



PRAIRIE WINDS PARK
DESIGN DEVELOPMENT PLAN
VOLUME 1



Approved by City Council on _____

This plan is available online at www.calgary.ca

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EXECUTIVE SUMMARY

Prairie Winds Park has been a popular and well-loved destination and gathering place for a quarter century. As the surrounding communities have grown and become more established around the park, the park's context has evolved and attendance has increased, resulting in new demands on its existing facilities. Some of the existing facilities are nearing the end of their service life and are in need of refurbishment or upgrades to meet current standards. It is timely to evaluate what this park means to Calgarians and to explore options for the park's future.

The vision statement that emerged through the public engagement process is that **Prairie Winds is a well-loved, family-oriented destination park that is both a celebration of community spirit and a recreational centrepiece in northeast Calgary. It is a place that invites visitors to play, be active, recharge, and connect with their environment.**

The Prairie Winds Park Design Development Plan builds on existing City plans, policies and initiatives; identifies public needs and priorities for the park; provides direction for environmental enhancement; and accommodates an engaging mix of civic, cultural and recreational uses appropriate to the area. Through the design process, the following ideas emerged as priorities for the development of Prairie Winds Park:

- **Welcome all ages, cultures and abilities.** The pathways in the park are extremely popular, but are not all accessible, do not connect to all areas of the park, and some have flooding issues. The wading pool is extremely popular but there is a strong demand for greater appeal for a wider range of ages. The design development plan upgrades the pathway network, provides improved and new entry points, rebuilds the wading pool, and expands the opportunities for water play to a wider range of ages.
- **Provide a range of spaces for year round activities.** Several areas within the park are under-utilized and lack functionality. The design development plan proposes to reclaim the space occupied by the decommissioned creek, rebuild the tennis courts in a better location with potential winter hockey rink use, and modernize the existing park centre building for more year-round use.
- **Protect and enhance the park's unique character.** The existing hill and large open spaces are important well-loved features of the park. There are currently several opportunities to enjoy the views both from the top of the hill in all directions and of the scenery within the park. The design development plan retains these vital features and improves the viewpoint at the top of the hill, reconfigures existing seating and adds new seating to take advantage of the scenery throughout the park, retains the characteristic open green spaces and topography, and introduces more types of trees and shrubs in the park to add more colour, texture and seasonal interest.
- **Include spaces for families and communities to gather and celebrate.** The park's popularity for family picnics, community gatherings, and large public events pushes the limits of the current facilities. The design development plan includes more bookable picnic shelters and adds water and power outlets to serve events and concerts, creating flexible spaces that allow for a range of activities from individual, to family, to large gatherings and festivals.
- **Provide places to play, learn and grow.** Since its creation, Prairie Winds Park was intended to be "a passive, family-oriented park that emphasizes extensive recreational opportunities." Although still popular, the existing play facilities are aging and are designed only for active play. The renewal of the park provides an opportunity to create a substantial new play destination with something for everyone that welcomes children of a wide range of ages to play learn and grow. It also strives to incorporate other important types of play including exploratory, nature-based and imaginative play.

The Prairie Winds Park Design Development Plan is intended to provide the framework to guide development and renewal of the park, in order to help achieve the stated park vision in a way that integrates human and environmental objectives. Through identifying opportunities to increase the usability of the park by layering a greater diversity of programs, increasing site connectivity, and optimizing the layout and function of existing site activities, it is hoped that this plan will help Prairie Winds Park continue to be a well-loved gathering place in northeast Calgary for generations to come.







INTRODUCTION

Since opening in September 1990, Prairie Winds Park has been enjoyed by Calgarians for a quarter-century. It is the largest park and the only regional park in Calgary's northeast quadrant and serves an important role for the members of many communities.

As the green heart of the Castleridge neighbourhood, recreational centrepiece of northeast Calgary, and destination for residents across the City, Prairie Winds Park is a unique place in the community. It is a place that invites visitors to play, relax, and connect.

Recently the park has been identified for renewal. The City is undertaking a public consultation and design process to develop plans that will enhance Prairie Winds Park as a regional destination park that supports a wide range community use.

As noted in the Request for Proposals for the DDP:

Located near two major cultural centres, the Dashmesh Cultural Centre and the Ahmadiyya Mosque, the park hosts numerous cultural events drawing large crowds, and is anticipated as a hub for an increasing number of special events ranging from small family picnics to larger cultural and art festivals in the future.

The northeast quadrant of the city is home to a large multicultural population with strong cultural traditions, values and customs and diverse socioeconomic communities. The complexity and richness of this rapidly changing region of the city presents unique opportunities, needs, challenges and priorities.

Existing park facilities include: a man-made toboggan hill, artificial creek water feature, large wading pool, concession, public amenities buildings, spray park (rebuilt in 2014/15), baseball diamond, tennis courts, soccer field, seasonal winter rink, cross country skiing, playgrounds, links to regional pathway system and internal pedestrian path network, bookable picnic shelter, large bookable events space, parking lot and a maintenance yard that serves the operations of numerous parks in the northeast.

Although the park is an entirely manufactured landscape with no undisturbed natural features, the MacEwan Grove (dedication grove of trees planted to honour the 90th birthday of Grant MacEwan, a former city alderman), and other landscape areas of the park are valued elements that give the park a natural appeal.

The recently published Prairie Winds Park Management Plan (2011) identified a set of recommendations that are important to address to ensure that the park meets the current needs and operational requirements. Most or all of the recommendations from the Management Plan can be addressed through the implementation of this Design Development Plan for park renewal.

By establishing a clear understanding of the context, background and site requirements, engaging the public and stakeholders throughout the design process, and carefully balancing the needs of the community with the resources available, the Design Development Plan intends to direct a renewal of Prairie Winds Park that will make the park work better for many years to come.



1.1 PROJECT GOALS & OBJECTIVES

PROJECT GOALS

The location, scale and existing structure of Prairie Winds Park, as well as its increasingly significant role for the communities in the northeast provides an exciting opportunity to demonstrate innovation and excellence in park planning.

As stated in the terms of reference, the purpose of the Design Development Plan (DDP) is to provide **clear direction** for **“redeveloping this popular, well-used regional park to address the present and future needs of the numerous and diverse groups of park patrons and the communities it serves.”**

The Design Development Plan for Prairie Winds Park will **guide development of an Implementation Plan** that will **explore options** and ultimately **identify a strategy for redevelopment of the park.**

PROJECT OUTCOMES

Five strategic outcomes based on the values and vision: (Prairie Winds Park Management Plan 2011, p. 10)

- **Sustainable park assets** - Park’s assets are managed in a financially and environmentally sustainable manner
- **Healthy plant life** -- Vegetation is in good health and managed as per current industry best practices
- **Quality facilities and amenities** - Facilities and park amenities are in good repair and users are satisfied with the operations of these facilities
- **Coordinated stakeholders** - Users, staff, politicians and other identified stakeholders are actively engaged and working together with clear expectations, roles and responsibilities to achieve park outcomes
- **Citizen engagement** - Users report high satisfaction with the park and value it as an important part of their community and their city.

1.2 STUDY PROCESS

The project is structured around three main phases: **DISCOVER**, **DEVELOP** and **DELIVER** (Figure 1.1).

DISCOVER

The **DISCOVER** phase includes connecting with park users and other stakeholders to collect their stories, ideas, and concerns for the project. This phase also includes a thorough review and summary of the existing reports and data the City has acquired and commissioned. Research, observation and analysis provide a solid orientation to the Prairie Winds Park site and community as a starting point for the design process. This is a particularly important phase for this project considering that it is the renovation of an existing popular, well-used regional park. Thoughtful analysis combined with public input is critical to identify what is important to retain and what should be redeveloped.

DEVELOP

During the **DEVELOP** phase, the concrete information collected is used to initiate the process of sense-making by building frameworks, identifying opportunities and seeking connections and potential solutions. Complemented with input from public engagement, this approach enables

the establishment of a clear definition of the problem, identification of the needs of the community and appropriate strategies for park development that support the City’s goals and objectives. Three distinct, functional and innovative design concepts are developed to illustrate potential alternatives for the design of Prairie Winds Park. These concepts are then evaluated to determine which is the most successful in meeting the needs of the community, the City and stakeholders.

DELIVER

During the **DELIVER** phase, solutions are realized through further development of the design. This phase focuses on developing final concept designs and summary report highlighting project recommendations which allows the project to move toward detailed design and implementation.

The design process moves from a collection of concrete and factual information to abstract design explorations, and then back to concrete solutions that are built from a strong foundation of community values and input.

Final consensus and approval of the master plan is achieved during the develop stage through final engagement of the public, City staff and City Council.

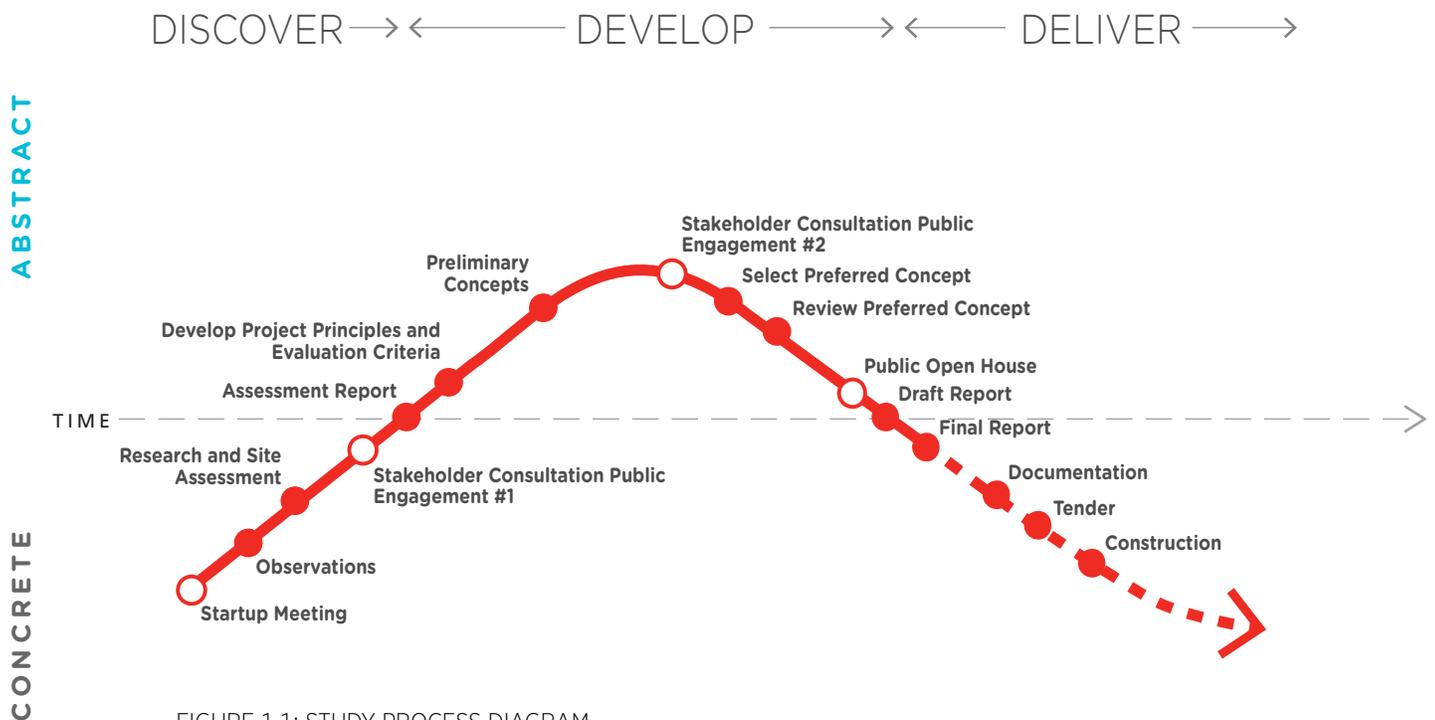


FIGURE 1.1: STUDY PROCESS DIAGRAM



DECISION MAKING

Plans for the redevelopment of Prairie Winds Park are intended to:

- Work well for the site;
- Align with policies at city, provincial and federal levels;
- Be achievable within the City's available resources;
- Support the City's goals;
- Make the park more valuable to the community;
- Support use and enjoyment by more people, and;
- Help and provide a good effect on the community.

Decisions on which features will be included in the final design for Prairie Winds Park are based on three key criteria: Suitability, Desirability, and Resources (Figure 1.2).

SUITABILITY

To ensure the proposed park design is a good fit for the site, the surrounding neighbourhoods, and the region, we analyzed:

- The park's location, its role within the city, and its relationship with the surrounding communities;
- The park's history and past;
- The existing park features that make it special;
- How well the park serves its current users and if it is being used the way people want;
- The condition and life-span of the park's existing features and structures;
- Potential upgrades and new features that will respond to the current and anticipated needs of the community, and;
- Knowledge and understanding of relevant policies and plans to make sure the park design follows current rules and guidelines and contributes to advancing the City's goals when possible.

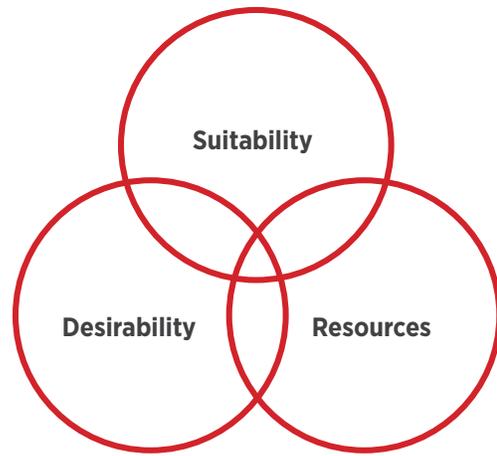


FIGURE 1.2: DECISION MAKING PRINCIPLES DIAGRAM

DESIRABILITY

To deliver a park design that fits the people who use it, we engage the public to ask them:

- What is the purpose of the park?
- What do they like about the park?
- What changes can make the park better and help meet the community's needs into the future?
- The input gathered was used to create a vision statement, mission statement, and guiding principles that informed several concept options.
- Feedback from the public on the park concepts was used to understand which of the proposed features people want to see the most.

RESOURCES

To maximize benefits for all park users and provide good value for taxpayers, we consider the resources available for capital improvements and to sustain ongoing operations. Strategies include:

- Retaining existing site features that are in good condition for their age and are working well;
- Making strategic upgrades to improve the function of existing facilities to better serve current needs and to extend their life-span, and;
- Focusing available resources to provide the greatest value for the largest number of park users.

1.3 ENGAGEMENT AND COMMUNICATIONS PLAN

STRATEGIES

In order to achieve optimal results for engagement, there are several key ingredients needed: ensuring transparency; instilling creativity and learning; integrating engagement and communications; building on existing assets: integrated thinking; and a decentralized approach.

1. Ensure transparency throughout. The engagement will include communicating in an honest and timely way, and following through to let participants know how their feedback was used.

2. Instil creativity and learning. Beyond simply providing information, the engagement process should excite, inspire and create an even greater sense of ownership within the community. This is achieved by integrating a series of unique and innovative approaches throughout the process to get people's attention, obtain their feedback and build learning (about the place; about others' views; etc.).

3. Integrate engagement and communications. The engagement and communication plans are integrated to ensure the approaches for the elements in each enhance and strengthen each other.

4. Build on existing assets. It is important to understand and recognize what is already working, and to build on it. This makes a process more efficient, while affirming work that has already been done.

5. Integrated thinking. While making a wide range of input more understandable, it is essential that integrated thinking is applied throughout the process and that issues or ideas are not isolated. In this way, root causes, broader systems and connections between issues can be identified. This gives the project team a significantly better chance of arriving at solutions that address issues in a much more meaningful way.

A DECENTRALIZED MODEL OF ENGAGEMENT

A key component of the proposed approach is the Decentralized Model. The focus of this model is to engage citizens where they are – whether at the park itself, group meetings or other gatherings. Rather than using the typical “open house” format, the decentralized model of engagement includes a large portion of the activities taking place in diverse number of ways. This has two primary benefits – increased effectiveness and increased efficiency.

Increased Effectiveness - Through this decentralized model, members of the community discuss their views in places where they already are and in spaces where they are comfortable. This model demonstrates commitment to the consultation process by engaging the community on their terms, making the process more inclusive while building interest and ownership early.

Increased Efficiency - The decentralized model allows for a more efficient use of resources in the consultation process. By connecting with the community where they are guaranteed to be, the process requires fewer resources than relying on the typical open house where it is necessary to advertise events, create presentation materials that will only be used once or twice. Instead, resources can be used more efficiently where they belong – on creating opportunities for citizens and stakeholders to talk about the future of Prairie Winds Park. Additionally, the decentralized model takes advantage of existing networks within the community to ensure that a greater portion of the community connects with the process.

CREATING MULTIPLE ENTRY POINTS INTO THE CONVERSATION

Aligning with the Decentralized Approach, it is important to provide multiple entry points into the conversation. By reducing friction and allowing people to participate with ease, this approach provides the project team with usable feedback and multiple opportunities to listen and discuss concerns or questions about the project.



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SITE INVENTORY & ANALYSIS



The design process started with research, observations and assessments of the existing park, its facilities and its surroundings as well as relative policies that will need to be taken into consideration before any potential changes are explored.



2.1 HISTORY

EARLY HISTORY

“The present site of Prairie Winds Park was part of a large 1961 annexation” that brought the area “into Calgary’s City limits.”¹ The site was abandoned farmland that had “reverted to barren treeless grasslands.”² It was “relatively flat and void of any topographic features,”² and had “a slight low trough ... from the north east to the south west.”² The site’s high points provided “panoramic view of Nose Hill Park, the downtown and the mountains.”²

Development of residential neighbourhoods to the south, east and north of the site occurred between 1977 and the mid-1980s. “With the introduction of a large residential population in these new districts came the demand for athletic and recreational facilities.”¹

ORIGINS OF PRAIRIE WINDS PARK

Northeast area residents recognized the need for a regional park in their immediate area and “in 1985 a group of residents from the new communities formed the North East Calgary Parks Development Association (NECPDA).”¹

This motivated group of community members built momentum around an idea for a regional park to better serve the northeast. The NECPDA worked with the City of Calgary and raised funds for the construction of the original park.

The North East Regional Park Master Plan, adopted in 1987, called for the development of “a passive, family-oriented park that emphasizes extensive recreational opportunities.”³

The master plan identified the site for the new regional destination park - the first and only regional destination park in northeast Calgary. The proposed site, located on an undeveloped parcel of land within the Westwinds Business Park, was chosen for its size and proximity to the Castleridge neighbourhood.

In 1989, City Council named the facility Prairie Winds Park and it opened September 8 1990.¹

1 Prairie Winds Park Management Plan (2011) p.3.

2 North east regional Recreation Park master Plan p.16.

3 David Hedley, “Northeast park dream closer to reality,” Calgary Herald Neighbors 1-7 Mar. 1989.

DESIGN INFLUENCES

The original design for the park and structures was developed by Lombard North Group and Bathory Associates.

The original design guidelines called for the “creation of a plaza or outdoor room”⁴ at the park centre.

“Concern for an overall composition should be considered when siting the various individual building and related elements... The Park is generally organized on a progression from larger scaled, formal, public and service buildings and spaces at the north arrival end, to smaller scaled building in the south and west that operate on a more intimate, informal and personal level. Within this overall order, the buildings and landscape elements of the Park should work in unison to convey a pastoral setting suited to the expression of the Alpine motif.”⁵

MATURATION OF PRAIRIE WINDS PARK

Since it opened, diverse communities have flourished around the park and Prairie Winds has become one of the most well used parks in the city.

With the completion of the LRT expansion to Westwinds in 2007 (and farther north in the years since) the park has become even more accessible to visitors city-wide and continues to serve a rapidly growing population.

As the park matures, the trees have grown into a well-established urban forest, providing shade, protection from the wind and a character that is enjoyed by many.

The park’s organization and facilities are largely unchanged since it opened. Many of the facilities are aging and some are reaching the end of their service life or otherwise in need of renewal. With the growth of diverse communities, the demands for flexible public open space have also grown, testing the limits of the park’s capacity.

With the growth and changes in the surrounding communities over the 25 years, a better understanding of how the existing park infrastructure is being used, and recognising that many of the aging park facilities are due for improvements, it is timely to consider how Prairie Winds Park can be upgraded to better serve the next generation of Calgarians.

4 Architectural Design Guidelines: An Alpine Motif for the North East

Regional Recreation Park. Lombard North Group & Bathory Associates. p.12

5 Ibid. p.13.

2.2 RELEVANT POLICIES & PLANS

To make sure the park design follows current rules and guidelines, we need to know and understand policies and plans from all levels of Government:

- Federal (Canada)
- Provincial (Alberta)
- Municipal (Calgary)

The City of Calgary policies include:

- City-wide policies;
- Parks policies (environmental and/or administrative), and;
- Policies specific to Prairie Winds Park, such as the Prairie Winds Park Management Plan (2011).

The following policies and initiatives are important for understanding the jurisdictional context of the Prairie Winds Park Design Development Plan, and to ensure that the work is consistent with higher-level planning initiatives of the City of Calgary.

Refer to Appendix A.1 for descriptions of the policies and plans including how they are applicable to Prairie Winds Park.

PROVINCIAL

- Alberta Building Code (Current Edition)
- Barrier-Free Design Guide (2008)
- Calgary International Government Vicinity Protection Area Regulation 177/2009

CITY-WIDE

- Action Plan 2015-2018 (Council Priorities for 2015-2018)
- Our BiodiverCity, A 10-year plan to integrate with Calgary's nature (Draft Oct. 2014)
- Municipal Development Plan, Bylaw 249 2009
- Sustainable Building Policy, 2004
- Bikeways Pathways & Bikeway Plan Report (2000)

PARKS - ENVIRONMENTAL

- Urban Parks Master Plan, 1994
- Open Space Plan, 2003
- Parks Urban Forest Strategic Plan, 2007
- Parks Water Management Strategic Plan, 2007
- Integrated Pest Management Plan

PARKS - DEVELOPMENT GUIDELINES

- Development Guidelines and Standard Specifications for Landscape Construction (manual), Current edition

POLICIES SPECIFIC TO PRAIRIE WINDS PARK

- Prairie Winds Park Management Plan, 2011
- Urban Forestry Prairie Winds Park Management Plan, 2011

OTHER

- Pool Standards & Public swimming pool regulation (204/2014), July 2014
- Transport Canada Flight restrictions



2.3 RELEVANT PRECEDENTS

OVERVIEW

The following is a high level comparison of some successful North American parks that have a similar location and physical characteristics as Prairie Winds Park, and which may offer inspiration for the design development plan. The following outlines a series of recommendations for the park based on this comparative analysis.

ANALYSIS AND RECOMMENDATIONS

FEATURES:

Family-Oriented:

The sites chosen for this analysis are all family-oriented parks. In each example there is a range of recreational features for children and families including playgrounds, wading pools / beaches, picnic sites and space for events.

Recommendation: Enhance opportunities a wide range of family-oriented activities within the park.

Trail networks:

All of the parks studied have path networks comprised of paved, multi-use paths and gravel paths.

Prairie Winds Park has paved walking paths that are popular.

Recommendation: Improve the path system within the park by creating more loops to more areas of the park and reducing steep sections to improve accessibility for all.

Park amenities:

Successful parks have amenities such as washrooms, drinking fountains, and places to purchase refreshments.

Recommendation: In order to support user comfort in Prairie Winds Park, add and upgrade amenities for park users in conjunction with increased programming and space for food trucks.

Ecological protection:

Successful parks include ecological areas with informal planting and/or urban forests that provide beauty and year-round interest.

Recommendation: Conserve and enhance the existing urban forest while providing new native planting for more year-round interest, and opportunities for education to foster visitors' appreciation of the ecosystem.

Diverse program options:

Each of the successful parks studied offers a wide range of programming options to appeal to visitors of all ages and abilities. A hierarchy of spaces is provided to support a wide variety of activities and experiences - from large and open spaces to quiet and intimate spaces.

Recommendation: To enhance Prairie Winds Park as a destination park for all Calgarians, incorporate a different spaces that support a wide range of activities throughout Prairie Winds Park, including multiple places for different sports and events, as well as places for smaller gatherings and solitude.

Accessible:

All of the parks studied are easily accessed on foot, vehicle, or transit and provide opportunities to enjoy open green space in the city.

Recommendation: Improve multi-modal access to the park to encourage use and support Prairie Winds Park's role as a welcoming place for all.

PRAIRIE WINDS PARK

Location: NE Calgary, AB

Size: 16 Hectares

Location:

Prairie Winds Park is a large well used park located in Calgary's Westwinds/Castleridge community. It is a passive, family-oriented park that emphasizes extensive recreational opportunities and the only regional destination park in northeast Calgary.

It's unique location places it directly under one of the flight paths of aircraft landing at the Calgary International Airport that is within a few kilometres of the park.

History:

Opened in 1990.

Features:

- Picnic site with cover
- Playgrounds (2)
- Wading pool/spray park (seasonal)
- Concession (seasonal)
- Man-made creek
- Softball field
- Soccer field
- Tennis Courts
- Tobogganing
- Cross-country skiing
- Washrooms (seasonal - closed Friday to Sunday for winter season)
- Water fountain (seasonal)
- Outdoor ice skating - (seasonal)



Toboggan hill and open lawn area



Park centre building and wading pool/spray park



Paved, multi-use pathway



RILEY PARK, CALGARY

Location: NW Calgary, AB

Size: 9 Hectares

Location:

Riley Park is a beautiful destination park in northwest Calgary within walking distance from the Kensington shopping district.

History:

The park is on a 9 hectare parcel of land that was once part of a large parcel of land known as Cochrane Ranch. The parcel of land that is now known as Riley Park was donated to the city in 1904.

Features:

- Cricket pitches (2)
- Wading pool
- Senator Patrick Burns Memorial Rock Gardens
- Picnic tables
- Playground
- Washrooms (seasonal)
- Water fountains (seasonal)
- Concession (independently operated)

Inspiration for Prairie Winds Park:

Although it is smaller, Riley Park has some features in common with Prairie Winds Park including walking paths, flexible open space, a scenic landscape with lots of trees, a wading pool, playground, and cricket pitch. Riley Park is home to the Calgary & District Cricket League and hosts free summer concerts in the park by the Calgary Concert Band.



Image: Flickr user Bill Longstaff (creative commons)



Image: City of Calgary



Image: City of Calgary

PRINCE'S ISLAND PARK, CALGARY

Location: Calgary, AB

Size: 20 Hectares

Location:

Prince's Island Park is located on an Island in the Bow River in a central location, bordering downtown Calgary.

History:

The island was developed as a park in the 1950s. A plan to renovate the park was approved in 1999 (wetland construction and native plant restoration).

Features:

- Manicured areas and naturalized areas
- Year-round use
- Interpretive/educational elements (wildlife, habitat and water quality)
- Host to many festivals and events
- Picnic areas
- Playground
- Canoe access to the river
- Pathway and hiking trails
- Pedestrian bridges
- Flower gardens
- Environmental education pathway
- Washrooms (seasonal)
- Water fountains (seasonal)
- Cross-country skiing (seasonal)
- Outdoor skating on the lagoon (seasonal)
- River Café (full service restaurant, closed each January)
- On-leash park (no dogs allowed on Canada Day and Heritage Day due to event participant volume)

Recent Accolades:

- Ranked #1 in a list of Calgary's most Beautiful Places (Spacing Magazine, June 2011)

Inspiration for Prairie Winds Park:

A popular park for its walking paths and open space, high quality amenities and central location between downtown and residential neighbourhoods. It supports a diverse mix of programming including major events and provides ecological habitat and education opportunities.



Image: Flickr user vill3r (creative commons)



Image: Flickr user RogKenn (creative commons)



KINSMEN PARK, SASKATOON

Location: Saskatoon, Saskatchewan

Size: 16 Hectares

Location:

On the banks of the South Saskatchewan River

History:

Originally known as “City Park,” from the time the land was purchased by Saskatoon in 1903, it is the city’s oldest park. It received its current name in 1947.

Features:

- Walking paths
- Picnic shelter
- Play village (New playground under construction)
- Paddling pool
- Washrooms, concession and drinking fountain (seasonal)
- Softball diamonds and flexible open space
- Former pools / ravine (no longer operated)
- Heritage planting
- Cross-country skiing
- Amusement rides - Ferris wheel, carousel, miniature train
- Entertainment and events (outdoor theatre)
- Proposed promenade, entry plaza, water play area, integrated play space, and enhanced amusement rides.

Recent Accolades:

- 2014 Saskatchewan Premier’s Award of Excellence - Integrated Design
- 2012 CSLA Regional Citation Award

Inspiration for Prairie Winds Park:

Kinsmen Park accommodates many levels of use and is seen differently by the variety of people who use it. It is a place for children and families, a place of solitude, and a place to be in a natural environment within an urban context.



Image: ca.geoview.info/



GREEN LAKE PARK, SEATTLE

Location: Seattle, WA

Size: 130 Hectares (includes 25 hectares of parkland and a 105 hectare lake).

Location:

Located in an urban area, the majority of the park area is Green Lake. A ring of public space surrounds the lake and includes the recreational amenities.

History:

The lake was included in the Olmsted Brothers' comprehensive parks plan, and was given to the City by the State of Washington in 1905. The water level was lowered by 2.1 metres in 1911 to increase the amount of parkland surrounding the lake.

Features:

- Wading Pool / Water Feature
- Paths (ADA Compliant)
- Play Area (ADA Compliant)
- Sports facilities including soccer, baseball/softball, tennis court, golf and full-court basketball
- Fitness stations
- Washrooms (ADA Compliant)
- Community Centre with indoor pool
- Lake with Boat Launch (Hand Carry) and Guarded Beach

Inspiration for Prairie Winds Park:

Although it is much larger and is a lakeside park, Green Lake Park has some features in common with Prairie Winds Park (i.e. wading pool, multi-use paths, sport fields). It is very-well loved and a popular park for its paths, high quality amenities, and a diverse mix of programming. Green Lake is one of Seattle's most beloved parks drawing thousands of people daily from all over the city. The newly reconstructed 4,600 m path around the lake provides a perfect recreational spot for runners, bikers, skaters and walkers. Many others use the athletic fields or visit the park for picnics. (City of Seattle website)



Image: seattle.gov



Image: mygreenlake.com



Image: willhitweb.com



2.4 CONTEXT

SITE LOCATION & ACCESS

Prairie Winds Park is located in Westwinds Neighbourhood adjacent to Castleridge in Calgary's northeast (Figure 2.1 and 2.2). The park is easily accessible by car, bike, on foot and by public transit.

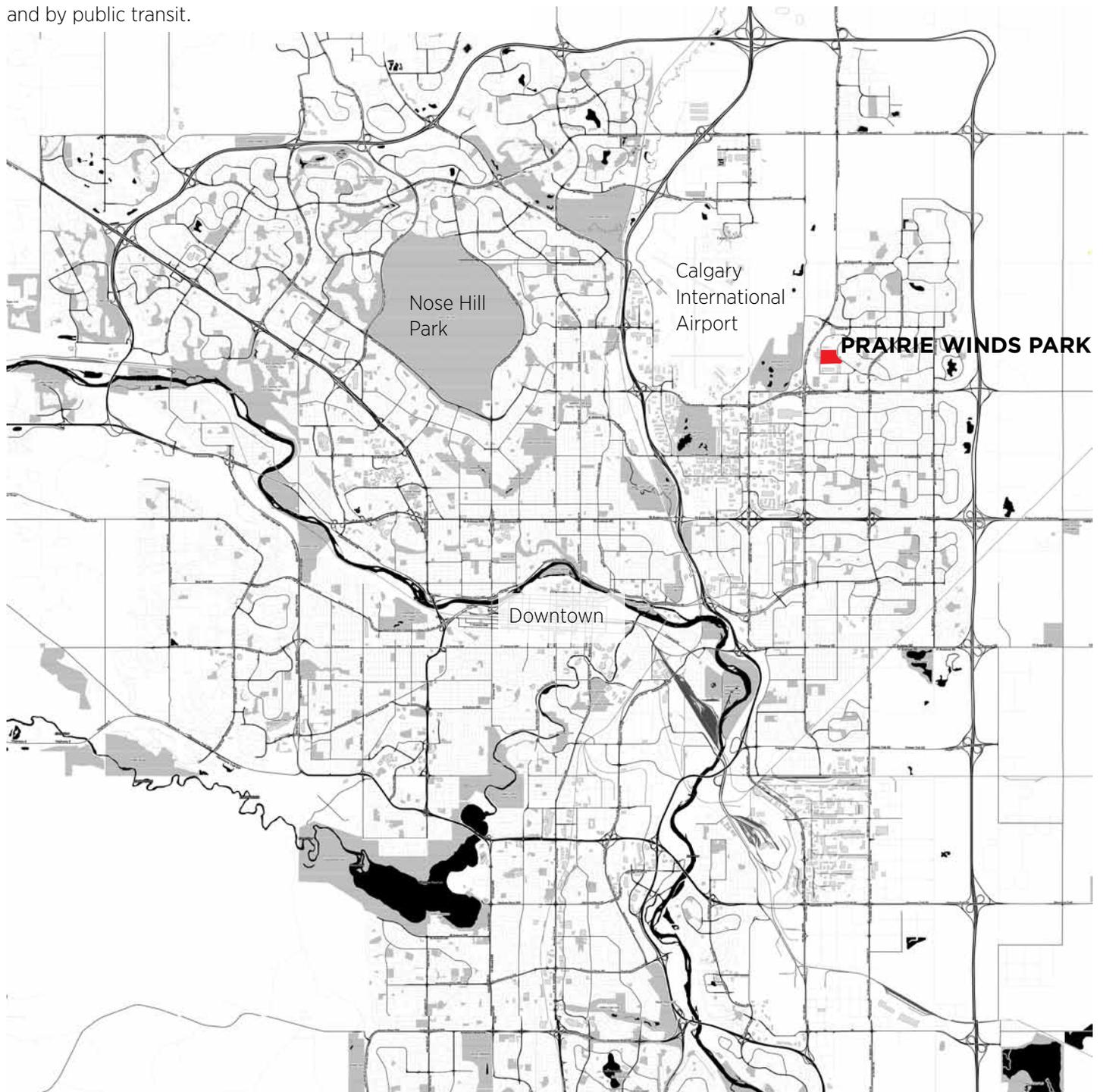


FIGURE 2.1: SITE LOCATION MAP

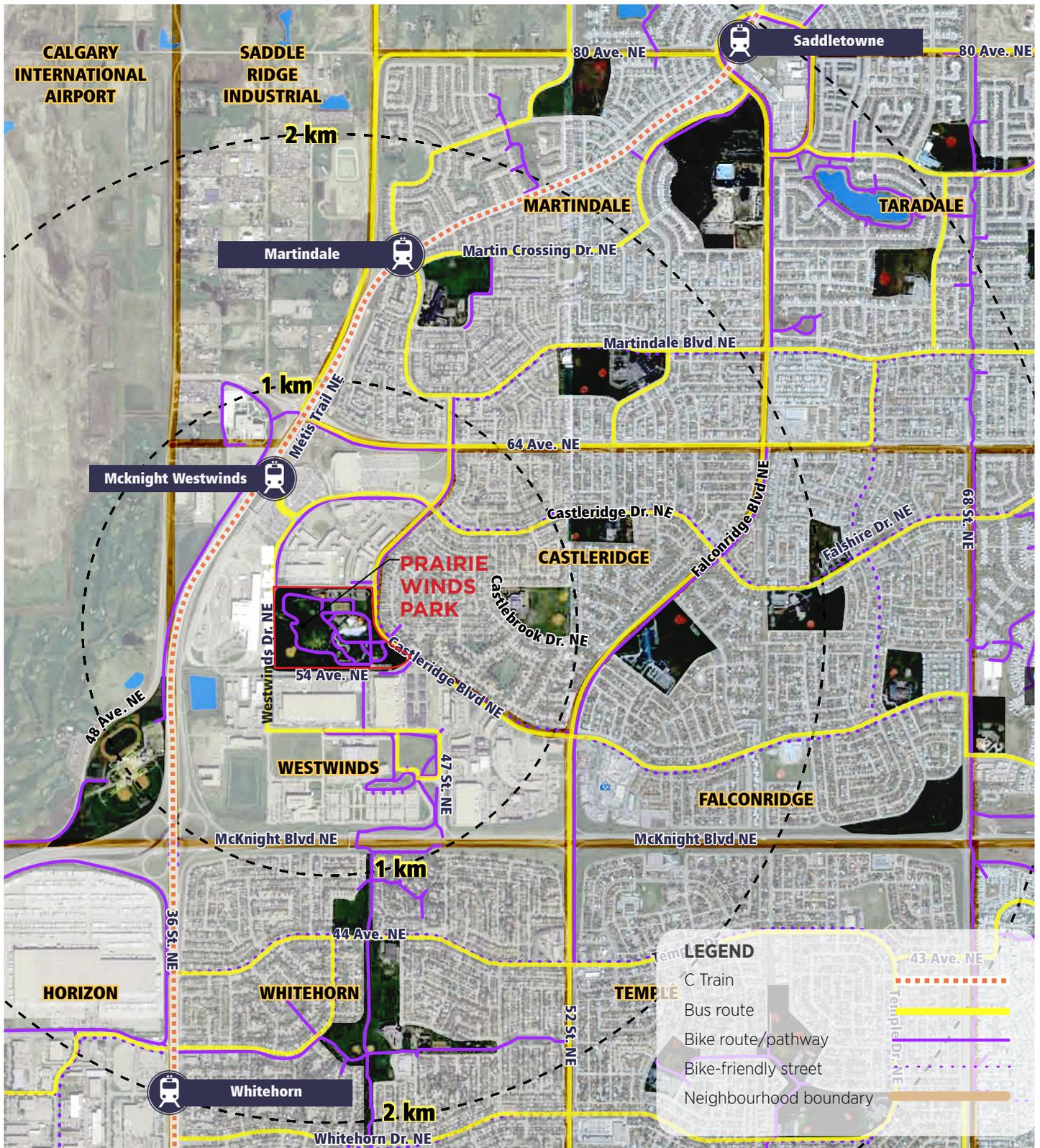


FIGURE 2.2: ACCESS PLAN / TRANSIT AND BICYCLE ROUTES

2.5 SITE CHARACTERISTICS

SITE OVERVIEW

The west half of the park is characterised by large flexible open spaces that are used for events, organized and casual sport activity, and other types of recreation requiring open space (Figure 2.3). Bordered by trees and the central toboggan hill which is a prominent landform near the centre of in the park.

The east side of the park is more intensively programmed and includes 2 parking lots, tennis courts, 2 playgrounds, a large wading pool, a new spray park, an amenity building which includes public washrooms, a concession, meeting room and mechanical systems for the pool, an artificial creek, a skating rink, and picnic shelter.

A maintenance yard at the north end of the park supports Park Operations for Prairie Winds Park and other parks in the northeast quadrant.

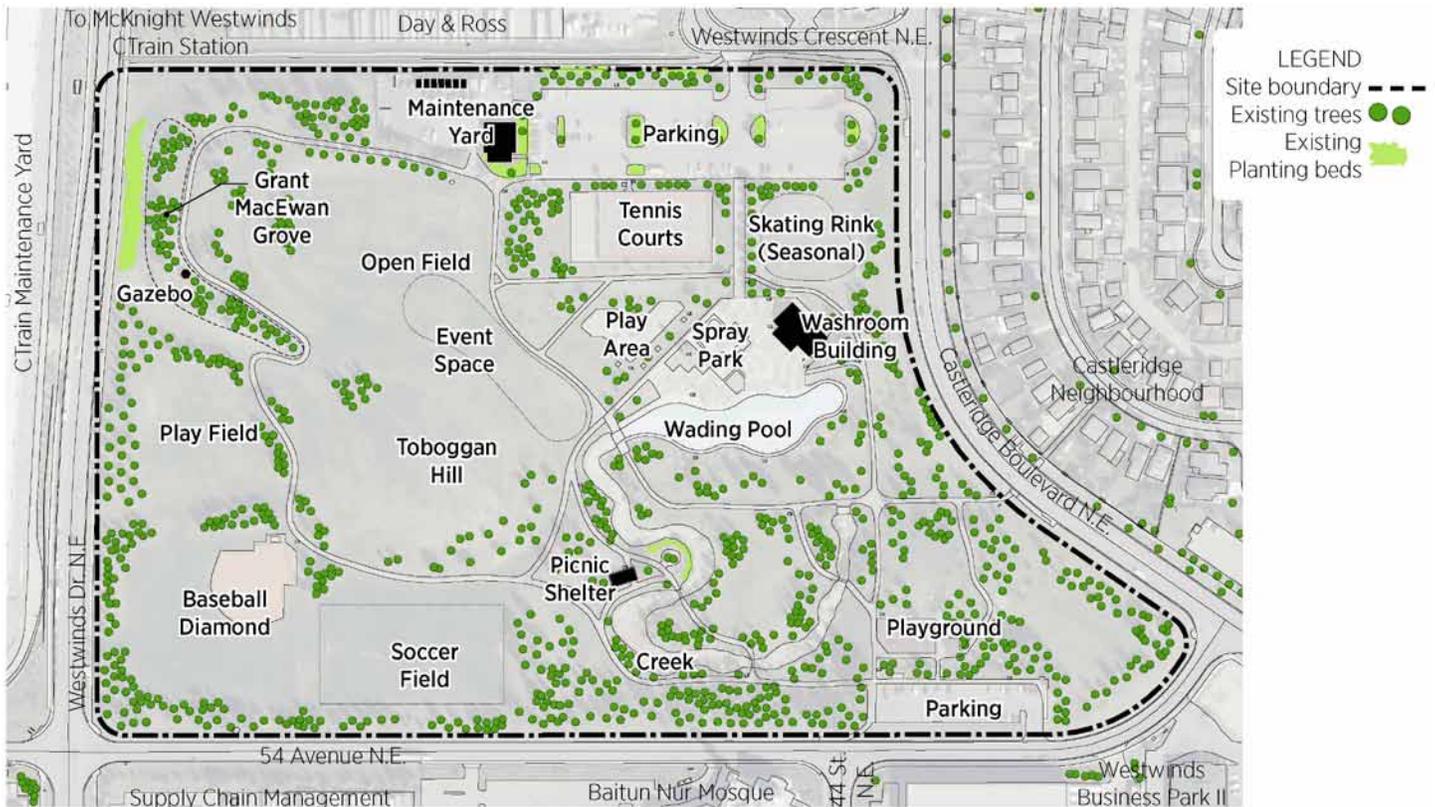


FIGURE 2.3: SITE OVERVIEW AND VEGETATION

EXISTING CIRCULATION

The primary access points to the park are oriented to vehicles entering the parking lots from the north and south at the east end of the park (Figure 2.4). There is also a pedestrian entry from Castleridge Boulevard to the east, which is aligned with a crosswalk from the Castleridge neighbourhood.

The park's perimeter is defined with a low post and cable barrier to deter entry by vehicles except at designated driveways. Barriers within the park include tall fences surrounding the maintenance yard, tennis court and pool area, as well as the backstop at the baseball diamond. There is a pinch point between the tennis court and the pool compound (north of the spray park) where the fences are in close proximity.

Most areas of the park are open grass areas, allowing informal movement throughout the park. Several desire lines have formed in the grass areas, giving an indication of informal routes that are heavily used. The most prominent desire lines lead to the top of the toboggan hill.

Paved pathways provide connectivity in the park, link major elements and provide several loops that are popular amongst walkers.

Parking lots and pathways are cleared of snow in the winter to facilitate year-round use of the park.

A multi-use regional pathway runs east-west immediately north of the park, but is not directly linked with the park's pedestrian pathway system.

Bus stops on the east and west sides of the park serve the site with multiple public transit routes. As well, the McKnight/Westwinds CTrain station, which opened in December of 2007, provides rapid transit service from downtown Calgary to within 300m of the park.

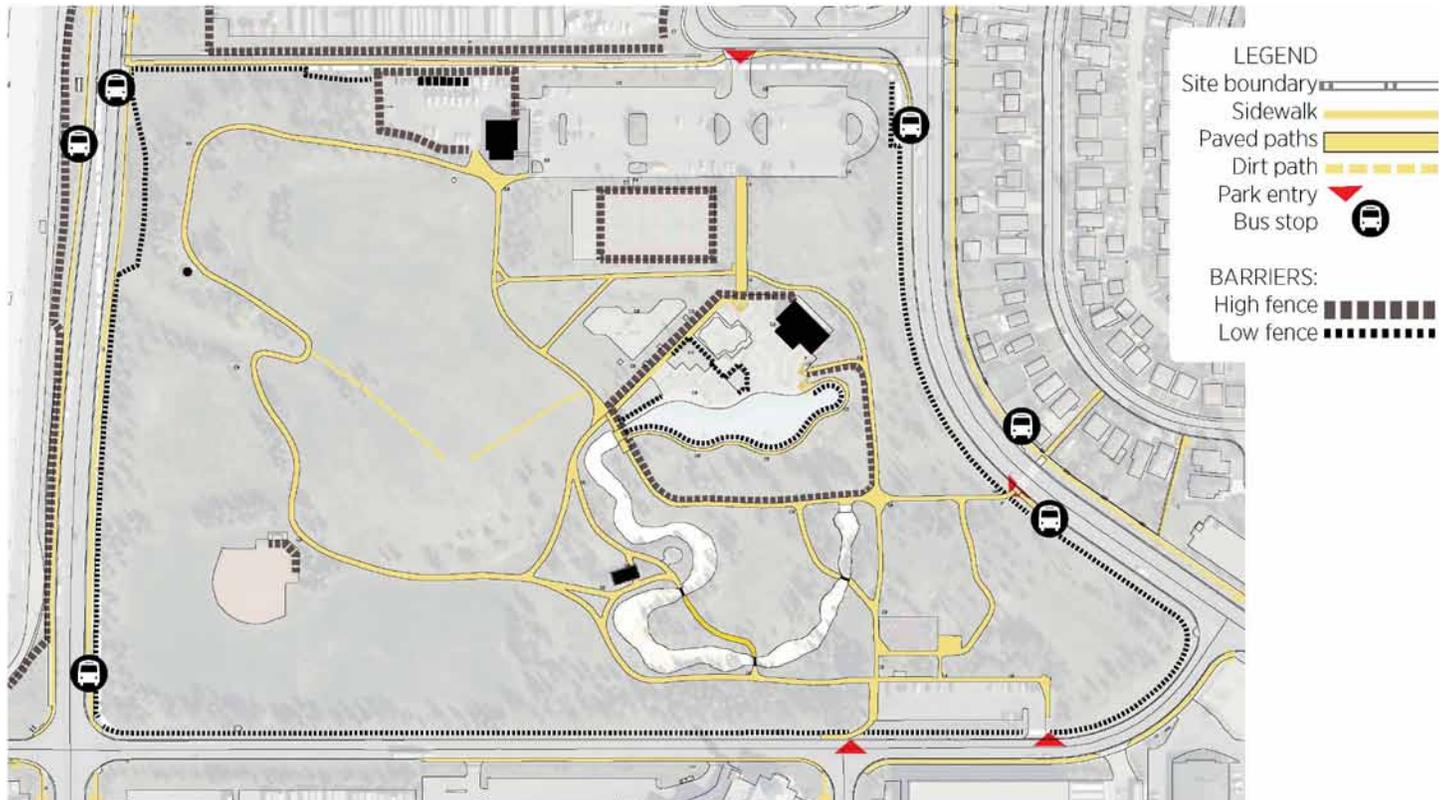


FIGURE 2.4: EXISTING CIRCULATION



HARD VERSUS SOFT SURFACE

A significant portion of Prairie Winds Park is green space and otherwise unpaved (Figure 2.5). 126,000 m² (79%) of the total park area is covered by permeable surfaces including grass, planting, trees, and pea gravel. Unpaved permeable surfaces are advantageous as they allow rainfall and snow melt to be absorbed into the ground close to where it falls, recharging the groundwater and supporting plant life. Additionally, the more water that is absorbed on site, the less impact there is on the capacity of the municipal storm sewer system.

Hard surfaces, such as building roofs, impermeable paving, the lined creek bed, and rubber playground surfacing make up 33,500 m² (21%) of hard surface. Paved and otherwise impermeable surfaces support the park's functionality and durability, providing parking areas and circulation routes that are usable year round. Resilient hard surfaces control the containment of water, where required, such as the wading pool and spray park. When it used to be operated, the creek's lined bed kept the water at the surface as an aesthetic feature. Due to age and deterioration of the creek bed lining, the cost to maintain and operate the creek as well as the substantial volumes of water lost to leakage have become prohibitive and unsustainable.

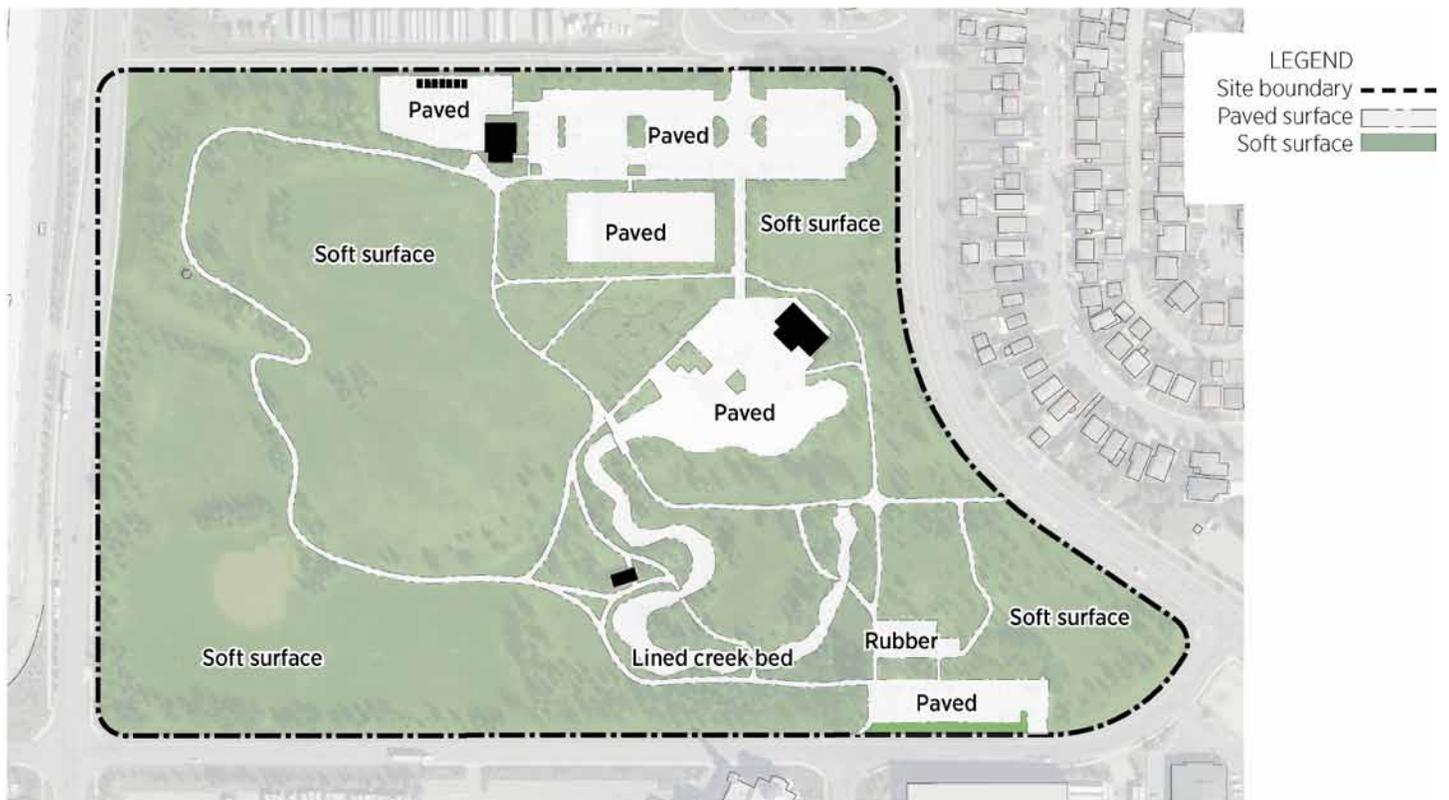


FIGURE 2.5: PAVED VS. SOFT SURFACE

EXISTING SITE ACTIVITIES - DAILY

Every day throughout the year, people can be seen walking around the park on the paved pathways. (Figure 2.6) The tennis courts are popular whenever the weather permits.

Use of the wading pool and spray park is very popular throughout the summer from late June until Labour Day. The new spray park opened in 2014, replacing the original one. The pool requires maintenance each year to open and operate. Public use of the pool and spray park are at no charge.

Winter activities are predominantly the use of the toboggan hill, which is on the north side of the mound and ice skating on a rink that is constructed on the field in the northeast area of the park.



FIGURE 2.6: EXISTING SITE ACTIVITIES - DAILY



EXISTING SITE ACTIVITIES - SPECIAL EVENTS

The large open areas in the park on all sides of the hill are used to host many special events throughout the spring, summer and fall (Figure 2.7). Typically held on weekends or holidays, such as Canada Day, large community-run events include food, music, games and other forms of cultural expression.

In addition to large events and festivals, family gatherings and picnics of all sizes are very popular throughout the summer, and often utilize the bookable picnic shelter, the picnic tables near the pool and playground, as well as on some of the other grass areas.

There is only one bookable picnic shelter in the park and it is booked nearly every Friday, Saturday, and Sunday throughout the summer.



FIGURE 2.7: EXISTING SITE ACTIVITIES - SPECIAL EVENTS

EXISTING TOPOGRAPHY AND DRAINAGE

Accessible pathways are 5% (1:20) or less with some allowance for up to 8% (1:12) over short distances. There is currently no accessible loop in the park as all paths have sections in excess of 8% slope (Figure 2.8).

The park's topography is a key element that contributes to the park's character. The 13 m (40 ft) mound is a dramatic feature near the centre of the park and is a purpose-built toboggan hill for the community. The smooth, curved line it creates against the sky is attractive and both its height and steep inclines make it a popular feature for people who traverse to the top and for those who slide down it in the winter.

Undulating topography in the east half of the park helps to separate the internal areas of the park from the adjacent roads and provides an interesting terrain that is revealed as park users move through it.

The park is generally well drained except for a few areas

with insufficient drainage where seasonal flooding or saturation occurs, creating muddy conditions and ponding on paths.

Ponding water on paths creates problems for the safety of park users as it renders paths temporarily unusable and/or hazardous when standing water freezes on the paths.

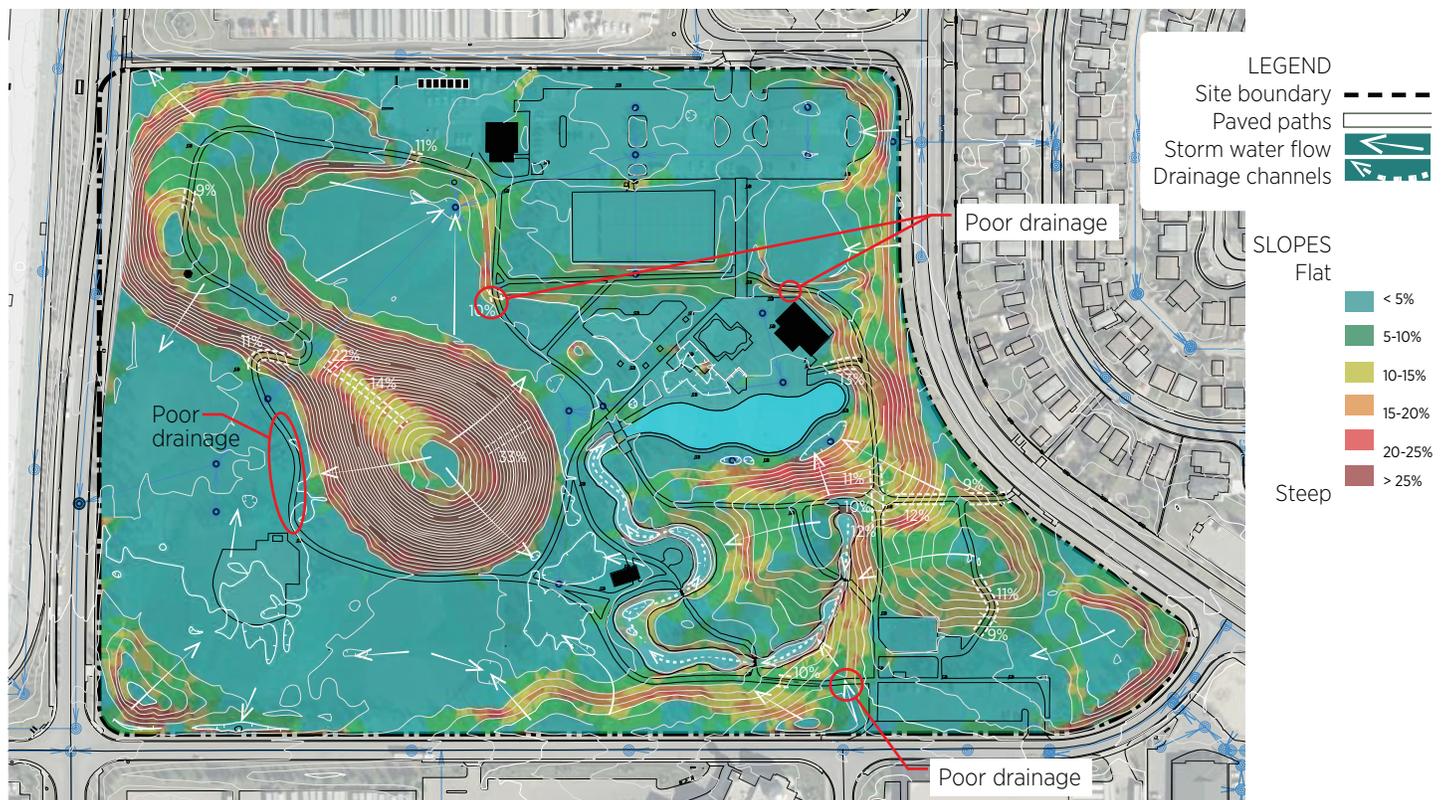


FIGURE 2.8: SLOPE & DRAINAGE



EXISTING VIEWS

Prairie Winds Park provides access to many unique views within the park and off into the distance (Figure 2.9).

Toboggan Hill

The toboggan hill functions as a key landmark within the park and is visible from nearly every part of the park.

From the top of the toboggan hill one can enjoy views in 360 degrees. At 1,104 metres in elevation, it is the highest point in the northeast quadrant and offers views of downtown Calgary, the Rocky Mountains, Nose Hill Park. It is also a great place to overlook the park, including the open fields, wading pool, main playground. The mosque and the Castleridge neighbourhood are easily viewed from the top of the hill as well.

The toboggan hill is also on the flight path for planes landing at Calgary International Airport. Watching as planes pass low overhead can make for a unique and exciting experience from this spot.

Around the Park

The pathways throughout the park provide pleasant views of the scenery in the park. There are currently fifty-eight (58) benches around the park where people can sit and enjoy the setting.

The sloping and flat lawn areas within the pool compound provide unobstructed views of the pool.

At one time, the gazebo would have provided views to the west. However, those views are now compromised by tall vegetation and new buildings constructed to the west of the park.

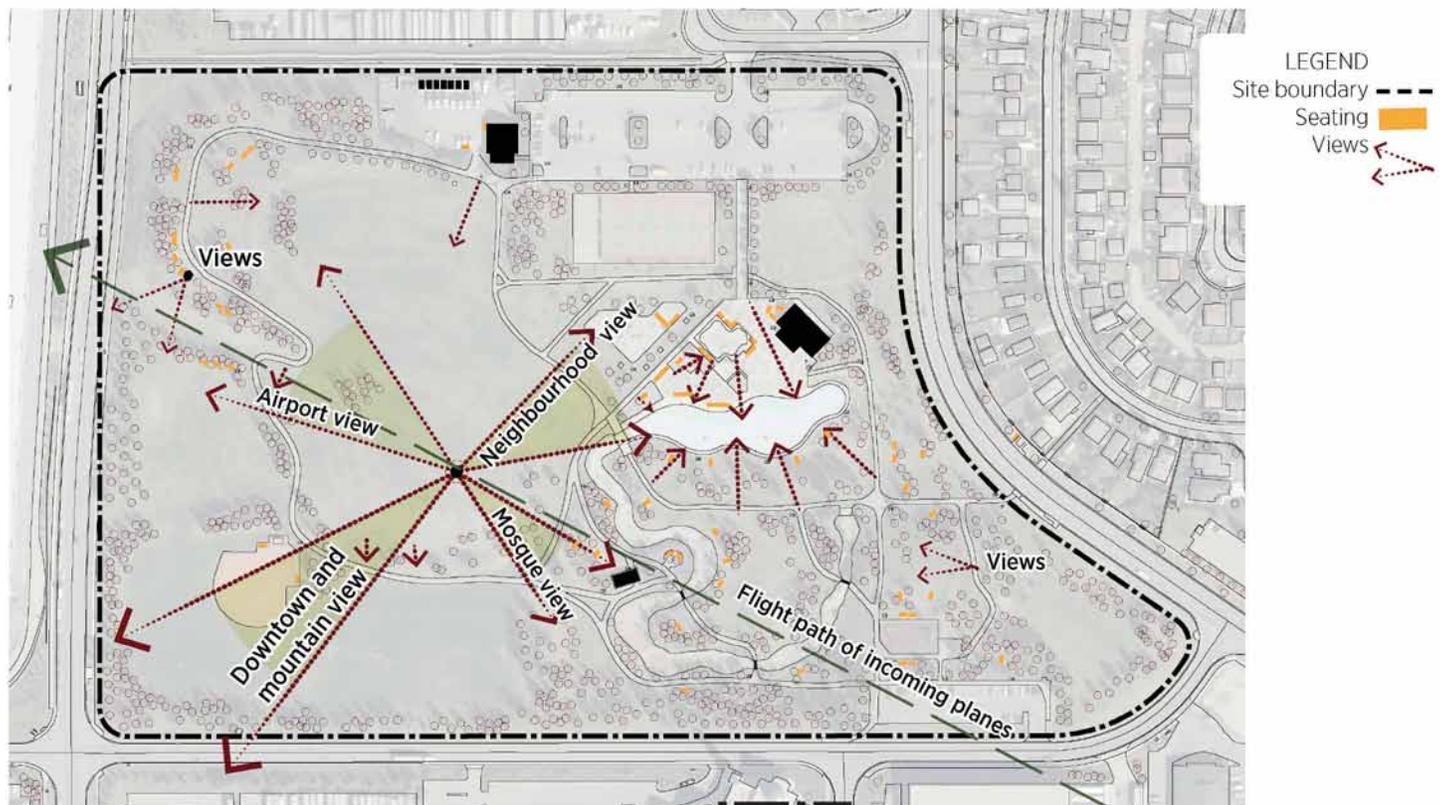


FIGURE 2.9: EXISTING VIEWS

EXISTING VEGETATION

A key characteristic of Prairie Winds Park are its large expanses of maintained grass and trees (Figure 2.10).

All of the lawn areas within the park are maintained regularly and to a high standard with irrigation, Class-A mowing, and fertilizer.

The park includes a collection of approximately one thousand trees with more being added each year. The range of species include native and ornamental trees, and both deciduous and evergreen. As many of the trees were planted when the park was first constructed, much of the park's trees are now well-established and mature.

The Grant MacEwan Memorial Grove, dedicated in 1992, is a collection trees in the northwest area of the park. The MacEwan Grove was originally envisioned to be a collection of 90 trees, however the full number is unconfirmed and the addition and replacement of trees has occurred over time. Aside from the memorial grove, the other trees in the park are not dedicated.

There are a few planting beds in the existing park. These beds are located adjacent to the maintenance yard, in the islands in the north parking lot, east of the picnic shelter next to the creek, and on a steep slope facing Westwinds Drive.

Movable planters distributed throughout the park are filled with annuals and perennials to provide additional colourful accents during the summer months.

A hierarchy of spaces with different characteristics is created by the trees and open areas. The trees create structure and provide protection and a sense of enclosure while also framing and defining the park's open spaces.

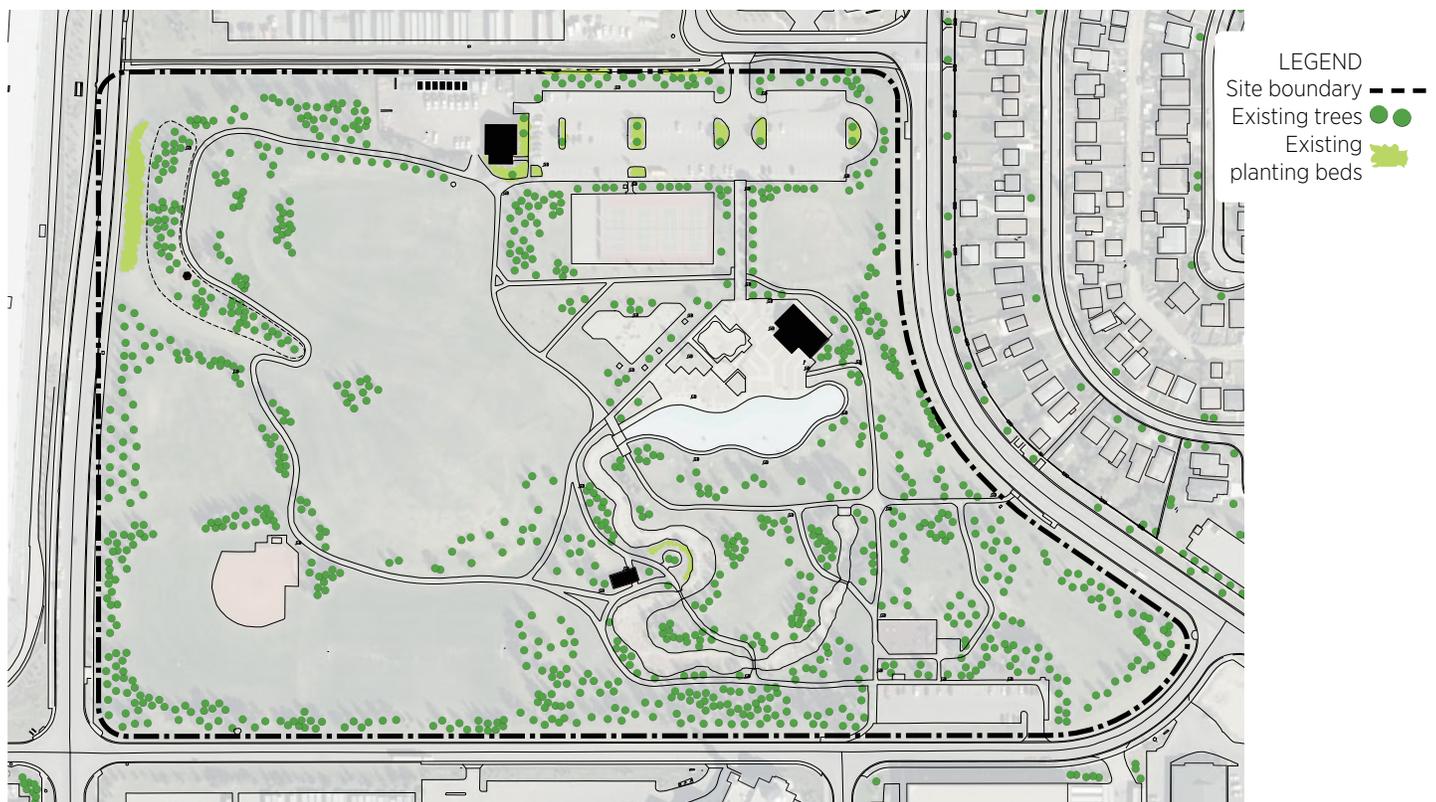


FIGURE 2.10: SITE VEGETATION



LOCATION

Geographic Location 51°06'15"N 113°58'15"W

Elevation: 1090m above sea level.

Biogeoclimatic region: Foothills Fescue

TEMPERATURE

In the coldest months, December and January, the average daily temperature is between -13°C (low) and -1°C (high) (Figure 2.11). In the warmest months, July and August, the daily temperature averages between 4°C (low) and 23°C (high).

PRECIPITATION

The average annual precipitation at the nearby Calgary International Airport is 418.8mm, with 326.4mm falling as rain and 128.8 cm as snow (Figure 2.12). The peak rainfall occurs between May and September where there is typically between 41 and 94mm per month (Figure 2.13). The majority of snowfall occurs during November to April where there is an average of 15 to 19cm per month.

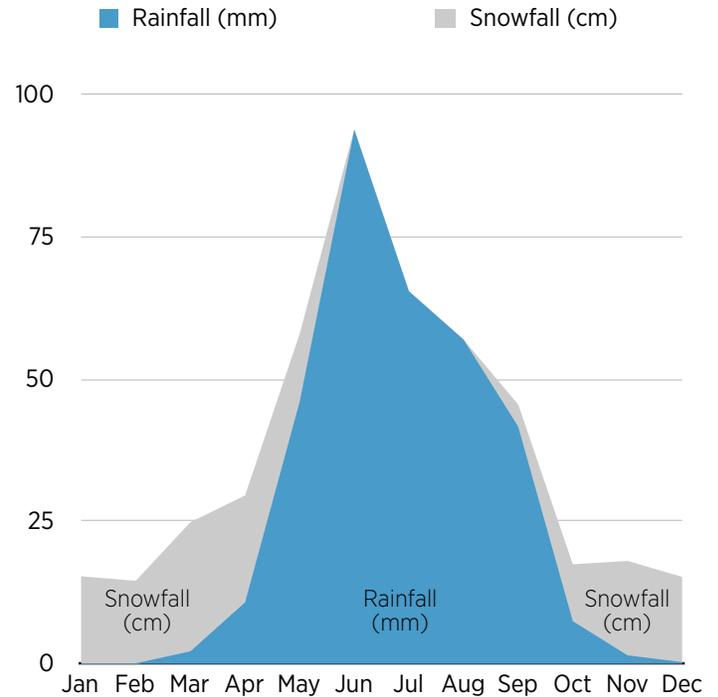


FIGURE 2.12: AVERAGE PRECIPITATION AS RAIN VS. SNOW (SOURCE: ENVIRONMENT CANADA)

Temperature and Precipitation Chart for 1981 to 2010 Canadian Climate Normals
CALGARY INT'L A

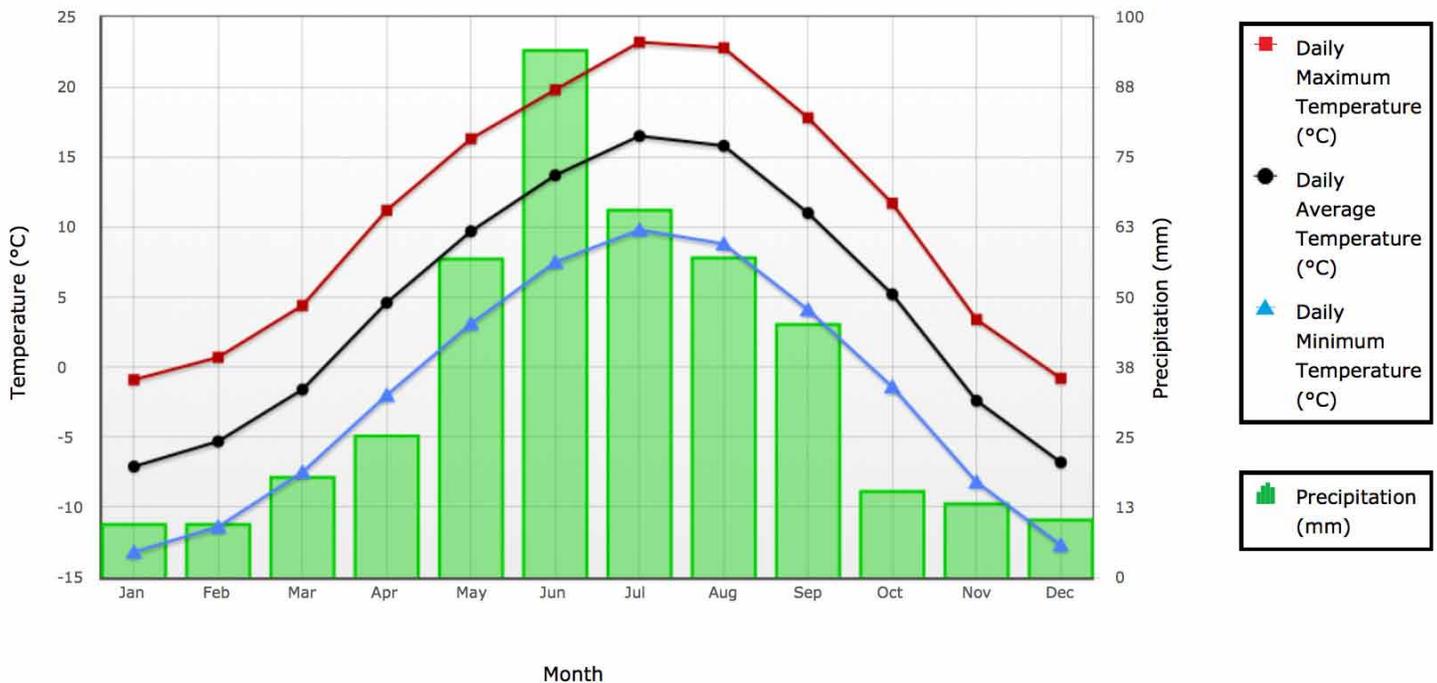


FIGURE 2.11: AVERAGE MONTHLY TEMPERATURE AND PRECIPITATION

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Rainfall (mm)	0.1	0.1	2.2	10.8	46.1	93.9	65.5	57.0	41.7	7.5	1.5	0.3	326.4
Snowfall (cm)	15.3	14.5	22.7	18.8	11.9	0.1	0.0	0.0	3.9	10.0	16.6	15.0	128.8
Precipitation (mm)	9.4	9.4	17.8	25.2	56.8	94.0	65.5	57.0	45.1	15.3	13.1	10.2	418.8

FIGURE 2.13: AVERAGE RAIN, SNOW AND PRECIPITATION OVERALL (SOURCE: ENVIRONMENT CANADA)

CHINOOKS

During the winter months, warm winds or weather systems, called Chinooks, are common in the region and will temporarily increase winter temperatures and winds often resulting in rapid melting of ice and snow.

WIND

Most times of the year, the wind is strongest from the northwest, west, or southeast (Figure 2.14). Throughout

the year, the average wind speeds are between 8 and 10 knots meaning that Prairie Winds Park is generally a windy place. Protection from the wind is limited. There are several clusters of evergreen trees that provide small wind breaks.

During the summer months, many park users find protection from the sun in the shade of the trees.

The purpose-built toboggan hill on the north side of the mound works well as the aspect is angled away from the sun, helping to retaining the snow longer without melting.

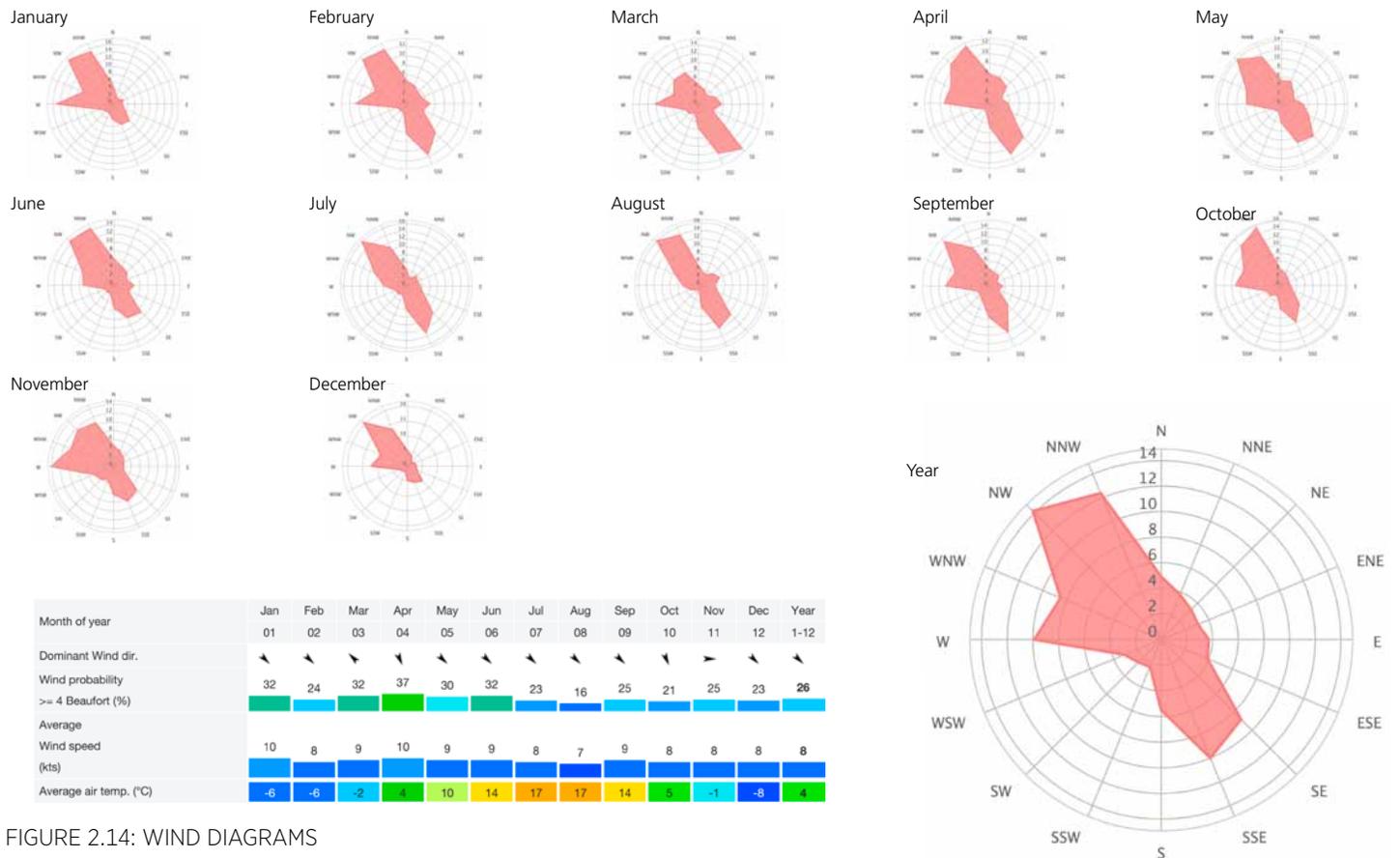


FIGURE 2.14: WIND DIAGRAMS



2.6 SITE FACILITIES & INFRASTRUCTURE

(A) TREES AND VEGETATION

Condition: Plant health varies. Variety of types (species) of trees could be improved upon.

Recommendation: Identify and replace selected trees with different species to add more variety. A wider range of tree species helps to improve the overall health of all plants by making them less likely to be damaged by disease and increases the overall biodiversity.

(B) PAVED PATHS

Most of the paths in the park are paved. The paved paths are also used as service roads by maintenance vehicles. Although the paths are popular amongst walkers who do circuits within the park, most of the routes have steep sections that prevent them from being universally accessible.

Condition: Fair. Many paths are too steep for some wheelchair users and the path is uneven in some spots.

Recommendation: Make it easier to get around by reducing the steepness of paths and provide loops to more areas of the park. Make improvements where required to ensure pathways are in good condition.

(C) PARKS MAINTENANCE YARD

Condition: Building and yard in average condition. The number of operations staff who use the building exceeds building's capacity during the busy summer season.

Recommendation: Upgrade building interior. Consider a moderate expansion of yard in current location.

Refer to Section 2.8 for more details.

(D) GRASS FIELDS

Condition: Good. Wet/muddy areas in low areas.

Recommendation: Improve drainage in low areas. Naturalize some periphery areas of the park to reduce mowing and maintenance requirements while increasing biodiversity.

(E) TOBOGGAN HILL

Condition: Good. Goat trails (dirt paths) show that people like to walk directly to the top.

Recommendation: Keep hill. Add a direct path to the top and make sure changes don't make it difficult to mow or maintain the hill.



FIGURE 2.15: SITE FACILITIES & INFRASTRUCTURE

F BASEBALL DIAMOND

Condition: Adequate for baseball and softball.

Recommendation: Low use and ample supply of diamonds nearby make the field eligible for repurposing.

G SOCCER FIELD

Condition: Adequate for recreational / minor soccer.

Recommendation: Keep the soccer field.

H PARKING

Condition: Barely adequate for day-to-day use. Not enough spaces for large events.

Recommendation: Keep existing number of on-site parking spaces and provide more by allowing on-street parking to the south and west of the park.

I TENNIS COURTS

Condition: Poor. Surface is in bad condition and needs to be replaced. Location impairs sense of arrival in park.

Recommendation: Consider reconstructing courts at another location in the park.

J SKATING RINK

Condition: Melting ice creates flooding of nearby pathway and paved areas.

Recommendation: Upgrade drainage for skating rink.

K PLAYGROUND (NORTH)

Condition: Fair to poor. Reaching the end of service life. Outdated equipment. Pea gravel is not wheelchair accessible.

Recommendation: Create a play area where everyone is welcome, make it bigger so children of all ages and ability can have fun and want to come back to play again.

L SPRAY PARK

Condition: Good. Rebuilt in 2014.

Recommendation: Keep new spray park.

M PARK CENTRE BUILDING

Condition: Average for its age.

Recommendation: Upgrade washrooms, change rooms, and entries so they work better in all seasons and are more user friendly.

Refer to Section 2.7 for more details.

N WADING POOL

Condition: Poor. Nearing the end of service life and needs yearly repairs.

Recommendation: Replace wading pool.

O PICNIC SHELTER

There is one bookable shelter in the park containing three (3) picnic tables. It dates back to the original park construction. There is high demand for bookable picnic space. It is well used, consistently reserved all day long every Friday, Saturday and Sunday throughout the summer.

Condition: Average for its age.

Recommendation: Keep the shelter. Add more picnic shelters with barbeque spots to serve more users.

P PICNIC TABLES

There are eighteen (18) individual picnic tables in the park located in the vicinity of the pool and north playground. These are well-used and are commonly full.

Recommendation: Add more picnic tables in desirable areas.

Q SEATING

Condition: Park benches are distributed around the park and are well used. There are currently fifty-eight (58) benches in the park.

Recommendation: The park could benefit from additional seating and potential relocation of some of the existing seating to take advantage of desirable views (prospect) and provide some protection from wind and direct sunlight (refuge).

R ARTIFICIAL CREEK

Condition: Poor. Continual water leaks, repairs, and cost of water prevent its continued operation. Has been shut down for many years.

Recommendation: Remove creek and reclaim area for other park uses.

S PLAYGROUND (SOUTH)

Condition: Good. Basic play equipment. New rubber surface.

Recommendation: Retain existing playground.



2.7 PARK CENTRE BUILDING

OVERVIEW

The existing park centre building is meant to service both the outdoor wading pool and spray park during their summer operations as well as provide year-round access to washrooms when the pool area is closed.

Constructed in 1989, the park centre building is currently equipped with:

- Men's and women's washrooms for public use
- Office / First Aid station
- Meeting room
- Storage room and a janitorial space
- Concession booth
- Building services mechanical room
- Pool equipment mechanical room

The lobby is used sparingly by visitors already using the aquatic facilities in the summer or as a warm-up space in the winter.

One of the major concerns with the building's current configuration is the crossing of wet and dry foot traffic across the lobby and hallway area. Most modern aquatic

facilities would have these as separated traffic areas to minimize conflicts.

The facility is also outdated in that it does not include a universal change stall or hands-free features (such as faucets or door-less access) which are the standard for current modern facilities.

SITING

The building's primary orientation towards the pool and spray park area creates a challenge during the winter months when the pool area is closed. Wayfinding to the building's entry is compromised upon arrival at the park due to the main entrance being closed.

A nondescript side door is used as the main public access into the building when the pool is not open (September to June). This entry is neither accessible, due to a step, nor welcoming to park users.

The concession does not have the significant public presence that might make it a more viable amenity for the community generally.

The delivery of pool chemicals is a persistent problem with the building's current configuration.



Park centre building and surrounding area

CONDITION

Exterior walls and windows are generally in reasonably good condition given their age, however the windows do not meet current environmental energy performance standards and exterior expanded metal mesh coverings are noticeably rusted.

Exterior doors are likely insulated and appear to be performing adequately for their age, with no reports of failing door hardware, seals or leaks.

The existing roof is metal and is wearing appropriately for its age. Further review and inspection might be prudent.

The interior doors, painted walls and partitions all appear to be in reasonable conditions and wearing appropriately for their age. However the washroom tile is dated, showing deterioration and is in several locations chipped or damaged. Additionally, the toilets and urinals are floor mounted, making maintenance and cleaning problematic.

The one storey building is accessible through a level main entrance facing the pool area, however this entrance is closed much of the year. Public access to the building when the pool area is closed is gained through a side door which is not accessible due to a step.

Clearances for wheelchairs is insufficient in the men's and women's washrooms, "accessible" toilet compartments do not have the appropriate turning radius for wheelchairs, and each washroom's corridor access does not achieve them minimum clearances required by contemporary building codes.

Overall the building is in reasonably good shape for its age, although upgrades are recommended to improve accessibility and its presence in the park, to provide functionality that supports the needs of park users, and to bring it up to current standards.



Exterior from pool deck



Interior common area



Main entry



Pool mechanical room



DOMESTIC WATER

CONDITION:

150 mm diameter (Ø) domestic water service that feeds all of the building's public fixtures and supplies fill water to the outdoor wading pool and creek.

Domestic hot water is via gas-fired hot water tank.

150 mm diameter water service to spray park has been removed

RECOMMENDATION:

- The existing 150Ø mm water service could likely accommodate a modest domestic water load increase.
- Hot water tanks are generally not replaced until failure. Unless the hot water demand is substantially revised there is no need to replace the tank immediately. If a hydronic (boiler) heating system is implemented in lieu of forced air (refer to section 3.1.2), an indirect-fired hot water heating approach may be preferred for improved longevity/capacity.
- The presence of pool systems within the building poses the possibility that copper piping may have been exposed to chlorine. All copper piping in the building should be inspected to determine whether any corrosion has occurred.

SANITARY

CONDITION:

200 mm diameter sanitary sewer connection provides drainage for the wading pool sump and building's plumbing fixtures.

Drainage to the spray park is no longer provided via the Park Centre Building sanitary building drain.

RECOMMENDATION:

The existing 200Ø mm sanitary building drain could likely accommodate a modest sanitary drainage load increase. Tie-in of new fixture drains to the existing drainage network would require at least partial demolition and replacement of portions of the existing main floor concrete slab.

HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

CONDITION:

A central-gas fired, down-flow, forced air furnace with split DX mechanical air conditioning (AC).

The existing in-slab air distribution can be expected to provide service for the life of the building, if it has not been subject to adverse conditions such as infiltration of water or rodents.

Except for the air distribution system, all other HVAC systems date to original building construction, and have met or exceeded anticipated service life, and are due for replacement.

RECOMMENDATION:

Heating: The existing in-slab air distribution could be retained as the most economical option.

If greater heating season comfort control is desired, a hydronic-based (heating boiler) heating approach could be added, using radiant panels located along the perimeter of exterior spaces. This would permit individual room heating temperature control. In this scenario, the existing in-slab duct work would be employed only for ventilation and air conditioning.

Air conditioning: If space by space cooling temperature control is desired, one of the following two approaches would be necessary:

- Provision of central AC equipment that utilizes a new supply air distribution (abandonment of existing distribution)
- Provision of localized AC equipment (wall-mount or ceiling recessed) where AC is desired, with ventilation air provided via existing in-slab duct work or a substantially smaller, new supply air distribution

GAS

CONDITION:

A gas distribution fuels the hot water tank, and the building's heating equipment. The size of the existing gas piping was not noted on site, nor was gas pipe sizing identified on the original construction drawings.

RECOMMENDATION:

The gas distribution piping could likely accommodate a modest gas load increase.

If heating of pool water is desired, a boiler plant of significant size would likely be required. In this instance, an upgrade of the entire gas service, both upstream and downstream of the building meter, may be required to accommodate the additional load.

FIRE PROTECTION

CONDITION:

At present, there is no sprinkler system installed in the Centre Park Building. Fire protection is limited to fire extinguishers.

RECOMMENDATION:

If a renovation to the existing building is implemented, the building's current classification will require the addition of an automatic sprinkler system.

As the existing 150ø mm water service is frequently employed for pool filling, which is a high flow demand activity, it would be necessary to verify, with a pressure test, whether the existing water service has the capacity to simultaneously meet the new fire protection water demand in addition to the existing pool fill demand. If not, either an additional or upgraded water service would need to be provided to the building.

MECHANICAL AND CHEMICAL STORAGE ROOMS

CONDITION:

The pool equipment room and the two adjacent, auxiliary chemical storage rooms possess their own dedicated heating and ventilation equipment.

All of the HVAC equipment serving the pool equipment rooms appears to be original and has thus met or exceeded its anticipated service life and is due for replacement. The HVAC system types currently employed are appropriate and the replacement of only key equipment components may suffice.

The mechanical room is heated with a ceiling-suspended gas-fired unit heater controlled by a local thermostat; ventilation air is drawn from outside and mixed with recirculated air by a dedicated supply fan and then relieved via louver.

The two auxiliary chemical storage rooms are heated by ceiling-suspended electric unit heaters controlled by local thermostats; both spaces have a dedicated outdoor air intake and an exhaust fan, to provide space ventilation.

No mechanical cooling is provided for the rooms containing pool equipment.

RECOMMENDATION:

- Determine the ventilation requirements to ensure safe operation of the water treatment process(es) in place
- Replace existing heating and ventilation equipment with new equivalent, or with reduced/increased capacity as per findings
- Specify new equipment in relation to the upgrades considered in section 3.1.2 (ex. with the addition of a central boiler, all unit heaters could be converted to hydronic, etc.)



POOL EQUIPMENT

CONDITION:

Pool mechanical equipment includes two large sand filters, a single distribution pump, a single chemical injection pump, and all associated piping.

Based exclusively on age, it is probable that some of the existing pool equipment is due for replacement; however, as usage has been seasonal, significantly extended pool equipment life spans could be realized.

With respect to the applicable health regulation and standards related to aquatic facilities, the existing circulation pump, supply line and sand filters serving the wading pool have inadequate capacity to meet current minimum recirculation requirements for the existing pool.

RECOMMENDATION:

The suitability of existing pumping equipment and infrastructure will likely be heavily dependent on the selected development path forward. Furthermore, improvements in water treatment approaches, or increased stringency in water quality standards, may dictate whether the existing water treatment equipment is adequate.

It may be worth considering whether it is possible to repurpose the mothballed underground infrastructure from the former spray park so as to serve the wading pool. Some level of wading park demolition would likely be required as would an additional sand filter to accommodate an increased recirculation rate.

The design of the circulation system as well as any measures to ensure water quality remains in regulatory compliance will need to be a part of any redevelopment involving the pool.

Any redundant equipment formerly serving the spray park and found unsuitable for re-purposing should be removed and turned over to the City for re-use elsewhere or disposed of at the City's discretion.

If heating of pool water is desired, a boiler plant of significant size would likely be required. In this instance, an upgrade of the entire gas service, both upstream and downstream of the building meter, may be required to accommodate the additional load.

SPRAY PARK MECHANICAL

CONDITION:

Systems in the park centre building have been decommissioned as the new spray park completed in 2014 is furnished with a separate stand-alone mechanical building.

RECOMMENDATION:

If it is not feasible to repurpose the mothballed infrastructure from the former spray park so as to serve the wading pool, it may be removed to reclaim space.

If not required for another purpose, remove the old spray park mechanical systems including 1 chemical injection pump, 3 of 4 distribution pumps, one sand filter and all associated piping.

2.8 PARKS MAINTENANCE FACILITY

OVERVIEW

The Parks maintenance yard serves Prairie Winds Park as well as several other City parks in northeast Calgary, both for storage of equipment as well as a place for City staff to store personal effects during the day and take lunch.

Constructed in 1989, the Maintenance Building is a 2 storey building comprised of the following spaces:

- Pair of small offices
- Staff Room
- Storage Room
- Pair of Men's & Women's Washrooms
- Mechanical Room
- Mezzanine
- Loading Bay

CONDITION

The building in the parks maintenance yard does not currently meet the needs of Park Staff. There is insufficient room for changing and the storage of personal items and the washrooms are too limiting when the facility is in peak use (at lunch).

DOMESTIC WATER

CONDITION:

A 150 mm diameter domestic water service that feeds a 20 mm diameter supply to the building's minimal plumbing fixtures, and a dedicated 50 mm diameter line routed to the full line size fill connection located at the exterior of the building on the east side. Domestic hot water supply to plumbing fixtures is via gas-fired hot water tank.

SANITARY

CONDITION:

The building's 100 mm diameter sanitary sewer connection provides drainage for both the two-compartment sump located within the loading bay, and the remainder of plumbing fixtures located throughout the building.

GAS

CONDITION:

The building's natural gas main is 50 mm diameter at the outlet of the regulator, located on the west side of the building. The gas distribution fuels the hot water tank, and the building's heating equipment.

HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

CONDITION:

Heating, ventilation, and air conditioning, for all spaces except the loading bay are provided by a central, gas-fired, down-flow, forced air furnace, complete with split DX mechanical air conditioning (AC). Control of the furnace is by a single thermostat located within the staff room.

Delivery of supply air for the ground level spaces served by this system is via in-slab duct distribution, with supply grilles located along the perimeter of exterior walls; a separate supply is provided to the mezzanine space. Air is exhausted from the washrooms at ceiling level by a dedicated exhaust fan that is interlocked with furnace operation. The furnace is located in the mechanical room. According to drawings, the exhaust fan is located above the washroom ceiling.

Based on nameplate data, it appears that the down-flow furnace was replaced with new in 2012. Age of the washroom exhaust fan was not confirmed.

LOADING BAYS HEATING & VENTILATION

CONDITION:

The loading bay possesses its own dedicated heating and ventilation equipment. The tall space is heated with two ceiling-suspended gas-fired unit heaters, controlled by a single local thermostat. An outdoor air supply fan and a space exhaust fan operate together to provide space ventilation when demanded by the vehicle exhaust gas detection system installed in the space. Supply air is delivered at high level; exhaust air is extracted at both high and low level.

The room is provided with a single ceiling fan, operated by a local switch, to ensure a reasonably uniform space temperature can be maintained.



All equipment appears to be original, with the exception of the gas detection equipment.

FIRE PROTECTION

CONDITION:

At present, there is no sprinkler system installed in the Maintenance Building. Fire protection is limited to fire extinguishers. The current classification of the building does not require that an automatic sprinkler system be installed.



Maintenance yard enclosure



Maintenance yard south entry



Maintenance yard exterior

RECOMMENDATIONS:

Based on service life, the building structure and its interior mechanical systems are not in urgent need of repairs or upgrades. In the loading bay, HVAC equipment has met or exceeded its anticipated service life and is due for replacement, but may be best addressed under a regular capital maintenance program.

Park Staff have indicated the building does not currently meet their needs. However, with the allocated budget for the park redevelopment, park facilities with the greatest public benefit, such as the Park Centre Building and wading pool, may be assessed a more urgent priority for upgrades and replacement, deferring any renovations to the Parks Maintenance Building until a later budget cycle.

Upgrades to the maintenance building are not identified at this time. However, based on the assumption that upgrades may be largely cosmetic, the existing plumbing and drainage services could accommodate a modest increase in load.



Loading bay



Mechanical room

2.9 MUNICIPAL INFRASTRUCTURE

LIFT STATIONS

CONDITION:

Storm lift station: Completed in the late 1980s the storm lift station (located south of the Maintenance Building) (Figure 2.16). Storm sewers like these have a typical service life of 50 years and pumps have a typical service life of 30 years.

Sanitary lift station: Completed in the late 1980s and includes a lift station at the east end of the park north of the Park Centre building. This type of underground structure has a typical service life of 50 years and pumps used in this scenario (more corrosive environment) have a typical service life of 20 years.

RECOMMENDATION - FOR BOTH STORM AND SANITARY LIFT STATIONS:

- Review maintenance records.
- Visually inspect the interior of the lift station to determine if it meets the City's requirements for accessibility, fall protection and confined space.
- Inspect the condition of the internal walls, pipe, electrical (conduits and cables), level control indicators and alarm system.
- Determine the current flow capacity of the pumps when compared against theoretical pump curves.
- Inspect the sump for solids accumulation, floatables and odours.
- Review if the ventilation system is sufficient and operating properly.

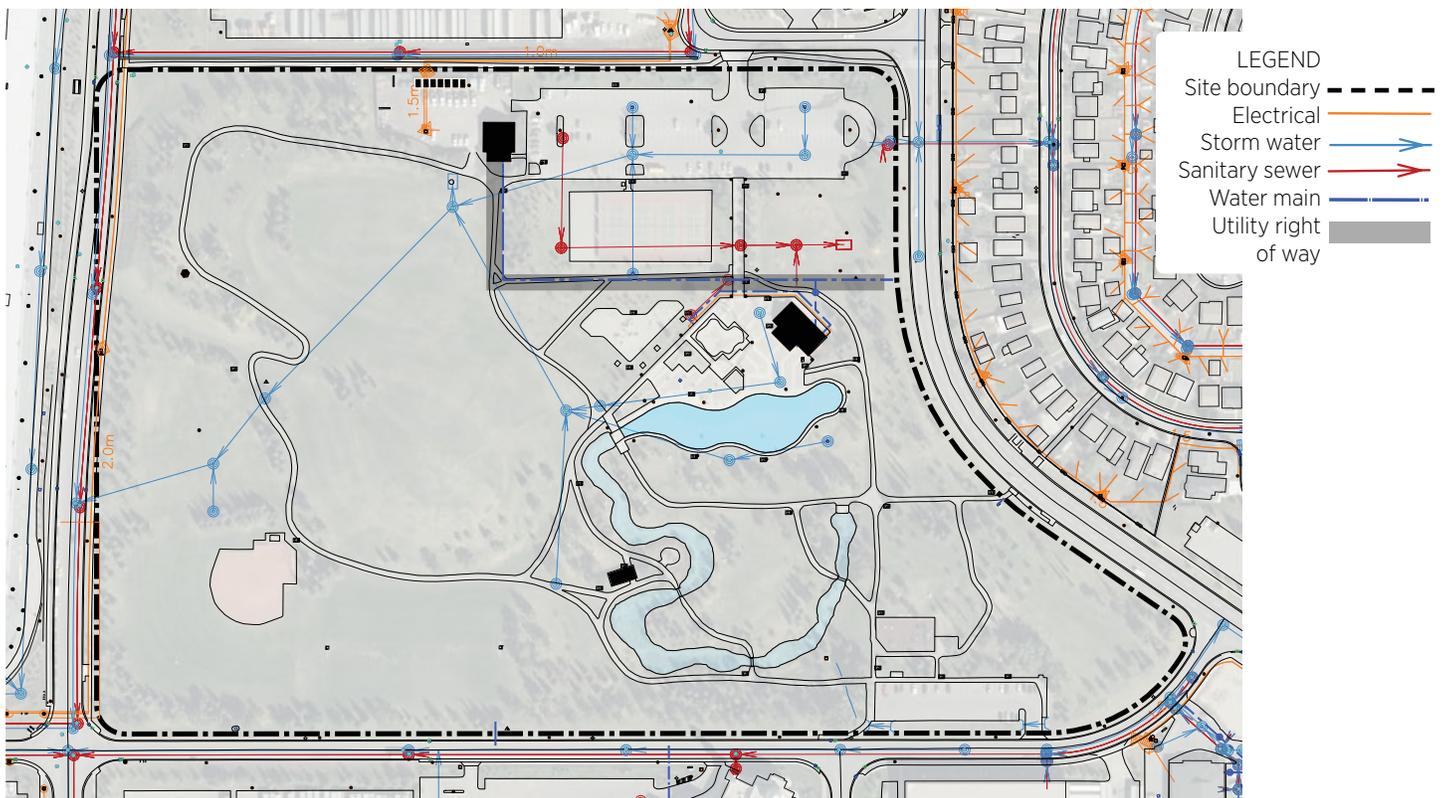


FIGURE 2.16: EXISTING UTILITIES



STORM SEWER COLLECTION SYSTEM

CONDITION:

Installed in the late 1980s and comprised of a gravity main, lift station, and forcemain. The gravity main is CL IV concrete pipe ranging in diameter from 300 - 910 mm and the storm forcemain is 150 mm HDPE. Concrete and HDPE pipe have a typical service-life of 70 years.

RECOMMENDATION:

- Review maintenance records.
- Inspect the interior of the storm pipes using a CCTV video camera and visually inspect the interior of all manholes and catch basins.
- Compare the current storm water management conditions to the City's current guidelines.
- Review the storm water management for the site.

SANITARY DRAINAGE COLLECTION SYSTEM

CONDITION:

Installed in the late 1980s and consists of 200 mm PVC pipe and a 100 mm HDPE the sanitary sewer forcemain. The sanitary sewer services between the Maintenance building and the Park Centre building share an 8.5 m wide utility right of way (URW) with water, electrical and natural gas utilities. PVC and HDPE pipe have at typical service-life of 70 years.

RECOMMENDATION:

- Review maintenance records.
- Inspect the interior of the sanitary sewer pipes using a CCTV video camera and visually inspect the interior of all manholes/catch basins

WATER DISTRIBUTION SYSTEM

Condition: Installed in the late 1980s and consists of 200 mm PVC pipe. The water service between the Maintenance building and Park Centre building share an 8.5 m wide URW with sanitary, electrical and natural gas.

Two fire hydrants branch off the watermain (one is located on the south side of the northeast parking lot, and one is south of the Maintenance Building). PVC pipe has a typical service life of 70 years.

RECOMMENDATION:

- Review maintenance records.
- Fire flow test the existing fire hydrants on-site.
- Pressure test the pipe to establish leakage.

ELECTRICAL SERVICE

CONDITION:

The electrical service for the Maintenance building and the Park centre building enters the site from the east. It shares 8.5 m underground Right of Way with water, sanitary and natural gas. The primary cable enters transformers adjacent to the Maintenance building and the Park Centre building and then secondary electrical services continue from each transformer to each building. Buried cables have a typical service-life of 50 years.

RECOMMENDATION:

- Review maintenance records.

NATURAL GAS DISTRIBUTION SYSTEM

The natural gas service to for the Maintenance building and the Park Centre building enters the site from the east. It shares an 8.5 m wide URW with water, sanitary and the primary electrical.

RECOMMENDATION:

- Review maintenance records.

2.10 IRRIGATION

KEY OBSERVATIONS

The existing system is functioning, but its outdated. The park redesign will provide an opportunity to upgrade and retrofit the current irrigation system to improve control and monitoring of water distribution to all park areas that require irrigation.

WATER SUPPLY

CONDITION:

- The park's irrigation system is currently connected to two separate Park's Water Services, each with a Double Check Valve Assembly (DCVA). The east side of the park has a 100 mm service and DCVA. The south side of the park has a 200 mm service with 150 mm DCVA.
- The park's irrigation does not require two Water Services.

RECOMMENDATION:

- Once a preferred concept is developed, the water service that will work best for the Irrigation Water Requirements (IWR) will be identified for revisions.
- It is anticipated that the Park Water Service located at the South end of the Park will be retained as it is the larger of the two services.
- Consider replacing the existing Double Check Valve Assembly (DVCA) located in a vault below grade with a Reduced Pressure Zone Backflow Preventer located in an enclosure above grade.

CONTROLLERS

CONDITION:

There are several controllers installed in this park.

- The irrigation controller located at the north Parks compound is old and will likely need to be replaced.
- The irrigation controller near the south point of connection has an interface unit, 7.5m mast, and antenna.
- There are also 5 on-site field controllers.

RECOMMENDATION:

- It is likely that a few the controllers will be relocated to accommodate the new park layout.
- If a booster pump is installed, a specific model of Motorola controller is required to monitor the pump. This model would replace all of the existing controllers.

WATER FLOWS

CONDITION:

- The existing static pressure of 60 psi is reduced by as much as 20 psi when pipe friction is factored in.
- All valves are the same size in the existing system. Modern systems size the valves based on actual flow.

RECOMMENDATION:

- Add a booster pump for the irrigation mainline near the point of connection (south end of park) in order to maintain adequate pressure throughout the system.
- Potentially add a second booster pump on a sub-main to provide sufficient pressure for the hill's size and height.
- Locate the pumps with consideration for source of power, mainline routing, access for maintenance and aesthetics.
- A new water meter with a greater level of flow sensitivity.
- Size the valves based on actual flow as per the latest City of Calgary specifications.
- Where practical, use the City of Calgary's "integrated valve irrigation cabinet" setup to reduce the number of valve boxes that need to be installed in the landscape.

COVERAGE

CONDITION:

- Generally all park areas receive coverage and should continue to, with appropriate modifications, in the new design. These areas include large open spaces used for concerts and gatherings, sports fields, informal lawn areas, planting beds, trees.
- The movable planters are not irrigated by a specifically designed system.

RECOMMENDATION:

- Review irrigation practices and look for potential areas to reduce water use, such as established treed areas and planted areas in the new design, including naturalized planting, rain gardens and planters.
- Drip irrigation will only be required for new trees as the root systems of existing trees are generally established.
- Install 125 mm pop-up sprinklers in turf areas.
- Keep turf height to 75-100 mm when sports fields and large turf areas aren't being used to reduce irrigation requirements.



2.11 VEHICULAR CIRCULATION & PARKING

EXISTING PARKING SUPPLY

Prairie Winds Park has two on-site parking lots with a total of 226 parking spaces. The north parking lot has 172 parking spaces and the south has 54.

None of the streets surrounding the park currently permit parking, except for a 2-hour limited parking zone on the south side of 54 Avenue east of 44 Street NE. This time limited street parking is only allowed on Friday during the prayer times at the adjacent mosque. No parking is currently permitted on Westwinds Drive NE.

Current parking regulations on streets adjacent to the park restrict parking based on time as well as vehicle types. The west and south curbs bordering the park are deemed no parking to discourage area trucks & trailers from parking on the streets.

EXISTING PARKING DEMAND

Preliminary counts indicated that the park is currently experiencing up to 10 stalls deficiency for its normal operation.

It has been observed that the south parking lot was full and several vehicles park (illegally) along the north side of 54 Avenue and the east side of Westwinds Drive NE.

PATHWAYS

The site is well connected with pathways from the adjacent communities. There is a route from the CTrain station to the northwest corner of the park, however there is currently no entry to the park at the northwest corner.

There are no sidewalks on the north side of 54 Avenue and on the west side of Castleridge Boulevard.

EVENTS MANAGEMENT

As the existing supply of 226 spaces is barely sufficient to meet the current demands of the park, it can be inferred that there would be a shortage of parking supply on days when there are well-attended events at the site.

All events are required to obtain a permit at which point event management strategies are developed to accommodate the expected number people and vehicles.

TDM strategies and off-site parking can be utilized to accommodate the large numbers of people coming to major events at Prairie Winds Park.

RECOMMENDATIONS

Allow time restricted and vehicle type restricted parking on 54 Avenue between Westwinds Drive and the South lot entrance. This could add up to 29 spaces to the supply.

Allow time restricted and vehicle type restricted parking on the east face of Westwinds Drive between 54 Avenue and the north park boundary. This could add up to 44 legal spaces to the supply.

During special events and festivals, the following TDM strategies should be considered given the location of the site:

- Promote usage of transit – the site is located within walking distance of an existing CTrain station.
- Provide off-site parking and promote through event information/signage.
- Consider providing bike valet.
- Consider providing a taxi zone.

As well, a number of off-site parking locations within walking distance of the site or that can be easily accessed by shuttle bus or CTrain have a total capacity of 2,451 stalls, which could accommodate 4,900 to 9,800 people (assuming 2 to 4 persons per vehicle).

CONCLUSION

The 226 parking spaces at the site are inadequate for the day-to day need of the site. Unless parking is allowed on 54 Avenue and Westwinds Drive in the vicinity of the site, the parking supply at the park should be increased.

Event parking could be managed through a combination of TDM strategies and off-site parking lots within walking distance of the site or that can be easily accessed by shuttle bus or CTrain.

Intersections around the site are not signalized and there is some difficulty in making left turns onto Castleridge Boulevard because of existing traffic volumes on Castleridge Boulevard. However, the Transportation Association of Canada (TAC) signal warrant analysis indicates a traffic signal is not warranted at this location.

2.12 NEEDS & GAP ANALYSIS

INVENTORY OF NEARBY RECREATION

In order to assess the current need and gaps in programming, using the publicly available resources on the City of Calgary's website and a study of air photos, we looked at the supply of several recreational activities within a 4 km radius of Prairie Winds Park (Figure 2.17).

The map to the right and the chart on the following pages document recreational amenities in the vicinity, their locations, and the proximity with Prairie Winds Park.

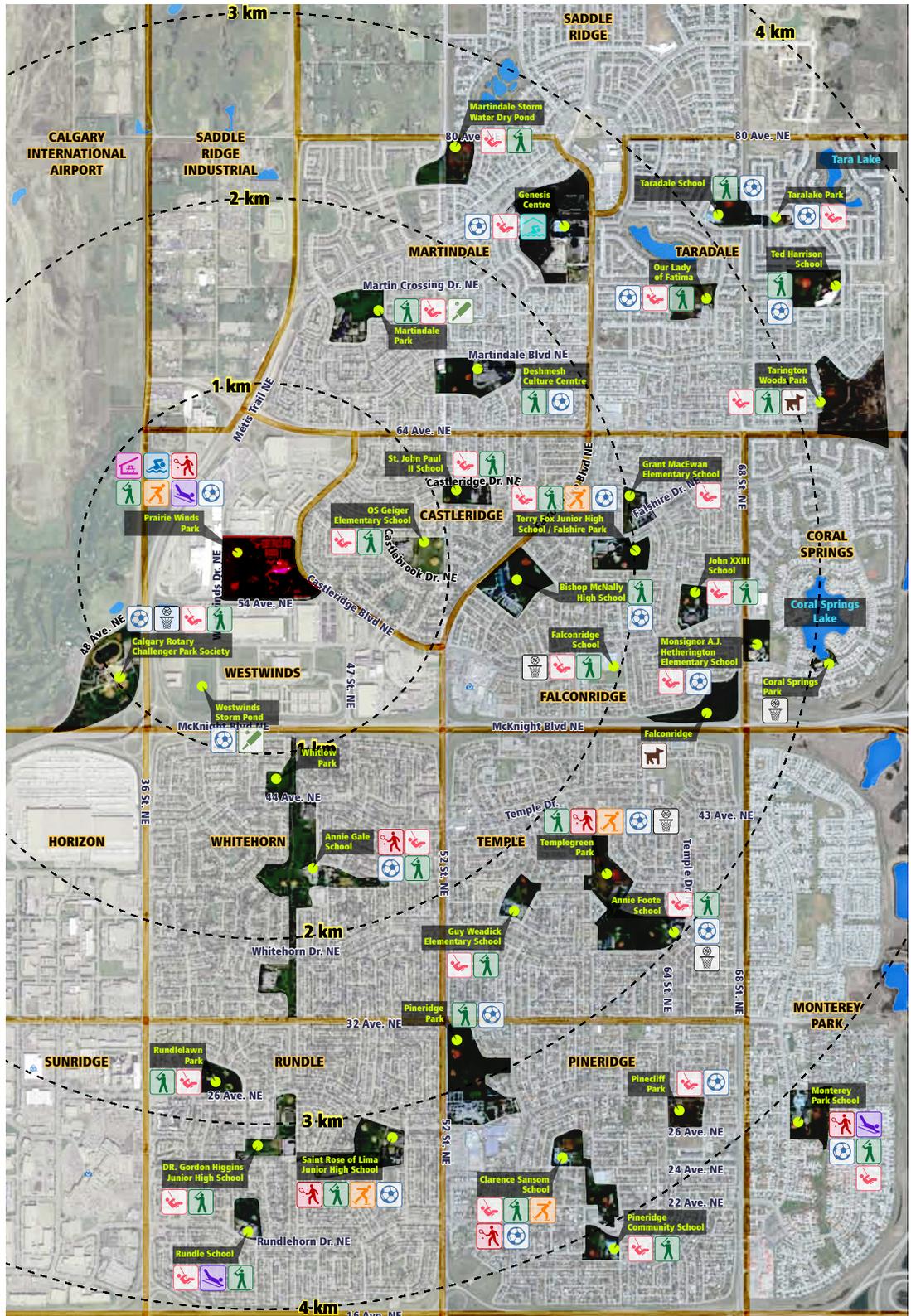


FIGURE 2.17: EXISTING NEARBY RECREATION AMENITIES



OBSERVATIONS

Prairie Winds Park has the only public outdoor wading pool with a spray park and is the only park with a bookable picnic shelter in the study area.

Indoor swimming is available year-round at the Genesis Centre.

Prairie Winds park is one of only 3 locations within 4 km with a toboggan hill.

Including Prairie Winds Park, there are only 6 parks with tennis courts and 5 with outdoor ice skating.

There are only 5 parks/schools with full outdoor basketball courts, although all schools generally have hoops for small pickup games and shooting practice.

Baseball/softball diamonds, soccer fields, and small playgrounds are well represented in the study area.

There are only 2 other locations within the study area with a cricket pitch.

HOW THIS INFORMATION IS USED

In order to assess suitability of the addition and/or removal of recreational facilities at Prairie Winds Park, this information will be cross-referenced with the input collected through the consultation and engagement phases as well as a review of supply and demand of recreation facilities and current and projected trends for types of recreation in the community and the city.

NEARBY RECREATION

LOCATION	DISTANCE FROM PRAIRIE WINDS PARK	 Indoor swimming	 Outdoor pool / spray park	 Off-leash dog area	 Tennis court	 Ice skating	 Baseball	 Tobogganing	 Play area	 Covered picnic shelter	 Soccer (>=90 m field)	 Basketball (outdoor)	 Cricket
Prairie Winds Park	0 km		•		•	•	•	•	•	•	•		
Westwinds Storm Pond	0.5 km										•		•
OS Geiger Elementary	1 km						•		•				
Calgary Rotary Challenger Park	1 km						•		•		•	•	
St. John Paul II School	1 km						•		•				
Dashmesh Culture Centre	1.5 km						•				•		
Bishop McNally High School	1.5 km						•				•		
Martindale Park	1.5 km						•		•				•
Annie Gale School	2 km				•		•		•		•		
Terry Fox Junior High School / Falshire Park	2 km					•	•		•		•		
Falconridge School	2 km						•		•			•	
Grant MacEwan Elementary	2 km								•				

LOCATION	DISTANCE FROM PRAIRIE WINDS PARK	 Indoor swimming	 Outdoor pool / spray park	 Off-leash dog area	 Tennis court	 Ice skating	 Baseball	 Tobogganing	 Play area	 Covered picnic shelter	 Soccer (>=90 m field)	 Basketball (outdoor)	 Cricket
Guy Weadick Elementary School	2.5 km						•		•		•		
John XXIII School	2.5 km						•		•				
Templegreen Park	2.5 km				•	•	•				•	•	
Genesis Centre	2.5 km	•							•		•		
Falconridge Off-Leash Area	2.5 km			•									
Martindale Storm Pond	2.5 km						•		•				
Our Lady of Fatima	3 km						•		•		•		
Monsignor A.J. Heatherington Elementary	3 km								•		•		
Rundlelawn Park	3 km						•		•				
Pineridge Park	3 km						•				•		
Annie Foote School	3 km						•		•		•	•	
Taradale School	3 km						•				•		
Saint Rose of Lima School	3 km				•	•	•				•		
Coral Springs Park	3 km											•	
Dr. Gordon Higgins Junior High School	3 km						•		•				
Ted Harrison School	3.5 km						•				•		
Clarence Sansom School	3.5 km				•	•	•		•		•		
Rundle School	3.5 km						•	•	•				
Tarlington Woods Park	3.5 km			•			•		•				
Taralake Park	3.5 km								•		•		
Pinecliff Park	4 km								•		•		
Pineridge Community School	4 km						•		•				
Monterey Park School	4 km				•		•	•	•		•		



SUITABILITY ANALYSIS OF EXISTING PROGRAMS AT PRAIRIE WINDS PARK

CURRENT PROGRAMS / ACTIVITIES	GENERAL PROGRAM REQUIREMENTS	EXISTING SERVICES / FACILITIES AT PRAIRIE WINDS PARK	SUITABILITY OF PROGRAM FOR PRAIRIE WINDS PARK	OPPORTUNITIES FOR FUTURE PARK PROGRAMMING
WALKING / RUNNING (PAVED PATHS)	Paved paths with accessible grades, well-connected loops throughout the park	Multi-use paved path. Many paths are too steep and not universally accessible.	Walking / running is a popular activity in the park throughout the year and is well-suited for Prairie Winds Park.	Users would benefit from improvements to accessibility and connections to more places in the park. There is a desire for distance markers for the loops in the park.
OUTDOOR WADING POOL / SPRAY PARK	The wading pool contains water the depth of which is 60 centimetres or less throughout. The pool and spray park require maintenance each year to open and operate.	The existing non-heated pool is original and the design and systems are outdated. A new spray park opened in 2014, replacing the original one. Public use of the pool and spray park are at no charge.	Outdoor wading pool and spray park are well suited to a regional park of this size and location. (Use of the wading pool and spray park is very popular throughout the summer from late June until Labour Day.)	There is an opportunity for replacing the existing wading pool with a modern facility that will appeal to a wider range of ages of users.
TENNIS COURT	Flat open paved area with suitable surfacing (i.e. asphalt, concrete, ...), well drained and north-west south-east orientation.	Four courts and a practice wall exist in Prairie Winds park.	Appropriate use at Prairie Winds Park that contributes to the range of recreation available and fits well within a park this size.	Users would benefit from a renewed surface. Considering moving courts to another suitable location in the park. Provide drinking fountains.
ICE SKATING	Flat open area or wide path that can be surfaced with ice. Area lighting. Parking and washrooms nearby. Access to water supply for flooding.	Flat, lawn surface where a snow berm is built before the area is flooded. Parking and washrooms are nearby. Operations staff from the on-site Parks Maintenance Yard construct, monitor and maintain the rink.	Ice skating is a suitable amenity that provides a winter activity in the park.	Users would benefit from seating, an area for putting on skates, and improved warm-up area in the adjacent park centre building.
BASEBALL	Baseball diamond with backstop and dug-out seating areas.	There is an abundant supply of baseball diamonds in the vicinity.	Suitable within a park this size.	Potential to remove the diamond and replace it with a more popular activity.

CURRENT PROGRAMS / ACTIVITIES	GENERAL PROGRAM REQUIREMENTS	EXISTING SERVICES / FACILITIES AT PRAIRIE WINDS PARK	SUITABILITY OF PROGRAM FOR PRAIRIE WINDS PARK	OPPORTUNITIES FOR FUTURE PARK PROGRAMMING
TOBOGGANING	<p>Steeply sloping grass area with no obstructions, or significant irregularities and a clear, flat run-out area at bottom.</p> <p>North facing is preferable for snow retention.</p> <p>Access from parking.</p>	<p>A prominent central feature of the park's design is the toboggan hill.</p> <p>Buffered from traffic, with a north facing aspect to hold snow longer without melting, and pedestrian trail access from the nearby parking lots.</p>	The park is well suited for this purpose.	Potential to extend the flat run-out area at the bottom, add a defined path to the top of the hill and to provide a look out on the top.
PLAY AREA	Designated space for children to play, buffered from traffic, easily accessible, places for parents to sit, variety of play opportunities with consideration for all ages and abilities.	<p>The main playground is deteriorating and dated and has a pea-gravel surface, so it is not wheelchair accessible. The spray park, wading pool, and open grass areas are nearby.</p> <p>A smaller playground next near the south parking lot was recently upgraded (2011) and has basic play equipment and a rubber safety surface.</p>	As a regional destination park, family-oriented facilities including significant play areas are appropriate and attract visitors.	Potential to increase opportunities for play and other physical activity for all ages and in all seasons. Enhanced spaces that support children's cognitive and social skills and physical development should be well-integrated to the park.
COVERED PICNIC SHELTER	Covered picnic shelter areas include picnic tables and wood or briquette stoves/ barbecues. Some should be wheelchair accessible. The site should have appropriate surfacing (e.g. concrete). Waste bins and recycling bins could be situated nearby.	There is only one bookable picnic shelter containing three (3) picnic tables in the park and it is booked nearly every Friday, Saturday, and Sunday throughout the summer.	As a regional destination park, Prairie Winds has the space and the setting that makes it appropriate for picnics and family gatherings.	A few additional covered picnic shelters would help satisfy the demand for bookable spaces. The shelters would enhance the comfort of visitors (protection from sun and rain) while also accommodating gatherings where groups need to reserve more than one table in advance.



CURRENT PROGRAMS / ACTIVITIES	GENERAL PROGRAM REQUIREMENTS	EXISTING SERVICES / FACILITIES AT PRAIRIE WINDS PARK	SUITABILITY OF PROGRAM FOR PRAIRIE WINDS PARK	OPPORTUNITIES FOR FUTURE PARK PROGRAMMING
PICNICKING	Formal picnic sites include picnic tables. Some picnic sites should be wheelchair accessible. Informal picnic areas where people might set up blankets should be well drained and have appropriate surfacing (e.g. lawn). Waste bins and recycling bins could be situated nearby.	There are eighteen (18) individual picnic tables in the park located in the vicinity of the pool and north playground. These are well-used and are commonly full.	More picnic tables in desirable areas would be a good fit at Prairie Winds.	Additional picnic tables in desirable areas, such as near the play areas, near the water play areas, and in quieter passive use areas where there are shade trees.
SOCCER (MINOR)	A flat, well-drained grass or turf field of at least 80m in length, with goal posts at both ends.	There is a minor soccer field in the south side of the park. The field doubles as a flexible open space that can also be used during festivals or special events.	The minor soccer field is an appropriate use within a multi-use recreational park such as Prairie Winds. Since the field is adequate for recreation, it is suggested to keep the field.	Consider upgrades to the grass field to provide a more consistent play surface, new movable goal posts and better access to washrooms and parking.
FESTIVALS / LARGE EVENTS	Flexible open space. Access for the delivery and removal of event equipment (i.e. tents, tables, chairs, stage, etc.) The size of events in parks is dependent on the space and amenities available and compatibility with other programs.	There are two major flexible open spaces in the park (one north and one south of the toboggan hill). The toboggan hill provides a natural amphitheatre for overlooking festival areas.	As a large regional park, a range of events from small to large (up to 10,000 people) could be accommodated in the park depending on the flexible open space available. Access and off-site parking must be considered as on-site parking is insufficient for large events.	The park could be upgraded to include improved access from the nearby CTrain station, sources for the supply of potable water (hose bib) and electricity for performances.

SUITABILITY ANALYSIS OF POTENTIAL NEW PROGRAMS

POTENTIAL NEW PROGRAMS / ACTIVITIES	GENERAL PROGRAM REQUIREMENTS	DESIRABLE SITE CONDITION	SUITABILITY OF PROGRAM FOR PRAIRIE WINDS PARK	NEARBY PARKS WITH SIMILAR PROGRAMS
INDOOR SWIMMING	A purpose-built facility with supporting amenities.	Undeveloped site in good proximity to transportation options.	Not a suitable facility for Prairie Winds Park and not feasible within the scope and budget of the redevelopment.	<ul style="list-style-type: none"> Genesis Centre
OFF LEASH DOG AREAS	An open area with a perimeter boundary to control access for dogs to run free and socialize without interfering with other uses.	An open space free of existing programming and potential conflicts.	<p>As a family-oriented park with a focus on recreation, activities for dogs is limited to walking with owners on pathways while on a leash.</p> <p>Several dog parks are provided elsewhere in the vicinity and not required at Prairie Winds Park.</p>	<ul style="list-style-type: none"> Falconridge Off-Leash Area Tarington Woods Park
CRICKET	<p>Flat open space large enough to accommodate a cricket field.</p> <p>The safety of surrounding park users must be considered (i.e. hazards of stray cricket balls).</p>	Large, flat open space without obstructions or conflicting uses.	<p>There may be opportunities to include a compromised or junior-sized cricket field suitable for practice.</p> <p>The limited space available in Prairie Winds Park would prevent a full sized cricket pitch.</p>	<ul style="list-style-type: none"> Westwinds Storm Pond Martindale Park
BASKETBALL	A hard-surface court with at least one hoop. Two hoops and painted court lines required for a full court.	<p>Convenient access by foot, car, bike or transit. Protection from sun and wind. Seating for players and spectators. Buffer to prevent stray balls from entering roads or parking lots. Washrooms nearby.</p>	Compatible with existing uses and contributes to Prairie Winds Park as a family-oriented park that emphasizes extensive recreational opportunities.	<ul style="list-style-type: none"> Calgary Rotary Challenger Park Falconridge School Templegreen Park Annie Foote School Dr. Gordon Higgins Junior High School



POTENTIAL NEW PROGRAMS / ACTIVITIES	GENERAL PROGRAM REQUIREMENTS	DESIRABLE SITE CONDITION	SUITABILITY OF PROGRAM FOR PRAIRIE WINDS PARK	NEARBY PARKS WITH SIMILAR PROGRAMS
ICE HOCKEY	A flat surface that can be flooded and frozen in the winter. Heated water supply. Boards around the perimeter.	Parking and washrooms nearby. Seating for players to put on skates.	A new, dedicated space for ice hockey received a high level of agreement during the public consultation and would be suitable in the park to expand winter recreation as a pilot project. The park's existing ice skating rink is suitable for pleasure skating only.	<ul style="list-style-type: none"> • Whitehorn (outdoor rink - concrete) • Martindale (outdoor rink - concrete) • Northeast Sportsplex Arenas(2) - (Indoor) • Village Square Arenas (2) (indoor) • Winston Heights (outdoor rink - grass)
CROSS-COUNTRY SKIING	Uncleared snow areas with groomed ski trail loops. Ski trails should be separate from multi-use paths or driveways that are cleared of snow in the winter.	Relatively gentle grades, north facing or shaded areas extend available ski season.	Open spaces may be suitable. Grades may be too steep in several locations. Limited space for looped trails.	<ul style="list-style-type: none"> • Weaselhead Natural Environment Park (SW) • Edworthy Park (SW) • Fish Creek Provincial Park (SE) • North and South Glenmore Parks (SW)
BIKE SKILLS PARK	Variety of riding experiences, including terrain, challenge structures and features to keep users in designated areas.	Located on a previously-disturbed site with access for mountain bikers and spectators. Located to avoid conflicts with other park uses.	The demand for a bike park was generally low.	<ul style="list-style-type: none"> • Fish Creek Park (under construction) (Calgary's first bike skills park -in SE Calgary)
SKATEBOARD PARK	A purpose built hard surface with features designed for skateboarding.	An area with easy access by foot or transit that has good passive surveillance and seating for spectators and skaters. Protection from sun and rain is a plus.	The demand for a skateboard park was generally low.	<ul style="list-style-type: none"> • Mobile skate program (various locations including Prairie Winds Park) • Shaw Millennium Park (SW)
FITNESS STATIONS	One or more stations with stationary or movable equipment to provide opportunities for exercise.	A series of stations along a looping pathway circuit so that users can alternate between walking/jogging/running and working other body parts at the stations.	The paths at Prairie Winds Park is popular with walkers who are asking for more ways to experience outdoor fitness and for new challenges.	<ul style="list-style-type: none"> • Coral Springs Park • Deerfoot Business Centre • Grant MacEwan Elementary School

2.13 PARK USE TRENDS

OBSERVATIONS

FACILITY BOOKINGS

Records of facility bookings from 2009 to June 2014 (Figure 2.18) indicate that there is a high and growing level of interest in the **soccer field** and **picnic shelter** on a year-to-year basis. Bookings of the **baseball diamond** have **decreased** since 2009. The booking of the miscellaneous green spaces in the park is variable and the gazebo and surrounding space is low.

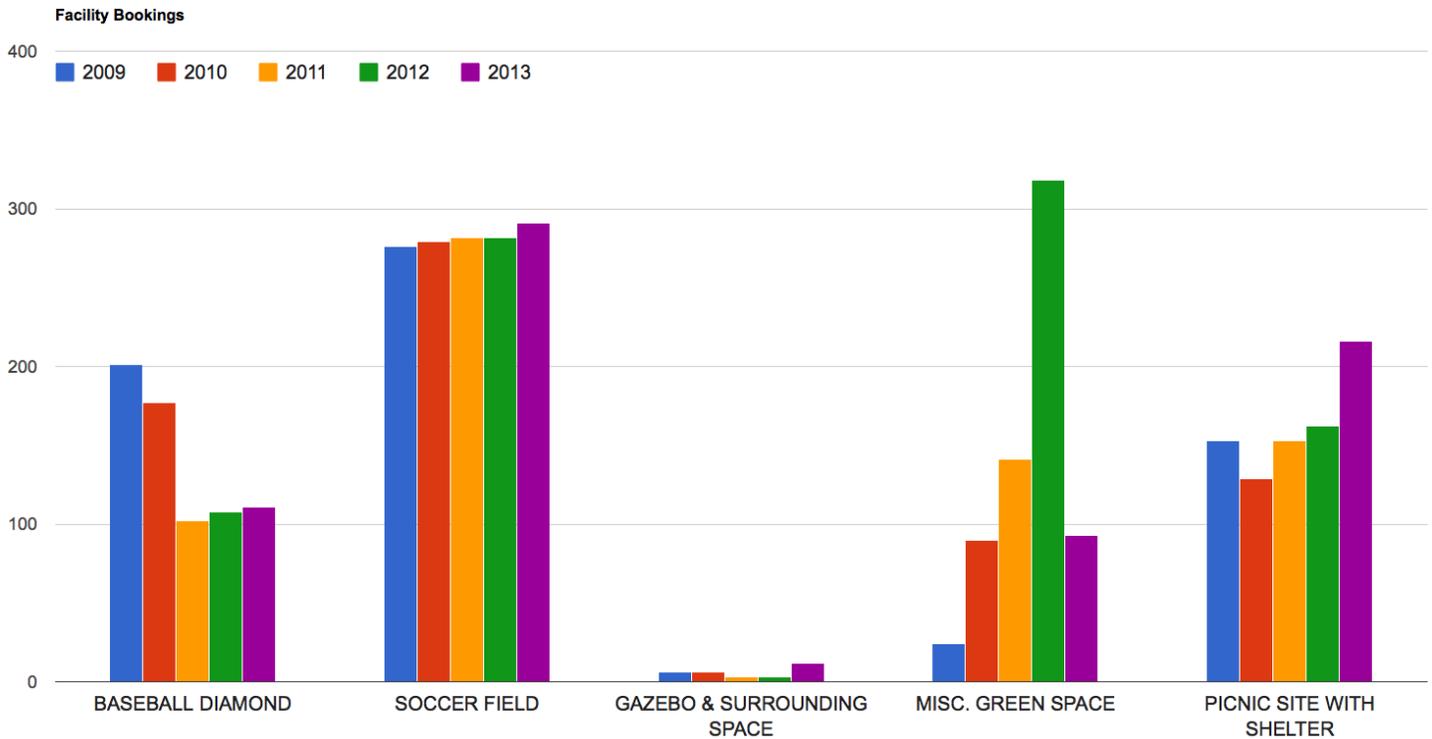


FIGURE 2.18: RECORDS OF FACILITY BOOKINGS



ATTENDANCE

Records of attendance (Figure 2.19) in the miscellaneous **green spaces** and **picnic shelter** are high, the gazebo and surrounding space is moderate, and the attendance at the baseball diamond and soccer field is variable.

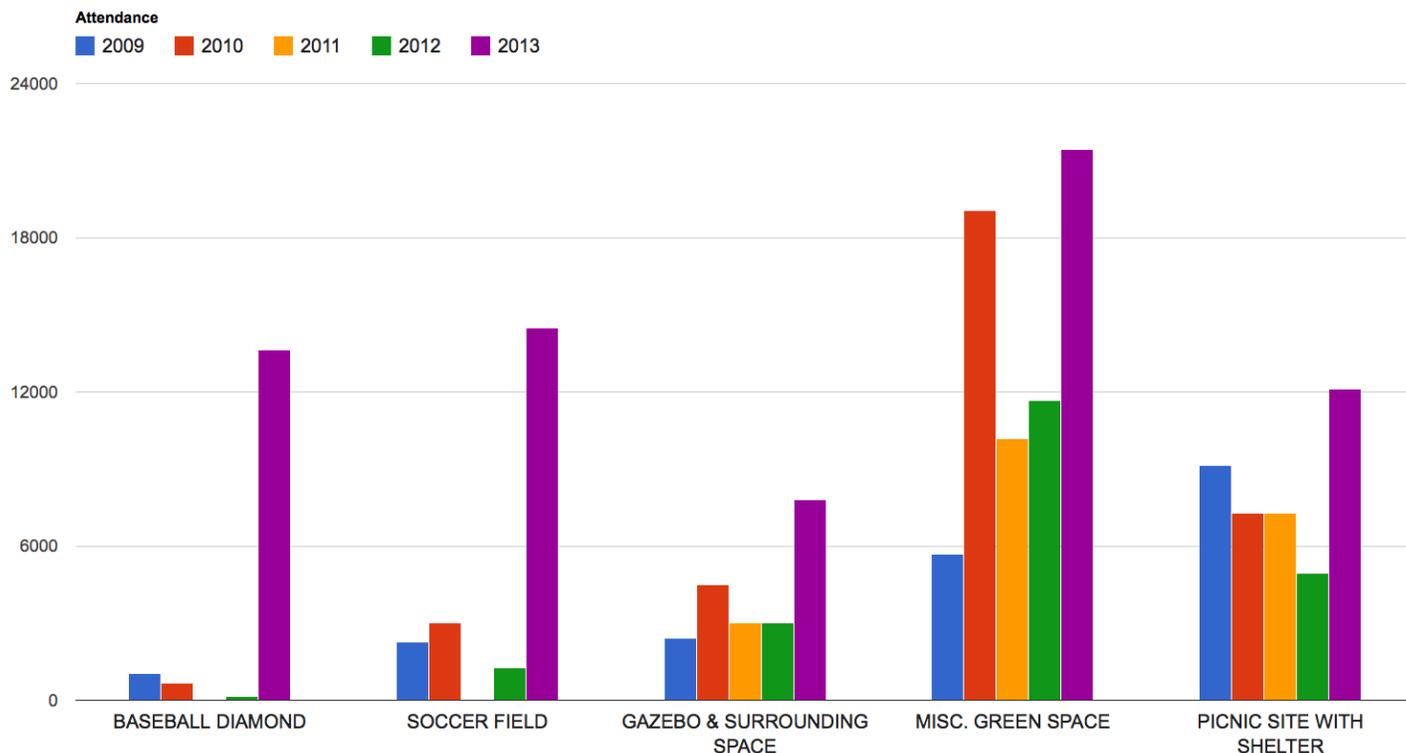


FIGURE 2.19: RECORDS OF ATTENDANCE

RECOMMENDATIONS

Park operations staff indicate that although the baseball diamond is booked, it is common that teams do not use the baseball diamond.

Park operations staff confirm that there is **extremely high demand for the picnic shelter**. It is booked virtually every Friday, Saturday and Sunday throughout the summer. Increasing the supply of picnic shelters available to be booked in the park is a way to accommodate this high demand.

Open green spaces continue to be popular in the park for bookings / events, as well as day-to-day use and should be retained within the plans for park redevelopment.

The demand for booking the gazebo is low, however the moderate informal use of the area indicates that this area is attractive to park users. Potential upgrades to the area, such as seating, shade and aesthetics, may attract more visitors to this area of the park.

There were **no documented rental bookings of the meeting room** in the park centre building during 2009-2014. The necessity of the meeting room in the park centre building should be considered, as its removal would provide additional space for expansion of upgraded washrooms and change rooms within the existing building's footprint.

CONSULTATION PHASE 1



In addition to observations, research and assessments of the existing site documented in chapter 2, a three-phase consultation formed an integral part of the design process.



3.1 SUMMARY OF CONSULTATION PHASE 1

The first round of public and stakeholder engagement took place from July 14 to August 8, 2014 and included several opportunities for individuals to provide input on two key questions:

- What do you like most about Prairie Winds Park?
- What changes would improve Prairie Winds Park?

Engagement opportunities provided:

- Sounding Board in Prairie Winds Park (6 languages offered)
- Website information with Online Survey
- Internal Stakeholder (City staff) workshop (July 24)
- Walking tours in park offered (July 24 & 25)
- Flag Day event (July 26)
- Social media, texting, and phone connections

During the first round of engagement, we collected over 3400 comments from over 1900 participants (Figure 3.1).

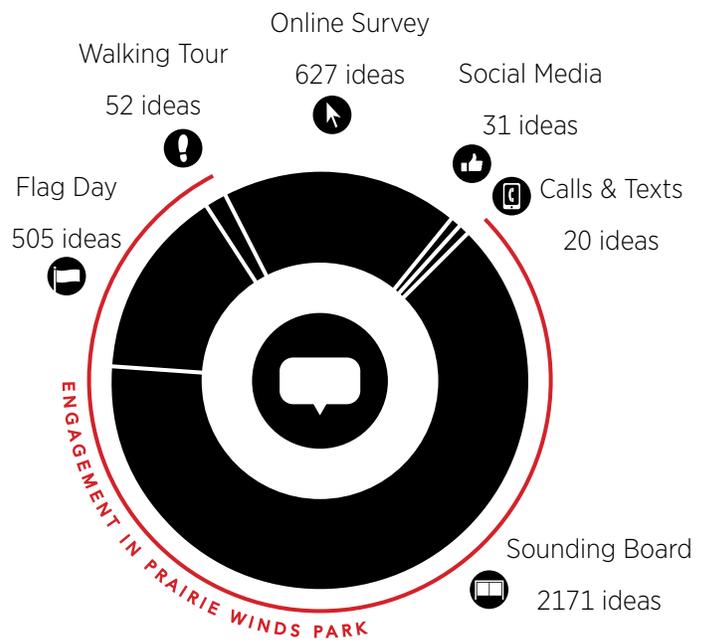


FIGURE 3.1: COLLECTION OF INPUT FROM PUBLIC



Image: Intelligent Futures



Image: Intelligent Futures

The general input from citizens during the Phase 1 engagement process was very positive. Individuals appreciate Prairie Winds Park as a community resource, and the opportunity to provide input into its redevelopment.

There is generally a high sense of ownership and appreciation of the park.

A thorough review of the information collected from the community and stakeholders told us some common themes and helped us understand the park's role in the community and in the city.

The information collected also gave us specific ideas about which areas work well and which ones could be made better.

Through the first phase of engagement, it became clear that Prairie Winds Park is a popular and well-loved destination on northeast Calgary.

People love many aspects of Prairie Winds Park:

- The amenities that support comfort and gathering, such as access to refreshments, places to picnic, protection from the sun, and free parking.
- The character and special features of the park, such as the toboggan hill, the open space and trees, the well-maintained setting, the flowers and gardens, and the views from the top of the hill.
- Opportunities for fitness, such as walking paths, tennis courts, soccer field, toboggan hill, and skating rink.
- Places for families to come and play.
- The wading pool and water play areas.

Some key ideas for improving Prairie Winds Park include:

- Availability of food, drinking water and washrooms, more picnic shelters and comfortable places to sit.
- Keeping the park beautiful by addressing the deactivated creek, adding more flowers/gardens and trees, improving to the lawn, and more maintenance.
- New athletic facilities, such as a basketball court, a place for volleyball, upgraded tennis courts and soccer field, adult fitness stations, and ice skating/hockey.
- Increase the size of play areas and add more play elements.
- More programming in the park, such as shows, concerts, carnivals, education, or sports.
- Make the pool and spray park more appealing to a wider range of ages.



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CORE DESIGN STRATEGIES



The input collected from the first phase of engagement informed the development of the Core Design Strategies: the Vision, Mission, and Guiding Principles.



4.1 VISION, MISSION & GUIDING PRINCIPLES

Based on input provided by City staff, park users and the general public, a vision statement and mission statement were developed for Prairie Winds Park.

A **vision statement** describes a **desired future state** of the park. We try to make the vision a reality with **guiding** and a **park master plan**. A vision statement is bold and descriptive. It should inspire everyone to help make the park better. A great vision statement helps us make future decisions about the park.

In contrast, the **mission statement** for Prairie Winds Park describes the park's **purpose**. It explains the **park's role** as part of City of Calgary.

Guiding principles are **general guidelines** used to help make the design and park meet the vision and mission statements. The **bullets** under each principle are **specific examples** of how we may achieve the desired results in Prairie Winds Park. These are based on what park users told us during the first phase of engagement and have been included in all the design concepts.

VISION STATEMENT

Prairie Winds is a **well-loved, family-oriented destination** park that is both a **celebration** of community spirit and a **recreational centrepiece** in northeast Calgary. It is a place that invites visitors to **play, be active, recharge, and connect** with their environment.

MISSION STATEMENT

To provide a **well-maintained, year round destination** for all Calgarians with elements that foster **family and community connections**, support **multi-cultural expression**, respond to **recreational** needs, and provide access to **green space** so that a **vibrant, healthy, safe and caring community** is created and sustained.

GUIDING PRINCIPLES

The park is **ACCESSIBLE** and **WELCOMING** to people of **ALL AGES, CULTURES, AND ABILITIES**

- Provide paths and park facilities (play areas, buildings, water activities) that are easy to access and barrier-free
- Replace the existing wading pool with a new wading pool and/or water based features that appeal to a wider range of ages
- Enhance user friendly parking in and next to the park
- Provide new and improved park entries to welcome people arriving by foot, bicycle, transit and car

There is a **RANGE** of active and passive spaces that can be used **YEAR-ROUND**

- Create spaces that allow for a range of activities in the park. There should be spaces for small, quiet activities like meditation and family picnics and gatherings. There also needs to be space for large cultural festivals, concerts and events.
- Increase year-round use through improved and new summer activities (e.g. children's play, picnics, water play) and winter activities (e.g. tobogganing, skating)
- Upgrade existing sports facilities (e.g. soccer, tennis) and consider adding new sports (e.g. basketball, cricket, skateboard park, bike skills park).
- Include spaces for active, group fitness activities (e.g. boot camp classes) and self-led exercises (e.g. walking, running, yoga, Tai Chi).

Provide **STRUCTURES** and **SERVICES** to make the park **COMFORTABLE**

- Upgrade washroom and change room interiors and improve entries so they work better in all seasons.
- Add more services such as drinking water, seating, shade, picnic shelters, barbeque spots, toilets, showers, and waste bins
- Explore ways to improve food and beverage services at the park

The park includes **SPACES** for families and communities to **GATHER AND CELEBRATE**

- Provide large, open spaces with power and water that can be used for many different activities
- Provide more picnic shelters that can be booked for family and community events

The **PATHWAYS** are **WELL CONNECTED**

- Improve the pathway system to make it easy to find your way around the park
- Provide walking loops of different lengths connected to each other
- Make it easier to get around by reducing the steepness of main paths
- Make it easier for people to walk from the park entrances to their destinations (e.g. play area, picnic areas)

The park's **UNIQUE CHARACTER** is **PROTECTED AND ENHANCED**

- Improve the viewpoint at the top of the hill to celebrate this important feature in NE Calgary
- Keep the park's open green spaces and existing slopes and flat areas
- Use more kinds of trees and shrubs in the park
- Add colour, texture and seasonal interest with gardens and native plants

Provide **PLACES** to **PLAY, LEARN AND GROW**

- Provide options to learn by exploring and teach kids to value the environment
- Expand play areas so children of all ages have fun and want to come back to play again
- Create play areas where everyone is welcome to join in, watch and connect with each other



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PRELIMINARY CONCEPT DESIGNS



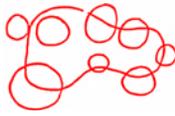
Three preliminary design concepts were developed for Prairie Winds Park based on information gathered in the DISCOVER phase, and based on the park vision, mission and guiding principles that were derived from this information. Public review and input on these concepts (chapter 6) will inform the selection of a preferred approach for the design development plan (chapter 7).



5.1 CONCEPT 1 - ENHANCED EXISTING

APPROACH

The overall intent of Concept 1 (Figure 5.2) is to provide upgraded facilities within the existing park organization. The park facilities are dispersed around the park and linked with a ribbon of paths.



- Expansion of the existing north play area, adding topography, new play elements and a rubber safety surface.

KEY FEATURES OF CONCEPT 1

- Current park organization is retained with changes to the alignment of paths and location of tennis courts.
- Renovated amenity building to improve its functionality and accessibility year-round. Upgraded and modernized washrooms and change facilities.
- Rebuilt wading pool with lazy river to provide more appeal for people of all ages.
- Tennis courts relocated to the southeast to provide a better main entry to the park and an expanded play area

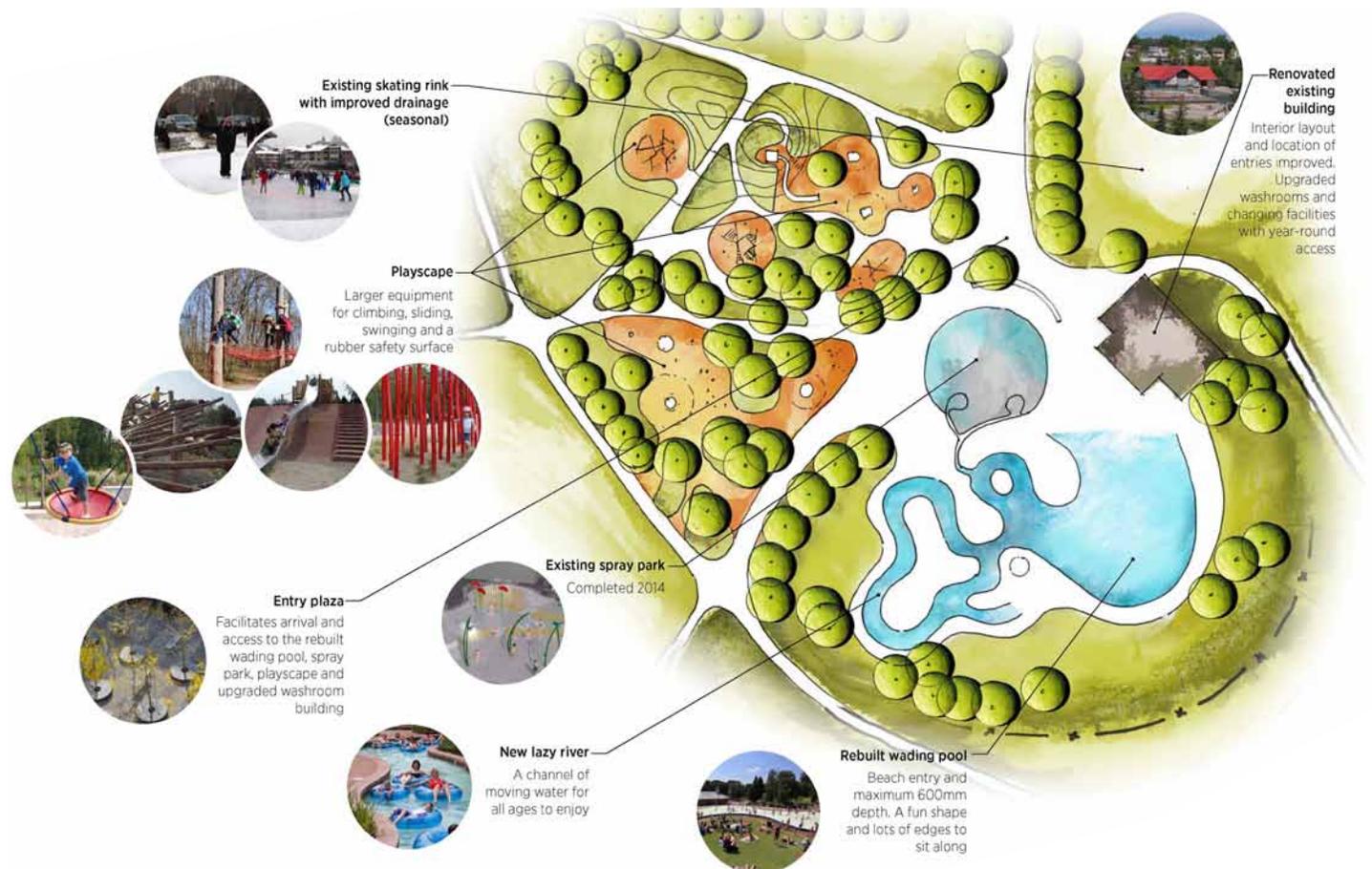
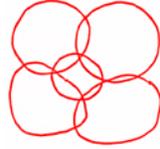


FIGURE 5.1: DETAIL PLAN 1

5.2 CONCEPT 2 - EXPANDED OPPORTUNITIES

APPROACH

In Concept 2 (Figure 5.4) activities are grouped in four distinct zones, each with a clear focus: Athletics, Flexible Open Space, Family, and Passive Use.



KEY FEATURES OF CONCEPT 2

- Provides more programming opportunities in distinct sub-areas within the park
- New athletic zone in the southwest with a cricket pitch, soccer field, tennis courts / hockey rink, and sport courts with basketball hoops, and toilets.
- Renovated and Expanded amenity building for improved functionality and accessibility year-round. Upgraded and modernized washrooms and change facilities.
- A family zone with a rebuilt wading pool with water slide to provide more appeal for people of all ages

- Expanded north play area, adding topography, new play elements and a rubber safety surface.
- Includes a skate path in winter
- More picnic shelters within a scenic passive-use area in the southeast part of the park
- Re-purposes a portion of the creek as a rain garden
- Reconfigured Parking Lot to accommodate an expanded Park Maintenance Yard

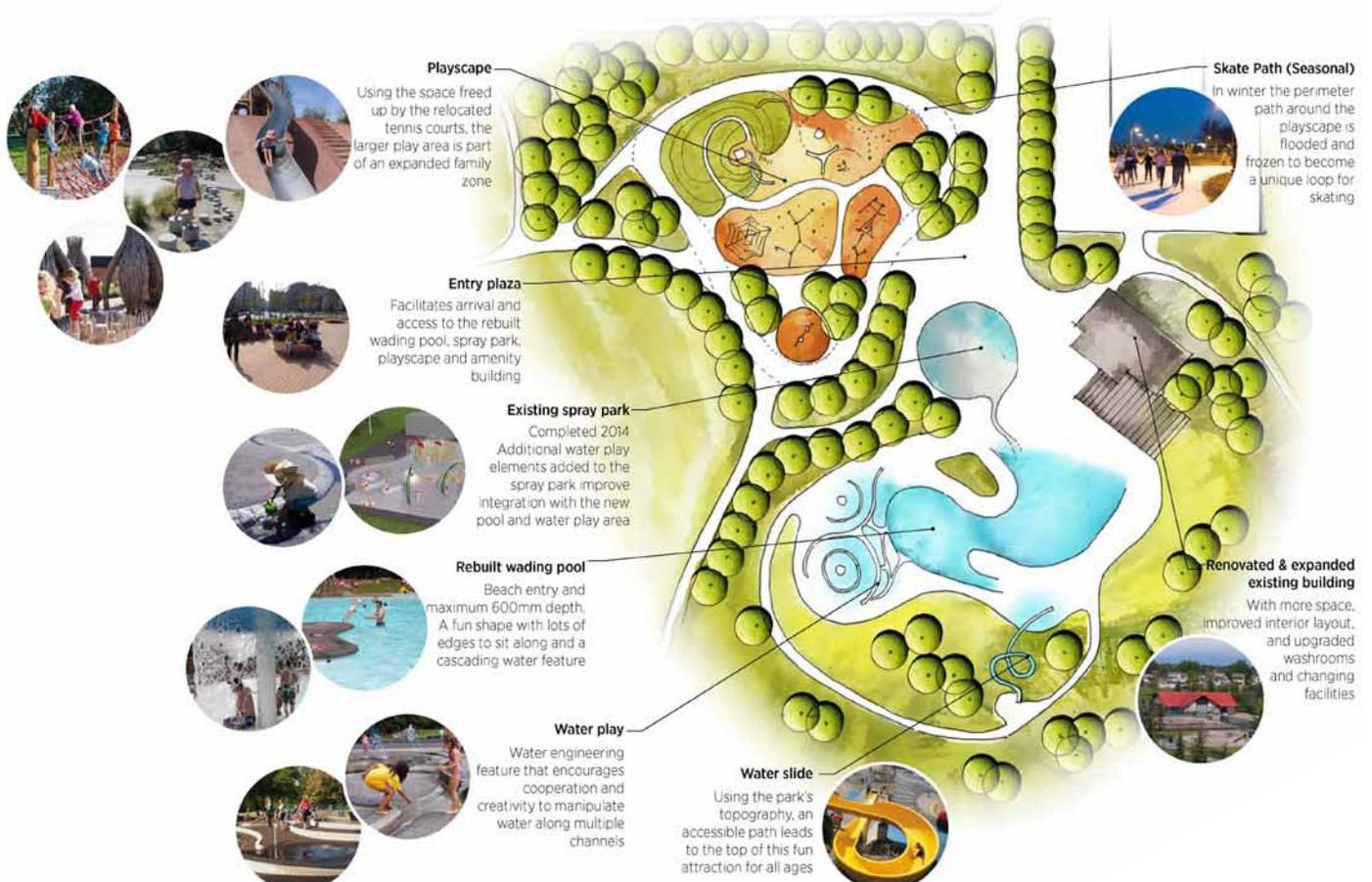


FIGURE 5.3: DETAIL PLAN 2



New lookout
Hill top destination for enjoying views and watching planes



Improve connection with McKnight Westwinds CTrain Station

New Park Entry

Grant MacEwan Grove

Gazebo

New toilets

New street parking

Sport Courts with Basketball

New Cricket Pitch

Soccer field (relocated east)

Tree removal required

Existing Bike path

Expanded Park Maintenance Yard

Reconfigured Parking (172 Stalls)

Skate Path (Seasonal)

Playscape

Entry plaza

Existing spray park

Rebuilt wading pool

Waterslide

Existing picnic shelter

Westwinds Crescent N.E.

Existing crosswalk

Renovated & expanded existing building

Castleridge Neighbourhood

Upgraded Paths

Existing crosswalk



Retain toboggan hill

New Rain Garden

Naturalization

Upgraded Paths

Existing crosswalk

Castleridge Neighbourhood

New Sidewalk

Existing crosswalk

Castleridge Boulevard N.E.

New Sidewalk

Existing crosswalk

Castleridge Boulevard N.E.

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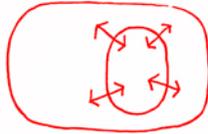
New Sidewalk

Existing crosswalk

5.3 CONCEPT 3 - ACTIVE CENTRE

APPROACH

A vibrant public space in the centre of the park (Figure 5.5) that integrates the park activities that surround it (Figure 5.6).



KEY FEATURES OF CONCEPT 3

- Provides a new and convenient arrival/drop-off area with reconfigured parking
- A new sequence of plazas that link activities and contribute to a vibrant heart within the park
- A series of integrated and nature-based play areas along portions of the old creek alignment
- Replaces the existing building with a new central amenity building
- Replaces the wading pool with a large water play area
- Introduces a bike skills park and parking lot and

toilets near the west end of the park

- Includes a skate path in winter
- Tennis courts and sport courts with basketball hoops in the northeast corner of the park
- An expanded Park Maintenance Yard
- Add stairs to the top of the toboggan hill
- Includes a series of fitness stations throughout the park



FIGURE 5.5: DETAIL PLAN 3



Improve connection with McKnight Westwinds CTrain Station



Retain Toboggan Hill

New Lookout
Hilltop destination for enjoying views and watching planes



New skateboard park



New bike skills park



Existing soccer field



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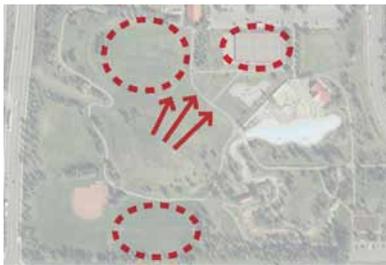


Prairie Winds Park
Concept 3 - Active Centre Overview Plan 3



FIGURE 5.6: CONCEPT 3 | OVERALL PLAN

5.4 FEATURES COMMON TO ALL CONCEPTS



FEATURES COMMON TO ALL CONCEPTS:

- Maintain or increase the amount of parking on site and add street parking on the south and west sides.
- Improve the park entry
- Keep the new spray park completed in 2014
- Provide a new park entry at the northwest corner for an improved link to the C-Train Station
- Improve pathways to make it easier to get around in the park
- Increase the number of bookable picnic shelters and size of play areas
- Keep the toboggan hill, Grant MacEwan Grove, gazebo, soccer field and the flexible open space in the northwest
- Provide a lookout area at the top of the mound and a path to get there
- Remove the old creek and reclaim the space for more park activities
- Provide a variety of spaces for different sized events (individual, family, large events/festivals, and everything in between)
- Create points of interest that celebrate special places within the park
- Maintain or expand the existing maintenance yard

CONSULTATION PHASE 2



The Vision, Mission, and Guiding Principles (chapter 4) as well as the three preliminary design concepts (chapter 5) were presented to public and stakeholders for feedback. The feedback collected helped inform the selection of a preferred approach for the design development plan (chapter 7).



6.1 SUMMARY OF CONSULTATION PHASE 2

The second round of public engagement took place from October 27 to December 2, 2014 and included several opportunities for individuals to review the vision, mission guiding principles and the 3 preliminary concepts and to provide input, such as:

- What is your level of agreement with the vision statement, the mission statement, and each of the guiding principles?
- What is your level of agreement with each of the features common in all concepts?
- What is your level of agreement with each of the features specific to each concept?
- Preference for any of the concepts overall.

Feedback was provided through:

- Sounding Board in the park (6 languages offered)
- Website information with Online Survey
- Internal Stakeholder (City staff) workshop (October 27)
- Public Stakeholder Workshop (October 28)
- Public Workshop (October 29)
- Social media, texting and phone connections

Additional engagement undertaken:

- Attendance at Falconridge/Castleridge CA Engagement night (November 16)
- Attendance at NE President's Meeting (November 17)
- Presentation by City staff at Baitun nur Mosque (November 28)
- Presentations to Dashmesh Culture Centre by community representative with materials provided by City
- Outreach to local Punjabi radio station to promote online survey
- Extended time to 36 days (originally planned for 25 days)

Participants had the opportunity to provide feedback in English, Tagalog, Urdu, Punjabi, Arabic and Gujarati.

During the second phase of engagement, 500 individuals took part in the process, providing more than 400 responses (Figure 6.1).

The majority of responses came were through the online survey (222) and the workshops (144).

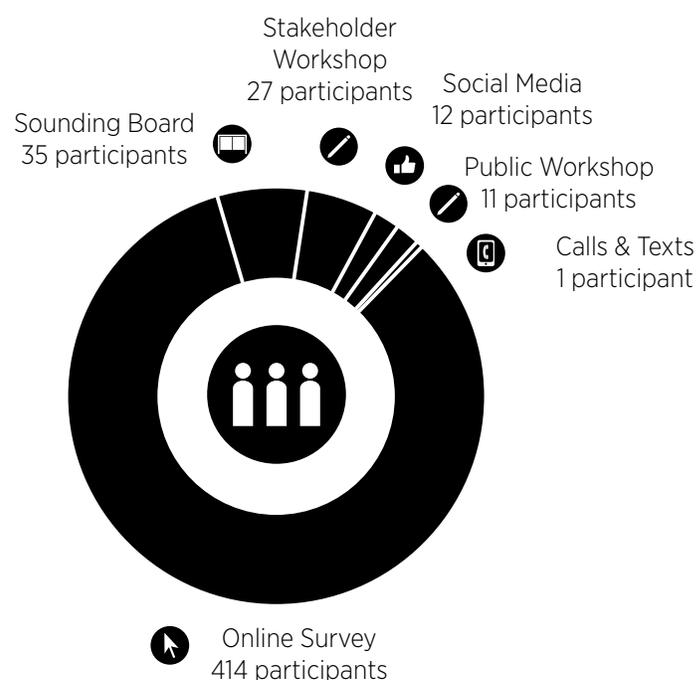


FIGURE 6.1: COLLECTION OF INPUT FROM PUBLIC

The general input from citizens during the Phase 2 engagement process provided lots of opinions on what people agreed with and what they disagreed with as well as some other ideas to consider.

When asked about their level of agreement with each of the Core Design Strategies, participants indicated general support for the wording as presented with over 80% saying they agree or strongly agree with each.

Vision Statement:

“Prairie Winds is a well-loved, family-oriented destination park that is both a celebration of community spirit and a recreational centrepiece in northeast Calgary. It is a place that invites visitors to play, be active, recharge, and connect with their environment.”

Percent who agree or strongly agree

87%

Mission Statement:

“To provide a well-maintained, year round destination for all Calgarians with elements that foster family and community connections, support multi-cultural expression, respond to recreational needs, and provide access to green space so that a vibrant, healthy, safe and caring community is created and sustained.”

87%

Guiding Principles:

The park is **accessible** and **welcoming** to people of **all ages, cultures and abilities**

88%

There is a **range** of active and passive spaces that can be used **year-round**

82%

Provide **structures** and **services** to make the park **comfortable**

84%

The park includes **spaces** for families and communities to **gather and celebrate**

85%

The **pathways** are **well connected**

85%

The park’s **unique character** is **protected and enhanced**

84%

Provide **places** to **play, learn, and grow**

87%

Concept 2 received the highest level of agreement overall with 87.5% agreeing or strongly agreeing. Many respondents suggested improvements could be made to the concept to make it work better.

Responses to questions about each of the features in all of the concepts provided an understanding of which specific features have the highest level of agreement and which have the least support.

The following is a summary of the proposed park features or changes that received the highest support and those with the lowest support.

Features with **high** support:

- **Keep flexible open green spaces and slopes** (toboggan hill, views).
- **Upgrade and expand the existing building** with new washrooms, better change rooms and a larger warm-up area for year-round use
- **Add toilets in the southwest part of the park** near new sports activities
- Keep the south playground and **make the north play area bigger** with more play elements
- Add more colour, texture and seasonal interest with **gardens, native plants, shrubs and trees.**
- Create a **new entry** at the northwest corner of the park
- **Upgrade walking and jogging paths** with gentler slopes, more loops and better access to more areas of the park.
- Provide **more seating, picnic and barbeque spots**, and outlets for power and water
- Retain the existing on-site parking and **add street parking** along 54 Ave. and Westwinds Dr.
- Keep the soccer field, **relocate and upgrade the tennis courts**

Features with **low** support:

- Remove the wading pool
- Add a new skateboard park
- Keep the baseball diamond



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DESIGN DEVELOPMENT PLAN



Incorporating the input from the first two phases of engagement, one preferred concept plan for the Prairie Winds Park Design Development Plan was prepared.



7.1 OVERVIEW

Prairie Winds Park currently offers a diverse range of activities throughout the year. The redevelopment concept plan enhances the infrastructure for all existing activities to operate, while adding even more activities in every season.

Working with the existing topography and character of the site, the preferred park concept (Figures 7.1 and 7.2) enhances family-friendly features, flexible open space, accessibility, and opportunities for fitness throughout the park.

The key features proposed in the Design Development Plan are:

- Retain the **toboggan hill** and add a **lookout** at the top.
- Replace the existing **tennis courts** with the same number of courts in a different location within the park and add lighting to extend the hours of use.
- Create a **new main entry plaza** to provide a strong sense of arrival, improve circulation, and designate a place for food trucks.
- Replace the existing original, outdated playground with a larger **playscape** that integrates landscape features, such as topography and planting, play equipment and a rubber surface to make a more accessible play space that appeals to a wider range of ages and abilities.
- Replace the existing wading pool with a **new wading pool and lazy river** (max. 600mm depth) to support use and enjoyment by a wider range of ages. Retain the spray park that was redeveloped in 2014.
- Renovate and expand the existing **park centre building** to provide universal change facilities, modern public washroom facilities, a shower for users of the wading pool, a winter warm-up space, and universal accessibility.
- Fix the drainage problems with the existing **ice skating rink** and add a **basketball court** to expand recreational opportunities throughout the year.
- Replace the under-utilized baseball diamond with a **cricket pitch** to respond to the community's desire to have more spaces to practice the sport.
- Add **seasonal washrooms** adjacent to the cricket pitch, provide more **seating** configurations throughout the park, and install more **drinking fountains** to improve the comfort of park users.
- Retain and upgrade the **flexible open spaces** and **soccer field** by improving drainage and providing sources of **electricity and water** for events and festivals.
- Remove the artificial creek, which has been decommissioned due to the high cost of water and significant operational resources required to maintain it. This will allow the area to be reclaimed for **passive park uses, planting and rain gardens**.
- Add more **picnic shelters** to accommodate the demand for bookable picnic space that the existing shelter cannot accommodate alone.
- Reconfigure pedestrian **pathways** within the park to improve connectivity to all areas; reduce slopes to a maximum of 1:12 (8%) to **improve accessibility**; add **fitness stations** along the outer loop; **fix drainage** issues; and provide **additional entry points** to improve multi-modal access into the park for people who may arrive by personal vehicle, C-Train, bus, bike and on foot.
- Legalize **street parking** along the west and south sides of the park with restrictions on duration and vehicle type to improve capacity while maintaining the size of existing on-site parking lots.

In addition to the features labelled on the plan (facing page), proposed upgrades include more **picnic tables, seating, lighting** and a **tandoori oven**. More **trees and planting** will be added for seasonal interest.

This section of the report provides more information on each of the key features listed above.



Prairie Winds Park Preferred Concept Overview



FIGURE 7.1: PREFERRED CONCEPT PLAN



Relocated tennis courts

New picnic shelters

Rebuilt wading pool with lazy river

Existing spray park

Renovated and expanded park centre building

New basketball court

New park entry plaza

New play court

Existing parking

Existing picnic shelter

Reclaim former creek for park uses

Soccer field

New cricket pitch and seasonal washrooms

New lookout and path

Existing toboggan hill

Festival lawn

New playscape



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Prairie Winds Park Park Features



FIGURE 7.2 PARK FEATURES

7.2 PARK PROGRAMMING

Prairie Winds Park currently offers a diverse range of activities throughout the year. The redevelopment concept plan enhances the infrastructure for all existing activities to operate, while adding even more activities in every season.

ACTIVITIES BY SEASON

The intent of the master plan is to expand the length of season for existing activities, and to add new activities with year-round interest.

The programming chart below (Figure 7.3) compares the existing activities that take place throughout the year (left) to those that are anticipated to occur after the proposed changes (right).

In some cases, the length of seasons for different play types will increase and new activities will be added, including basketball, more opportunities for youth play, a lazy river, cricket in the summer, and cross country skiing in the winter.



FIGURE 7.3: PARK PROGRAMMING DIAGRAM - ACTIVITIES BY SEASON



SUMMER PROGRAMMING: (Figure 7.4)

- Rebuilt wading pool with lazy river
- Expanded park centre building with washrooms, change areas and a winter warm-up space
- More picnic shelters
- Reclaim former creek for park uses and planting
- New entries on west side of the park
- Basketball court, cricket pitch, relocated tennis courts with lighting, soccer field, and fitness stations
- Seasonal washrooms in the southwest part of the park
- New playscape for all ages
- Upgraded paths and a lookout at the top of the hill



FIGURE 7.4: PARK PROGRAMMING: SUMMER ACTIVITIES

WINTER PROGRAMMING: (Figure 7.5)

- Gentler pathway loops including some cleared paths and some uncleared paths
- Larger run-out area at the base of the toboggan hill
- Upgraded year-round washrooms and warm-up space in park centre building
- Improved drainage and more seating for the existing ice skating rink
- New lighting to support winter activities during shorter days
- Potential ice hockey rink in tennis courts
- Uncleared open areas that may be used for cross country skiing



Image: tripsister.com

Image: Source unknown

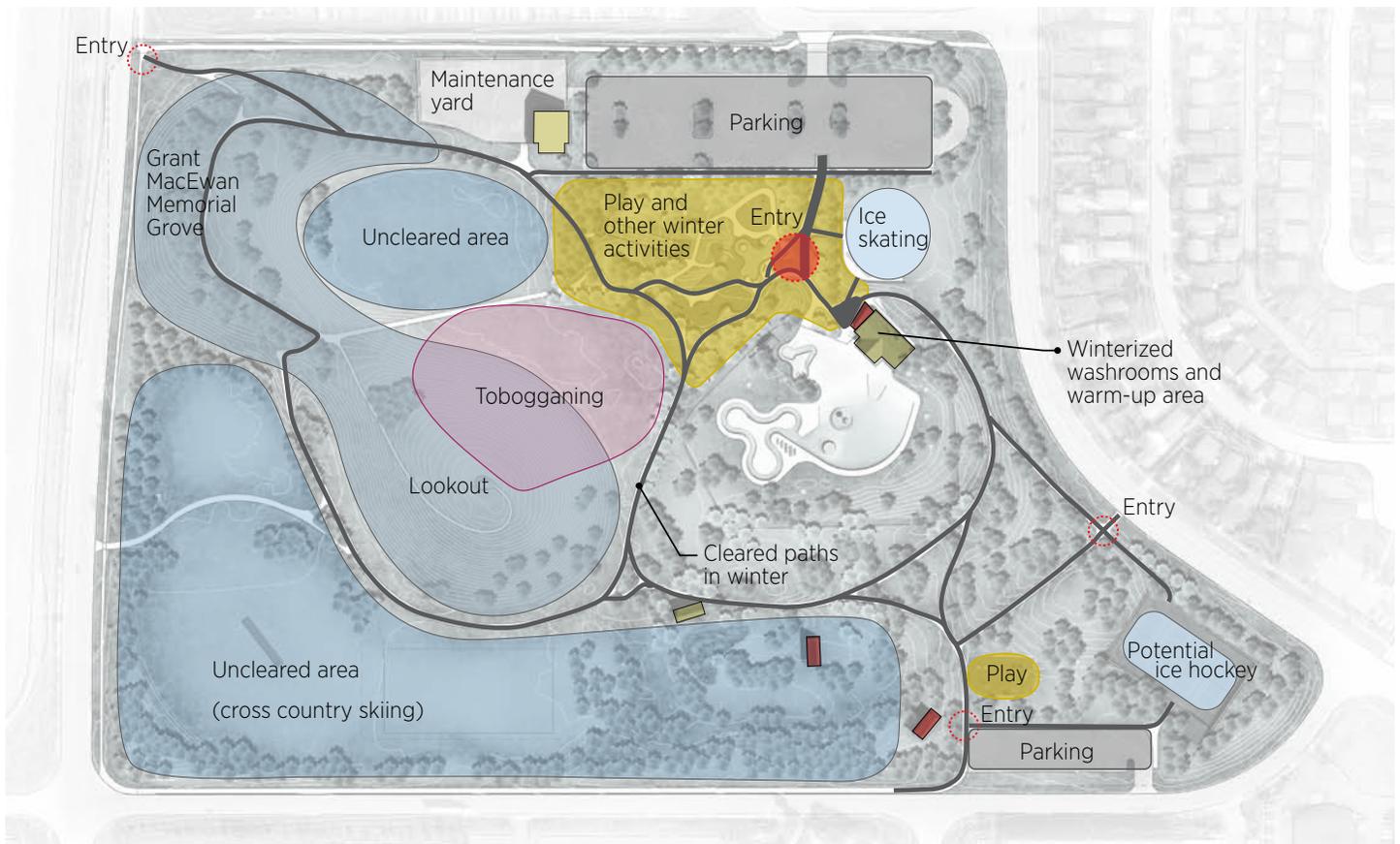


FIGURE 7.5: PARK PROGRAMMING: WINTER ACTIVITIES



7.3 PARK ENTRY

The proposed redevelopment of Prairie Winds Park includes the creation of a new park centre area.

With the relocation of the tennis courts, the park centre area will include a new plaza that welcomes visitors and functions as the park's main entry, providing a greater sense of arrival and clear connections to key destinations within the park (Figure 7.6 and 7.7).

The new park entry plaza will provide access to:

- The main parking lot;
- A new, large playscape for all ages;
- A new basketball court and upgraded skating rink;
- A water play area which includes a rebuilt wading pool with lazy river, spray park (completed in 2014) and more spots for picnicking;
- Walking paths to access all parts of the park, and;
- A renovated and expanded park centre building.

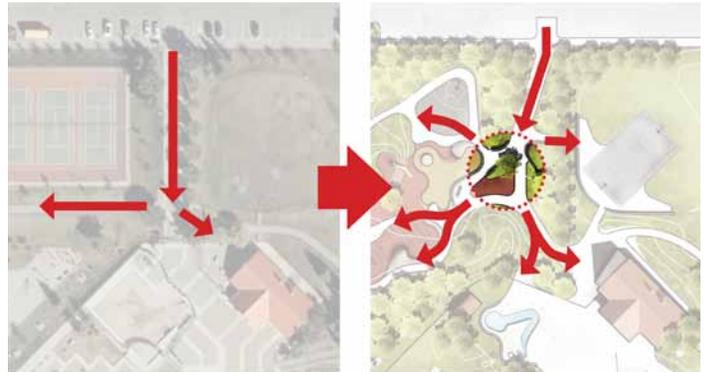


FIGURE 7.6: A NEW MAIN ENTRY PLAZA

The main path between the parking lot and the entry plaza include an area designated for food trucks.



FIGURE 7.7: A NEW PARK CENTRE AREA

7.4 PLAY AREA

OVERALL APPROACH & PHILOSOPHY

All children need outdoor play environments that are imaginative, inspiring, and designed to cultivate their development through play. The unique qualities offered from the outdoor environment facilitate play and support a child's learning. Play environments should be designed to engage children with their natural surroundings, allow them to stimulate their senses, and be sources of surprise and delight.

LEARNING THROUGH PLAY

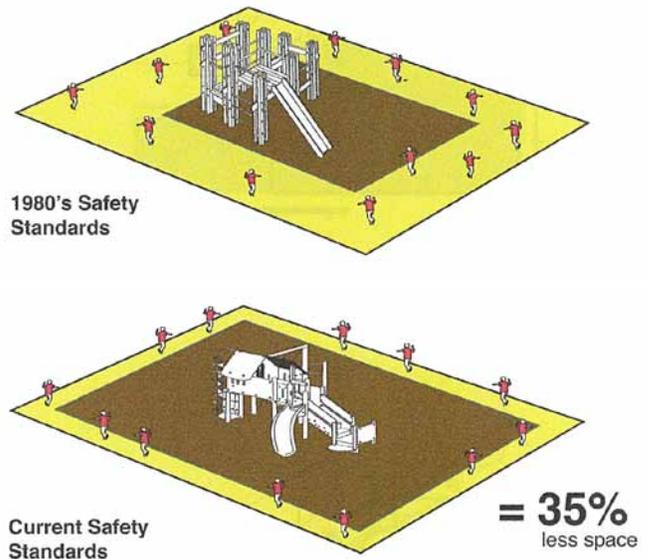
Play is a means for children to actively engage with their physical environment in a social setting, and this type of engagement supports learning and development. Current neuroscience research supports this notion, with evidence suggesting the importance of play for brain development.

Physical play can enhance children's social competence and problem-solving skills, while fantasy and role play allows children to develop language, communication, and social skills. Playing with malleable materials (e.g. sand, water) promotes inquiry-based learning and fosters inventiveness, while teaching children about the properties of materials, the basic principles of engineering, and observational skills.

TYPES OF PLAYGROUNDS

EQUIPMENT-BASED

Equipment-based playgrounds are characterized by a predominance of standardized play equipment. Current safety standards regarding play surfacing result in isolated 'islands' of play equipment surrounded by large, flat expanses of artificial surfaces.



Source: Herrington et al. (2007)

LANDSCAPE-BASED

In landscape-based play, the physical landscape itself becomes a play experience. Vegetation, stone, and water are integrated to provide a wide range of play opportunities. Malleable materials including sand, gravel, water and vegetation give children the opportunity to manipulate their environment, while the cycles of the season are reflected through living elements in the landscape.

INTEGRATED PLAY

Integrated play spaces combine the assets of play equipment with the benefits of a landscape-based approach. In this way, designers are able to provide the physical excitement of speed and motion (e.g. slides and swings), while integrating these experiences with a sensory, living landscape. Unique structures may be designed to offer challenge, stimulate spontaneous play, and reveal natural processes.



SEVEN CS OF OUTDOOR PLAY

The “seven Cs” are guidelines for informing the design of outdoor play environments for young children. They were developed from a five-year multidisciplinary study of outdoor play environments conducted with the Consortium for Health, Intervention, Learning, and Development (CHILD) Project at the University of British Columbia. These guidelines are intended to be used by designers, early childhood educators, teachers, administrators, and parents. The following is an overview of the seven Cs:

- **Character:** The overall feel and design of the outdoor play space affects the way children interact with the site.
- **Context:** Physical and visual connections to the neighbourhood facilitate access; site elements may reflect the larger context (e.g. water, vegetation).
- **Connectivity:** The flow of play activity can be enhanced through a hierarchy of looped pathways, linking play elements and orchestrating movement through the site at different speeds.
- **Change:** Malleable materials (e.g. sand, water) given children the opportunity to physically manipulate their environment; seasonal changes of site elements (e.g. vegetation) animate the site.
- **Chance:** Spontaneous exploration can be encouraged by adding elements of chance and mystery to the site; zones that allow digging, splashing, and building promote imaginative play.
- **Clarity:** A simple, clear layout makes the play space easy to navigate and allows children to focus on their activities.
- **Challenge:** Risk-taking helps develop skills and self-confidence. Providing opportunities for graduated challenge accommodates a range of abilities.

Sources: Herrington, Lesmeister, Nicholls and Stefiuk (2007) Seven Cs: an informational guide to young children’s outdoor play spaces <http://westcoast.ca/playspaces/outsidecriteria/index.html>

ENGAGING YOUTH IN PUBLIC PARKS

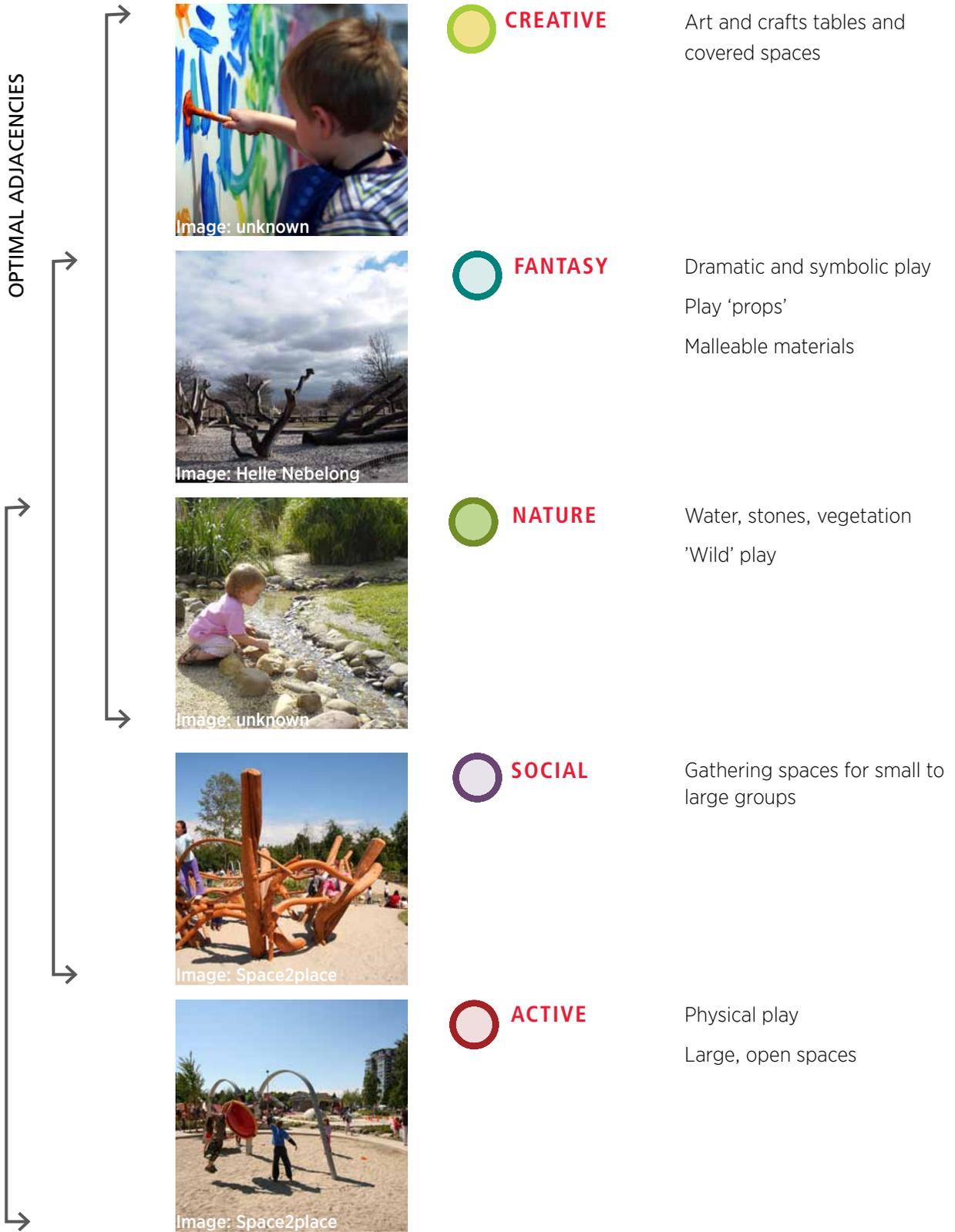
It is commonly acknowledged that youth are the most challenging group of people to include when designing public spaces. Feedback received from youth at the stakeholder workshops indicated their desire for performance / theatre space, opportunities to volunteer and develop leadership skills, areas to hang out, and places to learn about and study the environment.

The following are some general considerations and recommendations for incorporating youth in public parks:

- Allow for self-directed learning opportunities
- Foster leadership opportunities
- Provide multi-functional spaces
- Provide hang-out or slack space that is sheltered, visually permeable, within view of adults (but not too close), and away from play space for young children
- Use the physical characteristics of the landscape to foster a connection between youth and the broader region.



TYPES OF PLAY: PROVIDING A RANGE OF PLAY OPPORTUNITIES



PLAYSCAPE

Using the space freed up by the relocated tennis courts, the existing old playground will be removed and replaced with a larger play area, called a “playscape.” (Figure 7.8)

The playscape (Figure 7.9) integrates interesting topography (land forms), vegetation, social spaces, seating, picnic tables, play court, safety surfaces, malleable elements, and a range playful elements, including equipment for climbing, swinging, sliding and spinning, into complete, accessible play environment.



FIGURE 7.8: OLD PLAYGROUND REPLACED WITH AN EXPANDED PLAYSCAPE

The playscape will provide a range of play opportunities with features of interest to a different ages and abilities.

Refer to Figure 7.10 below and more details of each area on the following pages.

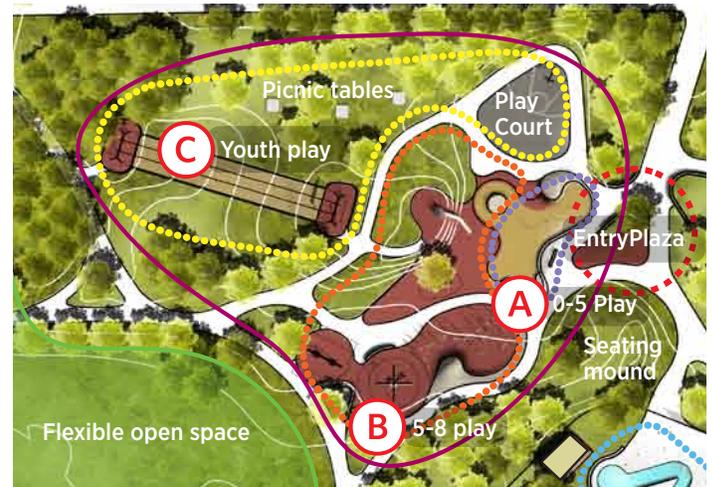


FIGURE 7.10: PLAY AREA ZONES



FIGURE 7.9: AN EXPANDED AND UPGRADED PLAY AREA WITH SEATING AND PATHS THAT CONNECT WITH ALL AREAS OF THE PARK.

A AGE 0-5 PLAY

This portion of the play area is designed to support the cognitive and physical development of children aged 0-5. There will be plenty of opportunities to explore and engage with the world at a smaller scale.



Image: itazawa.tw/



Image: Aldo van, Eyck. "The playgrounds and the city."



Image: landezine.com



B AGE 5-8 PLAY

This part of the play area has features that will appeal to children who are interested in active play with greater motor movement, cooperation with others, performance, and observing nature. At the same time, all children are welcome to play in this area.



Image: zumkukuk.de/

Image: boasspeeltoestellen.nl/

C YOUTH PLAY

This part of the play area has features that will provide challenge and social opportunities targeted to older children and teenagers. At the same time, all children are welcome to play in this area.



Image: effekt.dk



Image: playrope.com.au



Image: kaiser-kuehne-play.com/en/news.html



Image: boasspeeltoestellen.nl/



7.5 WATER PLAY AREA

(A) SPRAY PARK

The existing spray park, redeveloped in 2014, will be retained. Modifications of the edges may be considered to improve the integration of the pool deck and surrounding landscape with the spray park.



Image: City of Calgary

(B) WADING POOL

The existing wading pool is extremely popular throughout the summer. However, it's current configuration limits the potential for use by a wide range of ages. A rebuilt wading pool with lazy river (Figure 7.12) is intended to appeal to a wider range of ages and abilities and provide something for everyone.

The entire wading pool will have a maximum depth of 600mm to ensure that it remains under the jurisdiction of Parks. A beach entry will provide universal accessibility and a gradual slope into the pool. Most edges of the main pool will be flush with the water surface, providing access to the pool from all sides and lots of opportunities for people to sit along the edges.

Additional options for making the pool interesting and dynamic will be explored during detailed design, such as a cascading water feature, air bubblers, and the potential for pools within the pool that have different elevations and depths (Figure 7.13).

Strategies to improve the comfort of pool users, such as protection from wind and sun exposure as well as the potential to heat the water will also be considered.



Image: San Dimas (posted in the San Dimas, CA gallery)

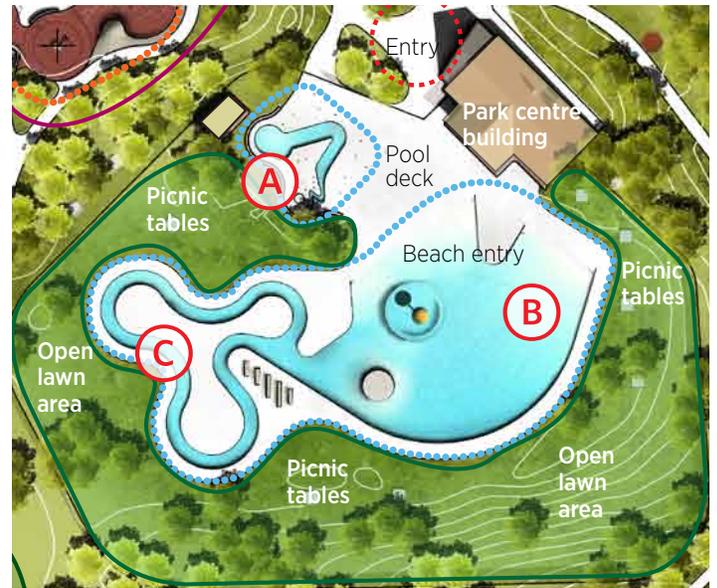


FIGURE 7.11: CONCEPTUAL LAYOUT OF WATER PLAY AREA

(C) LAZY RIVER

Adjoining the pool will be a proposed lazy river - a looping channel of moving water pushed by water jets that create a gentle current.

The depth of the lazy river will be a maximum 600mm and people will be able to float along it in inner tubes or similar types of floatation devices. Sides of the lazy river will be raised above the surface of the water to guide the inner tubes along the length of the channel. An island created on the inside of the lazy river loop may include platforms on which people could relax and sunbathe.

The design for the lazing river will be further explored and refined during the detailed design phase.



Image: thewoodlandstxrealestateadvisor.com/page/8/

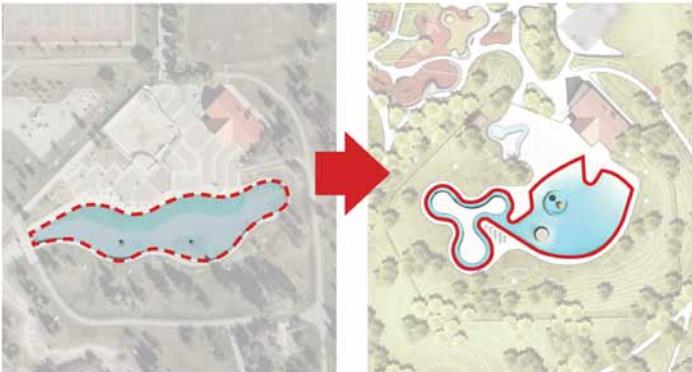


FIGURE 7.12: REBUILT WADING POOL WITH NEW LAZY RIVER

ADJACENT LANDSCAPE

The pool deck will provide for circulation and access on all sides of the pool and between the pool, spray park and park centre building. The open lawn area surrounding the pool, lazy river and spray park will include space for family picnics and relaxing while maintaining clear sight lines throughout the water play area.

The existing chain link fence will be upgraded where feasible to improve its layout, aesthetics, and reduce its visual presence in the park while meeting the requirement for a two metre high barrier to secure the wading pool.



Image: derbytelegraph.co.uk/Child-reported.../story.html



Image: pixelcondos.ca/kensington/amenities/recreation.html



FIGURE 7.13: A REBUILT AND MODERNIZED WADING POOL AND LAZY RIVER COMPLEMENT THE SPRAY PARK AND APPEAL TO A WIDER RANGE OF AGES WHILE PROVIDING AMPLE SPACE FOR FAMILIES TO PICNIC AND RELAX ON SUMMER DAYS.



7.6 PARK CENTRE BUILDING

RATIONALE

The Prairie Winds Park Centre Building is one of the park's significant cornerstones. The proposed renovation and addition will make for a more functional facility for park users, one that provides more and more generous changing options, an improved relationship to its surrounding context (Figure 7.14), and a new programming element: a cold-weather pavilion which will make the park more useful in the winter and shoulder seasons.

FEATURES

The design rationale for the Prairie Winds Park Centre Building operates within the performance objective that it address the changed requirements of the community's user groups and contemporary building code requirements.

In the first instance, the design seeks to provide a new entrance to the facility, one more appropriately oriented towards the primary access route for pool users. This is accomplished with the new building addition that faces northwest and is sculpted to better receive visitors and provide a more clear sense of 'address' than the existing building currently has. The addition, then, is a public cold-weather pavilion or mud-room to the park, where visitors can gather to change their boots for skates in the winter or linger before leaving the pool in the summer. The specific shape and form of the proposed addition takes its cue directly from the existing building and demurs slightly to it (Figure 7.15). The intent is to respect and maintain the

existing facility, with any minor touch-ups as required, and let the addition work as a subtle counterpoint.

This strategy – of consolidating the unprogrammed space at the entry – also has the benefit of more freedom in the remainder of the building for renovations. Inside, the facility has been reorganized to provide new universal change facilities (Figure 7.16), while also maintaining the existing dedicated mens and womens washroom capacities. Gone now is the permanent concession stand in favour of the option of temporary food-truck style offerings – simultaneously solving the enduring revenue problem that concession stands have while also offering the park opportunities for more variety.

The decommissioned spray park mechanical equipment will be removed to free up space in the mechanical room. Pool systems will be retained and adapted to the redesigned pool and lazy river where feasible or replaced or upgraded as required.

Automatic fire sprinklers will be added to meet current building codes.

The full scope of mechanical and electrical upgrades will be determined during detailed design.



FIGURE 7.14: A PROPOSED EXTENSION TO MAKE THE PARK CENTRE BUILDING MORE INVITING, FUNCTIONAL AND ACCESSIBLE

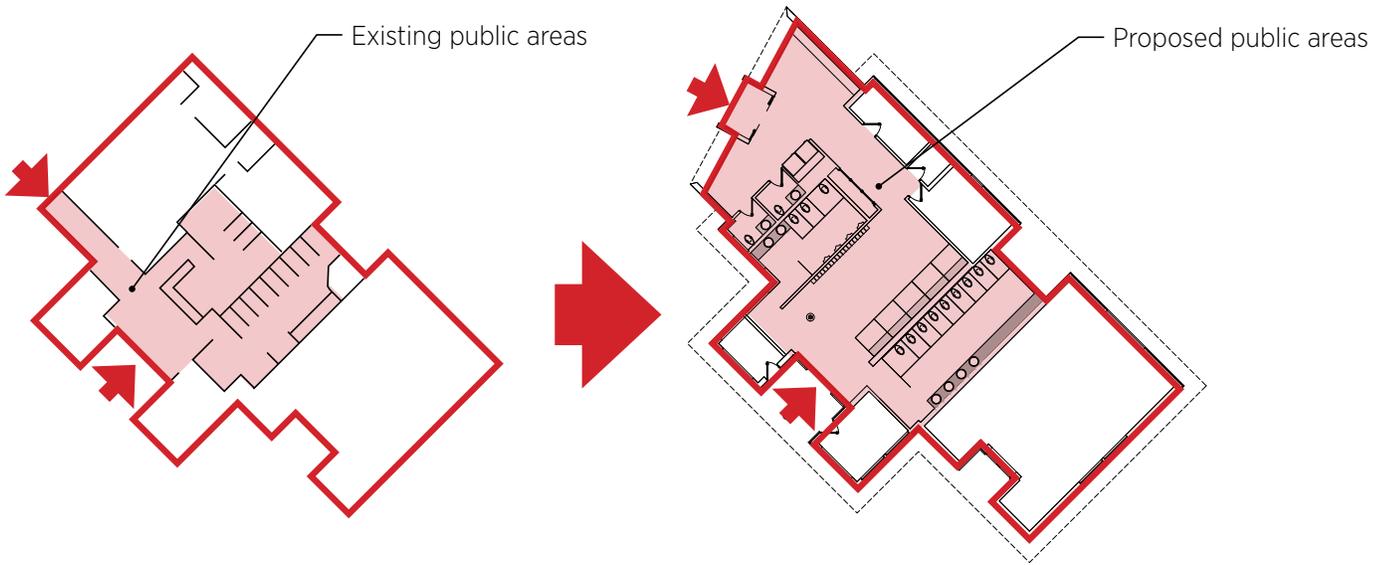


FIGURE 7.15: RENOVATING AND EXPANDING THE PARK CENTRE BUILDING WILL IMPROVE THE SPACES FOR PUBLIC USE

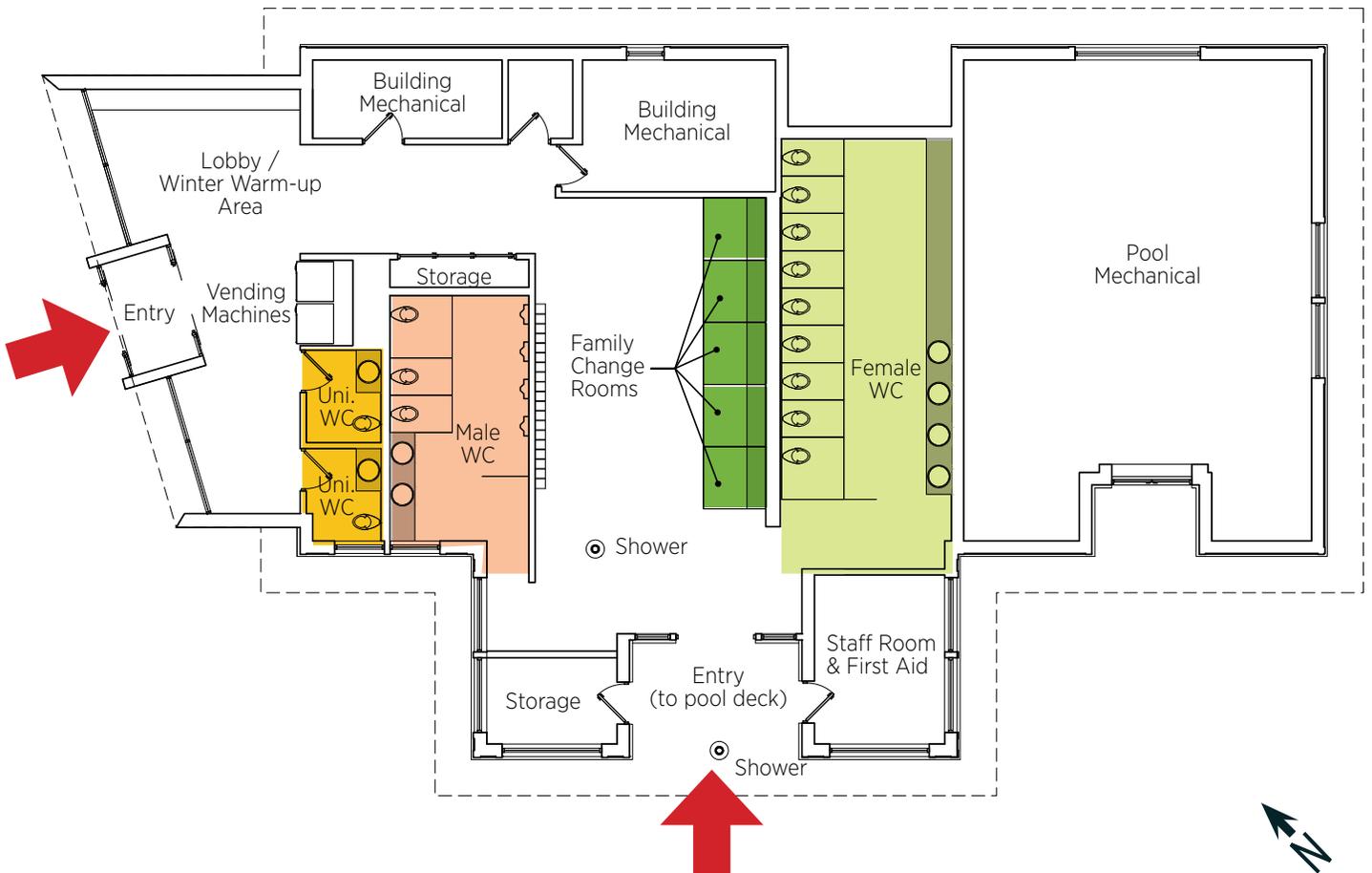


FIGURE 7.16: CONCEPTUAL LAYOUT OF THE PROPOSED PARK CENTRE BUILDING INTERIOR



7.7 TOBOGGAN HILL & LOOKOUT

TOBOGGAN HILL

The existing toboggan hill is a significant feature in the park and part of the identity of Prairie Winds Park. It is one of the best toboggan hills in the City. The grass slope itself will be retained, while proposed upgrades include an expanded run-out area at bottom (Figure 7.19) and lighting for toboggan hill to extend its hours of use in the winter.



Image: pixgood.com

A proposed path to the north of the toboggan hill will be left uncleared in winter to avoid interrupting the expansive run-out area (Figure 1.17).

LOOKOUT

A proposed lookout will be integrated into the top of the hill to create a place at the highest point where views (Figure 7.18) in all directions can be enjoyed. From the lookout, people can see downtown Calgary, Nose Hill Park and the Rocky Mountains and watch planes taking off and landing at the airport. The lookout will fit into the landscape so as to not interrupt the view of the mound from the rest of the park and so that it will be revealed only to those who complete the trek to the top.

The lookout will acknowledge this significant location as it is the highest point not just in the park but also in northeast Calgary. The lookout will contribute to a sense of surprise and delight while providing opportunities for contemplation.



<http://www.mkskstudios.com/>



Hyperfocal:Robert Giroux robertgiroux.com/



Image: space2place

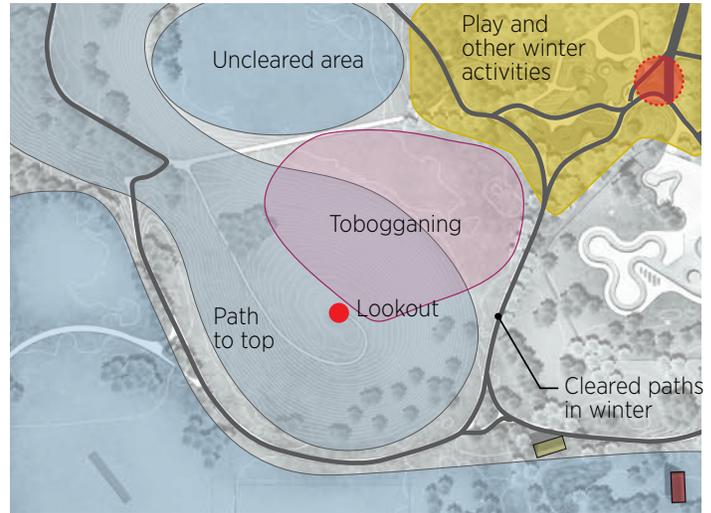


FIGURE 7.17: TOBOGGAN HILL AND ADJACENT USES

PATH TO TOP

A proposed secondary path will improve access to the top of the hill with a maximum slope of 8%. Located on the south slope of the hill, the path won't interfere with tobogganing activities. People can hike up the hill from any side. However having a gentler path will improve access to the lookout feature at the top.

In addition to the new path, strategies to improve the durability and resilience of the existing desire line on the NE side of the toboggan hill will be explored during detailed design.



Image: Flickr user Joming



FIGURE 7.18: A NEW LOOKOUT AND A PATH TO THE TOP OF THE HILL PROVIDE PANORAMIC VIEWS OF THE PARK AND THE SKYLINE IN ALL DIRECTIONS.



FIGURE 7.19: THE TOBOGGAN HILL, OPEN SPACES AND VARIED TERRAIN ARE RETAINED FOR YEAR ROUND USE.



7.8 FLEXIBLE OPEN SPACES

FLEXIBLE OPEN SPACES

Existing flexible open spaces (lawn) are popular and well-used for passive recreation, family picnics, informal pick-up games, fitness activities (i.e. bootcamps) and multiple events throughout the year.

The drainage of the lawn areas will be improved by regrading some areas to direct water to low areas that are better situated to collect and infiltrate stormwater and snow melt.

FESTIVAL SITES

The open spaces on the north and south sides of the toboggan hill will be retained and enhanced with electrical outlets for performance stages and sources of potable water to better serve festivals and events.

UNCLEARED AREAS FOR CROSS-COUNTRY SKIING

The flexible open spaces on the south side of the toboggan hill will be largely uncleared in the winter to provide snow-covered areas for informal cross-country skiing or snowshoeing.



Image: Flickr user adwiter (Patrick)



Image: calgaryherald.com



Image: Gail Blain Peterson

faithfulnessfarm.blogspot.com

7.9 SPORT FACILITIES

CRICKET PITCH

The existing baseball diamond, including mound, dugouts and fencing will be removed (Figure 7.20). The trees will be retained. The area will be graded, levelled, top-soiled and seeded to create the field.

A junior cricket field, complete with a pitch with wickets, will be created at the appropriate size and orientation suitable for children and youth games as well as casual adult practice.

A full-sized adult cricket pitch will not fit in the park due to the spatial limitations imposed by the retention of the existing trees, toboggan hill, and soccer field. Additionally, a junior cricket pitch will be more compatible with adjacent park uses, and be safer for nearby trail users and soccer players.



Image: krshockeycricket.com

SEASONAL TOILETS

A small out-building (approximately 2.5 m x 5 m) with two self-contained, accessible, universal washrooms for seasonal (summer) use will be located in the southwest area of the park north of the proposed cricket field. During regular hours of operation, the toilets will be available for all park users.



Image: Bruce Carscadden Architect

During detailed design, considerations will be made for location, orientation, security, visibility, service vehicle access, appearance, and whether the toilets will be connected into a new sanitary line or be pit / composting toilets.

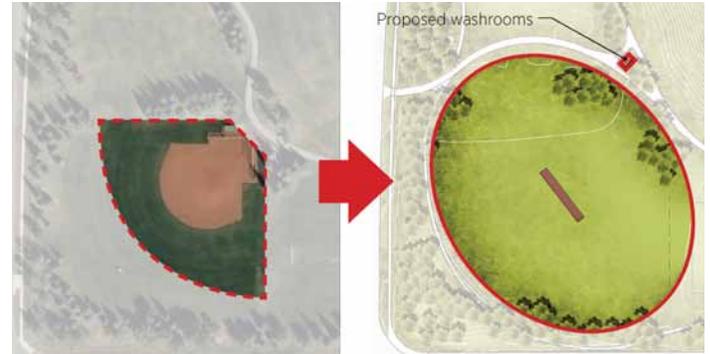


FIGURE 7.20: BASEBALL DIAMOND REPLACED WITH A NEW JUNIOR CRICKET PITCH AND SEASONAL WASHROOMS

SOCCER FIELD

The existing soccer field on the south side of the toboggan hill will be rehabilitated by filling in the worn out areas and over-seeding with grass seed to match the existing field.

The existing fixed goal posts will be removed and replaced with new movable goal posts for greater flexibility of the space.

The soccer field will be set up as the Park's standard for minor soccer (80 m length).



Existing soccer field at Prairie Winds Park



Image: Custom Park & Leisure Ltd.



TENNIS COURTS

The existing tennis courts at the north end of the park will be removed and new tennis courts will be built in the southeast corner of the park near the south parking lot (Figure 7.21).

The relocation of the tennis courts will provide several benefits for the park:

- Remove the barrier (fences) at the main park entry to allow for improved sight lines within the park
- Provide space for a larger, more prominent play space
- Provide the opportunity for an enhanced park entry experience with more intuitive connections to key park features and a more cohesive park centre area.

The proposed tennis court location (Figure 7.22) is in an existing clearing with convenient access to the adjacent parking lot and park entries from Castleridge Boulevard and 54 Ave. NE.

Construction of the tennis courts in this location will require:

- Grading and tree removal to create a flat surface large enough for the courts
- The construction of retaining walls at each end to integrate the courts into the existing topography with the least amount of disturbance.
- An asphalt surface with painting and line markings
- A chain link fence enclosure with entrance gates
- A warm-up area with practice wall
- Lighting for evening and winter use
- A water supply for cleaning the court, with heat-tracing if the court is to be used as a hockey rink in the winter.

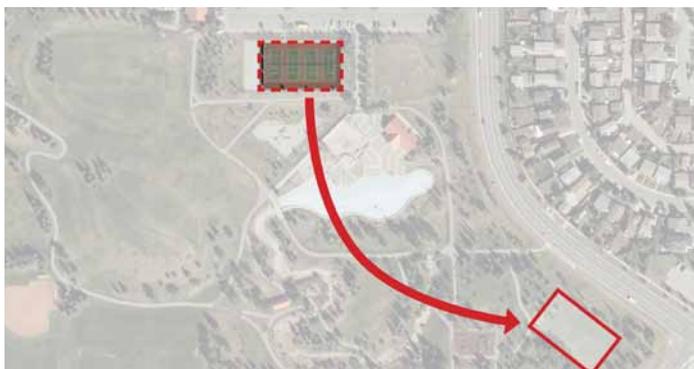


FIGURE 7.21: Relocation of tennis courts to SE corner

HOCKEY RINK

Adding a hockey rink would enhance the role of Prairie Winds Park as an all season-park.

Conversion of tennis courts into winter ice hockey rinks is common in Edmonton, but the Prairie Winds Park rink would be a pilot program for Calgary Parks. Due to the temperature fluctuations in winter, it is more challenging to maintain outdoor ice rinks in Calgary and the outdoor ice rink season is generally shorter than elsewhere in Canada. With the inconsistent weather conditions and no Zamboni to resurface the ice, the rink would likely be for recreational and casual use only.

At a minimum, a poly liner is required to cover and protect the court surface from the ice and a heat-traced water supply is required for creating and maintaining the ice surface. The court surface must have a sufficient slope to ensure drainage in all seasons while being flat enough to create a uniform ice rink surface.

The hockey rink may include a system of modular boards to surround the rink. It also may include seating for putting on skates and for spectators.

SKATING RINK

The existing winter skating rink between the park centre building and the north parking lot is popular for casual skating (no hockey playing) during the winter months,



Image: bctc.org.uk/

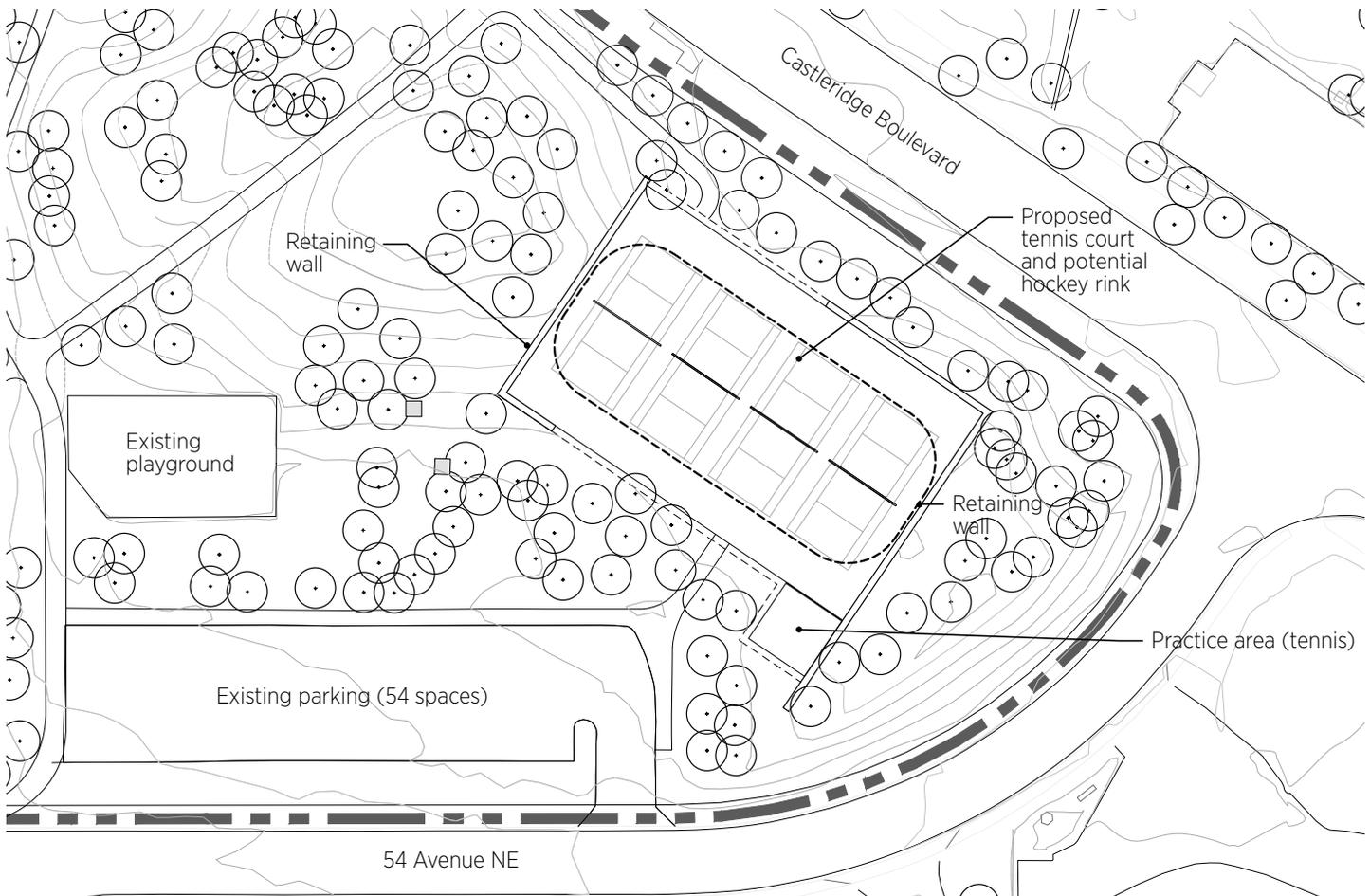


FIGURE 7.22: POTENTIAL HOCKEY RINK IN TENNIS COURTS



Image: centericerinks.com



Image: centericerinks.com



Image: sportresourcegroup.com



typically December to February.

The rink will be upgraded to address the drainage issues that occur when the ice is thawing. A paved surface with drains (Figure 7.23) will help intercept the water so that it no longer runs over the path and refreezes, causing a slip hazard. A proposed seating wall on two sides of the rink will provide space for putting on skates and for spectators to sit.

Rubber mats will be used in the crossover spaces where there is both skate and foot traffic, including the skate lace-up area and the path to the park centre building, which contains the washrooms and warm-up area.

As the winter ice rink already exists in this location, the operations and maintenance functions will remain largely the unchanged.

BASKETBALL COURT

To expand the opportunities for sports and recreation, the park redevelopment includes a new basketball court in the area between the park centre building and the north parking lot. This will be a new seasonal activity to utilize the space in the months when the skating rink is not present.

The basketball court will include an asphalt surface with line painting and hoops. Long concrete seating walls along the south and west sides will provide spectator seating and help define the space.

When not in use for basketball, the multifunctional court space may be used for other recreation, games or for tents during events.

FITNESS STATIONS

A new program element for adults will include a



FIGURE 7.23: NEW BASKETBALL COURT AND ICE RINK WITH IMPROVED DRAINAGE



Whistler Village Skating Rink
Image: whistler-townplaza.com/

Image: .effekt.dk

series of approximately six fitness stations arranged at intervals along the park's perimeter pathway loop creating a circuit.

To compliment park user's walking, jogging or running in the park, each fitness station will provide a different tool or feature that is designed for activation of different body parts or ranges of motion.

A resilient surface, such as rubber, will designate the area for each fitness station and provide impact absorption as required.



Image: fittrail.com

Image: fitterfasterstrongerpt.com

7.10 CREEK REMOVAL & SHELTERS

REMOVE ARTIFICIAL CREEK

The artificial creek is a feature of the original park design that includes a lined channel with small round boulders, a water distribution structure at the top and a drain at the terminus. The design gives it the appearance of flowing into the wading pool, like a stream into a pond. However there is no connection between the water in the pool and the artificial creek.

Due to the creek's requirement for a continuous supply of potable municipal water for its operation, coupled with the increasing cost of water, increased awareness of the importance of resource conservation, and the significant ongoing maintenance requirements to keep it functioning, operation of the creek ceased several years ago.

The dry creek bed poses a liability for the park due to the irregular and potentially unstable condition of the round boulders. As it is no longer operational, the creek is not providing the intended aesthetic function within the park and is limiting the potential for other park uses to occur in this area of the park.

As part of the park redevelopment, the artificial creek will be removed by removing the liner, filling up the creek to grade, and repairing the landscape with growing medium, lawn and planting, reclaiming the space for more passive park activities.

Portions of the creek in low-lying areas will be repurposed as rain gardens to collect stormwater and runoff from snow melt in accordance with City requirements and Low Impact Design (LID) strategies. See Section 7.13 for more information on Stormwater Management.

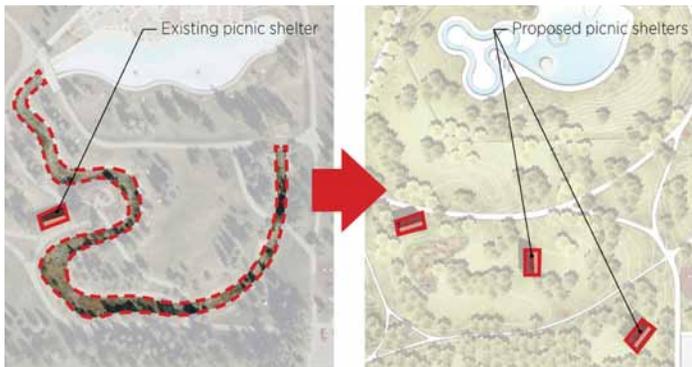


FIGURE 7.24: ARTIFICIAL CREEK REMOVED TO PROVIDE MORE PICNIC SHELTERS AND PLANTING

PICNIC SHELTERS

The existing picnic shelter will be retained and two or three new picnic shelters with tables will be built in the passive use area reclaimed by the removal of the former creek (Figure 7.24). The design of the new picnic shelters will be resolved during detailed design phase. If budget allows, upgrades may also be made to the existing picnic shelter.

Designated spots will be provided for people to set up their barbecues. Potentially, permanent grills will be included where appropriate. One of the shelters will include a tandoori oven, which may either be fuelled by wood or gas.



GAZEBO

The existing gazebo in the northwest part of the park will be retained. As budget allows, maintenance may be undertaken to refresh the paint on the structure, prune the shrubs around it and potentially add seating inside.



7.11 PEDESTRIAN CIRCULATION

APPROACH

The existing park paths (Figure 7.25) are extremely popular and well used throughout the year. Many park visitors do multiple loops around the park as part of their regular exercise routine.

The existing loops are generally well connected, but will be improved through reconfiguration to provide access to more areas of the park, provide a longer perimeter walking loop as well as smaller loops, clarifying circulation routes, strengthening existing entries and adding new ones, and fixing drainage problems that cause some paths to be flooded.

New and upgraded pedestrian paths (Figure 7.26) are intended to improve connections throughout the park in all seasons. The concept plan proposes looped paths of different lengths to provide pedestrians with a variety of options for walking and jogging. Lengths of loops will be demarcated.

PRIMARY PATHS

Main paths within the park will meet the Park's standard, 2.5-3.0 m wide asphalt. Walkways and plazas in the park centre area (i.e. main entry and play area) will be concrete and will vary in width.

To improve accessibility, primary park paths will be restricted to having slopes of 8% maximum, requiring some parts of the existing paths to be regraded.

The pathway network will be expanded to provide more loops of different lengths and to provide access to more areas of the park.

Primary circulation paths will be maintained for pedestrian use throughout the winter. Pedestrian circulation routes will incorporate the principles of Crime Prevention Through Environmental Design (CPTED) to support user safety.

Pathways and connections to destinations will be more intuitive and legible.

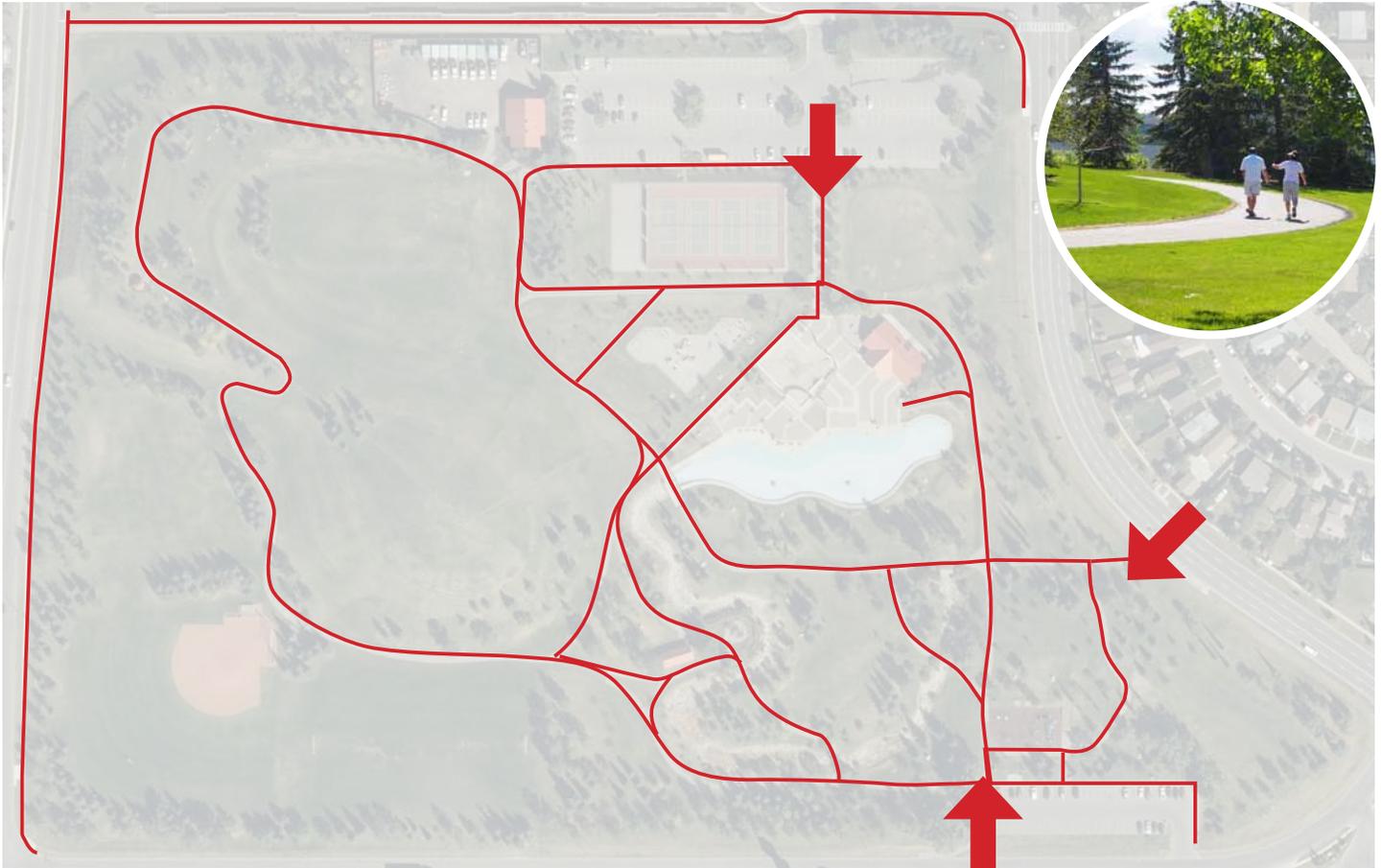


FIGURE 7.25: EXISTING PATHS AND ENTRIES

To minimize costs of upgrading, opportunities to retain existing paths will be explored, where possible.

Path alignment at park entry points will be improved to provide a better sense of arrival and flow into the park.

SECONDARY PATHS

To reduce the overall amount of paving in the park, gravel paths meeting the Park's standard (1 to 1.5 m in width) will be included where a smaller footprint is desirable. Secondary paths will be used for the path to the lookout at the top of the hill and for the southerly route along the outside of the cricket and soccer fields. These gravel paths would not be cleared in the winter and may incorporate naturalization planting along the edges to reduce the need to mow right up to them.

SIDEWALKS

A new paved (asphalt or concrete) sidewalk of 1.5-1.8 m with will be created along 54 Ave. to provide pedestrian access into the park for from the proposed street parking.

NEW ENTRY AT NORTHWEST CORNER

At the Northwest corner of the park, a new pedestrian entry and path will be created to improve connectivity with the regional multi-use pathway on Westwinds Dr. NE that leads to the CTrain Station.

NEW ENTRY ON WEST SIDE

A new entry will be created along the west side of the park to provide pedestrian access to the park from the proposed street parking along Westwinds Drive. The entry will also provide an additional access point for service vehicles, including those that are servicing the seasonal toilets.

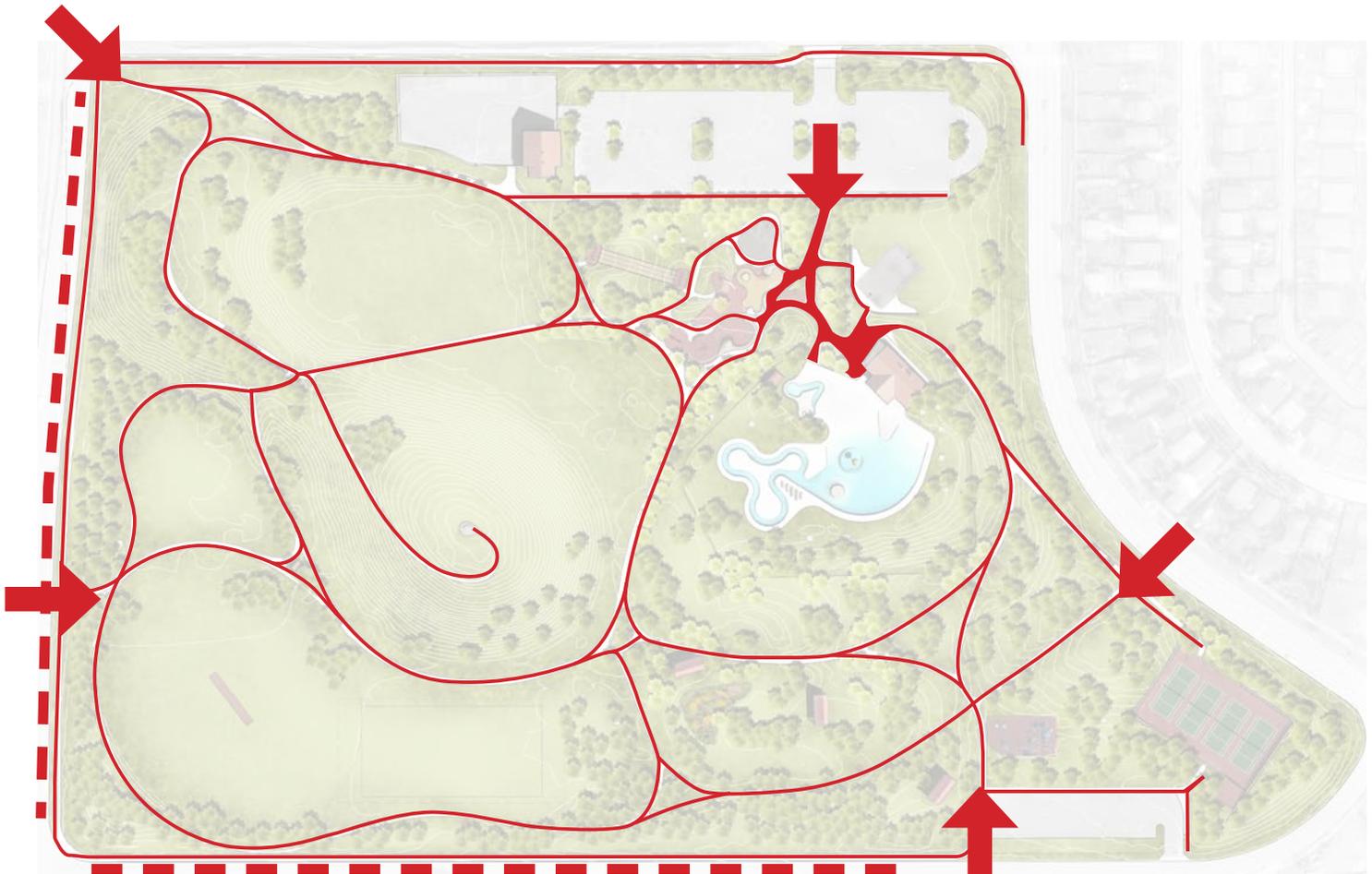


FIGURE 7.26: UPGRADED PATHS, NEW ENTRIES AND STREET PARKING ADDED



7.12 VEHICULAR CIRCULATION & PARKING

ON SITE PARKING

Parking Lot (North)

The existing main parking lot (226 spaces) will be retained with minor upgrades, such as replacement of the existing damaged concrete curbs and repainting of the parking stall lines. Trees and planting beds will be retained with the potential for some additional infill trees and planting to fill in gaps.

Parking Lot (South)

The existing south parking lot (54 spaces) will be retained as is.

OFF SITE PARKING

To accommodate the anticipated parking demands of the park after redevelopment, the parking regulations will be changed along two streets bordering Prairie Winds Park.

- Time restricted and vehicle-type restricted parking on 54 Avenue between Westwinds Drive and the South lot entrance (north curb) will add up to 29 spaces to the supply.
- Time restricted and vehicle-type restricted parking Westwinds Drive between 54 Avenue and the north park boundary (east curb) will add up to 44 legal spaces to the supply.

Parking along the east and south sides of the park will provide convenient parking closer to more park features, especially for those who are using the cricket pitch or soccer field, while protecting the amount of green space within the park and better utilizing the existing streets that border the park.

Implementation of the new parking regulations will require replacement of the existing signage and potentially some thermoplastic pavement markings to delineate the parking.

A new sidewalk will be required along the north side of 54 Avenue NE to provide a pedestrian connection between the new street parking and the park.

EVENTS

All events are required to obtain a permit at which point event management strategies are developed to accommodate the expected number people and vehicles.

TDM strategies and off-site parking can be utilized to accommodate the large numbers of people coming to major events at Prairie Winds Park.

SERVICE ACCESS

Service vehicle access to the Parks maintenance yard will continue to be accessed via the two existing gates. The east gate is accessed from the main parking lot and the south entry is accessed from the park path system.

The primary park pathways will meet Parks standards and are designed to allow the circulation of regular service vehicles throughout the park.

A new service vehicle access will be created on the west side of the park at the same location as the new pedestrian entry to provide a direct route to the proposed seasonal toilets.

TRAFFIC

Post redevelopment, the weekday peak hour analysis indicates the redevelopment will not significantly impact the operation of study area intersections during the weekday peak hours.

During the Saturday peak hour, the post redevelopment analysis indicates:

- At Castleridge Boulevard & Westwinds Drive NE (South intersection) the northbound left turn movement will continue to operate within acceptable capacity parameters.
- At Castleridge Boulevard & 54 Avenue NE there will continue to be difficulty making the northbound left turn movement (from 54 Avenue to Castleridge Boulevard). Vehicles intending to travel north on Castleridge Boulevard may need to utilize the eastbound left turn movement at the signalized intersection of Castleridge Boulevard & Westwinds Drive NE (South intersection), which operates below acceptable capacity parameters.

The Traffic Impact Assessment indicates that increases to trip generation due to redevelopment will be incremental and will not warrant additional signalization.

7.13 INFRASTRUCTURE & OPERATIONS

PARKS MAINTENANCE FACILITY

The existing parks maintenance facility is in average condition and the building's mechanical systems appear to be adequate.

Upgrades to the building interior are desirable to improve the comfort and better accommodate the number of staff who use the building, especially during the peak summer season.

The existing yard and building will be retained at their current size and location.

Budget limitations may require deferral of any interior upgrades until a later date. If budget is available, after priority park items have been addressed, the interior of the building may be renovated with upgraded change facilities, washrooms and storage for personal items.

IRRIGATION

The existing irrigation system is extensive and provides coverage of most areas of the park. Parts of the existing irrigation system will be reconfigured as necessary to suit new park design and achieve optimal coverage and some additional upgrades will help modernize and improve efficiency of the system.

Priority upgrades will be those that are required to accommodate the new park layout.

A number of additional (optional) upgrades to the system may be included as budget allows:

- Feed system from one supply (likely the one at south end of park).
- Replacement of Double Check Valve Assembly (below grade) with a Reduce Pressure Zone Backflow Preventer (above grade).
- Install booster pump for system with new controller to replace existing controllers.
- Booster pump on a sub-main for toboggan hill.
- New water meter with greater sensitivity for measuring flows.
- Use the City's integrated valve irrigation cabinet to reduce valve boxes required.

LIGHTING

The existing park includes lighting in the pool and skating rink areas. During redevelopment of the park the exterior lighting will be reconfigured to suit the new park design and extend the hours of use and improve park surveillance.

Lighting to be retained:

- Main parking lot

Lighting to be reconfigured to suit new design:

- Entry promenade
- Park Centre building
- Pool area
- Skating rink

Potential new lighting:

- Tennis court / hockey rink - to extend hours of use
- Playscape - to extend hours of use
- Toboggan hill (optional)

Lighting fixtures should be selected from the standard palette of City of Calgary Park lighting fixtures for ease of maintenance. Preference should be given to energy-efficient (LED) lighting fixtures with full cut-off to minimize glare for park users and minimize light pollution to surrounding residences.

Lighting design will be determined during the detailed design phase.

UTILITY SERVICING

Several upgraded and new park features will require modifications to the existing utilities within the park:

- Park centre building relocation of existing men's washroom facilities and addition of new universal washrooms, fire suppression system.
- Rebuilt wading pool and lazy river including any speciality water features may require retrofitting and/or replacing the existing mechanical equipment and piping - to be determined by swimming pool consultant.
- New drinking fountains around the park.
- New water sources and electrical power for event sites.
- Plumbing for seasonal washroom (southeast).
- Water supply to new tennis courts for cleaning and potential winter ice hockey rink.



7.14 STORMWATER MANAGEMENT

APPROACH

The redevelopment of the park will include only minor changes to the amount of impermeable surface on site. However, some of the existing drainage patterns will be altered to fix existing drainage issues, increase opportunities for on-site infiltration to intercept runoff, and to reduce discharge into the municipal storm sewer.

PREREQUISITES

During the initial conceptual and planning stages of a development, site assessments and a Stormwater Management Report should be undertaken. The purpose of the site assessment is to help decide where within the park storm water management features can be placed to create the best balance between meeting the watershed objectives and optimizing the park functions and aesthetics.

The site assessment will require subsurface investigations to:

- Characterize soil types and their properties and variability within the development;
- Characterize the occurrence of groundwater, including groundwater flow rates and direction, and;

- Locate areas of groundwater and surface water within the site.

FEATURES

Low Impact Design features will be incorporated where possible through coordination with Water Resources.

Stormwater and surface runoff resulting from snow melt will be collected and infiltrated on site using a combination of the following designed landscape features:

- Bioswales - linear low-points (swales) in the landscape that may be mown grass or naturalized with a mix of native grassland species and wildflowers.
- Rain Gardens - low-points in the landscape filled with a colourful mix of perennials and ornamental grasses to provide year-round interest.
- Trapped Flow - low areas within the flexible open lawn spaces where water can collect during heavy events before soaking away. These will be located around the periphery of the open space areas to minimize conflicts with paths and other park uses.

Figure 7.27, below shows a schematic diagram of the main drainage areas within the park and the potential locations for infiltration areas.



FIGURE 7.27: CONCEPTUAL STORMWATER MANAGEMENT SCHEMATIC

7.15 PLANTING & NATURALIZATION

PLANTING APPROACH

The approach to planting in the park is to maintain the existing park's character while enhancing the variety and year round interest in selected areas.

TREES

The existing trees in the park will be retained where possible. Approximately 29 trees of the 1020 currently in the park (as counted from the 2014 CAD drawing of the existing park) are proposed for removal in order to accommodate the new tennis courts, playscape, entry at the northwest corner, new trails, and the building expansion.

Species and locations of replacement trees and new trees will be selected to provide a net increase of trees in the park where they will provide the greatest benefit to improve the user experience and to support Parks' goals for a maintaining a quality urban forest.

The goals of the Prairie Winds Park Management Plan (2011) and Park's Urban Forest Strategic Plan (UFSP) include:

- Further diversity of the tree population, by gradually reducing the percentage of Green Ash, Colorado Spruce and Schubert's Chokecherry.
- Maintain an overall species rating greater than 80 percent.
- Additional planting of fast growing species.

New trees will be focused in the area of the new playscape and main park entry where more shade is desired and also to provide structure to these new park areas.

GRANT MACEWAN GROVE

The Grant MacEwan Grove will be retained as there are only minor changes proposed in the northwest corner of the park where the grove is located.

NATURALIZATION AREAS

Several areas within the park will be naturalized with a mix of native grassland species and wildflowers to increase diversity, habitat value, and seasonal interest. Proposed areas of naturalization will primarily be located in low-lying areas that may be prone to flooding, such as bioswales, or where taller grasses and perennials will not conflict with other park uses. Naturalization may also be used along

gravel paths to reduce potential concerns with mowing lawn adjacent to gravel.



Rain garden with perennials and ornamental grasses

Naturalization planting

RAIN GARDENS

Rain gardens will be used in localized areas prone to seasonal flooding where a more extensive use of adapted perennials and ornamental grasses is suitable, such as in the lowest sections of the artificial creek.

The plant selection will provide more colour, texture and year-round interest and will be determined during detailed design.

NODAL PLANTING

High profile areas within the park, such as the playscape and the main entry plaza, will include planting that will help integrate the built spaces and forms with the site and contribute to the aesthetics with colours, textures and year-round interest. The majority of the planting in these areas will be well-adapted to the climate with some accent planting that will require a higher level of maintenance, as appropriate to key focal points in the park.



7.16 SITE FURNISHINGS

SEATING

The park will include a mix of standard and custom seating options.

Typical seating used along pathways will be a consistent use of the City's standard types.

Custom seating will be required in areas which warrant special consideration like the lookout on the hill, at the edge of the basketball court/skating rink and in the playscape.

Custom seating may incorporate a concrete seating wall (straight or curved) with or without a wood bench top. Where skate deterrents are required, deterrents that are creatively integrated with the bench will be explored during detailed design.

PICNIC TABLES

Durable and appropriate styled picnic tables will be selected to streamline maintenance and repairs.

An accessible version of the picnic tables should be included. All accessible tables should include an accessible path connecting them with the nearest primary pathway.

FENCES

Where new fencing is required for the tennis court, black chain link should be used to reduce its visual presence in the park.

Parts of the existing chain link fence around the pool will be removed and/or realigned to soften the shape and improve access to the park centre building, pool and spray park. A 2 metre high fence is required for to meet the regulations for the wading pool. Locations and sizes of gates for pedestrian and service access will be determined during detailed design.

At a minimum, portions of the existing pool fence may be replaced. If budget allows, the mesh for the entire fence may be replaced a material that is less visually obtrusive, or that gives the park a more sophisticated look, such as black chain link.

WASTE RECEPTACLES

Typical receptacles should provide resistance to wildlife and ease of maintenance. Generally, receptacles will be of the City standard. Suitable locations and quantities are to be determined during detailed design.

Custom enclosures for receptacles for nodal areas may be considered during detailed design, where appropriate.

The desired mix and location of waste and recycling receptacles will be determined during detailed design.

BIKE RACKS

The bike racks to be used throughout the park should be selected for functionality, ease of maintenance and aesthetics that fit well within the setting.

DRINKING FOUNTAINS

New drinking fountains should be selected for durability, ease of maintenance and universal accessibility. They may be wall mounted (such as outside the seasonal toilets), free-standing, and/or potentially incorporate a lockable enclosure for a hose bib that can also supply water for events.

The layout of drinking fountains will be coordinated with existing and proposed water lines and potable water sources in appropriate locations that provide convenient access. The layout will be confirmed during the detailed design phase.

SIGNAGE

Wayfinding and park regulation signage will be improved but not intrusive and used only where essential, such as wayfinding at the main park entry.

The layout and design of signage will be determined during the detailed design phase and will include a review of Calgary Parks signage standards for any that may be applicable.

CONSULTATION PHASE 3



The public was invited to review the preferred concept and take a short survey to provide feedback.



8.1 SUMMARY OF CONSULTATION PHASE 3

The third round of public and stakeholder engagement took place from January 30 to February 14, 2015 and included several opportunities for individuals to review the results of the consultation to date, the preferred concept plan including the proposed park features, and to provide input.

Participants were asked for their level of agreement with the concept plan and if they had any other comments or feedback.

Engagement opportunities available:

- Website information with Online Survey
- Internal Stakeholder (City staff) Open House (January 29)
- Public Open House (January 31) at Genesis Centre Atrium
- Champion’s Toolkit (project information package) available for Baitun nur Mosque, Akram Jomaa Mosque, Islamic School Calgary, Dashmesh Culture Centre

Responses:

- Approximately 200 people attended Open House
- Approximately 250 business cards handed out at Open House (total 500 cards distributed)
- Approximately 100 surveys completed + input received via Open House, Facebook & Twitter
- Approximately 200 views of online video, 1900 reached on Facebook
- Over 90% support for preferred concept

USES & DESIGN

Most of the comments participants shared in the third and final phase of public engagement, were simply backing up their support for the plan. A number of people said “I like it” making reference, in most cases, to either the overall design or the variety of uses established in the plan.

OTHER POPULAR RESPONSES

Washrooms

Proposing a second washroom proved to be a key component of the Plan. However, there was some debate over where the washroom should be located.

Activities for all ages

Providing diverse spaces that attract people of all ages to the park is highly desired. Most people who mentioned this also pointed out that they have various aged children or large extended families they enjoy recreating with, and see the opportunity to do so through this design.

Parking concerns

Even those who strongly agree that the plan meets their vision for Prairie Winds Park, some don’t believe parking has been adequately addressed. Some suggested more stalls while others think an additional entrance point is necessary to alleviate peak summer and event traffic.

Aquatic Improvements

The pool and pool area also came up a handful of times. Although most comments mirrored what was previously heard – a deeper and warmer pool– there were also some new and innovative ideas for this zone of the park. Building a windbreak or shelter as well as having a sandy beach area were some of the most prominent ideas shared.

In addition to these points there were many independent comments heard. Most have been captured in previous phases of engagement, but this time ranged from the debates over a cricket pitch to providing more barbeque and picnic shelters and fondness for the old creek.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Don't know
% of Total Responses	7.1%	1.2%	0%	21.2%	69.4%	1.2%
	8.3%			90.6%		

PUBLIC OPEN HOUSE - JANUARY 31, 2015



Image: Intelligent Futures



Image: Intelligent Futures



Image: Intelligent Futures



Image: Intelligent Futures

INTERNAL STAKEHOLDER OPEN HOUSE - JANUARY 29, 2015



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PRELIMINARY COSTING



The estimated capital and operational costs associated with the park redevelopment are identified in this chapter.



9.1 COST ESTIMATE

In the cost estimate for the construction of the Prairie Winds Park redevelopment, the base costs include items which are essential to the project and are anticipated to be afforded within the identified budget.

To provide flexibility within the design, provisional items are the optional upgrades identified in the preferred concept that are desirable. Provisional items can be selected for inclusion as budget allows and based on the market at the time of construction tender.

#	Item	Description	Qty	Unit	Unit \$	Base Cost	Provisional Cost
DIVISION 1 PARK SPACE							
1.1	Site Preparation						
	1.1.1	Demolition					
		- Allowance to demolish existing asphalt walkway (say 2.7m avg. width)	6,097	m ²	\$8	\$48,800	
		- Allowance to demolish existing asphalt Tennis Court	2,692	m ²	\$8	\$21,500	
		- Remove existing Tennis Court fences	195	m	\$20	\$3,900	
		- Demolish existing North Playground; equipment & gravel paving	850	m ²	\$8	\$6,800	
		- Demolish Wading Pool and surrounding concrete slab - quantity provided by S2P	4,950	m ²	\$30	\$148,500	
		- Remove existing Baseball Diamond	1,600	m ²	\$4	\$6,400	
		- Remove Baseball Diamond fence; say 25m	25	m	\$20	\$500	
		- Remove Wading Pool fence; say 155m	155	m	\$20	\$3,100	
		- Allowance for removal of selected trees	26	no	\$200	\$5,200	
		- Allowance for protecting existing trees	1	sum	\$5,000	\$5,000	
		- Allowance for removal of creek liner and water distribution infrastructure (approx. 3,054 m ²)	1	sum	\$12,000	\$12,000	
	1.1.2	General Cut and Fill					
		- Allowance for making up levels to new paths including fill to Artificial Creek; fill material would include imported topsoil, gravel base, etc.	5,280	m ³	\$30	\$158,400	
		- Allowance for site-cutting	5,250	m ³	\$11	\$57,800	
	SUB TOTAL					\$477,900	
1.2	Trails and Pathways						
	1.2.1	Trails					
		- New asphalt path (except Toboggan Hill) - 3m wide	1842	m	\$270	\$497,300	
		- New gravel path to secondary path - 1.5m wide	757	m	\$60	\$45,400	
	1.2.2	Pathways					
		- Concrete paving to Park Centre Plaza	1741	m ²	\$112	\$195,000	
		- Concrete paving to Pool Deck	1809	m ²	\$150	\$271,400	
	SUB TOTAL					\$1,009,100	
1.3	Parking Lot (North)						
	1.3.1	Re-painting parking lines	172	stalls	\$30		\$5,200
	1.3.2	Allowance to replace broken concrete curbs Note: existing paving to be kept	1	sum	\$5,000		\$5,000
	SUB TOTAL					\$0	\$10,200

#	Item	Description	Qty	Unit	Unit \$	Base Cost	Provisional Cost
1.4	Landscaping						
	1.4.1	Allowance for new shrubs, trees, perennials and native planting in multiple locations throughout the park	1	sum	\$15,000	\$15,000	
	1.4.2	Allowance for new trees and installation of replacement trees	75	no	\$600	\$45,000	
	1.4.3	New Rain Garden					
		- Allowance for rain garden/bio swale	450	m ²	\$65	\$29,300	
		- *Allowance for "naturalization"; location to be identified	1	sum	\$90,000	\$90,000	\$5,000
	1.4.4	Allowance for rehabilitation of grass areas (poorly drained areas, edges of paths) or topsoil/seeding of former creek area; say 18,545m ²	1	sum	\$370,000	\$370,000	
	SUB TOTAL					\$549,300	
1.5	Irrigation						
	1.5.1	Irrigation allowance: provided by Irrigation Consultant					
		- Removal of sprinklers, valves & 100/150mm DCVA	1	sum	\$14,100	\$14,100	\$19,200
		- New controllers	1	sum	\$47,500	\$47,500	
		- Replace mainline	1	sum	\$165,000	\$165,000	
		- Pump station	1	sum	\$185,000	\$185,000	
		- Valve, sprinkler, piping upgrades	1	sum	\$182,500	\$182,500	\$112,500
		- Cricket Field sprinklers	1	sum	\$28,500	\$28,500	
		Rink water service on existing 100mm PWS	1	sum	\$25,000		\$25,000
		Toboggan hill booster pump c/w submain and power	1	sum	\$35,000		\$35,000
	SUB TOTAL					\$622,600	\$191,700
1.6	Signage and Site Furnishings						
	1.6.1	Allowance for signage	1	sum	\$50,000		\$50,000
	1.6.1	Site Furnishings					
		- Allowance for trash / recycling receptacles	10	no	\$1,200	\$12,000	
		- Allowance for new seating benches on concrete pads	15	no	\$2,500	\$37,500	
		- Allowance for relocation of existing benches on new concrete pads	40	no	\$1,200	\$48,000	
		- Allowance for bike racks (6 spaces each)	3	sets	\$2,500	\$7,500	
		- Allowance for drinking fountains with servicing	4	no	\$10,000	\$40,000	
		- Allowance for picnic tables to be relocated on new pads	20	no	\$2,500	\$50,000	
	SUB TOTAL					\$195,000	\$50,000
1.7	Street Parking & Sidewalks	(Note: negotiations with City Roads & Transportation required for cost sharing)					
	1.7.1	New street parking allowance for regulation signage and thermoplastic pavement markings	1	sum	\$20,000	\$20,000	
	1.7.2	New sidewalk allowance; includes cut-back of existing landscaping and to make way for asphalt paving along the north face of 54 Ave SE (west of 44 St.); 1.5m wide	375	m	\$184		\$69,000
	SUB TOTAL					\$20,000	\$69,000
DIVISION 1 PARK SPACE - SUBTOTAL						\$2,873,900	\$320,900



#	Item	Description	Qty	Unit	Unit \$	Base Cost	Provisional Cost
DIVISION 2 SITE FEATURES							
2.1	Tennis Courts / Hockey Rink						
	2.1.1	Allowance for asphalt surface including apron, painting and line markings, 3660mm high enclosure chain-link fence/nets c/w entrance gate	4	no	\$53,600	\$214,400	
	2.1.2	Allowance for retaining wall; say 1200mm high on two ends	134	m ²	\$500	\$67,000	
	2.1.3	Hockey Rink					
		- Allowance for modular boards	1	sum	\$60,000		\$60,000
		- Allowance for heat trace and connection	1	sum	\$5,000		\$5,000
		- Note: No allowance for refrigeration system				\$0	
		Plumbing & Drainage Works				\$0	
		- Allowance for storm drainage	1	sum	\$10,000	\$10,000	
		- Allowance for drainage remedial works	1	sum	\$30,000	\$30,000	
		- Allowance for water connection	1	sum	\$40,000		\$40,000
	2.1.4	Electrical Works					
		- New lighting panel in lockable enclosure & pedestal	1	no	\$7,200	\$7,200	
		- Panel feeder	1	sum	\$11,100	\$11,100	
		- Pole mounted light fixture	6	no	\$7,900	\$47,400	
		- Concrete base	6	no	\$700	\$4,200	
		- Fixture wiring	6	no	\$950	\$5,700	
		- Lighting controls	1	sum	\$1,300	\$1,300	
		- Excavation & backfill, cutting & patching, etc.	1	sum	\$4,500	\$4,500	
	SUB TOTAL					\$402,800	\$105,000
2.2	Basketball Court / Skating Rink						
	2.2.1	Basketball Courts					
		- Allowance for asphalt surface and line markings	658	m ²	\$200	\$131,600	
		- Allowance for concrete seating; say 450mm high	50	m	\$1,000		\$50,000
		- Outdoor basketball system (post, backboard, hoop)	3	no	\$3,000	\$9,000	
	2.2.2	Plumbing & Drainage Works					
		- Allowance for heat trace and connection	1	sum	\$5,000	\$5,000	
		- Allowance for drainage remedial works	1	sum	\$30,000	\$30,000	
		- Allowance for water connection to flood ice rink (say 20m)	1	sum	\$10,000	\$10,000	
		Note: No allowance for refrigeration system					
	2.2.3	Electrical Works					
		- New lighting panel in lockable enclosure & pedestal	1	no	\$7,200		\$7,200
		- Panel feeder	1	sum	\$4,100		\$4,100
		- Pole mounted light fixture	4	no	\$7,900		\$31,600
		- Concrete base	4	no	\$700		\$2,800
		- Fixture wiring	4	no	\$950		\$3,800
		- Lighting controls	1	sum	\$1,300		\$1,300
		- Excavation & backfill, cutting & patching, etc.	1	sum	\$1,700		\$1,700
	SUB TOTAL					\$185,600	\$102,500

#	Item	Description	Qty	Unit	Unit \$	Base Cost	Provisional Cost
2.3	Wading Pool						
	2.3.1	Allowance for new Wading Pool; includes structure and finish	1485	m ²	\$900	\$1,336,500	
	2.3.2	Allowance for Lazy River; includes structure and finish	1	sum	\$442,400	\$442,400	
	2.3.3	Allowance for new chain link fence, 2m height, black	135	m	\$125	\$16,900	
	2.3.4	Allowance for a new mechanical room; includes structure, finish and services	1	sum	\$150,000		\$150,000
	2.3.5	Mechanical Works					
		- Allowance for piping and pool equipment upgrades	1	sum	\$450,000	\$450,000	
		- Allowance for Lazy River equipment	1	sum	\$100,000	\$100,000	
	2.3.6	Electrical Works					
		- New 100A 120/208V 3P 4W panel	1	no	\$2,200	\$2,200	
		- Panel feeder	1	no	\$1,100	\$1,100	
		- Wire & connect mechanical equipment	1	sum	\$7,300	\$7,300	
		- Pole mounted light fixture	10	no	\$3,600		\$36,000
		- Concrete base	10	no	\$500		\$5,000
		- Fixture wiring	10	no	\$360		\$3,600
		- Lighting controls	1	sum	\$1,300	\$1,300	
		- Allowance for emergency alarm	1	sum	\$6,800	\$6,800	
	SUB TOTAL					\$2,364,500	\$194,600
2.4	Toboggan Hill						
	2.4.1	Allowance for making up levels to new path - included in sec. 1.1.2					
	2.4.2	New gravel path - included in sec. 1.2.1					
	2.4.3	Plumbing & Drainage Works					
		- Allowance for drainage	1	sum	\$15,000	\$15,000	
	2.4.4	Electrical Works					
		- Pole mounted light fixture	3	no	\$9,200		\$27,600
		- Concrete base	3	no	\$700		\$2,100
		- Fixture wiring	3	no	\$950		\$2,900
		- Lighting controls	1	sum	\$1,500		\$1,500
		- Wire & connect booster pump	1	no	\$1,900		\$1,900
	2.4.5	Feature Lookout allowance	1	sum	\$75,000		\$75,000
	SUB TOTAL					\$15,000	\$111,000
2.5	Playscape						
	2.5.1	Allowance for new play areas including play equipment; say 2,005m ²	1	sum	\$700,000	\$700,000	
	2.5.2	Allowance for concrete seating; say 450mm high	63	m	\$1,000	\$63,000	
	2.5.3	Plumbing & Drainage Works					
		- Allowance for drainage	1	sum	\$18,000	\$18,000	
	2.5.4	Electrical Works					
		- Pole mounted light fixture in Play Court area	15	no	\$3,600		\$54,000
		- Concrete base	15	no	\$500		\$7,500
		- Fixture wiring	15	no	\$450		\$6,800
		- Lighting controls	1	sum	\$1,300		\$1,300
	SUB TOTAL					\$781,000	\$69,600



#	Item	Description	Qty	Unit	Unit \$	Base Cost	Provisional Cost
2.6	Flexible Open Space						
	2.6.1	Plumbing & Drainage Works					
		- Allowance for water connection	1	sum	\$15,000	\$15,000	
		- Allowance for drainage	1	sum	\$20,000	\$20,000	
	2.6.2	Electrical Works					
		- Power outlet c/w W/P disconnect switch for outdoor events area	1	sum	\$33,000	\$33,000	
		- Excavation & backfill, cutting & patching, etc.	1	sum	\$3,000	\$3,000	
	SUB TOTAL					\$71,000	
2.7	Minor Soccer Field						
	2.7.1	Extra-over allowance to landscaping for rehabilitation of existing turf	3158	m ²	\$3	\$7,900	
		- Allowance for replacing existing goal posts with movable type	1	sum	\$4,000	\$4,000	
	SUB TOTAL					\$11,900	
2.8	Cricket Pitch						
	2.8.1	Seeding and topsoil to new pitch	1600	m ²	\$16	\$25,600	
		Note: existing trees to be retained					
		- Allowance for playing wickets	1	sum	\$8,000	\$8,000	
	SUB TOTAL					\$33,600	
2.9	Fitness Stations						
	2.9.1	Allowance for equipment, resilient surface & signage	6	no	\$10,000		\$60,000
	SUB TOTAL					\$0	\$60,000
2.10	MacEwan Grove & Gazebo						
	2.10.1	Allowance for additional seating	1	sum	\$10,000		\$10,000
	SUB TOTAL					\$0	\$10,000
DIVISION 2 SITE FEATURES - SUBTOTAL						\$3,865,400	\$652,700
DIVISION 3 PARK BUILDINGS							
3.1	Maintenance Yard Building (existing)						
		Note: existing Maintenance Building and Yard to be kept as existing					
3.2	Park Centre Building (expansion)						
	3.2.1	Allowance for expansion, renovation and reconfiguration for improved functionality, comfort and code compliance	1	sum	\$860,000	\$860,000	
	SUB TOTAL					\$860,000	

#	Item	Description	Qty	Unit	Unit \$	Base Cost	Provisional Cost
3.3	Picnic Shelters						
	3.3.1	Allowance for picnic shelters including fixed tables and benches; approximately 84 m ² each; One picnic shelter included in base cost with the option of one additional shelter as a provisional item	2	no	\$195,000	\$390,000	
	3.3.2	Mechanical Works					
		- Allowance for gas connection to one shelter (say 50m)	1	sum	\$10,000		\$10,000
		- Allowance for water connection (note: no water connection available near the shelter)	1	sum	\$50,000		\$50,000
	SUB TOTAL					\$390,000	\$60,000
3.4	Seasonal Washroom						
	3.4.1	Allowance for seasonal south west toilet for location and security/visibility considerations; 13m ² each; Building Architect allowance adjusted to Calgary rate	1	no	\$125,000	\$125,000	
	SUB TOTAL					\$125,000	
DIVISION 3 PARK BUILDINGS - SUBTOTAL						\$1,375,000	\$60,000
DIVISION 4 SITE SERVICE CONNECTIONS							
4.1	Mechanical and Site Drainage						
		- Allowance for city connection	1	sum	\$50,000	\$50,000	
		- Allowance for general services	1	sum	\$50,000	\$50,000	
	SUB TOTAL					\$100,000	
4.2	Electrical and Lighting						
		- Disconnect existing service - by Enmax	1	sum			
		- New primary service to property line - by Enmax	1	sum			
		- Allowance for Enmax charges	1	sum	\$7,500	\$7,500	
		- New incoming underground feeder to Park Building	1	sum	\$15,800	\$15,800	
		- Cutting & patching, excavation & backfill	1	sum	\$2,500	\$2,500	
		- Incoming Communications - Existing to remain	1	sum			
		- Site Lighting & Power - See individual estimates above	1	sum			
	SUB TOTAL					\$25,800	
DIVISION 4 SITE SERVICE CONNECTIONS - SUBTOTAL						\$125,800	n/a
DIVISION 5 GENERAL REQUIREMENTS & FEES							
5.1	General Requirements & Fees						
	5.1.1	General Requirements (incl. contractor as-builts) 7.3%			\$745,800	\$601,500	
	5.1.2	Fees @ 2.7%			\$279,700	\$222,500	
	SUB TOTAL					\$824,000	
DIVISION 5 GENERAL REQUIREMENTS & FEES - SUBTOTAL						\$824,000	n/a



#	Item	Description	Qty	Unit	Unit \$	Base Cost	Provisional Cost
	Base Construction Cost	Subtotal of Divisions 1-5				\$9,064,100	\$1,033,600
	Construction Contingency	@10%				\$906,400	\$103,400
	Escalation Allowance	@2.9%				\$289,100	\$33,000
	CONSTRUCTION SUB-TOTAL					\$10,259,600	\$1,170,000
	Design, Engineering & Contract Administration incl. disbursements	9.0% of Base Construction Cost + Contingency				\$897,300	
	Geotechnical Report	allowance				\$13,700	
	Topographic Survey	allowance				\$11,000	
	CONSULTANT SUB-TOTAL	including disbursements				\$922,000	
	Project Management by City Forces	4.5% of Construction Sub-total				\$461,700	
	City's Internal Disbursements	2.5% of Construction Sub-total				\$256,500	
	CITY SUB-TOTAL					\$718,200	
	Goods and Service Tax (Excluded)					\$0	
	TOTAL					\$11,899,800	

NOTES ON BASE AND PROVISIONAL COSTS

Base costs include items in the preferred concept estimated to be affordable within the overall project budget at the end of the conceptual design (DDP) stage.

As the design is refined through the detailed design stage, the items identified as provisional may be included in the tender package for pricing and inclusion in the park redevelopment as bid prices allow.

EXCLUSIONS

Land costs
Planning, administrative and financing costs
Legal fees and expenses
Temporary facilities for end users
Removal of hazardous materials
Loose furnishings and equipment to new buildings
Unforeseen ground conditions and associated extras
Off-site works
Phasing of the works and accelerated schedule
Decanting & moving
Costs associated with “LEED” certification
Project commissioning
Road closures, if required
Out-of-hours working
Works to existing picnic shelter
Pathway edge detail
Erratic market conditions, such as lack of bidders
Proprietary specifications
Cost escalation past July 2016 (midpoint of construction)
Unforeseen existing site and building conditions
Taxes

Note: Opinions of probable construction costs provided by the Landscape Architect are based on the designer’s familiarity with the landscape construction industry and are provided only to assist the Client’s budget planning; such opinions shall not be construed to provide a guarantee or warranty of the actual construction costs at the time construction bids are solicited or construction contracts negotiated.



9.2 IMPACTS TO OPERATIONS

As the proposed capital improvements are implemented in Prairie Winds Park, impacts to operations may result out of these changes. Although some maintenance practices will remain the same with no net change, the majority of maintenance practices will be affected to varying degrees post park redevelopment. A preliminary study of how the proposed capital improvements will impact operations and the resulting financial implications are summarized as follows.

Generally, some areas of the park will see increased efficiencies gained from upgraded systems and infrastructure. However, additional park assets and increased usage will result in a net increase operational need. Preliminary estimates provided by Parks staff indicate a net operational cost increase of \$117,700/annum or 26.7%. Estimates were based on providing levels of park service that will be equivalent to current practices.

The largest increase in costs will be incurred by additional requirements for janitorial work, crew maintenance and augmented planting beds followed by a rise in anticipated utility costs, snow removal work and additional services relating to the new wading pool. Most other maintenance activities such as mowing, irrigation, and turf care will see either slight increases or remain the same as much of the open lawn spaces within the park will remain largely unchanged.

Given the additional park features proposed and anticipated growth in park usage, the estimated increase in operational costs is a reasonable expectation to reflect the increased demands that will be placed on the park. The table below details specific proposed features and their anticipated impact to operations.

PROPOSED FEATURE	ANTICIPATED IMPACT TO OPERATING
Park Structures and Buildings	
Renovate & expand existing building	<p>Reduced area of public use during seasons when pool is closed (a lobby/warm-up area and 3 universal washrooms open year-round).</p> <p>Modern washroom facilities for ease of maintenance.</p> <p>New change rooms and modernized washrooms for public use in summer.</p> <p>Larger area of public use overall.</p>
Add toilets in the southwest area of the park	<p>New seasonal washroom building with 2 universal, accessible washrooms (sink and toilet) in the southwest area of the park.</p> <p>Maintenance and operations required during the summer season.</p> <p>Closed during fall, winter and spring.</p>
New Picnic Shelters	<p>2 additional bookable picnic shelters (similar size as the existing shelter) with tables, waste receptacles.</p> <p>Tandoori oven uses charcoal or natural gas. Locking/unlocking required for booked use.</p> <p>Wood stoves (public bring their own wood) may require a disposal unit for ashes.</p>
Parks Maintenance Facility	No change

PROPOSED FEATURE	ANTICIPATED IMPACT TO OPERATING
Access and Circulation	
New entry at northwest corner	Additional paved path included in asphalt paths below.
New asphalt paths	Reduction of total paved path to be cleared in winter (existing 2550m, proposed 2200m)
New gravel paths	New crushed stone paths 1.5m width (length 900m) Stabilizer used on sloping paths. Naturalization along edges of some gravel paths to reduce mowing adjacent to paths
Outside of Park - Street Parking & Sidewalks	Snow clearing of proposed south sidewalk adjacent to park
Parking Lots (North & South)	No change
Concrete Paving to Park Plaza	Paved area Increased by 120 sq.m (580 sq.m existing, 700 sq.m proposed)
Site Features and Landscape	
Toboggan Hill	Toboggan Hill - no change Lookout - new paved area and seating, litter removal and periodic maintenance
Play Area (south)	No change
Play Area (north)	Remove existing play area 800 sq.m pea gravel. New playscape with 700 sq.m of rubber and 200 sq.m of sand New play equipment (to replace 25 year old equipment) requires routine inspections and periodic maintenance New concrete paving, asphalt sport court with hoop, seating walls, topography and trees & planting
Flexible Open Spaces	Address problematic drainage issues with a new drainage strategy that locates infiltration beds in specific areas at the periphery
Planting	Additional trees (approximately 25 existing trees removed, and 75 new trees planted) Focal planting beds around play area and entry - Require garden maintenance (pruning, weeding, litter removal, mulching, replacement of damaged plants as needed) Rain gardens (replace low parts of creek with planting) require establishment maintenance, and then occasional weeding, annual pruning, and litter removal thereafter Naturalized areas (to replace some existing lawn) Reduce mowing to 2 times per year in naturalized areas, litter removal Rehabilitated lawn areas - typical lawn maintenance
Retain existing spray park	No change
Site Furnishings	Retain existing site furnishings (many relocated within park to suit new layout) - no change to operations Additional seating benches and seating walls - periodic inspections and maintenance, similar to existing seating Additional trash/recycling receptacles - typical waste collection and maintenance 3 New bike racks - periodic inspection and maintenance 4 drinking fountains - inspection, cleaning, winterizing in fall & activation in spring New picnic tables - inspection, cleaning, maintenance as needed



PROPOSED FEATURE	ANTICIPATED IMPACT TO OPERATING
Basketball Court	Additional paved area and seating requiring litter removal, periodic cleaning, inspections of hoops
Upgrade Existing Skating Rink	Minimal change to existing, snow berming, rink flooding, monitoring and maintenance Improved drainage to reducing flooding/refreezing issues
Wading Pool & Lazy River	Similar to existing, seasonally each year: Pool reduced by 375 sq.m (from 2225 to 1850 sq.m) Deck reduced by 650 sq.m (from 2500 sq.m to 1850 sq.m) Typical spring startup procedures, inspection, maintenance, cleaning, filling and balancing chemicals Similar daily opening/closing procedures for facility, maintenance, cleaning, public relations and supervision, First Aid, distribution/collection/maintenance of inner tubes, deck chairs, etc., monitoring chemical balance and mechanical systems Similar deck maintenance - litter removal, cleaning, waste collection New pool mechanical systems include more pumps (added complexity), but also include modern equipment (more automation). Typical end of season closure procedures, draining pool, equipment winterization
Tennis Courts	New courts in southeast area of park require similar operations to the existing courts New courts and nets require regular inspection, cleaning, litter removal, repairs New lighting
Hockey Rink (potential)	New Hockey rink: removal of nets and posts, cleaning, installation of temporary curbing, poly liner, installation of modular boards and benches, rink flooding, rubber matting, monitoring and maintenance of ice surface, litter removal. Removal at end of season: disassemble and store modular boards, thaw and drain rink, remove and store poly liner and curbing, install posts and nets.
Soccer Field	No change
Cricket Pitch	Similar level of maintenance to existing baseball diamond that it replaces. Monitoring and maintenance of lawn and pitch area. Repairs as needed.
Fitness stations	Regular inspections (similar to play equipment) and periodic maintenance as required. Cleaning of rubber safety surface
Retain Grant MacEwan Grove and Gazebo	No change
Park Lighting	Existing 29, proposed up to 48 lamp standards
Remove Artificial Creek	Eliminate maintenance associated with creek (i.e. repairs to liner, pumps, weeding) and cost of water to operate
Irrigation	System to be reconfigured to suit new park. Controllers and pumps may be updated to current Parks standard for ease of operations.

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