residents and businesses experiencing growth and change.
- **Ensure equitable development around transit stations** – by providing a range of housing choices (including affordable housing), commercial space for small businesses and ensuring a mix of amenities and community services, TOD can help support The City’s objectives for more equitable and inclusive communities.
- **Support environmental sustainability** – TOD is an important approach to reducing our impact on climate change by providing low-carbon mobility options. The scale and form of TOD can also serve as an opportunity for environmentally sustainable design practices related to storm water management and energy production, such as district heating and local energy production.

LOCAL TRANSIT STATION AREAS



2.6 Adjacent Policy Plans

Multiple approved plans exist near the Concept Plan Area and guide future redevelopment. The following summarizes each plan and the potential impact or influence they may have on the Plan Area.

- 1

The University of Calgary Long Range Development Plan

The University of Calgary’s Long Range Development Plan directly impacts the Concept Plan Area, by defining edge conditions along 24 Avenue NW. Along the shared interface, the plan identifies parcels for green space; academic, research and administrative uses; and a mixed use, parking and transit site. The Foothills + McMahon Concept Plan must consider this interface and create opportunities to leverage uses, while improving interconnectivity between the two areas. This may be achieved by sharing parking, enhancing active mode connections, and providing complementary uses.
- 2

Banff Trail ARP Area Redevelopment Plan (ARP)

The Banff Trail ARP designates a mix of low to medium density uses, transitioning east from the Banff Trail Station ARP area. Medium density, mid-rise forms, transition from the station areas while the majority of the Concept Plan Area exists as low density residential. The Foothills + McMahon Concept Plan will consider the impact of redevelopment to the predominantly residential nature of the area, while creating opportunities to improve connections, provide amenities and contribute to the greater community area.
- 3

Banff Trail Station Area Redevelopment Plan (“Motel Village”)

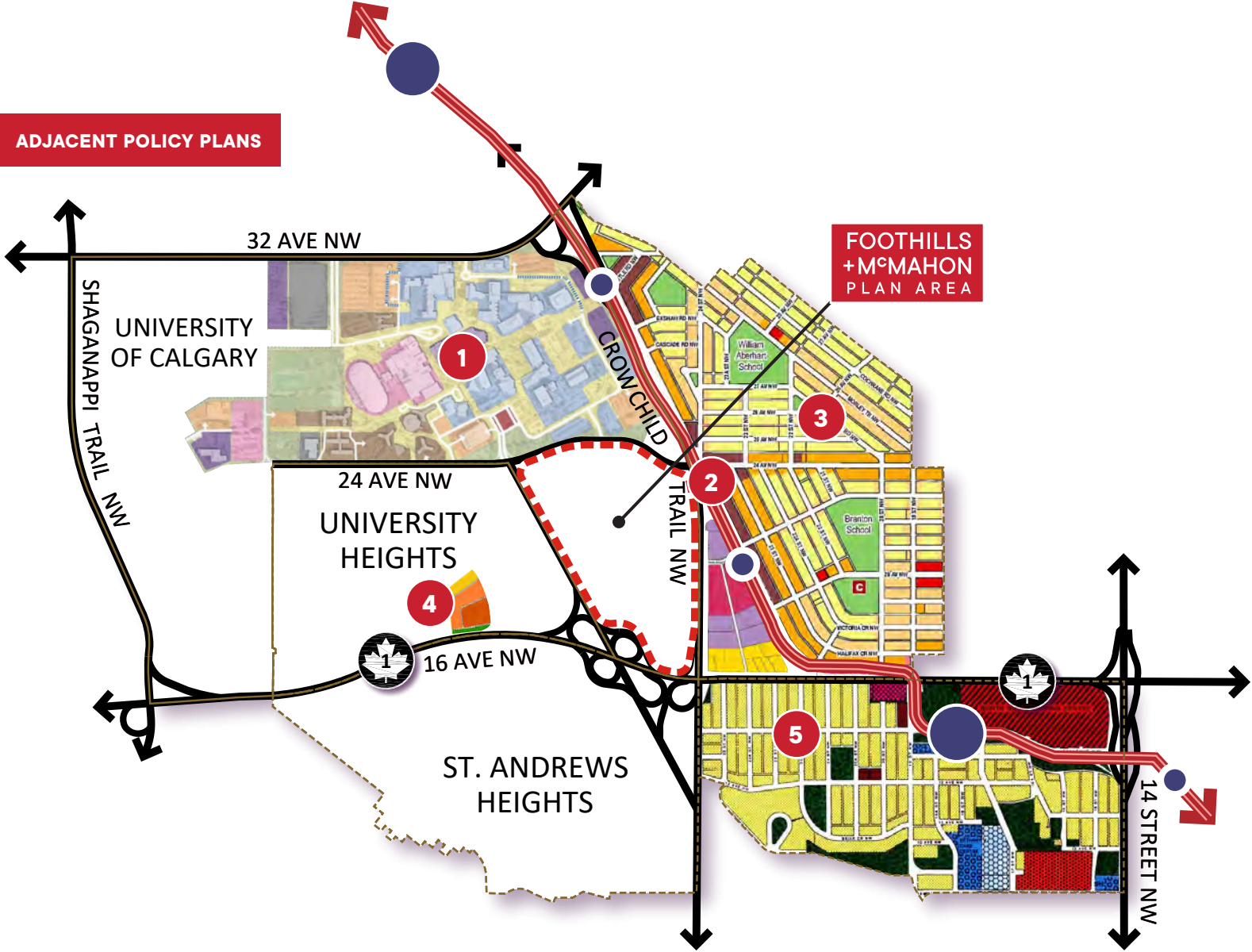
The Banff Trail Station ARP identifies most parcels for intensification through redevelopment. Significant opportunities exist to achieve the vision of a vibrant Banff Trail Station hub, while improving connections between the station and Foothills + McMahon Plan Area. The ARP designates a mix of uses at higher densities (3.0 to 6.0 FAR), supporting heights up to 90 metres. There is an opportunity for the Foothills + McMahon Concept Plan to integrate similar form and uses, while contemplating greater connectivity between the two sites.
- 4

Stadium Area Redevelopment Plan

The Stadium Shopping Centre ARP presents a redevelopment vision for lands west of the Plan Area, designating a mix of uses that support nearby institutional uses, buildings up to 46 metres, and a 3.0 FAR. Approval of this plan signals the opportunity for redevelopment in the local area and creates an additional node within the community. The Foothills + McMahon Concept Plan is an opportunity to improve connections to this site, along Unwin Road NW or Ulster Road NW, formalizing the relationship between the Banff Trail LRT Station and the Foothills Hospital.
- 5

Hounsfield Heights / Briar Hill Area Redevelopment Plan

The ARP is located southeast of the Plan Area and is a predominantly low-density residential area, with a significant regional shopping centre (North Hill Mall) located on the eastern portion. The Foothills + McMahon Concept Plan must consider the existing low density character of the plan area, and the impact redevelopment may have on the established community.



Main Campus Long Range Development Plan

- Academic, Research & Administrative
- Athletics
- Mixed Use
- Operational Support
- Mixed Use, Parking & Transit
- Residential
- Transit Centre
- Open Space
- Landscaped Area
- Field Research Land
- Athletic Fields

Banff Trail ARP

- Community Centre
- Low Density Residential
- Low Density Rowhouse
- Medium Density Low-Rise
- Medium Density Mid-Rise
- Local Commercial
- General Commercial
- Park, Community Facility or School

Banff Trail Station ARP

- Mixed Use Precinct
- Transit Hub Precinct
- Urban Corridor Precinct

Stadium ARP

- Residential
- Residential, Office/Medical Clinic
- Residential, Office/Medical Clinic, Hotel
- Open Space (>10m depth)

Hounsfield Heights / Briar Hill ARP

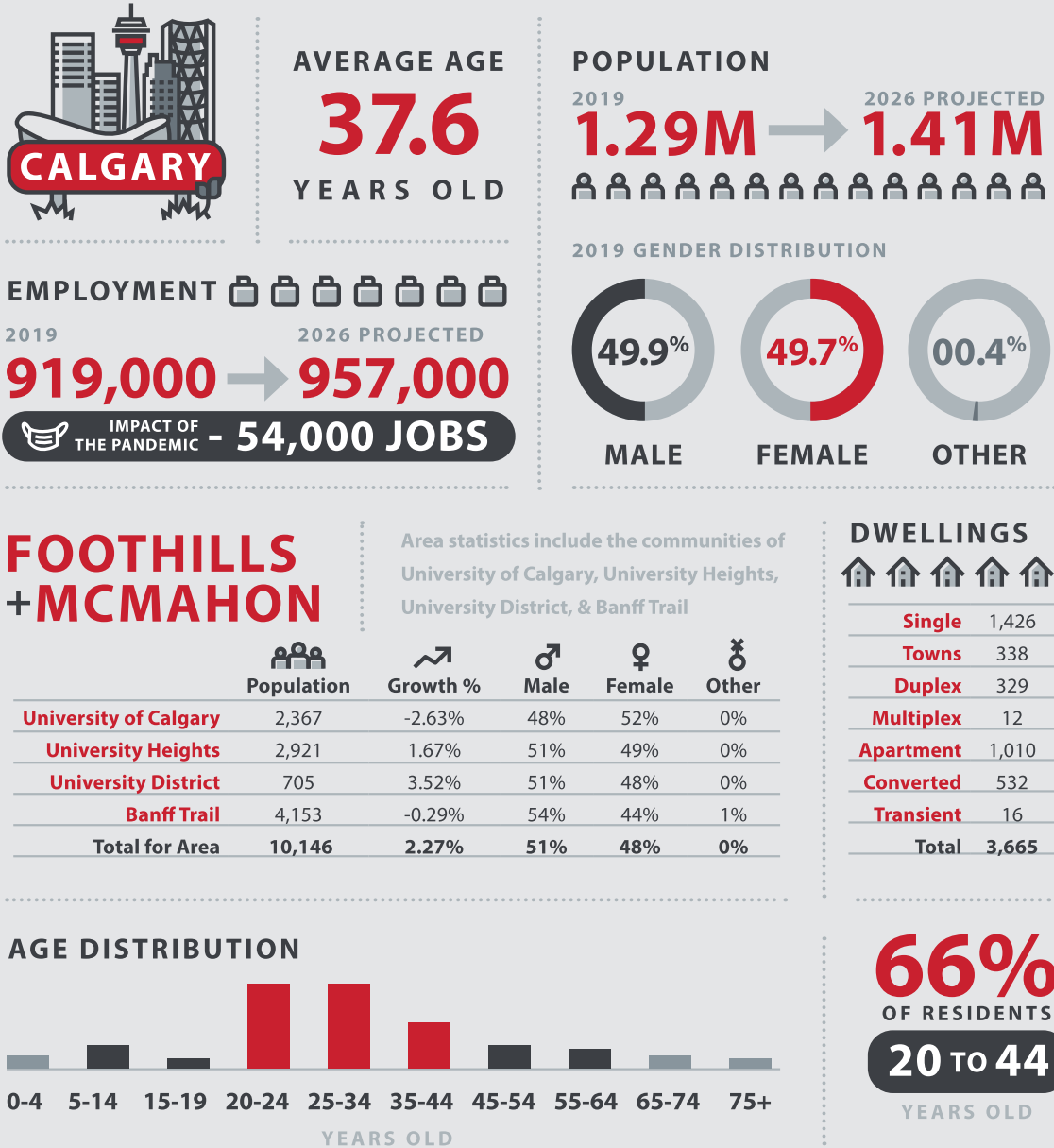
- Low Density Residential Conservation & Infill
- Low-Medium Density Multi-Dwelling Residential
- Special Development Area (Institutional and/or Residential)
- Regional Shopping Centre
- Neighbourhood Commercial
- Highway Commercial
- Institutional

2.7 Site Analysis

2.7.1 TRENDS AND DEMOGRAPHICS

The Foothills + McMahon Concept Plan Area currently plays an important role as a sports, recreation and cultural hub, occupying approximately 93 acres in the Calgary’s northwest. Strategically located along two major arterial roads and in close proximity to an LRT Station.

This section analyzes the existing conditions of the Plan Area, highlighting potential opportunities that may arise through the Concept Plan process and future redevelopment. Site analysis will be supplemented with feedback from engagement and supplementary technical studies.





UNIVERSITY DISTRICT

ALBERTA CHILDREN'S HOSPITAL

Crowchild Trail NW

UNIVERSITY OF CALGARY

24 Ave NW

BANFF TRAIL

CAPITOL HILL

UNIVERSITY HEIGHTS

FOOTHILLS + McMAHON
PLAN AREA

University Drive NW

Crowchild Trail NW

16 Avenue NW (TransCanada Hwy)

ST. ANDREWS HEIGHTS

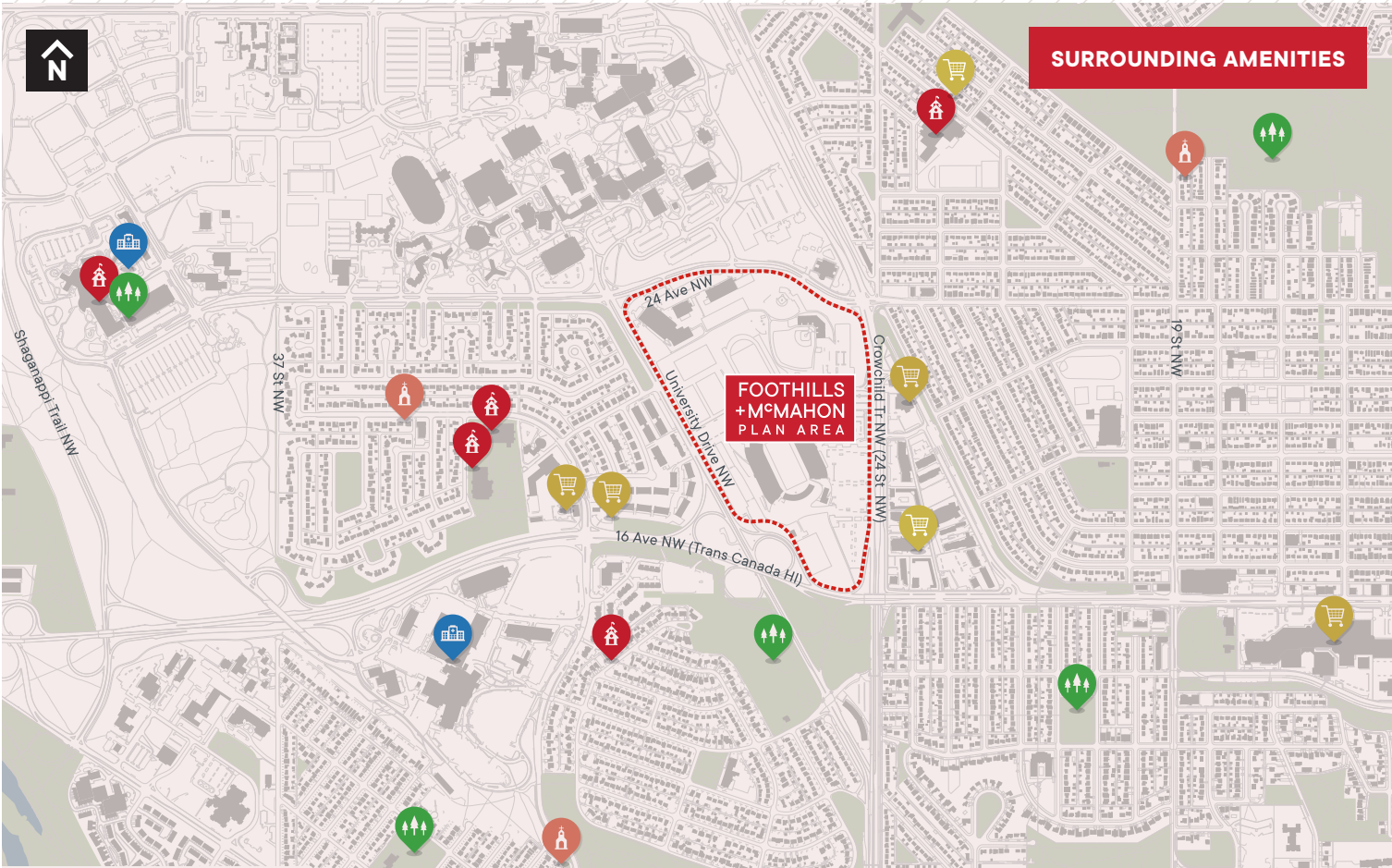
HOUNSFIELD HEIGHTS / BRIAR HILL



2.8 Existing Context

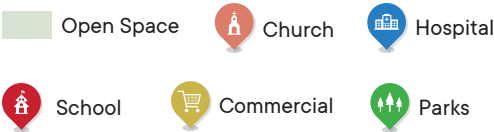
2.8.1 SURROUNDING COMMUNITIES

Banff Trail, Hounsfield Heights/Briar Hill, St. Andrews Heights, University Heights, and the University of Calgary surround the Plan Area. The greater area is represented by a mix of residential neighbourhoods and employment centres such as University Research, Foothills Hospital, and the Children's Hospital. The University District is actively developing and will supply additional population and jobs to the larger community. There is an opportunity to leverage the existing population to better integrate the site with the surrounding communities.



2.8.2 LOCAL AMENITIES

The Plan Area is well-served by amenities, services, retail and employment. In addition to the number of existing amenities nearby, there are several planned for the University District, Stadium ARP area, University and Foothills Medical Centre. There is an opportunity to provide new amenities and improve local connections to nearby areas.





2.8.3 PARKS AND OPEN SPACE

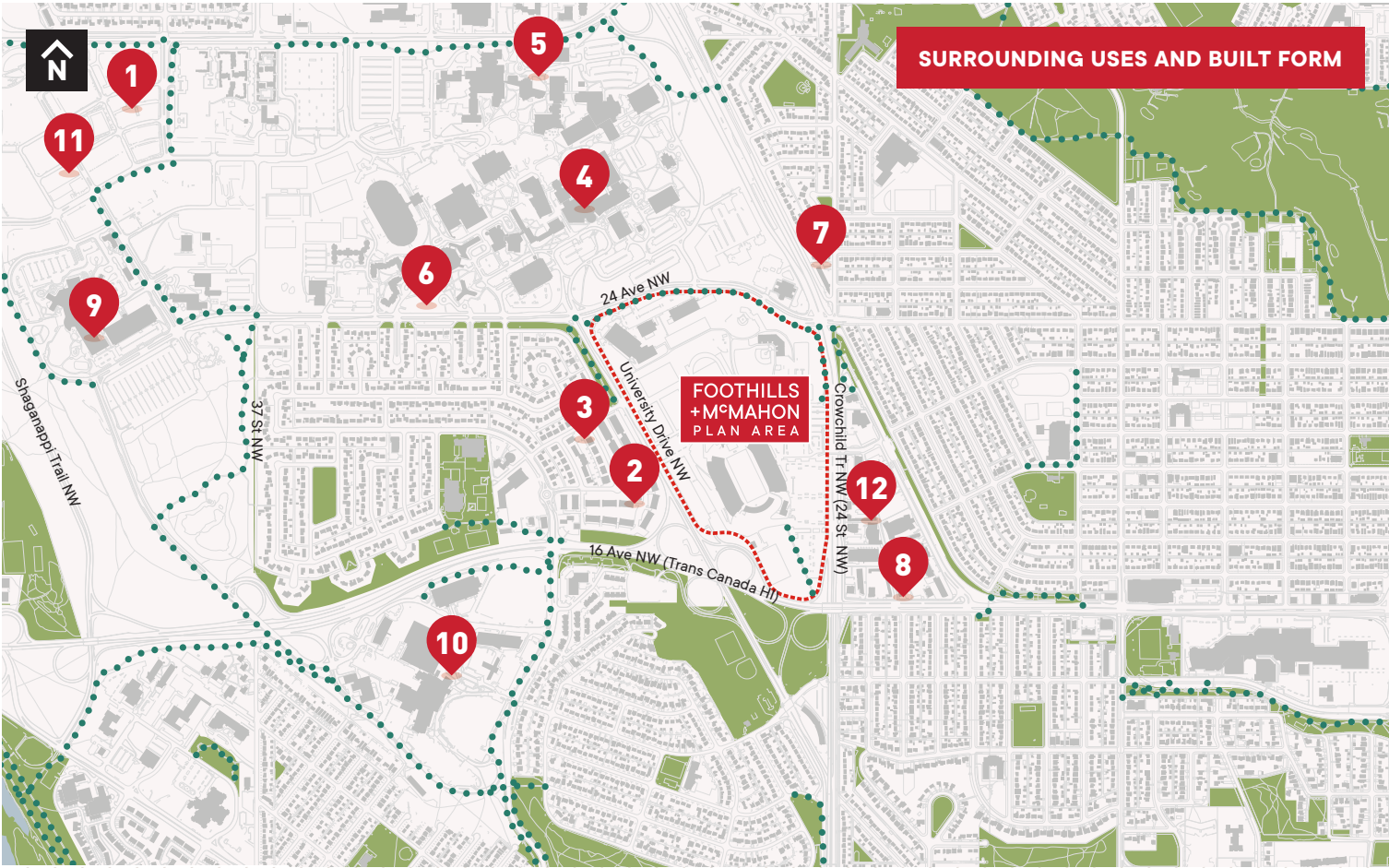
There are several open space areas located within the surrounding communities, although interconnectivity is lacking. The Plan Area itself contains large open space and recreation areas that are used by adjacent neighbours. Redevelopment must consider the role the site itself plays in the regional public parks and open space network. There is a major opportunity to improve the links between these spaces. In addition, there are planned park spaces in the University District that will add to the network.

- Subject Lands
- Existing Buildings
- Open Space
- Regional Pathway



2.8.4 REGIONAL TRANSPORTATION NETWORK

The site is well-located from a regional perspective, along two major skeletal roads being the TransCanada Highway to the south and Crowchild Trail to the east. In addition, the LRT Red Line serves the site via the Banff Trail Station. There is an opportunity to improve on active modes within the local network, providing direct connections into the regional pathway network.



2.8.4 SURROUNDING BUILT FORM

The following images highlight the mix of uses and variety of built form surrounding the Plan Area. There is a diverse mix of buildings ranging from high to low density. There is a significant opportunity to complement the areas architectural diversity and variety of uses.



3225 39 Street NW | Residential Condo



210 Ulster Rd NW | High Rise



University Heights | Single Detached



Taylor Family Digital Library



CNRL Engineering Complex



U of C | Hotel Alma



2520 Capitol Hill Crescent NW | Mid-rise



The Hub Student Housing



Alberta Children's Hospital



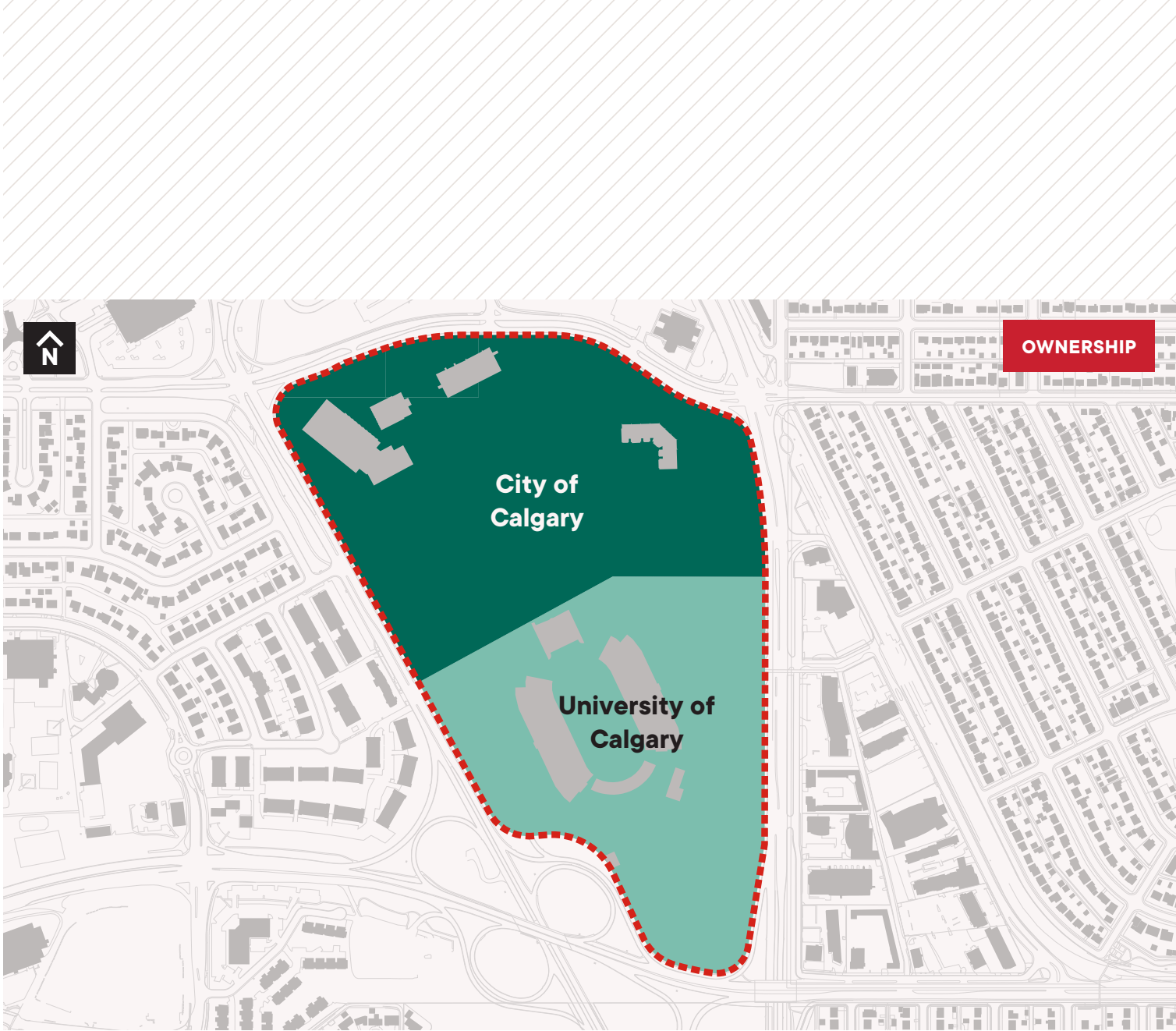
Foothills Medical Centre



University District | Mixed Use



One Executive Place | Office



2.8.5 OWNERSHIP

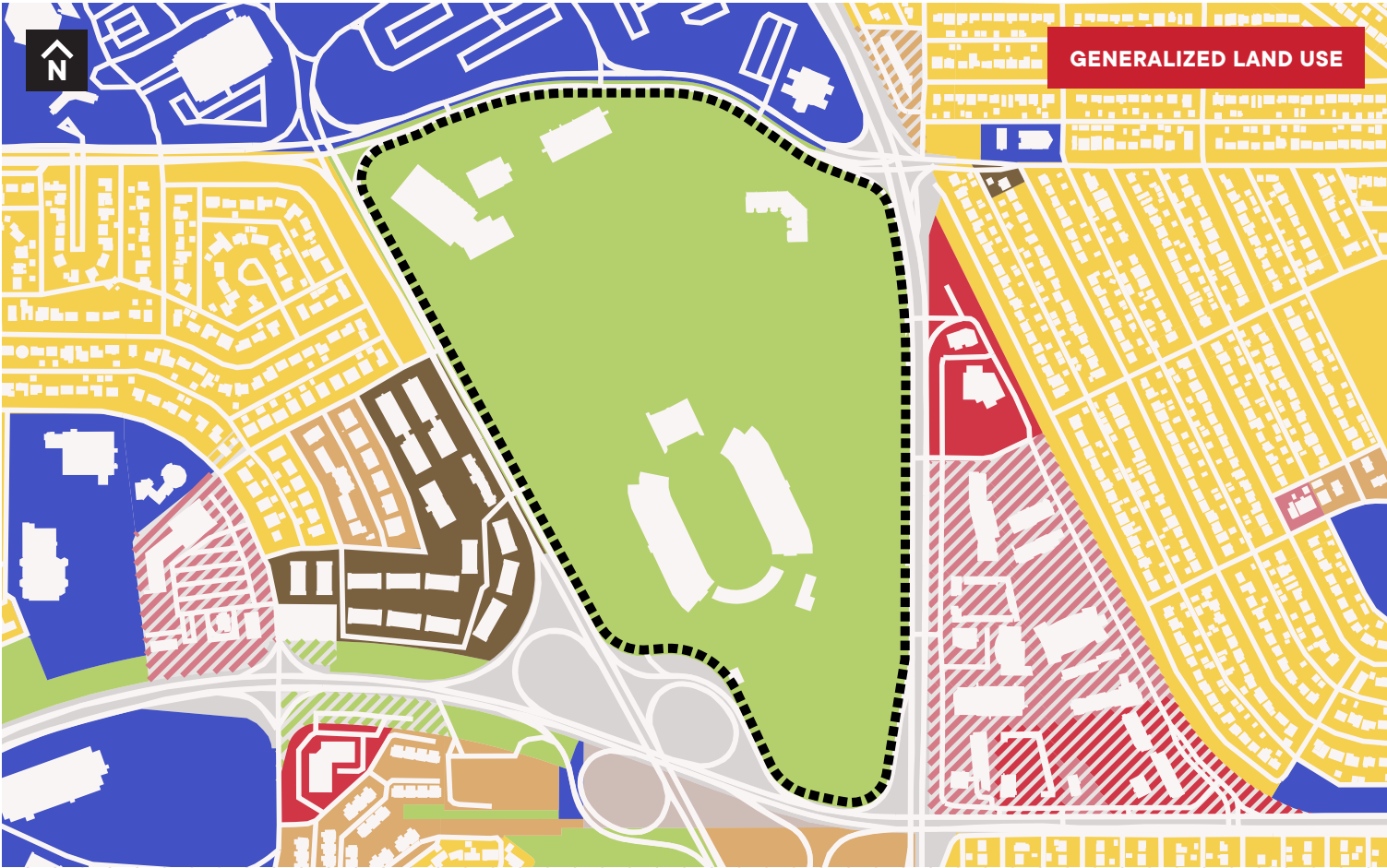
The Foothills Athletic Park is a 51-acre site, owned by The City of Calgary (Calgary Recreation). Immediately to the south, the McMahon Stadium lands comprise a 42-acre site, owned by the University of Calgary. Calgary Recreation operates and maintains the facilities located within the Foothills Athletic Park. The McMahon Society manages and operates the stadium on behalf of the owner, the University of Calgary. The two owners are partnering to develop the Foothills + McMahon Concept Plan to determine redevelopment opportunities.



2.8.6 BUILDING AND FACILITY INVENTORY

The Plan Area contains a variety of sports and recreation facilities in varying forms and ages. McMahon Stadium was the first, constructed in 1960, with multiple facilities added throughout the years. Calgary Recreation owns and operates Father David Bauer and Norma Bush arenas, the aquatic centre, soccer fields, outdoor track, field concession, Little League baseball diamond, tennis courts, and field event facilities (shot-put, long jump pits, javelin, pole vaults, and discus/hammer throw).

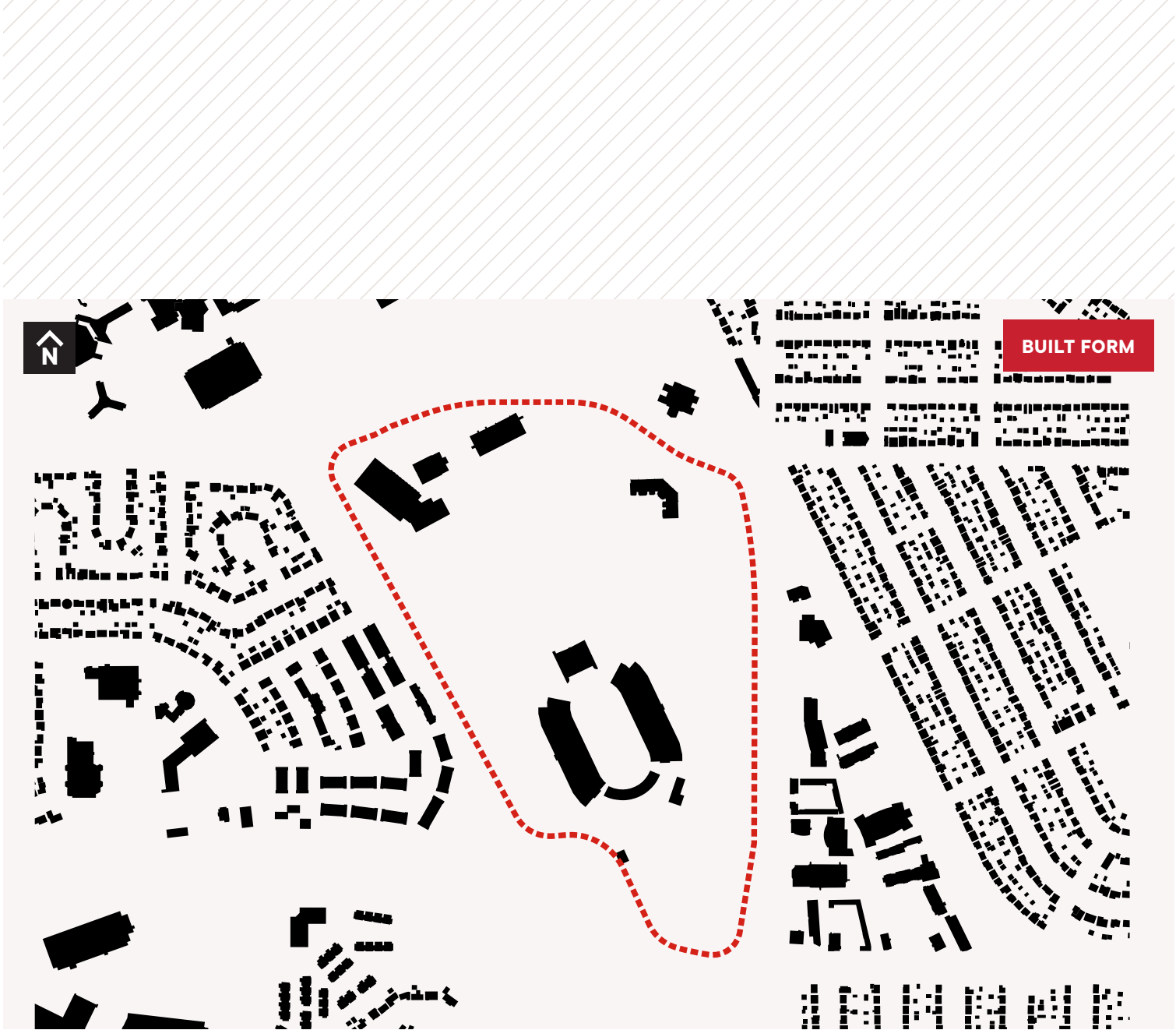
- 1. Father David Bauer Arena (1963)
- 2. Norma Bush Arena (1974)
- 3. Foothills Aquatic Centre (1964)
- 4. Volleymore (1964)
- 5. Little League Baseball Stadium (1975)
- 6. Foothills Baseball Stadium (1966)
- 7. Viper Dome (Soccer)
- 8. Calgary Recreation Capital Development
- 9. Absolute Baseball Academy
- 10. Track & Field Park (1975)
- 11. Soccer Fields (1975)
- 12. Red and White Club
- 13. McMahon Stadium (1960)
- 14. Stampeders Administration Office
- 15. Gridiron Gardens Practice Facility
- 16. Tennis Courts (1986)



2.8.7 GENERALIZED LAND USE

Calgary's Land Use Bylaw designates the subject site as an Open Space area with a mix of uses within the local area. The interface conditions provide opportunities to mix a variety of uses and scales that include multi-residential. There is a large designation of institutional uses such as the Foothills Hospital and University of Calgary. The existing land use provides opportunities for continued mixing of uses, while considering the interface conditions, specifically shadowing impacts to the west.

- Subject Lands
- Residential - Low Density
- Residential - Medium Density
- Residential - High Density
- Commercial
- Commercial - Corridor/Office
- Institutional
- Open Space
- Future Urban Development
- Transportation Utility Corridor



2.8.8 BUILT FORM - FIGURE GROUND

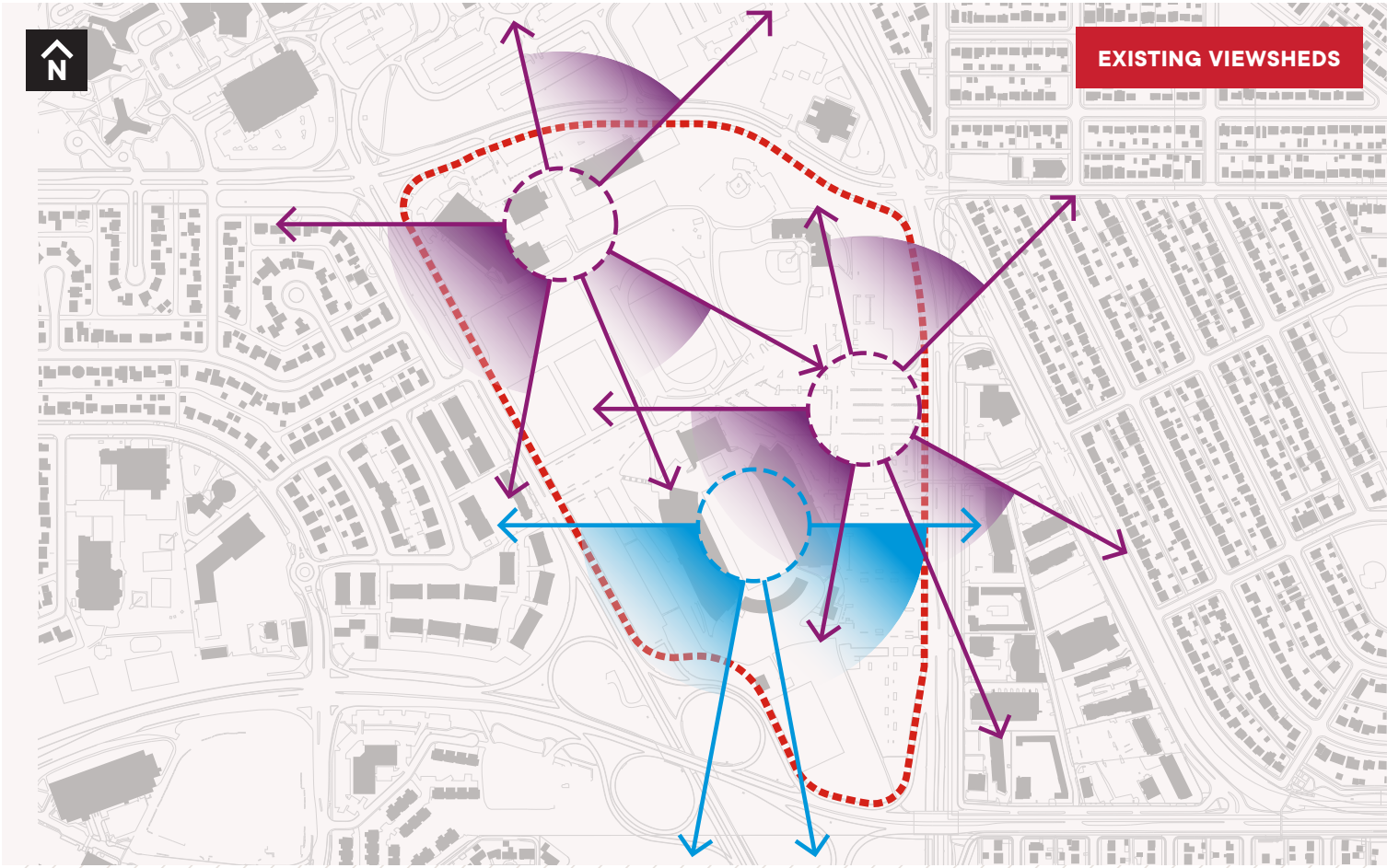
The figure-ground diagram demonstrates the abundance of negative space within and around the Plan Area. This establishes an incoherent relationship between the built space and the unbuilt space (e.g. roadways, pathways, open space) and creates connectivity and placemaking challenges, specifically regarding integration with the surrounding urban fabric. Banff Trail, to the east, demonstrates a finer-grained pattern. There is a major opportunity to establish a street network that integrates more appropriately with the surrounding neighbourhoods.



2.8.9 TOPOGRAPHY

The topography generally slopes from east to west, with greater slope changes existing within the south and north portions. There is a grade change of approximately 17 metres from the east portion, sloping to the south. The centre and west portion of the site is relatively flat. There is an opportunity to leverage the topography which may provide views to downtown Calgary, Nose Hill Park, and the Rocky Mountains.

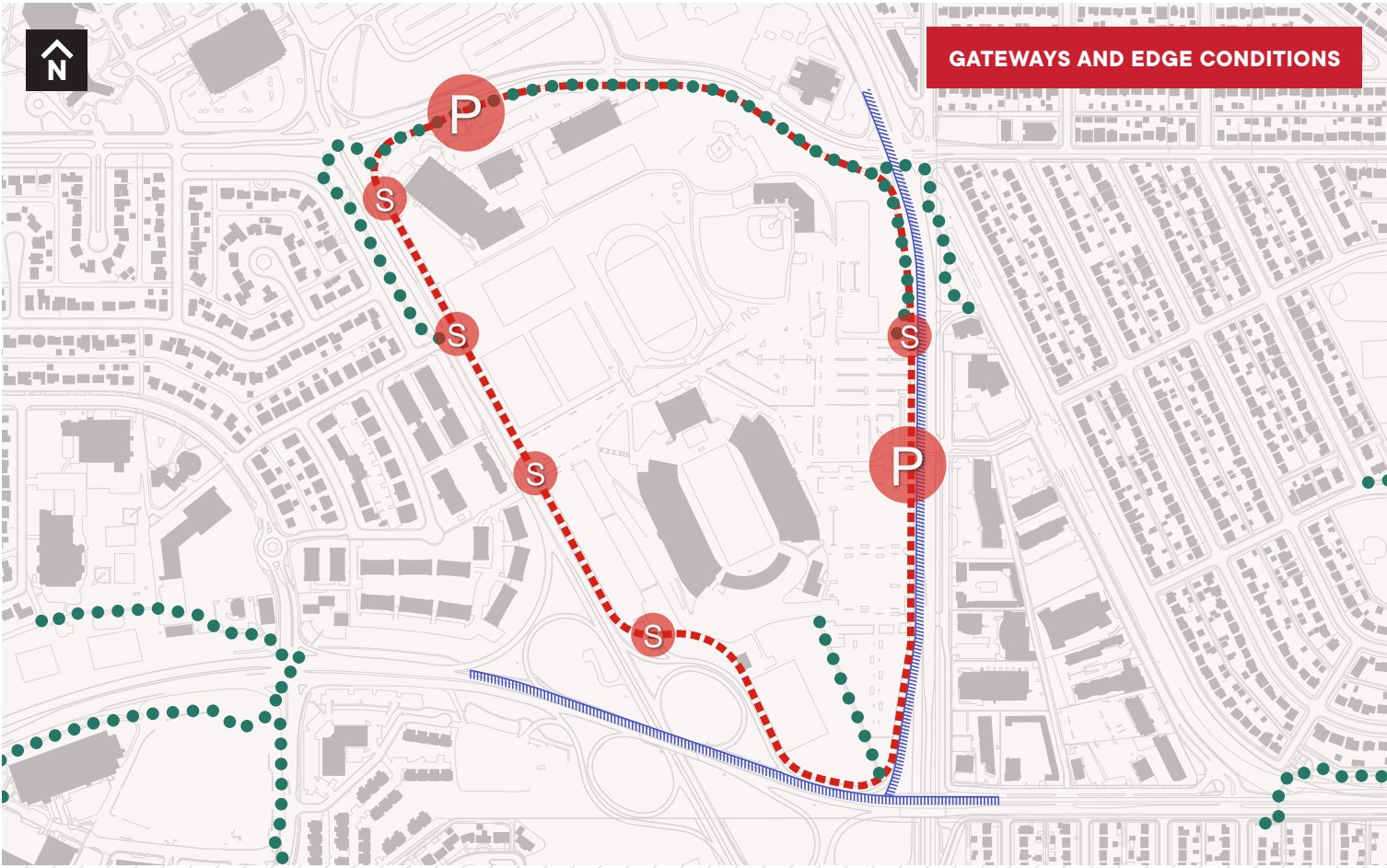
- Subject Lands
- 0.5m Contours
- ▲ ±1090 High Spot - Existing Spot Elevation
- ▼ ±1090 Low Spot - Existing Spot Elevation



2.8.10 EXISTING VIEWSHEDS

There are multiple viewsheds within the Plan Area offering views towards downtown, Nose Hill Park, and the Rocky Mountains. The concept plan should consider existing viewsheds from topographical high points and potentially those from McMahon Stadium.

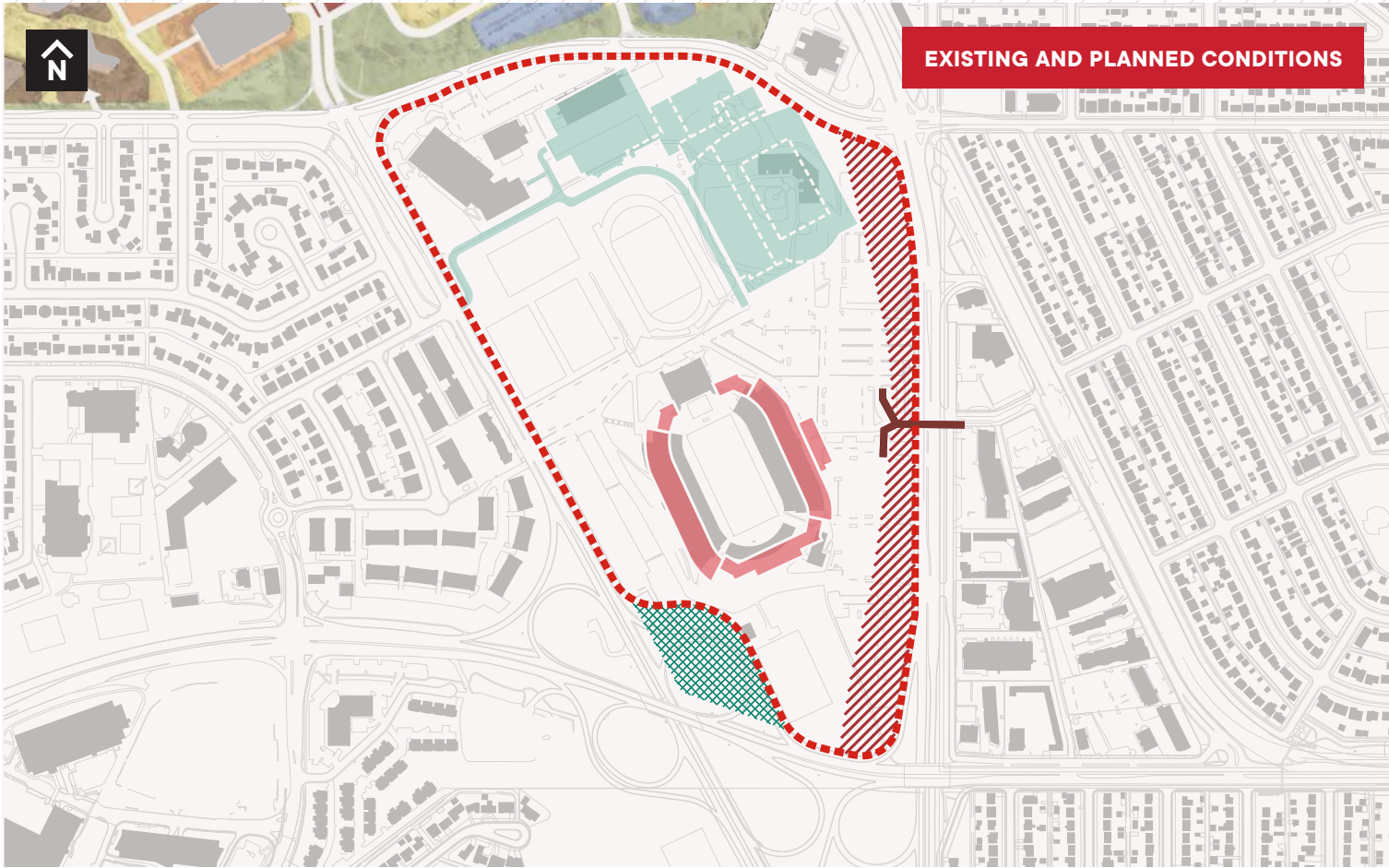
- Subject Lands
- Topographical View Shed
- Existing Building View Shed



2.8.11 GATEWAYS + EDGE CONDITIONS

Site edges are permeable along the east, north and west boundaries with limited access along the southern edge, being the TransCanada Highway (16 Avenue NW). The pedestrian experience within and around the site is poor although two Primary Gateways emerge that provide key connections to the site. One provides an opportunity to create an interface with the University and the second, on the eastern edge, is a key connection to the Banff Trail LRT Station. Secondary gateways identify access points that provide an opportunity to enhance the future street network, identifying logical circulation and desire lines within the site.

- Subject Lands
- Regional Pathway
- Highway Edge
- P Primary Gateway
- S Secondary Gateway



2.8.12 EXISTING + PLANNED CONDITIONS

There a number of planned or existing conditions that may impact future development. These include the planned Fieldhouse, McMahon Stadium, Crowchild Trail Improvements, interface with the University of Calgary, east-west regional feedermain, connection to the Banff Trail LRT Station, and boundary road network. The figure below includes each the highlight the existing and planned conditions that may impact future development.

- Subject Lands
- McMahon Stadium Phased Development
- Future Crowchild Road Widening
- Pedestrian Bridge
- Future Field House Location & Access Road
- Possible Additional Land for Development

2.8.13 EXISTING ON-SITE CONDITIONS

The majority of the site exists as surface parking lots, a large single-use stadium and other facilities, an outdoor track and sports fields. The project team held a site tour with the Foothills Athletic Park Redevelopment Advisory Committee and other stakeholders on April 1, 2021. The tour revealed the connectivity challenges and vast underutilized spaces, showcasing the redevelopment opportunities. In addition, the tour showcased the strategic location and prime opportunity to better integrate the site into the existing community and the University of Calgary.





South portion of the site looking northeast



Existing "front door" to the stadium looking west from the edge of the site.



Central portion of the site looking east, adjacent to the Red and White Club entrance.



Surface parking lot, looking south, along the eastern portion of McMahon Stadium.



Central portion of the site, looking north towards the existing outdoor track.



North side of the outdoor track, looking southwest from the central portion of the site.



View of University Drive, looking southwest, from the central portion of the site.



View looking southeast from the southern field of the site, north of the TransCanada.



Existing pedestrian bridge spanning Crowchild Trail looking southeast, motel village in the background.



Central portion of the site looking east from the existing outdoor track.



Existing soccer fields looking south west towards high density apartments.



View from southeast corner of existing tennis courts towards northern baseball diamond.

2.9 Existing Mobility + Transportation

WATT Consulting prepared an Existing Transportation and Parking Conditions memorandum in support of the Foothills + McMahon Concept Plan. Understanding the base conditions including the existing street network and parking supply are key inputs and design considerations for the Concept Plan.



ISC: UNRESTRICTED

2.9.1 EXISTING STREET NETWORK

Crowchild Trail is classified as a skeletal road and is divided with three through lanes in each direction. With an average of 84,000 vehicles per day it is one of the busiest road corridors in Calgary and connect NW Calgary with downtown and the SW quadrant. The corridor forms the east boundary of the subject lands and the posted speed limit is 70 km/hr. There are multiple at grade accesses along Crowchild Trail that service the Foothills Athletic Park and McMahon lands, however, these accesses may not be available in the medium to long term, pending the implementation of the improvements identified in the Crowchild Trail Corridor study.

24th Avenue is classified as a divided arterial road that is oriented in an east/west direction with a posted speed limit of 50 km/hr. It is generally used as a primary access to the University of Calgary, the community of University Heights, the Alberta Children's Hospital and the subject lands. The daily traffic volume along 24th Avenue, adjacent to the subject lands is 13,000 vehicles per day (vpd). Currently, one all-turns access is provided to the subject lands, approximately 160 metres east of University Drive. There are two travel lanes in each direction.

University Drive is classified as a parkway and forms the west boundary of the subject lands. The divided roadway provides two travel lanes in each direction and the posted speed limit is 60 km/hr. University Avenue is used as a primary access to the University of Calgary and provides access to the community of University Heights.

16th Avenue is classified as a skeletal roadway adjacent the subject lands and forms the south boundary of the subject lands. The posted speed limit along the corridor is 70 km/hr and the daily volume is approximately 46,000 vpd. There is no access directly from 16th Avenue to the subject lands however, there is a gated access from the westbound to northbound loop ramp that connects 16th Avenue to University Drive. This access is only used for major events at McMahon Stadium and will likely be removed as The City moves forward with the Crowchild Trail Corridor Study medium term improvements.



Crowchild Trail looking south.



16 Avenue NW (TransCanada Highway) looking east.

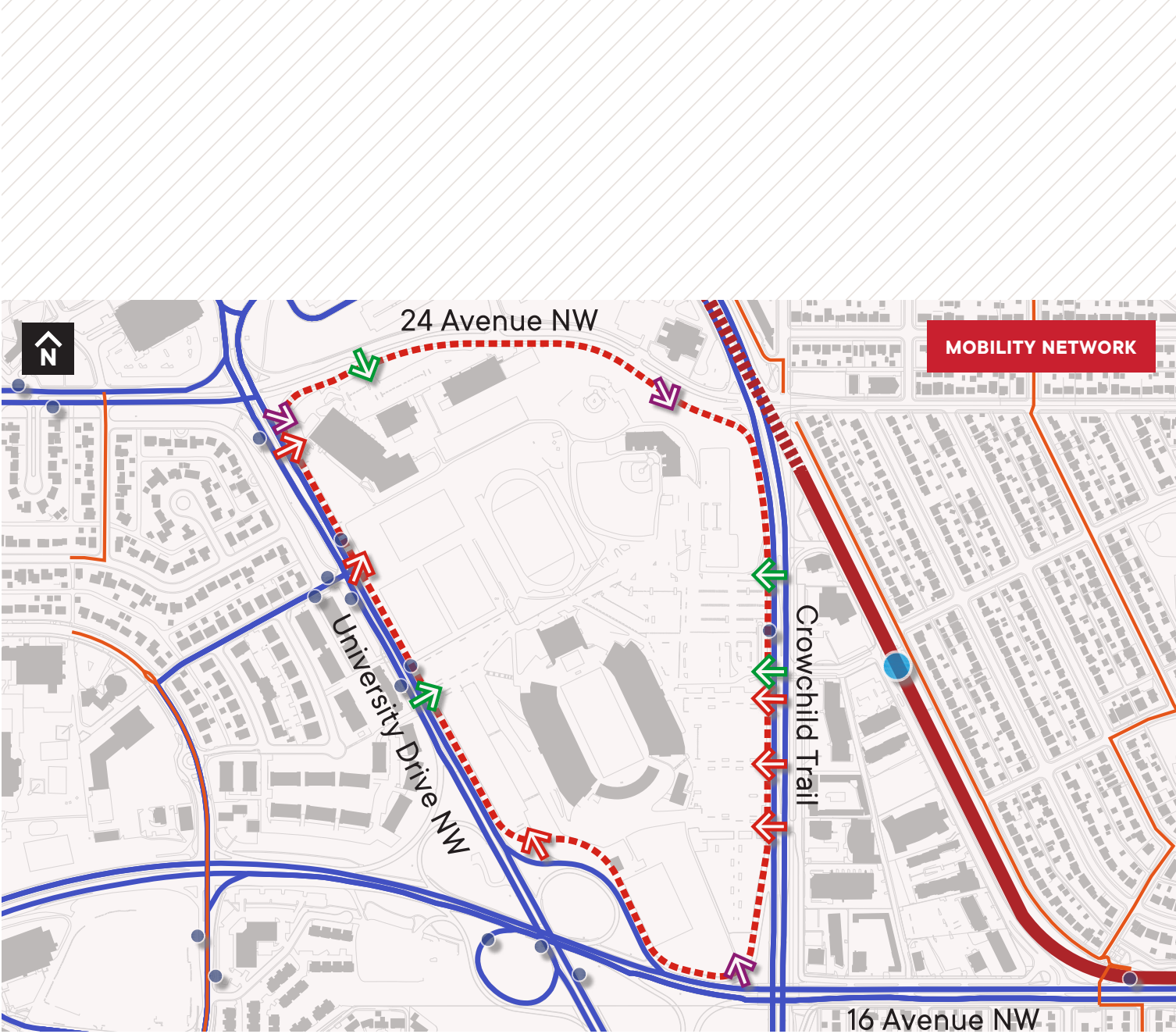


University Drive looking south with the existing McMahon Stadium on the west side of the road.



24 Avenue NW looking West with the existing baseball facility on the south side of the road.

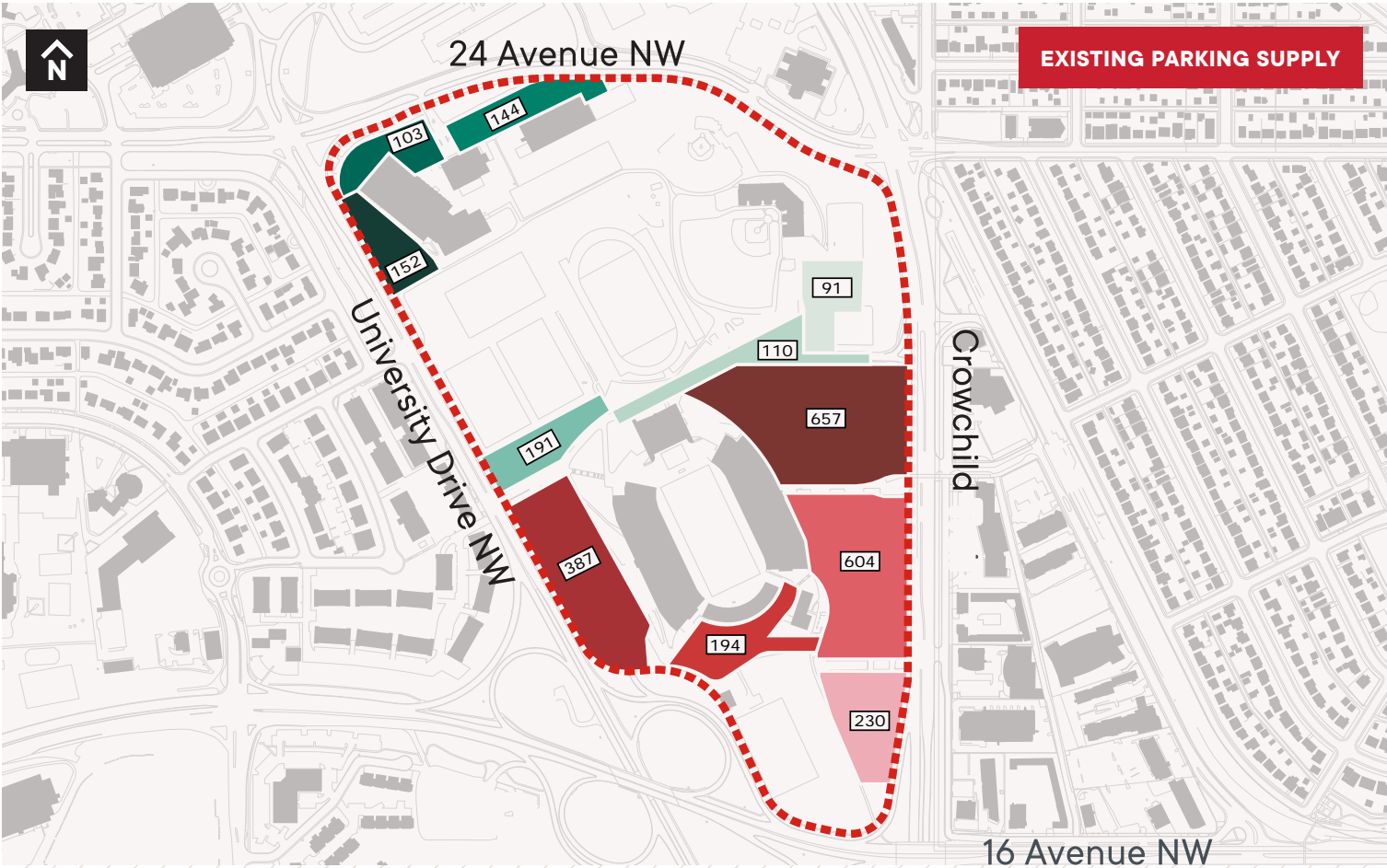
- Skeletal Road
- Parkway
- Arterial



2.9.2 EXISTING MOBILITY NETWORK

There are four primary (all-turns) accesses to the site including two on University Drive, one on 24th Avenue and one on Crowchild Trail). The Crowchild Trail Improvement Study indicates that The City plans to close the all-turns access onto Crowchild Trail in the medium-term but will maintain three right in, right-out accesses. The Plan Area is well-served by transit, in close proximity to the Banff Trail LRT Station, with existing bus routes running along boundary roads, including BRT on 16 Avenue NW.

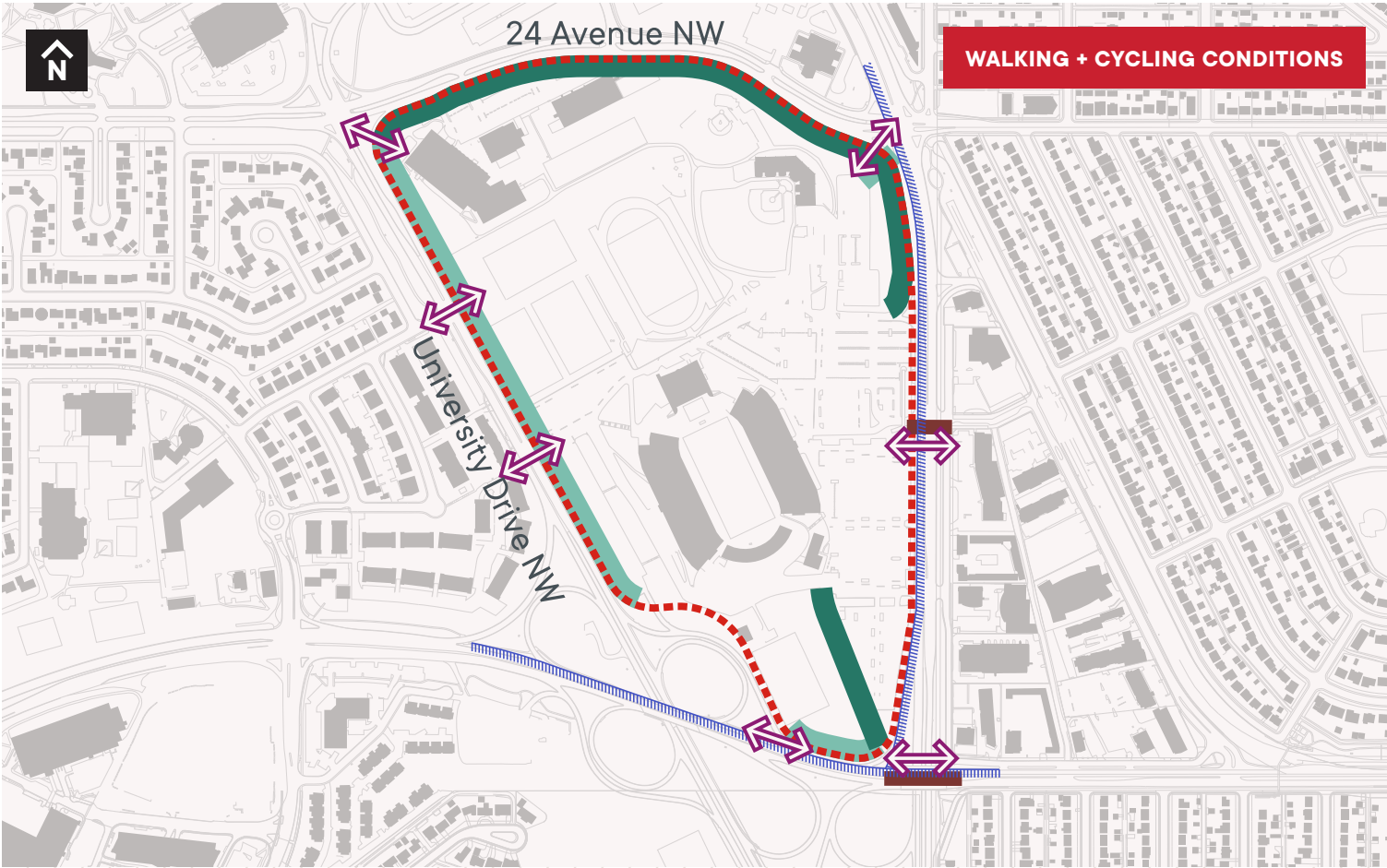
- Subject Lands
- On-Street Bike Lanes
- LRT - Red Line
- LRT Station
- Existing Bus Routes
- Existing Bus Stops
- Pedestrian Only Access
- Vehicle & Pedestrian Access
- Vehicle Only Access



2.9.3 EXISTING PARKING SUPPLY

WATT analyzed the supply of parking based on a review of aerial photos and supplemented with a site visit. The number of parking stalls, broken down into the various lots within the Foothills/McMahon site is shown below. Based on this preliminary assessment, the total parking supply on-site is estimated at 2,863 stalls, split between the two lots is estimated at 2,072 on the McMahon site and the remaining 791 on the Foothills Athletic Park site. There is an opportunity to provide a mix of surface and structured parking, shared between multiple stakeholders.

PARKING SUPPLY	
McMahon East	1,491 spaces
McMahon West & South	581 spaces
Foothills Athletic Park	791 spaces
TOTAL	2,683 spaces



2.9.4 EXISTING WALKING & CYCLING CONDITIONS

The key pedestrian connection is to and from the Banff Trail LRT station which is provided via a pedestrian overpass. The figure below highlights multiple gaps in the pedestrian and cycling infrastructure, leading to informal desire lines throughout the plan area. A significant opportunity exists to improve connectivity within the site as well as the interconnectivity between the adjacent neighbourhoods.

- Subject Lands
- Regional Pathway
- Sidewalk
- Bridge
- Pedestrian Connection
- Highway Edge

PLANNED CROWCHILD TRAIL IMPROVEMENTS



2.9.5 APPROVED CROWCHILD TRAIL IMPROVEMENTS

The City of Calgary’s Crowchild Trail Study’s medium term (10+ years) plan specifies upgrades to the portion of Crowchild Trail adjacent to the Plan Area. The Concept Plan must consider the following design criteria:

- It is likely that the all-turns access onto Crowchild Trail will be removed at some point in the future since Crowchild Trail is a key skeletal road serving NW Calgary. Therefore, the site design process should keep this in mind and focus the vehicular access points to the other three existing access points on University Drive and 24th Avenue.
- If required, a fourth all-turns access could be examined along 24th Avenue, opposite Campus Gate NW. Although the spacing from the existing access is less than the minimum 300 m, this could be feasible depending on the traffic volumes and the design of the access.
- The medium-term plans show the removal of the NE ramp at the 16th Avenue NW / University Drive NW intersection. A preliminary assessment of the conceptual design indicates that there may be an opportunity to achieve an east leg of the roundabout, providing an additional access into the McMahon Site. There is also an opportunity to include these lands within the future developable area

2.10 Utility Servicing Analysis

EXP Engineering prepared a preliminary servicing report to further understand the existing servicing capacity and development potential of the site. This is a key input into the Foothills + McMahon Concept plan and will be used to understand future development intensities.



The concept planning process for the site is in its infancy and as a result, limited information is available regarding the specifics of future land uses (units, populations, densities, etc.). As a result, the evaluation of the existing utilities that may service the lands cannot be evaluated in any significant detail, as to whether available capacity in the systems will be adequate. Similarly, the analysis is not able to evaluate or identify specific utility upgrades in support of the redevelopment, however, if there are obvious restrictions within the utility network capacity that are known or foreseeable, they will be identified. The analysis assumes the following:

- That future servicing requirements for the redevelopment will not be estimated under this report;
- Future development will be significantly more intense than existing and that most existing utilities within the subject lands will likely be in conflict with the future development and may not form part of the ultimate servicing layout; and
- The Concept Plan will identify the conceptual location of public roads and utilities, providing new transportation access and utility services to both existing buildings and new development parcels.

Considering the potential scale of future development through significant intensification it is common to have limited requirements for utility improvements and upgrades. The preliminary analysis concludes that all utilities appear to have sufficient capacity to accept additional loads. Future development will be subject to additional reviews to gain a more detailed understanding of the operational characteristics of the individual utility networks as the redevelopment planning process generates more information to support more detailed servicing reviews. This work should include further engagement of all utility stakeholders and more detailed site reviews including surveys, utility assessments, and flow monitoring programs to ensure the utility systems are fully understood.

2.10.1 SHALLOW UTILITIES

For this project, its location is uniquely situated within a grid of existing shallow utility networks that are capable of delivering additional services to high density urban environments. As a result of being adjacent to the University of Calgary, in close proximity to two (2) major hospitals, and being bound by the 16th Avenue NE and Crowchild Trail utility corridors, all shallow utility networks have high capacity infrastructure in reasonably close proximity to this potential redevelopment project.

All shallow utility networks have high capacity infrastructure in reasonably close proximity to this potential redevelopment project.

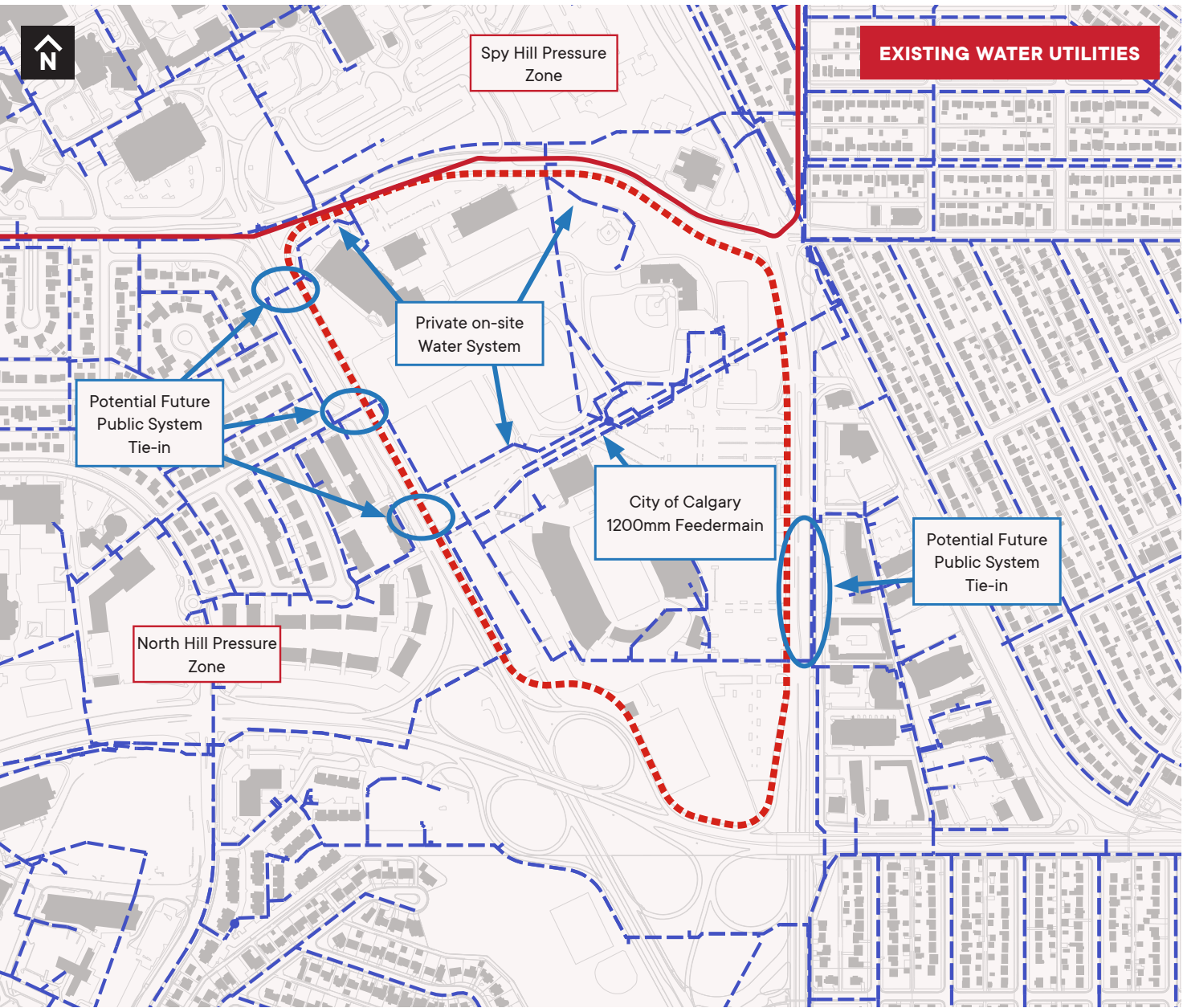




2.10.2 EXISTING WATER NETWORK

The Plan Area is located in the North Hill Pressure Zone with 24th Avenue NW serving as the northern boundary. Public watermains are located within all boundary public road rights-of-ways and some public watermains traverse the subject lands. Private (non-City of Calgary) watermains are also located within the development providing service to the existing buildings and facilities. The following points summarize the existing water system in and around the development area:

- The public water system within the University Heights, east of the Plan Area, extends west up to University Drive NW. This system, as it reaches University Drive NW, is generally a 150 mm cast iron pipe. These pipes are likely reaching the end of their lifespan together with being of limited capacity due to its size.
- A large diameter 750 mm steel watermain is located within Crowchild Trail. This is a high capacity pipe and is understood to be in good condition.
- A 1,200 mm feedermain traverses across the subject lands. This feedermain is an integral part of the City of Calgary water system providing water service to the entire North Hill Pressure Zone. The feedermain exists within a City of Calgary Utility Right-of-Way. Water systems that are servicing land areas typically do not tie into a feedermain so it is expected that the 1,200 mm feedermain will not service a future redevelopment.
- A series of small diameter, private watermains are located in various locations through out the subject lands. These 150 mm and 200 mm watermains provide service to the existing buildings and facilities currently operating on the subject lands. These facilities include Father David Bauer Arena, Foothills Pool, Foothills Athletic Park, McMahon Stadium, and likely irrigation systems for the green spaces. These private watermains all connect to the public watermains located within the boundary roadways described above (University Drive NW, 24th Avenue NW, and Crowchild Trail).



EXISTING WATER UTILITIES TAKEAWAYS

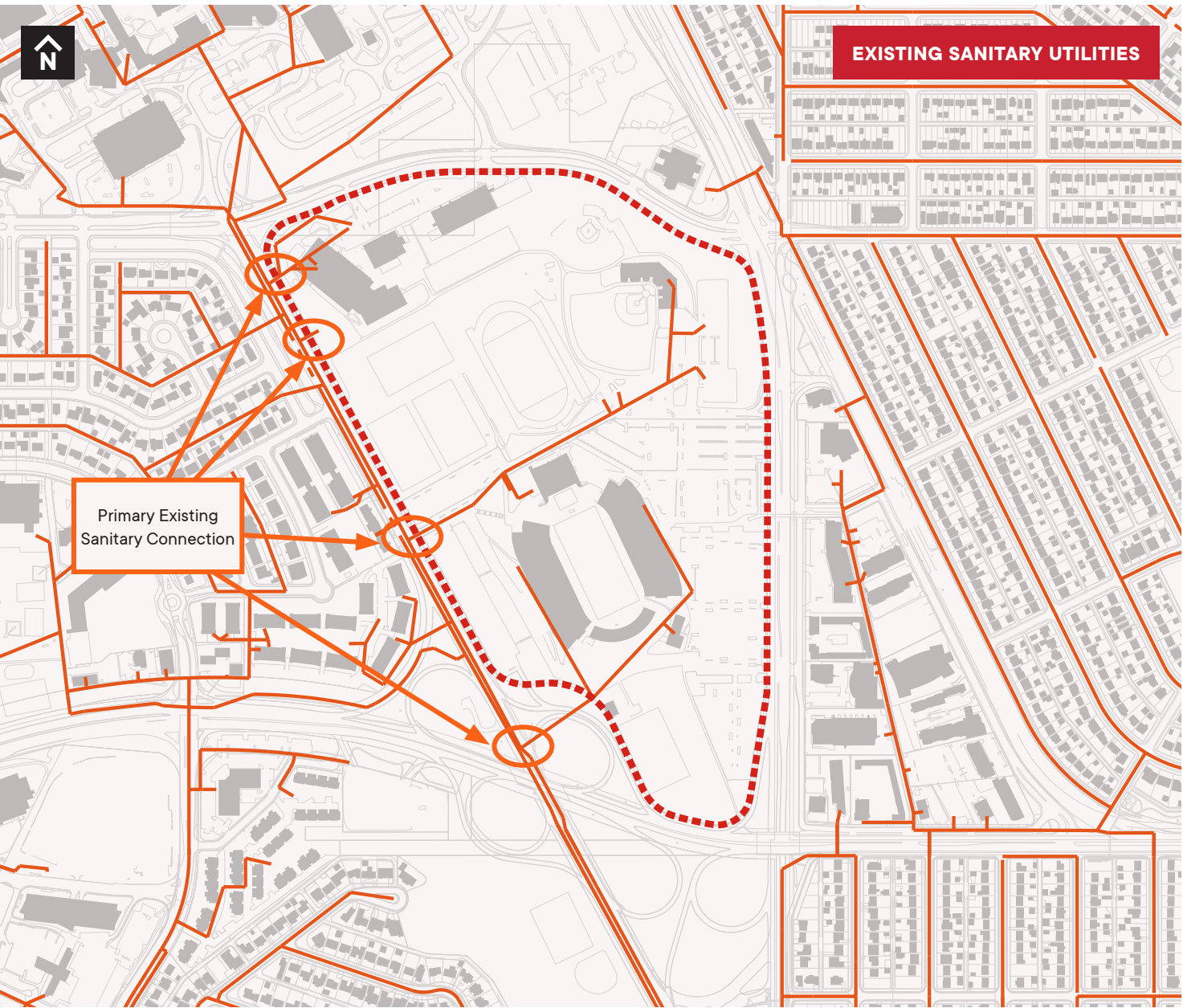
- Existing on-site water system is to be abandoned with redevelopment.
- The redevelopment plan will have a public water system providing services to the new development parcels created through redevelopment and this water system will connect to the systems within University Drive NW and Crowchild Trail. Existing 1,200 mm feedermain crossing the development area will need to be maintained (in existing location or through relocation) as it is an integral part of The City of Calgary's greater water network.



2.10.3 EXISTING SANITARY SYSTEM

The Plan Area is serviced by the West Memorial Sanitary Trunk by two (2) existing mains (300 mm concrete and 300 mm PVC) running north to south along University Drive NW. The following points summarize the existing sanitary system in and around the development area:

- The 300 mm PVC pipe primarily serves the University of Calgary and the 300 mm concrete pipe services University Heights and the Foothills + McMahon Plan Area.
- The existing concrete and PVC mains pipes drain south along University Drive to Crowchild Trail, and within Crowchild the mains transition to larger 375 mm concrete and 525 mm concrete pipes.
- At the intersection of Crowchild Trail and 5th Avenue NW, the sanitary mains combine into one 525 mm concrete pipe and at 3rd Avenue NW, the sanitary system increases to a 600 mm trunk sewer.
- The Crowchild trunk sewer connects with the Memorial Trunk (1,650 mm concrete) at Bowness Road where it drains east as part of The City of Calgary's major sanitary trunk system.
- Similar to the water system, a series of small diameter, private sanitary mains are located in various locations throughout the subject lands providing service to the presently existing facilities. These 200 mm and 250 mm mains collect on-site sanitary servicing requirements from the existing buildings and facilities including Father David Bauer Arena, Foothills Pool, Foothills Athletic Park, and McMahon Stadium, and connect to the public main in University Drive NW.



EXISTING SANITARY UTILITIES TAKEAWAYS

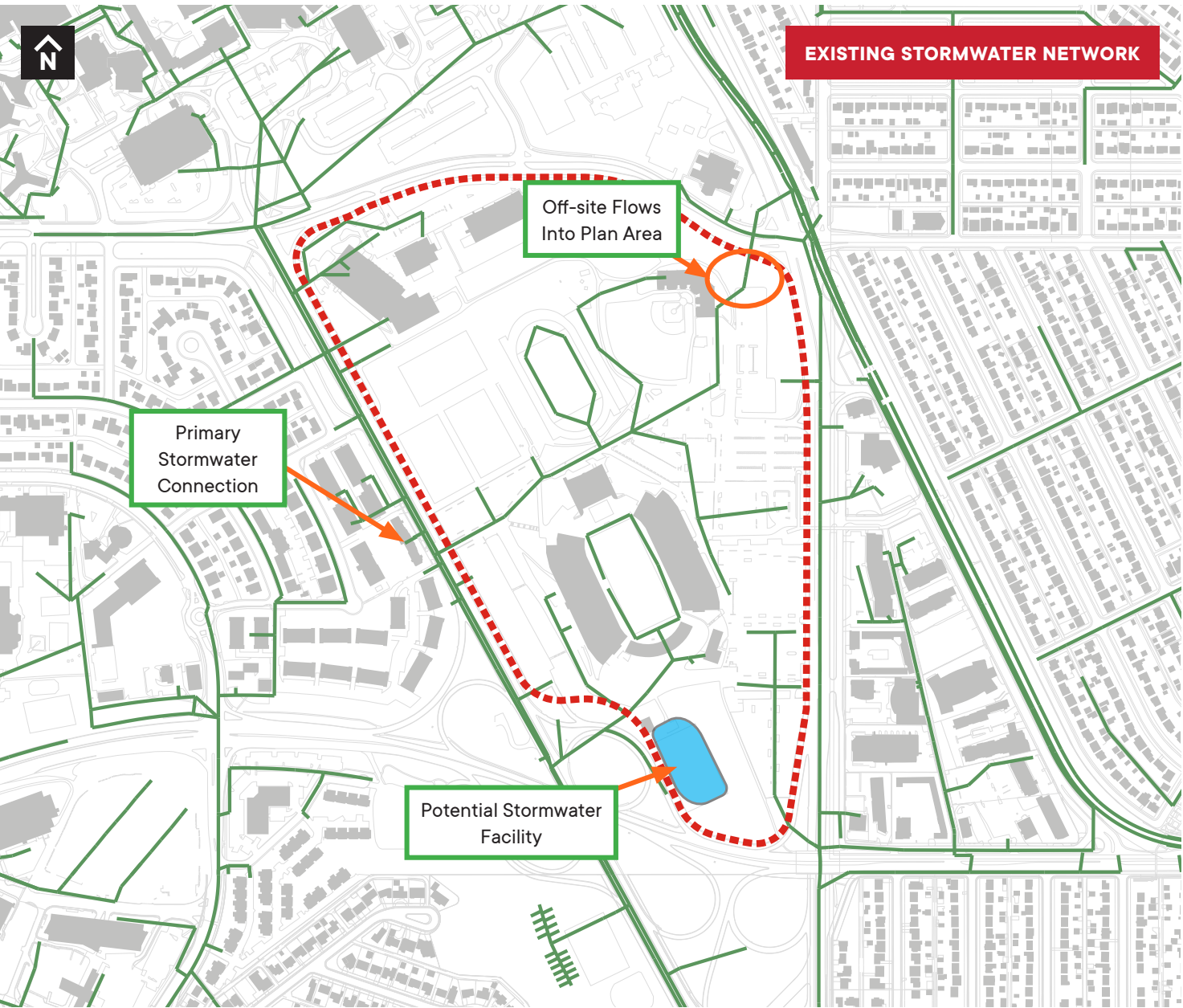
- Preliminary analysis indicates the adjacent City of Calgary system has available capacity to support upwards of 6,900 equivalent people.
- It is expected that a future public sanitary system will be extended through the subject lands to provide services to new development parcels and will connect to the existing mains draining south along University Drive.
- The existing on-site sanitary system will be abandoned through future development if any existing facilities are incorporated into the future design, either for the short term or long term, as needed.
- Targeted public system improvements may be required to effectively balance flows to available capacity with the dual sanitary pipe systems that exists along University Drive NW and Crowchild Trail.
- A flow monitoring program should be completed to monitor the flows within existing sanitary mains adjacent to and downstream of the perspective development. This information, combined with development concepts when available, will provide insight into the operational characteristics of the sanitary system and the need for improvements.



2.10.4 EXISTING STORMWATER NETWORK

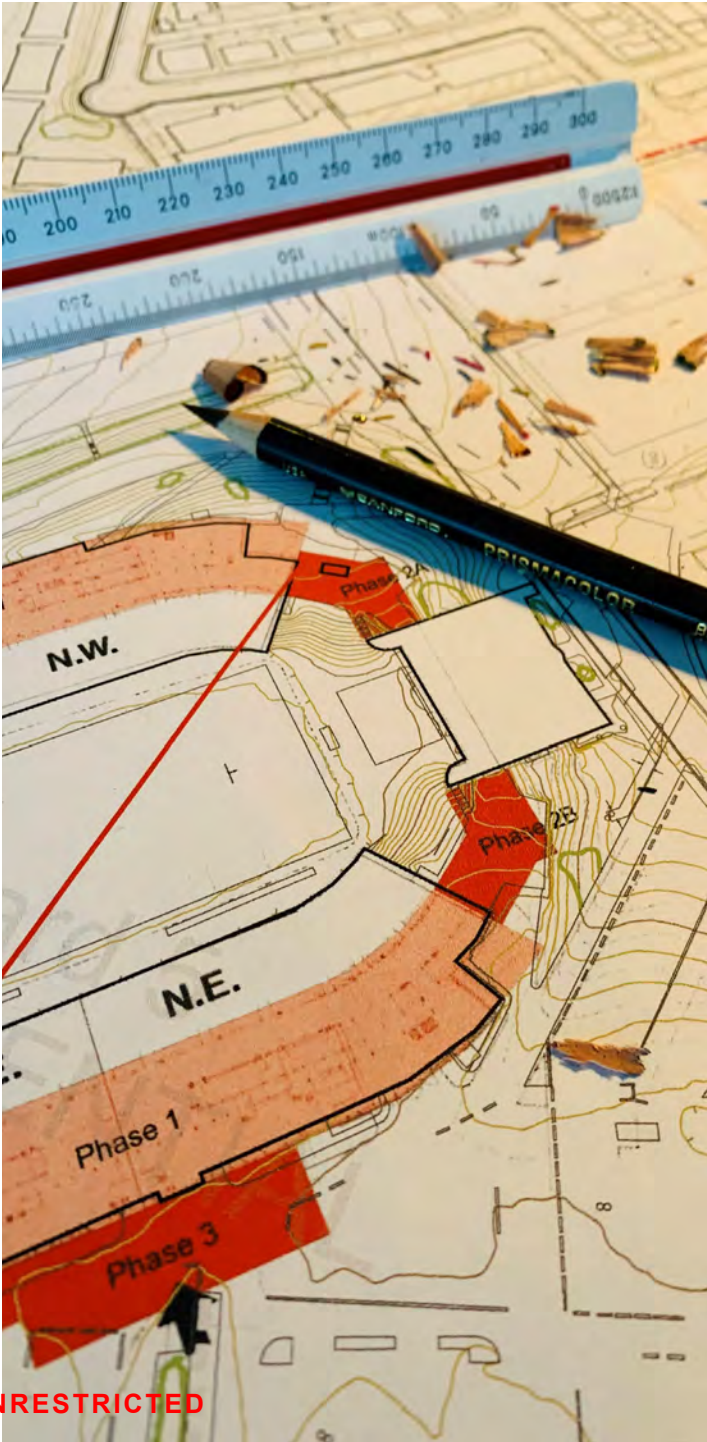
The greater Bow River drainage basin serves the Plan Area, with storm infrastructure located within University Drive NW and Crowchild Trail. A network of private storm sewers connect to the public storm systems in the boundary roadways. The following points summarize the existing stormwater system in and around the development area:

- Public storm mains within Crowchild Trail (525 mm, concrete, servicing 20% of the plan area) and University Drive NW (900 mm, concrete, servicing the balance of land) service the Plan Area.
- The Crowchild Trail 525 mm storm drains south, transitioning to a 750 mm storm sewer, and at the intersection of Sumac Road the system combines into a 1,200 mm storm trunk system. The system discharges to the Bow River at 20th Street NW at outfall B67.
- There are two (2) large diameter storm sewers (900 mm and 1,050 mm) in University Drive NW. These drain south, transitioning to 1,050 mm and 1,200 mm storm sewers before intersecting Crowchild Trail and combining with a 1,500 mm pipe. This is a separate pipe (west pipe system) from the east system described above, with the 1,500 mm pipe (west system), continuing south and discharging to the Bow River at Outfalls B74a and B75.
- A series of private storm mains are located in various locations throughout the subject lands servicing existing facilities and convey stormwater to the public mains in University Drive NW and Crowchild Trail.
- Unique to the project lands is a public storm system that flows through the area, entering the site in the north-east corner is a 525 mm PVC storm pipe, draining across the Plan Area, before connecting to University Drive NW. Future redevelopment will likely have to accommodate this flow, although it does not appear to be within a Utility ROW.



EXISTING STORMWATER TAKEAWAYS

- Through preliminary consultation with The City of Calgary, it is understood that this redevelopment project will be limited to a development storm water discharge rate (UARR) of 35 L/s/ha.
- The City of Calgary has a “flow through” storm servicing requirement for the future development as a result of an approximate 200 L/s flow entering the project area from Crowchild Trail. The ultimate storm utility design will have to accommodate this flow through the development.
- The reduced UARR for the future development will create storm water storage requirements for the development to manage storm events.
- The existing on-site storm system that presently exists will be abandoned through future development with connections to any existing facilities being incorporated into the future design, either for the short term or long term, as needed.
- Innovative opportunities may be available to this project to address stormwater management challenges such as a storm water facility, boulevard bio-swales, and/or permeable road materials (i.e. bricks).
- A potential stormwater facility could be located in the south portion of the plan area and could potentially alleviate stormwater challenges. While this could also create aesthetic value with enhanced landscaping, it potentially reduces the developable area.



2.11 Concept Plan Base Rationale

The Concept Plan Base Rationale involved an iterative process, identifying the site's constraints or "fixes" as the first step, and evolving to develop two version of the concept plan. The base rationale was based on an accumulation of existing conditions analysis, initial stakeholder feedback and a site tour. The resulting product was a concept plan identifying two options and became the starting point for a intensive two-week design charrette process. It identified the initial set of key plan elements and was further supplemented by trends and precedent research.

This Concept Plan Base Rationale was a key input into the design process and necessary to understand the baseline conditions, constraints and opportunities. It identified the potential for big moves and identified an initial vision statement and guiding principles that could be used to kick-off the charrette process.

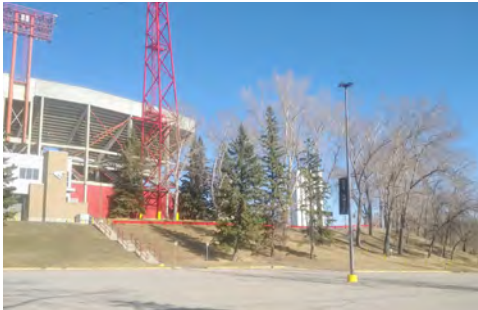
The base rationale demonstrates how an iterative planning and design process shapes the final concept plan.



Site Walk Photo • East side of site pedestrian bridge

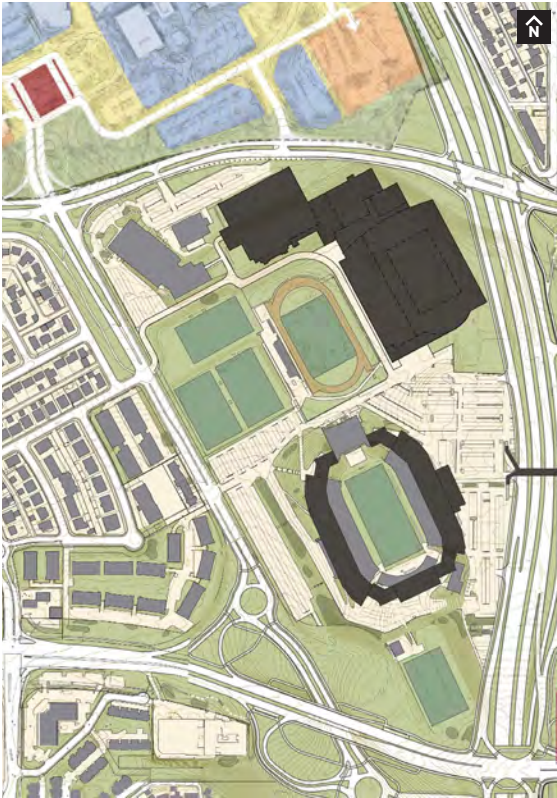


Site Walk Photo • South end of stadium moving east

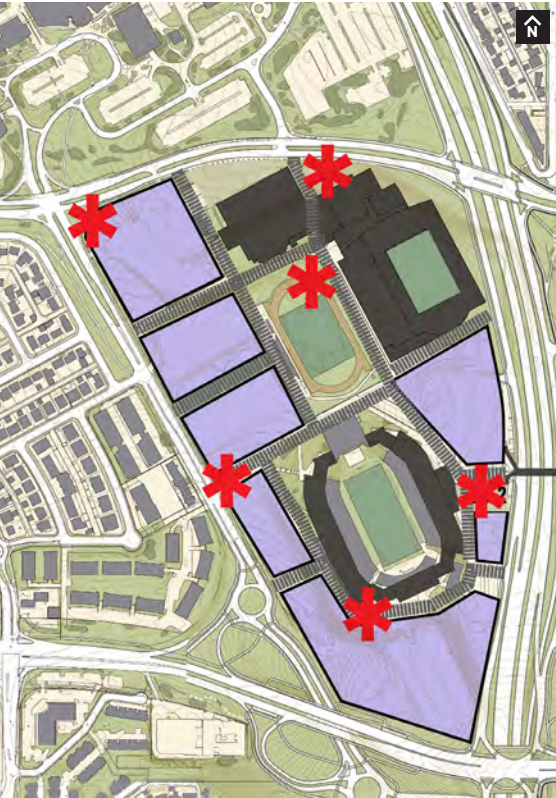


Site Walk Photo • West parking lot looking at stadium

EVOLUTION OF BASE CONCEPT RATIONALE



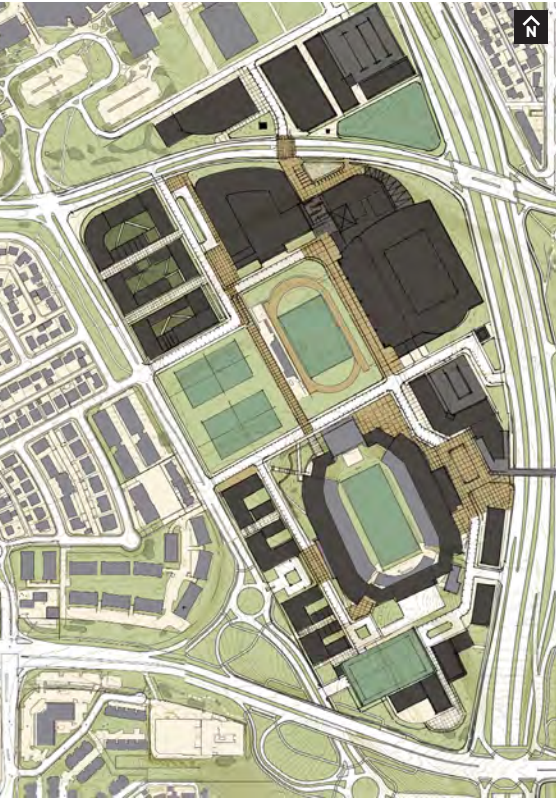
Base concept understanding the existing conditions and constraints. This illustrates the surrounding context, and specific fixes that cannot, or would be a challenge, to alter. This includes McMahon Stadium, the location and preliminary programming of the multi-sport fieldhouse and the plans for the University and Motel Village.



Preliminary Base Rationale to pinpoint potential redevelopment blocks and key connections (vehicular, pedestrian and cycling). This concept identifies preliminary thinking on key public spaces and/or gateways. This concept explored the potential of relocating outdoor fields off-site, which through the charrette and engagement process, provide to not be feasible.



Preliminary "Concept A." This concept contemplates the location of the sports fields in the northwest portion of the site, focusing redevelopment on the central and south portions of the site. This concept also articulated the land bridge concept, spanning Crowchild Trail.



Preliminary "Concept B" identifies the sports fields in the central portion and excludes the land bridge portion. This option also highlighted the innovative structured parking with a sports field on top, in the southern portion of the site.



3.0

FOOTHILLS
+ M^cMAHON
CONCEPT PLAN

Market Trends
+ Precedents

3.0

Market Study

A key input into concept planning for Foothills + McMahon is an understanding of the market and development trends. Coriolis Consulting Corp. was retained to analyze the market opportunity for different private sector uses that could be candidates for the site, including multi-residential, retail and service, private sector office and tourist accommodations.

The key objectives of the analysis are to:

- Estimate the potential demand for each of the uses at the subject site
- Determine the land values likely supported by each use
- Identify the implications for the conceptual planning process

3.1 Multi-Residential

The residential analysis focuses on the multi-residential apartment market, based on a study area in north and northwest Calgary. The Plan Area would likely be marketable for other lower density residential uses. However, after allowing for the planned recreation facilities, there would be limited ability to accommodate lower density residential uses at the site. The analysis supports multi-residential development and estimates the following:

- The study area will continue to experience significant population growth and total demand could average about 840 to 1,050 units per year.
- Estimated absorption could be approximately 85 to 105 units per year, based on capturing 10% of the study area total.
- The Plan Area is highly suitable for apartment development and the market supports mid-rise (wood frame) and high-rise apartment to varying degrees of efficiency, estimating achievable densities around 2.0 and 5.0 FAR for mid-rise and high-rise respectively.



3.2 Retail and Service

The Plan Area is highly suitable for retail, commercial and service uses based on its strategic location adjacent to transit, major roads and an existing population base that could increase with additional residential development. The analysis estimates that the population of the trade area will significantly increase with new developments coming online and that local commercial uses are the most appropriate for the Plan Area, given the number of regional commercial offerings within close proximity. As such, the analysis estimates the following commercial opportunity:

- 35,000 to 45,000 square feet of supermarket space.
- 65,000 to 75,000 square feet of other retail and service space (including local serving office space).
- 20,000 square feet of space for retail, food and beverage and sports medicine businesses serving the users of the stadium, fieldhouse and other facilities at the site.

Retail and service space at the site could be accommodated in stand-alone buildings (ideally with surface parking) or in mixed-use buildings with upper floor apartment space. Retail businesses place an emphasis on convenient and ample parking for customers, easy access, and high visibility. Therefore, development concepts for the site should consider these factors for any retail space.



3.3 Private Sector Office

Given the significant amount of vacant office space in the city and low demand for the foreseeable future, the analysis estimates minimal demand for new office development in Calgary and in the Northwest over the next decade. As such, Coriolis estimates that there is no opportunity for any significant office development on the Plan Area between 2021 and 2031 (or longer). The office opportunity at the subject lands will likely be limited to local oriented office tenants (e.g., medical, dental, financial services, realty) that are already accounted for in the retail and service analysis.

3.4 Tourist Accommodations

A review of hotel opportunities reveals that the total hotel room inventory in Northwest Calgary could increase by between about 420 to 580 rooms between 2020 and 2036. Currently, there is one hotel proposed in the Northwest, at the Stadium Shopping Centre site, contemplating approximately 240 rooms. If this goes ahead as planned, there will be potential demand for an additional 180 to 340 hotel rooms in the Northwest by 2036. Given this context, there will be an opportunity at the subject lands for one hotel in the range of 150 to 200 rooms at the subject lands over the next ten to fifteen years.

3.5 Summary of Cumulative Development

Coriolis estimates development will span 10 to 15 years or more. The following table summarizes the forecasts of total potential private sector demand at the subject lands from 2021 to 2036. The demand estimates assume that the lands are planned and developed as a mixed use neighbourhood including, residential, commercial (including a grocery store), the Stadium, the planned fieldhouse and other recreational facilities.

Summary of Cumulative Development Demand	Low Estimate	High Estimate
Apartment Units (Mid-rise and High Density)	1,275 Units	1,575 Units
Local Commercial and Retail (SF)	120,000	140,000
Hotel (Rooms)	150	200
Office	Limited	Limited



3.6 Recreation + Leisure Trends

Rethink Group prepared a background report in support of the Foothills + McMahon Concept Plan as it relates to leisure and recreational trends. The following summarizes leisure trends in Calgary, which is mainly influenced by the city’s demographic profile, specifically age, income, education, and ethno-cultural composition - the strongest predictors of future demand.



Rethink anticipates that:

- Calgary has an above average population of younger people which may mute national trends.
- Demand for family-oriented leisure activities should be above average.
- Cost should be less of a barrier for Calgary residents, given above average income.
- Higher educational attainment should increase demand for arts and cultural activities, physical activities, trail/linear activities, nature appreciation, wellness programs and life-long learning.
- The lower percentage of mid-age and older adults in Calgary will reduce demand for activities of interest to those age groups – compared to cities with a more typical or older age profile. Examples include individual and team sports, the performing arts, wellness programs, group fitness classes, aqua-fit programs, programs like walking with poles, learning about technology, life-long learning, pickleball, adapted sports and group excursions.
- Due to the number of residents available in each age group, the age profile is more influential on demand than education and income.
- A large proportion of Calgary residents are from diverse cultural and ethnic backgrounds (i.e. South Asian, Chinese, Filipino, South East Asian, West Asian, Korean and Japanese). As such, leisure activities must recognize the cultural importance of social gatherings and the closely integrated social framework of each culture.

3.7 National Leisure Trends

The following is a comprehensive list of upward and downward leisure trends in Canada. These will be considered in the programming and organization of uses within the Foothills + McMahon Concept Plan.

<p>TRENDING UPWARD ↑</p> <ul style="list-style-type: none">• Activities and programs that support mental wellbeing and life-long learning (formal and informal). Accessible and meaningful programs are fundamental to an active and vibrant lifestyle• Activities that exercise the brain – Baby Boomers are looking for challenging pursuits; e.g., a shift from bingo to bridge, and from knitting and quilting to video games, learning a new language, learning to play a musical instrument and participating in jam sessions and bands, belonging to book clubs, taking a cooking or baking class, getting involved in drama, as well as computer and social media classes/labs• Programs that focus on spirituality (e.g., meditation and mindfulness), wellness, holistic health and mind-body integration (e.g., Yoga, Pilates, Tai Chi)• Fitness and wellness activities and programs – all types and tailored to age-specific requirements• Reading, utilizing libraries, and Internet-based research and learning	<ul style="list-style-type: none">• Computer and social media activities• Linear recreation activities for fitness and pleasure (e.g., walking, jogging, running, cross-country skiing, walking with poles, cycling and mountain biking)• Lower intensity gym sports (e.g., pickleball and badminton)• Aquatic activities especially fitness-oriented and therapeutic programs• Basketball (influenced by the increasing proportion and number of visible minorities, low cost to participate and the recent success of the Toronto Raptors)• Child and youth baseball (influenced by low cost to participate and the Toronto Blue Jays)• Intergenerational programs.• Culinary classes• Attending and participating in festivals and exhibitions.• Visiting markets (e.g., food fairs, crafts, art)	<ul style="list-style-type: none">• Programs and events that involve and engage new Canadian and Indigenous populations – and bring different cultures together to learn and share.• Attending dramatic arts, dance and music events• The creative arts – trending toward increasing interest in higher levels of endeavor, including digital photography, drawing and painting (all mediums), sculpture and wood carving• Visiting art galleries and shows• Visiting museums and attending historical re-enactments• Nature study/appreciation, including bird watching, orienteering, geo-caching, hiking, cross-country skiing and biking – often in gentler environments/terrain.• Gardening (personal/home-based and community)• Boating• Fishing	<ul style="list-style-type: none">• Camping, especially more comfortable camping (glamping) – ‘comfortable’ camping is influenced by an aging population.• Dining out• Travel and excursions• Programs and activities that are available all day, in the evening and on weekends, especially for older adults where this opportunity is not always widely available• Events with alcohol• There is a trend toward activities that are individual and small group in nature, rather than traditional large group events• Because of busy schedules and time constraints, an increasing proportion of adults and older adults are becoming interested in short duration program cycles and drop-in opportunities. Many tend to register late for programs and events. Boomers want classes without commitment
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The following broad categories and types of leisure activities are trending downward in demand across Canada, with local/regional variations.

TRENDING DOWNWARD ↓

- Most arena activities – especially minor hockey and figure skating as the Echo generation ages into their young adult years and eventually into older adult hockey as the Baby Boom generation ages out – However, there should continue to be an increase in girls hockey until the participation rate peaks (but the numbers will be relatively small compared to the decline in child and youth male participation) – and there should be an increase in young adult hockey as the Echo generation ages into their young adult and mid-life years (the Echo Generation is currently age 27–42) – but their participation rate will be lower than for minor hockey.
- Hardball
- Football
- Children’s camps (except for specialty camps)
- Scouting and Guiding (influenced by a shrinking child and youth population and an increasingly

ethno-cultural population where this activity is not well known)

- Swimming lessons for children (except in younger and ethnically diverse communities like Calgary)
- Badminton
- Volleyball
- Golf
- Curling
- Tennis
- Mountain biking
- Long distance bicycling
- Water skiing
- Tobogganing
- Snowmobiling (unless the sport can find ways to

retain enough of the aging market through sled design and other attractions)

- Hunting
- Attending sporting events (except for horse racing which will be driven by the growing appetite for gambling)
- Watching sporting events on TV
- Volunteering (the Baby Boom generation is less likely to participate in the way that the traditional older adult market has, and they will participate less than when they were younger – unless volunteer engagement practices change dramatically to entice this and younger generations into sustained volunteering).





Allianz Field, Saint Paul, Minnesota

3.8 Precedents & Best Practices

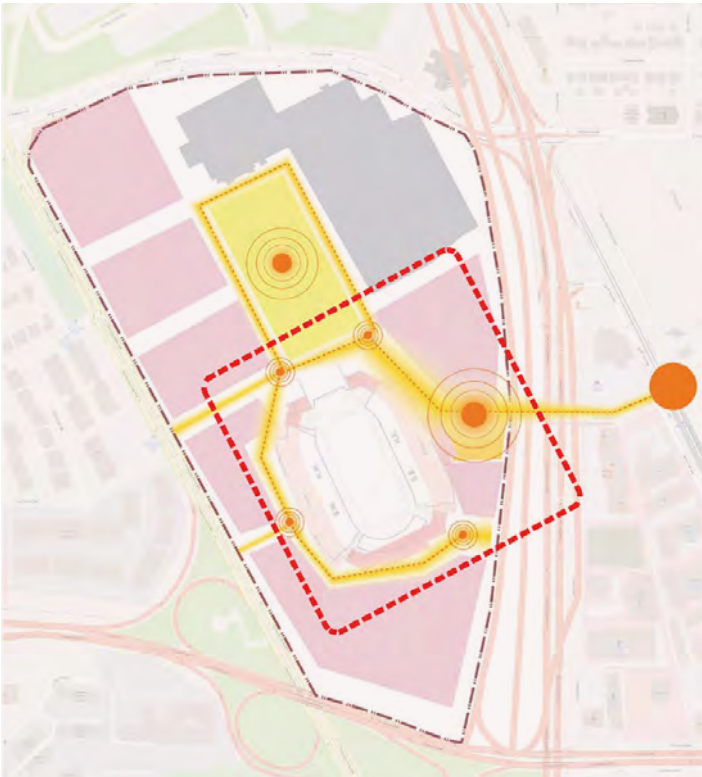
Subject matter experts, S9 Architecture, prepared a precedent package to analyze the base concept and determine the potential for big moves. This was an important component to further rationalize the location, programming and potential for public realm enhancements within the Plan Area. The following section summarizes key components of the base rationale, identifying best practice comparisons worldwide.

S9 analyzed the Concept Plan Base Rationale to identify specific aspects with best practice comparisons and provided subject matter expertise throughout the charrette process. S9 specifically looked at best practice examples to support:

- Stadium Activation
- Gateway Plazas
- Plazas + Mixed-use Activation
- Plazas and Daily Use Spaces
- Woonerf Streets (Wide and Narrow examples)
- Track + Sport Field Activation
- Seasonal Activation
- Appropriate Scale

3.8.1 STADIUM ACTIVATION

Activating the existing McMahon Stadium is a crucial feature to enhance the public realm and draw people into the site year round. A significant opportunity exists to incorporate more uses and a variety of public realm improvements



Landsdowne Park, Ottawa, Canada



Main Street Square, Rapid City, South Dakota



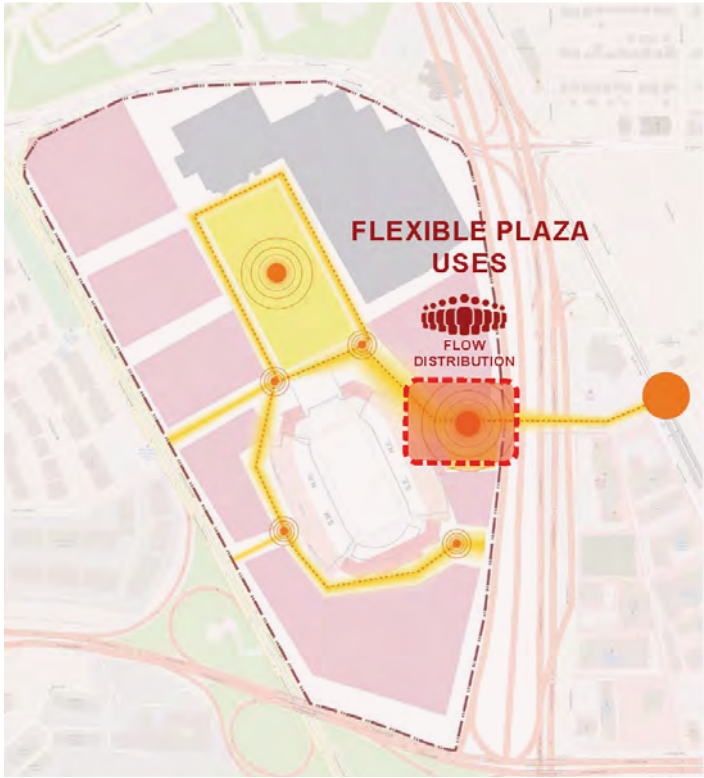
The Magnificent Mile, Chicago, Illinois



Busch Stadium Ball Park, St. Louis, Missouri

3.8.2 GATEWAY PLAZAS

Gateway plazas are a useful improvement to create gathering spaces for people during game-day, while providing the space to accommodate events throughout the year. This requires an ability to handle game-day crowds and features to generate excitement.



Neyland Stadium, Knoxville, Tennessee



Great American Ball Park, Cincinnati, Ohio



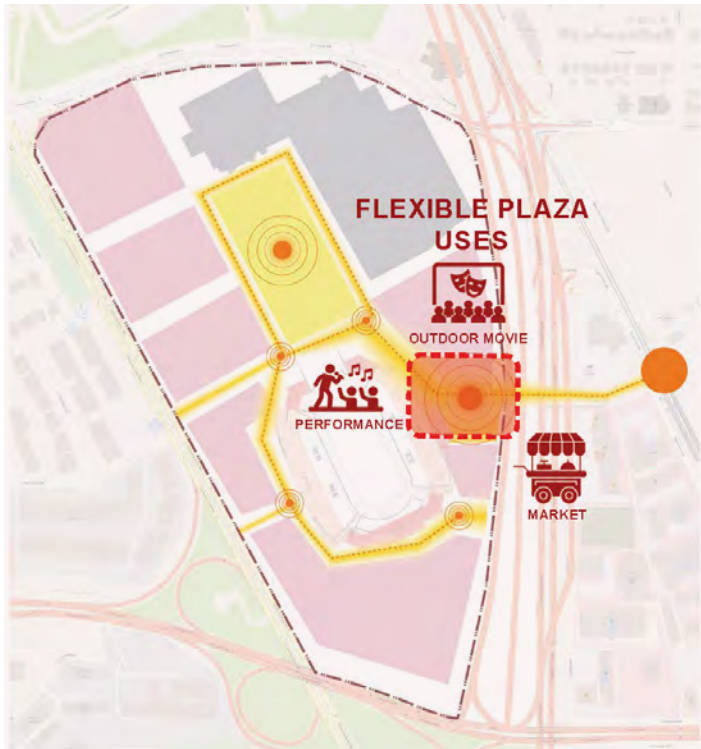
M&T Bank Stadium, Baltimore, Maryland



AT&T Stadium, Arlington, Texas

3.8.3 PLAZAS • MIXED-USE ACTIVATION

Plazas must be able to attract people outside of game-day and should be sized and programmed to accommodate additional events. This can be done through the use of temporary markets, concerts, work-out classes, and movie nights.



Landsdowne Park, Ottawa, Ontario



Queen Elizabeth Theatre Plaza, Vancouver, British Columbia



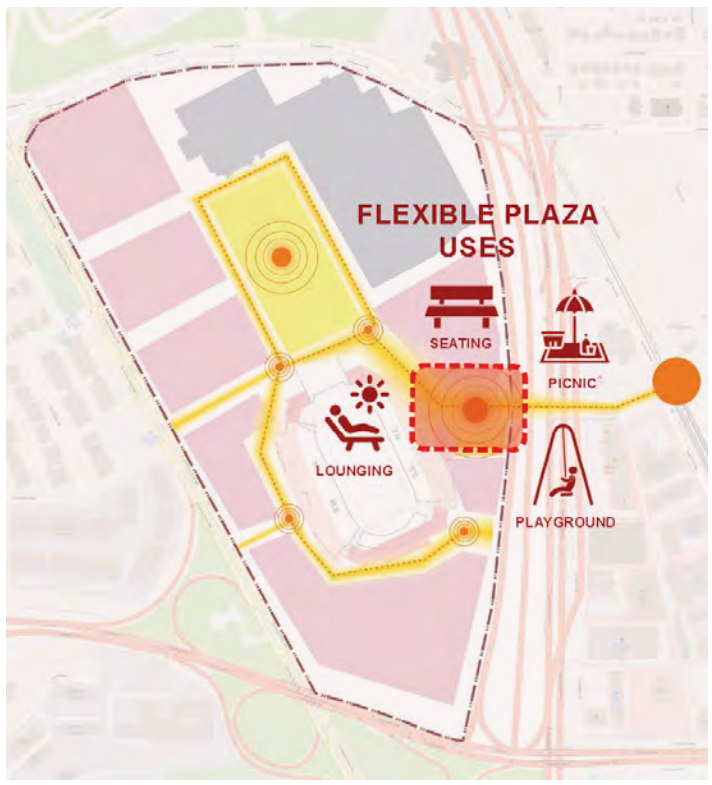
Midtown Plaza, Carmel, Indiana



Bicentennial Park, Mooresville, Indiana

3.8.4 PLAZAS • DAILY USE SPACES

Activating the plaza throughout the year requires the ability to program the space to accommodate the daily needs of residents. This can be achieved by providing landscaping or other public realm improvements to draw people in absence of specific programming or events.



Vilnius Plaza, Vilnius Lithuania



Jack Elstro Plaza, Richmond, Indiana



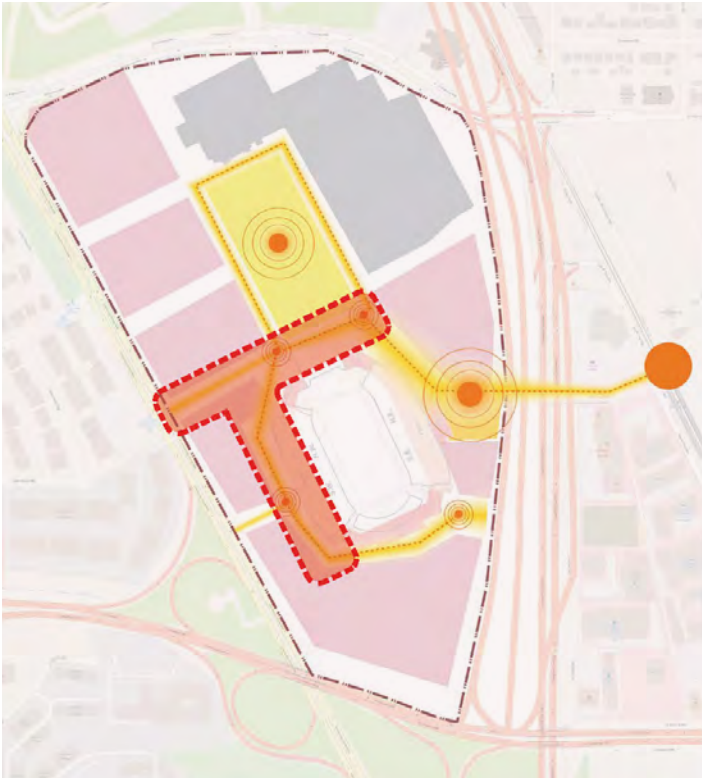
Crescent Plaza, Fairfield Town, Australia



Main Street Square, Rapid City, South Dakota

3.8.5 WOONERF • NARROW STREET

Woonerf "Shared Streets" enhance the public realm and promote the safe movement, and interaction of people that are walking, cycling or driving. The street is planned for people and can be used to incorporate programming, events and enhance the public realm. These streets are ideal for a tailgating parade.



St-Catherine Street, Montreal, Quebec



Larimer Street, Denver, Colorado



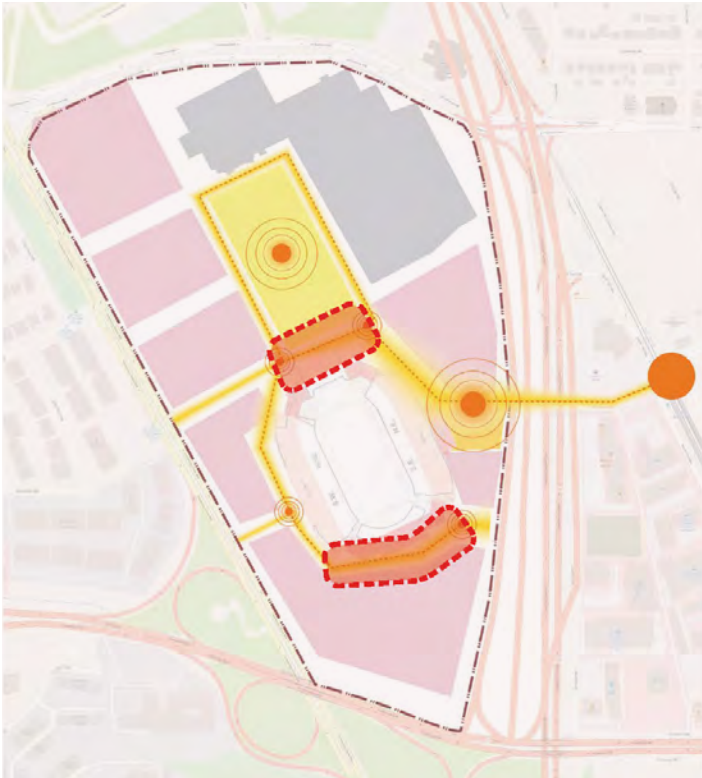
Stephen Avenue, Calgary, Alberta



Bagunhom Street, Dordrecht, Netherlands

3.8.6 WOONERF • WIDE STREET

Woonerf can exist in a wider form to accommodate greater volumes of people, while still enhancing the public realm and creating quality public spaces.



Bell Street Park, Seattle, Washington



16th Street, Denver, Colorado



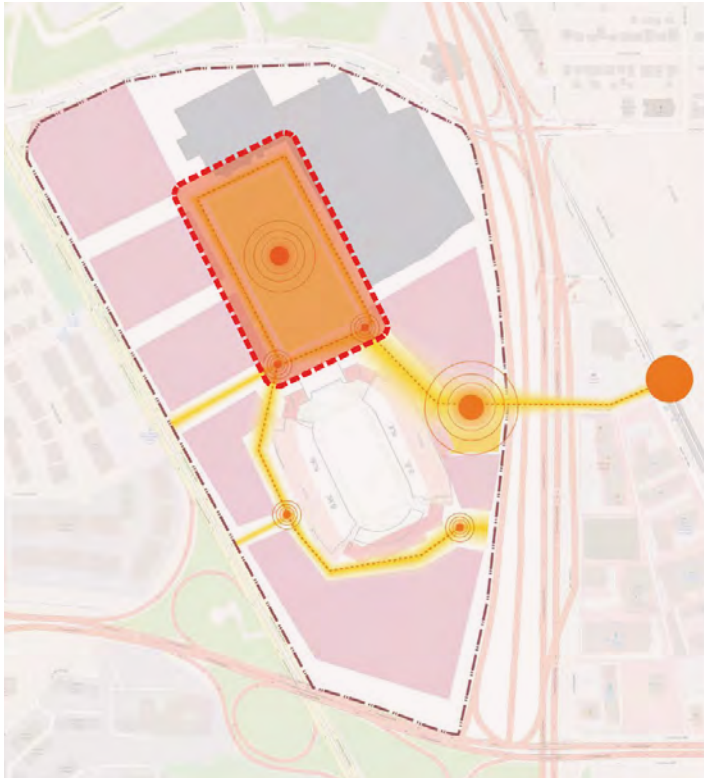
Exhibition Road, London, United Kingdom



16 Street, Denver Colorado

3.8.7 TRACK + SPORT FIELD ACTIVATION

The existing outdoor track and field remains unoccupied for the majority of the year. There is an opportunity to enhance this space through targeted programming and providing public realm improvements to draw people into the central open space area.



Busch Stadium Ball Park, St. Louis, Missouri



Title Town District, Ashwaubenon, Wisconsin



Mamontovka School, Pushkino, Russia



Doodle Park, Chongqing, China

3.8.8 SEASONAL EVENT ACTIVATION

A significant opportunity exists to activate the Foothills + McMahon lands and celebrate four seasons.



Winter



Spring



Summer



Fall



Outdoor Fitness



Live Music



Fun Fair



Farmers Market

3.9 Scale Overlay

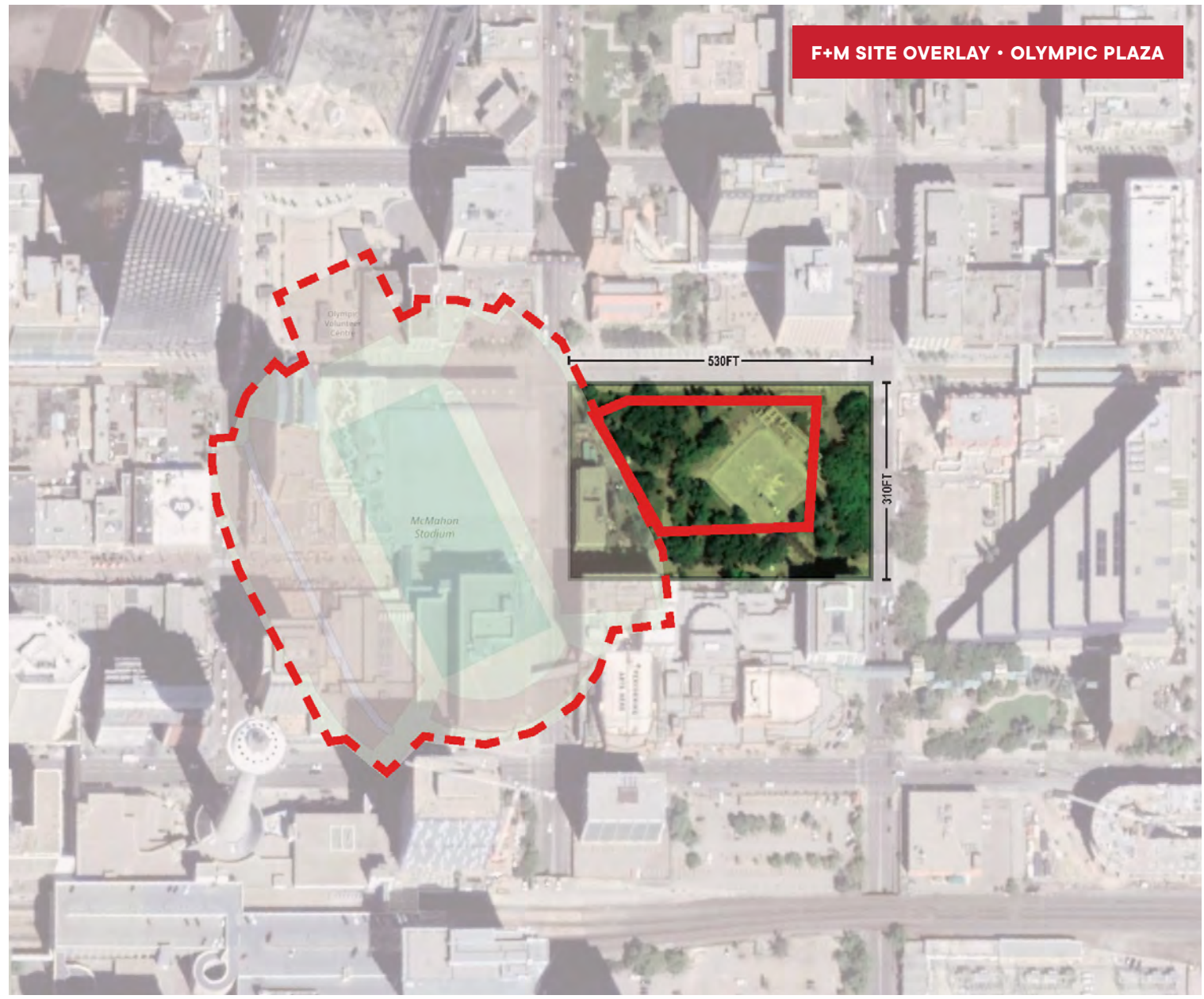
3.9.1 ENTIRE SITE • LANDSDOWNE PARK, OTTAWA

A scale overlay was completed to understand how the site compares to similar facilities and public spaces. This is useful in determining the size of public spaces and can assist in conceptual programming. The Foothills + McMahon lands are approximately double the size of Landsdowne Park in Ottawa.



**3.9.2 ENTRY PLAZA + STADIUM •
OLYMPIC PLAZA, CALGARY**

McMahon Stadium was overlaid onto familiar public spaces in Calgary to guide the Concept Plan process, specifically relating to the sizing of the entry plaza. The Concept Plan Base Rationale identified a plaza size approximately the same size as Olympic Plaza.



**3.9.3 ENTRY PLAZA + STADIUM •
CENTRAL MEMORIAL, CALGARY**

The Concept Plan Base Rationale identified a plaza size approximately the same width as Central Memorial Park.





4.0

**FOOTHILLS
+ M^cMAHON**
CONCEPT PLAN

**Engagement Process
+ Outcomes**

4.0

Engagement Process + Outcomes

4.1 Engagement Process

The redevelopment vision was created based on input from public and stakeholder groups.
The engagement process took place over three phases:



Phase One
EXPLORE

Public engagement is focused on identifying how the site is used today and opportunities to enhance it through the Concept Plan process. Stakeholders and members of the public were asked to respond to an online survey of pre-charrette engagement questions that helped the project team better understand how the site is used.



Phase Two
CREATE

A virtual charrette process was held over two weeks and included presentations from the Core Design Team and focused topic sessions. The charrette involved multiple engagement sessions with a broad range of stakeholder groups to provide input into creative design solutions for the project. Members of the public were invited to tune into charrette sessions to listen and learn and could also go back and review previous sessions through the project web page.

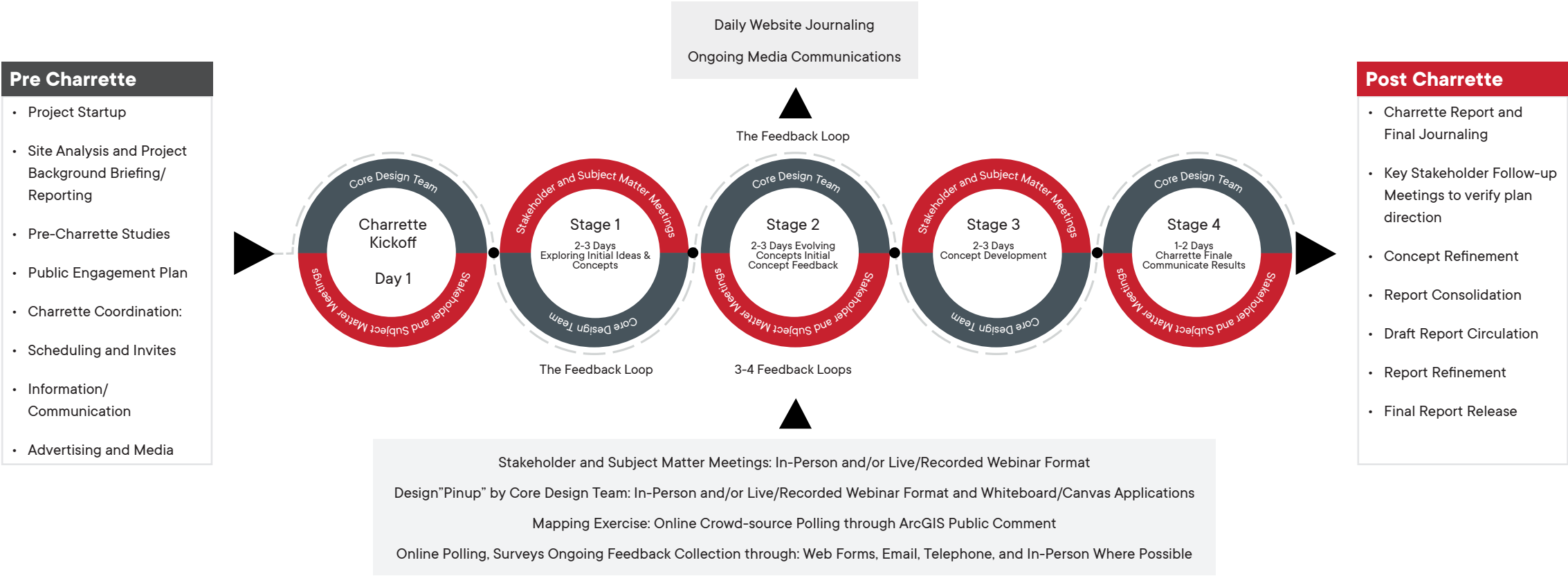


Phase Three
SHARE

Following the charrette, a near final design concept was shared publicly. Public input was collected through an online survey on the draft design concept before it is finalized and moved to Council.

4.1.1 CHARRETTE METHODOLOGY

The charrette methodology ensured ample and multiple avenues for stakeholders to be involved in the process. This revealed a variety of issues and opportunities, supported by multiple feedback loops to help refine the final Concept Plan.

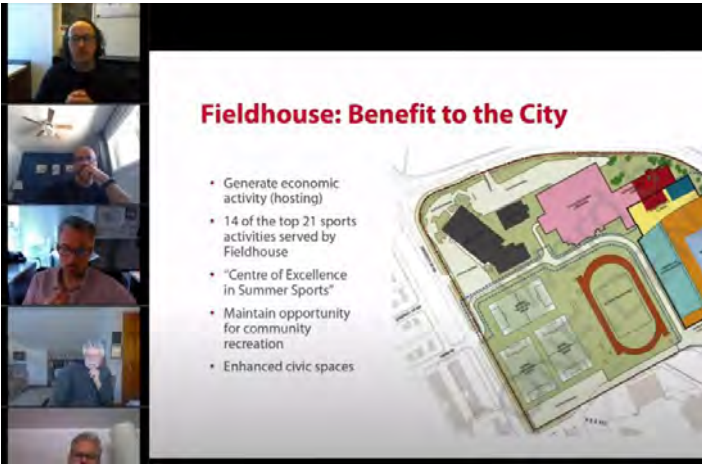


4.1.2 DESIGN CHARRETTE

The entire project team hosted a two-week design charrette from April 12–23. It was well attended by the public including local residents, representatives of sports organizations who use the park and representatives of local community associations. The charrette occurred online through a series of webinars due to restrictions caused by COVID–19 and weaved together core design team sessions, panel discussions (open to the public) with subject matter experts and public presentations. Subject Matter Expert panel discussions addressed the following topics:

- Civil Engineering and Servicing;
- Transportation and Parking;
- Recreation, Stadium and Fieldhouse
- Parks and Public Space
- Development and the Market

A summary presentation at the end of the two weeks identified a near final concept, which was refined through Phase 3 of the engagement process.



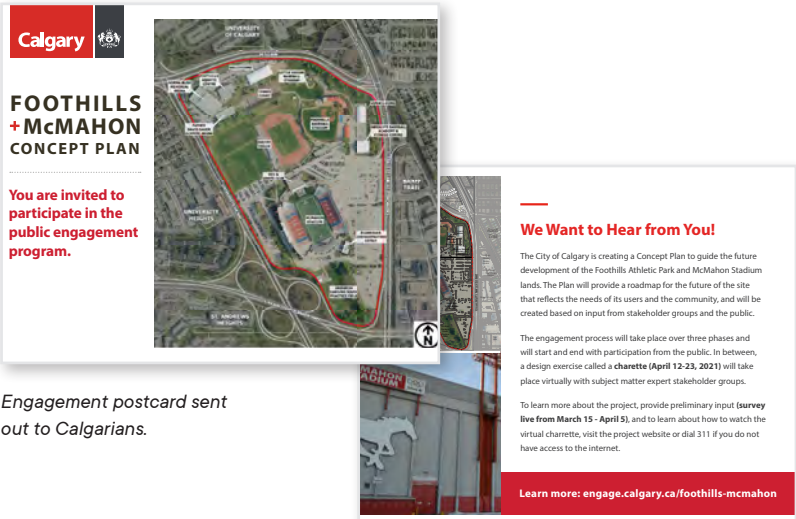
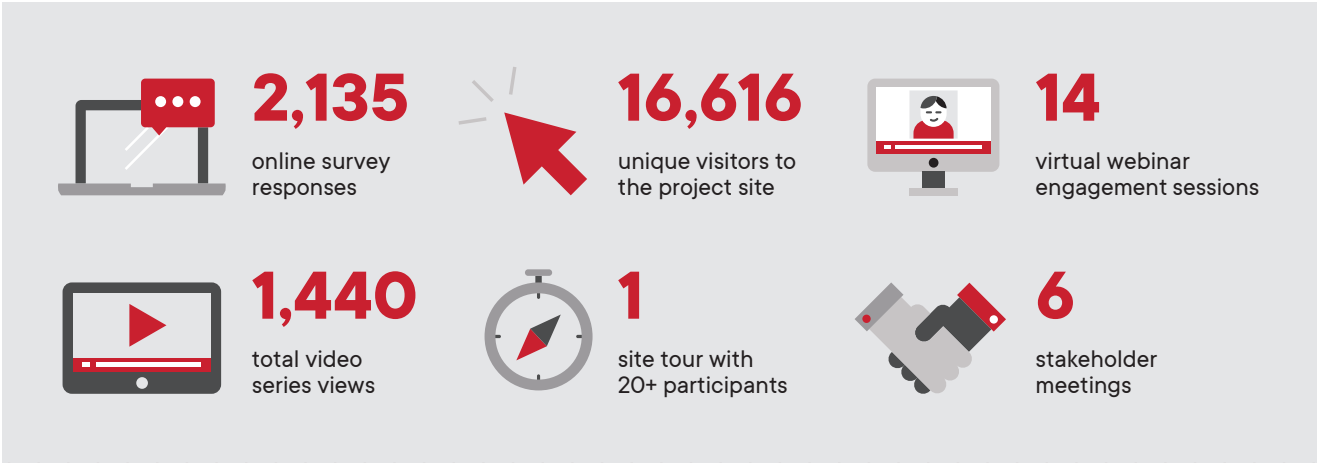
Virtual session screen capture.



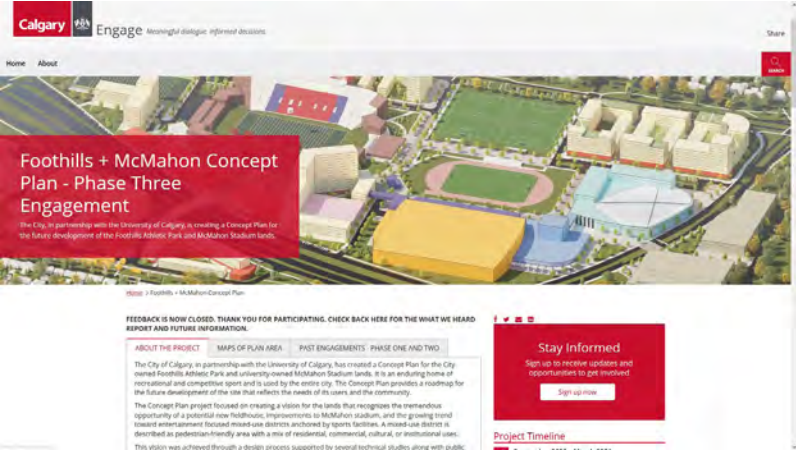
Virtual session screen capture.

4.2 Engagement Metrics

During Phase 1, online participation had a total of 1,781 unique contributors (the unique number of visitors who have left feedback through the participation tools), and 9,935 unique visitors to the site to learn about the project. During Phase 3 online participation had a total of 354 unique contributors who provided feedback, and 6,681 unique visitors to the site to learn about the project. In total, the project saw 2,135 unique contributors and 16,616 unique visitors to the site during Phases 1 and 3.



Engagement postcard sent out to Calgarians.



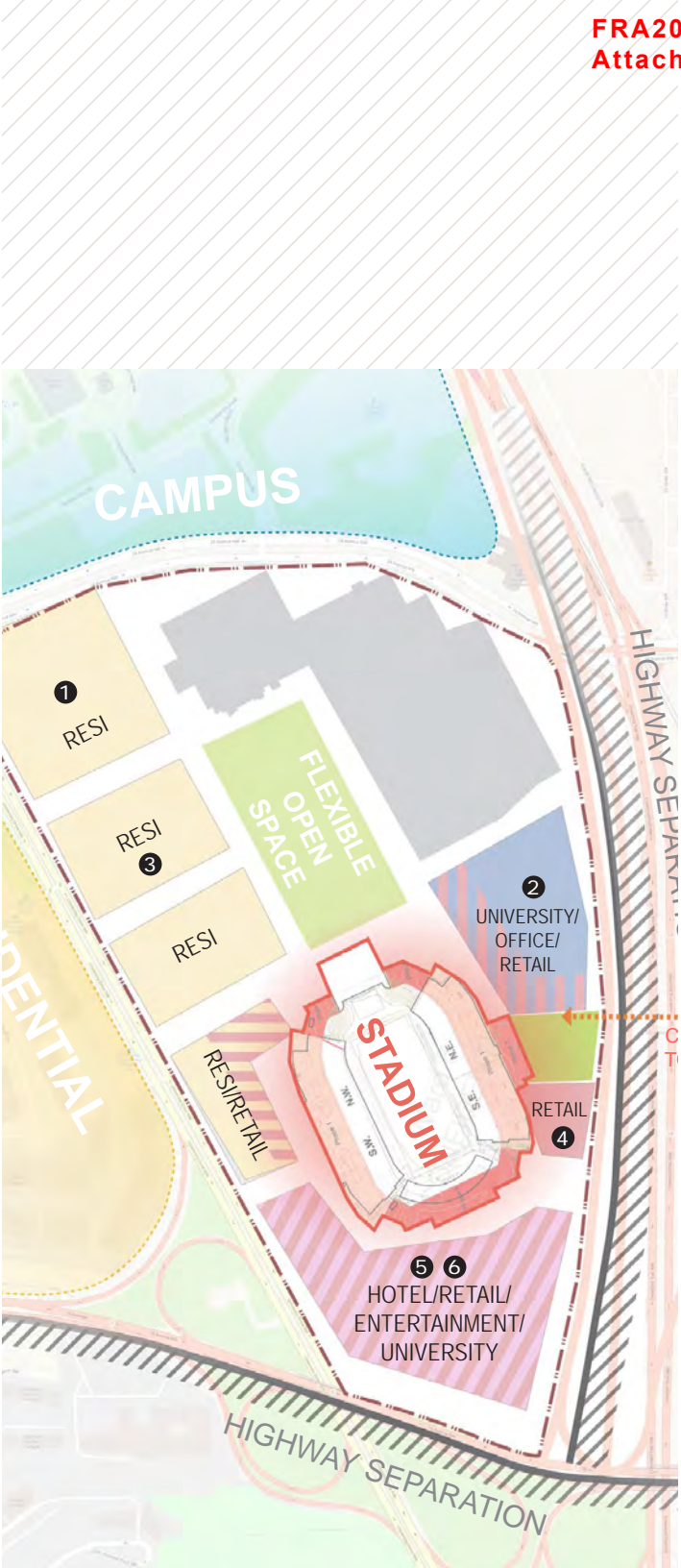
Foothills + McMahon Project Website via the City of Calgary's Engage portal.

4.3 What We Heard

The following table represents how the comprehensive engagement process influenced the Key Elements of the Concept Plan, with direct relation to both Phase 1 and Phase 3 feedback.

KEY ELEMENT	PHASE 1 INPUT	PHASE 3 INPUT
Multi-sport Fieldhouse	<p>The fieldhouse was identified as one the most important aspects of the Concept Plan.</p> <p>Indoor track facilities were also highly valued.</p>	<p>The proposed fieldhouse is one of the most valued aspects of the proposed project with specific mentions of the indoor track. Many survey respondents also stated they would like to see this aspect of the project prioritized and built soon.</p>
Entertainment District, Stadium Front Door, Transit Interface	<p>The Stadium either as-is or with upgrades was identified as one of the most important aspects of the Concept Plan project.</p> <p>Wayfinding, including signs and maps within the site was also identified as an important aspect of the Master Plan project</p>	<p>An increase in uses, particularly year-round uses, was favoured by survey respondents.</p> <p>Stadium upgrades were favoured by many respondents with some saying they would like them to be completed soon. The concept of covering the stadium to protect spectators from the weather was mentioned, as well as potentially replacing or moving the stadium.</p> <p>Some comments were made in support of the new front door and pedestrian bridge improvements.</p>
Interface at University/ 24th Avenue	<p>Connectivity and walkability, including requests for more paths, sidewalks and crossings, and connections to the University and other amenities. Some said more or improved pedestrian bridges over adjacent roads is desired.</p>	<p>Few comments were received on this element; however some support was mentioned regarding cycle infrastructure and future/ continued collaboration with the University of Calgary. Some suggestions were made to create more pedestrian overpasses and to improve traffic flow.</p>

KEY ELEMENT	PHASE 1 INPUT	PHASE 3 INPUT
Central Green Space	The outdoor track and field continue to be highly valued by current users.	Many expressed support and excitement for the project and stated that they liked the multi-sport design and recreation focus of the project, including the flexible green space. Some preferred more green space and flexible recreation space as well as more landscaping.
Redevelopment at University Drive	Food services, both restaurants and take away, were identified as an important aspect of the Concept Plan project.	<p>Some respondents were in favour of the introduction of mixed-use including housing and food services, however some were concerned about potential impacts to neighbouring communities such as increased noise.</p> <p>Many suggested a reduction in the housing units proposed.</p>
South Infill/ Parking Opportunity	Parking structures, either a parkade or underground parking was identified as an important aspect of the Concept Plan project.	<p>Several questions were mentioned about the volume of proposed parking stalls and where they would be located on the site. Many weren't sure if enough parking had been accounted for. Some suggested that surface parking is preferred to support tailgating.</p> <p>Mentions of the south infill parking opportunity were generally favoured.</p>



5.0

FOOTHILLS
+ McMAHON
CONCEPT PLAN

Vision +
Concept Plan

5.0

Vision + Guiding Principles








5.1 Vision

Located at the crossroads of the University of Calgary, The Trans-Canada Highway, Crowchild Trail, and Calgary’s Banff Trail Red-Line Station, Foothills+McMahon is well positioned for redevelopment into a dynamic, four-season mixed-use recreation and entertainment village anchored by two major sports venues.

Foothills+McMahon is a critical economic development opportunity showcasing best practices in transit-oriented development, multi-use stadium and recreation redevelopment, mixed use centers, and walkable, multi-modal city building.



5.2 Guiding Principles

	Minimize Wasted Space
	Shift auto-oriented focus to urban centre that maximizes walking, biking and transit
	Develop porous blocks that connect to the existing urban fabric
	Improve transit connections through placemaking
	Create a year-round sports, recreation and entertainment village
	Establish a flexible and implementable vision
	Enable strategic phasing



Concept Plan



86 acres of developable area



~2,500 units



~5,500 people



~245 hotel rooms



Density of 1.3 FAR



280,000 ft² of commercial, entertainment, and retail



25% open space

5.3 A New Conceptual Vision for Foothills + McMahon

This Concept Plan creates a vision for the lands that recognizes the tremendous opportunity of a potential new fieldhouse, improvements to McMahon stadium, and the growing trend toward entertainment focused mixed-use districts anchored by sports facilities.

It will guide and set the stage for future planning, zoning, and development activities on the Foothills + McMahon site. The following Concept Plan illustrates the key elements that were created in response to the meaningful engagement, feedback, and input on the project to date.





**FOOTHILLS + MCMAHON
CONCEPT PLAN**

- | | | | | | | | | | | | | | |
|---|------------------------|---|--|---|-----------------------------|---|--|---|---------------------|---|---|---|--|
| 1 | Multi-sport Fieldhouse | 2 | Entertainment Plaza + Stadium Front Door | 3 | Crowchild Trail, Reimagined | 4 | Enhancing Connections to the University of Calgary | 5 | Central Green Space | 6 | Activating University Drive with Mixed Use Infill | 7 | Multi-functional Internal Street Network |
|---|------------------------|---|--|---|-----------------------------|---|--|---|---------------------|---|---|---|--|

KEY ELEMENT 1

Multi-sport Fieldhouse

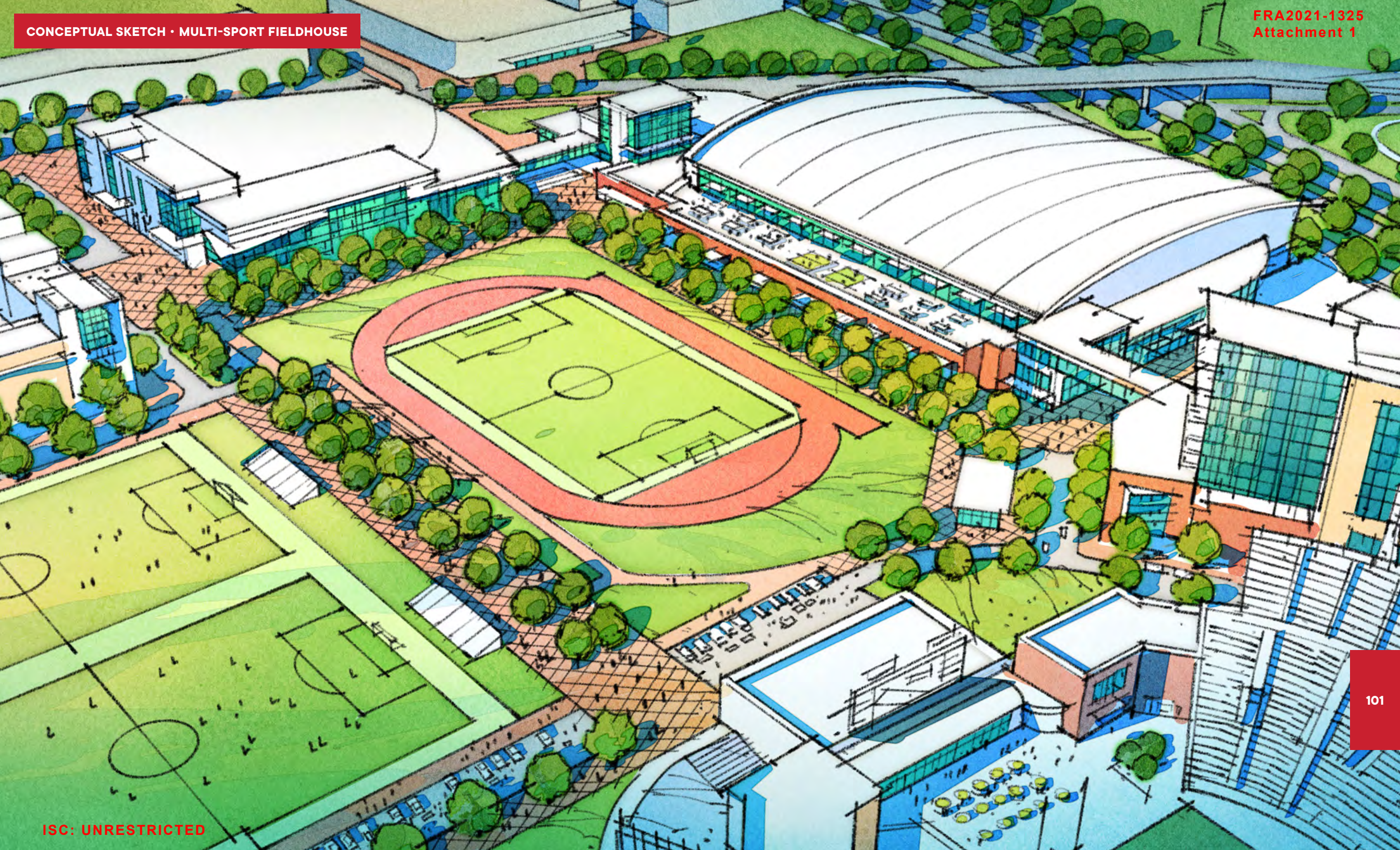
The year round multi-sport fieldhouse is the catalyst for redevelopment and a key element to realize this concept plan. The project has been identified as a priority for Calgary and represents a keystone facility for The City; aligning with the Recreation Master Plan to address an existing gap for indoor practice and play space to accommodate professional, amateur and community sports and events.

Envisioned to be an athletics and recreation venue suitable to host events sanctioned by the International Association of Athletics Federations (IAAF, the governing body for track and field events). It is an economic generator that could accommodate up to 10,000 spectators for national and international meets. While the specific programming and planning is considered out of scope for the concept plan, the integration with all concept plan elements has been crucial.



Precedent Imagery





KEY ELEMENT 2

Entertainment Plaza + Stadium Front Door

The Entertainment Plaza + Stadium Front Door is the heart of the Concept Plan and establishes a gathering place for year-round activities, activating game-day and major events by contemplating an improved front-door for McMahon stadium and establishing better connections to the Banff Trail LRT Station.

A new front door for the stadium supported by a multi-use and four-season entertainment plaza. This area establishes a sense of place and creates a unique opportunity for entertainment uses, restaurants, hotels, and outdoor patios to enhance user experience and draw more people to the site throughout the year.



Precedent Imagery





KEY ELEMENT 3

Crowchild Trail, Reimagined

There is an opportunity to reimagine Crowchild Trail between 24 Avenue and 16 Avenue NW as an Urban Boulevard.

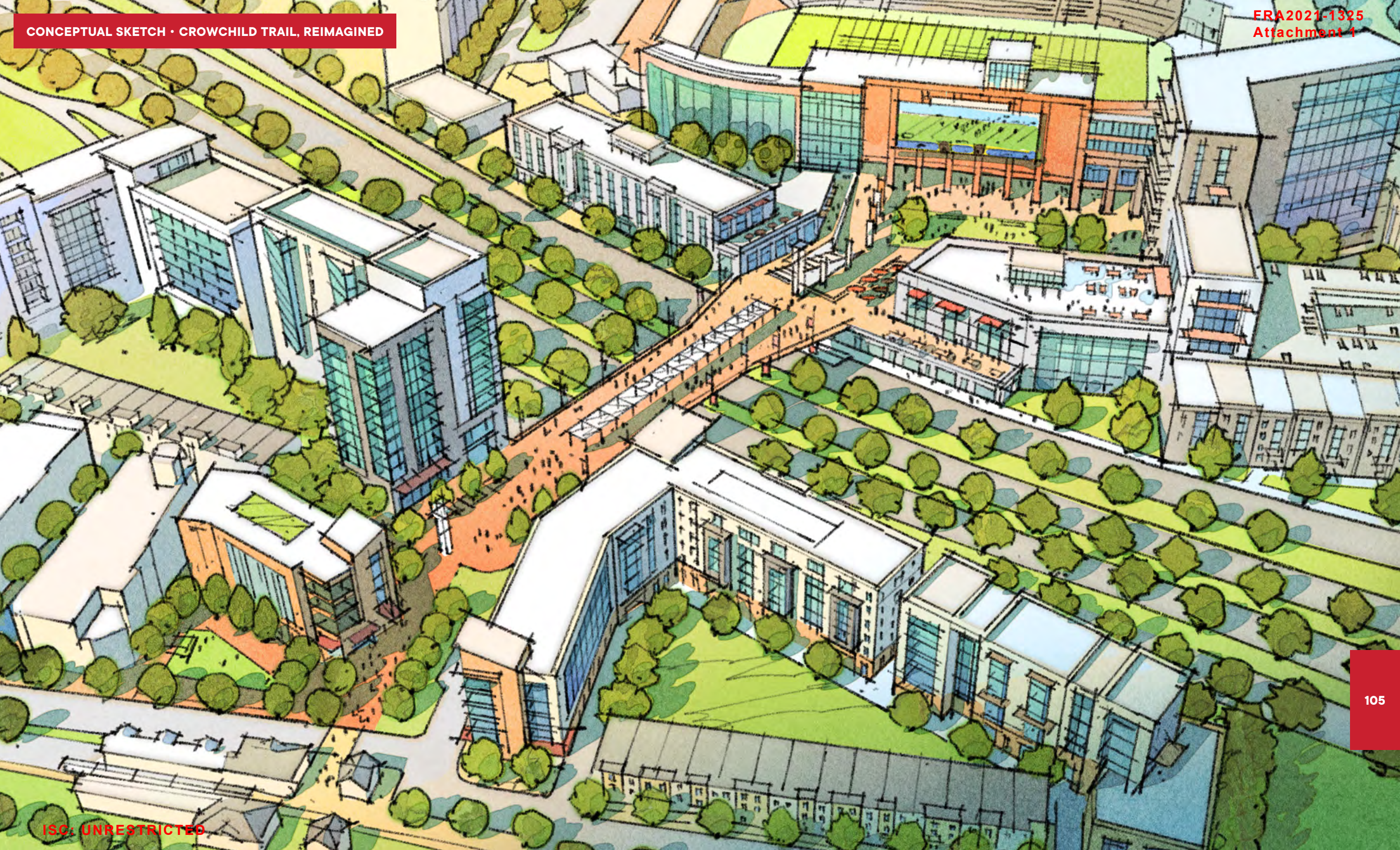
Creating an active frontage along Crowchild Trail, via a frontage road (slip lane) with on-street parking could enable additional retail development and support the viability of the Entertainment District. Considering a lane width reduction to encourage variable speed reductions and supporting active modes infrastructure enhances the public realm and overall streetscape.

A widened land bridge spanning Crowchild Trail improves the connection to the Banff Trail LRT station. The land bridge can be programmed and landscaped to enhance the public realm while improving active mode connections.



Precedent Imagery





KEY ELEMENT 4

Enhancing Connections to the University of Calgary

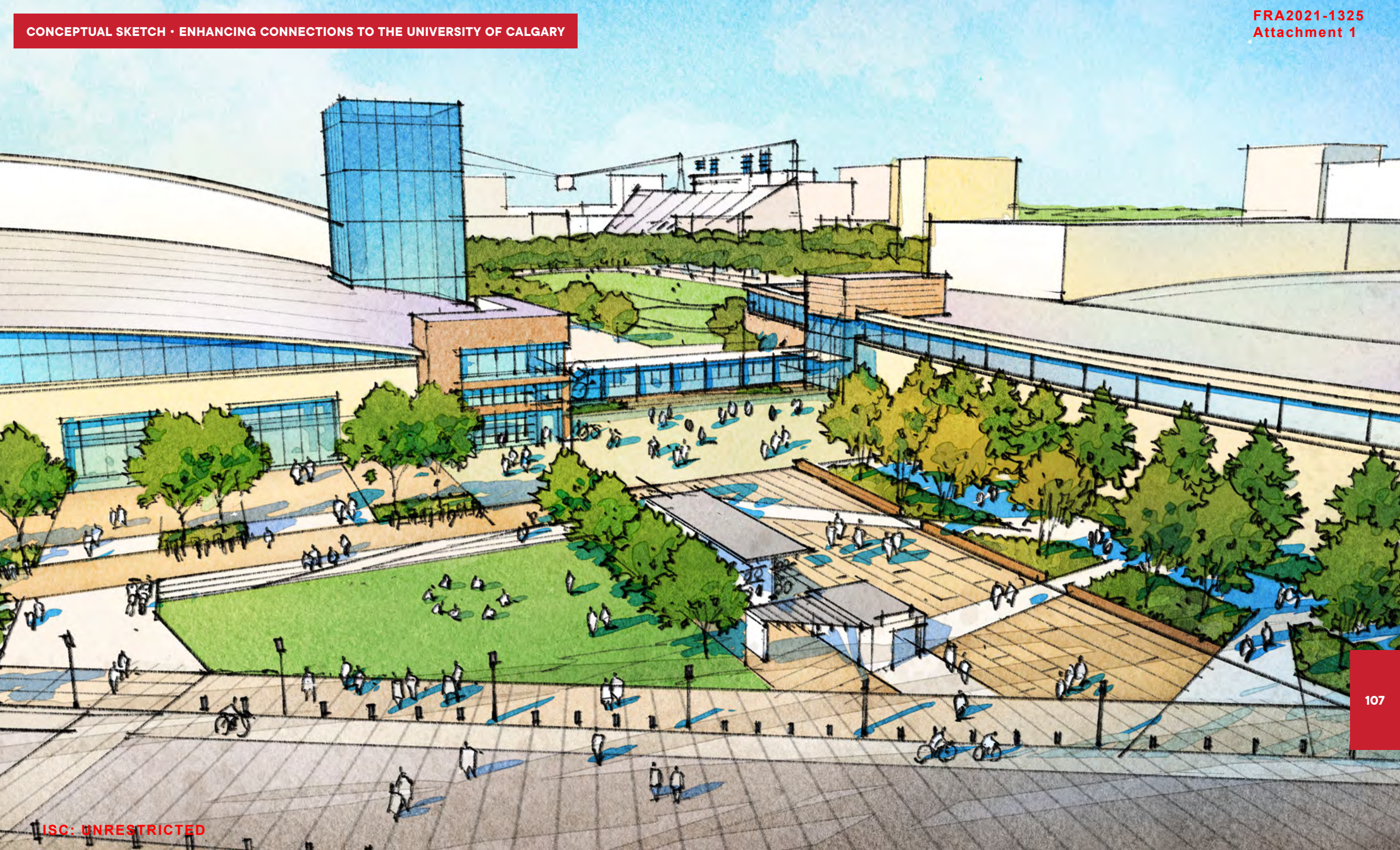
Improving pedestrian, transit and cycling connections within the site and to the regional network is a guiding principle of the Concept Plan.

24 Avenue NW, interfacing with the University of Calgary, was identified as a crucial connection which is experiencing rising volumes of pedestrian and cycling activity. This location acts as a significant gateway, inviting people into the site by providing a bike plaza along 24 Avenue NW, improving integration with the University of Calgary. It enhances the public realm by creating a node for cycling, while establishing a functional gathering space for people. A “Grand Staircase” leverages the grades to invite people into the centralized green space, while providing a location for people to linger.



Precedent Imagery





KEY ELEMENT 5

Central Green Space

Central Green Space

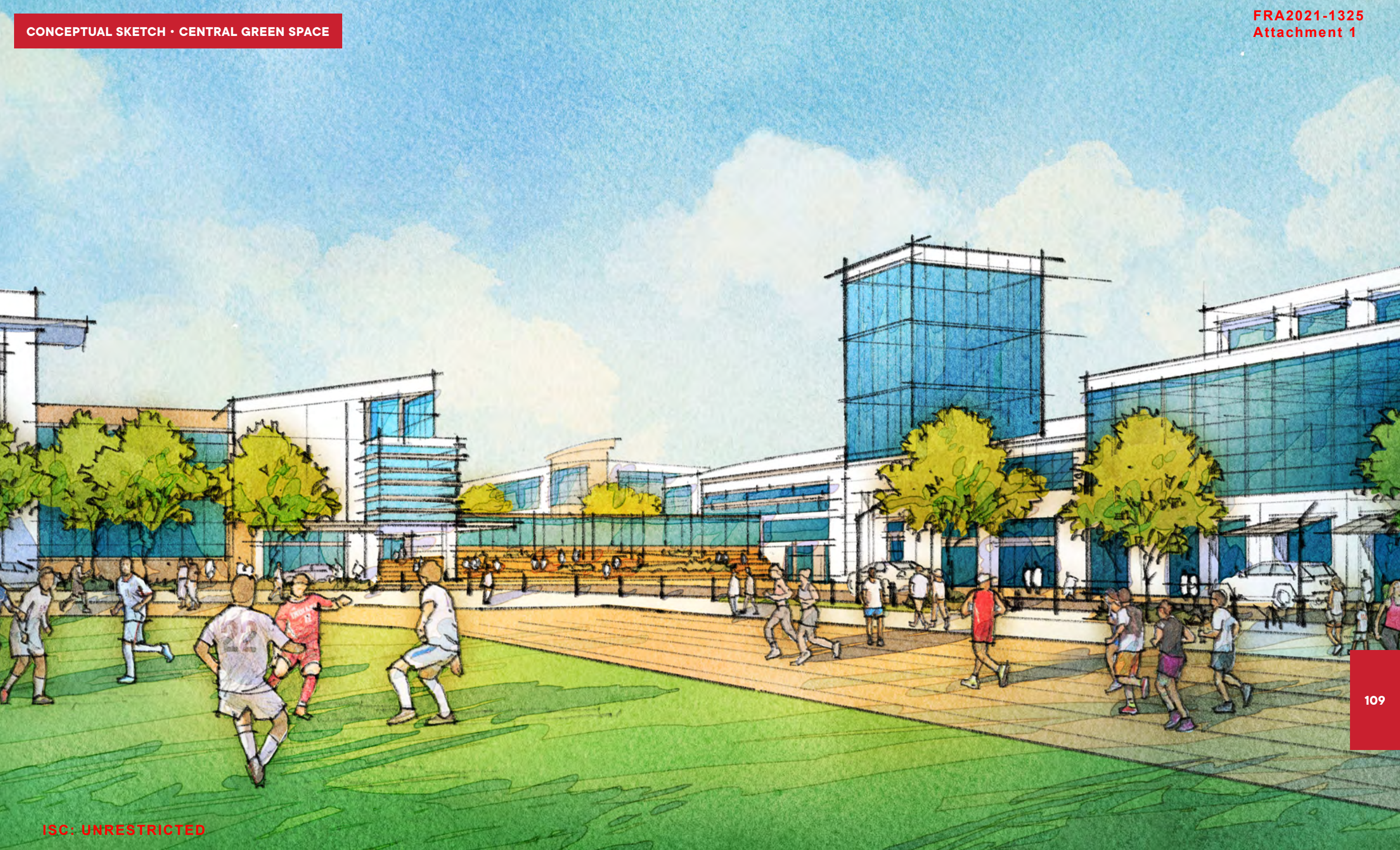
The Concept Plan envisions three outdoor sports fields that can be arranged and programmed to support a variety of informal and formal sports and recreation activities. The fields have been arranged to create a “green finger” into the site, complementing the existing residential and pathway network to the west.

The Central Green Space provides opportunities for both formal and informal recreation activities with central fields and track, which are bound by a walkable network with the pedestrian parade in the south and retail/patio activation in the north. The area supports event programming and informal social and leisure activities. The Concept Plan contemplates upgrades to the existing fields, with retaining walls, to allow for better drainage to increase overall usage. Several patio opportunities have been identified along south and west facing building frontages, capitalizing on sunlight and informal seating areas for events.



Precedent Imagery





KEY ELEMENT 6

Activating University Drive with Mixed Use Infill

The Concept Plan identifies opportunities to integrate residential and commercial uses through redevelopment parcels that complement a “Sports Village” and existing and future development at the University of Calgary.

Mixed use development blocks are walkable and appropriately scaled with heights ranging from three to 13 storeys that step down to five storeys along University Drive and 24 Avenue NW. A combination of residential and retail active frontages enhance University Drive promoting it as a character street leading towards the gateway to the University of Calgary.

The south portion of the Concept Plan sites an opportunity for a multi-use structured parking facility that houses a sports field on the roof (Similar to SAIT’s innovative field and parkade concept). The field can be programmed for sports or open space while providing the necessary parking.



Precedent Imagery





KEY ELEMENT 7

Multi-functional Internal Street Network

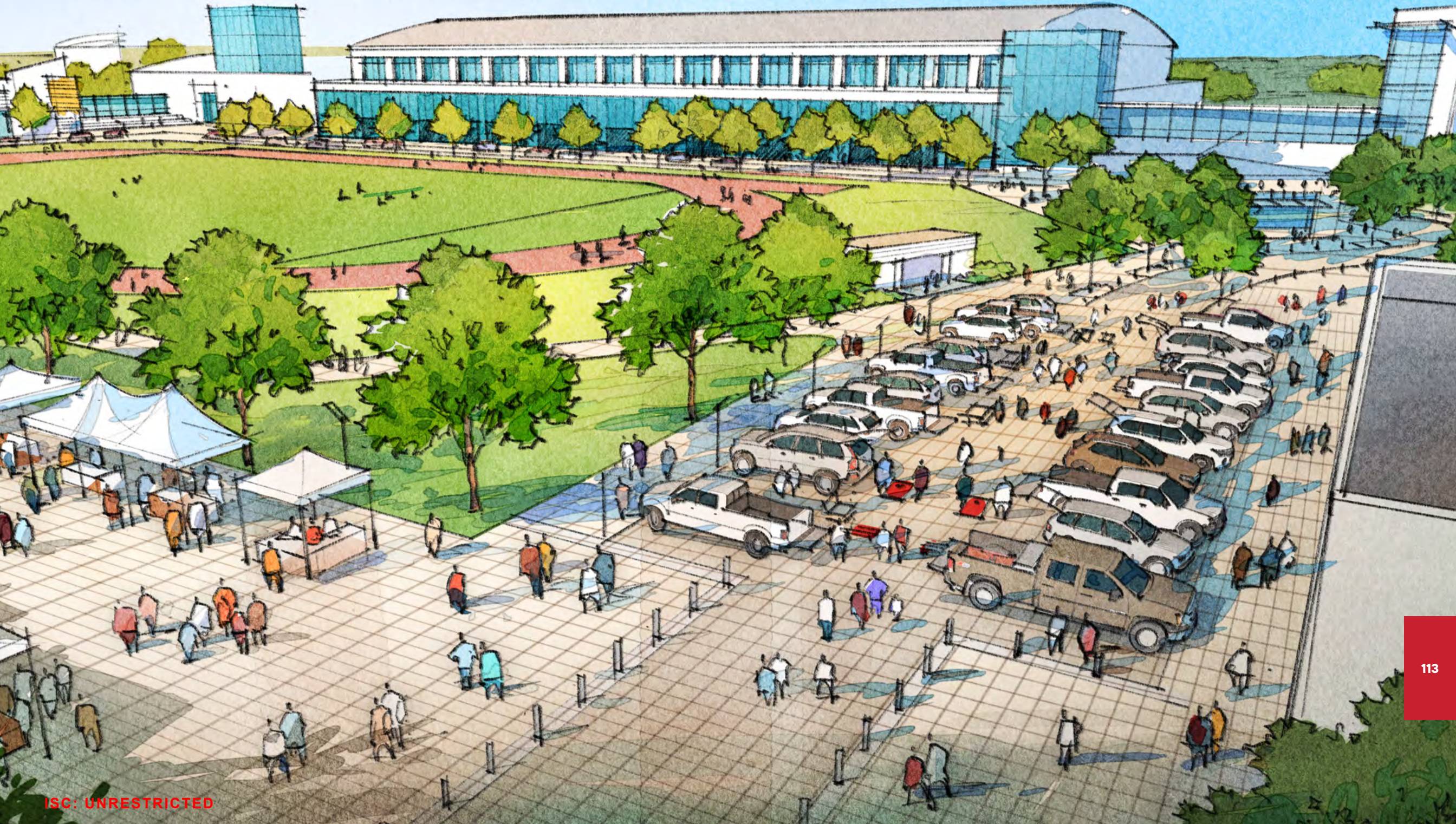
The Concept Plan identifies internal woonerf streets, reducing the focus on the automobile and encouraging pedestrian and cycling. These “shared streets” enhance the public realm and overall pedestrian experience by incorporating traffic calming measures.

A pedestrian parade runs along the north side of the stadium, providing a formal tailgate parade and parking area, drawing people into the entertainment plaza and the new front door. This area will be the epicentre of activity for events, while also functioning as a public gathering space throughout the year.



Precedent Imagery











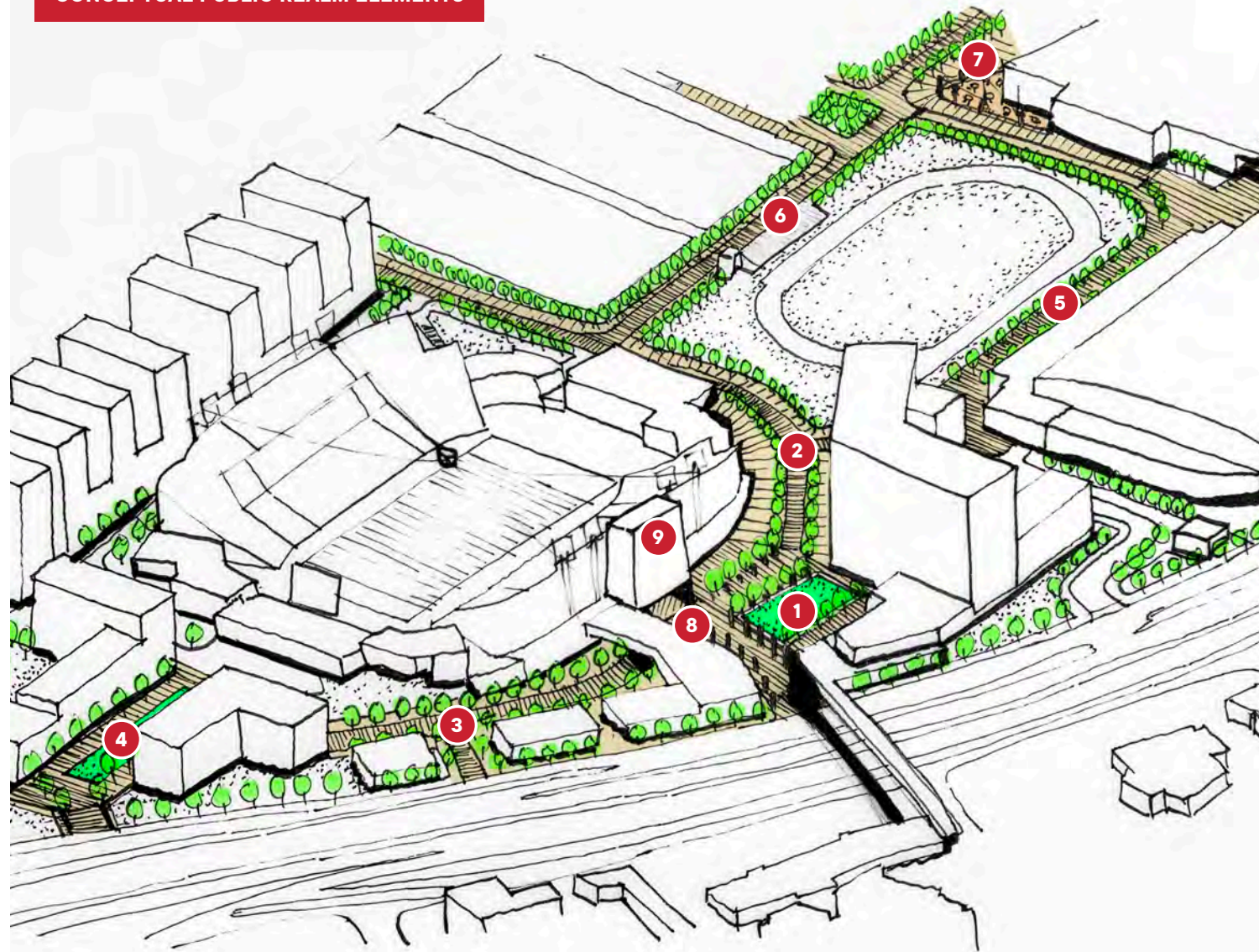
5.4 Open Space + Landscape Architecture

Scatliff+Miller+Murray developed a landscape plan for the open space areas and conceptual public realm improvements. The plan identifies opportunities to weave natural elements into the concept plan to enhance the public realm.

The open space network includes publicly accessible spaces that may be publicly or privately owned. The Concept Plan open spaces are urban in nature and will be defined by the "sports village" atmosphere. The intent to provide public spaces to celebrate people, sports, diversity, and four seasons, while incorporating natural elements. A well designed public realm enhances the neighbourhood, provides innovative opportunities for stormwater management, and creates a unique identity for Foothills + McMahon.

This Concept Plan contemplates public open space in the form of parks, plazas, and green corridors, while designing functional woonerf streets to enhance active modes. The distribution of public spaces is purposeful, leveraging key gateways and connections, while proposing new spaces to develop an identity for the neighbourhood.

CONCEPTUAL PUBLIC REALM ELEMENTS

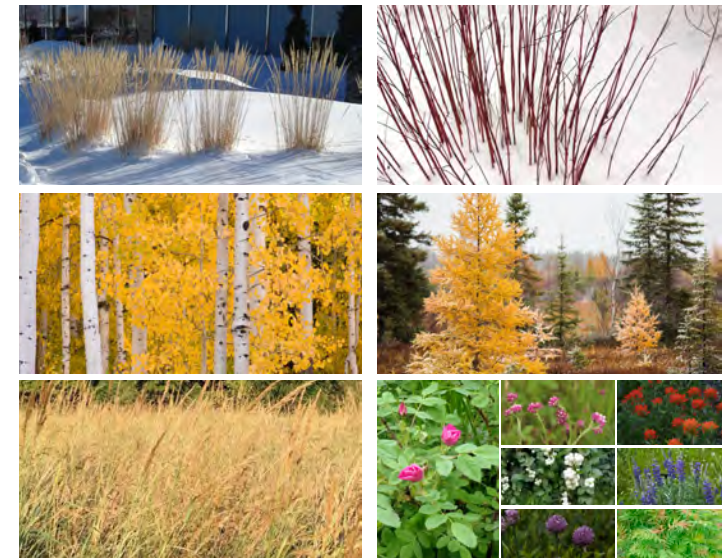


PUBLIC REALM ELEMENTS

1. Entertainment District plaza + programmable artificial turf lawn w/ active edges
2. Tree-lined street w/ bioretention gardens
3. Stadium mews continued to south plaza terminus
4. Open green space/Innovative Parking Structure
5. Fieldhouse mews + pedestrian link to U of C
6. Foothills mews - pedestrian link b/w fields and activity centres
7. Opportunity for large patio space overlooking fields
8. Opportunity for open portal w/ vista to stadium field
9. Opportunity for large-scale public art beacon

Seasonal Landscape Vision

Promoting a resilient and sustainable landscape, intended to express and celebrate our diverse local landscape through-out the seasons.



LANDSCAPE CONCEPT ELEMENTS

- 1. Programmable open lawn w/ active edges. Opportunity for winter activation conversion to skating rink
- 2. Tree-lined mews / programmable streetscape / urban LID integration
- 3. Native landscape buffer w informal seating opportunities



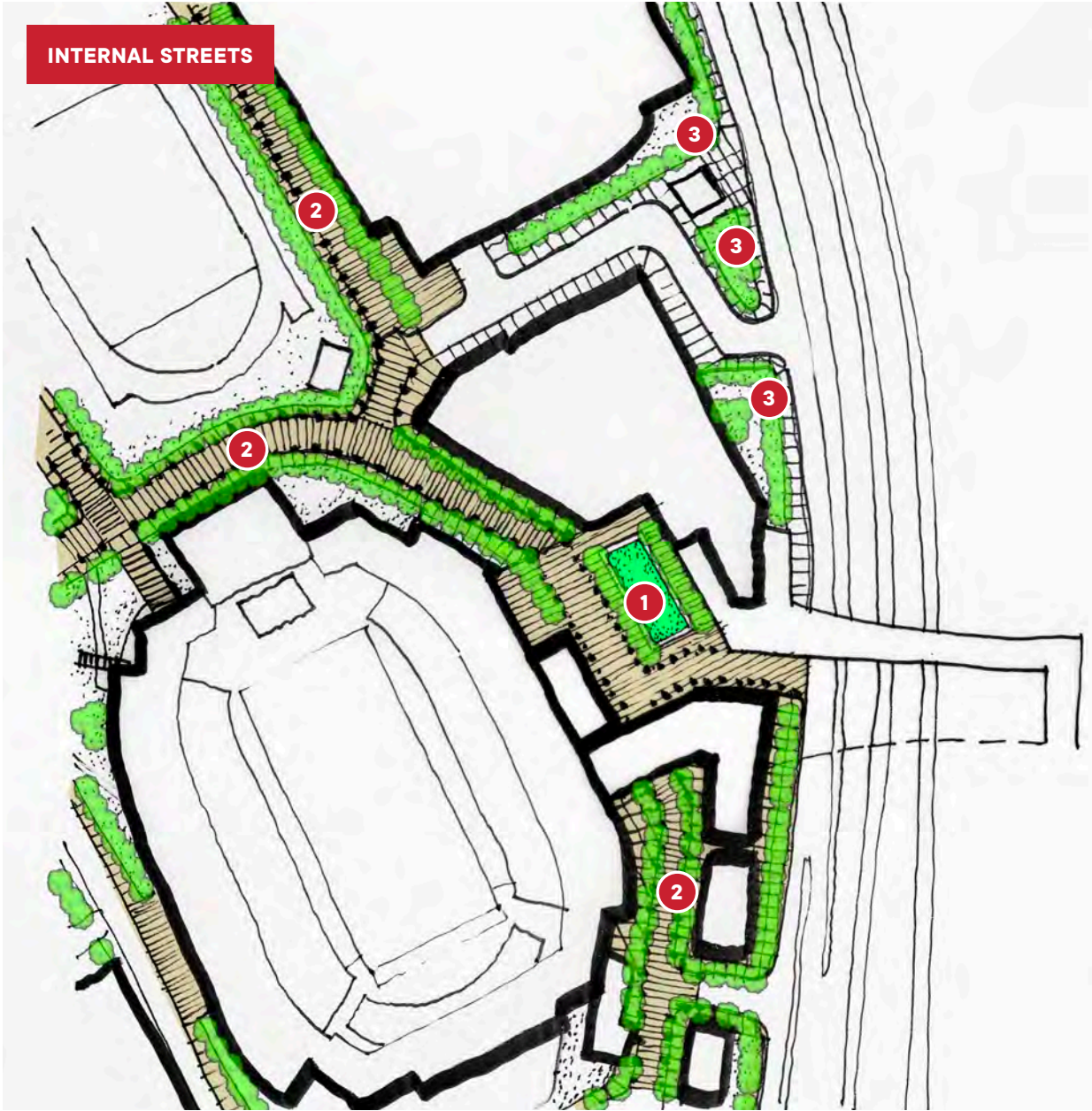
Open courtyard green w/ active + passive edges



Tree-lined programmable urban streetscape w LID strategies



Native Aspen landscape buffer



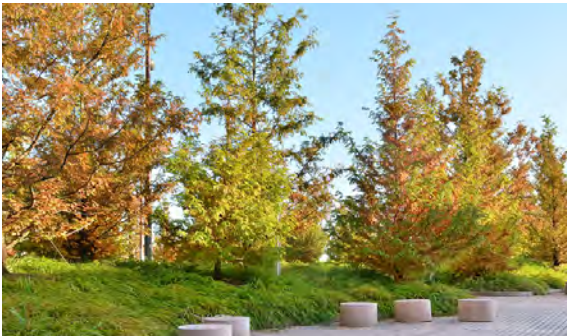
EAST PLAZA ELEMENTS



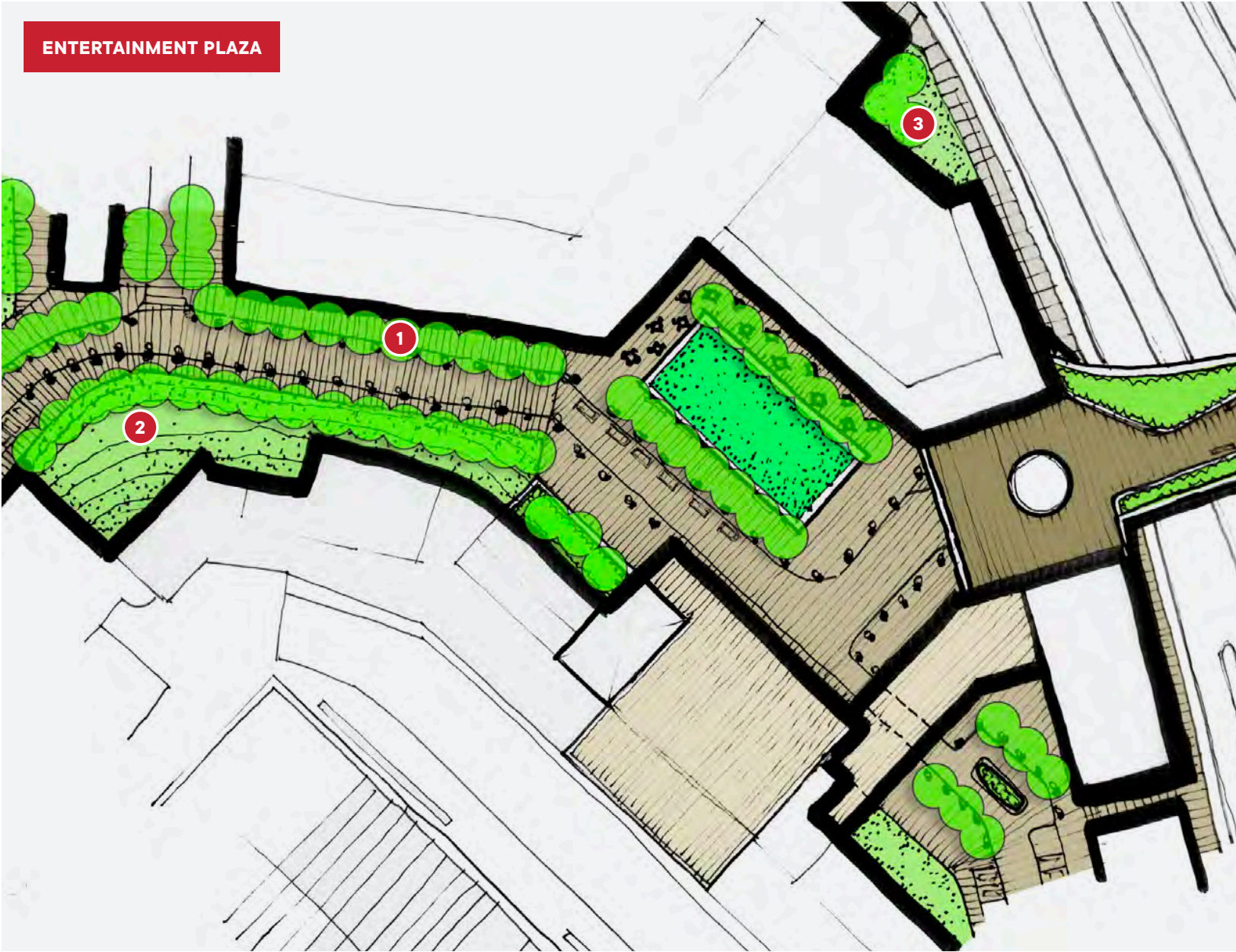
1. Streetscape w integrated rain garden cells



2. Berm w/ opportunity for tiered boulder seating



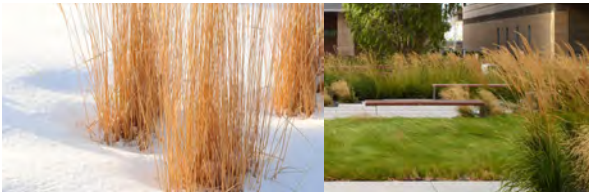
3. Naturalized forested edge buffer



LANDBRIDGE ELEMENTS



1. Bosque of trees w passive edge condition



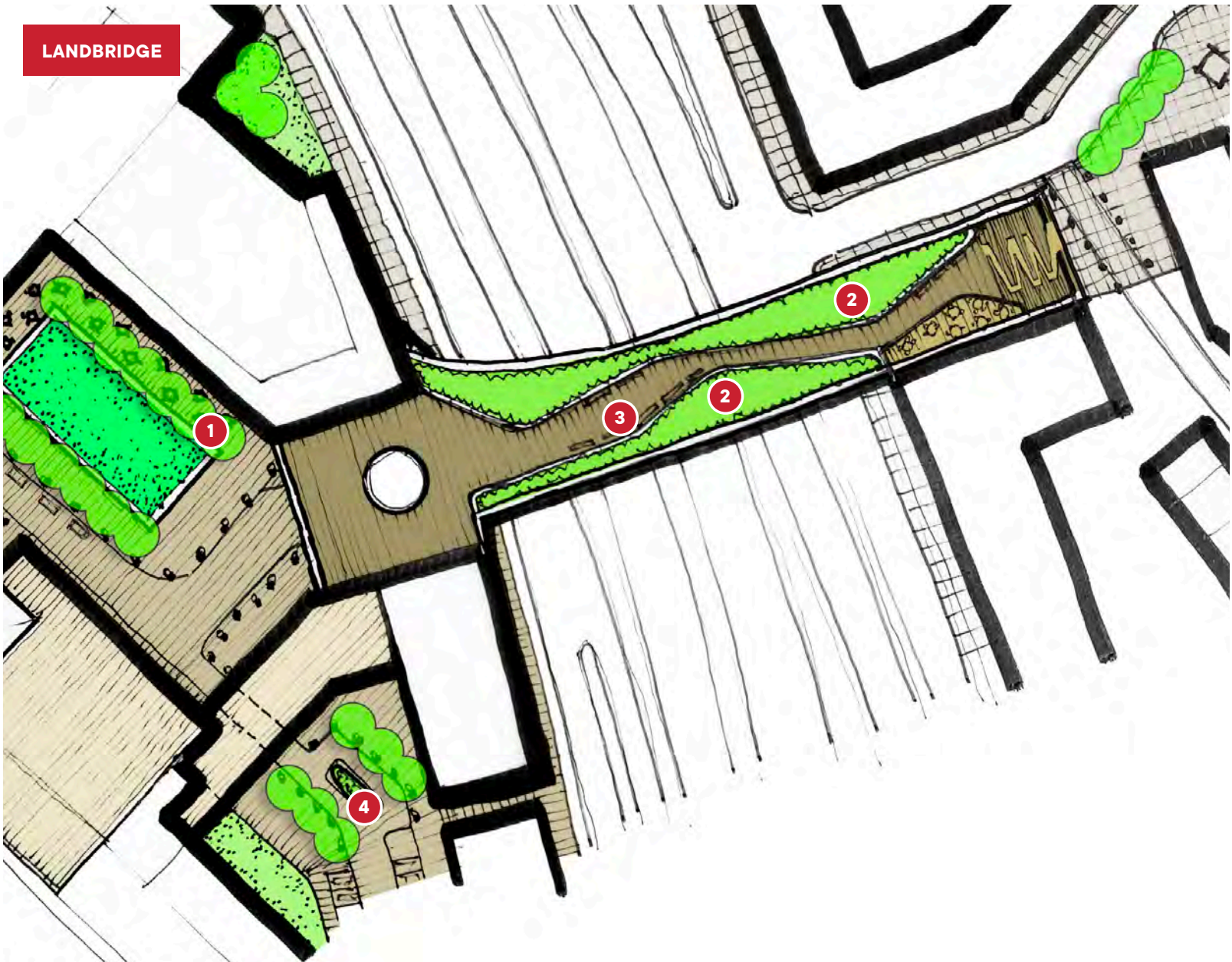
2. Seasonal tall grass planting in reduced soil volume



3. Pedestrian overpass w seating opportunities



4. Native grass integrated within plaza hardscapes



NORTH PLAZA ELEMENTS



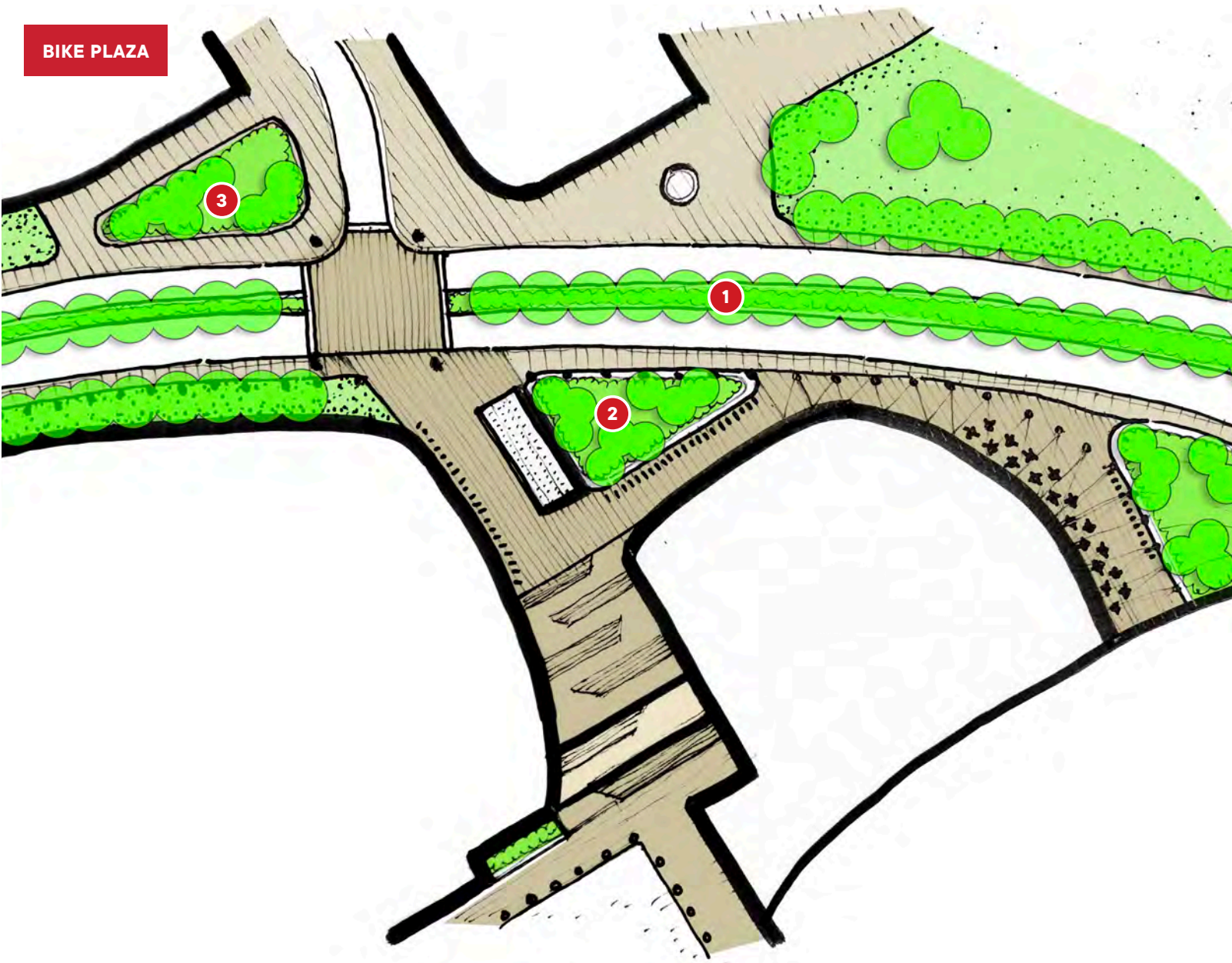
1. Engineered rain garden median



2. Rain garden w/ perimeter seating



3. NE entry plaza w/ rain garden

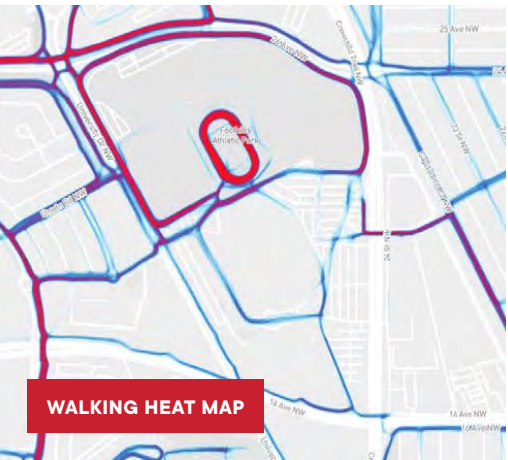
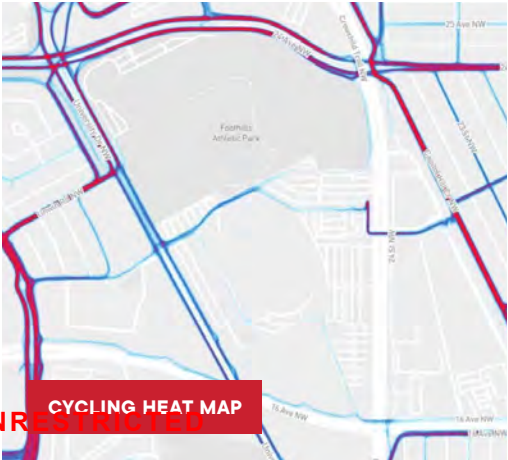


5.5 Active Transportation Improvements

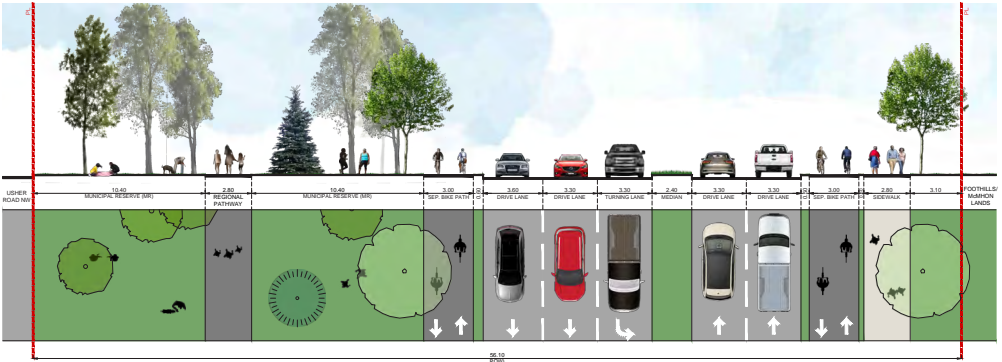
Improving active transportation connections is a key guiding principle of the Concept Plan. Watt used GPS data, from the exercise application Strava, to confirm existing pedestrian, and cycling patterns within the site, and along 24 Avenue NW and University Drive NW.

This analysis revealed "desire lines" which are walking and cycling movements that exist regardless of any formal infrastructure. The tend to represent short cuts or the most easily navigated routes. According to the heat maps walking and cycling usage is heaviest along 24 Avenue and the northern section of University Drive. University Drive also shows as a moderate desire line, despite having any improvements for cycling. There is also an east-west desire line halfway south through the athletic park.

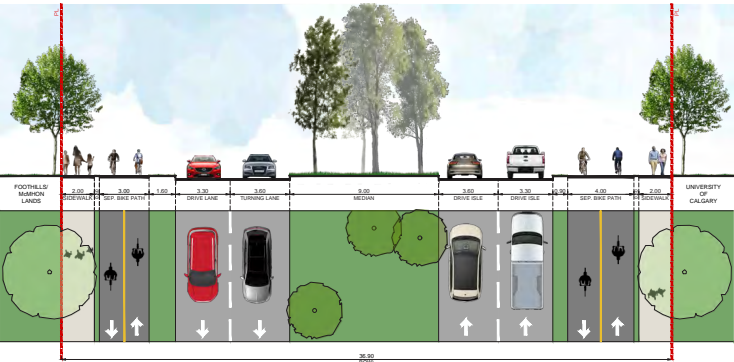
The Concept Plan highlights an opportunity to improve active transportation infrastructure by upgrading 24 Avenue NW and University Drive NW. This can be done by altering the cross-sections to include bi-directional bike facilities to provide optimal space for the high volumes of students using the corridors and will accommodate future demand with the redevelopment of the athletic park. These bi-directional bike path designs will also optimize the flow in all directions for the students minimizing street crossings which are often the most challenging part of a trip.

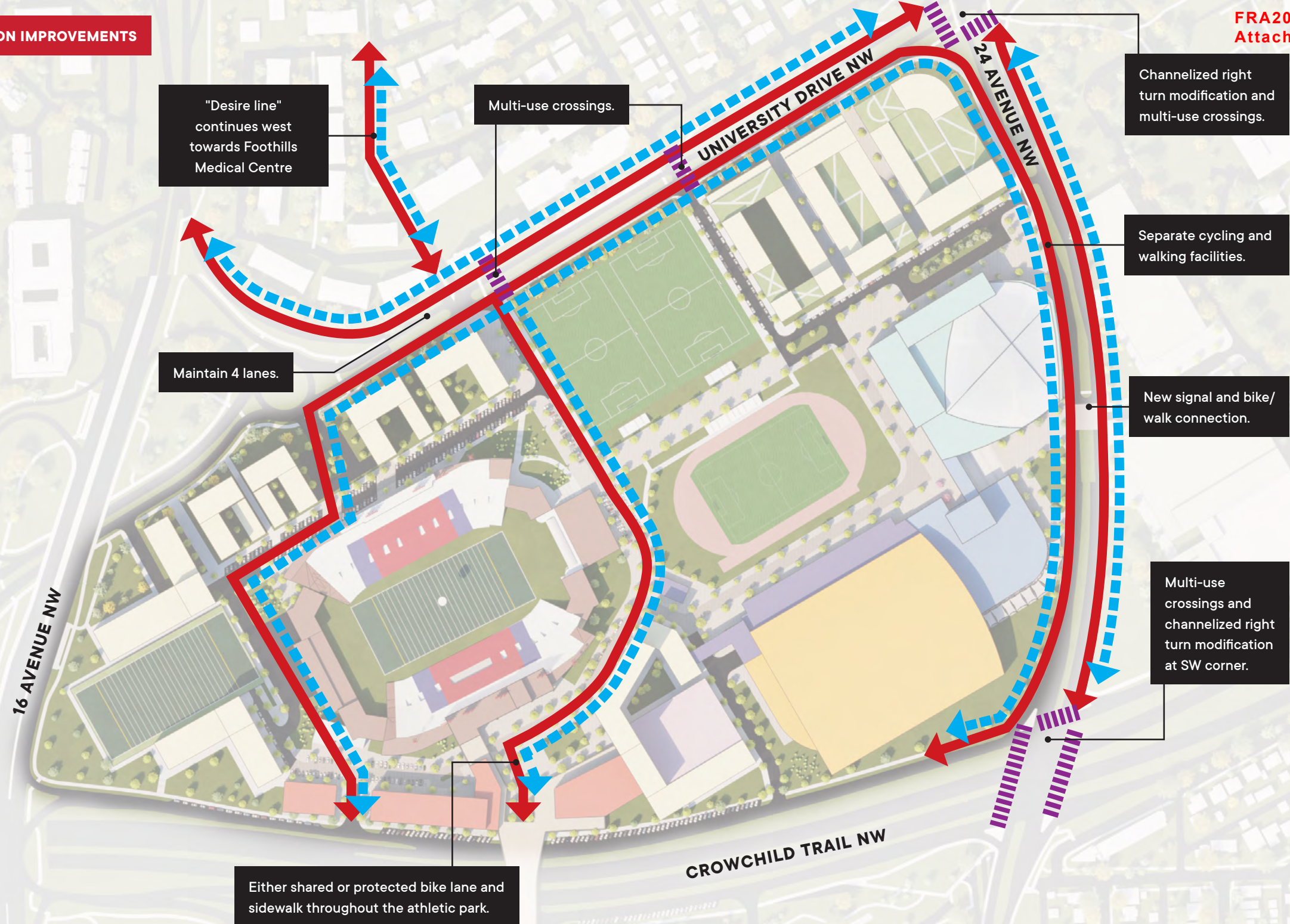


UNIVERSITY DRIVE NW • BI-DIRECTIONAL



24 AVENUE NW • BI-DIRECTIONAL RIGHT-OF-WAY





5.6 Transportation Analysis

Watt estimated the potential traffic generated by the Concept Plan to assess whether the internal transportation network and proposed access points are suitable from a transportation capacity perspective.

Redevelopment based on the Concept Plan design is anticipated to generate approximately 1,400 trips during the AM peak period and 2,300 trips during the PM peak hour. Of the 2,300 PM peak hour trips, 1,200 are expected to be inbound and 1,100 are expected to be outbound. For this preliminary assessment, it was assumed that 30 percent of the total trips would be conducted internally (the origin and destination are both within the Foothills / McMahon site) via active transportation (walking, cycling or scooter etc.).

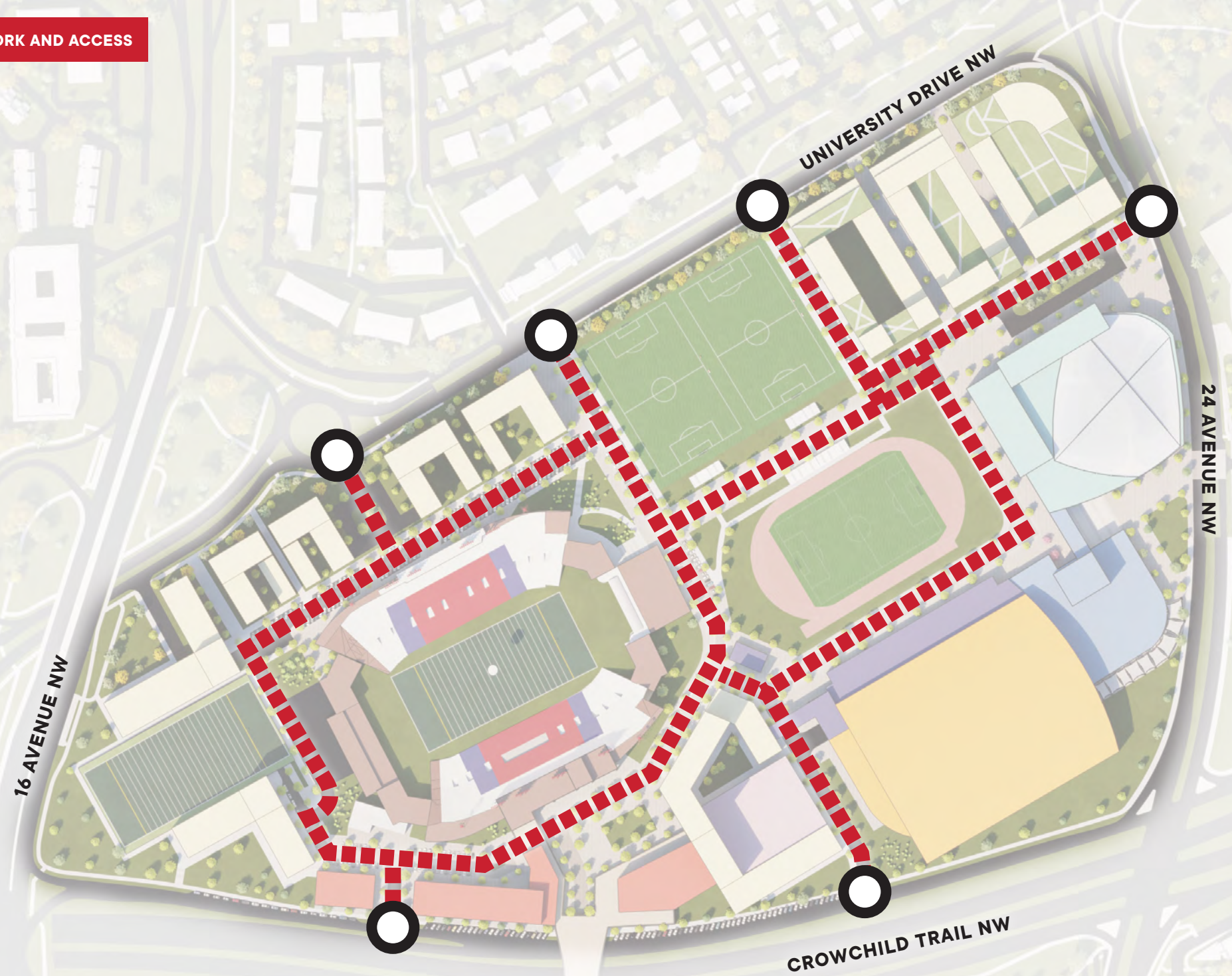
Watt concluded, based on the existing traffic volumes on the network adjacent to the site, the additional traffic should be accommodated and the number of access points appears to be reasonable.


The two access points along Crowchild Trail are very desirable from a mobility, convenience and economic feasibility perspective and should be explored at more detailed phases of the development process. There is an opportunity to update the Crowchild Trail functional plan to determine the feasibility of additional access points.

Cross-sections will be determined at future redevelopment phases based on a detail Transportation Impact Assessment.

TRIP GENERATION ESTIMATE

LAND USE	TOTAL AREA SQ. FT.	UNITS	TRIP GENERATION RATE				TRIPS AM PEAK HOUR	TRIPS PM PEAK HOUR
			AM RATE		PM RATE		TOTAL	TOTAL
Residential	2,608,373	2434	0.35	/ dwellings	0.45	/ dwellings	852	1095
Commercial • Retail	284,882	285	0.94	/ 1000 sqft	3.81	/ 1000 sqft	268	1085
Recreational • Fieldhouse	593,984	594	0.47	/ 1000 sqft	0.47	/ 1000 sqft	279	279
Recreational • Aquatics, Fitness, Gym	254,565	255	1.76	/ 1000 sqft	2.31	/ 1000 sqft	448	588
Hotel	146,797	245	0.67	/ rooms	0.89	/ rooms	164	218
TOTAL	3,888,601	-	-	-	-	-	2011	3266
Internal Trips (30%)							603	980
External Trips (70%)							1408	2286



 INTERNAL STREET NETWORK

 ACCESS POINTS
ISC: UNRESTRICTED



6.0

FOOTHILLS
+ M^cMAHON
CONCEPT PLAN

Conceptual Phasing + Cost Estimates

6.0

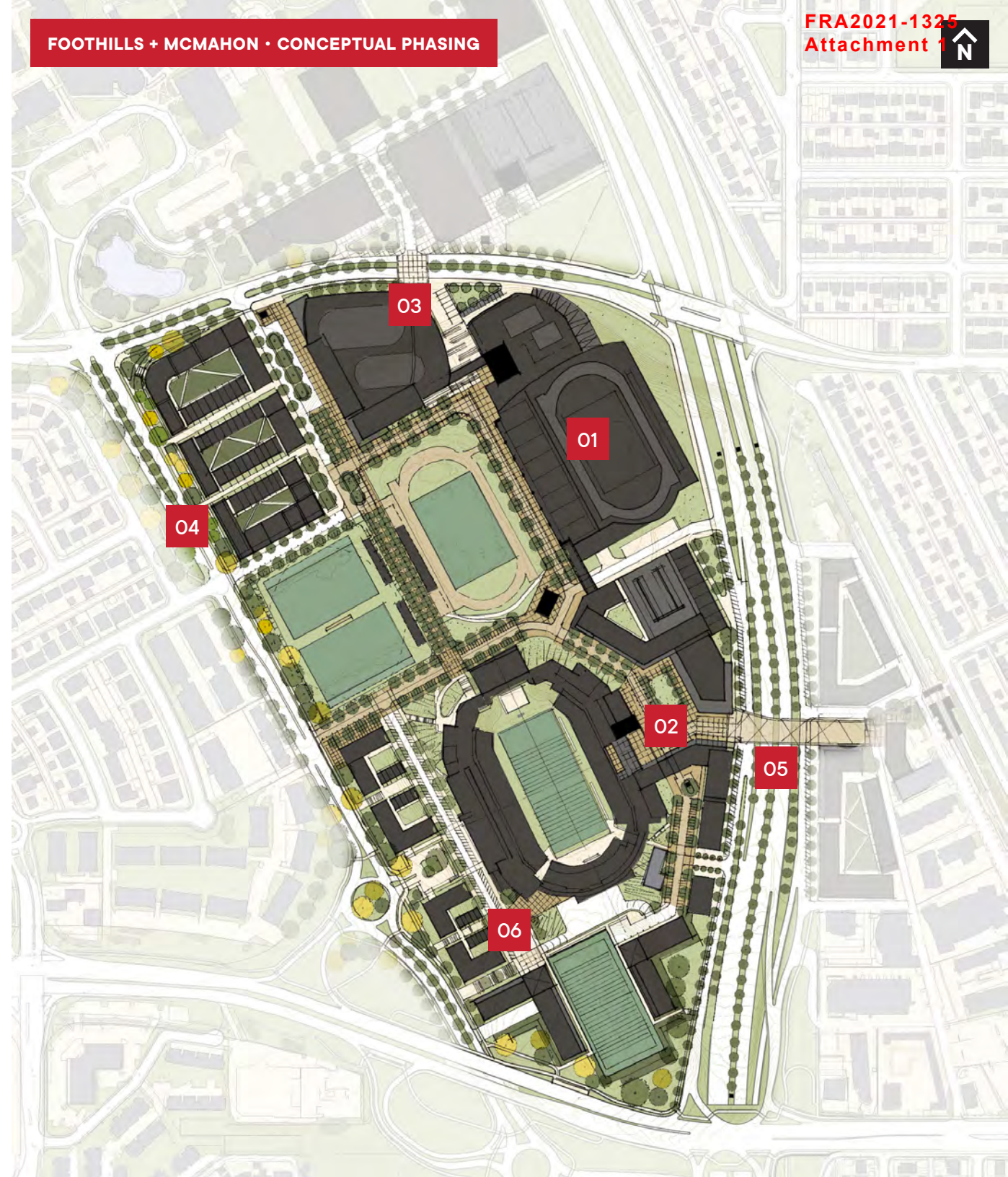
Conceptual Phasing Plan

The Conceptual Phasing Plan presents a logical progression of redevelopment activity, beginning with the Multi-sport Fieldhouse acting as the catalyst. This is conceptual in nature and provides no indication of timing and or cost per phase and each is subject to market demand and available funding opportunities.

- PHASE 01 Multi-sport Fieldhouse
- PHASE 02 Entertainment District
- PHASE 03 24 Avenue Gateway
- PHASE 04 NW Mixed-use Infill Redevelopment
- PHASE 05 Crowchild Trail, Reimagined
- PHASE 06 Foothills + McMahon Full Build-out

FOOTHILLS + MCMAHON • CONCEPTUAL PHASING

FRA2021-1325
Attachment 1

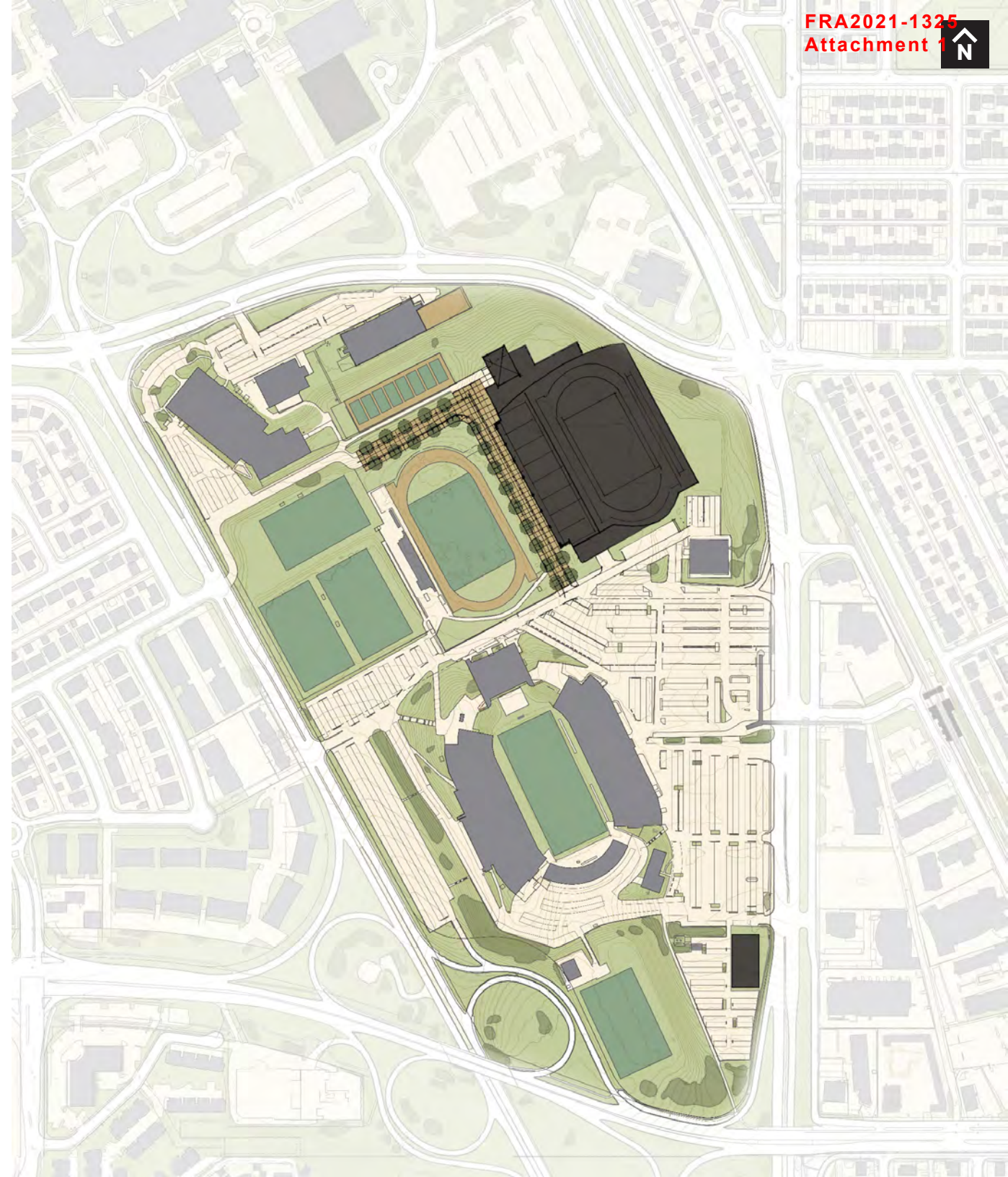




Multi-sport Fieldhouse

01

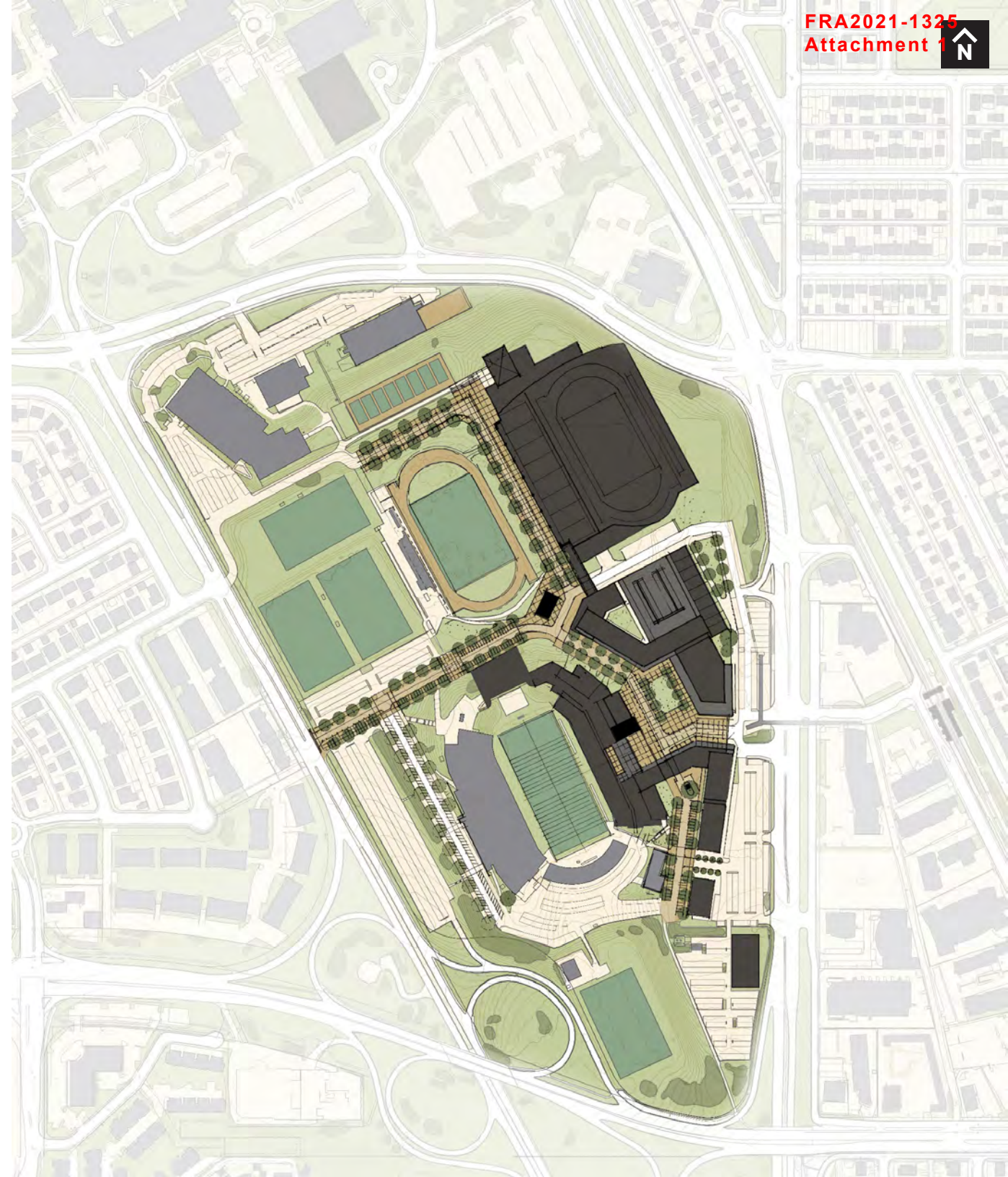
- Multi-sport fieldhouse (Phase 1) as a catalyst
- Tower Element and Entry Assembly on fieldhouse to signify new landmark
- Woonerf Parking Access
- Back-Of House Established
- Potentially relocate displaced facilities



Entertainment District

02

- Four Season Plaza and New Front Door
- Hotel and Entertainment Retail
- Mixed-Use Wrapped Parking Deck
- Defined Entry Street with parking, electrical outlets and street trees
- Tailgate parade including service building
- Prior to Crowchild Trail upgrades

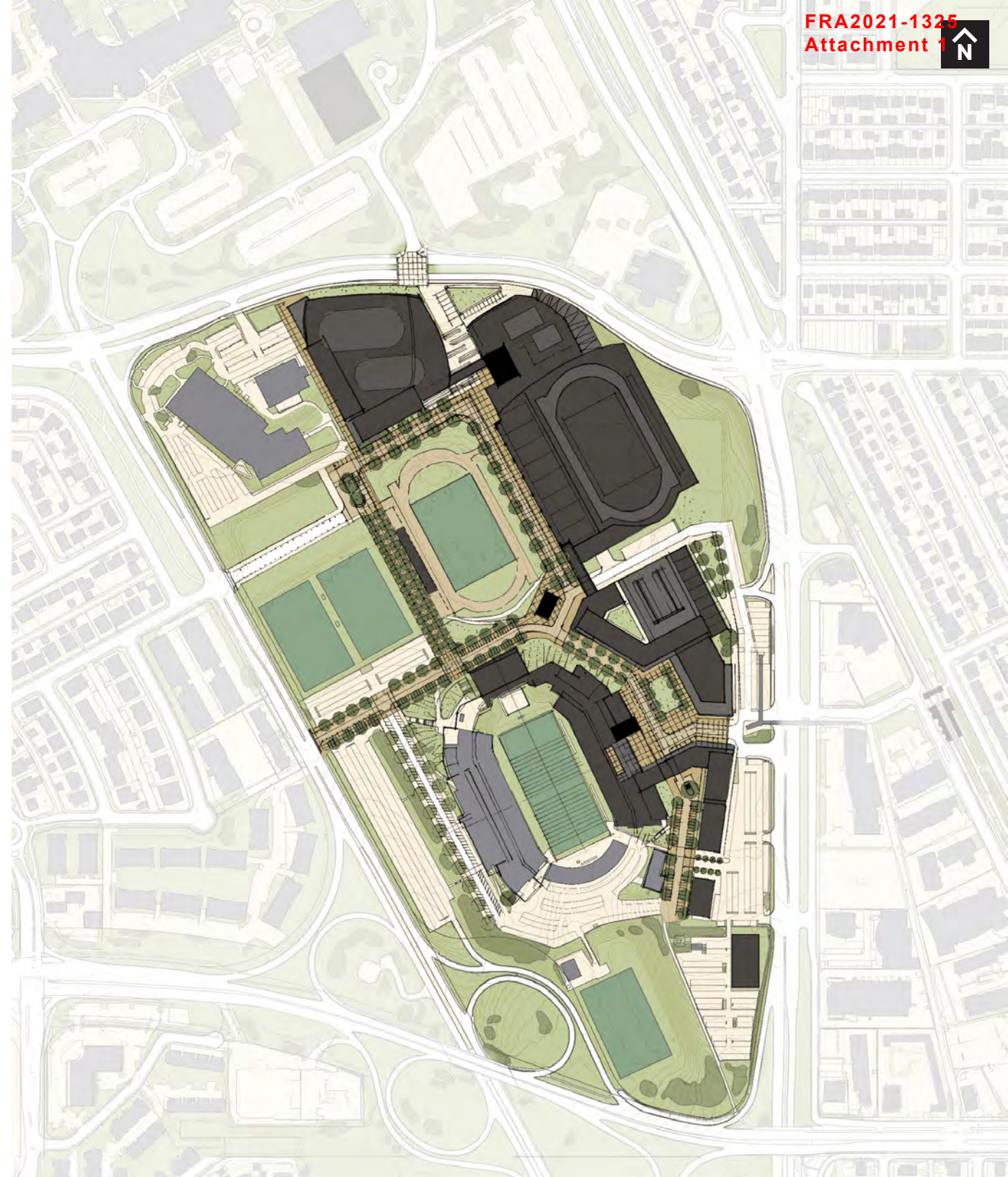




24 Avenue Gateway

03

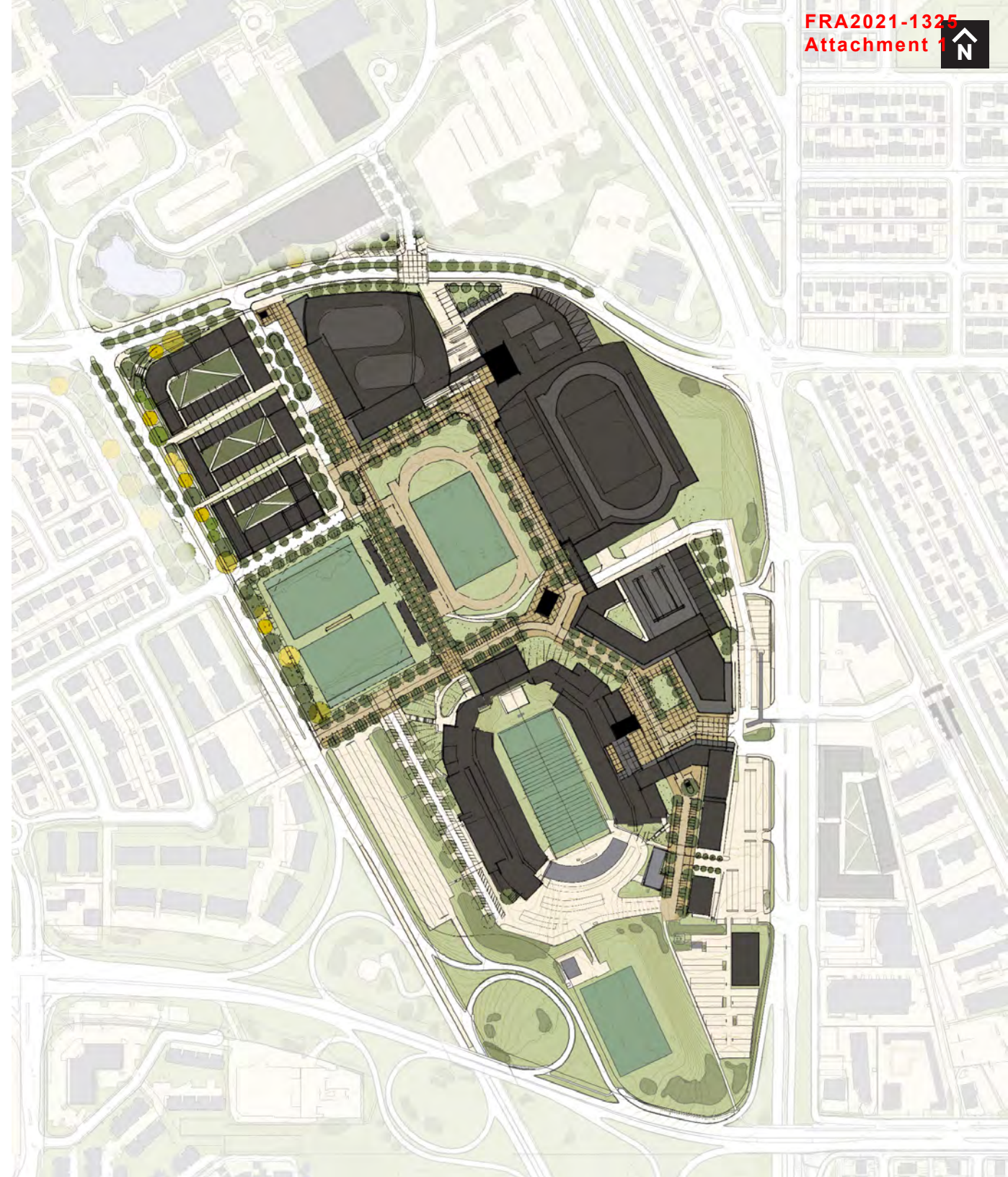
- Bike Plaza and Grand Staircase
- Additional Multi-sport Fieldhouse phases including aquatics centre, fitness area, community rooms
- Incorporate arena complex
- Active transportation upgrades
- Complete the woonerf street network around perimeter of outdoor track
- Retail and patio opportunities



NW Mixed-use Infill Redevelopment

04

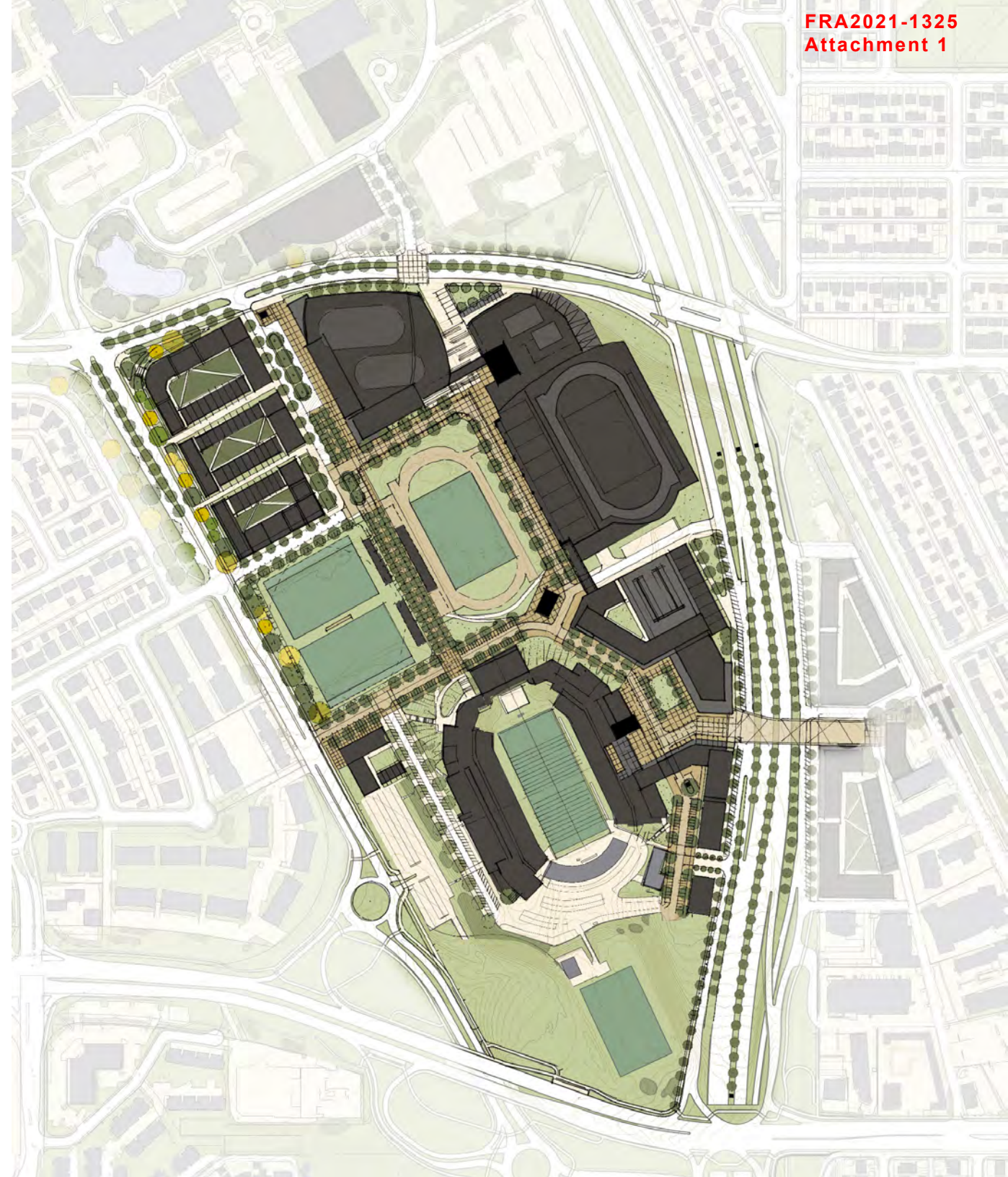
- Mid-rise Mixed-use residential developments
- Enhancements to University Drive
- Arena interface and drop-off area
- Pedestrian parade
- Enhanced internal connections
- Significant retail and patio opportunities
- Sports field Redevelopment - no net loss



Crowchild Trail, Reimagined

05

- Crowchild Urban Boulevard between 24 Avenue and 16 Avenue NW
- Direct access to site from Crowchild by incorporating frontage road (i.e. slip lane)
- Landbridge and improved connections to transit
- Potential for adjacent sites to intensify (i.e. Motel Village)

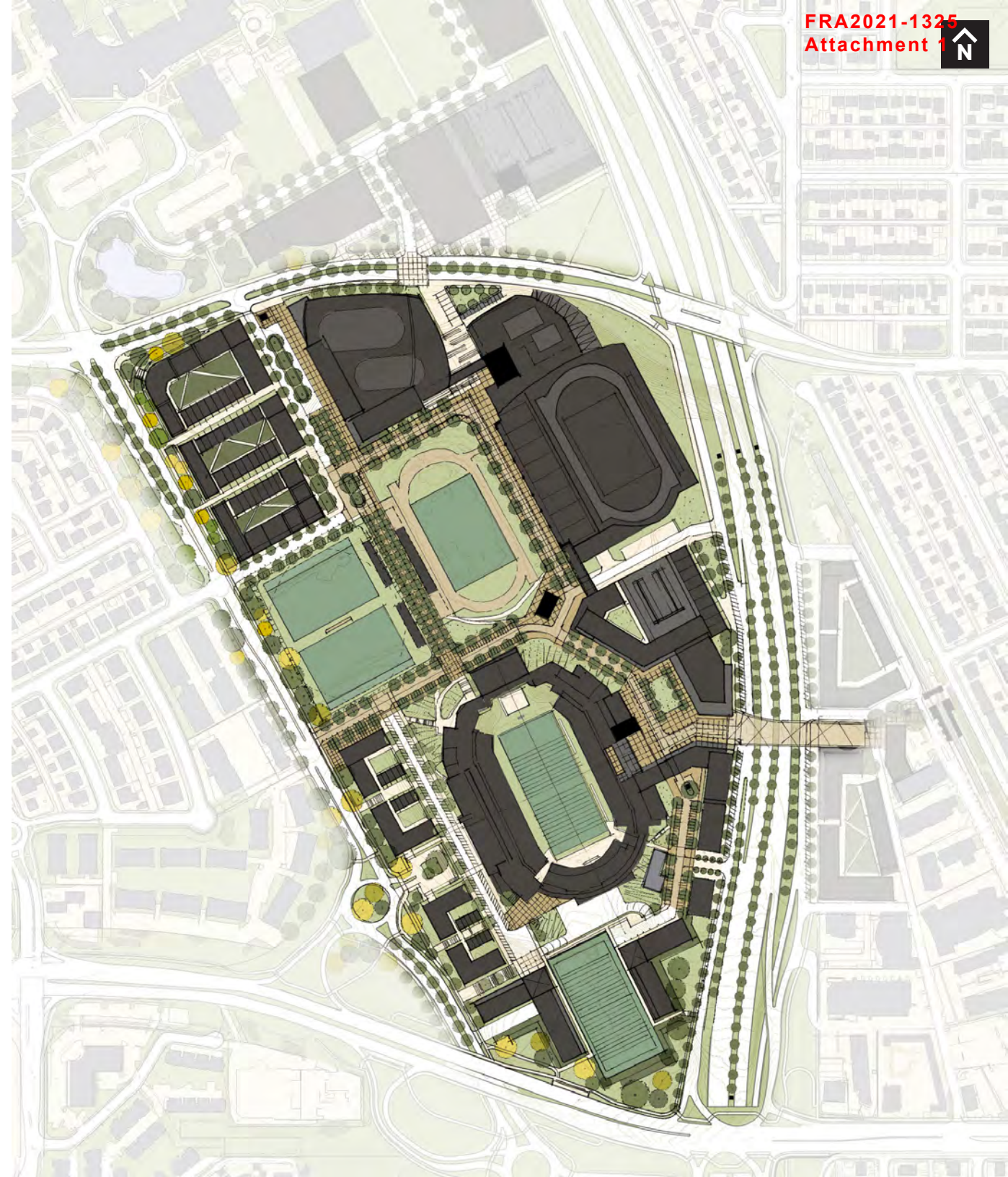




Foothills + McMahon Full Build-out

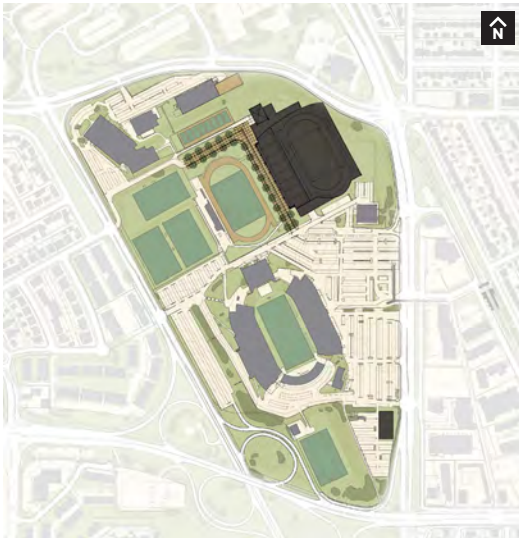
06

- Mixed use redevelopment of the south portion of the site
- Potential office
- Service entry to stadium
- Innovative parking structure with additional open space or practice facility
- Enhanced connection to Bus Rapid Transit along 16 Avenue NW
- Potential location for on-site stormwater facility



FOOTHILLS + MCMAHON • CONCEPTUAL PHASING PROGRESSION

01



02



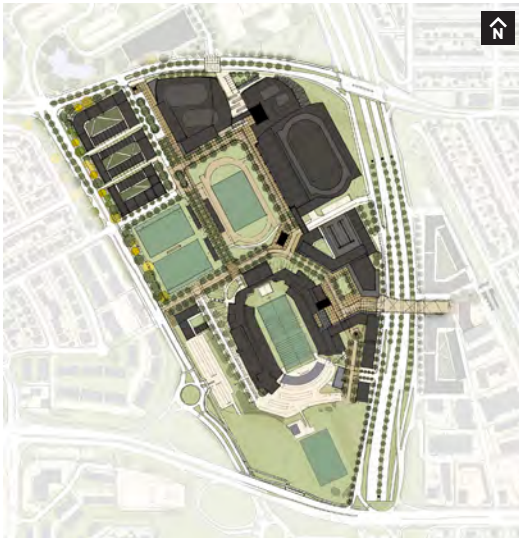
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04



05



06





6.1 Opinion of Probable Costs Analysis

EXP Engineering prepared a Opinion of Probable Costs (OPC) Analysis to support the Concept Plan. The work represents a preliminary level of development planning and the OPC is an approximate Class IV estimate. The current project OPC for the Foothills Athletic Park & McMahon Lands Redevelopment Project is estimated to be \$87,610,000.

A Class IV estimate can be interpreted to having the following characteristics and is based on a series of assumptions.

- Based on a conceptual scope, described in preliminary terms.
- Range of project definition to be between 1% - 15% of full project definition.
- Have a considered accuracy of -30% to +50%.
- Typically used for strategic planning, analysis of alternatives, and feasibility confirmation.

The costs have been organized into project areas, estimated offsite infrastructure upgrade requirements, and then rolled up into one overall project summary. The OPC has been itemized to typical development construction and infrastructure categories and a series of preliminary assumptions have been established to support the OPC categories. The OPC is reflective of an approximate Class IV estimate and will need to be refined and updated as the planning process evolves for the project. This excludes specific costs relating to the development of the multi-sport fieldhouse.

SUMMARY OF CUMULATIVE DEVELOPMENT COSTS BY AREA	COST
Area A: Multi-sport Field House, Central Green Space and Access to University Drive	\$29,430,000
Area B: Northwest Residential and Sports Facilities	\$13,910,000
Area C: Entertainment District, South Infill	\$22,990,000
Area D: 24 Avenue NW Upgrades (as per Active Transportation Recommendations)	\$4,820,000
Area E: University Drive NW Upgrades (as per Active Transportation Recommendations)	\$7,600,000
Area F: Landbridge Over Crowchild Trail	\$2,500,000
Off-site Stormwater Facility	\$6,360,000
TOTAL	\$87,610,000

- Notes:
- Assumed phasing plan to guide infrastructure improvements and overall development servicing.
 - Refer to figures 2 to 4 of the Opinion of Probable Cost report (EXP) for surface infrastructure improvement concepts.
 - Crowchild Trail / 16 Avenue Interchange including intersection improvements at University Drive are not part of this estimate.
 - Assumed contribution to the Crowchild pedestrian connection. Crowchild pedestrian overpass not considered part of this project, McMahon redevelopment will financially contribute to the project.
 - Assumed stormwater facility located south of 16th Avenue.





7.0

**FOOTHILLS
+ McMAHON**
CONCEPT PLAN

**Supporting
Information**

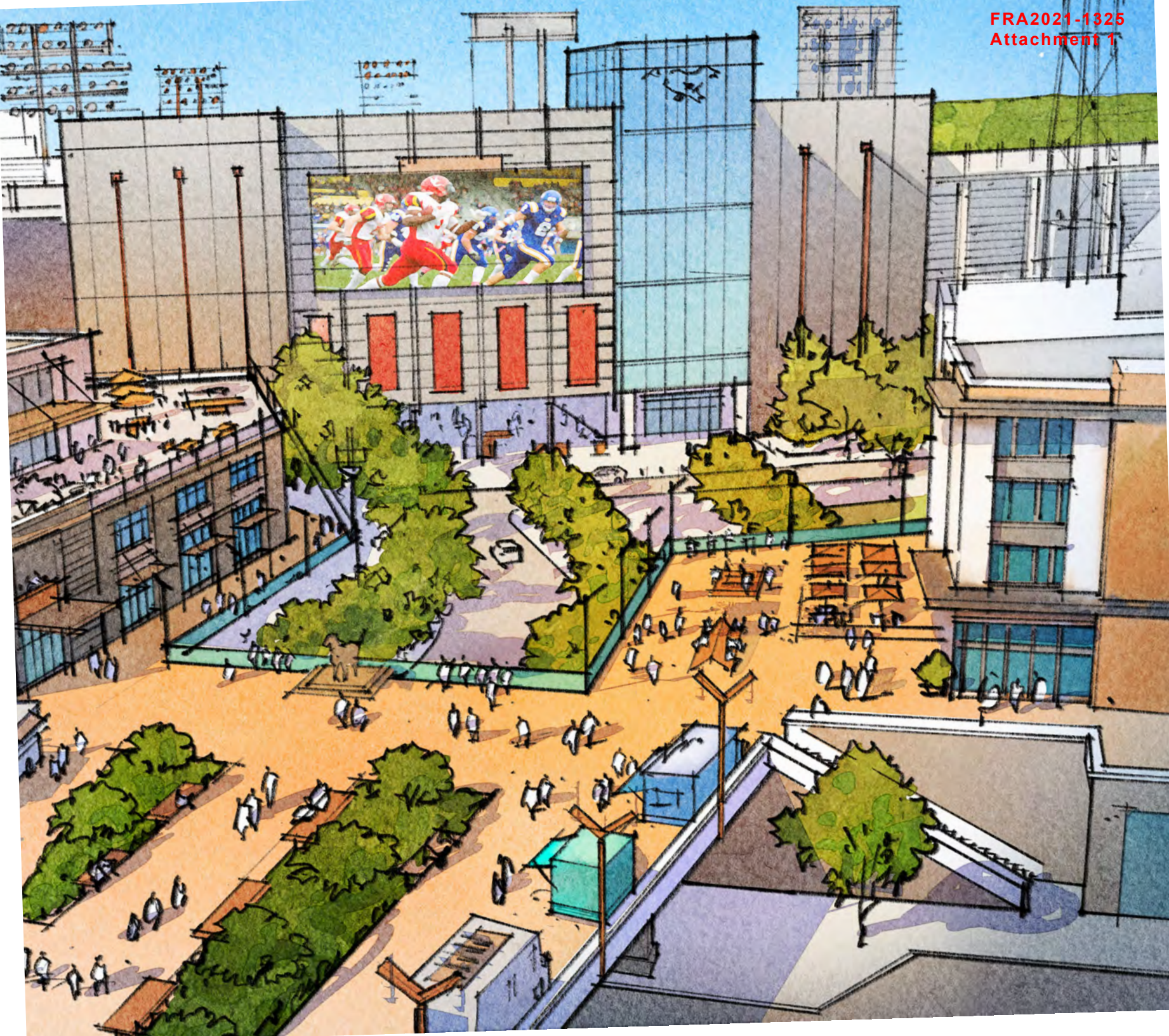
7.0

Supporting Information

The project team completed and submitted the following studies and reports in support of the Foothills + McMahon Concept Plan. These studies are found under separate cover.

- A Phase 1 + 2 What We Heard Report
- B Phase 3 What We Heard Report
- C Evaluation of Private Sector Development Opportunities
- D Lands Servicing Report
- E Preliminary Opinion of Probable Development Costs
- F Existing Transportation and Parking Conditions
- G Active Transportation and Cross Section Considerations
- H Traffic Analysis





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