

Okotoks Recreation Centre Expansion Schematic Design Report

The Town of Okotoks

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EXECUTIVE SUMMARY

Project Overview

The Town of Okotoks is advancing an expansion of the Okotoks Recreation Centre (ORC) to improve access to recreation, wellness, and community spaces.

The ORC is the Town’s primary indoor recreation facility and a key community hub. It supports swimming, fitness, sport, programs, and informal gathering for residents of all ages and abilities. As Okotoks has grown, use of the facility has increased significantly. Many areas of the centre, particularly aquatics, fitness, and multipurpose spaces, are operating at or near capacity, especially during peak hours.

The proposed project expands and modernizes the existing Recreation Centre rather than replacing it or building a new facility elsewhere. This approach allows the Town to build on existing infrastructure, keep services centrally located, reduce costs, and introduce new amenities in a phased and manageable way.

The expansion will add new aquatics, fitness, and community spaces, while improving accessibility, circulation, and the overall user experience. New and existing components will be integrated into a cohesive, easy to navigate facility organized around a clear central circulation spine.

To maintain public access to recreation services, the project is planned as a phased expansion. This allows the Town to continue operating the facility during construction while aligning implementation with funding and long term community growth.

Overall, the Okotoks Recreation Centre Expansion represents a strategic investment in community infrastructure, supporting active lifestyles, strengthening social connections, and ensuring the Town can continue to meet the recreation needs of a growing population.

Project Objectives

The primary objectives of the Okotoks Recreation Centre Expansion are to:

- Increase indoor aquatics capacity to meet current and future demand.
- Address identified recreation program and service gaps.
- Support inclusive and accessible recreation opportunities.
- Enhance facility functionality, circulation, and user experience.
- Support sustainable service delivery and long-term community growth.

Proposed Building Exterior - North Entrance



Why this Project is Needed

The Okotoks Recreation Centre is already heavily used and plays a central role in supporting health, wellness, and community life. As the population has grown, demand for recreation programs and drop in activities has increased, placing pressure on the existing facility and limiting access for residents.

Current Challenges

Facility at Capacity

- Aquatics, gymnasium, and multipurpose spaces are heavily booked.
- Peak time congestion limits access and flexibility.

Limited Aquatics Capacity

- Insufficient lane availability.
- Limited leisure water and family space.
- High demand for swim lessons, rentals, and public swimming.

Restricted Access to Programs

- Limited ability to add new programs.
- Reduced flexibility for concurrent uses.
- Increasing scheduling conflicts and wait lists.

Missing or Limited Amenities

Many features common in modern recreation centres are currently limited or unavailable, including:

- Expanded leisure aquatics.
- Indoor climbing and active play spaces.
- Indoor child play areas.
- Flexible multipurpose program spaces.

Building Layout Limitations

- Circulation between spaces is not always intuitive.
- Some areas are difficult to access.
- Layout challenges affect user experience and operational efficiency.

If No Action Is Taken

Without expansion:

- Capacity shortfalls will continue and increase over time.
- Wait lists and scheduling constraints will grow.
- Access to programs and drop in use will decline.
- Opportunities for physical activity and social connection will remain limited.

The proposed expansion directly responds to these challenges by increasing capacity, addressing service gaps, and improving how the facility functions.

Community Growth and Demand

Okotoks continues to grow, and with that growth comes increasing demand for accessible, high quality indoor recreation space. More residents means greater participation in recreation programs, fitness activities, and community events.

Residents are also placing greater importance on health, wellness, and active lifestyles. Demand is strong across all age groups, with interest in both:

- Structured programs (lessons, classes, organized sport).
- Unstructured opportunities (drop in swimming, fitness, casual recreation).

Recreation needs are evolving. People are seeking spaces that are:

- Flexible and able to support multiple activities.
- Inclusive and accessible for all ages and abilities.
- Welcoming environments for individuals, families, and groups.

The Okotoks Recreation Centre is already highly utilized, particularly during evenings, weekends,

and seasonal peak periods. Aquatics, fitness, and multipurpose spaces remain in demand, limiting the Town’s ability to expand programs or improve access without additional space.

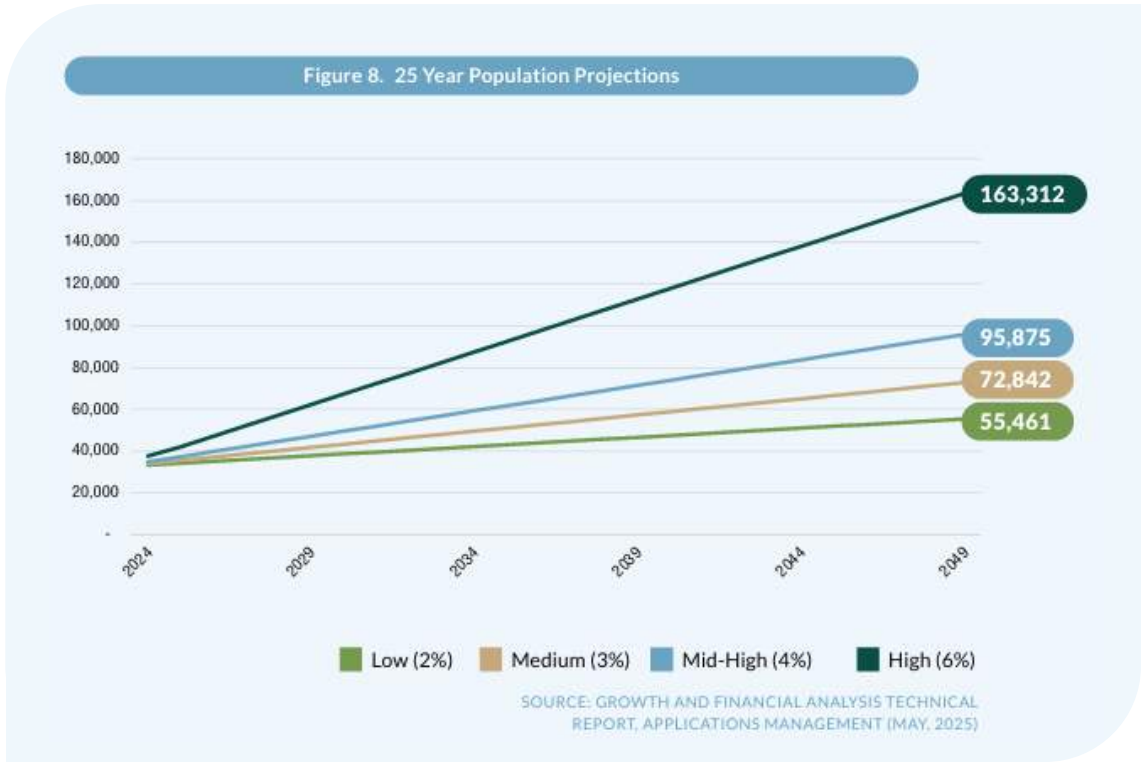
While some regional facilities provide alternatives, most residents rely on local recreation spaces for everyday use. This places continued pressure on the ORC to meet both current and future needs.

What This Means

- Demand for recreation space will continue to increase.
- Existing facilities cannot fully meet that demand.
- Additional capacity and a wider range of amenities are required.

The proposed expansion increases space, flexibility, and choice—allowing the ORC to better serve the community today and into the future.

Source: Okotoks Growth Strategy



EXECUTIVE SUMMARY

What Happens if we Don't Build

The Okotoks Recreation Centre is already operating near capacity in many areas. As the community continues to grow, demand for recreation services will increase, placing additional strain on the existing facility.

Without expansion, residents may experience:

- Longer wait lists and fewer program opportunities.
- Limited availability for drop in use.
- Increased overcrowding during peak times.

Aquatics will be particularly affected. Current limitations, such as restricted lane space, limited leisure water, and high demand for swim lessons, will persist and intensify as demand grows.

Fitness spaces, multipurpose rooms, and community areas will remain constrained, reducing the Town's ability to introduce new programs or respond to changing community needs.

Over time, these limitations affect more than access to recreation. They reduce opportunities for physical activity, social interaction, and community connection, key contributors to overall health and quality of life.

What This Means for the Community

- Reduced access to programs and activities.
- Continued overcrowding.
- Fewer casual and drop in opportunities.
- Ongoing gaps in key recreational amenities.

Without action, the gap between community demand and available recreation services will continue to widen.

What is Being Proposed

The Okotoks Recreation Centre Expansion will create a more complete, modern, and accessible recreation facility by adding new spaces and improving how the building functions.

At its core, the expansion provides more space, more choice, and better connections between programs, supporting everything from daily fitness and swimming to family activities and community gatherings.

Expanded Aquatics

- New leisure water areas for families and casual use.
- Expanded lane swimming capacity.
- Increased space for swim lessons and programs.
- Improved accessibility and inclusive aquatic environments.

Fitness and Active Recreation

- Expanded and modernized fitness areas.
- Indoor walking and running track.
- Relocated gymnasium with improved access and layout.
- New climbing and active play opportunities.

Community and Program Spaces

- Flexible multipurpose rooms.
- Spaces for community programs and events.
- Areas for gathering and social interaction.

Improved Changerooms and Accessibility

- Flexible changeroom facilities designed to accommodate a range of users
- Improved circulation and accessibility.
- Safer and more comfortable spaces for individuals and families.

A More Connected Facility

A more connected facility with improved internal circulation and stronger connections between program areas, the site, and parking areas.



Indoor Play - East Gwillimbury



Accessible Change - Orillia Recreation Centre



Leisure Pool - Lake Country CO-OP Leisure Centre



Indoor Climbing - Seneca College



Leisure Pool - Orillia Recreation Centre

Design Approach

The design focuses on creating a facility that is welcoming, easy to navigate, and efficient to operate. New and existing spaces are integrated into a cohesive layout that supports both everyday use and long term flexibility.

Central Community Hub

A central public space connects major program areas and serves as the primary point of orientation within the building.

- Clear wayfinding.
- Welcoming gathering space.
- Strong visual connections to key amenities.

Improved Circulation

- Direct and intuitive routes between spaces.
- Reduced congestion during peak times.
- Clear separation of wet and dry areas.

Integrated Program Areas

- Aquatics and changerooms closely connected.
- Fitness and gym areas grouped together.
- Community spaces centrally located.

Inclusive and Accessible Design

- Flexible changeroom facilities incorporating a mix of private and group change area
- Accessible routes and entrances.
- Flexible spaces supporting diverse needs.

Designed for Flexibility

- Multipurpose rooms for varied uses.
- Adaptable layouts.
- Capacity to expand programming over time.

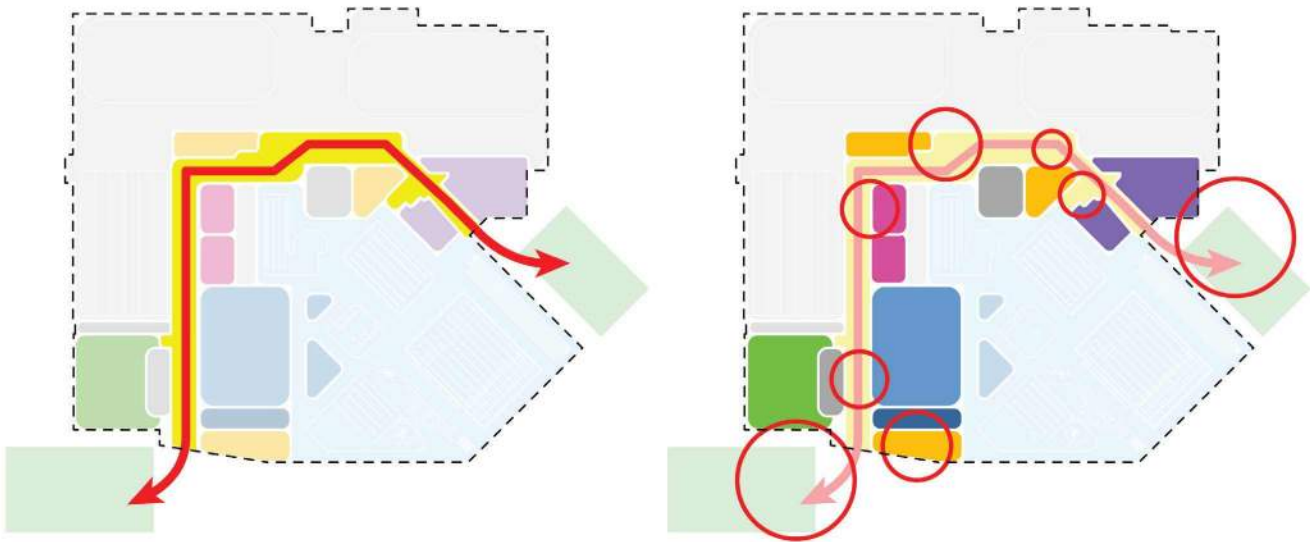
Why This Design Was Selected

Several design options were explored to determine the best way to expand the facility while maintaining operations and improving overall functionality. The selected design was chosen because it provides the most balanced solution, addressing key priorities identified through the planning and design process.

Key Reasons for Selection

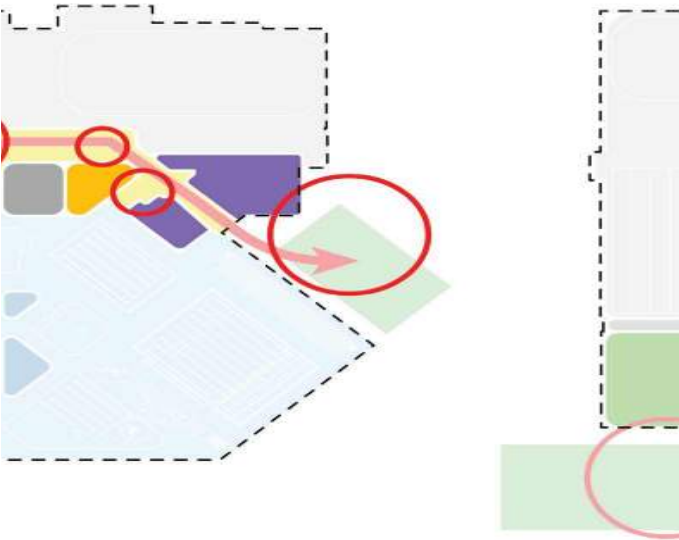
- **Clear and Intuitive Layout**
Makes it easier for users to move through the building and find programs.
- **Strong Connections Between Spaces**
Improves how aquatics, fitness, and community areas function together.
- **Efficient Operations**
Supports staff supervision, safety, and daily facility management.
- **Supports Phased Construction**
Allows the facility to remain open during expansion.
- **Flexible for the Future**
Can adapt to changing recreation needs over time.

Alternative concepts were considered but did not provide the same level of connectivity, clarity, or long-term adaptability. The selected design offers the best overall balance between user experience, functionality, and constructibility

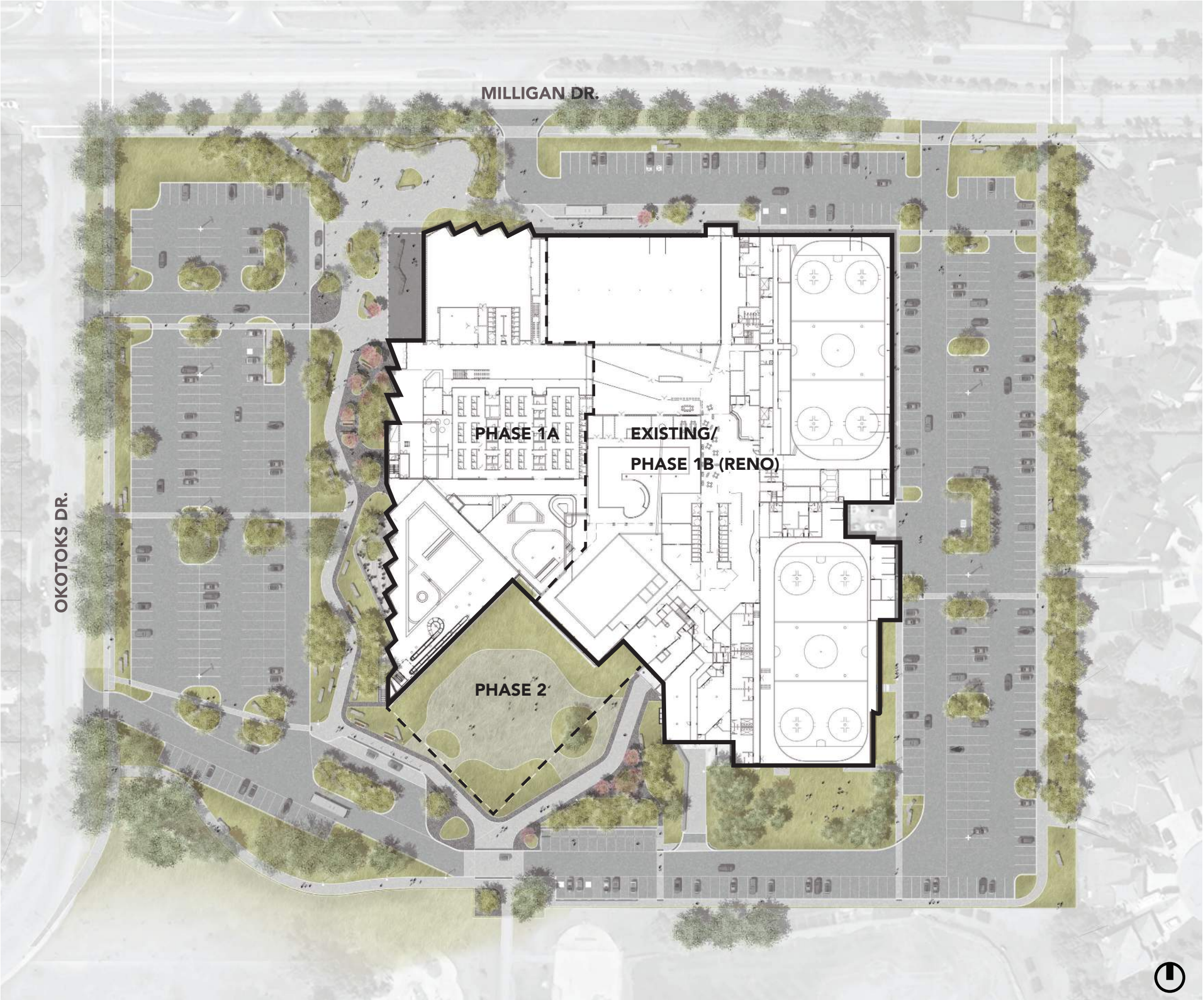


CIRCULATION

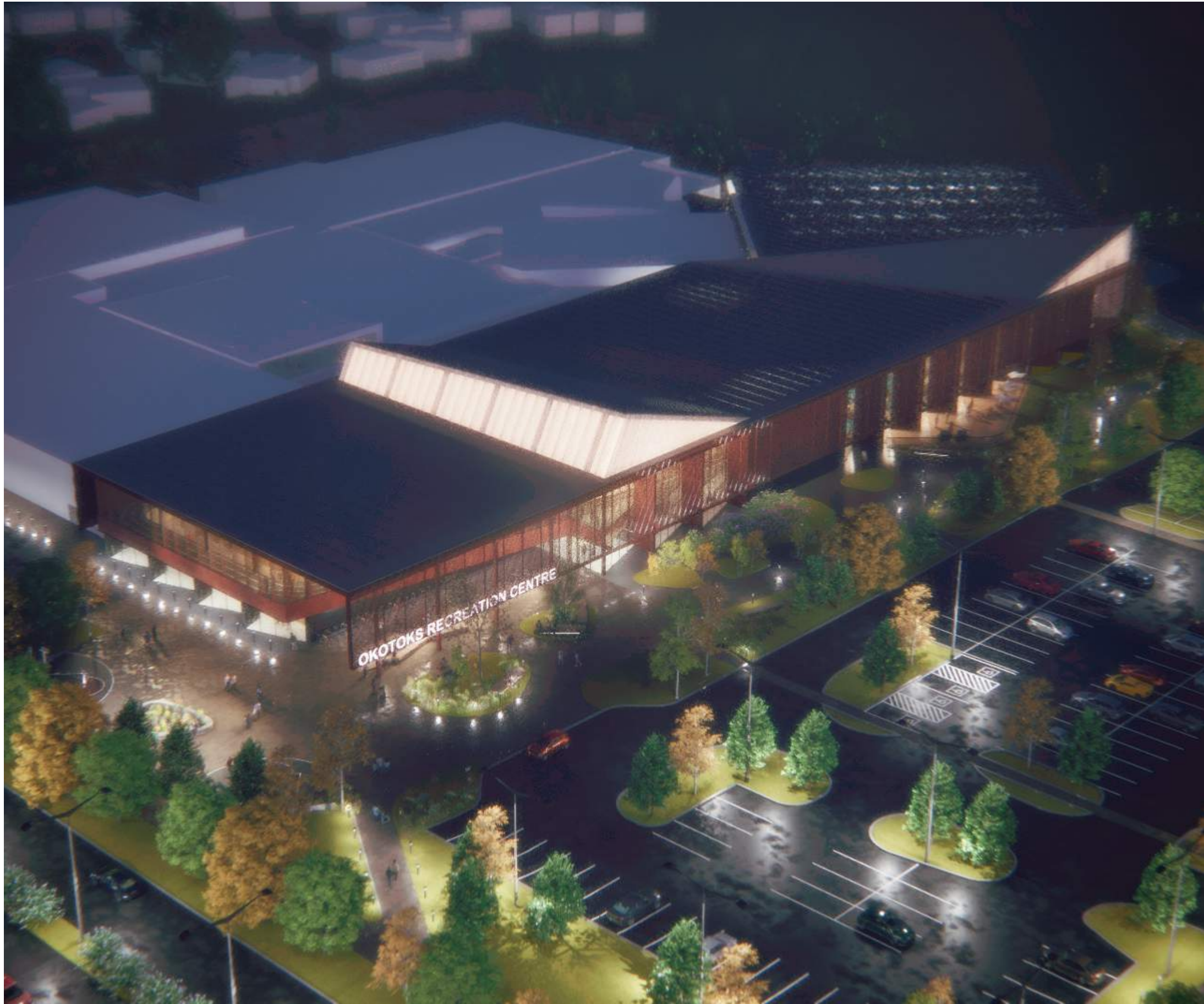
ANIMATE PUBLIC CIRCULATION



AQUATIC SOCIAL HEART



Proposed Landscape Plan



North Aerial - Phase 1 & 2



North Corner - Ice Skating



North Corner - Basketball

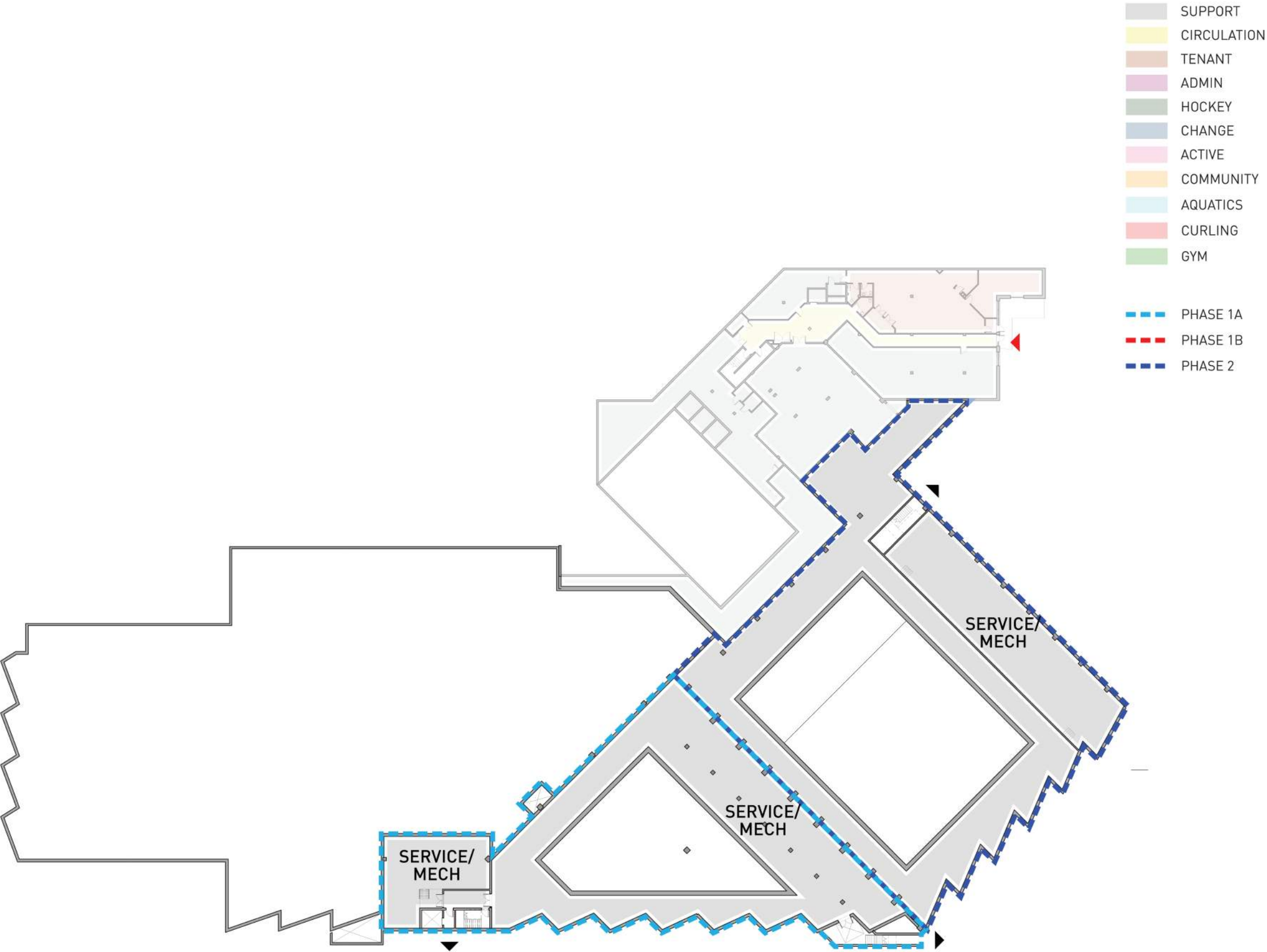


South Corner - Phase 2

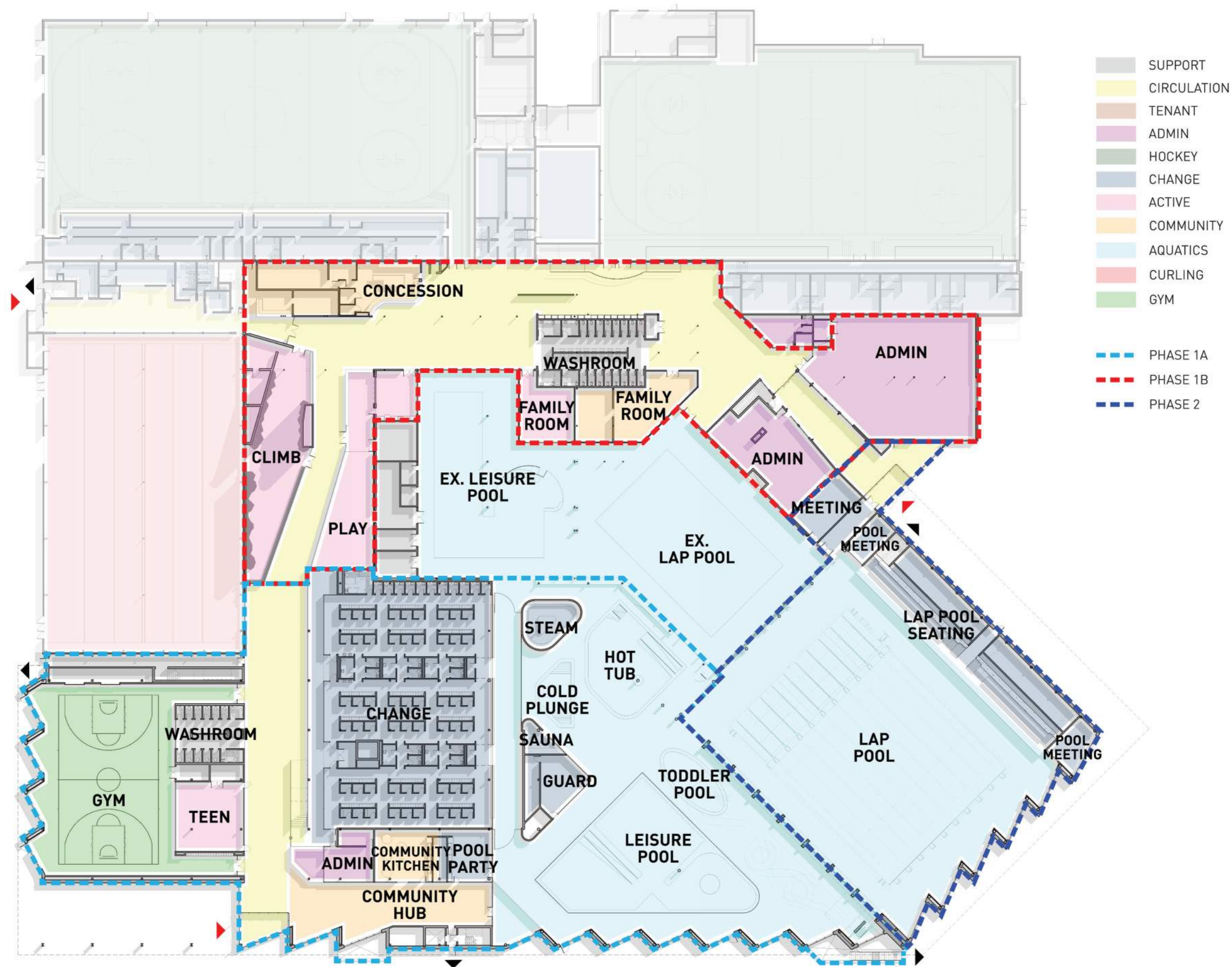


South Corner - Phase 1

Basement Floor

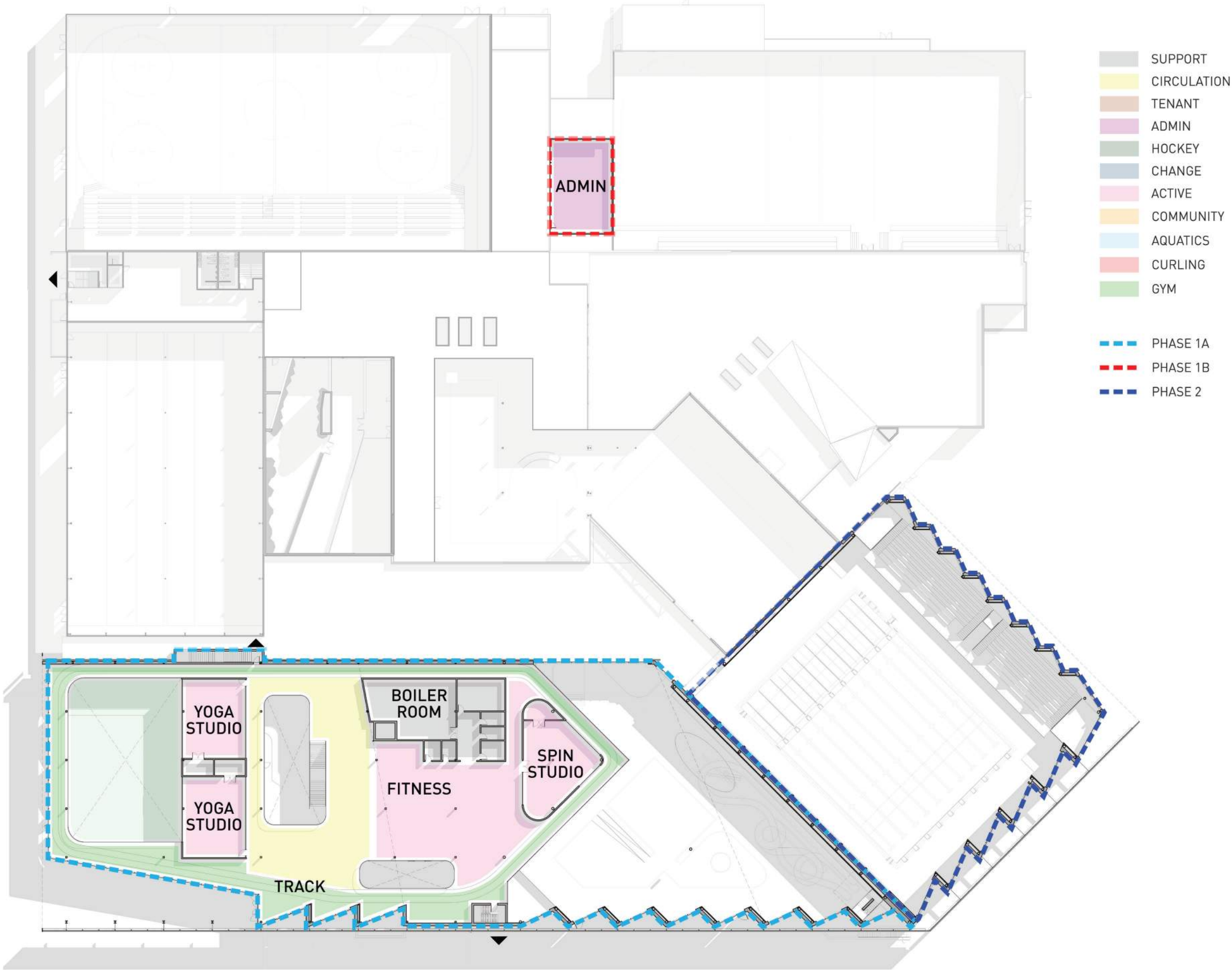


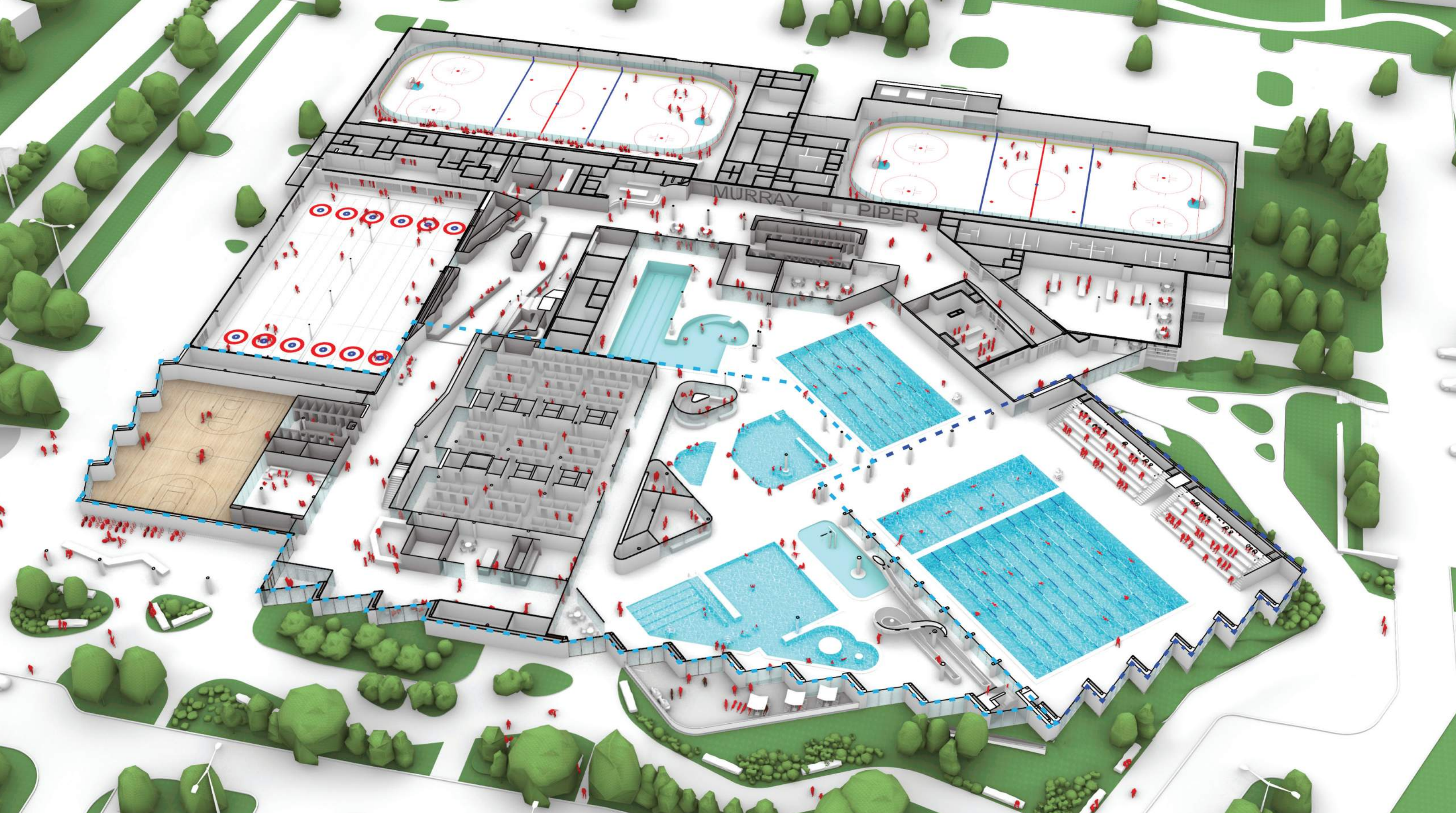
Ground Floor Plan



EXECUTIVE SUMMARY

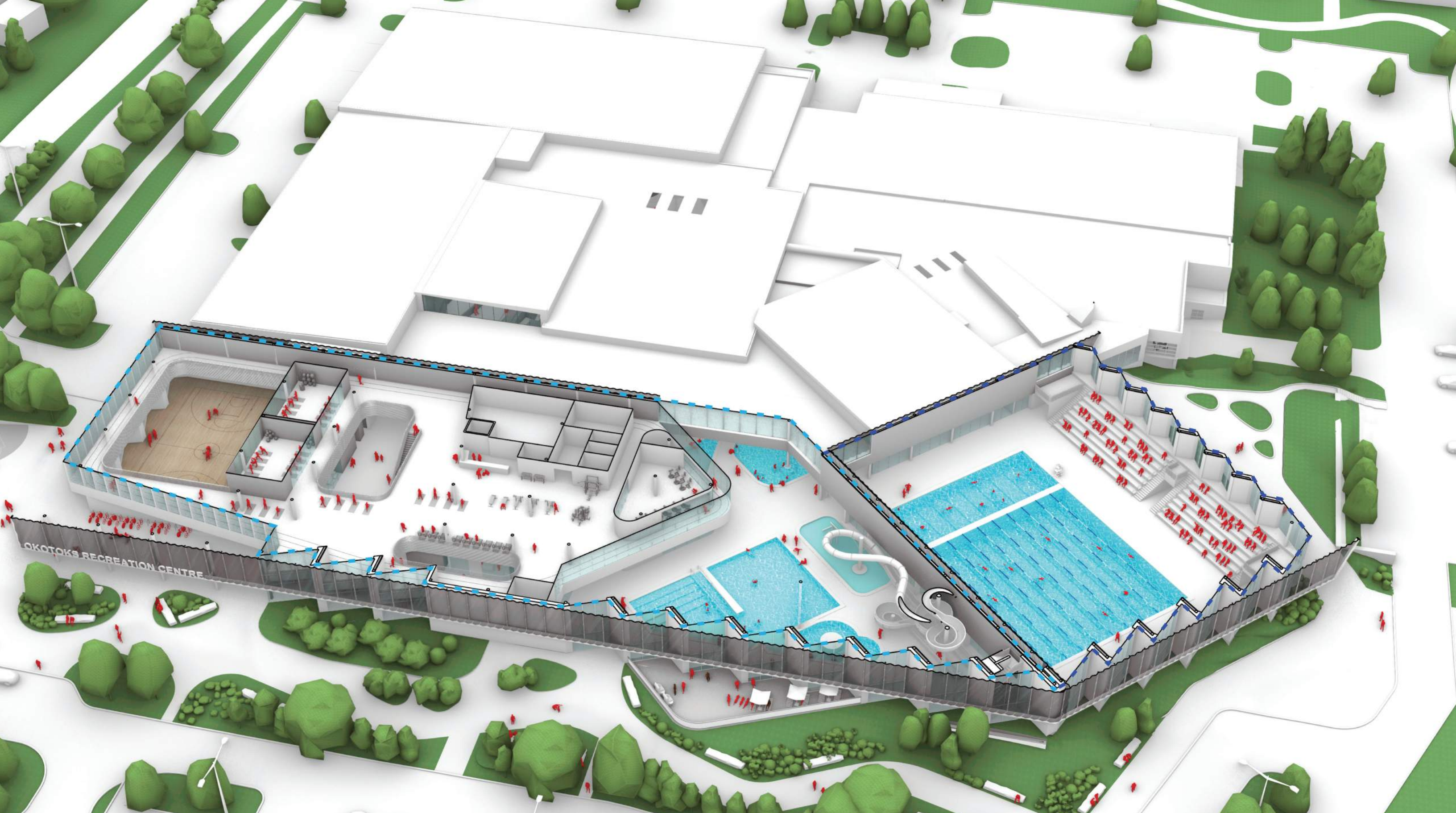
Second Floor





Ground Floor Axonometric

- PHASE 1A
- PHASE 1B
- PHASE 2



Second Floor Axonometric

- PHASE 1A
- PHASE 1B
- PHASE 2



Leisure Pool - Phase 1A



Lobby - Phase 1A



Competition Lap Pool - Phase 2



Lobby - Phase 1A



Gymnasium - Phase 1A

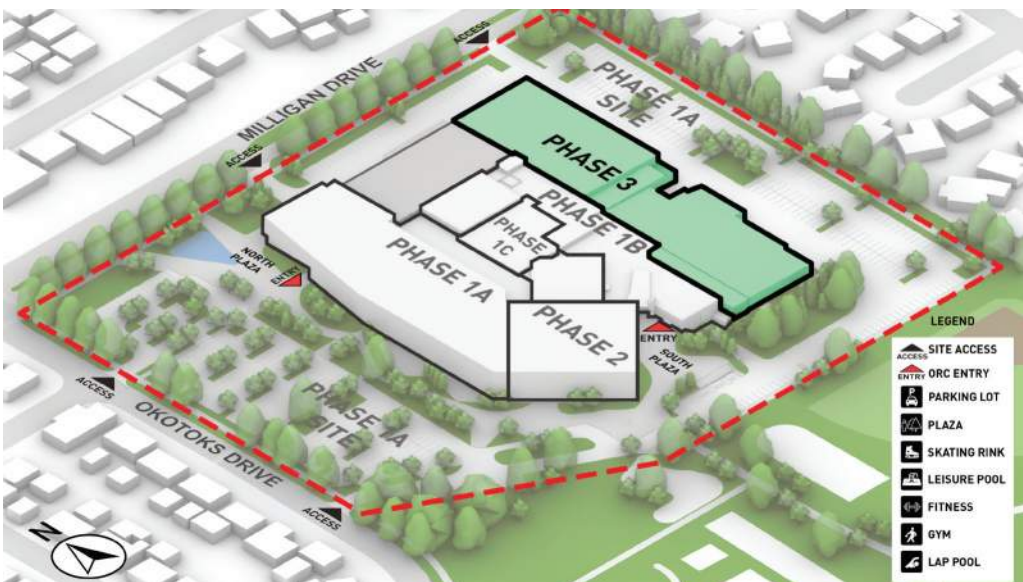
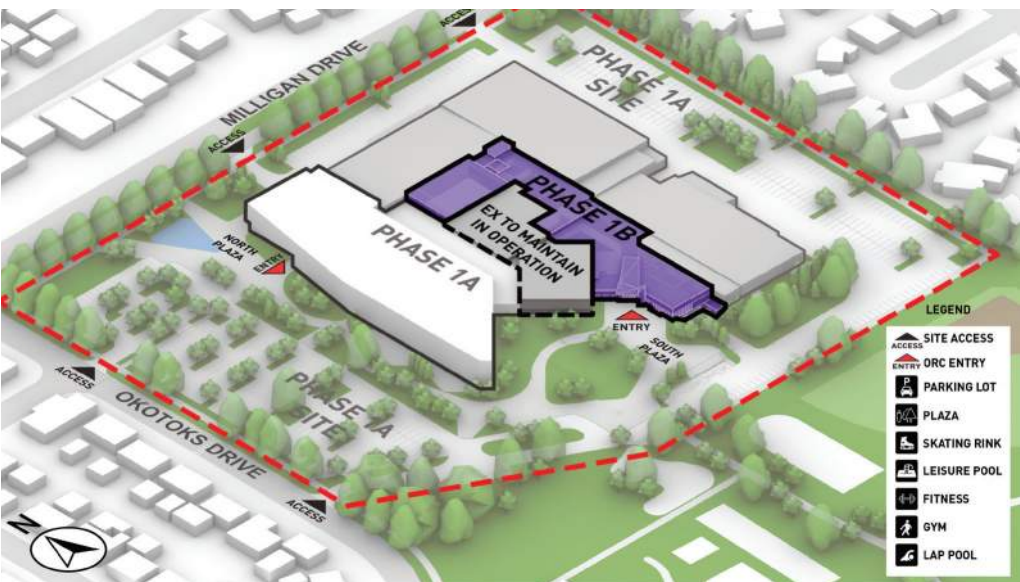
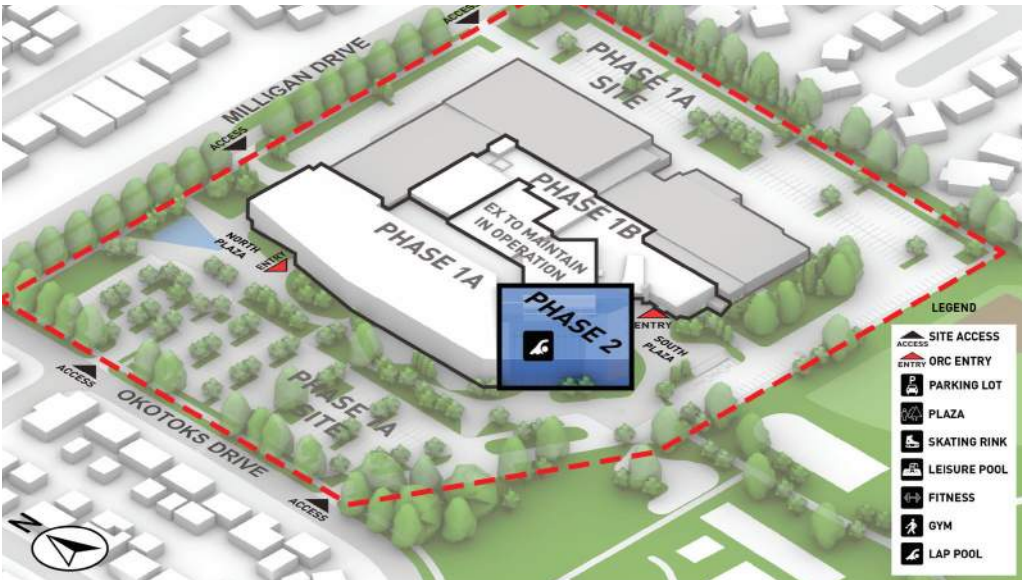
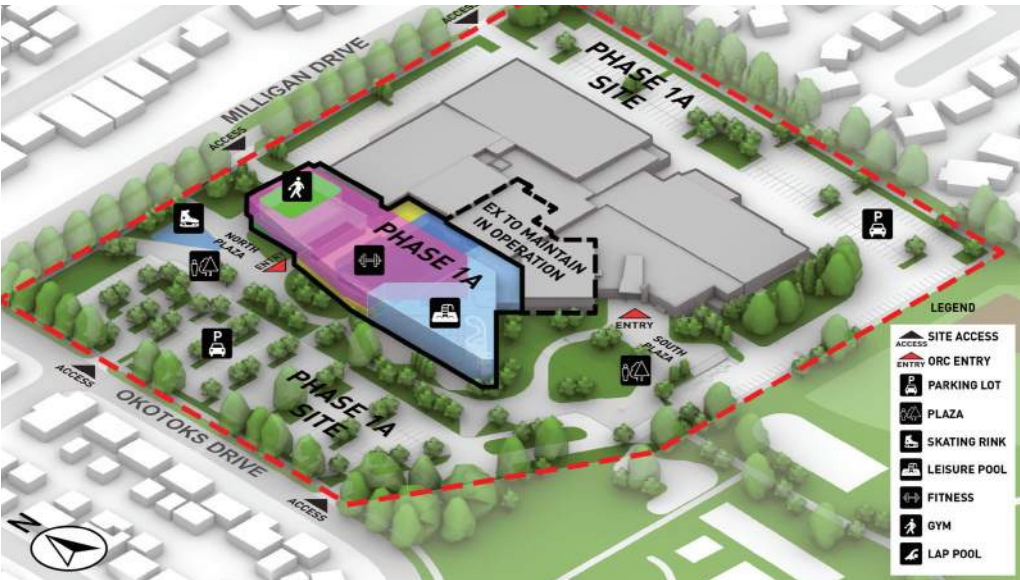
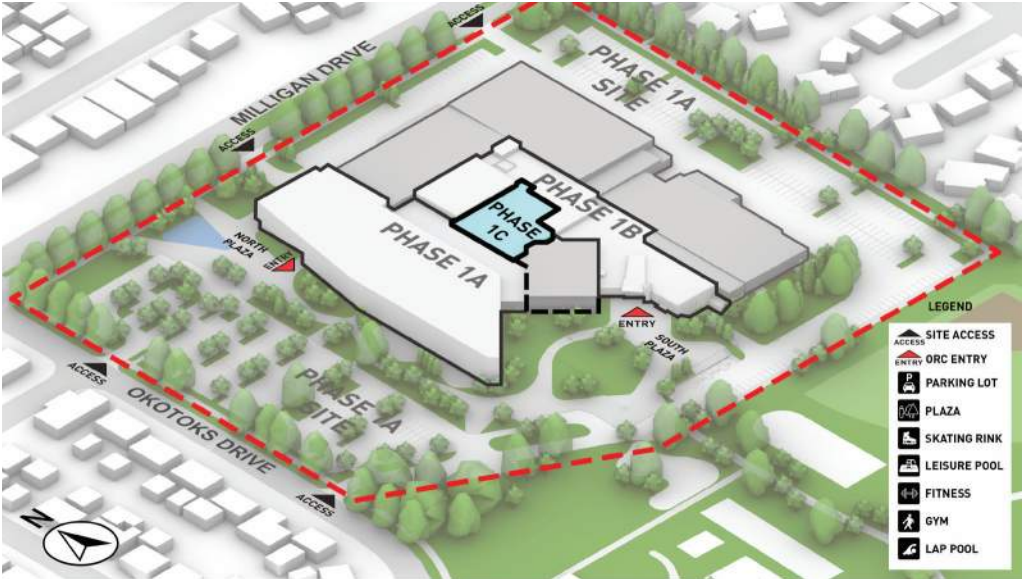
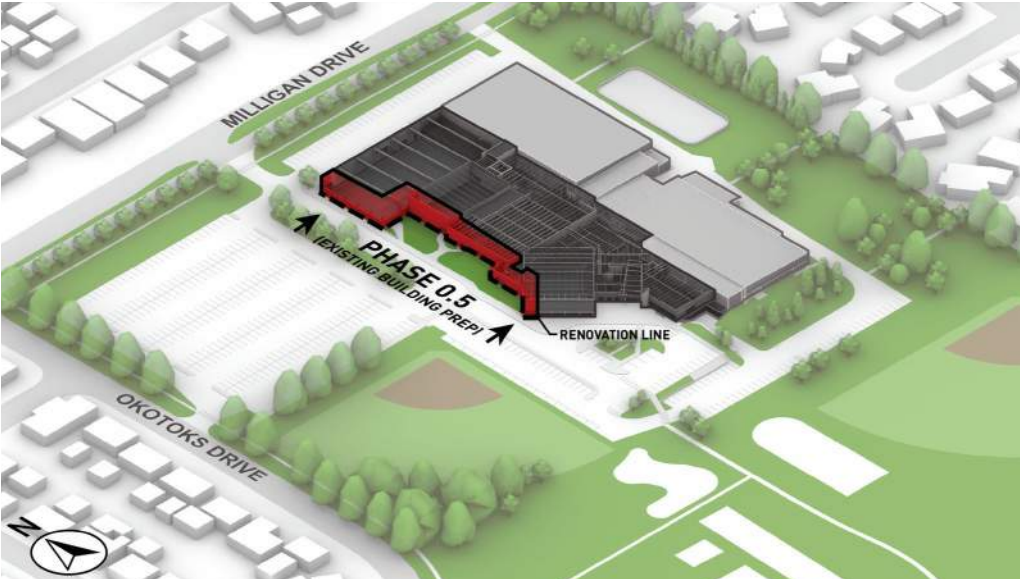


Play & Climbing - Phase 1B



Fitness Phase 1A

EXECUTIVE SUMMARY



Phasing Diagram

Phasing and Construction

The facility expansion will be delivered in phases to keep the building open and serving the community during construction.

Why Phasing Is Used

- Maintains access to recreation services.
- Reduces disruption to users.
- Aligns construction with available funding.
- Supports an efficient construction process.

How It Will Be Built

- New areas constructed alongside the existing facility.
- Existing spaces are upgraded and connected over time.
- Construction zones are managed to ensure safety and public access.

Phased Approach

- **Phase 1A & 0.5:** New leisure aquatics, fitness, gymnasium, changerooms, and support spaces
- **Phase 1B:** Renovations and integration, including play, climbing, childcare, and support areas
- **Phase 1C:** Swindells Pool upgrades (filtration, basin, and re-tiling)
- **Phase 2:** New competition lap pool with spectator seating and amenities
- **Phase 3:** Arena renovations

What This Means for the Community

- Facility remains open during construction.
- Services continue with minimal disruption.
- New amenities introduced in stages.

Why Not Build All at Once

A single-phase build may offer minor cost efficiencies but requires a much larger upfront investment and could cause major service disruptions.

Phasing allows the Town to:

- Maintain continuous operations.
- Align construction with available funding.
- Reduce financial and operational risk.
- Provide flexibility to adjust future phases as needs evolve.

Project Benefits

The Okotoks Recreation Centre Expansion will provide meaningful benefits to the community, supporting health, connection, and quality of life for residents of all ages and abilities. By increasing capacity and improving the range of amenities, the project will make it easier for more people to participate in recreation and community activities.

Health and Wellness

- More opportunities for physical activity and active lifestyles.
- Increased access to swimming, fitness, and recreational programs.
- Support for long-term physical and mental well-being.



Social Connection

- Welcoming spaces for people to gather, connect, and participate.
- Opportunities for community events and shared activities.
- A central place that brings people together.



Inclusion and Accessibility

- Improved access for individuals of all ages and abilities.
- Flexible changeroom facilities and more inclusive design.
- Spaces that support a wide range of users and needs.



Support for Families and Youth

- More opportunities for children and youth to be active.
- Safe and engaging spaces for families.
- Programs that support learning, development, and recreation.



Stronger Community Identity

- A modern, welcoming facility that reflects community values.
- A central hub for recreation, wellness, and social activity.
- A space that supports pride and connection within Okotoks.



Economic and Community Value

- Increased visitation and activity within the community
- Support for local programs, events, and employment
- Long-term value from investment in community infrastructure



Long Term Community Impact

The expansion supports a healthier, more connected, and more active community. By improving access to recreation and providing spaces that bring people together, the project helps ensure that Okotoks remains a vibrant and inclusive place to live, now and into the future.



Financial Overview

The Okotoks Recreation Centre Expansion represents a strategic investment in community infrastructure, designed to meet current service demands while supporting future growth. The project builds on the existing facility, allowing the Town to maximize the use of established infrastructure, services, and land.

Expanding the current site provides a cost-effective alternative to constructing a standalone facility. By integrating new program spaces within the existing building, the project reduces duplication, leverages existing systems, and optimizes prior capital investment.

Managing Project Costs

The project has been developed to balance community needs with financial responsibility. Key cost management strategies include

- **Phased Construction:** Implementation in stages allows capital costs to be distributed over time and aligned with funding availability.
- **Use of Existing Infrastructure:** Leveraging existing servicing, systems, and site conditions reduces the need for major new infrastructure.
- **Efficient Design:** Building organization and functional layout support long-term operational efficiency.

Capital Investment

The total capital cost has been developed based on a phased construction approach and escalated to the mid-point of construction from Q2 2026. This reflects current market conditions and assumes a phased construction start in Q3 2027 (refer to Section 4.2 – Project Schedule).

The total escalated construction cost for the project is approximately **\$129.6 million**. This value includes Phases 0.5, 1A, 1B, and 2, and incorporates general requirements, contractor fees, and design contingency.

The aquatics, play, and climbing expansion components delivered through Phases 0.5, 1A, and 1B represent the primary program drivers and a significant portion of the overall capital investment.

Operating Implications

The expanded facility will result in increased annual operating costs associated with:

- Staffing and program delivery.
- Maintenance and utilities.
- Ongoing facility operations.

These increases are expected to be partially offset by:

- Improved building efficiency.
- Expanded program and service opportunities.
- Increased facility utilization.
- More efficient staffing and operations through integration with the existing facility, reducing duplication compared to a standalone facility.

Community Value

While recreation facilities require significant capital investment, they deliver long-term community value by:

- Supporting physical and mental health.
- Providing accessible programs and services.
- Strengthening social connections.
- Enhancing overall quality of life.

Financial Outlook

The phased implementation approach enables the Town to continue providing recreation services throughout construction while managing capital investment over time. This strategy supports long-term financial sustainability but also introduces exposure to construction cost escalation.

At an assumed escalation rate of 5% annually, delays in project delivery would result in increased overall costs. Maintaining the planned schedule is therefore a key consideration in managing long-term financial risk.

1.0

PROJECT INTRODUCTION

1.0 PROJECT INTRODUCTION

1.1 Introduction & Purpose

The Town of Okotoks recognizes the importance of providing high-quality recreation opportunities that support the health, well-being, and quality of life of residents and visitors. This commitment is reflected in the Town’s strategic planning framework and in its history of investment in recreation facilities and services within the community and broader region.

The Framework for Recreation in Canada (2015; updated 2024) identifies recreation as a key contributor to health, social and cultural well-being, economic development, and environmental sustainability. These benefits form the basis for municipal investment in recreation infrastructure and services and represent the social return associated with these investments.

This Schematic Design Report has been prepared to outline the rationale, planning context, and proposed expansion approach for the Okotoks Recreation Centre (ORC). The report is intended to support informed decision-making by Town

leadership regarding future recreation service provision and capital investment. It builds on previous planning work and provides a clear link between identified community needs and the proposed facility program and design response.

Project Objectives

The primary objectives of the Okotoks Recreation Centre Expansion are to:

- Increase indoor aquatics capacity to meet current and future demand.
- Address identified recreation program and service gaps.
- Support inclusive and accessible recreation opportunities.
- Enhance facility functionality, circulation, and user experience.
- Support sustainable service delivery and long-term community growth.

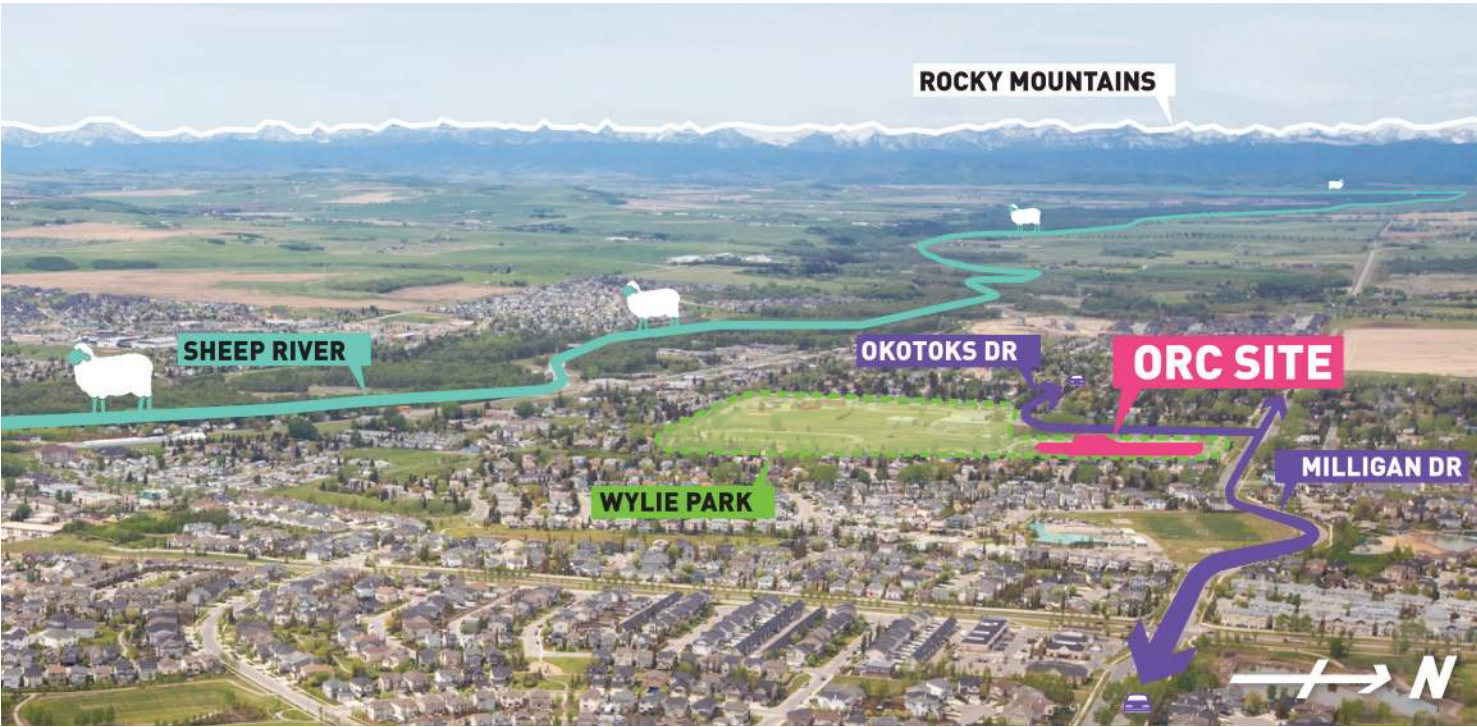


Diagram 1.1: Site Location

1.2 Project Background & Need

Facility Context and Existing Conditions

The Okotoks Recreation Centre (ORC), located at 99 Okotoks Drive, has undergone multiple phases of expansion since its original construction in 1982 and serves as the Town’s primary indoor recreation facility. The centre supports a broad range of uses, including aquatics, arena sports, fitness, and multipurpose programming, and functions as a central community hub for recreation, wellness, and social connection.

As the Town of Okotoks has grown, utilization of the ORC has increased steadily and now operates at or near capacity across several key program areas. Aquatics, gymnasium, and multipurpose spaces are heavily scheduled, particularly during evenings, weekends, and peak seasonal periods. This level of demand limits operational flexibility, reduces the ability to accommodate concurrent activities, and constrains opportunities to expand or diversify services within the existing facility footprint.

The current building configuration, developed incrementally through successive expansions, also contributes to these operational challenges. Circulation between spaces is not always intuitive, and some areas are difficult to access or supervise, affecting both user experience and overall facility efficiency.

Capacity and Service Gaps

In addition to overall capacity pressures, the ORC lacks several amenity types that are now considered standard in contemporary municipal recreation centres. These gaps include limited leisure-oriented aquatics, insufficient lane swimming capacity during peak periods, constrained space for lessons and rentals, indoor climbing and active play opportunities, indoor child play environments, and flexible multipurpose spaces that can accommodate a range of programs and user groups.

Aquatics represents the most significant area of demand and the primary driver for expansion. The existing aquatic facilities cannot effectively support simultaneous use for lane swimming, lessons, leisure activities, and rentals. As a result, scheduling conflicts occur, wait lists persist, and access to unprogrammed or drop-in use is limited.

Collectively, these capacity constraints and service gaps limit the Town’s ability to meet current community needs, respond to evolving recreation trends, and provide equitable access to recreation opportunities for a growing and diverse population.

Implications of the Do-Nothing Scenario

Without expansion or continued reinvestment, projected population growth and sustained demand will intensify these existing pressures. Capacity shortfalls will increase, resulting in longer wait lists, reduced program availability, and declining access to both structured and unstructured recreation opportunities.

These impacts are expected to be most pronounced in aquatics, where existing limitations in lane capacity, leisure space, and program delivery will continue to constrain access as demand grows. Over time, these conditions will reduce opportunities for physical activity and social connection, negatively affecting overall community well-being and quality of life.

1.0 PROJECT INTRODUCTION

1.3 Planning Foundations

The proposed expansion of the Okotoks Recreation Centre is supported by a series of municipal planning initiatives that identify the need for additional recreation capacity and guide the type, scale, and timing of facility development.

Key planning documents informing the proposed expansion include:

- **Recreation, Parks and Leisure Master Plan (2017, updated 2023)**
Identifies priority investments in indoor aquatics, climbing, and flexible recreation spaces.
- **Community Amenities Off-Site Levy Study (2022)**
Establishes expansion of the existing ORC as the preferred approach and defines the baseline facility program.
- **Town of Okotoks Growth Strategy**
Provides population projections supporting increased demand for recreation infrastructure.
- **Additional Municipal and Regional Planning Initiatives**
Inform accessibility, sustainability, and long-term infrastructure planning priorities

The proposed expansion implements these planning directions by translating identified needs into a coordinated facility program and site development approach

Additional supporting materials are provided in Appendix A11.

1.4 Market Context

The Town of Okotoks is experiencing sustained population growth, contributing to increased demand for indoor recreation facilities that support year-round use. Demographic trends, including a strong youth population and increasing participation in health and wellness activities, are driving demand for both structured programming and unstructured recreation opportunities.

Existing recreation facilities within the Town and surrounding region are highly utilized, with many operating at or near capacity during peak periods. While regional facilities contribute to overall service provision, they do not fully meet local day-to-day recreation needs, and residents continue to rely primarily on local facilities.

Current recreation trends indicate increasing demand for:

- Flexible and multipurpose spaces
- Inclusive and accessible environments
- Leisure-oriented aquatics and wellness-focused amenities
- Opportunities to support both program-based and drop-in use

These trends are consistent with broader provincial and national directions for recreation facility planning and reinforce the need to align facility capacity and amenities with evolving user expectations.

Additional information about the market context for recreation facility investment can be found in the Appendix A11.

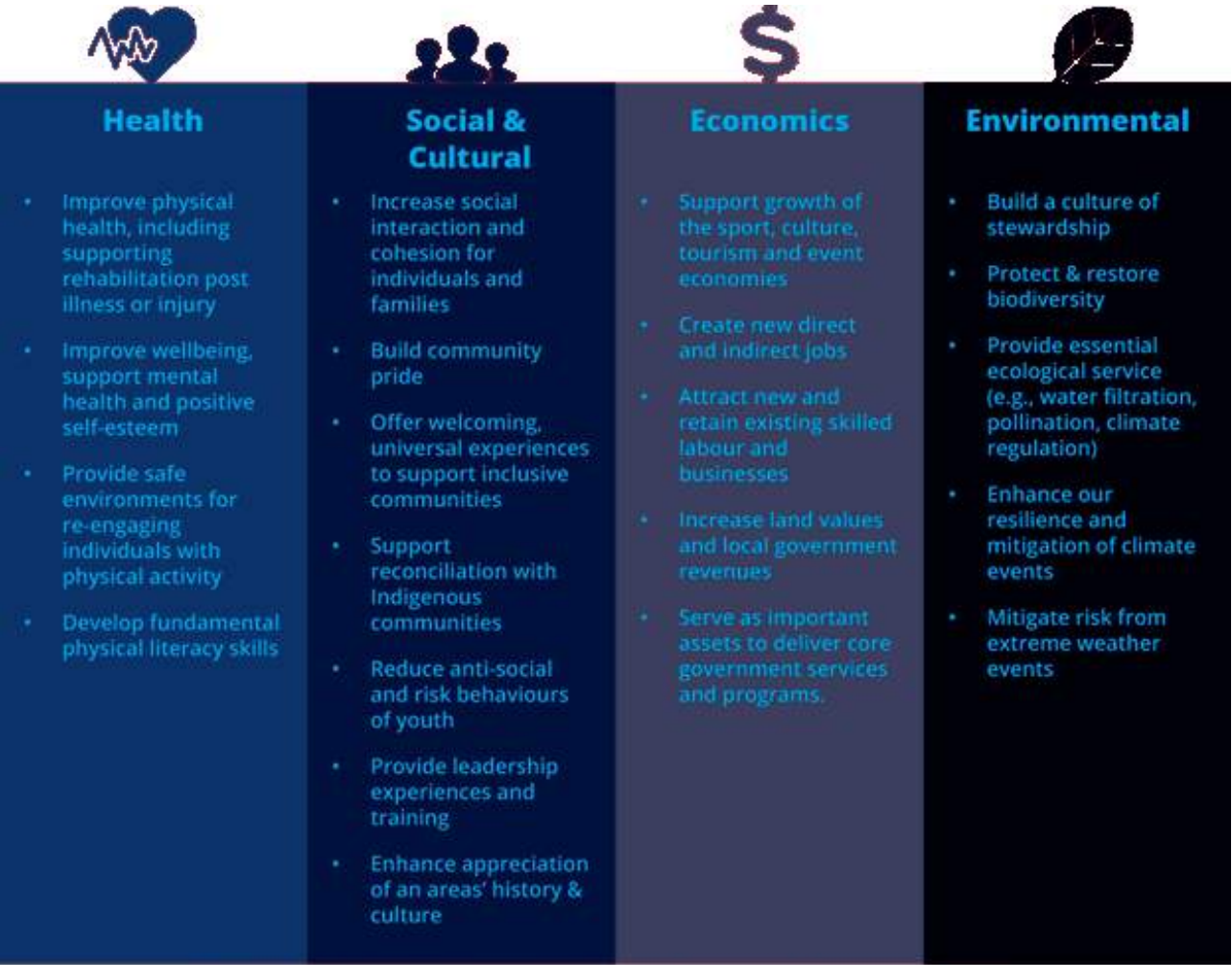


Existing Site

1.0 PROJECT INTRODUCTION

1.5 Social Impacts and Community Benefits

Recreation facilities provide measurable community benefits across physical health, mental well-being, social connection, and economic activity. The Framework for Recreation in Canada (2015; updated 2024) identifies recreation as a contributor to multiple interrelated outcomes, including physical and mental health, social and cultural well-being, economic value, and environmental sustainability. These outcomes form the basis for municipal investment in recreation infrastructure and services, reflecting the broad role that such facilities play in supporting healthy, inclusive, and resilient communities.



Sources include the Framework for Recreation in Canada (2015/2024) and Measuring Impact.ca.

Figure 1.1: Benefits of Recreation

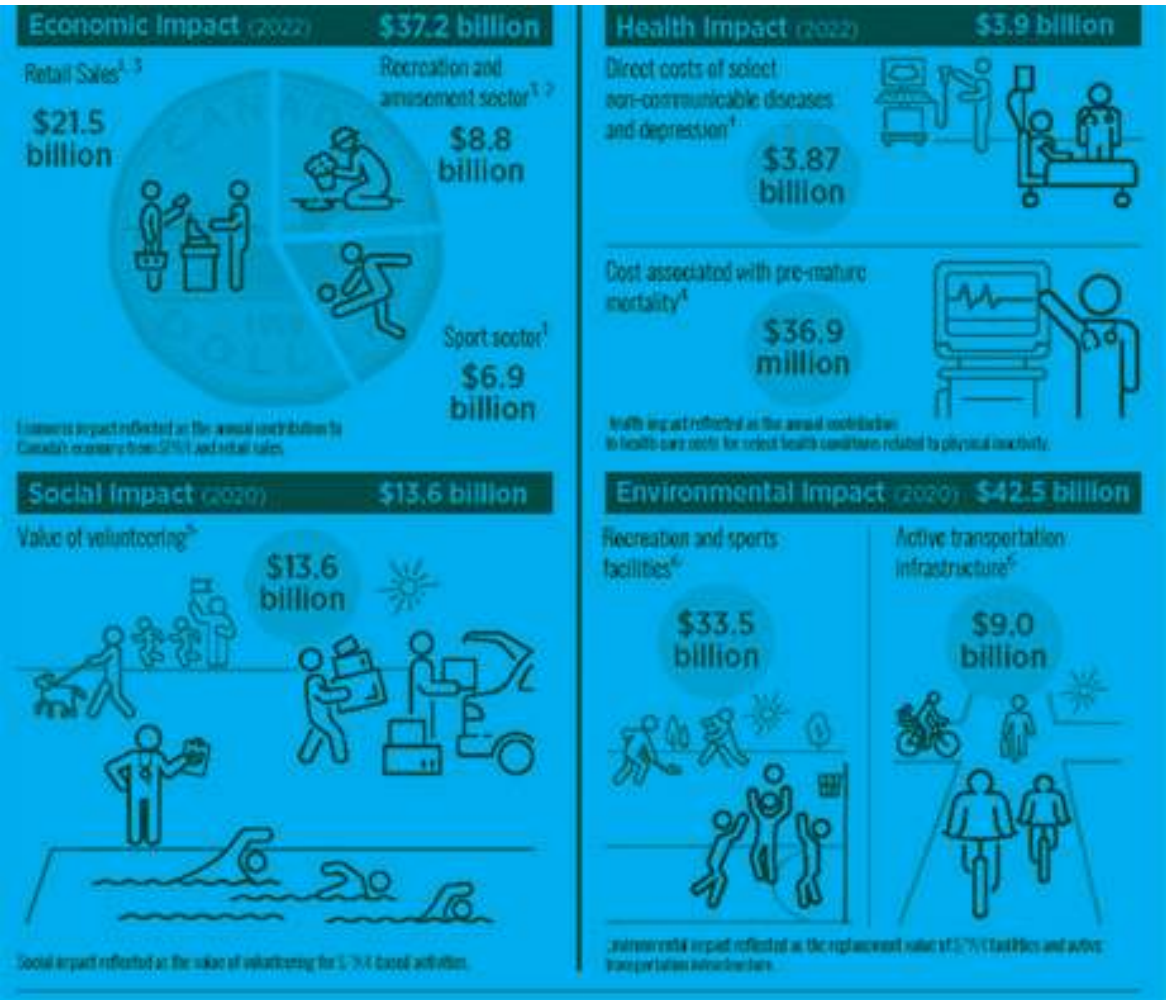


Figure 1.2: Measuring Impact

Social Return on Investment

For municipalities, investment in recreation facilities is not solely a response to service demand, but also a strategic initiative that delivers measurable community benefit. Often referred to as social impact or social return, these benefits represent the value communities receive relative to the cost of providing recreation services. Unlike revenue-generating infrastructure, public recreation facilities operate as community assets where the return on investment is realized through improved quality of life, increased social cohesion, and long-term health outcomes.

National research further reinforces the scale of this impact. Studies by organizations such as the Canadian Parks and Recreation Association and the Canadian Fitness and Lifestyle Research Institute estimate that recreation contributes approximately \$37.2 billion in economic activity, \$3.9 billion in health-related impacts, and \$13.6 billion in social value annually across Canada. These findings underscore the importance of continued investment in recreation infrastructure as a means of supporting both individual well-being and broader community development.

1.0 PROJECT INTRODUCTION

Role of Aquatics Infrastructure

Within this context, indoor recreation facilities, particularly aquatics, play a significant role. While they require substantial capital and operational investment, they provide a wide range of direct and indirect benefits. Aquatic environments support physical activity, sport development, therapeutic recreation, and the development of essential life skills such as swimming and water safety.

Swimming and aquatic exercise are among the most accessible forms of physical activity, supporting individuals of all ages and abilities, including older adults and those recovering from injury. These environments provide a safe and supportive setting for maintaining physical activity, reducing health risks, and supporting long-term wellness.

Key Community Benefits

Public recreation facilities, and aquatics amenities in particular, function as important community places that support a wide range of outcomes:

- **Health and Wellness**
Support physical activity, rehabilitation, and mental well-being, including opportunities for low-impact exercise and lifelong fitness.
- **Social Connection and Inclusion**
Provide welcoming spaces for interaction, community gathering, and inclusive participation across diverse user groups.
- **Youth Development and Engagement**
Support physical literacy, skill development, and positive social opportunities for youth.
- **Community Identity and Belonging**
Strengthen sense of place and civic pride through shared community spaces.
- **Economic and Community Development**
Contribute to local employment, attract visitors and events, and support broader economic activity.
- **Public Safety and Life Skills**
Provide opportunities for learning essential skills such as swimming and water safety.

When well planned and effectively managed, recreation facilities can also contribute to addressing broader societal challenges, including physical inactivity, mental health concerns, and the need for accessible and inclusive public spaces.

Project Relevance

The proposed expansion of the Okotoks Recreation Centre is intended to strengthen these outcomes by increasing access to recreation opportunities, improving the quality and functionality of existing facilities, and introducing a broader range of inclusive and adaptable spaces. In doing so, the project supports not only recreation service delivery, but also the long-term health, well-being, and resilience of the community.

Table 1.1 : Impact Area and Relevance to ORC

Impact Area	Description	Relevance to ORC
Physical Health	Supports active lifestyle and reduces risk of chronic disease.	Expanded aquatics and recreation spaces increase participation.
Mental Well-being	Supports stress reduction and overall wellness.	Leisure and wellness spaces provides diverse opportunities.
Social Connection	Encourages community interaction and engagement.	Community hub and multipurpose spaces foster gathering.
Inclusion and Accessibility	Enables participation for diverse users.	Flexible changeroom facilities and more inclusive facility design.
Youth Development	Builds skills and supports physical literacy.	Aquatics, climbing, and play spaces support youth programming.
Community Identity	Strengthens sense of place and belonging.	Modernized facility reinforces ORC as a key destination.
Economic Benefit	Supports employment and local activity.	Increased visitation and events support the local economy.
Public Safety and Life Skills	Supports learning of essential skills.	Expanded aquatics improves access to swim lessons.
Resilience and Community Support	Provides adaptable community space.	Flexible design supports long-term community needs.

1.0 PROJECT INTRODUCTION

1.6 Why This Site

Preferred Site and Development Approach

The selection of the existing Okotoks Recreation Centre as the preferred development approach is based on a review of alternatives completed through previous municipal planning studies, including the Community Amenities Off-Site Levy Study (2022). Options considered included a new standalone facility, expansion of the existing Recreation Centre, and distributed facility models.

Expansion of the existing site was identified as the preferred option because it provides the most effective response to population growth, facility capacity shortfalls, and financial considerations. Existing recreation amenities in Okotoks, particularly aquatics and ice, operate at or near capacity during peak periods, and projected population growth is expected to further increase demand.

Expanding the existing Recreation Centre is more cost-effective than constructing a new facility. The project leverages existing land, utilities, parking, and support infrastructure, avoiding the duplication of major building systems and site servicing. It also builds on an established community destination, maintaining a centralized recreation hub that is accessible and familiar to residents.

Consolidating aquatics, fitness, and community amenities in one location supports long-term operational efficiency by allowing staffing, maintenance, and administration to be shared across the facility. This approach also allows for phased implementation aligned with funding availability and growth while addressing identified service gaps in a practical and financially responsible manner.

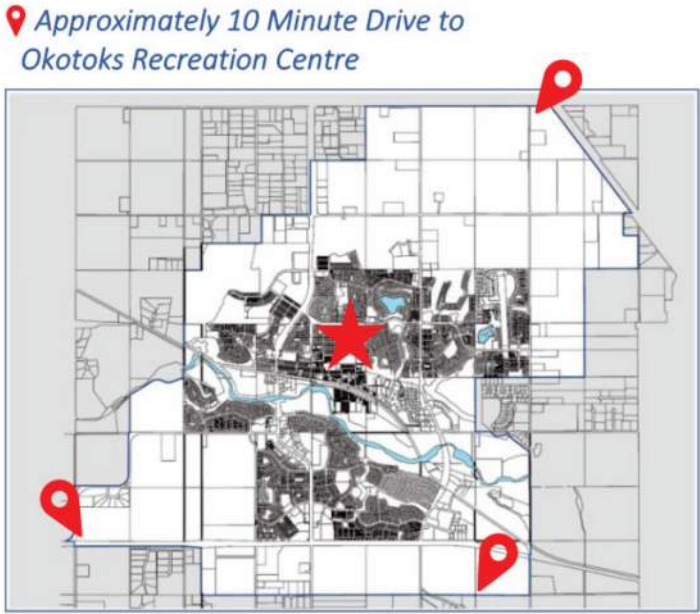
Overall, expansion of the existing Okotoks Recreation Centre represents a practical, financially responsible, and strategically aligned approach to meeting long-term recreation needs..

Economic Viability

The proposed expansion represents a financially responsible approach to addressing long-term recreation demand. By leveraging existing infrastructure and servicing, the project reduces capital costs and minimizes the need for duplicate building systems when compared to development of a new standalone facility.

The expansion approach also supports long-term operational efficiency through consolidation of recreation amenities at a single location. Phased implementation allows capital investment to be managed over time and aligned with available funding and population growth.

Collectively, these factors support the economic viability of expanding the existing Recreation Centre to meet current and future community needs.



Source: Community Amenities Off-Site Levy Study (2022)



Diagram 1.2: Site Location and Adjacencies

1.0 PROJECT INTRODUCTION

1.7 Existing Site Conditions & Overview

The Okotoks Recreation Centre (ORC) is located at 99 Okotoks Drive in Okotoks, within an established municipal recreation precinct in the northern portion of the community. The site benefits from strong visibility, established vehicular access, and connections to pedestrian and active transportation networks.

The existing facility occupies a large, developed parcel that accommodates the building footprint, surface parking, and internal circulation routes. The current configuration reflects the evolution of the facility over time, resulting in a building form and site layout that are functionally established but constrained in certain areas.

Site Context and Access

The site benefits from strong visibility and accessibility, reinforcing its role as a primary community destination for recreation activities. Vehicular access is provided via Okotoks Drive, with defined entry points to parking areas and building entrances. Pedestrian access is supported through sidewalks and pathways connecting surrounding neighbourhoods and community amenities.

Existing Facility Relationship to Site

The building is oriented to support multiple program areas, including aquatics, arenas, fitness, and multipurpose spaces. These uses are distributed across the site in a manner that reflects the current operational layout, with circulation and access points developed to accommodate high volumes of users throughout the day.

Parking and drop-off areas are located adjacent to primary entrances and are heavily utilized during peak periods. The relationship between the building, parking, and site circulation is a key consideration in planning for expansion, particularly in maintaining safe and efficient access during construction.

Site Constraints

The existing development pattern introduces several constraints that influence expansion planning:

- Limited availability of undeveloped land immediately adjacent to key program areas.
- Established building structure and circulation patterns resulting from previous expansions.
- Requirement to maintain continuous operation of the facility during construction.

- Existing servicing infrastructure that must be maintained or upgraded in place.
- High utilization of parking and access routes, particularly during peak periods.

These constraints require a carefully coordinated approach to site planning and building integration, particularly in maintaining operations during phased construction.

Site Opportunities

Despite these constraints, the site also presents opportunities that support expansion:

- Ability to leverage existing infrastructure, including utilities and servicing.
- Established community familiarity with the location as a recreation destination.
- Potential to expand in defined areas while maintaining existing operations.
- Opportunity to improve site circulation and accessibility as part of redevelopment.

These constraints and opportunities have directly informed the site planning strategy and phased implementation approach described in Section 4.0.



Image 1.1: Existing Facility Main Entrance

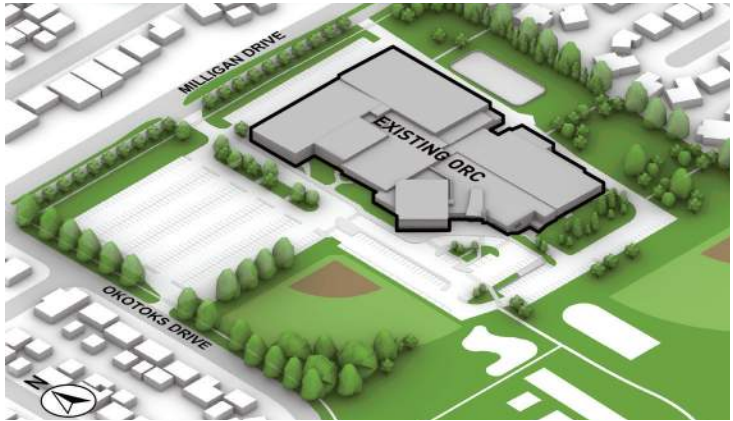
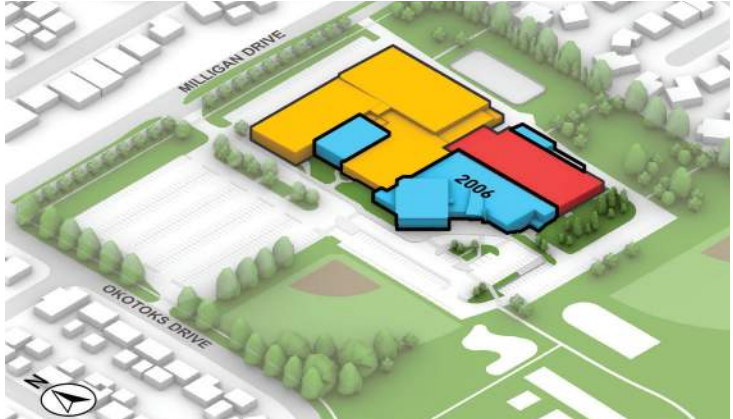
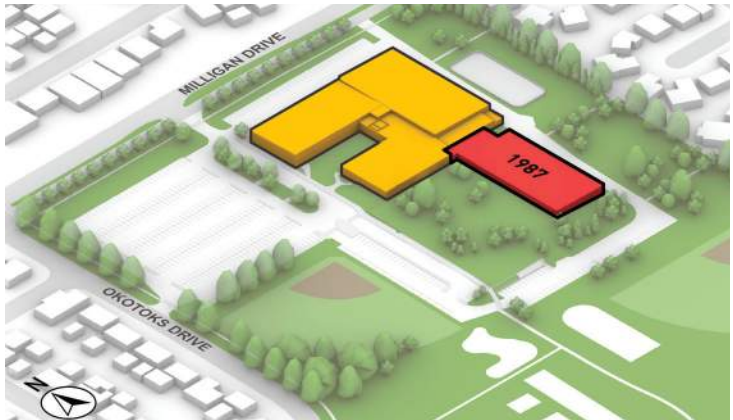
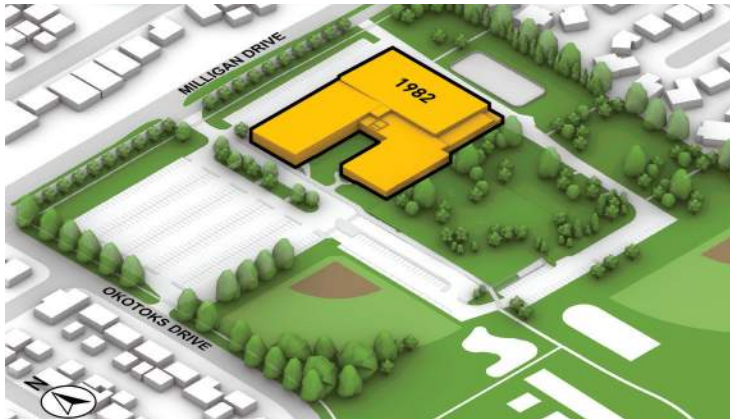


Diagram 1.3: Existing Phasing

2.0

AQUATICS, PLAY & CLIMB

2.1

Concept Design

- Program Needs
- Program Drivers
- Program Specific Considerations
- Program Overview
- Program Validation
- Design Evolution
- Functional Program (Aquatics Phase 1A, 1B, 2)
- Initial Concepts
- Selected Concept

2.0 AQUATICS, PLAY & CLIMB

2.1.1 Program Need

The aquatics program responds to the capacity constraints, service gaps, and operational limitations identified in Section 1.2 by expanding water area, improving functional organization, and supporting a greater range of concurrent activities.

The program is designed to expand water area and provide clear separation between different activity types, including lane swimming, lessons, leisure use, and rentals. This approach reduces scheduling conflicts, improves access to both programmed and unprogrammed use, and supports a broader range of user groups.

In addition to aquatics, the program introduces new recreation opportunities and expands existing dryland spaces to address identified gaps in service. These additions increase the diversity of programming and enhance the facility's ability to serve a growing and changing population.

Functional relationships between program areas are also improved to support operational efficiency. Clearer adjacencies, enhanced visibility, and improved circulation reduce congestion, support supervision, and create a more intuitive user experience.

Overall, the program balances increased capacity with long-term flexibility, allowing the facility to adapt to changing participation patterns and future recreation needs.

2.1.2 Program Drivers

The development of the facility program is influenced by a combination of demographic growth, sustained utilization of existing amenities, and evolving expectations for municipal recreation facilities. Population growth within Okotoks and the surrounding region continues to increase demand for year-round indoor recreation opportunities.

Recreation trends indicate increasing demand for **flexible, inclusive, and multi-purpose environments** that support both structured programming and informal, drop-in use. Leisure aquatics, climbing, and social recreation spaces have become important components of contemporary recreation facilities

Operational performance is also a key driver. Facilities must support efficient staffing, effective supervision, and clear circulation, particularly during peak periods. Program organization and adjacency therefore play an important role in overall functionality.

Flexibility and long-term adaptability is another critical factor. Recreation facilities must be capable of accommodating changing participation patterns and evolving program needs over time. The program is therefore designed to provide flexibility and resilience over the life of the facility.

Together, these drivers establish the strategic framework that informs the scale, mix, and organization of program elements within the facility.

Leisure Pool - Lake Country CO-OP Leisure Centre



Community Kitchen - Bostwick Community Centre



Indoor Play - East Gwillimbury

2.1.3 Program Specific Considerations

Aquatics, indoor climbing, and indoor play are identified as primary program drivers for the proposed Okotoks Recreation Centre Expansion, reflecting documented gaps in current community service levels as outlined in previous planning work, including the Recreation, Parks and Leisure Master

Plan (2017, updated 2023). As such, the following sections outline key considerations influencing the schematic design of the initial phase of the ORC expansion. Additional detail related to each program area is provided in the Appendix A11.

Aquatics

Key considerations related to public aquatics services:

- Public aquatics spaces are important community gathering spots that promote physical activity, lifesaving skills, and social connection.
- There are seven different types of activities that occur in effective and functional indoor public aquatics facilities; accommodating all of these activity types should be prioritized in designing public aquatics spaces and the ability to host concurrent activities is ideal to garnering as much benefit as possible from investment made.
- Public aquatics users are expecting more in terms of quality, access, functionality and aesthetic.
- More public aquatics facilities are incorporating therapeutic and wellness-focused spaces.
- Accessibility in all forms is top of mind for contemporary public aquatics facility design and operations.
- Environmentally friendly design, engineering, and operations is a priority for contemporary public aquatics facilities.

Indoor Climbing

Key considerations related to public climbing facilities:

- Indoor climbing offers numerous physical and mental health benefits to users and to the broader communities in which they are situated.
- Indoor climbing is growing in popularity, especially in areas with proximity to mountain areas.
- Climbing features are a common, but not widespread, amenity in public recreation facilities across Canada.
- There are three primary types of indoor climbing amenities: bouldering, top-rope, and lead. Most public climbing facilities feature bouldering or top-rope features.

Indoor Play

Key considerations related to public indoor child play spaces:

- Indoor play spaces offer many of the same community benefit to outdoor playgrounds with the added convenience and security of being able to be offered year round regardless of weather conditions.
- These family centred spaces create a “park-like” atmosphere indoors and promote physical literacy and social interaction for children and youth as well as social connection for their parents and chaperons.
- Trends in indoor play include integrated and immersive technologies, inclusive and sensory-friendly design, and nature inspired experiences.

Flexible Washrooms & Changerooms

Key considerations:

- Changeroom facilities are designed to support inclusive and flexible use, incorporating a combination of private change areas and group changerooms to accommodate a wide range of users and preferences.
- This approach supports caregivers, families, and individuals requiring assistance, while aligning with contemporary recreation facility design standards.
- The inclusion of private change areas and shared changerooms improves visibility and supervision, contributing to user comfort and operational safety.
- A coordinated changeroom layout can also simplify operations and maintenance compared to traditional fully separated configurations.
- Flexible configuration allows the facility to adapt to changing user needs, service models, and regulatory requirements over time.

Leisure Pool - Orillia Recreation Centre



Indoor Climbing - Seneca College



Indoor Play - East Gwillimbury



Accessible Changeroom - Orillia Recreation Centre



2.0 AQUATICS, PLAY & CLIMB

2.1.4 Program Overview

The proposed program expands the Okotoks Recreation Centre to include a coordinated mix of aquatic and dryland recreation spaces organized to support efficient circulation and clear relationships between major program areas.

The **aquatics** components include both leisure-oriented and lane-based facilities. Leisure water areas provide spaces for unstructured use, while the lap pool accommodates fitness swimming, training, and competitive activities. Supporting elements such as changerooms, deck space, and spectator areas are integrated to serve these uses.

Dryland program areas include climbing facilities, fitness and wellness spaces, and multipurpose rooms. These spaces accommodate a range of recreation, instruction, and community-based activities and are distributed to support functional adjacency with related program areas.

Additional program components include indoor play areas and youth-oriented spaces, as well as administrative, support, and public amenity spaces located throughout the facility.

The overall program is arranged to provide a clear and legible organizational structure, with logical connections between spaces and efficient circulation throughout the facility.

2.1.5 Program Validation

The facility program was reviewed, validated, and refined through the pre-design and schematic design phases in collaboration with the Town of Okotoks. This process built on the program established in the Community Amenities Off-Site Levy Study (2022) and focused on confirming the overall program size, mix of spaces, and functional relationships.

Program areas and space allocations were assessed to ensure that the facility operates effectively as an integrated system. This included reviewing adjacencies between major program components, circulation paths, and the ability to support multiple activities simultaneously.

As part of this process, targeted adjustments were identified to improve overall functionality, operational performance, and user flow throughout the facility. These refinements were evaluated collectively to confirm coordination between aquatic and dryland amenities, as well as alignment with operational requirements.

The validated program reflects a coordinated approach to space planning and organization, supporting efficient operations, clear circulation, and functional relationships between program areas.

Refer to Section 2.1.7 for the full Functional Program.

Key adjustments to the program resulted in an overall increase in total gross program area, summarized below:

- Addition of pool tunnels: **1,400 m²**
- Enhanced public circulation: **1,000 m²**
- Gymnasium relocation: **665 m²**
- Expansion of lap pool: **765 m²**
- Additional leisure water area: **680 m²**
- Fitness track addition: **655 m²**
- Miscellaneous program adjustments (approx. 10%): **430 m²**

Total Program Area Increase: **5,234 m²**

The facility program increased from **9,687.5 m²** to **15,1174 m²**, reflecting the additional circulation, pool support spaces, expanded aquatics, and improved dryland recreation amenities.

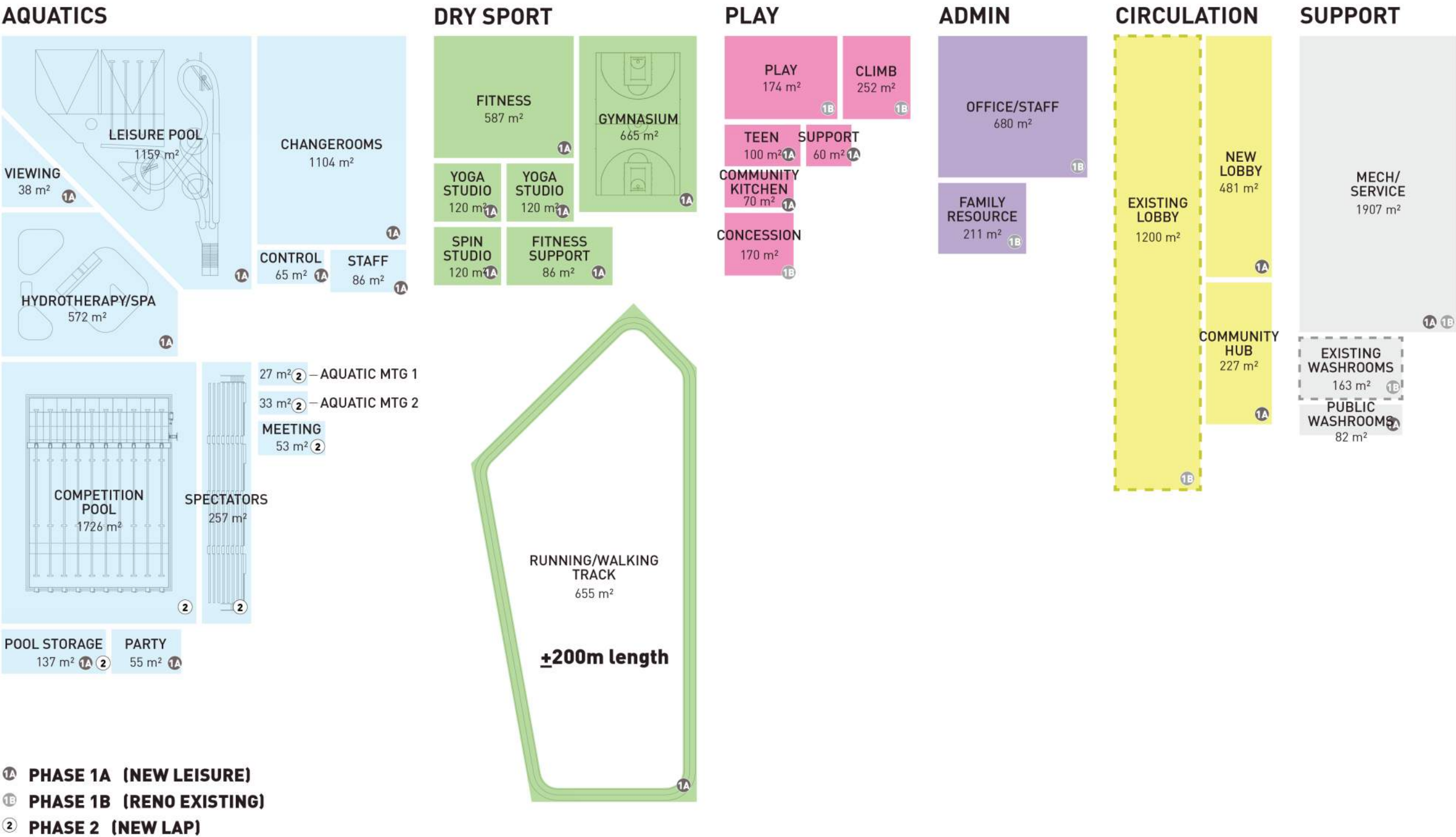
(Rationale for these adjustments is provided in Section 2.1.6 – Design Evolution.)



Fitness Track - Bostwick Community Centre

2.0 AQUATICS, PLAY & CLIMB

2.1.5 Program Validation



2.0 AQUATICS, PLAY & CLIMB

2.1.6 Design Evolution

Following confirmation of the facility program, the design was advanced to translate program requirements into a coordinated and implementable building solution. The design evolution focused on resolving spatial organization, circulation, constructibility, and integration with the existing facility.

Pool Tunnels Addition

Pool tunnels were incorporated into the design to support long-term operational performance of the aquatics program. These spaces provide dedicated access for mechanical systems, maintenance activities, and servicing without disrupting public areas. Integrating pool tunnels improves lifecycle reliability, supports efficient facility operations, and reduces the need for future intrusive upgrades as infrastructure systems age.

Existing Hot Tub Removal

The existing hot tub was removed to facilitate structural integration between the new expansion and the existing building. This change presented an opportunity to reconfigure aquatic amenities to better reflect contemporary recreation expectations and broader community needs. Replacement leisure and therapeutic water features have been integrated within the expanded aquatics program, providing improved functionality, accessibility, and distribution of users across the aquatic environment.

Fitness Track Addition

A fitness track was incorporated to expand the range of unprogrammed and low-barrier fitness opportunities within the facility. The track supports users of varying ages and abilities and provides an alternative fitness option that complements existing wellness and training spaces. Its integration also assists in distributing users throughout the building, reducing pressure on high-demand program areas and supporting efficient daily operations.

Additional Public Circulation

Public circulation spaces were increased and refined to address anticipated growth in user volumes and support safe, efficient movement throughout the facility. Enhanced circulation improves wayfinding, reduces congestion during peak periods, and strengthens connections between major program areas. These refinements are critical to maintaining a positive user experience and ensuring the facility can operate effectively as participation increases over time.

Aquatics Program Development

Lap Pool Configuration

The lap pool configuration evolved, from a 25m to 24m long basin, to improve functionality and support a range of aquatic activities within a single basin. A 10-lane 25m longpool would have largely met current demand but would have limited future growth and reduced the facility's usable life. Expanding and incorporating a movable bulkhead the pool basin increases lane capacity and deck space, supporting fitness swimming, instruction, and competition while enabling concurrent uses.

Operationally, the larger basin improves scheduling flexibility, reduces conflicts between programmed and drop-in use, and enhances circulation, supervision, and safety. Flexible configurations allow the pool to support multiple activities throughout the day, improving utilization efficiency and reducing the need for near-term future expansion.

Leisure and Therapeutic Water

Leisure and therapeutic water elements were incorporated to reflect contemporary recreation expectations and support unstructured, family-oriented use. These spaces improve accessibility and serve users of varying ages and abilities.

From an operational perspective, dedicated leisure water helps distribute users across the aquatics environment, reducing pressure on the lap pool and supporting simultaneous programming. This improves staffing efficiency, circulation, and overall functionality, contributing to a balanced and adaptable aquatics program.

Gymnasium Relocation

During the pre-design phase, the gymnasium location identified in the Community Amenities Off-site Levy Study (2022) was tested against detailed servicing, mechanical, and operational constraints. This review confirmed that using the service and mechanical storage area adjacent to the Swindells entrance as a primary access point was not feasible due to the concentration of building services and the need to maintain uninterrupted pool operations.

As a result, the gymnasium was relocated to support a revised access strategy on the west side of the building. This adjustment improves constructibility, maintains facility operations during construction, and enhances building organization, circulation clarity, and functional adjacencies with other dryland program areas.

2.1.7 Functional Program (Aquatics Phase 1A, 1B & 2)

OKOTOKS AREA CALCULATION - PROPOSED - 260303											
Department	Reference #	Phase	Program	Units	Nm2/Unit	Net Area (m2)	BASE FUNCTIONAL PROGRAM AREA (m2)	CHANGE IN AREA (m2)	CHANGE IN AREA (%)	BASE FUNCTIONAL PROGRAM CHANGE	Description
1.0 AQUATICS	1	1A	LEISURE POOL	1		1769	1089.0	680.0	62%		Includes ALL Deck Areas
			Leisure Pool - Stair Entry		1159						ToO Note - Flat Water not wave.
			Leisure Pool - Play Area								
			Leisure Pool - Lazy River								
			Tot Spray Pool - Spray + Play features								
			Waterslide - 2 Slides + Tower								
			Hydrotherapy Pool (Hot Tub)		503						
			Cold Plunge Pool								
			Steam Room		50						
			Sauna		19						
			Spectator Seating		38						
	1	2	LAP POOL								Swim clubs need competition pool to host 450 competitors with minimum of 650 spectators. (1200-1300 occupancy in that area); Adjacencies - Acoustic/Access Seperation from Leisure Pool; Adjacencies - Easy Access to existing 6 lane basin;
			34m Lap Pool - 10 Lanes	1		1726	961.0	765.0	80%	Previous 24m - 10 Lane Lap Pool. Updated for independent competition capacity.	Basin Size 34mx25m Accommodate Water Polo 30m x 20m Lap Swimming 25m Long, 2.5m width x 10 Lanes 5m Deck Clearance Typ. Moveable Bulkhead
			Spectator Seating	1		257	400.0	-143.0			650 Spectators Min. Including Circulation Space
			POOL AREA subtotal			3752	2450.0	1302.0	53%		
	1	1A	Control - Service Desk	1		25	40.0	-15.0			Revised to +/- 25m2.
	2	1A	Control - Office	3	10	30	20.0	10.0			Included in Reception Admin - Add Office Added.
	3	1A	Control - Storage	1		10	10.0	0.0			Included in Reception Admin.
			Control subtotal			65	70.0	-5.0	-7%		
	1	1A	Staff - Lifeguard on-Deck Room			28.3	0.0	28.3			Included in Lifeguard Space
	2	1A	Staff - First-Aid Room			8.4	0.0	8.4			Included in Lifeguard Space
	3	1A	Staff - Locker Room			5.3	0.0	5.3			Included in Lifeguard Space
	4	1A	Staff - Staff Changerooms + Shower			15.1	0.0	15.1			Included in Lifeguard Space
	5	1A	Staff - Washroom			8.2	0.0	8.2			Included in Lifeguard Space
	6	1A	Staff - Lunchroom and workstation			12	0.0	12.0			Included in Lifeguard Space
	7	1A	Staff - Pool Housekeeping Closet			8.6	0.0	8.6			Included in Lifeguard Space
	8	1A	Leisure Pool Storage	1		20	150.0	-130.0			Refine Area based on requirements in DD.
	9	1A	Party Room	1		55	100.0	-45.0			Divided between Party and Community Kitchen
	10	1A	Party Room Storage	1		14	0.0	14.0			
	11	2	Aquatics Meeting Room 1	1		27	0.0	27.0			
	12	2	Aquatics Meeting Room 2	1		33	0.0	33.0			
	13	2	Meeting Room	1		53	0.0	53.0			
	14	2	Lap Pool Storage	1		117	0.0	117.0			Currently divided between two rooms.
			SUPPORT subtotal			404.9	250.0	154.9	62%		
	1	1A	Changerooms	1		917	1100.0	-183.0		Sized For New and Existing Pools. Male/Female/Universal Change Rooms.	Accommodate total occupancy. PH1 will be changerooms for PH1/PH2; A/B/C all designed as non-gendered but may be labelled as Male/Female;
	2	1A	Deck Shower	1		184	0.0	184.0			
	3	1A	Housekeeping Closet	1		3.6	0.0	3.6			Include as part of Change Rooms in DD.
			CHANGEROOM subtotal			1104.6	1100.0	4.6	0%		
			AQUATICS NET subtotal			5326.5	3870.0	1456.5	38%		
			AQUATICS GROSS UP subtotal	0	FACTOR	0	967.5				
			AQUATICS GROSS subtotal			5326.5	4837.5	489.0	10%		

2.0 AQUATICS, PLAY & CLIMB

2.0 DRY SPORT	1	1A	Studio - Dance	2	120	240	240.0	0.0			Studio - Yoga, Dance, Aerobics Studios; Pulastic Flooring For Versatility; Behind Control;
	2	1A	Studio - Dance - Storage	2	9	18		18.0			
	3	1A	Studio - Spin	1		120	120.0	0.0			20 Bikes, Replacement For Displaced Existing Spin Studio; Behind Control;
	4	1A	Studio - Spin - Storage	1		9	0.0	9.0			
			STUDIO subtotal			387	360.0	27.0	8%		
	1	1A	Fitness - Open	1		587	550.0	37.0			Free weights; weight machines, cardio equipment: treadmills, exercise bikes (not spin), ellipticals, stairmaster; Behind Control;
	2	1A	Lockers	1		26	0.0	26.0			ADD to program
	3	1A	Fitness - Storage	1		36	0.0	36.0			ADD to program
	4	1A	Fitness - Desk	1		24	0.0	24.0			ADD to program
			FITNESS subtotal			673	550.0	123.0	22%		
	1	1A	Fitness Track	1		655	0.0	655.0			2 Lap Lane (1m wide lane)
			FITNESS TRACK subtotal			655	0.0	655.0			
	1	1A	Gymnasium	1		665	0.0	665.0			Replace Existing Gym Full Court Baseketball (High School Size 15mx25.6m, c/w 2m runout) No Dividing Curtain
	2	1A	Gym Storage	1		50	0.0	50.0			
			GYMNASIUM subtotal			715	0.0	715.0			
DRYSPORT NET subtotal						2430	910.0	1520	167%		
DRYSPORT GROSS UP subtotal						0	227.5				
DRYSPORT GROSS subtotal						2430	1137.5	1292.5	114%		
3.0 PLAY/CLIMB/TEEN	1	1B	Play Area	1		174	300.0	-126.0			Supervised by parents/guardians; not Child Minding
	2	1B	Kids Space`	1		46	0.0	46.0			ADD to program - Small Class Space
	3	1B	Play Storage	1		36	0.0	36.0			ADD to program
			PLAY subtotal			256		256.0			
	1	1B	Climbing Wall	1		252	180.0	72.0			Controlled Access c/w bouldering and high wall. Move Into Existing Gym.
	2	1B	Climb Storage	1		15	20.0	-5.0			
			CLIMB subtotal			267		267.0			
	1	1A	Teen Space	1		100	0.0	100.0			Replace Existing Teen Space
	2	1A	Teen Storage	1		10	0.0	10.0			Replace Existing Teen Space
			TEEN subtotal			110		110.0			
	1	1B	Concession - Existing	1		65	65.0	0.0			Existing Concession to Remain
	2	1B	Concession - Storage	1		57	0.0	57.0			
	3	1B	Concession - Curling	1		22	0.0	22.0			
	4	1B	Concession - Curling Storage	1		26	0.0	26.0			
			CONCESSION subtotal		1	170		170.0			
	1	1A	Community Kitchen	1		70	0.0	70.0			ADD to program
			Community Kitchen subtotal			70		70.0			
	PLAY/CLIMB/TEEN NET subtotal						803	500.0	303	61%	
	PLAY/CLIMB/TEEN GROSS UP subtotal						0	125.0			
	PLAY/CLIMB/TEEN GROSS subtotal						803	625.0	178.0	28%	
4.0 ADMIN	1	1B	Offices, Boardrooms, Staff Space	1		725	680	45.0			Consolidation and Expansion of Current Admin Spaces
	2	1B	Family Resource Center	1		211	200.0	11.0			Public-facing counseling space; area from
			ADMIN subtotal			936	880	56.0	6%		
	ADMIN NET subtotal						936	880.0	56	6%	
	ADMIN GROSS UP subtotal						0	220.0			
ADMIN GROSS subtotal						936	1100.0	-164.0	-15%		

2.0 AQUATICS, PLAY & CLIMB

5.0 CIRCULATION	1	1A	New Lobby Space	1		481	210	271.0			Adjacent to gymnasium, accessed from community hub.
	2	1B	Existing Lobby	1		1202	780.0	422.0			Includes central lobby, south-west vestibule.
			LOBBY subtotal			1683	990	693.0	70%		
	1	1A	Community Hub	1		227	300	-73.0			Unprogrammed crush space/ad hoc community gathering space
	2	1A	Hub Storage	1		20	0.0	20.0			ADD to program (not located)
			COMMUNITY HUB subtotal			247	300	-53.0	-18%		
	1	NA	**Cell tower (30m height)	1		0	0	0.0			Not in Program - REMOVED
			CELL TOWER subtotal			0	0	0.0			
	CIRCULATION NET subtotal					1930	1290.0	640	50%		
	CIRCULATION GROSS UP subtotal					0	322.5				
CIRCULATION GROSS subtotal						1930	1612.5	317.5	20%		
6.0 SUPPORT	1	1B	Public Washrooms - P1B Reno	1		163	300	-137.0			
	2	1A	Public Washrooms - Leisure	1		82	0	82.0			Split Public WC to provide Leisure Public WC's close to entry.
			Public WC subtotal			245	300	-55.0	-18%		
	1	1A	Leisure Pool Mechanical Room	1		500	0.0	500.0			Filtration System, AHU location, Staff Workshop Req, Pool Tunnel Extent to be confirmed in SD.
	1	1A	Leisure Pool Tunnel	1		757	0.0	757.0			
	2	1B	Lap Pool Tunnel	2		650	0.0	650.0			
			MECH subtotal			1907	0.0	1907.0			
	SUPPORT NET subtotal					2152	300.0	1852	617%		
	SUPPORT GROSS UP subtotal					0	75.0	-75			
	SUPPORT GROSS subtotal						2152	375.0	1777.0	474%	
TOTAL NET BUILDING AREA						13,577.5	7,750.0	5827.5	75%		
TOTAL BUILDING GROSS UP						1,596.5	1,937.5	-341.0	-18%		25% GROSS UP FOR RFP
TOTAL BUILDING GROSS AREA						15,174.0	9,687.5	5486.5	57%		

2.1.8 Initial Concepts

Following confirmation of the facility program and site analysis, a series of initial concept options were developed to test how the expansion could be integrated within the existing site and building. These options explored different approaches to organizing major program elements, including the aquatics facility, gymnasium, changerooms, and community hub.

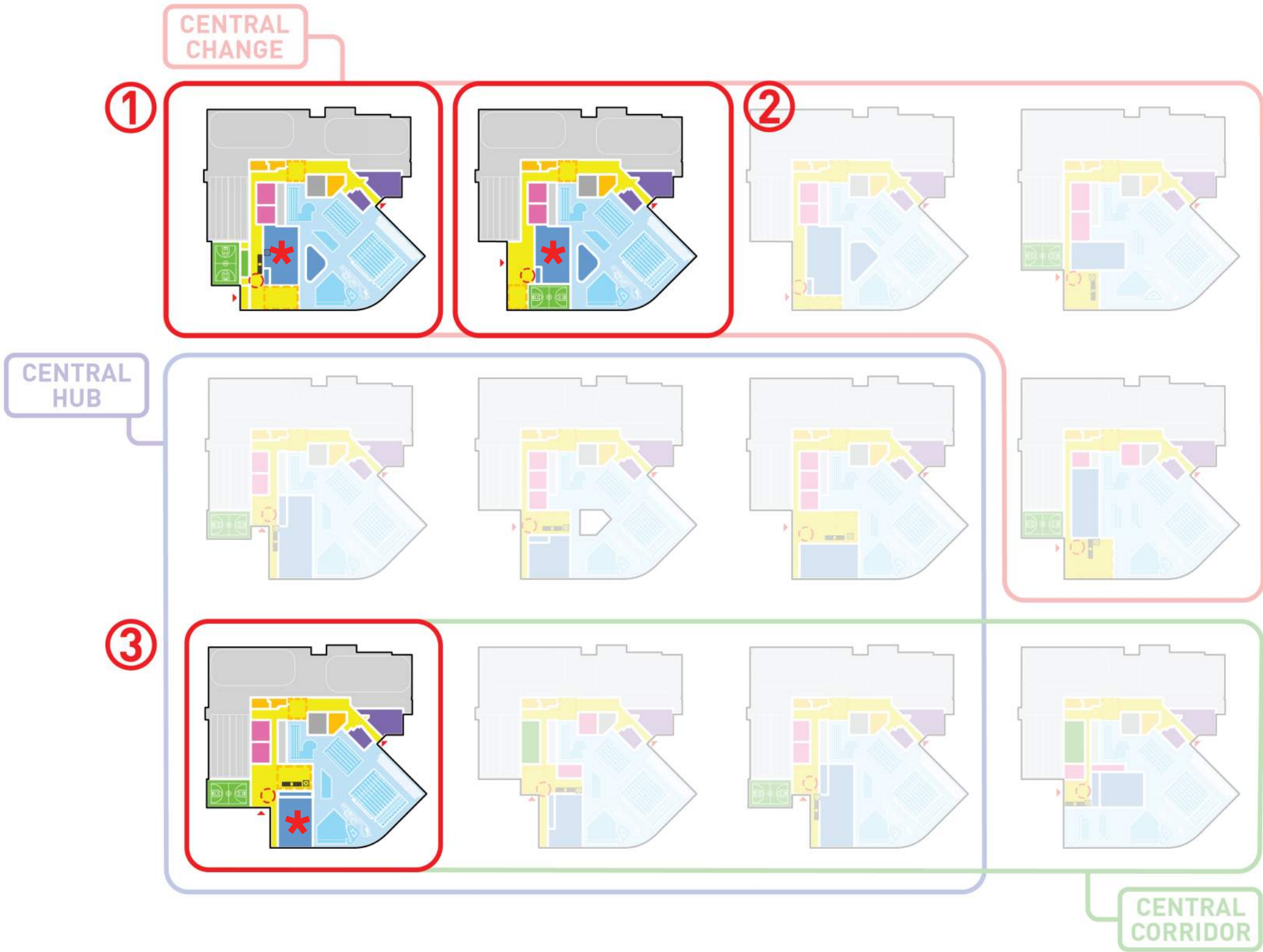
The concept development process included multiple test-fit iterations, each evaluating how the program could be arranged to balance operational efficiency, user experience, and constructibility within the constraints of the existing facility.

Key considerations during concept development included:

- **Site Integration:** Enhancing connectivity and circulation across the site.
- **Program Distribution:** Locating amenities to support functionality and minimize disruption to existing operations.
- **Phasing and Constructibility:** Allowing phased implementation while maintaining facility operations.
- **Design Goals:** Creating welcoming, flexible spaces aligned with the Town’s vision for community recreation.

Additional testing focused on the location of changerooms relative to aquatics, maintaining effective lifeguard sightlines, and evaluating the relationship between the gymnasium, public circulation, and control points.

The concept options illustrated on this page represent variations in site organization and internal layout that informed the selection of the preferred schematic design.



2.1.9 Selected Concept

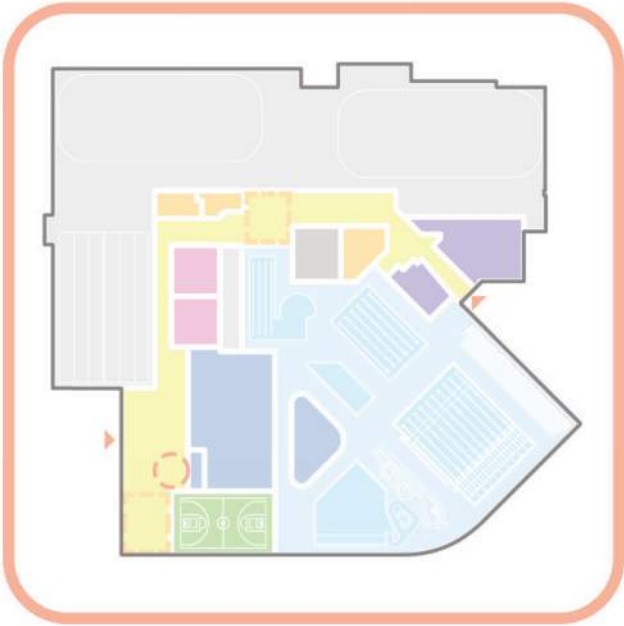
The selected concept establishes the Okotoks Recreation Centre Expansion as a cohesive, centrally organized community facility that integrates new and existing program areas through a clear and intuitive circulation framework. The design prioritizes user experience, operational efficiency, and long-term flexibility, while responding to the constraints of the site.

The preferred option was selected for its ability to effectively resolve key priorities identified during concept testing, including program integration, circulation clarity, and phased implementation.

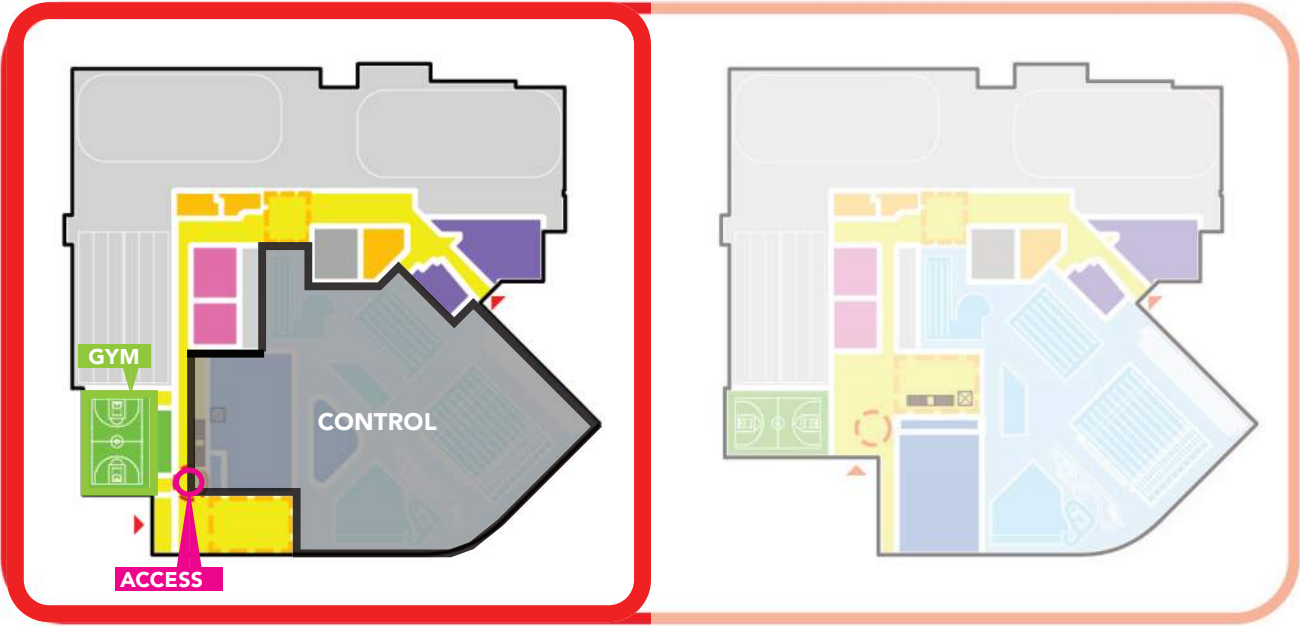
- Key factors influencing this decision included:
- **Centralized Community Hub:** A clearly defined public spine that connects major program areas and serves as a primary orientation and gathering space
 - **Integrated Aquatics and Changerooms:** Direct relationships between changerooms and both existing and new pool basins, supporting accessibility and operational flow
 - **Clear Circulation and Wayfinding:** Intuitive movement through the building, reducing congestion and improving user experience
 - **Optimized Gymnasium Location:** Positioned to align with dryland program areas while maintaining appropriate visibility and control
 - **Phased Implementation Strategy:** Supports staged construction while maintaining continuous operation of the existing facility

Alternative approaches that prioritized stricter control of certain program areas were considered but limited connectivity and reduced long-term flexibility. The selected concept instead emphasizes strong spatial relationships, openness, and adaptability, resulting in a cohesive and user-focused facility aligned with the Town’s vision.

GYM IN CONTROL



GYM OUT OF CONTROL



2.2

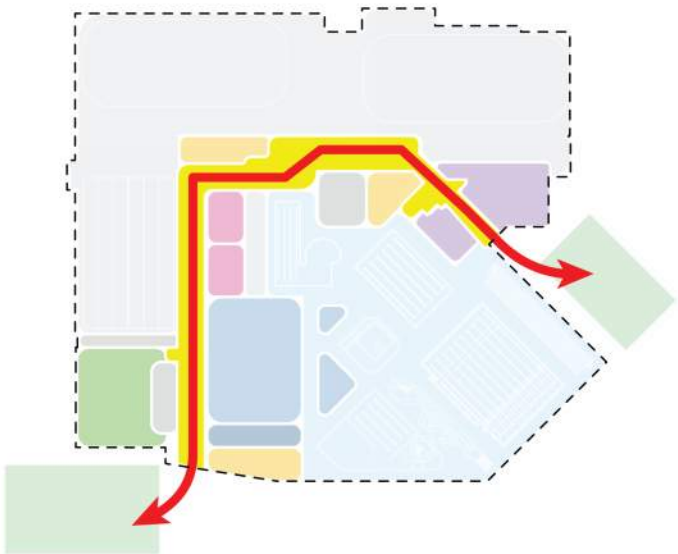
Schematic Design

- Architectural Vision
- Floor Plans
- Landscape Concept
- Landscape Outline Specification
- Parking and Vehicular Circulation
- Architectural Exterior Concept
- Building Envelope
- Interior Concept

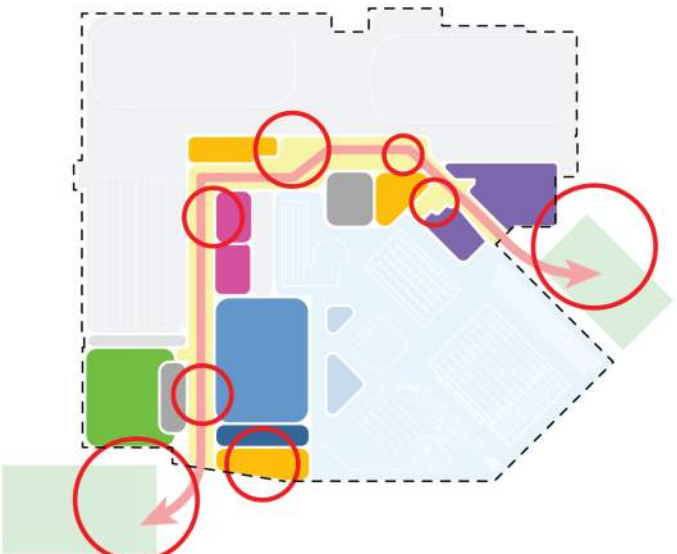
2.2.1 Architectural Vision

Interior Boardwalk

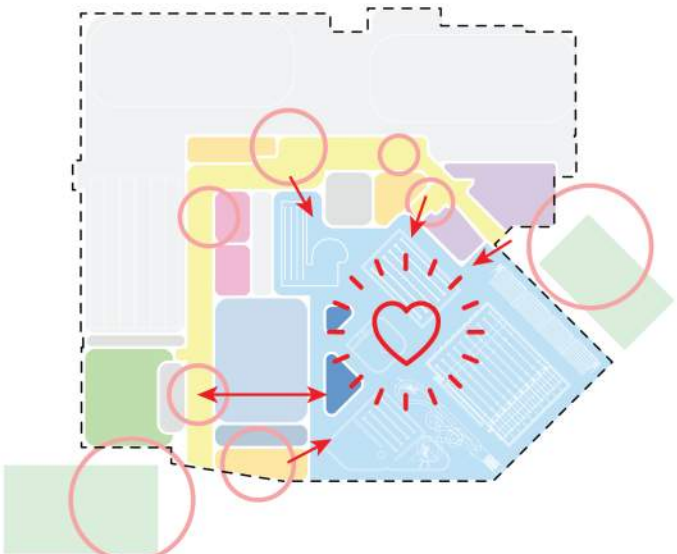
The interior lobby is conceived as a continuous public boardwalk that clearly and intuitively connects all major program elements of the facility. This strategy unifies the experiences of the multi-phased project into a cohesive whole. To animate movement through the building, the lobby is activated with a range of programmatic and viewing opportunities, including the community hub, climb/play viewing areas, and concession seating.



CIRCULATION



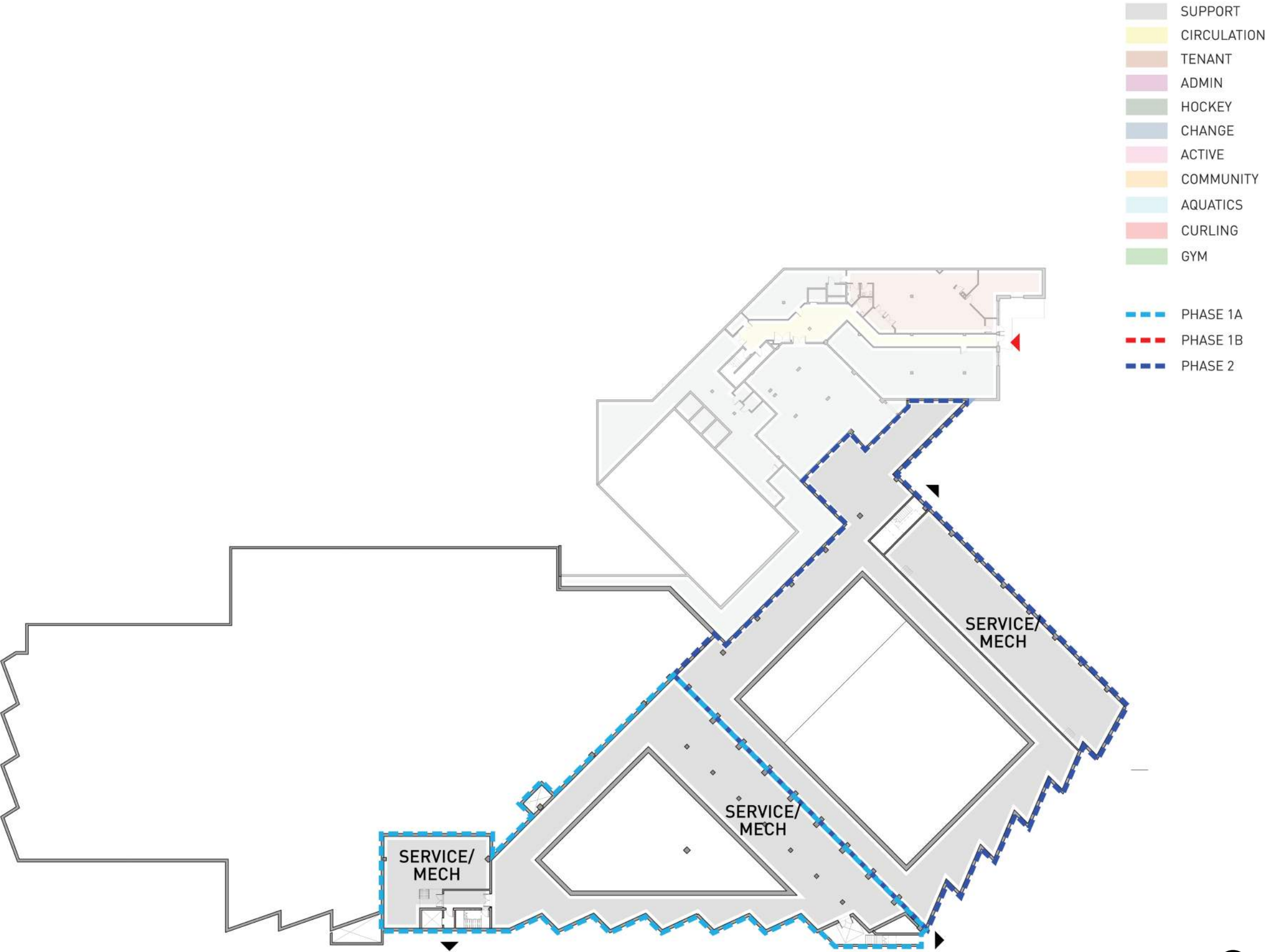
ANIMATE PUBLIC CIRCULATION



AQUATIC SOCIAL HEART

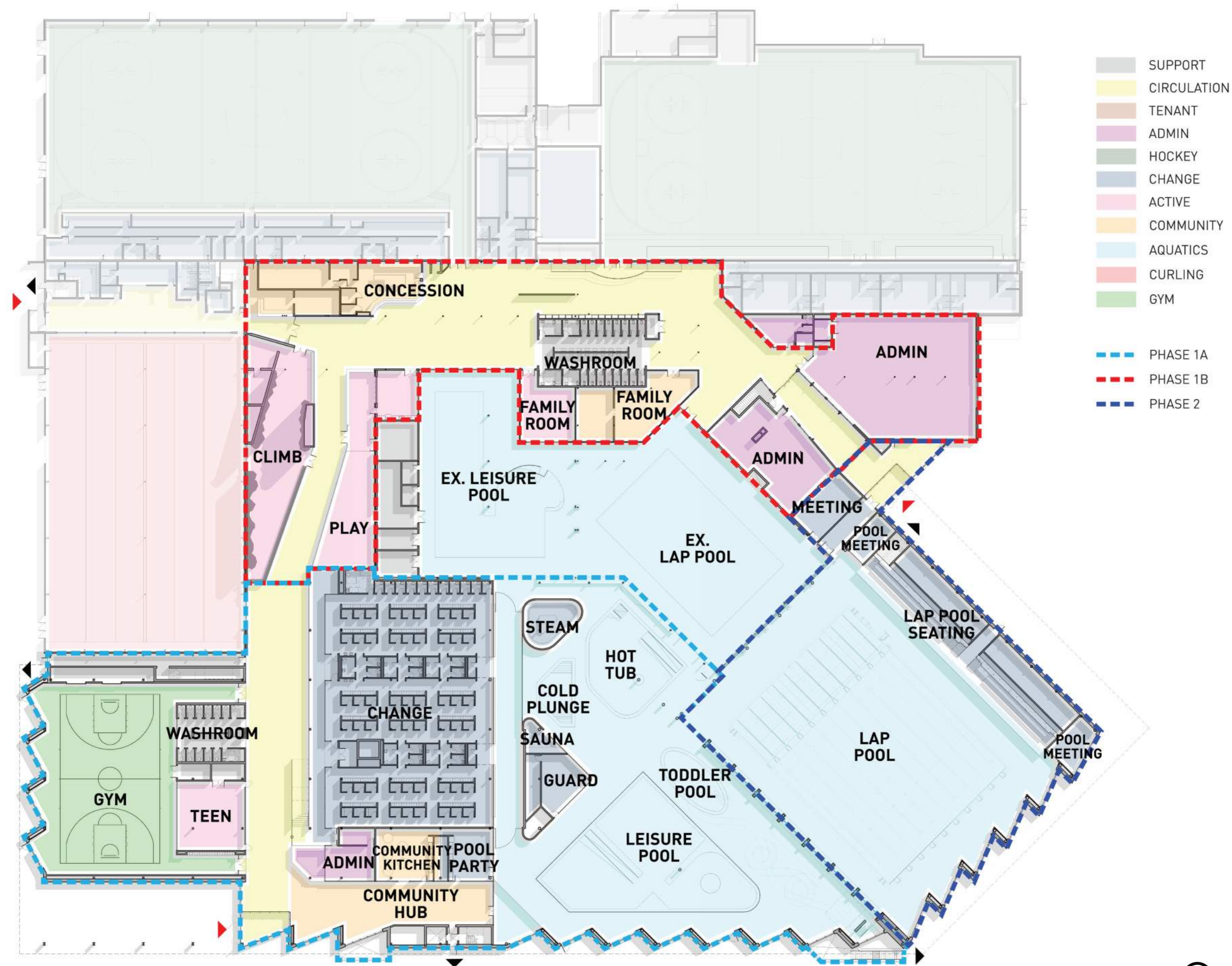
2.2.2 Floor Plans

Basement Floor

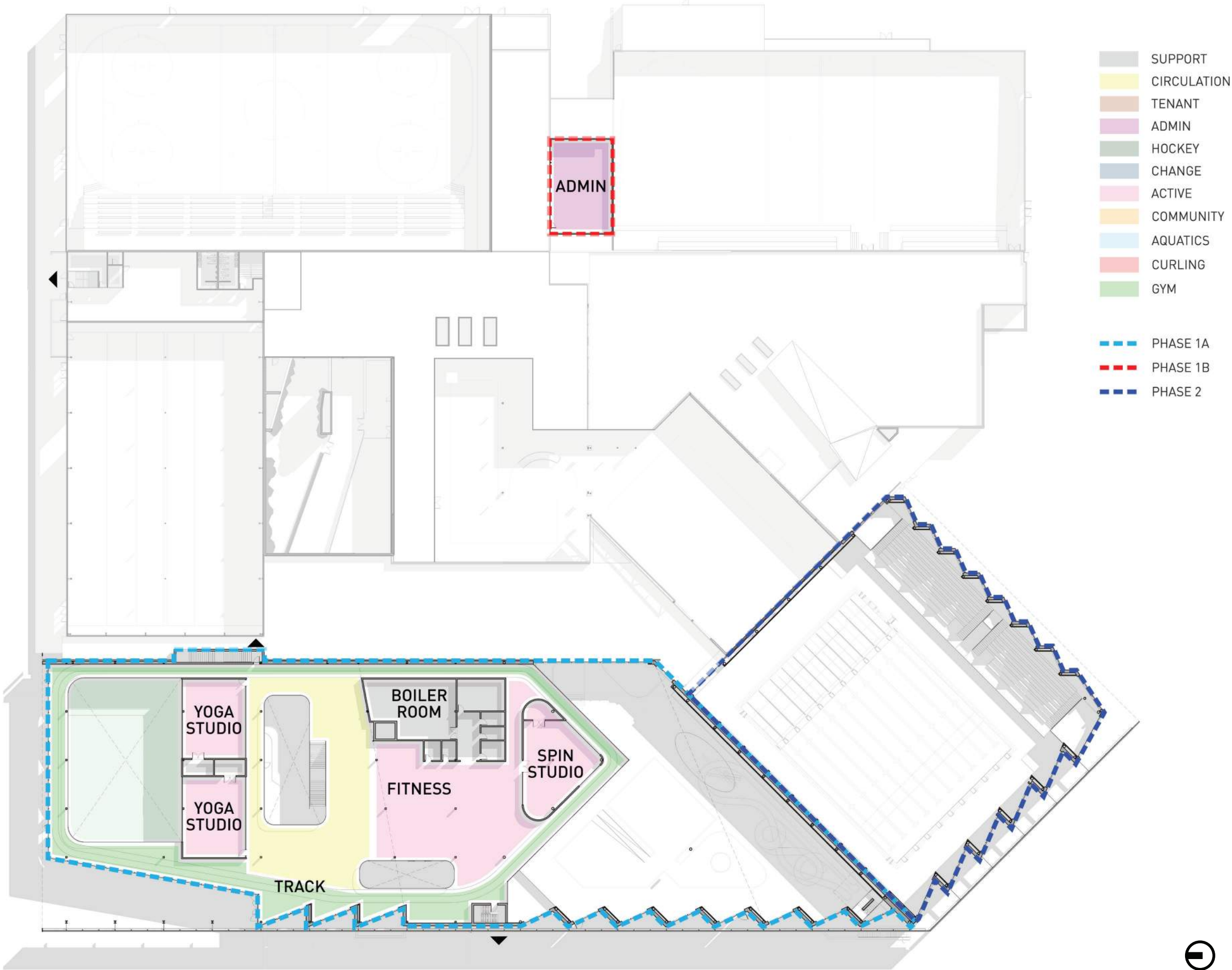


2.0 AQUATICS, PLAY & CLIMB

Ground Floor Plan



Second Floor



2.0 AQUATICS, PLAY & CLIMB

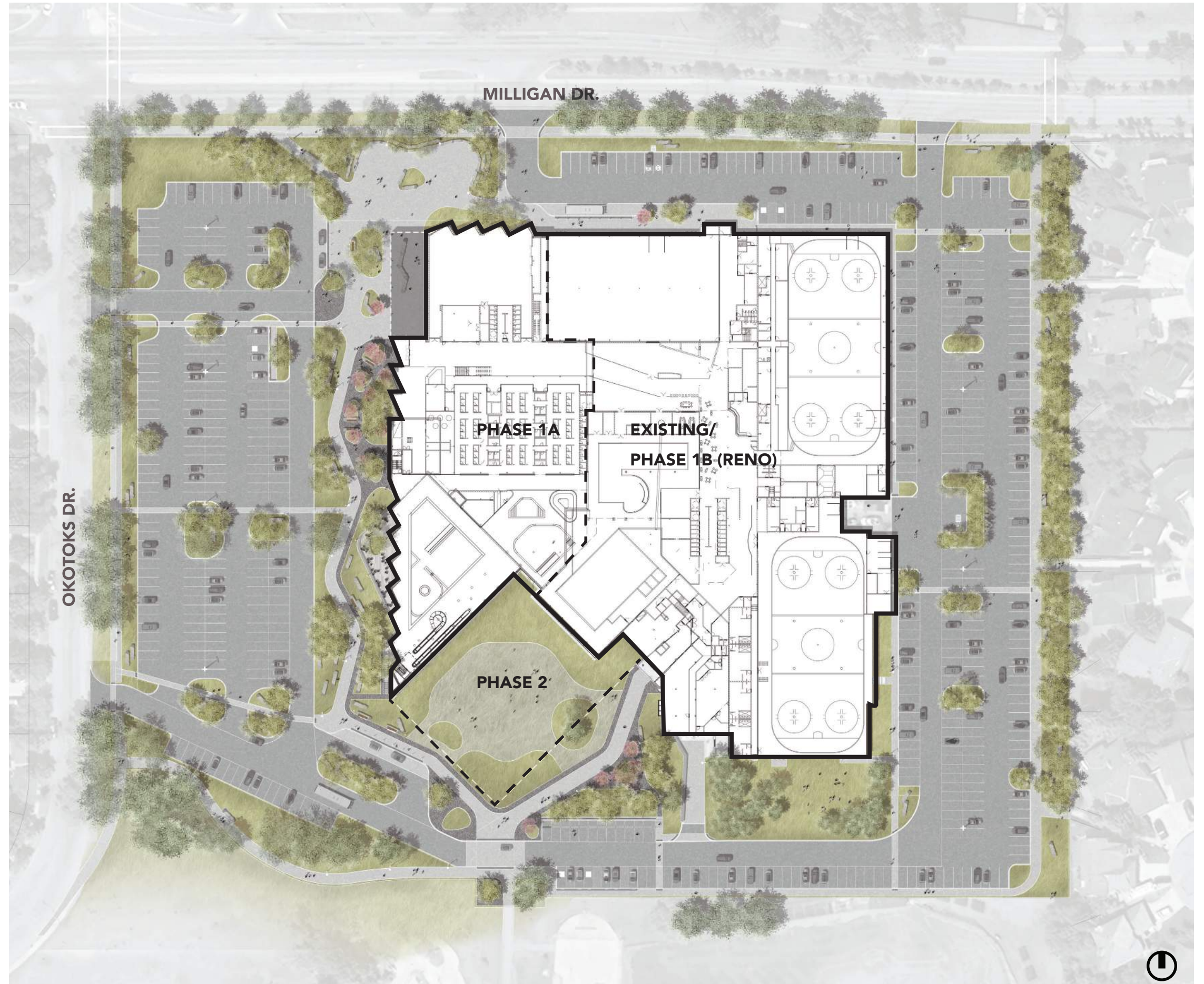
2.2.3 Landscape Concept

The landscape design is inspired by the Foothills Erratic Train, with Okotoks' Big Rock serving as the primary conceptual anchor. This geological narrative is expressed through a series of "rolling stone" landscape nodes distributed throughout the site. These nodes function as planting areas, stormwater infiltration zones, and programmed activity points along the west side linear park.

Planting strategies prioritize the conservation and celebration of the region's endangered Fescue Grasslands. The landscape palette incorporates native, drought tolerant, and pollinator supportive prairie species to reinforce ecological resilience and long term sustainability.

Active uses are concentrated along the linear park, featuring informal seating, group gathering spaces, play and fitness elements, and opportunities for public art. Landmark installations located at the north and south entries enhance wayfinding, reinforce the site's identity, and create strong arrival experiences.

The overall design strengthens indoor outdoor connectivity by creating clear visual and programmatic relationships between interior recreation spaces and the surrounding landscape. The material palette emphasizes durability and regional character through the use of locally sourced aggregates, timber, and stone, establishing a cohesive and enduring site aesthetic.



2.0 AQUATICS, PLAY & CLIMB



Fischli/Weiss Rock on Top of Another Rock



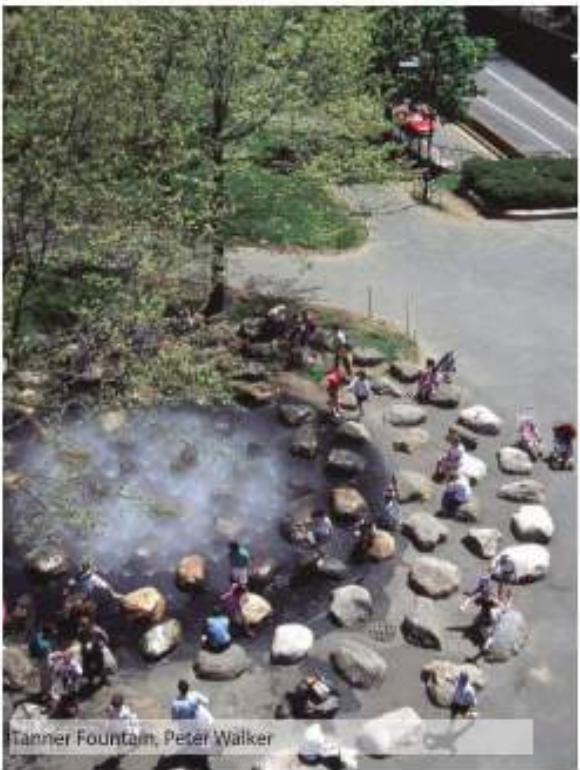
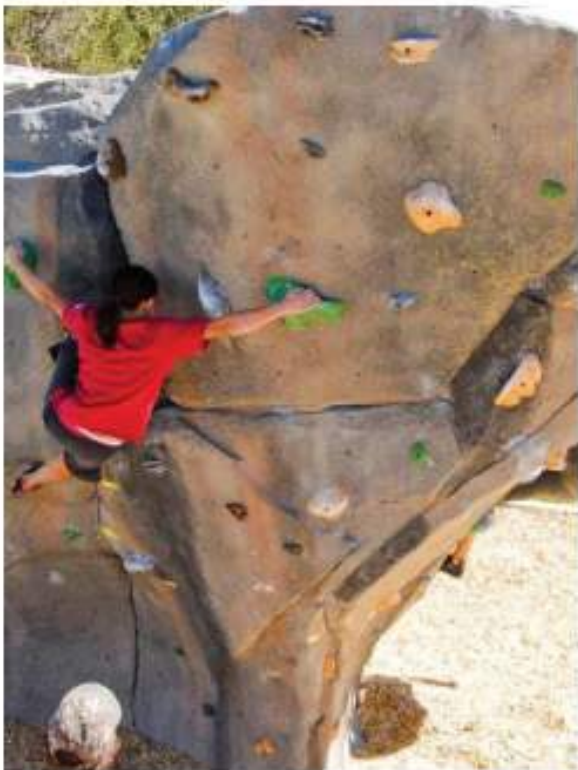
Concrete Dome at Garden City Playground, space2place



Concrete Dome at Garden City Playground, space2place



Rocks on Wheels, Melbourne



Tanner Fountain, Peter Walker

Landmarks
Inspired by Big Rock - a landmark, visible at a large distance. - we're proposing to activate the north and south entrance plazas with a large-scale installation that draws people to and welcomes them into the site.

2.0 AQUATICS, PLAY & CLIMB



Green Boulders
The Erratic boulders are re-imagined as nodes of program and vegetation scattered throughout the site. Within the hardscaped areas of the site, the boulders act as both generous planting areas and infiltration zones for storm water. Along the linear park, boulders of program activate the N-S path.



Rest



Move



Play



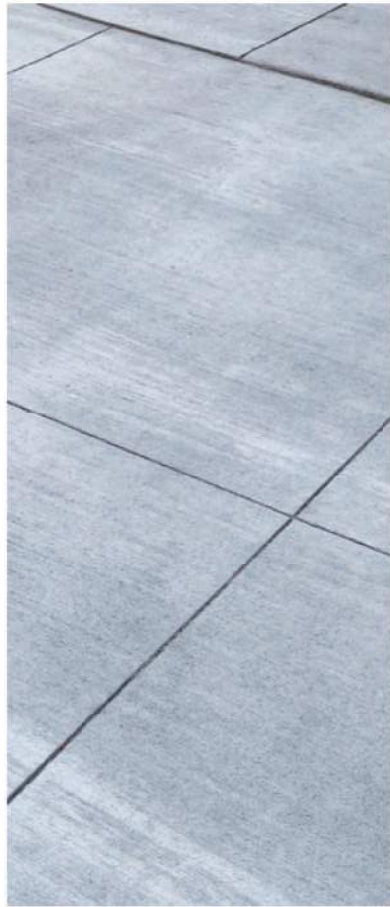
Activation
Active programming is concentrated along the proposed linear park at the west side of the building. Opportunities for outdoor programs include a variety of seating; group gathering spaces; play and fitness equipment and public art.

2.0 AQUATICS, PLAY & CLIMB

Native Planting



CIP Concrete Paving



Resin-Bound Aggregate



Crusher Dust Paving



Stone



Timber

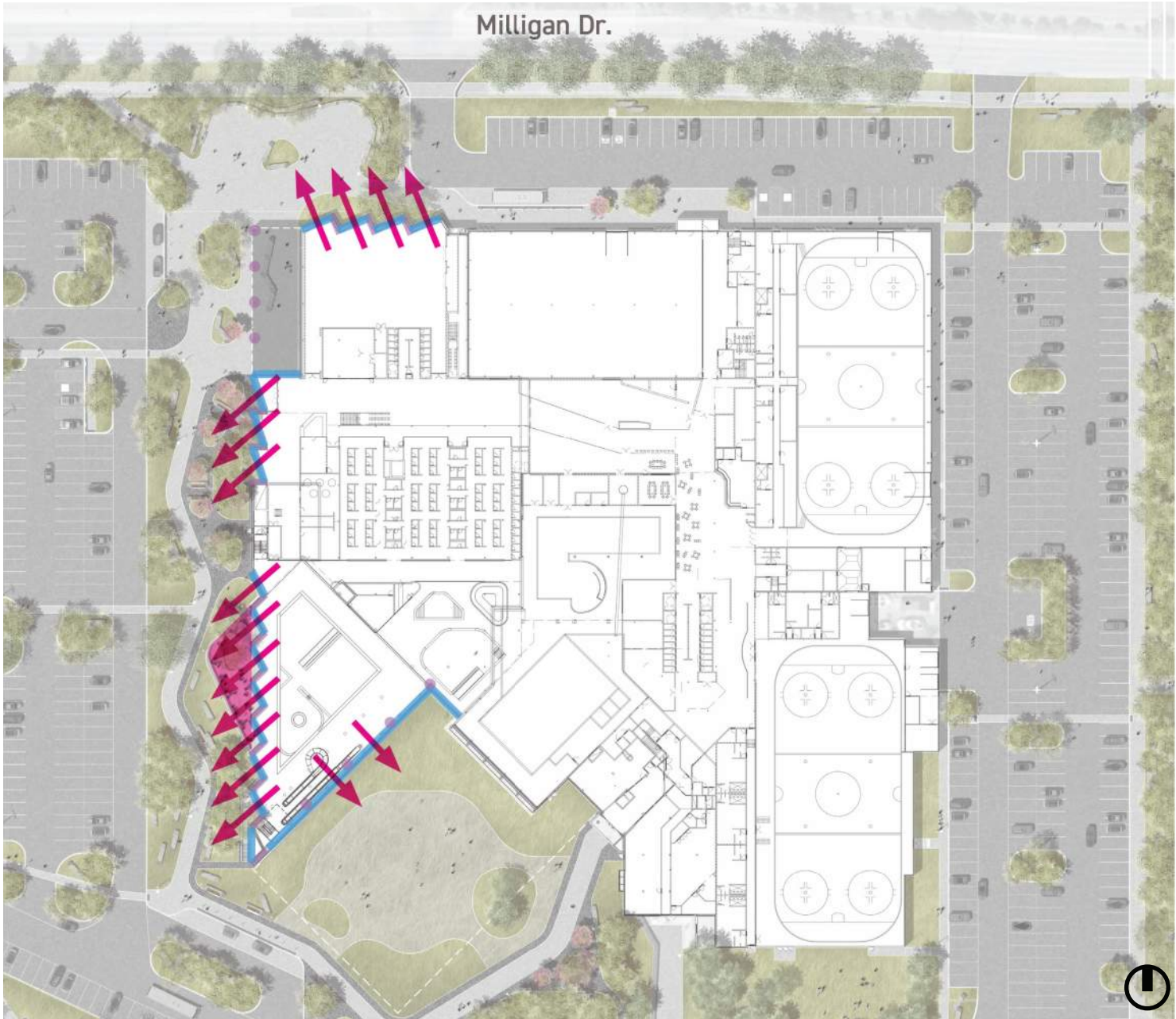


Pop!

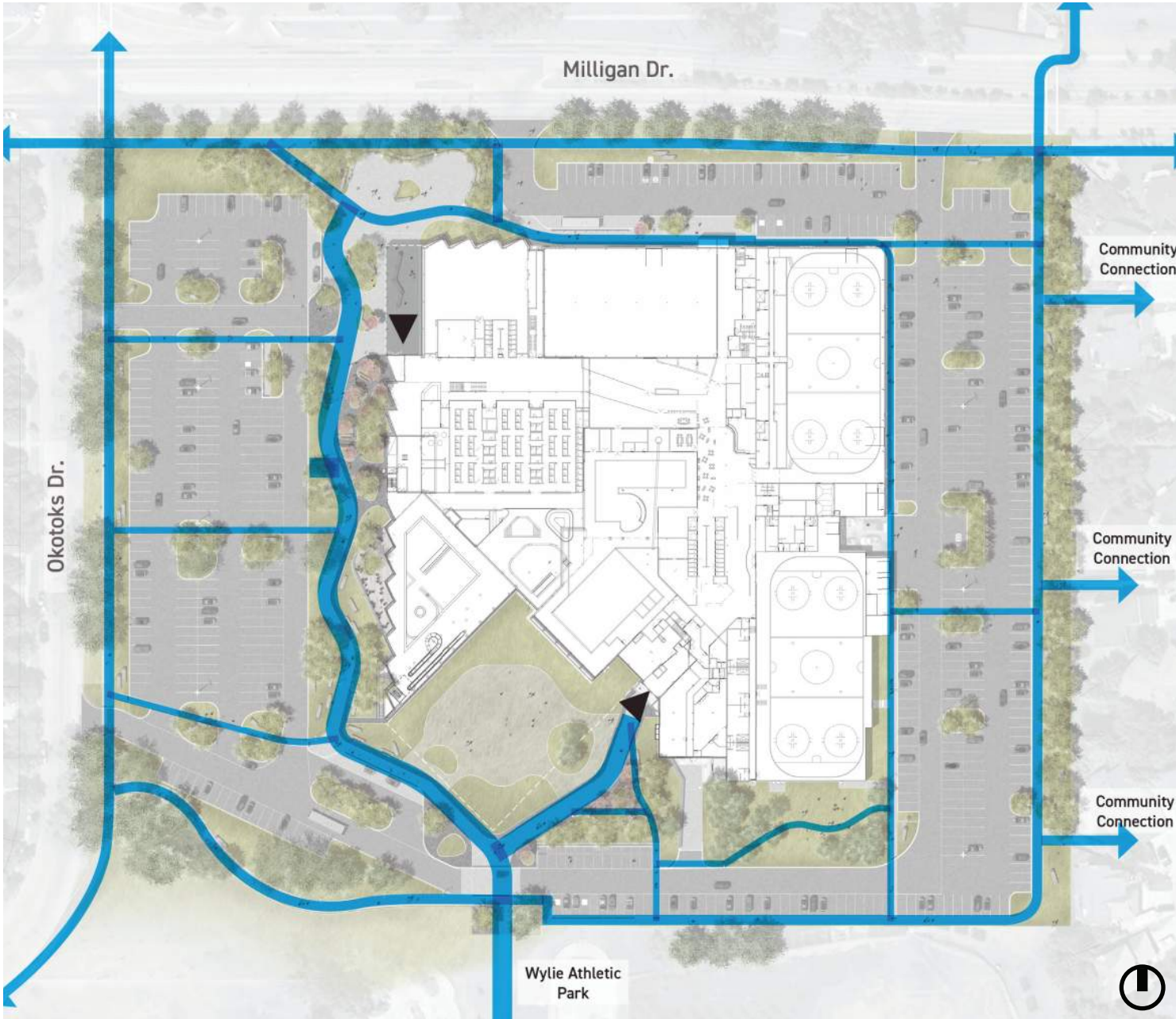


Materiality
The material palette focuses on resilient, local natural materials that enhance the site’s sense of place. Aggregates, timber and stone create a palette that is timeless and durable.

2.0 AQUATICS, PLAY & CLIMB



Indoor-Outdoor Connectivity
The building and landscape are designed to enhance each other; allowing programs and views to blur between inside and out. Through views, materials and layout, the building and landscape tell a cohesive story about a community hub grounded in a sense of place.



Making Connections
The proposed pedestrian circulation system knits the site into the neighborhood and surrounding circulation networks



Tree Preservation and Removal

2.2.4 Landscape Outline Specification

Metal Fabrications – Landscape

- Guardrails: Stainless steel flat bar
- Metal edging: Stainless steel, 240 × 240 mm angle

Concrete Sitework

- Paving and curbs: Broom finish.
- Curbs: 200 mm wide × 150 mm high.

Traffic and Pavement Markings

- Thermoplastic pavement markings.
- Tactile warning surfacing: Techo Bloc Industria Tactile, 300 × 300 × 100 mm, colour as selected by the consultant.

Crushed Stone and Unit Paving

- Crushed stone: 6–13 mm, locally sourced.
- Unit paving: Techo Bloc Sleek Paver, 811 × 404 × 90 mm, colour as selected by the consultant.

Geotextile

- Filter fabric: Terrafix 270R.

Exterior Site Furnishings

- Wood benches: Streetlife, solid tops, mounted on armour stone, corten/cumaru finish.
- Lounge chairs and chairs: Maglin 720 Chaise

Lounge and Kontur Café Chair, powder coated or consultant selected finishes.

- Tables: Maglin Ogden Café Table, 762 mm round.
- Bike racks: Equiparc Esplanade, surface mounted.
- Bollard covers: Reliance Foundry R 7303, stainless steel, installed with J Hanger on galvanized posts.
- Decorative boulders: Various sizes, locally sourced; selection by consultant.

- Basketball pole and net: Bison PR55XL heavy duty steel fan gooseneck system.

Planting and Soil

- Topsoil depths: 200 mm meadow; 400 mm perennial beds; 1000 mm trees.
- Seeding: EcoLogic Horticulture Prairie Meadow Grass Seed Mix.
- Sodding and planting: Standard grading and installation practices.

Armour Stone

- Seating: Cut top/bottom; 500 × 3000 × 450 mm.
- Retaining walls: Cut top/bottom/ends; 500 × 3000 × 450 mm.

Refer to Appendix A6 for landscape drawings and detailed specification outline.

2.2.5 Parking and Vehicular Circulation

Bunt & Associates Engineering completed a Traffic Impact Assessment for the proposed Okotoks Recreation Centre Expansion, included in Appendix A9. A summary of key findings is provided below.

Vehicular Traffic

Peak-hour traffic (AM, PM, Saturday) was assessed for Opening Day and Long-Term conditions. All study intersections are expected to continue operating acceptably after the expansion, and signalization at Okotoks Drive & Milligan Drive is not warranted. Proposed access spacing and sightlines meet applicable guidelines.

Active Transportation & Transit

The site is well connected by existing sidewalks and pathways, with no external improvements required. The proposed site plan enhances internal circulation. Transit service is provided by two fixed routes with stops north of the Milligan Drive & Okotoks Drive intersection.

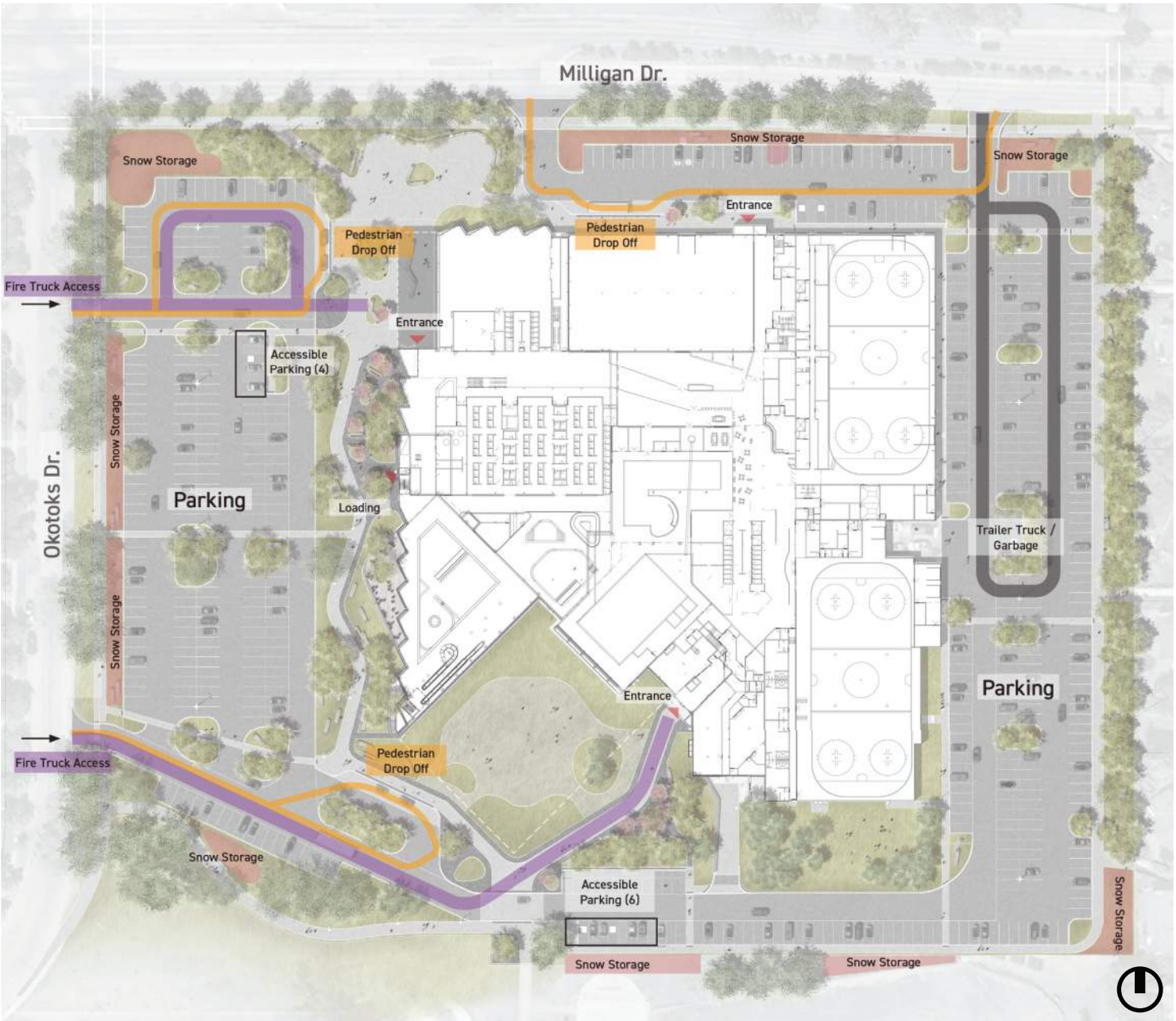
Parking Summary

Existing Conditions

Current supply is 505 stalls, with observed peak demand ranging from 227 to 306 stalls.

Expected Demand Summary

Proposed parking supply of 531 stalls, is sufficient to accommodate expected peak parking demand of 523 stalls.



Parking & Vehicular Circulation

Vehicular access to the site is provided on Milligan Dr and Okotoks Dr, with 531 target parking spaces (including 10 barrier-free stalls). The layout supports clear and accessible routes between parking areas and primary building entrances. The parking lots contain landscaped islands that have been distributed for shade and stormwater management. The configuration of parking spaces and drive aisle widths takes into consideration logical drop-off locations, fire truck access, back-of-house circulation, and requirements for loading, delivery and maintenance.

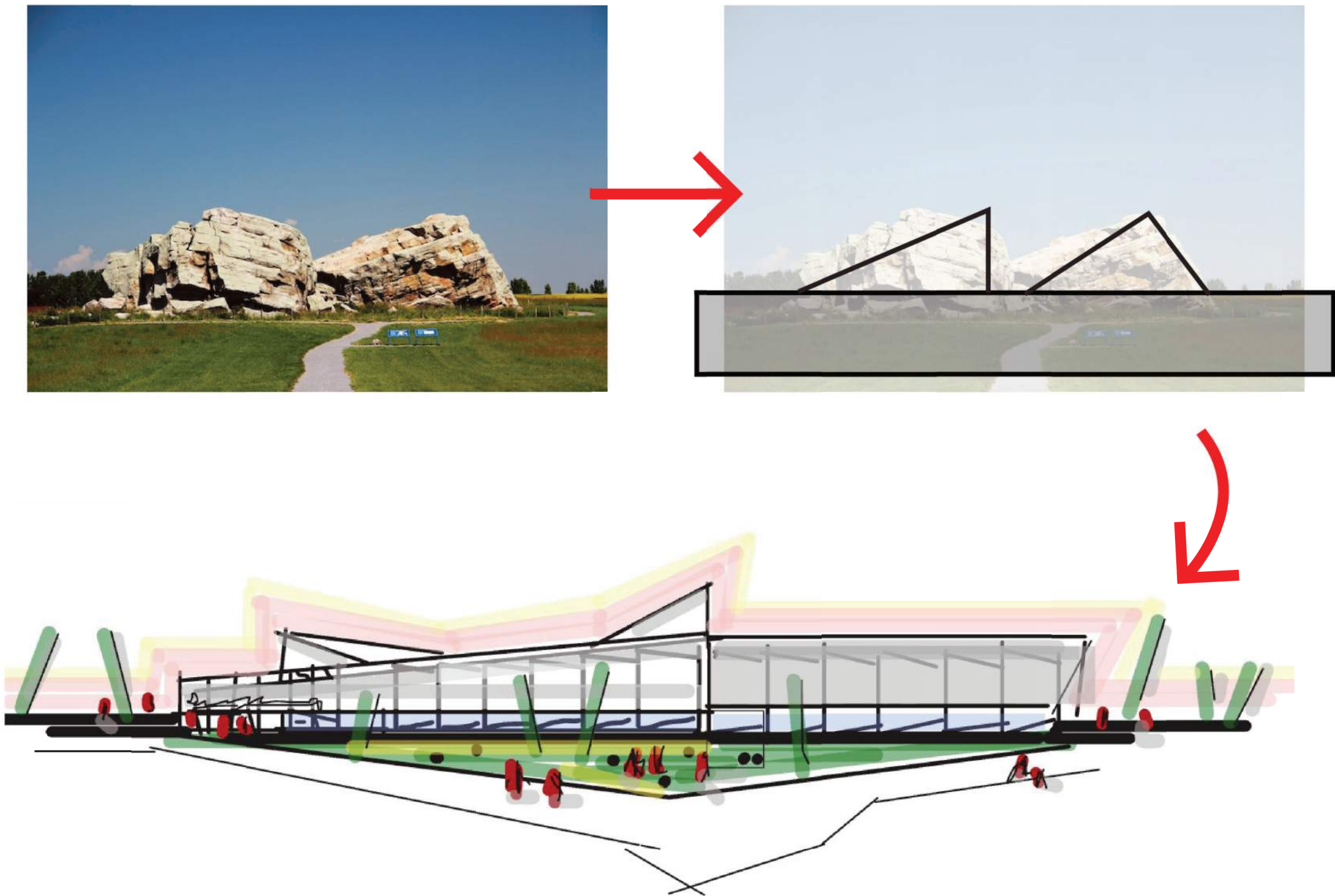
2.2.6 Architectural Exterior Concept

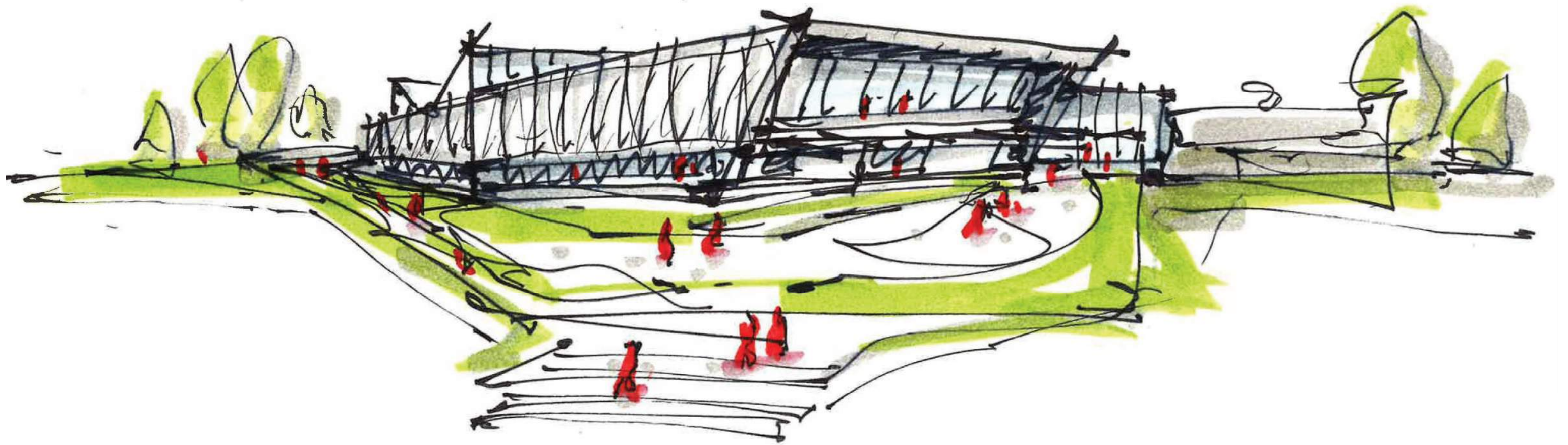
Civic Centre of Identity

The project incorporates both interior and exterior public gathering spaces to foster community engagement and a strong sense of social belonging. The building forms a backdrop to a grand outdoor park promenade that accommodates gatherings of all kinds. This promenade serves as a clear and recognizable link between the Recreation Centre and the broader Wylie Park.

Homage to "Ohkotok"

Drawing inspiration from the Okotoks Big Rock (Ohkotok), the building features two distinct pop-up elements that rise above the typical parapet height. These forms contribute a unique identity through their sculptural shape and material expression. This design strategy also supports cost efficiency by limiting the overall roof elevation and introducing pop-ups only where increased clearances are required, specifically at the waterslide and lobby areas.





2.0 AQUATICS, PLAY & CLIMB

2.2.7 Building Envelope

Exterior Envelope

Walls

Assemblies are to utilize rainscreen principles and provide a minimum clear field insulation value of R23 effective. This thermal performance is provided by semi-rigid insulation with thermal-break support brackets to carry the exterior cladding.

Cladding

The exterior cladding is divided into two segments, surfaces at grade and upper level. At grade, the walls will have a durable 450mm tall precast base, formed into a ledge for the cladding above or an occupiable bench. This consistent base will help to unify the perimeter of the building and creates a robust surface that is more impervious to typical exterior maintenance and snow removal. Above this base, cladding of the building will utilize a coloured aluminum composite panel. This was selected as it is cost-effective and resilient to harsh weather conditions. The use of the aluminum panel also allows for variation in patterning that will help to visually break up the larger volumes of the gymnasium and fitness popups.

Curtain Wall Glazing

Double-glazed sealed insulated unit curtainwall is standard for the project. For exterior glazing at new natatoriums, triple-glazed insulated glass units will be used to improve the thermal performance for these energy intensive areas. For lobby and natatorium popups, glazing will be designed at a high angle and will be positioned on curbs. Treatment of the popup glazing, through glass frit, tinting or installation of translucent interlayer (eg. Solera), will be explored in Design Development as a means to help mitigate direct sunlight and heat gain in adjacent spaces.

Perforated Screen

A painted aluminum expanded metal mesh screen is to be deployed on the west façade of Phase 1 and 2 additions. The intent of this screen is to provide consistent solar control while providing a unified/open expression to main public elevation of the building between +3,000 to +10,500 above Level 1. The screen will be supported by a structural steel frame with thermally broken connections where interior envelop penetrations are required.

Roofing

The proposed roofing is designed to have an effective R40 insulation value and is to consist of a Alphaguard top & base coat c/w reinforcing fabric combination of dual-density mineral fibre and polyiso insulation board that is mechanically fastened to the timber roofing assembly. The timber assembly is comprised of a cross-laminated timber roof deck topped with plywood sheathing. This type of roofing is ideal for use in the natatorium as the mechanical fasteners used with the polyiso are encapsulated into the CLT deck, protecting them from the corrosive pool air.

Interior Envelope

Continuous environmental and vapour separation will be provided between the natatorium and the rest of the facility.



Building Exterior - Northwest Perspective



Building Exterior - North Entrance

2.0 AQUATICS, PLAY & CLIMB



Building Exterior - NW Basketball Court



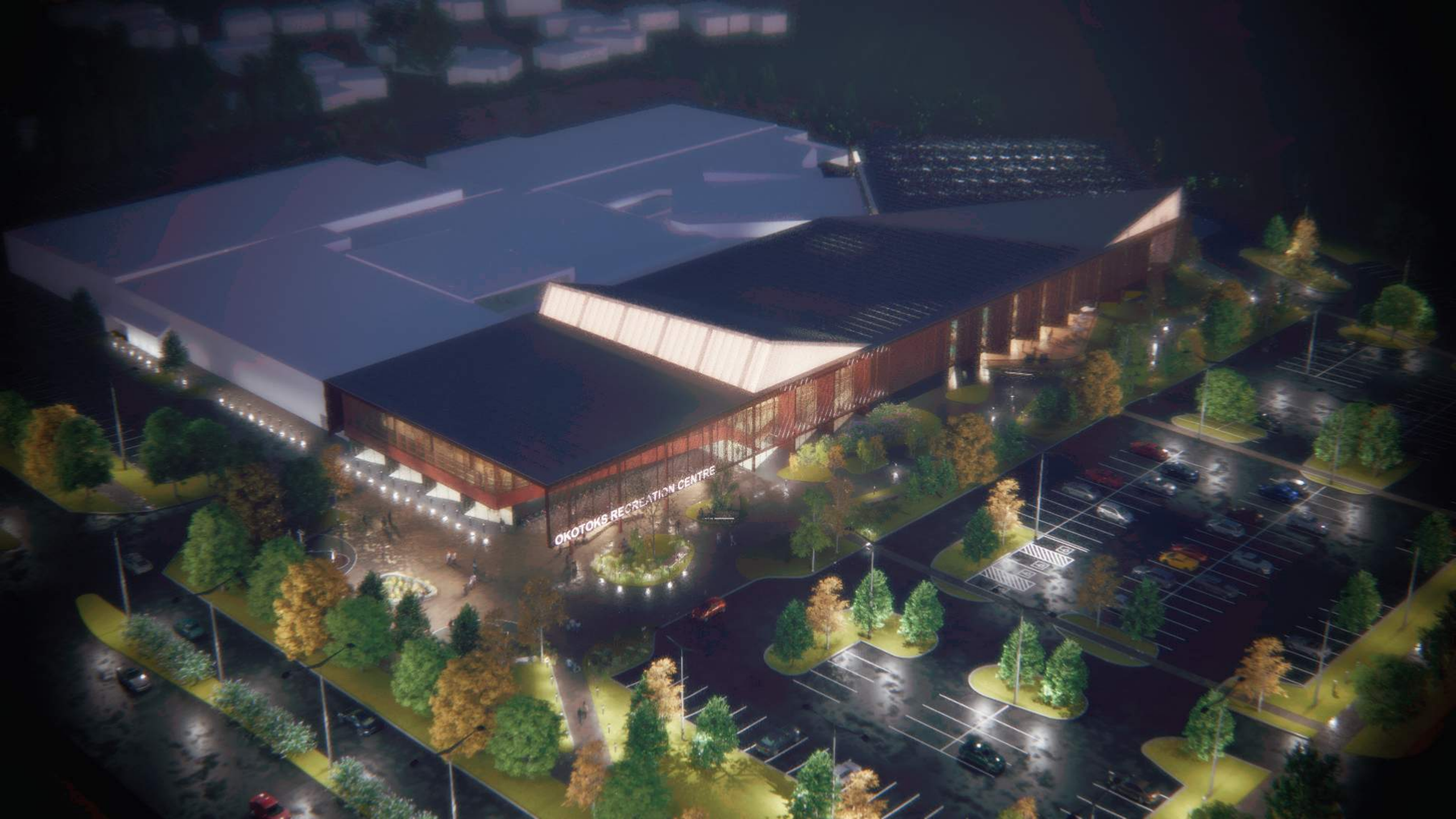
Building Exterior - Southwest (Phase1)



Building Exterior - NW Skating Rink



Building Exterior - South Entrance (Phase 2)



Building Exterior - Northwest Aerial

2.0 AQUATICS, PLAY & CLIMB



Building Exterior - South (Phase 1)



Building Exterior - Southwest Aerial (Phase 1)



Building Exterior - South (Phase 2)



Building Exterior - Southwest Aerial (Phase 2)

2.2.8 Interior Concept

Interior Design Principles

The interior design of the project prioritizes functionality, inclusivity, and occupant well-being, ensuring the facility serves the diverse needs of the community. Driving design principles for the interior include:

Durability and Maintenance

Finishes will be robust and low-maintenance, suitable for both administrative and industrial environments.

Unified Material Palette

Given the multiple existing and proposed phases for the project, particular attention will be given to provisions of materials and finishes between renovated and new scope to tie the facility together.

Threshold Elements

The project will feature a series of “threshold elements” that function to differentiate program spaces.

Welcoming and Safe Environments

All occupied spaces will be designed to be safe, inspiring, and inclusive. Natural light will be maximized to support mental well-being. The design will also prioritize low-emitting materials to support a healthy indoor environment and reduce occupant exposure to harmful pollutants.

Inclusive and Accessible Design

Below is a summary of barrier-free design elements that will be incorporated into the project in excess of the minimum Building Code requirements.

Site Design Elements

- Special considerations have been made in the design of the projects site and landscape elements to accommodate all ages and abilities. Pedestrian circulation pathways have been arranged to maximize accessible

connections within the site and the surrounding neighbourhood;

- All park program spaces are accessible and provide diverse opportunities for community engagement.
- Benching is provided throughout the site to encourage pedestrian circulation;
- Special considerations have been made in the design of the project’s site and landscape elements, including barrier-free parking, convenient drop-off areas, and accessible routes to building entrances, to accommodate all ages and abilities

Building Design Elements

Accessible Circulation

- Public barrier-free building entrances are easily identifiable, sheltered and feature automatic operators. Vestibules are well proportioned to facilitate wheelchair/scooter use;
- Information deck and changeroom control will be designed to be barrier-free;
- General circulation – Interior barrier-free paths of travel have been designed to be 1,800mm wide typical;
- Rest/Waiting areas – Interior features integrated benching in the lobby, change corridor, natatorium to provide places of respite for patrons moving in an/or between amenity areas;

Natatorium Accessible Design:

- Aquatics Pools – Each basin (lap, leisure, hot tub) will incorporate ramped access and be >1,300mm in width;
- Contrasting pool markings and colour contrasting edge will be provided for all basins;
- Steam room features dedicated wheelchair space and 1800mm diameter clear space;
- Leisure pool is located in close proximity to changerooms to facilitate access/use;
- Pool viewing area is accessible on-grade and will provide dedicated spaces for wheelchair users;

Washrooms and Changerooms

- Barrier-free stalls provide min. 1,800mm turning radius typical;
- Changeroom facilities incorporate a mix of private change cubicles and group changerooms, designed to support a range of user preferences, family needs, and accessibility requirements.
- Feature dry and wet private change cubicles;
- Min. 1,800mm wide barrier-free path of travel is provided throughout;
- Provision for stroller/scooter/wheelchair parking are made within the space;
- Barrier-free lockers to be provided as part of the design;



Building Interior - Community Hub



Building Interior - Lobby

2.0 AQUATICS, PLAY & CLIMB



Building Interior - Climbing and Play Area



Building Interior - Gym



Building Interior - Teen Spa



Building Interior - Lap Pool



Building Interior - Leisure Pool

2.0 AQUATICS, PLAY & CLIMB



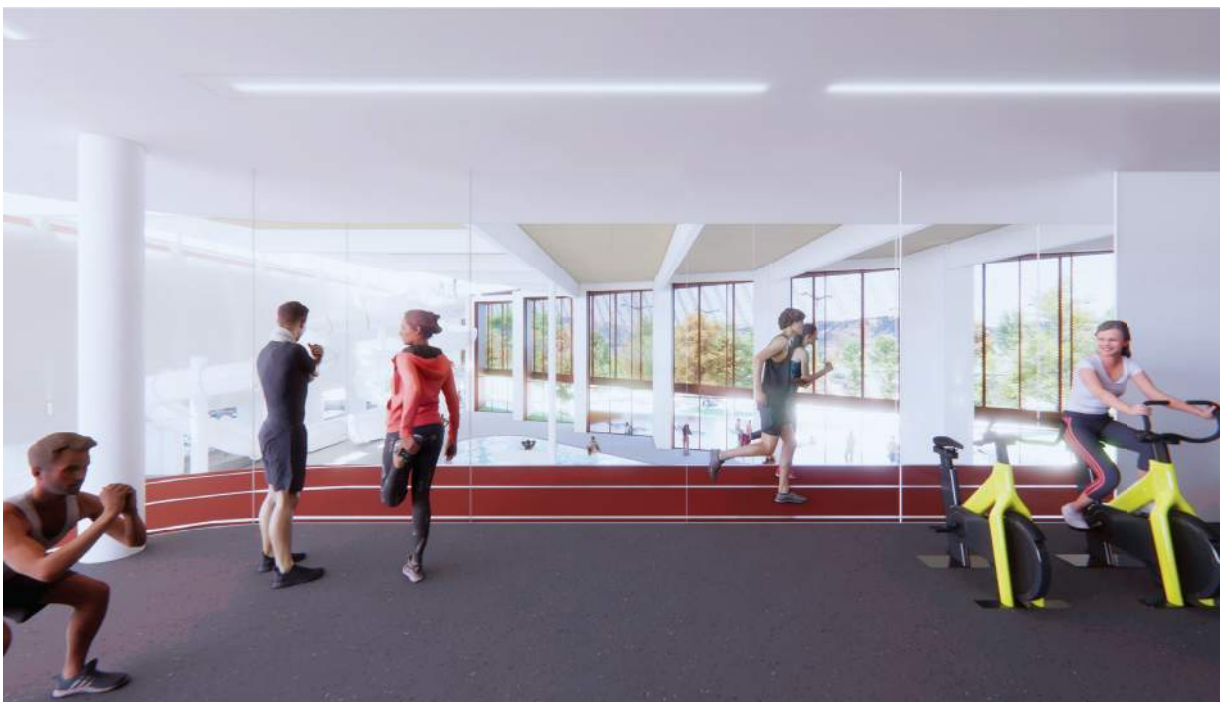
Building Interior - Community Hub Concession



Building Interior - Fitness



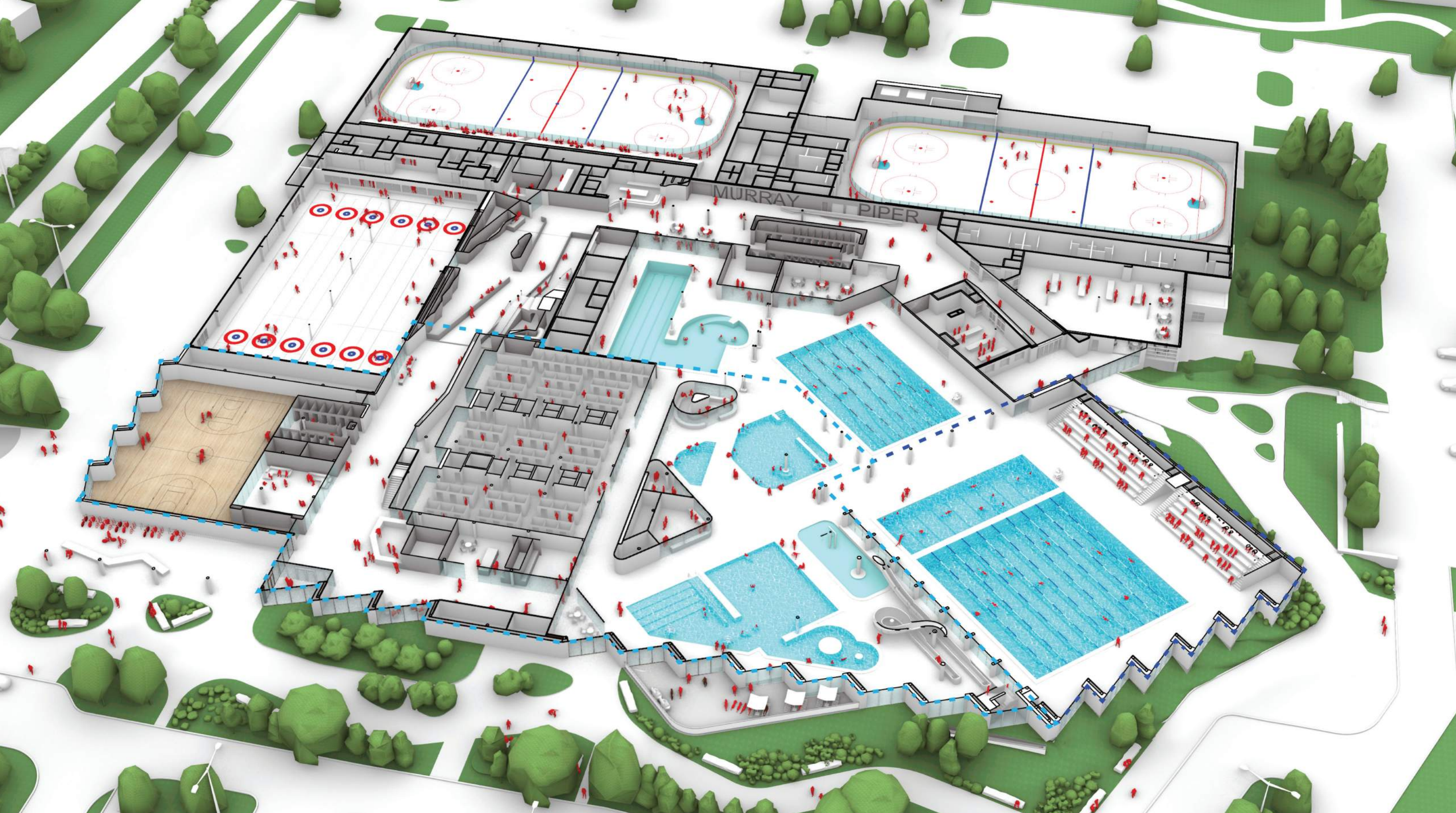
Building Interior - Fitness



Building Interior - Fitness

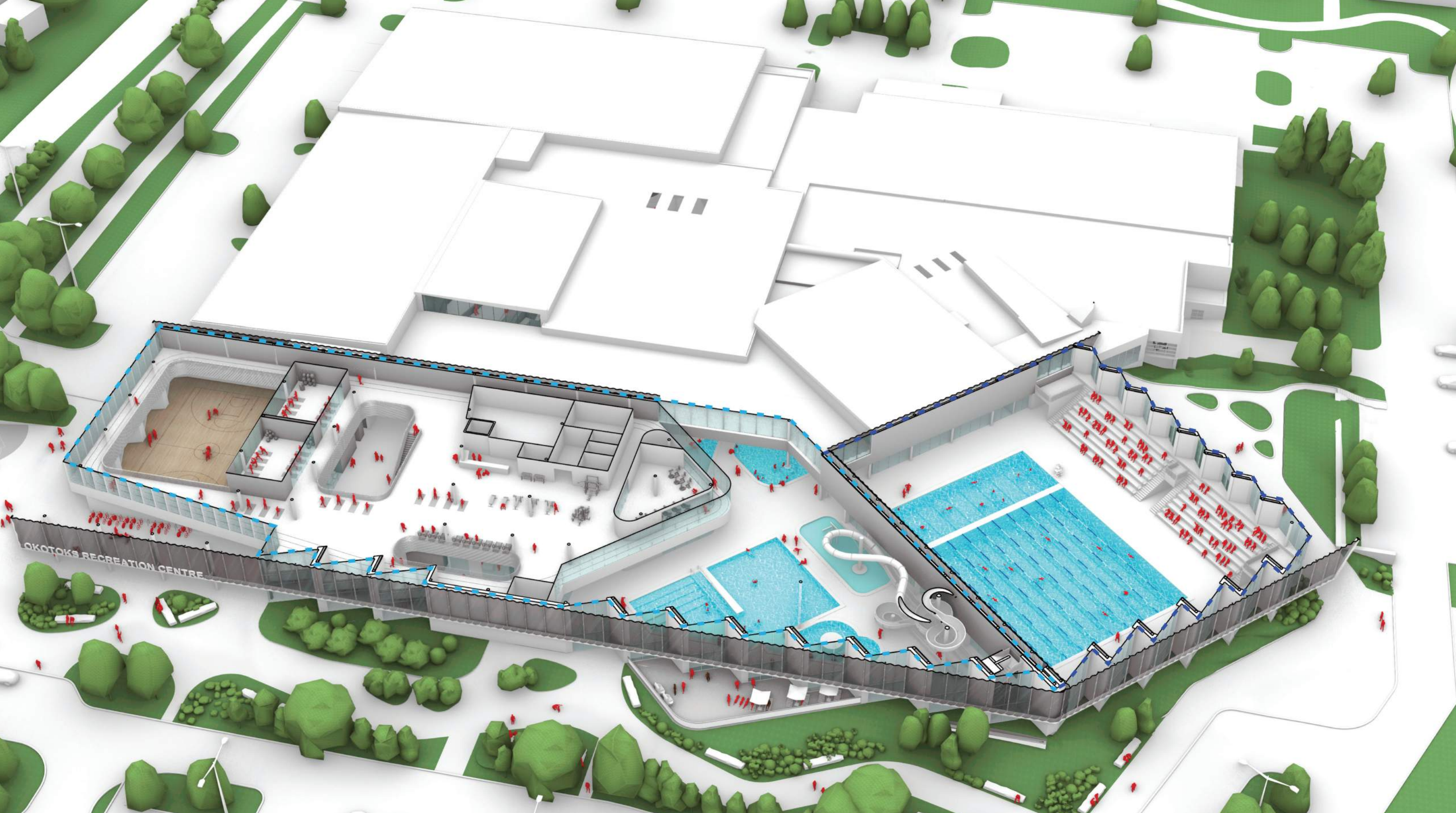


Building Interior - Leisure Pool



Ground Floor Axonometric

- PHASE 1A
- PHASE 1B
- PHASE 2



Second Floor Axonometric

- PHASE 1A
- PHASE 1B
- PHASE 2

2.3

**Engineered
Building Systems**

- Structural
- Mechanical
- Electrical
- Civil

2.0 AQUATICS, PLAY & CLIMB

2.3.1 Structural

Project Overview

RJC Engineers has developed the schematic structural design for the phased renovation and expansion of the Okotoks Recreation Centre, including:

- **Phase 1A:** West addition with leisure natatorium, fitness centre, running track, gymnasium, and multi-purpose spaces
- **Phase 1B:** Renovations to existing 1982 and 2006 building areas
- **Phase 2:** New south competition natatorium addition

The design is based on the February 17, 2026, geotechnical report by Parkland GEO (see Appendix G).

Note: Refer to the full Structural Report, Design Criteria, and Drawings in Appendix A2 for complete scope and technical information.

Geotechnical and Foundation

Subsurface conditions consist of fill over clay till with localized sand layers.

Key foundation strategy includes:

- Removal and replacement of upper 1.0 m of fill with engineered granular material
- 910 mm diameter bored cast-in-place concrete piles (approx. 9–15 m deep) for new construction (Phases 1A and 2)
- Pile-supported grade beams and pile caps
- 300 mm CIP foundation walls (typical), 450 mm at mechanical plenums
- 125–150 mm slab-on-grade
- Permanent dewatering assumed

Phase 1A – Leisure Pool, Gym Fitness Track Addition

Structural System

- Deep pile foundations with CIP concrete substructure
- Combination of suspended 300 mm CIP slabs and slab-on-grade at Level 1
- Steel framing with composite deck at Level 2
- Roof systems:
 - Low roof with steel beams and metal deck
 - Long-span steel beams (610–1000 mm deep) supporting 245 mm CLT panels

Pools

- 300 mm CIP perimeter walls
- 300 mm structural slab supported on CIP walls at ~6.0 m spacing
- Integral gutter system and water stops at construction joints

Lateral System

- CIP concrete shear walls, in combination with steel braced frames in both directions
- Expansion joint at connection to existing building

Phase 1B – Renovations

The original 1982 building comprises cast-in-place (CIP) concrete and structural steel framing supported on deep foundations. The 2006 aquatics and fitness additions utilize CIP concrete substructures and steel superstructures founded on a combination of deep and shallow foundations. In both phases, load-bearing CMU walls support the roof and function as part of the lateral force-resisting system. The 2006 addition includes a structural slab-on-grade at the main floor.

Key structural interventions include:

- Demolition of selected load-bearing CMU walls
- Installation of new HSS columns and steel beams
- Replacement of lateral elements with steel bracing or new 325 mm CIP shear walls

- Temporary roof shoring during demolition
- New micropile foundations where required
- Climbing wall constructed as 325 mm CIP reinforced concrete wall on new deep foundations
- Selective slab demolition and reinstatement for new services
- Skylight installation with secondary framing while maintaining diaphragm integrity

Phase 2 – Competition Natatorium Addition

Includes 34 m × 25 m (10-lane) competition pool, viewing bleachers, and support spaces.

Structural System

- Deep pile foundations (910 mm dia.)
- 300 mm CIP foundation walls
- 300 mm suspended CIP activity slab
- Roof: 2.6 m deep steel truss girders supporting 245 mm CLT panels
- Precast bleachers supported on CIP rakers

Lateral System

- Steel braced frames and CIP shear walls
- Expansion joint between new and existing structures

Summary

Overall, the structural design utilizes deep pile foundations, cast-in-place concrete substructures, steel framing, and long-span roof systems to support large aquatic and recreation spaces while integrating with the existing facility.

2.3.2 Mechanical

Project Overview

AME Consulting Engineers has developed the schematic mechanical design for the phased renovation and expansion of the Okotoks Recreation Centre, including:

- **Phase 1A:** West addition with leisure natatorium, fitness centre, running track, gymnasium, and multi-purpose spaces
- **Phase 1B:** Renovations to existing 1982 and 2006 building areas
- **Phase 2:** New south competition natatorium addition

The mechanical design aligns with the overall phased construction strategy and integrates new systems with existing infrastructure where feasible.

Refer to the full Mechanical Schematic Design Report and drawings in the Appendix A3 for complete scope, calculations, and technical criteria.

Design Approach

The mechanical strategy focuses on:

- High-efficiency HVAC systems tailored to natatorium and dry program areas
- Dedicated pool dehumidification systems for aquatic spaces
- Energy recovery and heat reclaim where feasible
- Upgrades to aging mechanical equipment in renovation areas
- Phased tie-ins to maintain operation of the existing facility during construction

Systems are designed in accordance with current Alberta Building Code, ASHRAE standards, and applicable energy efficiency requirements.

HVAC Systems

Natatorium Areas (Phases 1A & 2)

Aquatic areas are served by dedicated natatorium dehumidification units (NDUs) designed to manage high latent loads and maintain proper temperature and humidity levels. Key features include:

- Heat recovery from exhaust air
- Space pressurization control to prevent moisture migration
- Corrosion-resistant ductwork and components
- Continuous ventilation during occupied hours

Air distribution is designed to address condensation risk at glazing and perimeter walls. Systems maintain negative or neutral pressure relative to adjacent dry spaces.

Dry Program Areas (Gym, Fitness, Multipurpose)

Dry recreation spaces are served by packaged rooftop air handling units providing:

- Gas-fired heating
- DX cooling
- Outdoor air ventilation per code
- Demand-controlled ventilation (where applicable)

Ducted overhead distribution systems serve large-span gym and fitness areas. Equipment is selected for flexibility and maintainability.

Renovations (Phase 1B)

Renovated areas include selective:

- Replacement or refurbishment of rooftop units
 - Ductwork reconfiguration to suit new layouts
 - Balancing and recommissioning of modified systems
 - Integration into updated building controls
- Phased tie-ins are planned to minimize service interruptions.

Heating and Hydronic Systems

New additions are served by high-efficiency condensing boilers providing heating water to:

- Air handling units
- Perimeter finned tube or unit heaters
- Pool water heating systems

Hydronic systems include pumps, expansion tanks, air separators, and control valves located in dedicated mechanical rooms. Heat recovery opportunities from natatorium exhaust and pool systems are incorporated where feasible to reduce energy consumption.

Plumbing Systems

Domestic Water and Drainage

New additions include:

- Domestic cold and hot water distribution
- Sanitary and storm drainage systems
- Floor drains and trench drains in aquatic and changeroom areas
- Service hose bibbs and maintenance connections

Renovations include selective replacement and reconfiguration of existing piping systems.

Pool Systems

Both leisure and competition pools include:

- Filtration systems
- Chemical treatment systems
- Recirculation pumps
- Surge tanks
- Dedicated mechanical room infrastructure

Pool water heating is coordinated with the hydronic plant and heat recovery systems.

Storm Drainage

New additions include complete roof storm drainage systems consisting of:

- Interior roof drains with overflow protection

- Vertical storm leaders routed within the building structure
- Connection to site storm services

Storm systems are sized in accordance with local rainfall intensity data and plumbing code requirements. Roof areas include positive drainage slopes coordinated with structural design. Overflow scuppers or secondary drainage systems are provided to prevent ponding and protect roof structures.

Controls and Integration

All new equipment is connected to a Direct Digital Control (DDC) system integrated with the existing Building Automation System. The control strategy includes:

- Temperature and humidity control in natatorium spaces
- Building pressurization control
- Equipment scheduling
- Energy monitoring capability
- Alarm and trend logging

Summary

The mechanical design provides dedicated, high-performance systems tailored to aquatic environments, efficient HVAC solutions for dry recreation spaces, and strategic upgrades to the existing facility. The approach emphasizes durability, energy efficiency, humidity control, and phased integration to maintain continuous operation.

2.3.3 Electrical

Project Overview

SMP Engineering has developed the schematic electrical design for the phased renovation and expansion of the Okotoks Recreation Centre, including:

- **Phase 1A:** West addition with leisure natatorium, fitness centre, running track, gymnasium, and multi-purpose spaces
- **Phase 1B:** Renovations to existing 1982 and 2006 building areas
- **Phase 2:** New south competition natatorium addition

The design supports phased construction and integration with the existing facility.

Refer to the full Electrical Schematic Design Report and drawings in the Appendix A4 for complete system descriptions, load calculations, and equipment schedules.

Power Supply and Distribution

Existing Utility Service

- The facility is served by a 750 kVA, 600Y/347V Fortis padmount transformer located on the east side of the site. The transformer is anticipated to have sufficient capacity to support the additions, subject to final load confirmation.
- Main electrical room: 1600A, 600/347V 3-phase distribution; 1000A main breaker (planned upgrade to 1600A LSIG); digital metering
- Sub-distribution panels mostly at capacity, to be replaced or supplemented

New Distribution Strategy

- New 600A, 3P breaker from main distribution with load shedding capability when on generator power
- New 225 kVA 600–120/208V step-down transformer serving the natatorium addition
- New 208Y/120V panelboards for receptacles and small motor loads

- Pool mechanical equipment fed from a combination of 600V and 208V systems
- All panels sized with minimum 20% spare capacity

All major mechanical equipment (chillers or air-source heat pumps) will be fed from the main distribution.

Arc Flash Mitigation

The design incorporates adjustable LSI/LSIG breakers, reduced transformer sizes, labeled equipment per arc flash studies, lock-out procedures.

Lighting Systems

Interior Lighting

Existing fluorescent and mixed LED lighting is nearing end of life and will be replaced in renovation and addition areas with:

- High-efficacy LED luminaires
- Glare-controlled fixtures suitable for aquatic environments
- Lighting levels designed to IES standards
- Target illumination levels ranging from 200–600 lux depending on space type

Lighting Controls

The existing Douglas relay-based lighting control system has reached end of life and will be replaced in new areas with a centralized networked lighting control system, including:

- Dimming and switching controls
- Occupancy/vacancy sensors
- Daylight harvesting sensors
- Zoned gymnasium lighting control (minimum four zones)

Existing controls will remain in unaffected areas and be phased out over time.

Exterior Lighting

Existing pole lighting will be replaced to suit new site configuration. The new exterior lighting will:

- Meet Dark Sky and IES recommendations
- Improve security and visibility
- Be controlled via astronomical time scheduling and photocell input

Wiring Methods

- All new wiring in conduit, cable tray, or wireway
- Minimum #12 AWG copper conductors (RW90XLPE)
- Copper feeders for mechanical equipment
- Specification-grade devices with stainless steel cover plates

Communications & Auxiliary Systems

Data and Telecommunications

- Category 6 structured cabling in renovated areas
- Conduit-based distribution system
- Wireless access point rough-ins on grid
- Relocation of main data closet
- Public Address & AV
- PA system expansion, AV rough-ins for natatorium (owner-supplied)
- Electrical rough-ins provided under base scope

Life Safety and Security

Fire Alarm

Existing Mircom FX-2000 addressable fire alarm system will be expanded to serve new areas, including:

- New detection devices and pull stations
- Horn/strobe notification appliances
- Integration with sprinkler systems
- ULC-compliant monitoring
- Updated fire alarm graphic zoning diagram

Emergency Lighting

- New centrally located battery packs and remote heads
- Inverter-based emergency lighting for gym and aquatic spaces
- Replacement of older devices where required

- Exit Signage
- LED pictogram exit signs connected to AC and DC circuits
- Security & CCTV
- Expansion of intrusion alarm devices
- Conduit infrastructure for CCTV and access control (owner supplied systems)

Summary

The electrical design modernizes the facility’s aging infrastructure while supporting expanded mechanical loads, new natatorium systems, and updated lighting and life safety systems. The approach prioritizes capacity, energy efficiency, code compliance, and long-term maintainability while accommodating phased construction.

2.0 AQUATICS, PLAY & CLIMB

2.3.4 Civil

Introduction and Background

The proposed expansion of the Okotoks Recreation Centre includes enlargement of the building footprint and reconfiguration of parking areas. The redevelopment requires modifications to existing grading and municipal servicing infrastructure to support both construction-phase and ultimate development conditions.

The civil review is based on the 2025 site survey (Appendix H) and record drawings from the 2005 expansion. The schematic design evaluates existing conditions and confirms feasible strategies for grading, stormwater management, sanitary servicing, and water supply in alignment with municipal standards and system capacity.

Refer to the full Civil Schematic Design Report and drawings in Appendix A5 for detailed analysis, servicing layouts, and supporting calculations.

Site Grading

Site grading will be governed by existing site grades, current building elevations, and proposed grades associated with the expansion. Grading must facilitate proper tie-ins to Okotoks Drive along the west boundary and Milligan Drive along the north boundary.

The site slopes from northwest to southeast, with elevations ranging from approximately 1080.2 m to 1077.0 m. The existing finished floor elevation is 1079.93 m, and the proposed addition is set at 1080.36 m.

Proposed grades will accommodate driveway access to the eastern roads, with slopes ranging from approximately 2% to 4% toward the east. Overall site slopes will range from 0.8% to 4%, directing drainage toward the southeast corner. Grades adjacent to the building will slope away from the finished floor elevation to maintain the building as

a high point and minimize surface water drainage toward the structure.

Additional Grading Considerations:

- Direct parking lot drainage to landscaped low points where feasible
- Retain existing trees where possible
- Minimize disturbance to existing grading at the north and south ends of the building

Site Servicing Overview

The existing facility is serviced from the north with:

- 200 mm PVC sanitary service
- 200 mm water service
- 375 mm storm service to an existing manhole and catch basins

An additional storm system along the west side of the site connects southbound to a 400 mm concrete main at the southeast corner. The system includes 200 mm, 300 mm, and 375 mm storm services, multiple Type 5A manholes, and catch basins throughout the parking areas.

Sanitary Servicing

The existing 200 mm sanitary service, installed in 1980, connects on the east side of the building and ties into the northern roadway main. This service will remain in operation for the existing facility. Several existing fixtures rely on sump pumps to discharge to this connection.

A new sanitary service is proposed at the southwest end of the building, extending west to connect to the main along Okotoks Drive. This connection will accommodate additional flows from the expansion. It is located upstream of a known bottleneck in the municipal system identified in the 2024 servicing update. Coordination with the Town will confirm capacity and operational constraints, and aquatic discharge may be required during off-peak hours.

Water Servicing

An existing 200 mm water service along the east side connects north to the municipal main and is expected to remain in use. This line also services a hydrant on a dead-end branch within the east parking lot. Installation of approximately 50 m of additional 200 mm water line is recommended to connect to the looped southern system where feasible.

The south portion of the site is served by a looped 250 mm water line connecting to Downey Place, Okotoks Drive, and a larger 300 mm looped main to the south.

One hydrant within the south loop is located within the proposed Phase 2 footprint and will require relocation to maintain fire protection coverage. Final hydrant locations will be confirmed during detailed design.

Stormwater Servicing and Management

The existing storm system installed in 2005 is assumed to remain serviceable and will be retained where feasible. Portions will require removal and rerouting to accommodate the building expansion, particularly at the southwest corner.

The proposed storm system will integrate new and existing infrastructure, tying in at the west side and conveying flows southeast to the existing 400 mm concrete main. The downstream system has a maximum capacity of 199.1 L/s. Post-development flows must not exceed this rate.

On-site stormwater management measures will be required to limit peak discharge and may include surface ponding, underground storage, and flow-restricting outlet controls. Storage may be provided through surface or underground systems as required.

During construction, storm flows from existing catch basins along Okotoks Drive will be actively managed. Temporary conveyance measures will maintain positive drainage and protect the municipal system until permanent infrastructure is commissioned.

Summary

The civil schematic design confirms that the proposed expansion can be supported through a combination of retained existing infrastructure and strategic new servicing connections. The grading and servicing approach maintains positive site drainage, respects downstream capacity limitations, and supports phased construction while keeping the existing facility operational.

3.1

Concept Design

- Introduction
- Existing Conditions, Operational Review, and Code Considerations
- Concept Development
- Piper Arena Initial Concept Plans
- Piper Arena Selected Concept Plan
- Murray Arena Initial Concept Plans
- Murray Arena Selected Concept Plans

3.0 ARENAS

3.1.1 Introduction

Overview

The Arena Renovation Program has been developed as a complementary initiative to the Aquatics, Play & Climb Expansion and focuses on the long-term renewal of the existing Murray and Piper Arenas. The program responds to aging infrastructure, accessibility deficiencies, operational limitations, and the need to maintain safe and functional ice facilities that continue to support community recreation, user groups, and tournament activity.

The proposed scope of work for both arenas includes full arena slab replacement and header system replacement, representing a significant lifecycle reinvestment in the existing facilities. In addition to critical infrastructure renewal, the project provides an opportunity to address long-standing building code, accessibility, circulation, and operational deficiencies identified through facility review and concept planning.

Background

The Community Amenties Off-site Levy Study (2022) identified a current and future gap in the ice surface provision within Okotoks. The study identifies a service targe of one ice rink per 10,000 residents, and notes that the Town’s current and expected population and demographics align closely with target participant markets for enhanced ice arena facilities.

Currently, the two ORC arenas, Piper and Murray, are heavily used throughout the year for various ice and dry pad activities. With Okotoks undergoing significant growth, investment in ice arenas will limit the deterioration of service levels as facilities serve a growing population.



Piper Arena



Murray Arena

3.1.2 Existing Conditions, Operational Review, and Code Considerations

Site investigations and facility reviews were completed for both the Murray and Piper Arenas to assess lifecycle condition, accessibility, operational functionality, and code-related considerations. While both facilities continue to serve an important community function, several deficiencies and building limitations were identified that impact long-term functionality, accessibility, and modernization potential.

The proposed scope of work for both arenas includes full arena slab replacement and header system replacement, representing a significant lifecycle reinvestment in the existing facilities. In addition to critical infrastructure renewal, the project provides an opportunity to address long-standing building code, accessibility, circulation, and operational deficiencies identified through facility review and concept planning.

Piper Arena

Operational Observations

The Piper Arena presents more significant limitations due to its original building design and configuration:

- Similar to Murray Arena, the slab, header systems and boards are at end-of-life and require replacement.
- Circulation is constrained, with several narrow connections and inefficient pathways between functional areas.
- Low ceiling heights impact the overall user experience, reduce spatial quality, and limit flexibility for modernization or system upgrades.

Accessibility and Code Deficiencies

Accessibility limitations are more pronounced in the Piper Arena:

- The existing ramp does not meet current barrier-free requirements, particularly with respect to landing dimensions.
- There is no barrier-free access to team rooms, representing a major deficiency in inclusive facility use.
- Dead-end corridor to meeting room present life safety concerns that will require mitigation in future design phases.

See Appendix B5 for code review of existing facility.

Key Planning Consideration

The Piper Arena’s low ceiling heights and overall building geometry represent significant constraints to modernization. While targeted upgrades can improve specific elements, the extent of improvement achievable within the existing structure is limited.

Murray Arena

Operational Observations

The Murray Arena remains generally functional; however, several operational inefficiencies were identified:

- The existing arena slab, header systems and boards are nearing the end of their service life and require full replacement to ensure continued operation.
- Circulation throughout the facility is constrained, particularly in high-use areas serving dressing rooms and spectator zones.
- Existing sightlines into team rooms permit visual access, which may conflict with privacy expectations and code standards.
- Existing spectator seating is aging and does not fully support current expectations for comfort, accessibility, and safety.

Accessibility and Code Deficiencies

The facility does not meet several current accessibility and life safety expectations:

- There are no barrier-free washrooms or showers serving team room areas.
- The spectator seating lacks compliant guardrails and handrails.
- Existing exit configurations create travel distances that do not align with current code requirements.
- Team rooms have sightline issues that do not meet code standards

See Appendix B5 for code review of existing facility.

Key Planning Consideration

Despite these challenges, the Murray Arena building structure provides a reasonable framework for reinvestment. Targeted renovations can address lifecycle requirements, improve accessibility, and resolve key operational and safety concerns while retaining the majority of the existing facility envelope and structure.

Overall Findings and Implications

Across both arenas, several consistent themes emerged:

- **Lifecycle Renewal Priority:** Replacement of arena slabs and header systems is critical to maintaining continued facility operation.
- **Accessibility Gaps:** Both facilities fall short of current accessibility standards, particularly in team room access, washrooms, and circulation routes.
- **Operational Constraints:** Existing layouts limit visibility, supervision, and efficient movement of users and staff.
- **Life Safety Considerations:** Egress configurations, dead-end corridors, and spectator safety elements require improvement to better align with current codes.
- **Building Limitations:** While Murray Arena offers greater flexibility for renovation, Piper Arena presents more fundamental structural limitations.

These findings confirm that a combined approach, addressing essential lifecycle renewal while implementing targeted accessibility, safety, and operational upgrades, is required to extend the useful life of the facilities and improve overall performance. The extent of intervention will vary between arenas and is further explored through the concept development options outlined in the following section.

3.0 ARENAS

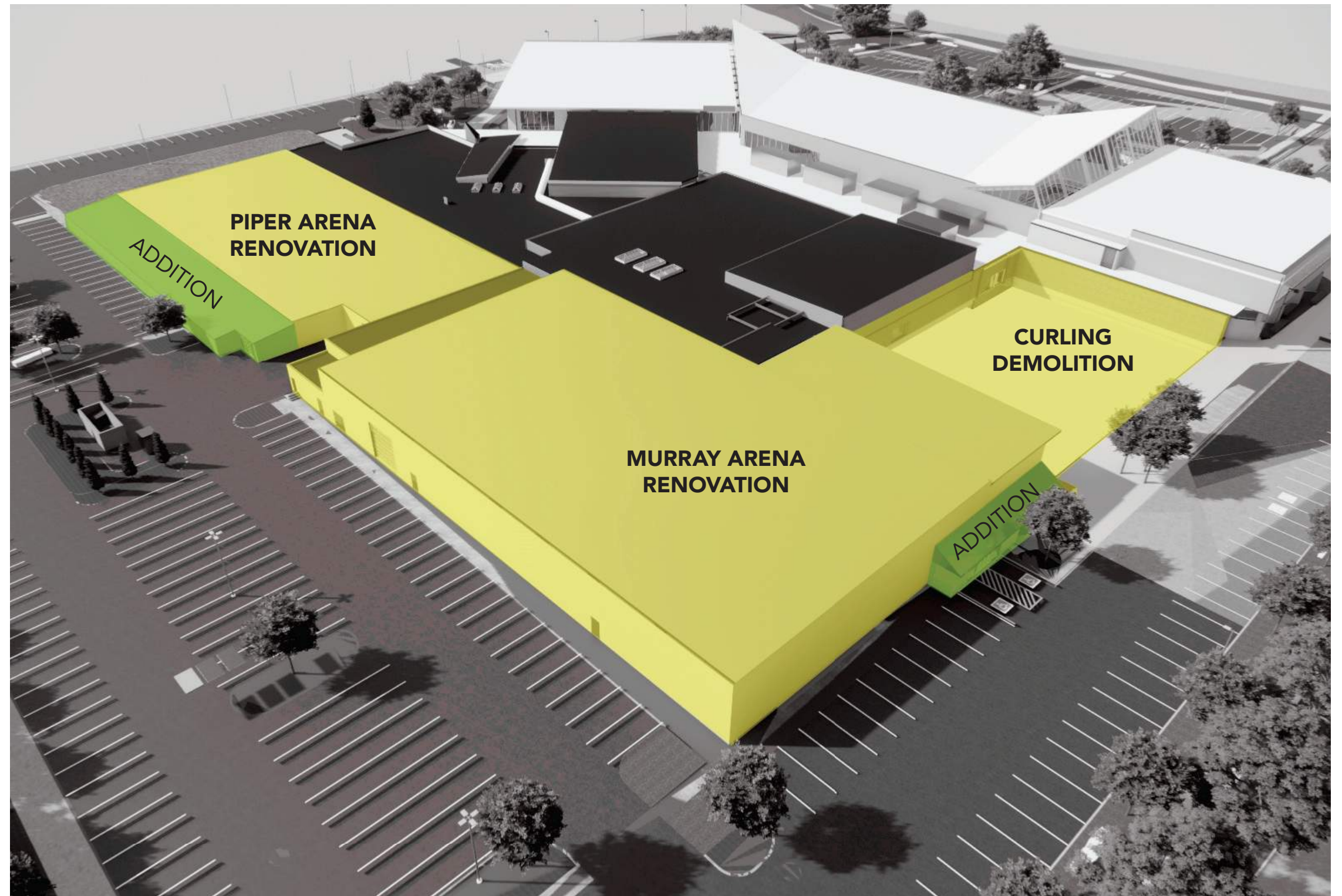
3.1.3 Concept Development

Concept development focused on balancing required infrastructure renewal with targeted upgrades that improve safety, accessibility, operational functionality, and user experience. Existing facility conditions, lifecycle requirements, operational needs, and current code and accessibility standards were reviewed to establish a practical renovation approach that supports continued operation of both arenas while maximizing the value of reinvestment.

The replacement of arena slabs and headers was identified as the primary lifecycle priority for both facilities. Additional upgrades were evaluated to improve:

- Barrier-free access and circulation
- Spectator safety and seating access
- Team room functionality and accessibility
- General operational efficiency and user experience

The renovation program is intended to extend the operational lifespan of the arenas, reduce long-term maintenance risks, and support continued community recreation programming. The work does not introduce additional arena capacity but rather modernizes and sustains existing facilities.



Arenas and curling - NE aerial

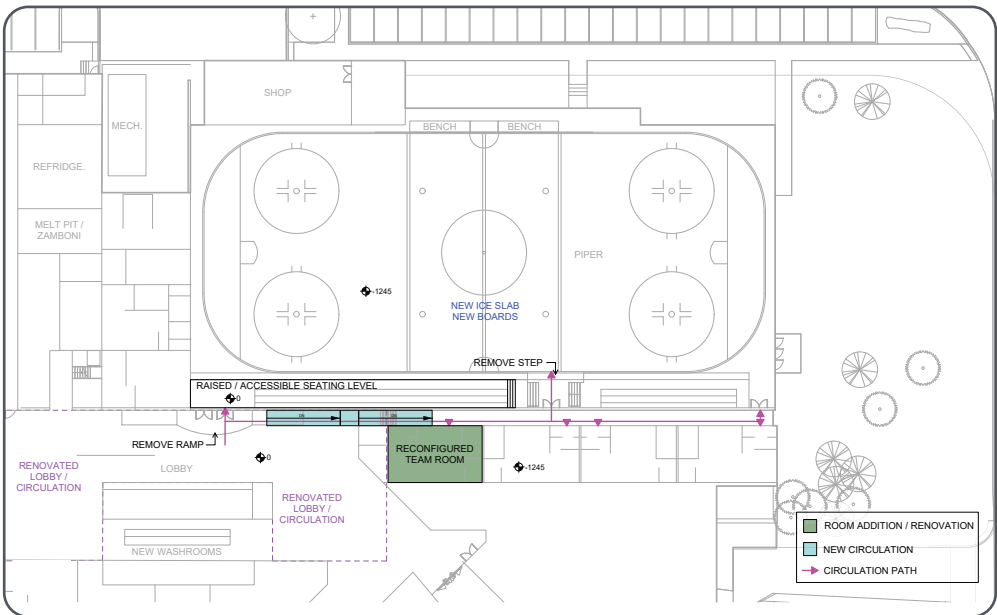
3.0 ARENAS

3.1.4 Piper Arena Initial Concept Plans

Low Investment Option - Lifecycle Renewal

This option focuses primarily on the replacement of critical infrastructure components, including:

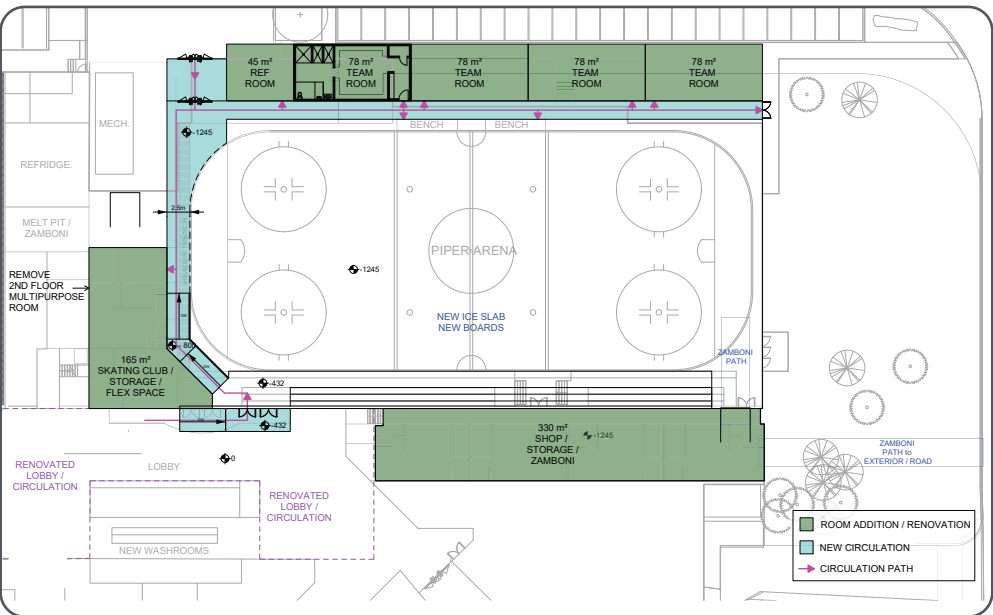
- Arena slab, header, dasher board replacement
- Building system upgrades
- Minor code-related improvements where required



Medium Investment Option - Accessibility and Operational Upgrades

On top of the lifecycle renewal features, this option additionally improves accessibility, circulation, and operational functionality. Improvements include:

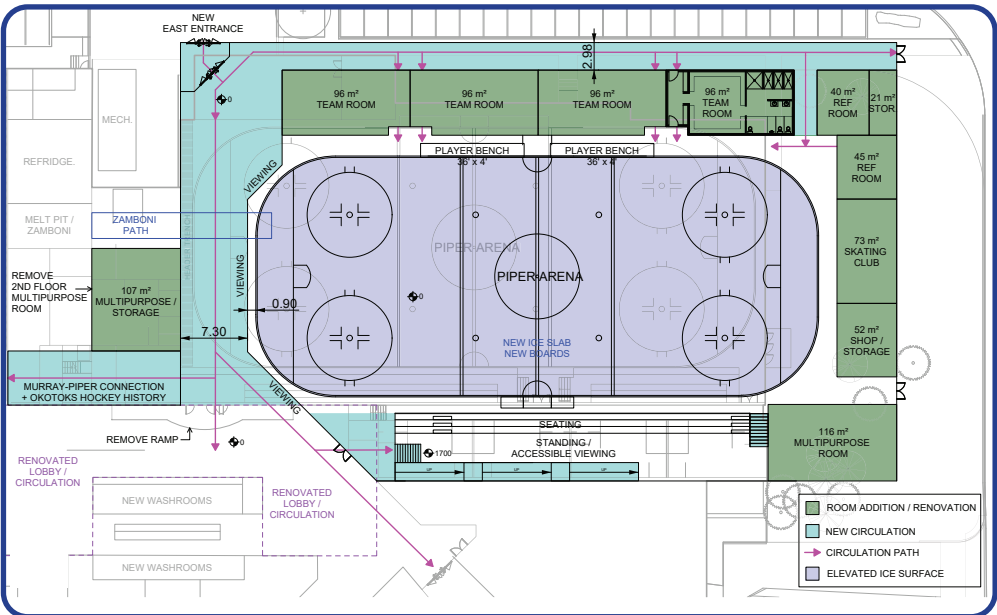
- Improved accessible routes and new east building access
- New team rooms with direct bench access
- Reconfigures existing areas into new multipurpose and support spaces



High Investment Option - Comprehensive Redevelopment / Facility Replacement

This option considers full replacement to address functional and structural limitations of the current arena, requiring a large investment increase over the medium option. Improvements include:

- Full replacement of the arena structure at standard ceiling height
- New barrier-free circulation systems
- Modernized team rooms and support spaces
- Improved spectator seating and viewing areas
- Enhanced building systems and energy performance



3.0 ARENAS

3.1.5 Piper Arena Selected Concept Plan

Medium Investment Option - Accessibility and Operational Upgrades

This option was the top choice for the Piper Arena renewal, selected as a lower cost option for that demonstrates fiscal responsibility while addressing accessibility and improving functionality.

Key Decision Factors

It was decided that the medium investment option:

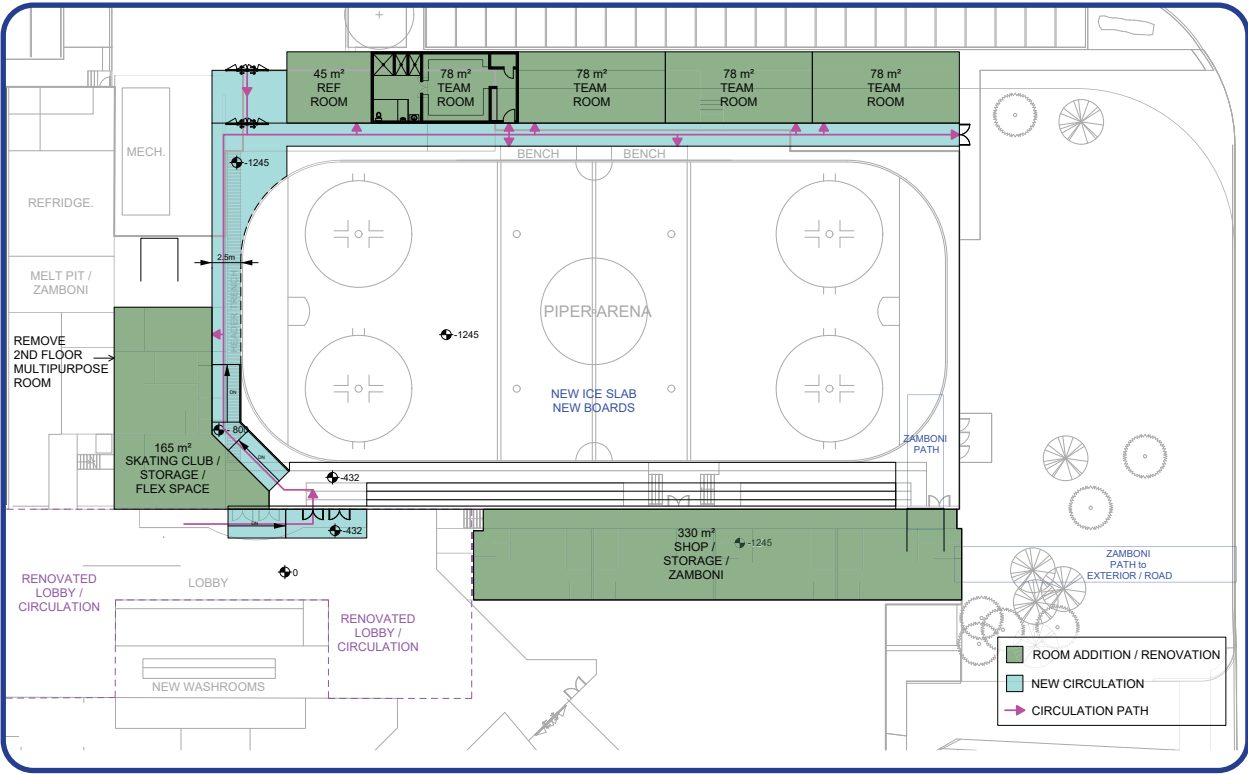
- Provides a viable facility for public drop-in, hockey/ringette practice, and figure skating
- Meets the community’s needs within the Recreation Centre’s expected service levels
- Largely reuses the existing structure
- Enlarges team rooms and provides direct access to player benches
- Provides opportunities for new community and support spaces
- Improves circulation with a new entry connecting the east parking area to the building’s main circulation spaces

Considerations

Though low ceiling height will remain a limitation for programming in Piper, the new construction of a separate Okotoks arena (single or twin facility) will help to offset functional deficiencies.

Early discussion about Piper renewal suggested that a second ice resurfer may be needed, as the current ramp between Murray and Piper is a strain on the machine. It was felt that future electric ice resurfacers will be better able to handle the climb between arenas.

Circulation along the north side of the ice likely requires shortening the length of the new ice surface, reducing from the standard 200’.



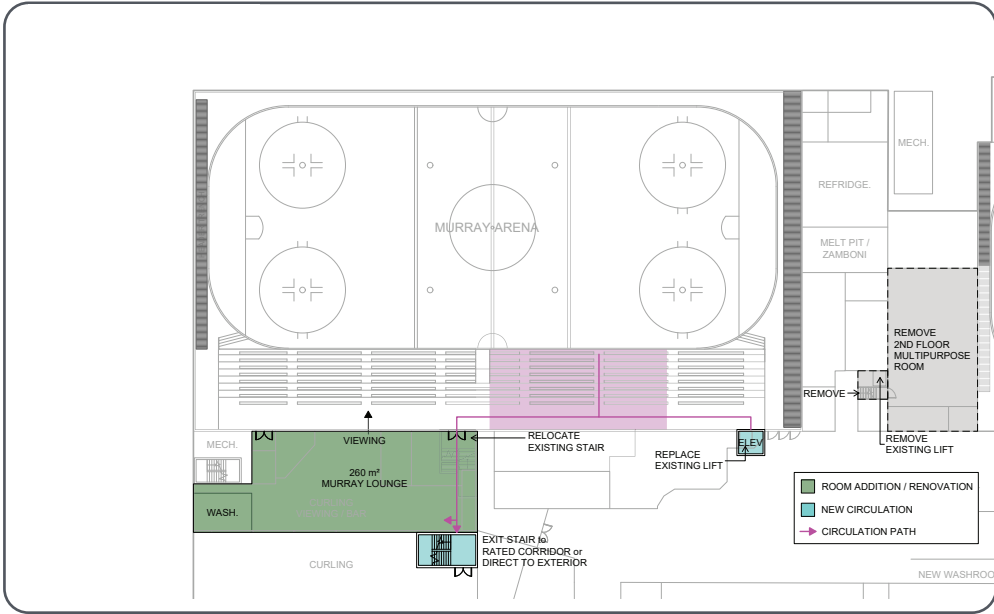
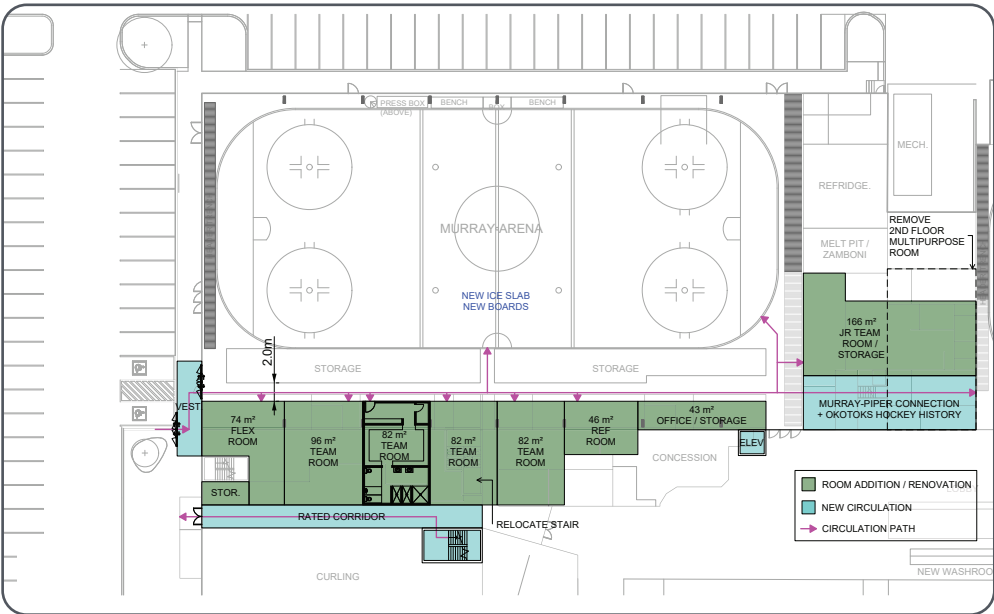
3.0 ARENAS

3.1.6 Murray Arena Initial Concept Plans

Low Investment Option - Renovation

This option focuses primarily on functional improvements, including:

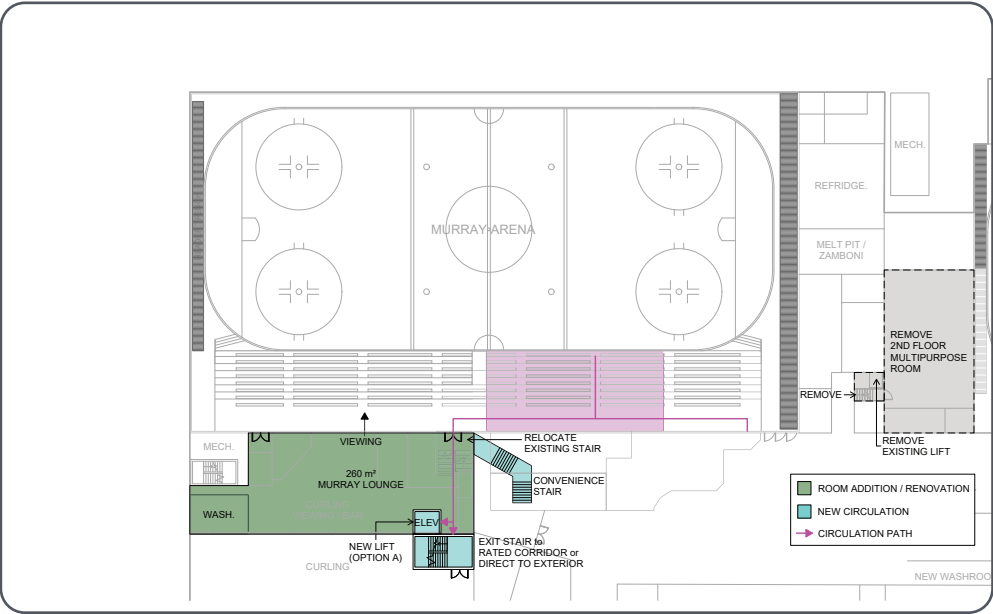
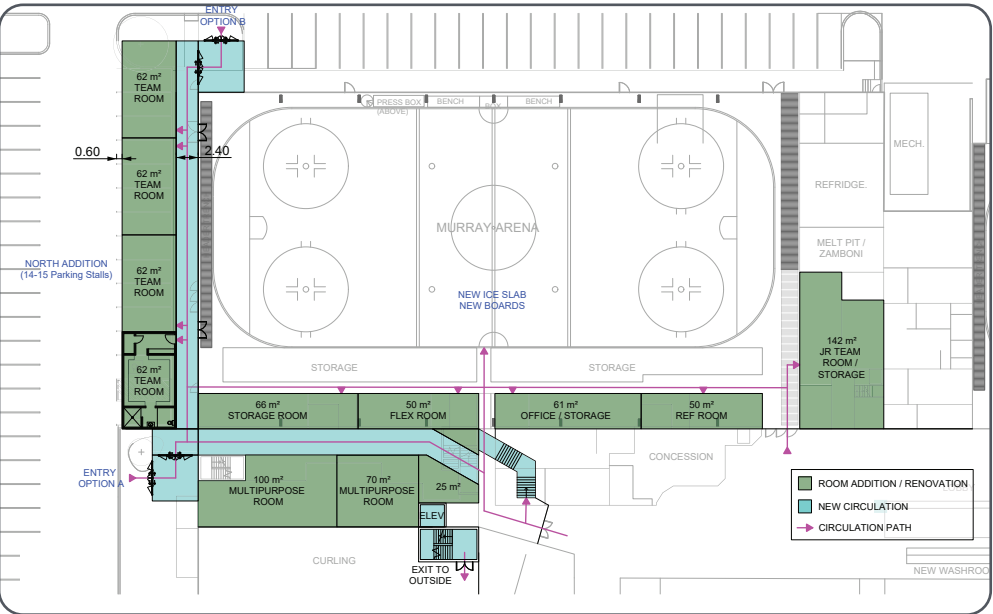
- Arena slab, header, dasher board replacement
- Code-related and circulation improvements
- New team rooms
- Renovated second floor lounge



Medium Investment Option - Renovation + North Addition

This option focuses on functional improvements and expansion of programming spaces, including:

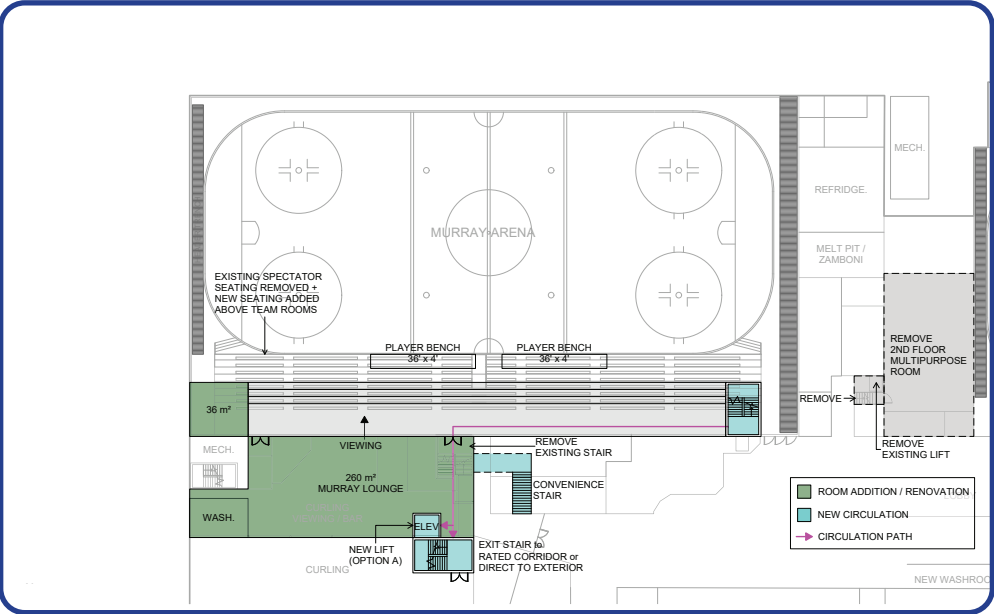
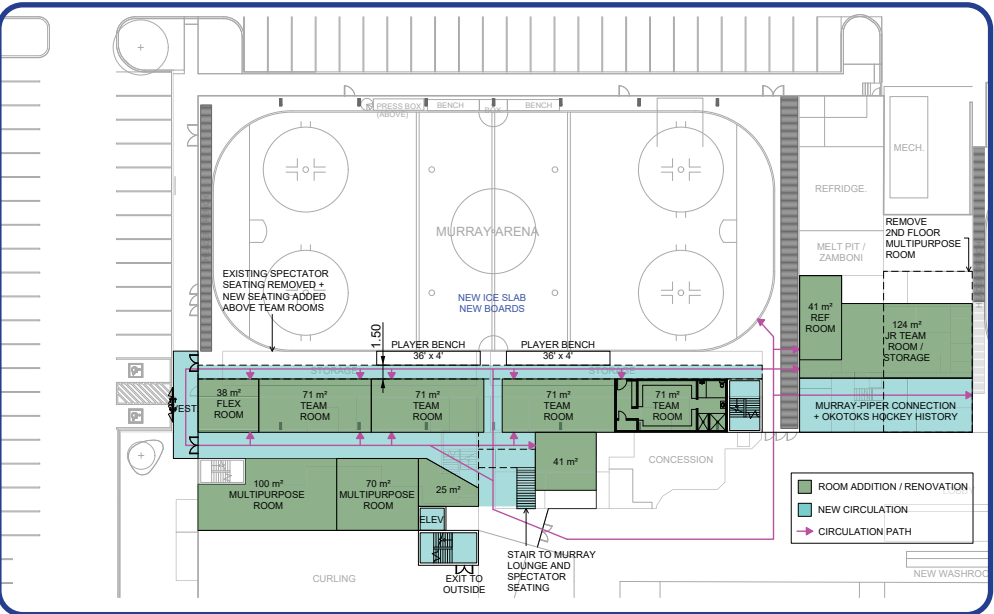
- Arena slab, header, dasher board replacement
- Code-related and circulation improvements
- North addition with new team rooms
- Renovated second floor lounge
- New programming spaces on first floor



High Investment Option - Renovation + Seating Replacement

This option focuses on functional improvements and expansion of programming spaces, including:

- Arena slab, header, dasher board replacement
- Code-related and circulation improvements
- New team rooms in place of existing seats
- Renovated second floor with new lounge and multipurpose spaces
- New programming spaces on first floor



3.0 ARENAS

3.1.7 Murray Arena Selected Concept Plan

High Investment Option - Renovation + Seating Replacement

This option was the top choice for the Murray Arena renewal, presenting a minimal cost increase over other options while addressing accessibility, improving functionality, and future proofing the facility for a long life.

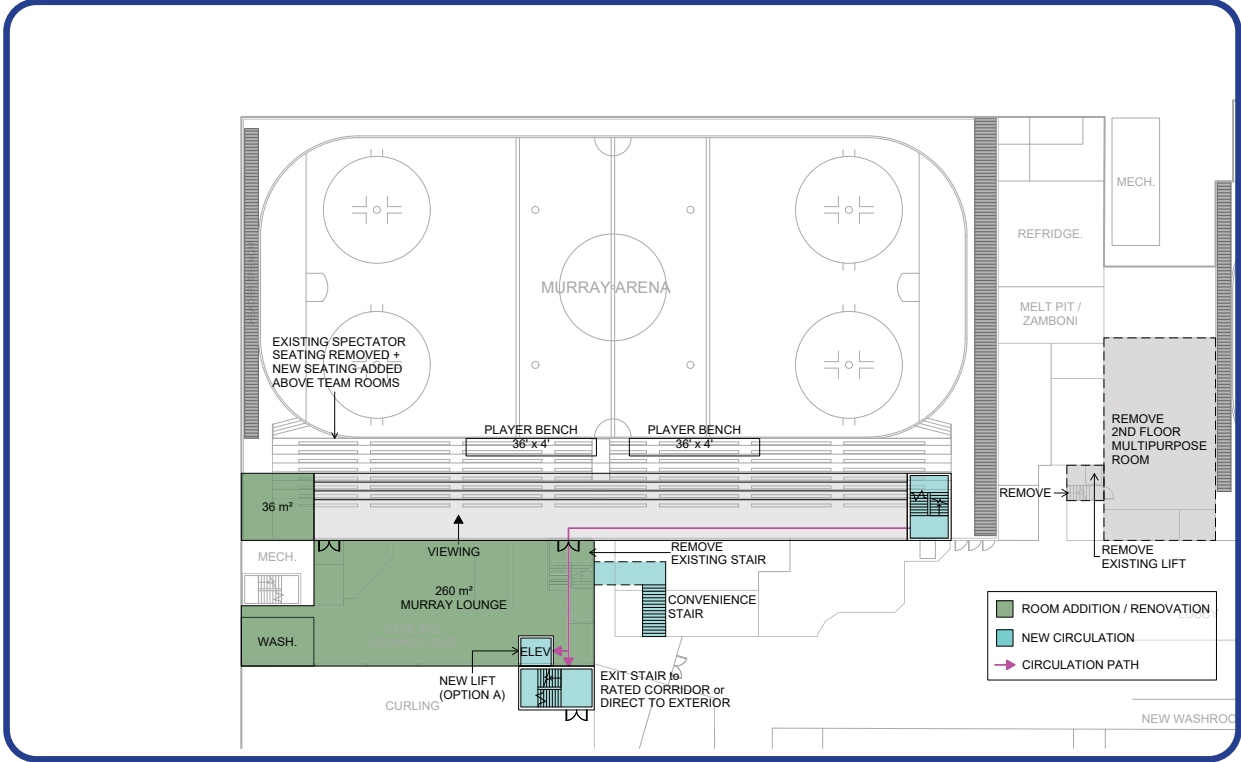
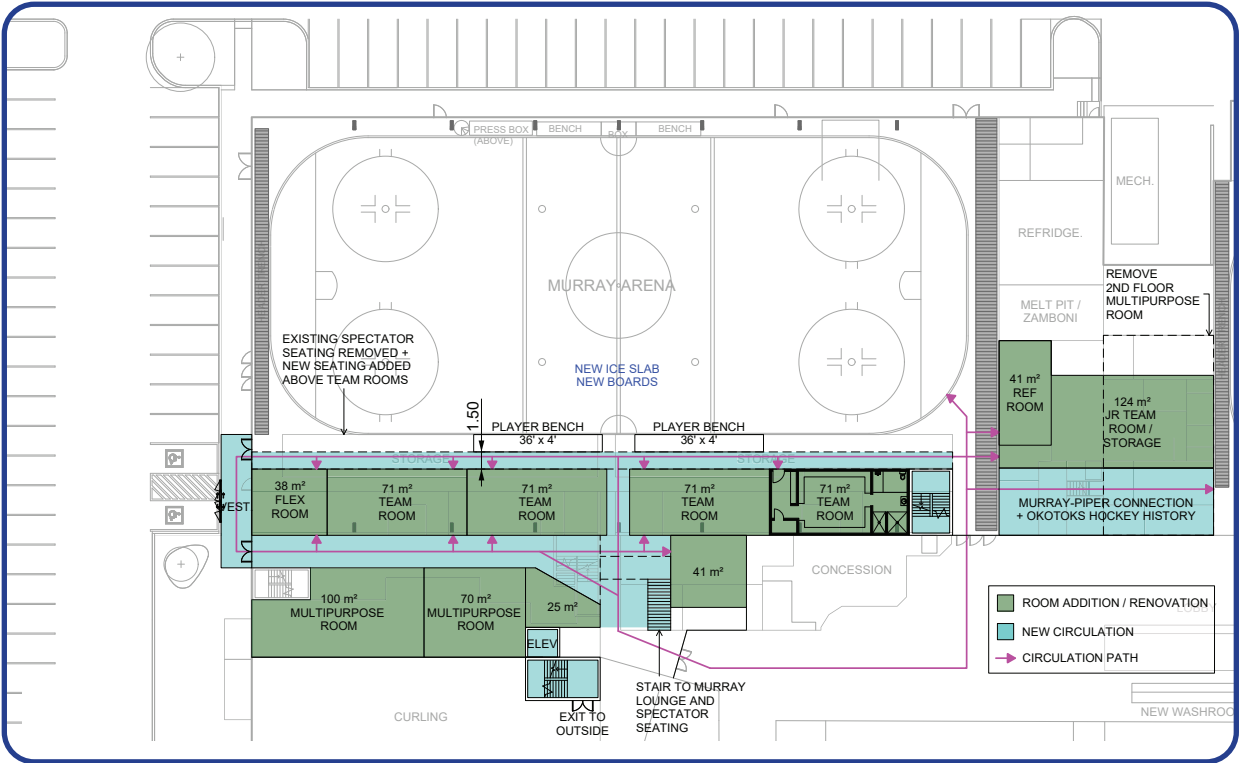
Key Decision Factors

It was decided that the medium investment option:

- Offers code-related and circulation improvements
- Provides larger team rooms with separate washroom facilities
- Has minimal impact on parking
- Improves entry and circulation from the north
- Provides a renovated second floor lounge and new multipurpose space with improved vertical circulation
- Provides new programming spaces on first floor and connection to Piper Arena

Considerations

Spectator seating in this option is significantly reduced, but allows for accessibility and safety concerns to be addressed while creating space for larger team rooms within the existing structure.



3.2

Schematic Design

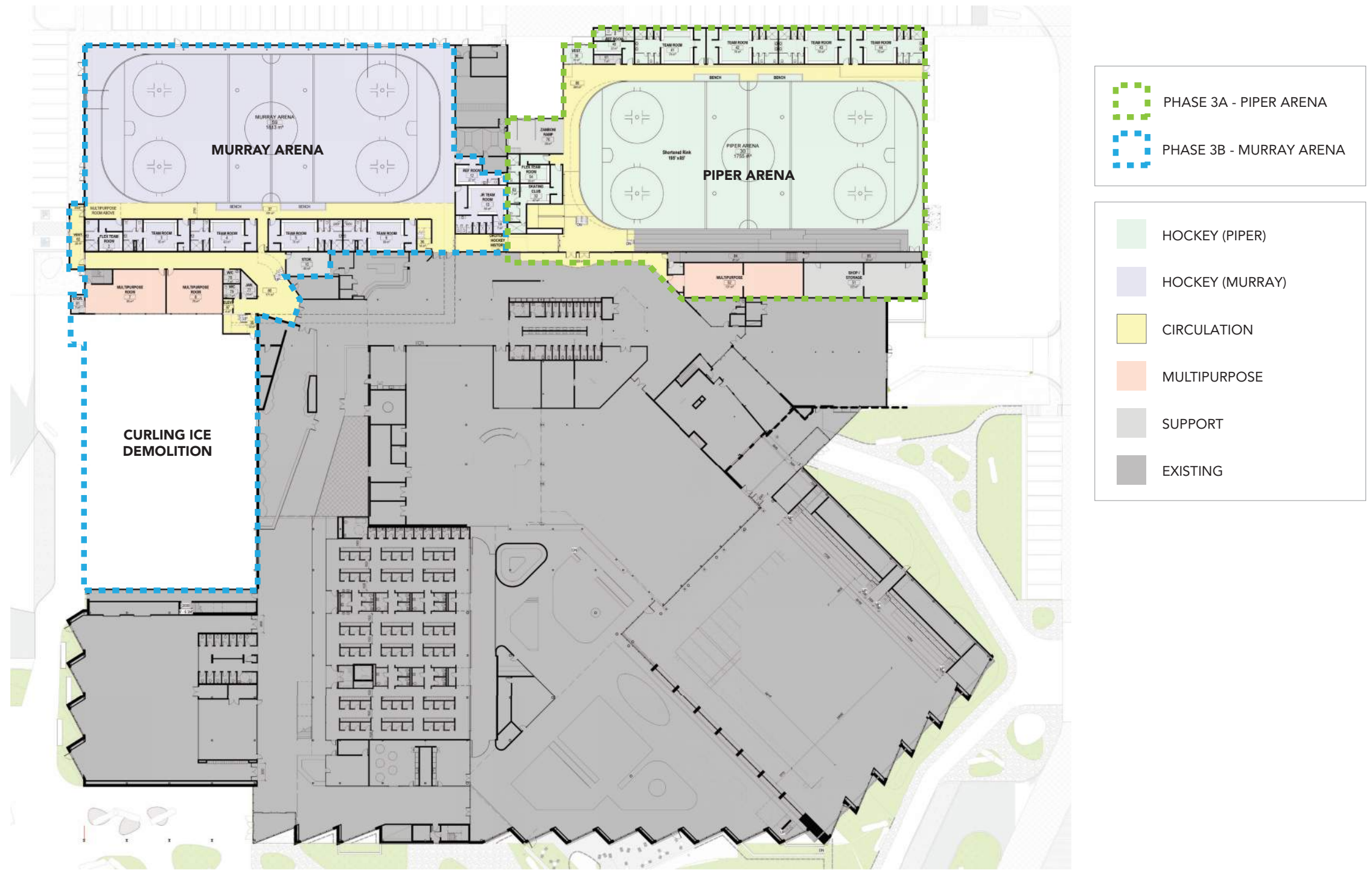
Selected Concept (Arenas Phase 3A & 3B)
Piper Arena Floor Plan 3A
Murray Arena Floor Plan 3B

3.0 ARENAS

3.2.1 Selected Concept (Arena Phase 3A & 3B)

Based on the facility review and evaluation of renovations options, a balanced reinvestment approach was chosen that combines required lifecycle renewal with targeted upgrades to improve accessibility and operational performance, while working within the constraints of the existing facilities. These options represent a fiscally responsible approach to arena renewal, while weighing recreational demands in consideration of additional arena facilities in Okotoks.

The combined Phase 3 arena options prioritize arena slab and header replacement as the primary lifecycle requirement, supported by focused improvements to circulation, team room functionality, spectator areas, and barrier-free access. The intent is to extend the operational life of the arenas and improve overall user experience without undertaking full facility replacement.



3.0 ARENAS

3.2.2 Piper Arena Floor Plan 3A

Phase 3A

Medium Investment Option - Renovation + East Addition

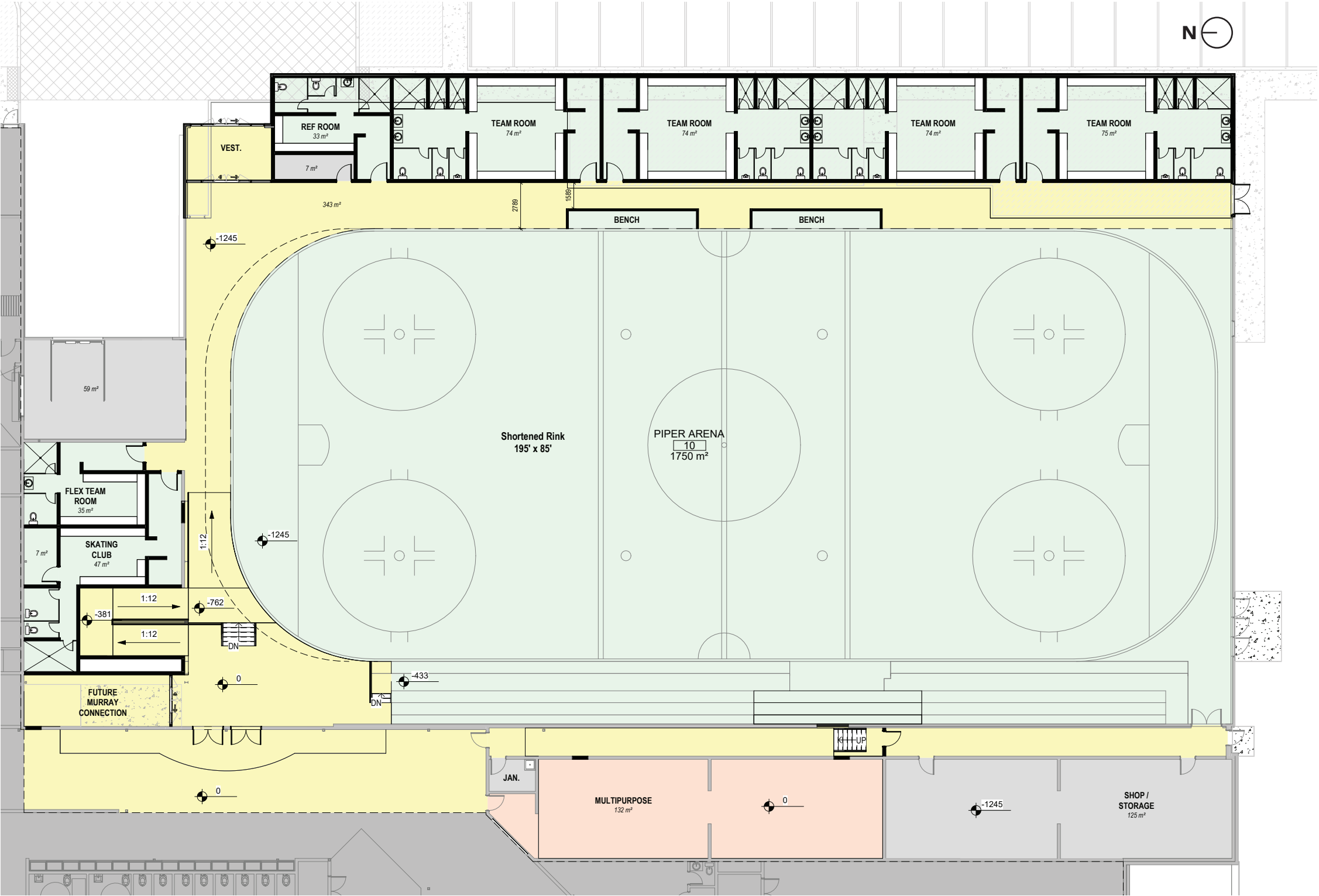
Renovations to Piper Arena will focus on lifecycle renewal and targeted upgrades; however, improvements are moderated by existing structural constraints.

Key Improvements:

- Arena slab, dasher boards, and header replacement with new shortened ice surface
- Incremental accessibility upgrades, including ramp improvements
- East addition to provides new team rooms with direct access to benches
- Addition of new east entrance adjacent to team rooms
- New multipurpose and support spaces in place of existing team rooms
- Targeted improvement to spectator seating area

To accomodate circulation from the new east entrance to the main circulation spaces of the building, the ice surface is shortened by 5', as shown by the dashed line. This represents a measured reduction in ice area that is not expected to have a significant impact on programming.

Low ceiling heights and existing building geometry will remain limiting factors, restricting programming and the extent of modernization achievable within the current structure.



3.0 ARENAS

3.2.3 Murray Arena Floor Plan 3B

Phase 3B - Level 1

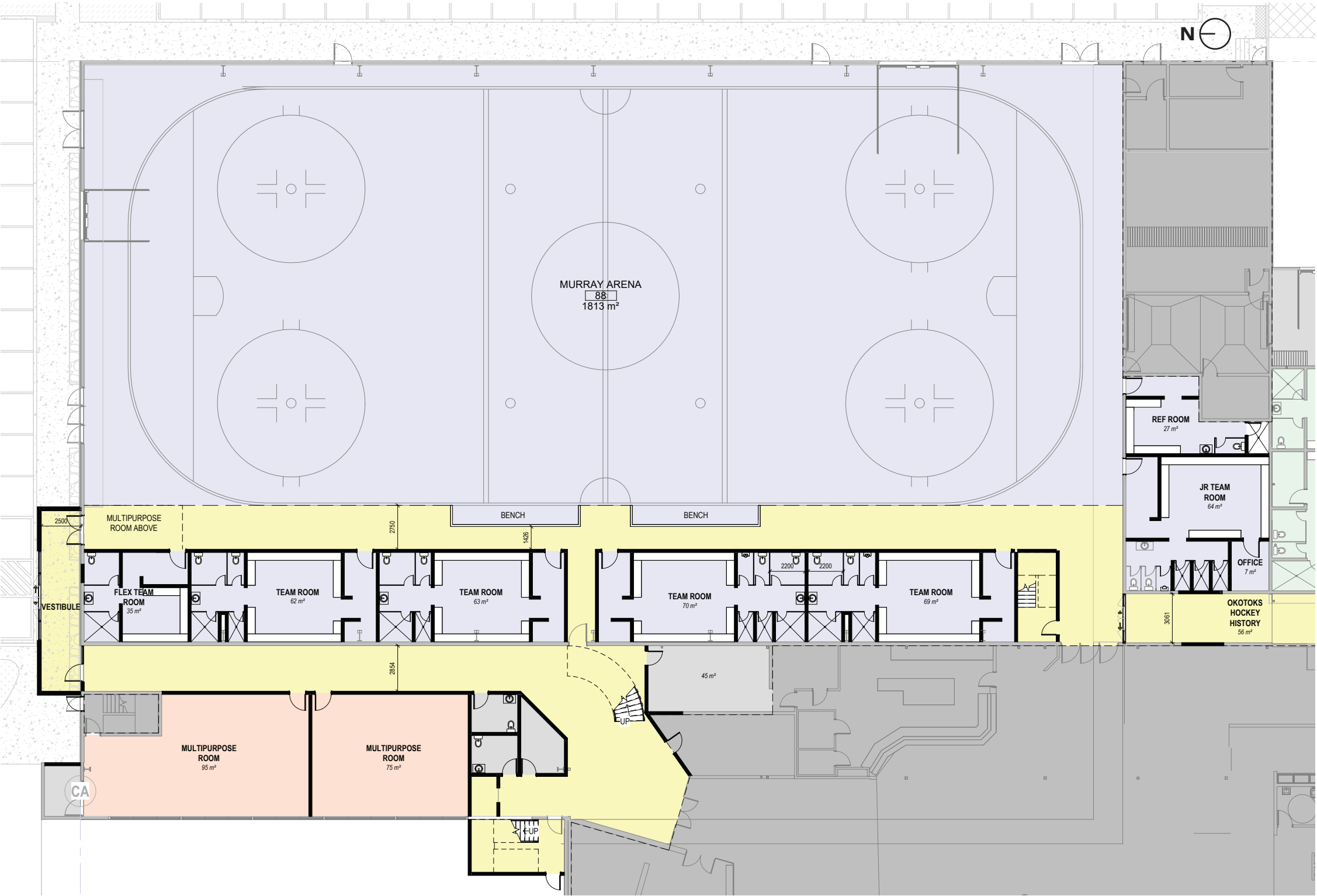
High Investment Option - Renovation + Seating Replacement

Renovations to the Murray Arena will focus on improving functionality and accessibility while retaining the existing structure.

Key Improvements:

- Arena slab, dasher boards and header replacement
- Replacement of spectator seating and updating to current code
- New north vestibule added
- New team rooms increasing size and accessibility while providing direct access to benches
- Targeted circulation and egress improvements
- Addition of new multipurpose rooms and vertical circulation in former curling spaces
- Addition of new Murray to Piper connection / Okotoks Hockey History room

These upgrades will significantly enhance safety, accessibility, and operational efficiency, supporting continued long-term use of the facility.



3.0 ARENAS

Phase 3B - Level 2

High Investment Option - Renovation + Seating Replacement

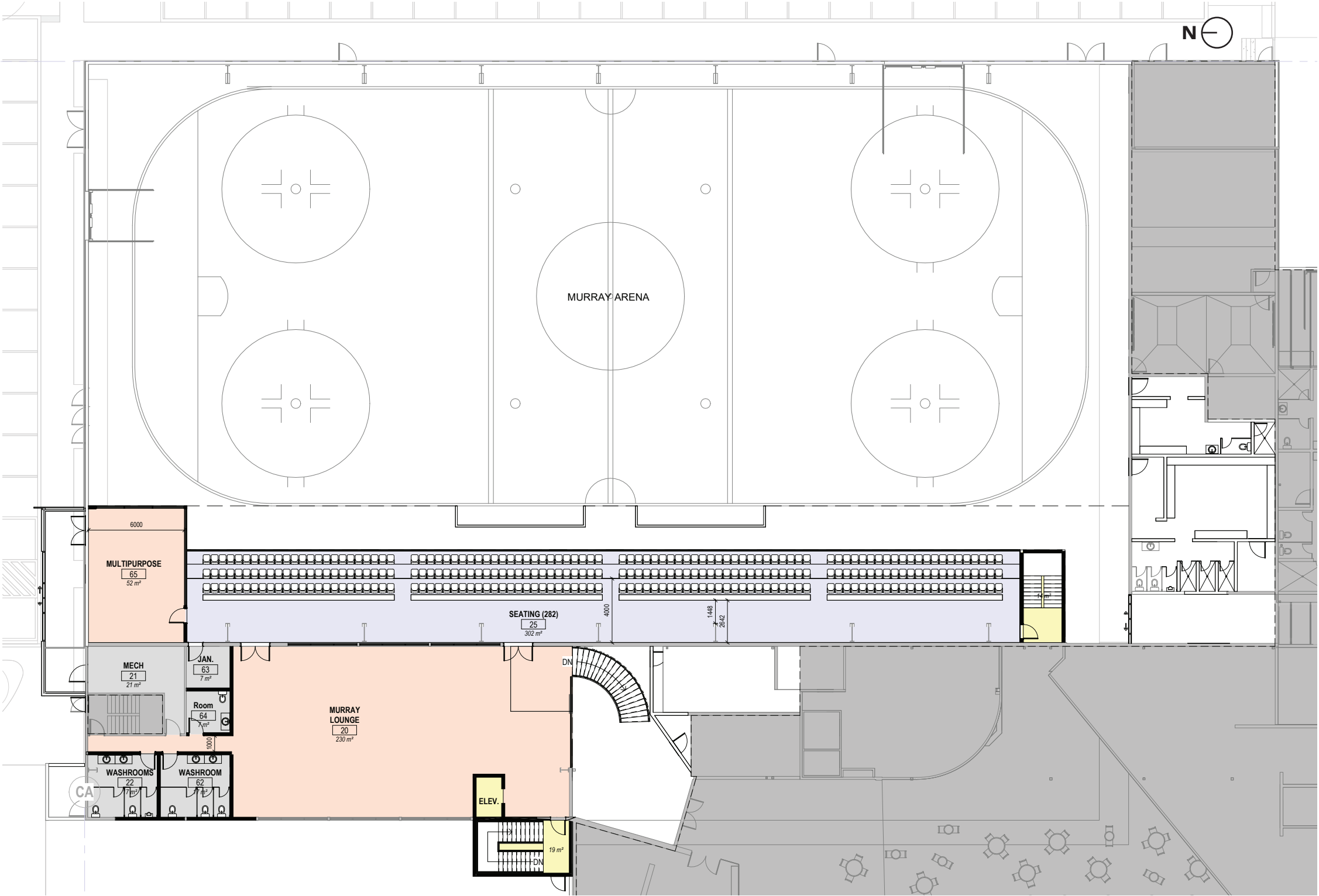
Renovations to the Murray Arena second floor will focus on improving functionality and accessibility.

Key Improvements:

- New spectator seating and multipurpose room added above team rooms
- Renovated lounge space with views to ice
- Targeted circulation, egress and accessibility improvements

These upgrades will significantly enhance safety, accessibility, and operational efficiency, supporting continued long-term use of the facility.

Seating capacity will be reduced from 812 to 282, with additional spectator viewing from the lounge, multipurpose room, and bar top standing area behind seats.



3.3

Functional Program

3.3.1 Functional Program (Arena Phase 3A & 3B)

Program area

Adjustments to the program in the Phase 3 selected concepts resulted in an overall increase in total gross program area of **124m²**. Key adjustments to the two arenas include:

- Addition of entrance vestibule at north side of Murray
 - Addition of a new team rooms and entry on east side of Piper
- Removal of second floor multipurpose room on Piper
 - Renovation of existing curling lobby and lounge into new multipurpose and Murray Lounge spaces
 - New connection between Piper and Murray serving as a Okotoks Hockey History room

Department	Reference #	Phase	Program	Units	Nm2/Unit	Net Area (m2)	BASE FUNCTIONAL PROGRAM AREA (m2)	CHANGE IN AREA (m2)	CHANGE IN AREA (%)	BASE FUNCTIONAL PROGRAM CHANGE	Description
7.0 ARENAS			PIPER ARENA								
	1	3A	Arena 02 Ice Surface + Circulation	1		1970	1823	147.0			Ice shorted from 200' to 195' to accommodate circulation
	2	3A	Arena 02 Seating	1		182	230	-48.0			Current fixed and bench seating for 383 spectators - seating remains approximately the same
	3	3A	Garage/workshop	1		125	107	18.0			
	4	3A	Arena Staging	1			39	-39.0			
	6	3A	Arena 02 Dressing 01	1		74	60	14.0			
	7	3A	Arena 02 Dressing 02	1		74	60	14.0			
	8	3A	Arena 02 Dressing 03	1		74	60	14.0			
	9	3A	Arena 02 Dressing 04	1		74	60	14.0			
	10	3A	Arena 02 Ramp	1		0	34	-34.0			Ramp filled in
	11	3A	Arena 02 Corridor	1		78	78	0.0			Beside existing dressing rooms
	12	3A	Ref Room	1		33	33	0.0			
	13	3A	Skate Club	1		47	73	-26.0			
	14	3A	Skate Club Office	1		7	9	-2.0			
	15	3A	Arena Sound	1		7	5	2.0			
	16	3A	Arena Janitor	1		0	3	-3.0			
	17	3A	Dressing Room Janitor	1		5	5	0.0			
	18	3A	Ticket Office	1		0	7	-7.0			
	19	3A	Multipurpose Room + Storage (2nd Level)	1		0	163	-163.0			2nd floor multipurpose removed for renovation of rooms and circulation below
	20	3A	Women's Washroom	1		0	15	-15.0			removed in P2B program and relocated for hockey history
	21	3A	Men's Washroom	1		0	9	-9.0			removed in P1B program and relocated for hockey history
	22	3A	Vestibule	1		18		18.0			Add Program
	23	3A	Multipurpose Room	1		132		132.0			Add Program
	24	3A	Flex Team Room	1		35		35.0			Add Program
			PIPER ARENA subtotal			3835	2873.0	62.0	2%		

Department	Reference #	Phase	Program	Units	Nm2/Unit	Net Area (m2)	BASE FUNCTIONAL PROGRAM AREA (m2)	CHANGE IN AREA (m2)	CHANGE IN AREA (%)	BASE FUNCTIONAL PROGRAM CHANGE	Description
			MURRAY ARENA								
	1	3B	Arena 01 Ice Surface + Circulation	1		1816	1816	0.0			
	2	3B	Arena 01 Dressing 01	1		62	40	22.0			
	3	3B	Arena 01 Dressing 02	1		63	28	35.0			
	4	3B	Arena 01 Dressing 03	1		70	42	28.0			
	5	3B	Arena 01 Dressing 04	1		69	26	43.0			
	6	3B	Arena 01 W/R 01	1		0	18	-18.0			
	7	3B	Arena 01 W/R 02	1		0	18	-18.0			
	8	3B	Female Dressing Rm/Flex Team Room	1		35	9	26.0			
	9	3B	Skate Sharpening	1		0	6	-6.0			May be relocated to new support area in Piper or Murray
	10	3B	Team Dressing Rm	1		64	66	-2.0			includes incorrectly shown w/c
	11	3B	Team Rm Office	1		7	9	-2.0			
	12	3B	Officials Dressing	1		27	13	14.0			
	13	3B	Meeting Room	1		0	31	-31.0			
	14	3B	Arena 01 Under Seating Storage 01	1		0	91	-91.0			
	15	3B	Arena 01 Under Seating Storage 02	1		0	87	-87.0			
	16	3B	Arena 01 Stair to Piper Multipurpose	1		0	4	-4.0			
	17	3B	Arena 01 Elevator to Piper Multipurpose	1		0	2	-2.0			Removed with Level 2 Multipurpose reoom being removed / relocated
	18	3B	Arena 01 Circulation	1		191	124	67.0			
	19	3B	Arena Seating	1		302	504	-202.0			Original bench seating for 812 spectators - now for 282 capacity
	20	3B	Arena Water Meter	1		9	9	0.0			
	21	3B	Mechanical Vestibule	1		5	5	0.0			
	22	3B	Arena Mechanical / Electrical	1		23	23	0.0			
	23	3B	Arena Mechanical	1		11	11	0.0			
	24	3B	Arena Refrigeration	1		87	87	0.0			
	25	3B	Zamboni/Melting Pit	1		43	43	0.0			
	26	3B	Vestibule	1		28		28.0			ADD
	27	3B	Arena 01 - Level 2 Multipurpose Room	1		52		52.0			North end of seating
	28	3B	Seating Exit Stair	1		14		14.0			Required for exiting for seating area for code
			MURRAY ARENA subtotal			3878	3112.0	-134.0	-4%		

Department	Reference #	Phase	Program	Units	Nm2/Unit	Net Area (m2)	BASE FUNCTIONAL PROGRAM AREA (m2)	CHANGE IN AREA (m2)	CHANGE IN AREA (%)	BASE FUNCTIONAL PROGRAM CHANGE	Description
			SHARED + CURLING + GAMES AREA								
	1	3B	Curling Lobby / Concession / Change	1		0	288	-288.0			Curling spaces removed
	2	3B	North Exit Stair	1		11	11	0.0			
	3	3B	Central Exit Stair	1		0	20	-20.0			
	4	3B	Vestibule / Storage	1		7	19	-12.0			Curling Vestibule and Storage replaced with smaller storage room
	5	3B	Lounge (2nd Level)	1		232	216	16.0			
	6	3B	Lounge W/C (2nd Level)	1		17	17	0.0			Moved
	7	3B	Lounge W/C (2nd Level)	1		17	17	0.0			Moved
	8	3B	Mech (2nd Level)	1		21	21	0.0			
	9	3A/3B	Okotoks Hockey History	1		56		56.0			
	10	3B	Multipurpose Room	1		95		95.0			
	11	3B	Multipurpose Room	1		75		75.0			ADD Program - Curling Viewing Area (Curling Removed)
	12	3B	W/C 1	1		7		7.0			Curling Viewing Area (Curling Removed)
	13	3B	W/C 2	1		7		7.0			Curling Viewing Area (Curling Removed space reallocated)
	14	3B	Janitor (1st Level)	1		10		10.0			
	15	3B	Accessible W/C (2nd Level)	1		7		7.0			
	16	3B	Janitor (2nd Level)	1		7		7.0			
	17	3B	Storage	1		45		45.0			Curling Viewing Area (Curling Removed)
	18	3B	Elevator	1		4		4.0			
	19	3B	West Exit Stair	1		19		19.0			Required for exiting for bleachers for code
	20	3B	Circulation (1st Level)	1		171		171.0			
			SHARED + CURLING + GAMES subtotal			888	609.0	199.0	33%		
	ARENA NET subtotal					6721	6594.0	127	2%		
	ARENA GROSS subtotal					6721	6594.0	127.0	2%		

3.4

Engineered Building Systems

- Structural
- Mechanical
- Electrical

3.0 ARENAS

3.4.1 Structural

1. Project Overview

RJC Engineers has developed the schematic structural design for the renovation and expansion of the Piper and Murray Arenas at the Okotoks Recreation Centre. Scope includes:

- Reconfiguration of team rooms and support spaces.
- Replacement of refrigerated ice slabs.
- New bleachers and concourse systems.
- Accessible circulation upgrades (ramps, stairs, elevator, vestibules).
- Structural upgrades using steel and concrete systems.

Work is integrated with the existing 1982/2006 structures and supports ongoing operations.

Refer to the full Structural Schematic Design Report and drawings in Appendices B2 for detailed criteria, materials, and drawings.

2. Design Approach

The structural strategy includes:

- Integration with existing structures.
- Deep foundations due to poor soils.
- Steel framing with composite decks.
- Cast-in-place concrete for foundations, slabs, and cores.
- Phased construction and demolition.
- Compliance with NBC 2023 and CSA standards.

Design prioritizes durability, constructability, and compatibility.

3. Structural Systems - Piper Arena

East Expansion (Team Rooms)

- Demolition of existing structure; new steel-framed building.
- Steel deck on joists, beams on HSS columns.
- Pile foundations (~10 m), pile caps, grade beams.
- 175 mm slab-on-grade.

West Renovations

- Conversion to storage/maintenance.
- Modifications to load-bearing CMU walls with shoring.
- New raised composite floor systems.

Refrigeration Slab

- Replacement with 150 mm reinforced slab, insulation, heated sand base.
- Headerless piping system.

Accessibility and Interior Works

- New ramps, raised floors, CIP retaining walls.
- New slab-on-grade bleachers.

4. Structural Systems - Murray Arena

Bleacher & Concourse

- Demolition and replacement of existing systems.
- New precast bleachers on CIP walls.
- Composite concourse slab on steel beams.
- Supported on deep piles and grade beams.

Vertical Circulation

- New CIP stairs and elevator shaft on piles.
- Feature steel stair on micropiles.
- Local strengthening of existing structure.

Vestibule Addition

- Steel-framed structure with deck on beams and HSS columns.
- Pile foundations and 150 mm slab-on-grade.

Team Room (Below Bleachers)

- Slab removal and replacement with 150 mm reinforced slab.
- Accommodates new foundations and services.

Refrigeration Slab

- New insulated reinforced slab system.
- Headerless piping; existing trench abandoned.

5. Foundations and Substructure

- Deep foundations (typ.):
 - 760 mm dia. bored piles (~10 m deep).
 - Pile caps and grade beams.
- Micropiles where access is limited.
- Slabs on engineered granular base (98% compaction).

3.0 ARENAS

3.4.2 Mechanical

1. Project Overview

AME Consulting Engineers has developed the schematic mechanical design for the renovation of the Piper and Murray Arenas within the Okotoks Recreation Centre redevelopment. The arena scope includes:

- Upgrades and reconfiguration of HVAC systems serving arena bowls, concourses, and team rooms.
- Replacement and integration of systems supporting new refrigeration slabs.
- Mechanical servicing for new bleachers, concourses, and circulation areas.
- Integration of new and existing mechanical infrastructure.
- Phased tie-ins to maintain facility operation.

Systems are coordinated with structural and architectural upgrades and integrated into the existing building systems.

Refer to the full Mechanical Schematic Design Report and drawings in Appendix B3 for detailed scope, calculations, and system layouts.

2. Design Approach

The mechanical strategy focuses on:

- Integration with existing HVAC and building systems.
- Provision of efficient ventilation and heating for arena and support spaces.
- Maintaining thermal comfort and air quality in large-volume arena environments.
- Energy efficiency measures, including heat recovery where feasible.
- Phased implementation to allow continued facility operation.
- Compliance with Alberta Building Code and ASHRAE standards.

3. HVAC Systems

Arena Bowls and Large Spaces

- Ventilation and heating systems designed for large-volume spaces.
- Air distribution systems address:
 - Spectator comfort.
 - Ice surface conditions and condensation control.
- Systems coordinated with building envelope and structural upgrades.

Concourse, Team Rooms, and Support Spaces

- Served by air handling or rooftop units providing:
 - Heating and ventilation.
 - Code-compliant outdoor air.
- Modifications include:
 - Ductwork reconfiguration.
 - Rebalancing of systems.
 - Integration into updated layouts.

Renovation Areas

- Selective replacement or upgrade of existing equipment.
- Reconnection to revised duct systems and controls.
- Commissioning and balancing of modified systems.

4. Heating and Hydronic Systems

- Arena and support spaces served by central heating plant (condensing boilers).
- Heating water distributed to:
 - Air handling equipment.
 - Unit heaters and perimeter heating.
 - Systems supporting arena functions (e.g., slab support heating).
- Systems include pumps, controls, and ancillary components.
- Heat recovery opportunities incorporated where feasible.

5. Plumbing Systems

Domestic Water and Drainage

- Distribution of domestic hot and cold water.
- Sanitary and storm drainage systems within renovated areas.
- Floor and trench drains in team rooms and service areas.

Ice Slab Support System

- Coordination with refrigeration slab replacement including:
 - Sub-slab heating systems
 - Integration with mechanical plant.
 - Piping and drainage coordinated with structural slab assemblies.

Storm Drainage

- Roof drainage systems include:
 - Interior roof drains and overflow protection.
 - Vertical leaders connected to site services.
- Designed to prevent ponding and protect structural systems.

5. Controls and Integration

- All systems connected to a Direct Digital Control (DDC) system integrated with existing BAS.
- Control strategies include:
 - Temperature control in arena and support areas.
 - Ventilation and pressurization control.
 - Equipment scheduling and monitoring.
 - Alarm and trending functions.

3.0 ARENAS

3.4.3 Electrical

Introduction

The electrical schematic design for Phase 3 includes upgrades and integration of systems serving the Piper and Murray Arenas at the Okotoks Recreation Centre. Scope includes:

- Upgrades to power distribution and panelboards.
- New and replacement lighting systems.
- Electrical servicing for mechanical, arena, and support spaces.
- Upgrades to life safety, security, and communication systems.
- Integration with existing electrical infrastructure.

Existing electrical systems are generally in serviceable condition but require targeted upgrades and expansion to support the renovations.

Refer to the full Electrical SD Report and drawings in the Appendix B4 for detailed system layouts and criteria.

1. Design Approach

The electrical strategy includes:

- Integration of new systems with existing distribution infrastructure.
- Selective replacement of aging equipment and panelboards.
- Provision of adequate capacity for new mechanical and arena loads.
- Implementation of energy-efficient lighting and controls.
- Coordination with phased construction to maintain operations.
- Compliance with Canadian Electrical Code, NBC, NECB, and IES standards.

2. Power Distribution

Utility and Main Distribution

- Existing 750 kVA padmount transformer (600/347 V) to remain.

- Main distribution via 1600A service and switchboard.
- Main breaker upgrade anticipated to support revised loading.

Sub Distribution

- Existing panelboards generally at or near capacity.
- New panels added in renovation areas.
- Replacement of end-of-life equipment where required.
- Existing systems retained where not impacted.

Equipment Connections

- Mechanical loads >¾ HP served at 600V.
- 208/120V panels added for receptacles and smaller loads.
- New panelboards sized for future capacity (~20% spare).

3. Lighting Systems

Interior Lighting

- Replacement of outdated fluorescent fixtures with high-efficiency LED lighting.
- Lighting designed to meet arena and support space requirements.
- Target lighting levels aligned with IES standards.

Arena Lighting

- Murray Arena: Competition-level lighting (~1000 lux).
- Piper Arena: Competition / recreational (~750 lux).
- Lighting modeled using industry-standard software.

Lighting Controls

- New centralized lighting control system integrated with earlier phases
- Features include:
 - Dimming and zone control.
 - Occupancy/vacancy sensors.

- Daylight harvesting where applicable.
- Existing lighting control systems to be replaced or integrated.

4. Communications & Auxiliary Systems

- Installation of Category 6 structured cabling for data/voice systems.
- Provision for wireless access point infrastructure.
- Expansion of public address (PA) system throughout arenas and support areas.
- AV systems to be upgraded by owner, with electrical rough-in provided.

5. Life Safety and Security

Fire Alarm

- Existing addressable system to remain; nearing lifecycle replacement.
- New devices installed in all renovated areas.
- System upgrades to align with current codes and standards.

Emergency Power & Lighting

- Combination of battery packs, remote heads, and inverters.
- Arena emergency lighting provided via centralized inverter systems.
- Full coverage of egress paths to meet code requirements.

Security & CCTV

- Expansion of existing systems including:
 - Intrusion detection.
 - CCTV and access control (owner-supplied).
- Coverage for renovated corridors and key spaces.

4.0

PHASING & SCHEDULE

1.0 PHASING & SCHEDULE

4.1 Phasing Strategy

The expansion of the Okotoks Recreation Centre is **planned as a multi-phase implementation to maintain continuous facility operations** while delivering major program enhancements and infrastructure upgrades. The strategy prioritizes constructibility, operational continuity, municipal servicing requirements, and long term site functionality.

Overall Approach

The project is organized into three (3) primary phases:

Phase 1A and Phase 0.5 – West Addition

Construction of the new leisure natatorium, expanded fitness centre, indoor running track, relocated gymnasium, changing rooms and multi purpose spaces.

This phase includes enabling works (Phase 0.5) along the existing building face, including removal of the hot tub, a load bearing wall, and the underground concrete encased supply duct. These activities require a temporary shutdown of the existing pool; however, completing this work early will allow the remainder of Phase 1A to proceed with minimal disruption to ongoing operations.

Phase 1B – Interior Renovations

Targeted renovations within the 1982 and 2006 building areas to integrate new additions, improve circulation, and enhance existing program spaces. Scope includes repurposing the current gymnasium to accommodate a high climbing wall, children's play area, and kinder care, as well as adding new public washrooms and family and multi purpose rooms.

Phase 1C - Swindells Pool Renovation*

Modifications to Swindells pool filtration, basin reconfiguration and re-tiling.

*Refer to Appendix A8 for scope of work completed by Gibbs Gage Architects & Colliers Project Leaders.

Phase 2 – Competition Pool Addition

Construction of a new competition natatorium and supporting amenities located south of the existing facility. This sequencing enables new program areas to become operational before major interior reconfiguration begins, reducing impacts to core recreation services though extending the overall construction timeline.

Phase 3 - Arena Renovations

Renovation of the existing arenas will replace the ice and boards, upgrade team rooms and circulation, and add new multipurpose spaces. Phase 3A (Piper Arena) includes a new east-side entrance, additional team rooms, and upgrades to existing areas. Phase 3B (Murray Arena) removes seating for new team rooms, creates program space in the curling lobby and lounge, and adds a connection to Piper Arena.

Operational Continuity

Maintaining uninterrupted operation of key recreation services is a primary driver of the phasing strategy. During Phase 1 continuous access will be maintained for:

- Two NHL sized arenas
- Curling rinks
- Existing aquatics facilities
- Fitness and program areas
- Public access and parking
- Concession
- Downstairs physiotherapy and child-minding

Construction zones will be isolated from active public areas through controlled access points, temporary partitions, and coordinated contractor staging. Pedestrian and vehicular routes will be temporarily adjusted as required to ensure safe access to building entrances and parking areas.

Interior renovation work in Phase 1B will be coordinated with seasonal programming wherever feasible to limit impacts during peak use periods.

Why Not Build All at Once

Constructing all phases at once could provide some efficiencies by reducing mobilization and contractor setup costs. However, it would require a significantly larger upfront capital investment and could result in extended closures of key recreation spaces, substantially impacting service delivery to the community.

A phased approach has therefore been adopted to align construction with available funding, maintain continuous operation of the existing facility, and reduce financial and operational risk. It also provides flexibility to adjust the timing and scope of future phases in response to changing priorities, funding availability, and community growth.

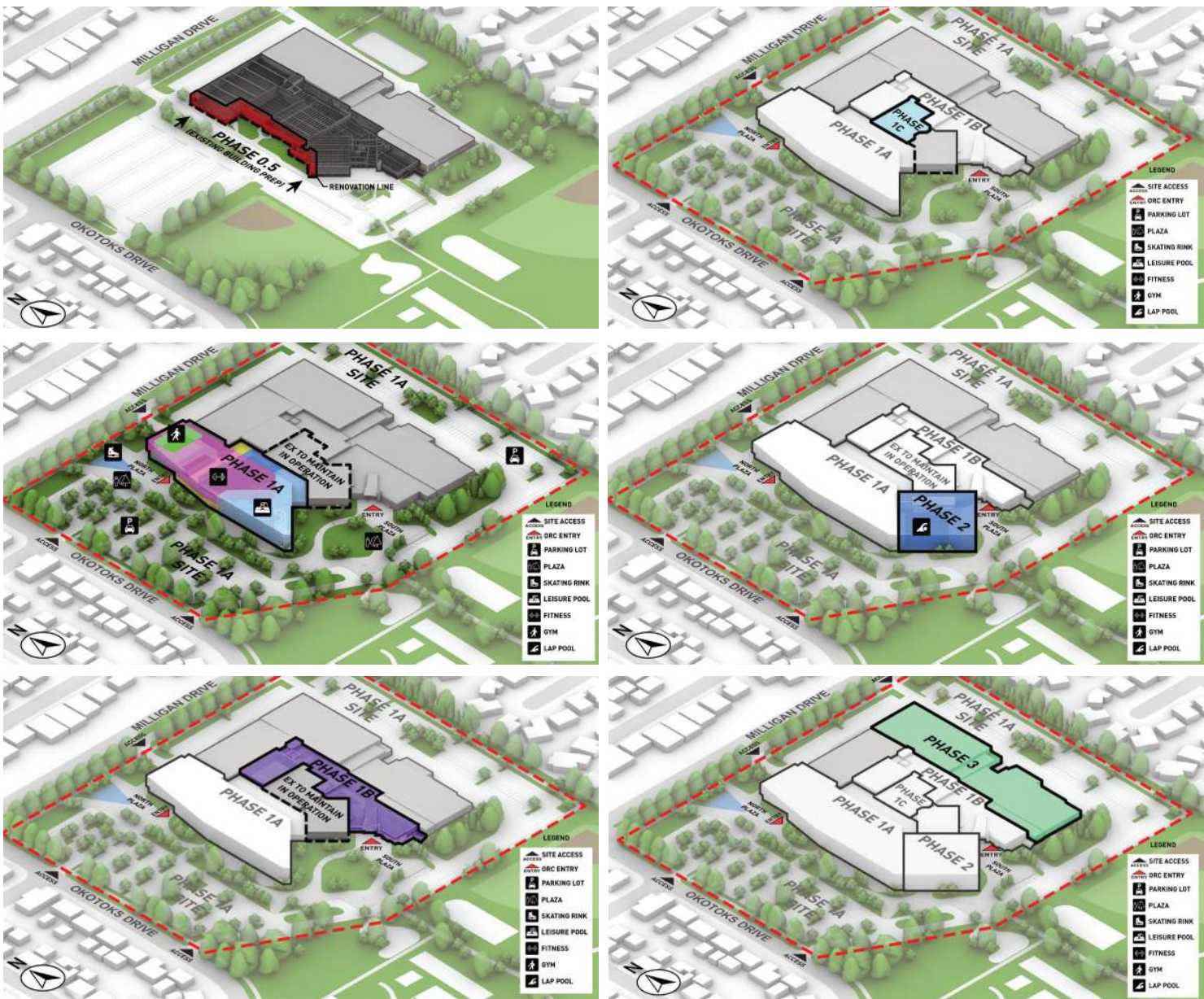


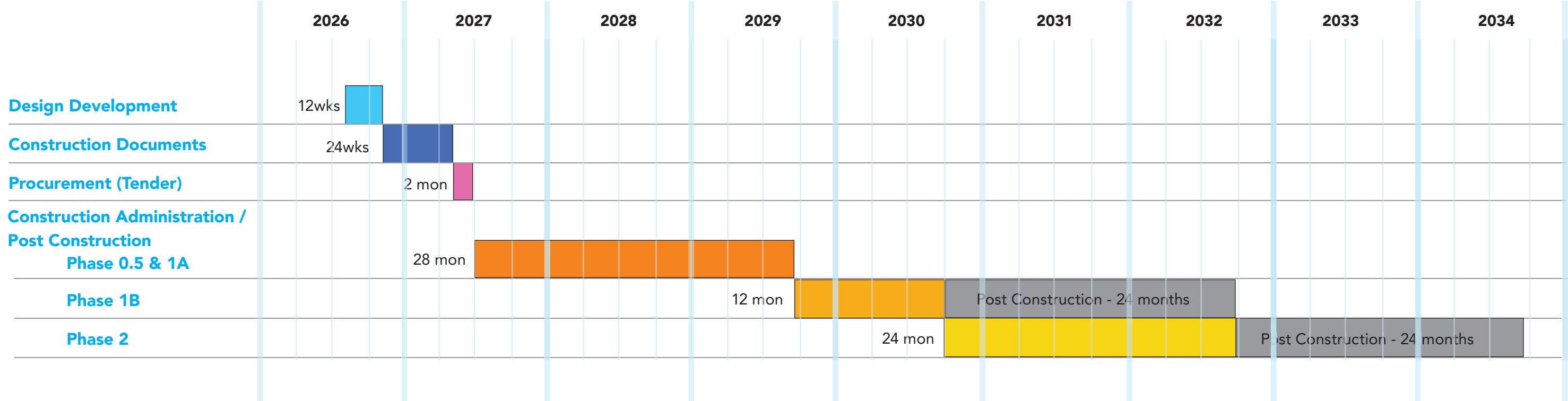
Diagram 4.1: Proposed Phasing

4.2 Project Schedule

Aquatics, Play & Climb Expansion (Phase 0.5, 1A, 1B & 2)

The proposed project schedule provides a high-level framework for delivery of the Aquatics, Play & Climb Expansion, including Phase 0.5, Phase 1A, Phase 1B, and Phase 2. The timeline is organized into the major project phases of Schematic Design, Design Development, Construction Documents, Procurement (Tender), and Construction, with indicative durations assigned to each. The schedule assumes a traditional Design-Bid-Build delivery methodology.

Phase durations are based on comparable project experience and assume timely stakeholder input, regulatory approvals, and funding decisions. Construction sequencing has been developed to maintain operation of the existing Recreation Centre throughout implementation while minimizing disruption to core services. The schedule will be refined during subsequent project stages as scope, procurement strategy, and phasing requirements are confirmed.



5.0 COST & FUNDING APPROACH

5.1 Capital Cost: Construction Cost

Soft Cost vs Construction Cost

What’s HARD COSTS IN

- Design Contingency (15% at Class D Costing -> 0% Class A Costing)
- General Requirements(12%)
- Contractors Fee (3%)
- Provincial Sales Tax (5%)
- Hard Construction Costs for gym, fitness, aquatics, running track, play & climb, changerooms & washrooms, arenas and renovations.
- Site Development (including Landscape + Parking + SWM + Services from property line)
- Building Wayfinding and Signage
- Emergency Generator for life safety only

Cost Estimate

Align prepared a Class C cost estimate for the Okotoks Recreation Centre Expansion based on the concept design presented in this report. The estimate includes the Aquatics Expansion (Phases 0.5, 1A, 1B, and 2) and the Arenas expansion (Phases 3A and 3B).

What’s SOFT COSTS OUT

- FF&E (Furniture, fixtures, equipment) ‘Any-thing that falls out of the building when you turn it over and shake it’
- Gymnasium Furnishings
- Garbage Equipment
- Escalation
- Construction Contingency (typical 10%)
- AV & all low voltage Equipment
- IT/Communications Equipment
- Phasing Costs
- All Soft Costs: PM, Consultant, Staff, Permit Fees

Detailed, phase-specific cost breakdowns are included in the accompanying cost reports:

- Appendix A7: Aquatics Expansion
- Appendix B6: Arenas

Aquatics, Play & Climb Expansion (Phase 0.5, 1A, 1B & 2)

The total capital cost associated with the Phase 1 and Phase 2 Aquatics Expansion concept plans is estimated by escalated to mid point of construction from Q2 2026, with a phased construction start Q3 2027. Refer to project schedule in section 4.2.

\$111,291,395 HARD CONSTRUCTION COST

\$129,599,355 ESCALATION INCLUDED

Given current market conditions, it is recommended that an annual construction cost escalation rate of 5% per year be applied to projected Aquatics Expansion costs.

Table 5.1: Total Construction Costs by Phase

	Phase		Total Construction Cost	\$/m2	\$/ft2
Aquatics, Play & Climb Expansion	Aquatics Expansion, Gym & Fitness	0.5 & 1A	\$74,660,894	\$8,970	\$833
	Renovation	1B	\$11,743,737	\$3,686	\$342
	Competition Pool	2	\$23,886,807	\$6,321	\$587
	PROJECT TOTAL		111,291,395		
Asset Renewal	Renovation of Swindells Pool*	1C	\$1,327,602**		
	Piper Arena	3A	\$13,517,356	\$4,305	\$400
	Murray Arena	3B	\$12,501,931	\$3,218	\$299

*See Appendix A8 for study compiled by Colliers and Gibbs Gage.
**Project escalated from 2021 to 2027 dollars based off actual esclation from statcan 27.9%.

Table 5.2: Aquatics Expansion (Phase 0.5, 1A,1B & 2) Escalation Per/Year

	2026	2027	2028	2029	2030
Construction Cost	\$129,599,355	\$136,079,323	\$142,833,289	\$150,027,453	\$157,528,826
Annual Construction Cost Inflation		5%	5%	5%	5%

5.0 COST & FUNDING APPROACH

5.2 Operating Costs - Aquatics, Play & Climb (Phase 0.5, 1A, 1B & 2)

In planning for and approving public investment in recreation facilities, it is important to forecast what the expected operational revenues and expenditures are once a proposed facility is in operation. These estimates become more specific and more accurate as project planning evolves from the needs assessment through to the concept planning phases and continues to be more refined as detailed design evolves and ultimately as the facility nears opening.

There are many reasons why operational forecasting is complex and renders higher margin of error the earlier projections are completed. Inputs that impact operational expenses include dynamic utility rates, wages, and cost of supplies and materials.

Revenues can be influenced by municipal rates and fee policies, market pricing and the ability of the facility to attract users once in operation. Both revenues and expenses are influenced by inflation that may occur between when projections are completed, and the facility opens. The greatest level of accuracy is achieved in hindsight, after a facility has been in operation for a year and actual revenues and expenditures are known; furthermore, many facilities experience fluctuations in revenues and expenses over the first few years of operation, typically reaching a more predictable operating picture after year four (4) of operation. The following table outlines, at a high level, what level of accuracy can be expected at each stage of planning.

Table 5.3: Budget Forecasting at Different Planning Stages

Stage of Planning	Reasonable Operational Budget Forecasting Accuracy
Needs Assessment (3-10+ years prior to opening)	+/- 50%
Concept Planning (2-4+ years prior to opening)	+/- 40%
Schematic and Detailed Design (1-3 years prior to opening)	+/- 30%
Facility Commissioning/opening (immediately prior to opening)	+/- 20%
Facility Operations (end of Year 1 of operations; retrospective)	+/-100%

In achieving these different levels of accuracy, different sources of information and different levels of effort are required in establishing estimates. These sources of information include:

- Expected **operating subsidy ranges** based on informal industry norms, most appropriate for the Needs Assessment stage of planning.
- Extrapolated per **square foot estimates** based on closely comparable facilities (either local or from other comparable communities), most appropriate for the Concept Planning stage.
- Bespoke **line by line revenue and expenditure assumption-based** budgets; most appropriate

during the Detailed Design phase and Facility Commissioning/Opening stages

- Actual operating budgets;** required for facilities in actual operation under the control of the owner.

As the project is currently at the concept and schematic design stage, the operating forecasts presented herein are based on per-square-foot comparisons to similar facilities owned and operated by the Town and should be considered accurate to ±40 percent.

In order to use this methodology in operational investment forecasting, a baseline needs to be established for wet, dry, ice (although not required for the ultimate calculation) and shared spaces in the existing facility. This is done by looking at the existing spaces in the facility and the revenues and expenses incurred by each to calculate a net operational cost per square meter. The following table explains.

Table 5.4: Baseline Operating Cost

Existing ORC	Square Meters	2025 Actual Revenues	2025 Actual Expenses	2025 Actual Expenses net of Revenue (ENoR)	ENoR per M2
Wet	1,987	\$1,293,359	\$2,382,527	-\$1,089,168	-\$548.15
Ice	7,982	\$1,666,200	\$1,957,745	-\$291,545	-\$36.53
Dry	797	\$1,337,346	\$1,197,146	\$140,200	\$175.91
Shared	2,920	\$1,415,481	\$2,364,479	-\$948,998	-\$325.00
Total	13,686	\$5,712,386	\$7,901,897	-\$2,189,511	-\$159.98

Taking these unit rates and applying them to the different phases of development renders an estimated operational impact of each. These estimates should be considered +/- 40% at this stage of planning and will be revisited and refined as the design and construction process evolves.

The impacts of Phase 2 will be another additional investment requirement of approximately **\$2.1M** again adding almost as much indoor aquatics footprint as Phase 1a and 1b do.

Table 5.5: Phase 1a & b Expansion

Phase 1a & 1b	Square Meters	Expenses Net of Revenue
Wet	3,124	-\$1,712,411
Ice	0	\$0
Dry	2,621	\$461,059
Shared	2,359	-\$766,673
Total	8,104	-\$2,018,025

Table 5.6: Total Operating Cost After Expansion

Existing ORC (2025 Actual)	Phase 1a and 1b Impacts	Phase 2 Impacts	Total ORC after expansion (extrapolated based on 2025 Actual)	\$ Change
-\$2,189,511	-\$2,018,025	-\$2,123,310	-\$6,330,846	-\$4,141,335

When added together, the total estimate operation impact of all three Phases of the project as outlined herein increases **annual operating investment of approximately \$4.1M**. It is important to note that this figure may be subject to change as the

design process evolves and different methodologies are used to estimate operational expenses. It is also important to note that this figure does not include life cycle reserve allocations.

5.0 COST & FUNDING APPROACH

5.3 Social Impacts - Aquatics, Play & Climb (Phase 0.5, 1A, 1B & 2)

Articulating the benefits of investment in a project like the ORC expansion quantitatively includes assigning monetary value to the economic impact of facility construction and operations as well as other aspects of facility operations and animation such as volunteer hours generated. In addition to these impacts, health care costs averted due to residents and visitors being physical active and able to swim also are part of the impact of communities investment in indoor aquatics facilities and services.

Measuring Impact (Measuring the Impact of SPAR in Canada) is an initiative delivered by the Canadian Fitness and Lifestyle Institute (CFLRI) and the Canadian Parks and Recreation Association (CPRA) that is intended to help communities explain the impacts that investment in recreation and parks services and infrastructure have on the population. The following quantitative impacts have been calculated using tools provided through the initiative.

As can be seen, the impacts of investing in either of the three options are expected to result in \$22.4M in health care costs averted over a 50 year facility life span and an additional \$179M in economic impacts over a 50 year facility life span depending on the Phase. This equates to a overall net benefit of \$48M in 2027 dollars.

Table 5.7: Social Impact Measurement Assumptions

Assumptions	Phases 1 & 2
Capital Cost	\$129,599,355
Operating Cost	\$4,141,335
Users (visits/8)	7500
Volunteer Hours	1000
Events	5
People per Event	150
Annual Health Impacts	
Non-communicable diseases (cost averted)	\$763,341
Depression (cost averted)	\$109,406
Total	\$872,747
Present value of annual health benefits over 50 years	\$22,455,574
Economic Impacts	
Construction (one time)	
GDP impact	\$82,165,991
Jobs created	654
Operations (annual)	
GDP impact	\$3,586,369
Jobs created	70
Value of volunteering	\$20,260
Value of tourism	\$175,315
Present value of one time and annual economic benefits over 50 years	\$179,475,264

Table 5.8: Social Impact Summary

Summary	Phases 1 & 2
Capital Cost	-\$129,599,355
Present value of operating costs over 50 years	-\$23,392,650
Present value of annual health benefits over 50 years	+\$22,455,574
Present value of one time annual economic benefits over 50 years	+\$179,475,264
Net	+\$48,938,833

5.0 COST & FUNDING APPROACH

5.4 Funding Approach - Aquatics (Phase 0.5, 1A, 1B & 2)

Both capital and operational funding are required to support the implementation of this important community project.

As it relates to funding operational costs associated with the project, those costs are typically born by the facility owner and its partners. In this case, the operational funding is expected to be sourced in the same fashion as the existing ORC. Funding for the existing ORC comes from Town taxpayers with a supplement from County taxpayers through the Shared Services Agreement between the Town and County.

As it relates to capital costs, the current expectation for the project is that it would be primarily sourced through a combination of Town reserves and debt as well as through funding allocated for recreation facility development through the Town Off-site Levy program. Capital contributions from the

County might also be explored although no formal discussions have occurred to this point in project planning.

The Town also expects there may be some capital contributions from other levels of government, depending on available grant programs at the time of construction, as well as community sponsorship and fundraising. As a rule of thumb, project like this typically receive no more than 15% of total capital costs from external sources.

The Town may also decide to establish a dedicated tax levy for the project. This has occurred in other community with similar situations and could be explored further as the project evolves.

6.0

RISK ASSESSMENT

6.0 RISK ASSESSMENT

6.1 Risk Assessment

There are a number of risks associated with major capital investment in public facilities like this Okotoks Recreation Centre Expansion project. At this stage of planning, the following key risks have been identified for consideration.

Capital Cost Risk (High):

Capital cost inflation has occurred at an alarming rate in Canada in the past decade. Market uncertainty, geopolitics and demand all impact construction costs and many aspects of risk are not in the control of the municipality. That being said, the involvement of a third-party cost consultant, setting clear expectations at different phases of the project (i.e. Class D costing), and the choice of project delivery model can all impact cost certainty and in some cases, share capital cost risk with consultants and builders. The Town is doing as much as it can to identify capital cost risk and mitigate it at this stage in the process through the information provided in this Schematic Design Study. Ongoing monitoring of the construction market and engaging a contractor early in the process are recommended to further inform capital cost estimation as the project evolves.

Operational Cost Risk (Med):

The risk associated with miscalculating expected operational can be significant as there are many factors that contribute to annual operation costs. Market conditions and expectations, management style, weather and aesthetic, input costs (labour, utilities, etc.) all impact revenues and expenses associated with facility performance. These factors accompanied by a 40-50 year time horizon make it difficult to accurately depict operational costs for project like the Okotoks Recreation Centre Expansion. That said, the current operational cost estimate technique is appropriate for this stage of planning and is only considered +/-40% accurate at this stage. It is based on known operational expenses and revenues incurred at the exact facility where the expansion is proposed to occur and reflects real time market conditions. At the end of schematic design and once project approvals have been made (once the project has been funded and committed to) a more detailed operational cost forecast based online by line revenue and expense items should be developed to minimize margins of error on operational cost forecasting.

Community Support (low):

Projects like this one have the potential to polarize communities. Although most residents support the development of recreation facilities as part of complete communities in Alberta and throughout Canada, financial pressures being felt by many can trump support when real tax implications are involved. As well, there can be resistance within the community that otherwise supports recreation facility projects if certain facets of the community do not see their specific needs and requests being addressed in a proposed project. The extensive research, engagement, and planning that has gone into this project dating back almost a decade helps to combat a lack of community support and provides much of the justification Town decision-makers need to invest in the project, should they decide to. In addition to planning that has already occurred, it is vital that the Town remain transparent to the community about where project planning is at, what expected costs are, and what the expected benefits would be of investment now and periodically as the project progresses. Should the project change and contract due to financial limitations, it will also be very important for the Town to demonstrate why some elements of the program do not materialize as initially planned.

Post-expansion Utilization (low):

The level of utilization that is observed once the project is complete is a risk and can impact the operational investment requirements of the project as well as the level of benefit the project is able to achieve. Demonstrations of excess demand currently as well as observed and expected user market growth in the community significantly deteriorate this risk. In addition, the deliberate selection of facility components based on the information provided in this Feasibility Study (market inventory of facilities, consideration to the seven aquatic activity types as well as trends and other practices) all help to mitigate this risk and ensure the facility is relevant and in demand when it ultimately opens for use.

The risks outlined are those most relevant at this stage in project planning. As the project evolves, others will emerge and will need to be considered and mitigated.