



HEWITT + SALEM

MIXED-USE RECREATION CENTRE AND LIBRARY CONCEPTUALIZATION STUDY

OCTOBER 20, 2017

PERKINS+WILL

TABLE OF CONTENTS /**Hewitt and Salem Conceptualization Study**

SECTION 01. EXECUTIVE SUMMARY	5
Executive Summary	5
SECTION 02. INTRODUCTION	7
Project Background	7
Project Scope	7
SECTION 03. PROCESS	9
Process	9
SECTION 04. FUNCTIONAL PROGRAM	11
Hewitt and Salem Program Overview	11
Twin Pad Arena	12
Multi-Purpose + Library	14
Pool, Fitness + Gymnasium	16
Administrative + Support Spaces	18
Rental Spaces	20
Exterior Spaces	22
SECTION 05. SUSTAINABILITY	25
Introduction	25
Energy Strategies	26
Resilience Strategies	28
SECTION 06. HEWITT DESIGN	31
Context	31
Site Analysis	32
Design	34
SECTION 07. SALEM DESIGN	39
Context	39
Site Analysis	40
Design	42
APPENDIX	A1
Hewitt Program Area Summary	A2
Salem Program Area Summary	A6
Hewitt + Salem Costing Summary	A10
Turner & Townsend Class D Cost Report	A11



EXECUTIVE SUMMARY /

The City of Barrie has begun the process of defining their needs and aspirations for the new Hewitt and Salem communities.

In May 2017, Perkins + Will Canada were commissioned to complete a conceptualization study for the future Hewitt Recreation Centre + Library and the future Salem Recreation Centre + Library. Through the course of this study, Perkins + Will helped the City understand their recreation needs and desires and develop a detailed functional program along with a conceptual design for each facility. The study began with a visioning session that engaged the design team, the City of Barrie Recreation Centre stakeholders, and the City of Barrie Library stakeholders. Project objectives and aspirations were explored and a design vision for each facility began to emerge.

Using the '2017 Update to the Parks & Recreation Growth Strategy' final report published June 29, 2017 by Monteith Brown as a reference document, a working program for each facility was developed. User groups and design team meetings were arranged to further the understanding of the program needs. Through these focus group meetings, Perkins + Will and the City of Barrie began to define a distinction between the two facilities. The Hewitt and Salem facilities had originally been conceived as two equal facilities of 180,000 sf (library excluded), however, after

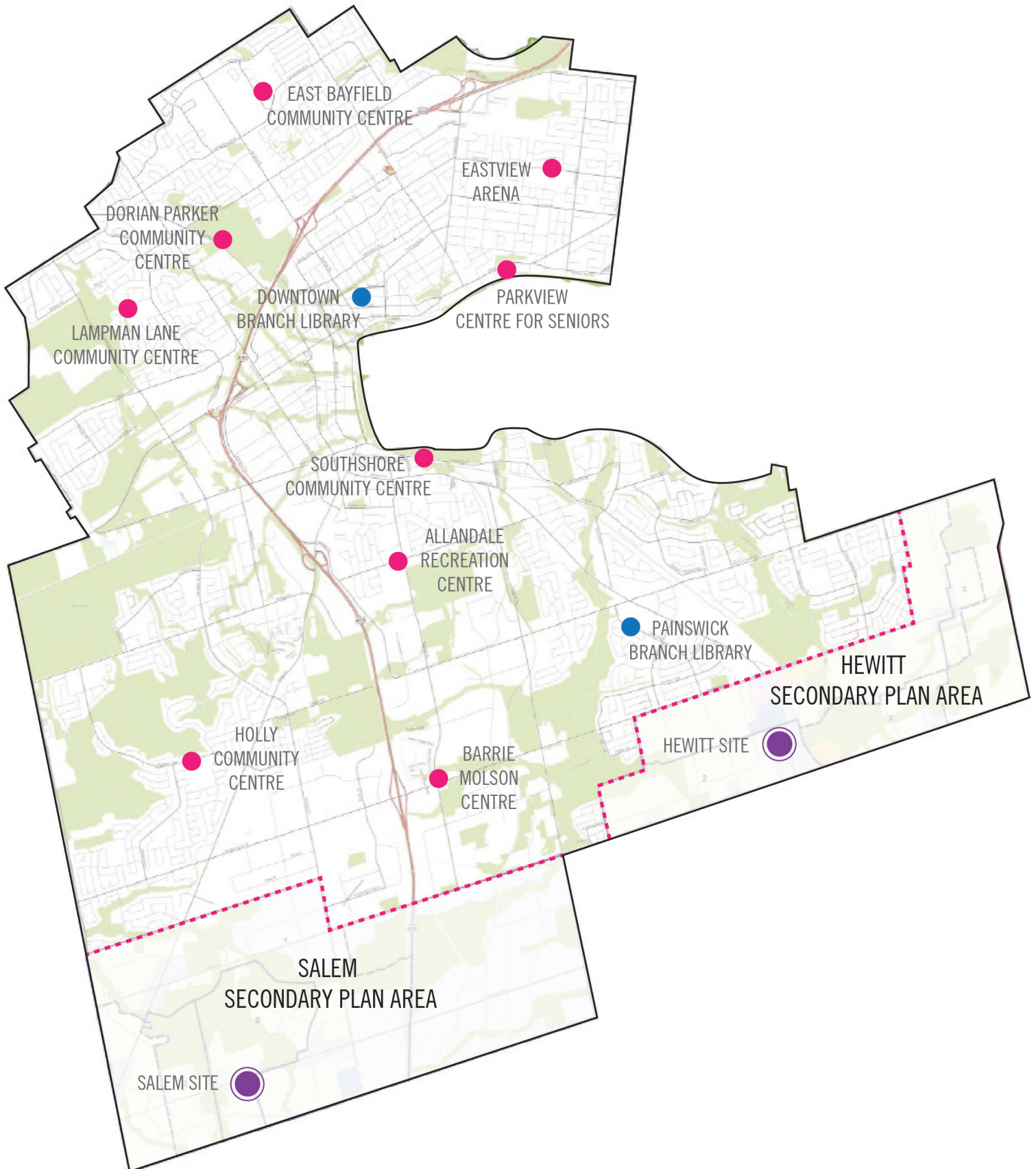
the focus group meetings a new strategy emerged where a total 360,000sf (libraries excluded) would be distributed unevenly between the two facilities. The Hewitt Recreation Centre + Library would become a larger premiere facility, while the Salem Recreation Centre + Library would become a smaller community facility similar in size to the Holly Community Centre in Barrie.

The revised functional programs identified a gross floor area (GFA) of 239,946 sf (Rec: 224,554 sf; Library: 15,392 sf) for the Hewitt Recreation Centre + Library and 182,970 sf (Rec: 158,566 sf; Library: 24,404 sf) for the Salem Recreation Centre + Library. A Class D costing by Turner and Townsend estimated the Hewitt projected construction cost, including a 9.75% 2021 escalation allowance, to be \$84,164,000 and the Salem projected construction cost, including a 24.75% 2026 escalation allowance, to be \$74,470,000. These costs are exclusive of the premiums for LEED sustainability targets, as summarized on pg. A10 in the appendix.

Once the program was solidified, Perkins + Will began to explore optimal program relationships, adjacencies and a conceptual identity for each facility. Program, sustainability goals, neighbourhood context, design aspirations and a consistent dialogue between the design team and the City of Barrie stakeholders helped articulate a conceptual vision and innovative design for both the Hewitt and Salem facilities. Proposed sites underwent a series of blocking and stacking test fits to ensure the functional programs were attainable and that the exterior

recreation design was fully integrated with the building design.

The outcome of these studies and design explorations is represented throughout this report. It is anticipated that this report will serve as a useful guide in future decision making and design development that can lead to the realization of both the Hewitt Recreation Centre + Library and the Salem Recreation Centres + Library.



INTRODUCTION /

Project Background

The City of Barrie is expecting significant growth from its current population of 140,000 to an estimated 210,000 by 2031.

Much of this growth will be located within the recently absorbed Hewitt and Salem annexed land boundaries. In order to properly plan for the upcoming recreational and learning demands, this conceptualization study is designed to help inform the City's business plan and to shape a vision for the future development of both Hewitt and Salem mixed-use Recreation Centres and Libraries.

The specific objectives of this Hewitt and Salem conceptualization study is to explore conceptual options, set guidelines, raise questions and prepare a framework for future design and construction delivery. From the start, the conceptual design of both facilities

was developed within the context of the Parks and Recreation Growth Strategy and the Secondary Plan. This study therefore, is an opportunity to create innovative programming, raise the bar of sustainability and integrate sound urban planning principles.

The Hewitt facility will be the first constructed, with a target completion goal of 2021-2023. The Salem facility is targeted for completion in 2026-2028. Development Charges will support the land purchase and project costs for both facilities.

Project Scope

The search for solutions is quicker and more insightful with the grounding of a shared vision.

Perkins+Will's first objective upon commencement of the Hewitt and Salem Conceptualization Study was to facilitate visioning sessions with the future facilities' key stakeholders. By understanding the programmatic needs and desires of the future facility operators and users, the design team could then explore conceptual design options for each facility.

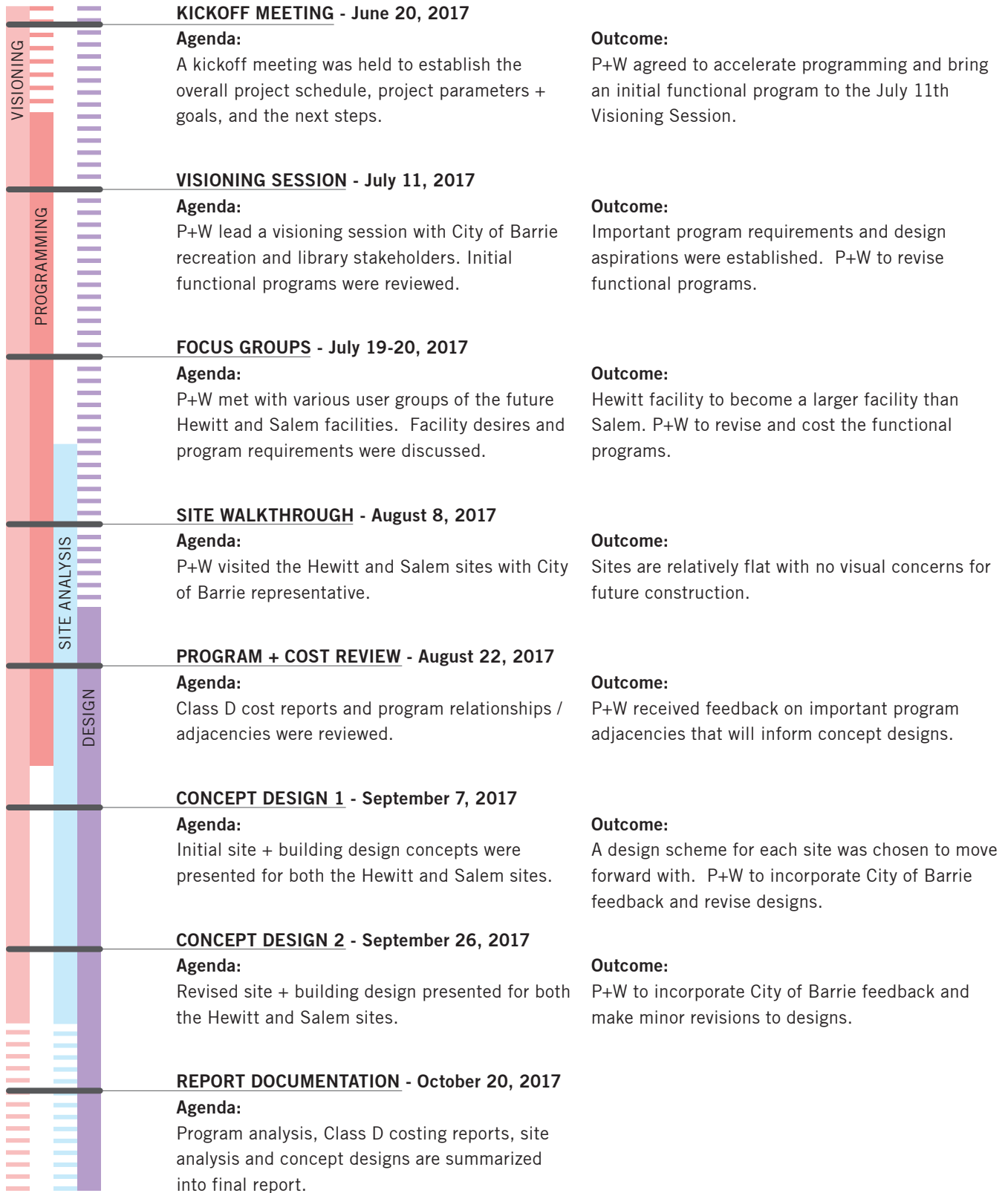
This report documents and summarizes the conceptualization study's overall process, the facilities' functional program analysis, class D cost estimate, analysis of the Hewitt and Salem sites and lastly, a proposed design for each facility that

encompasses the driving influences established in the study's previous phases.

The design and recommendations will help solidify the City of Barrie's business plan and inform the eventual RFP for each facility. By testing what is programmatically feasible and affordable, the City of Barrie can accurately plan for future expansion of their recreational and library facilities.



PROCESS /





FUNCTIONAL PROGRAM /

Hewitt and Salem Program Overview

HEWITT /

FINAL PROGRAM AREAS:

Twin Pad Arena
10 lane 25m Pool
Leisure + Therapy Pools
Double Gymnasium
Fitness Centre
Multi-Purpose Rooms
Rental / Partner Space
15,000 sf Library
Outdoor Recreation Space

SALEM /

FINAL PROGRAM AREAS:

Twin Pad Arena
6 lane 25m Pool
Leisure + Therapy Pools
Single Gymnasium
Fitness Centre
Multi-Purpose Rooms
25,000 sf Library
Outdoor Recreation Space

Before the proposed Hewitt and Salem sites could be test fitted, Perkins + Will and the City of Barrie worked collaboratively to finalize a program for each Recreation + Library Centre. These programs were informed by the '2017 Update to the Parks and Recreation Growth Strategy' Final Report published June 29, 2017. Through the analysis of neighbourhood demographics, broad trends in recreation participation and facility design, and the assessed recreation needs of the City of Barrie, the report recommended that the City of Barrie proceed with two new community centres as follows:

Timeline:

- Hewitt Community Centre target opening between 2021-2023
- Salem Community Centre target opening between 2026-2028

Recommended program for both facilities:

- Twin pad arena (NHL sized)
- Indoor aquatic Centre - a 25m rectangular pool + separate leisure and teaching and/or therapy pools
- Gymnasium designed to accommodate all sanctioned events
- Equipment based fitness centre + group fitness/active living studio(s)
- Multi-purpose rooms for youth and older adult programming
- Public Library Branch
- Minimum of one lit rectangular field
- Other outdoor areas such as seating, hard surface courts, splash pads, etc.

Following the report's recommendation, program spreadsheets for the two facilities were developed, reviewed with the City of Barrie and used to inform focus group meetings with future stakeholders. Throughout the focus group meetings, it became clear that there was a need for one of the two facilities to become a larger premiere facility where a variety of sanctioned events could be held. The functional programs were subsequently revised to increase the size of the Hewitt facility and decrease the size of the Salem facility. In summary, the functional programs identified a gross floor area (GFA) of 239,946 sf (Rec: 224,554 sf; Library: 15,392 sf) for the Hewitt Recreation Centre + Library and 182,970 sf (Rec: 158,566 sf; Library: 24,404 sf) for the Salem Recreation Centre + Library. Full programmatic summaries can be seen on pg. A2-A9 of the Appendix.

The following section summarizes spatial relationships and design requirements for each of the program divisions: Twin Pad Arena; Multipurpose Rooms + Library; Pool, Fitness + Gymnasium; Administrative + Support Spaces; Rental Spaces; and Exterior Spaces.

FUNCTIONAL PROGRAM /

Twin Pad Arena



VISION

The twin pad arena will be a primary feature at both the Hewitt and Salem community centres. Its large size and need for minimal glazing (to reduce player distraction) suggests it should be located behind more transparent programs such as the fitness centre and library.

PROXIMITY

Parking:

At both the Hewitt and Salem facilities the arena will need close proximity to parking. During periods of high activity the arena will occupy a significant portion of the facilities' parking lots. By zoning adequate parking close to the arena, disruption to the other programs, such as the library and aquatic centre, can be reduced during the arena's peak times.

Relationship to the Aquatic Centre:

There are energy efficiencies that can be capitalized on by locating the aquatic centre and the arena adjacent to one another. Waste heat released by the arena's refrigeration plant can be

captured and used by the pool's water heating system.

Public Circulation:

'Cold' rink side viewing for spectators will be provided at both the Hewitt and Salem facilities on the upper level. Through adjacencies with the facilities' main public circulation, 'warm' viewing can also be provided from the building interior on both the ground and upper levels.

OCCUPANCY

The arena will accommodate ice sports, such as ice hockey and figure skating, with maximum usage occurring on weekday evenings between 5:00 p.m. and 10:00 p.m., and on weekends between 8:00 am - 10:00 p.m.

ACCESS AND SECURITY

Primary access to the arena will be from the main circulation space of the building interior. Secondary access may be provided from the exterior adjacent to parking, and service access will be provided to the maintenance zone adjacent to the facilities' loading

and snow storage area.

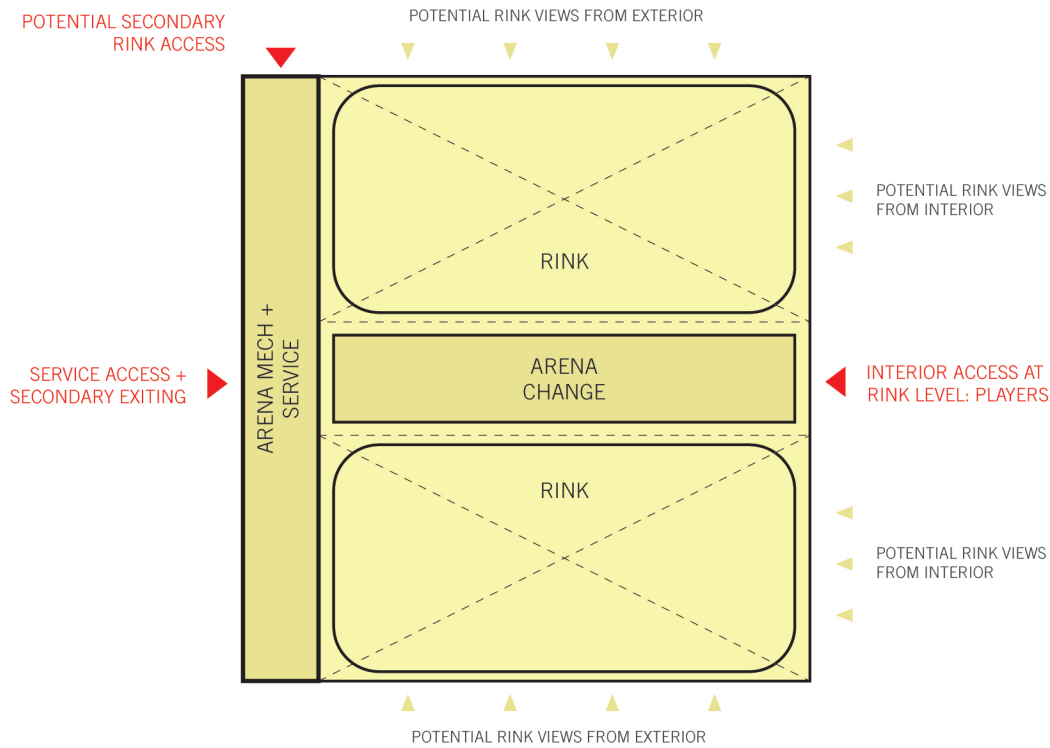
Access to and from the arena is available to the public and will not be controlled or limited to recreation members, however, visual proximity to the facility's front desk and administration area will allow passive supervision.

DESIGN REQUIREMENTS:

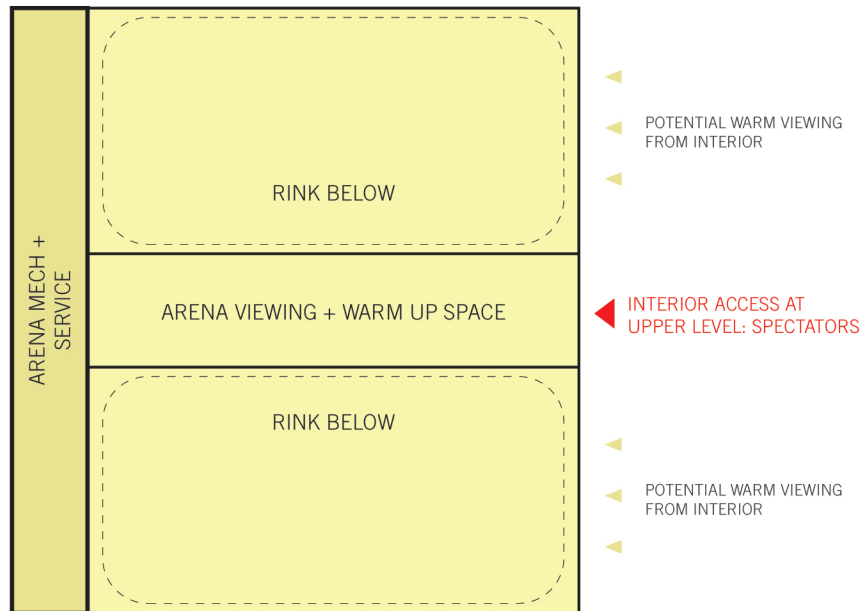
For both Hewitt and Salem Facilities:

- Minimum 10m ceiling height from playing floor to accommodate for future flexibility as an indoor soccer field
- Space for 6 dressing rooms per rink; 12 dressing rooms total
- Space for 1 referee dressing room per rink; 2 referee dressing rooms total
- One ice rink to be Olympic size at Hewitt Community Centre
- Min. 500 seating capacity for one ice rink; Min. 250 seating capacity for second ice rink
- Dedicated warm up space provided on upper level adjacent to seating
- Warm viewing to be provided in adjacent public corridor

HEWITT + SALEM GROUND LEVEL /

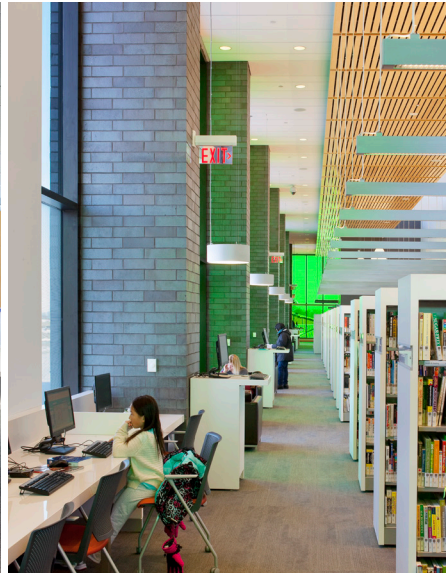


HEWITT + SALEM UPPER LEVEL /



FUNCTIONAL PROGRAM /

Multi-Purpose + Library



VISION

The library and multi purpose spaces bring an important social component to the Hewitt and Salem recreation centres. Their diverse activities allow community residents of all ages to engage in social, creative, and active programs that compliment the recreation spaces. Both interior and exterior visibility is important for these spaces to thrive, and they should therefore be located to maximize their exposure and participation.

PROXIMITY

Library - Multi Purpose

These spaces are complimentary to one another and locating them in close proximity to one another will allow community residents to conveniently flow to and from the spaces, optimizing the use of each.

Main Entrance

They should be near the main entrance to maximize exposure to arriving recreation users and to maintain convenient access. This will also allow for visual and physical proximity to the

main reception / access control desk. They do not require direct relationship with the other recreational facilities in the building.

OCCUPANCY

Library:

The Library will accommodate a variety of uses conducive to learning in different ways. A flexible space with accessible storage is required to accommodate a range of programming needs.

Multi Purpose:

The multi purpose rooms will accommodate regularly scheduled programming with varying requirements. Each room should have accessible, properly sized storage spaces that can house the necessary equipment and furniture to support a range of programs for city residents, rental groups and special community events.

ACCESS AND SECURITY:

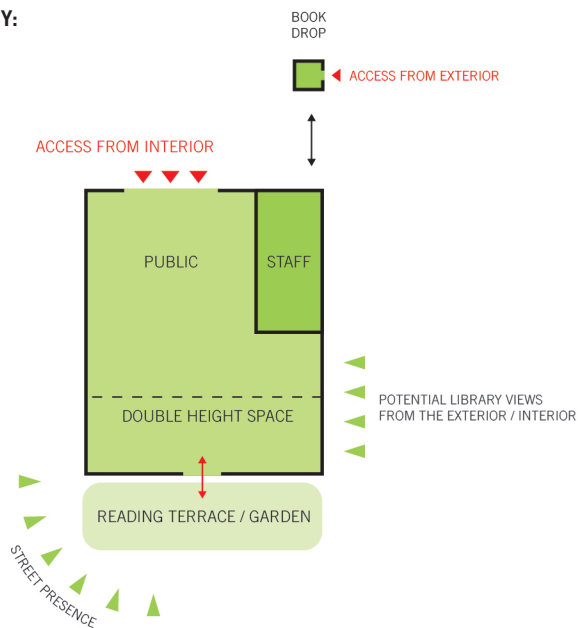
The library will have public access and serve it's users with its own service /

reception counter. Patrons using the multi-purpose rooms will need to pass the reception / access control desk first, which will regulate card access. Multi purpose rooms will be book able online and be available to both recreation and library users + staff.

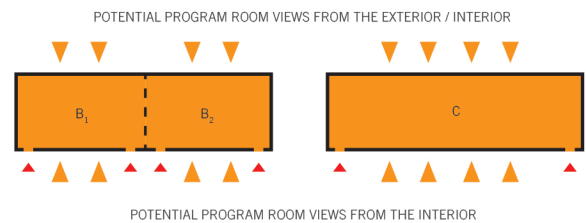
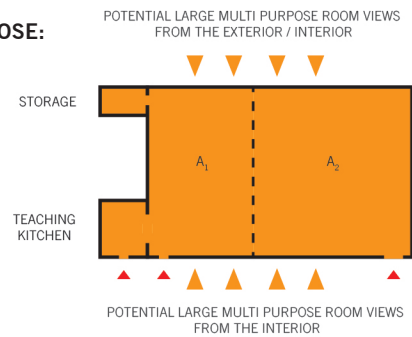
DESIGN REQUIREMENTS:

- The library should always have ground level access and prominent street presence.
- A double height space within the library helps give it a bold street presence
- Due to the large library size at Salem, the space could be divided onto two levels
- The large multi purpose room, in both the Hewitt and Salem facilities, should be divisible
- The teaching kitchen should be attached to the large multi purpose room so it can be used as a catering kitchen for large events
- At least two program rooms, in both the Hewitt and Salem facilities, should be divisible

LIBRARY:

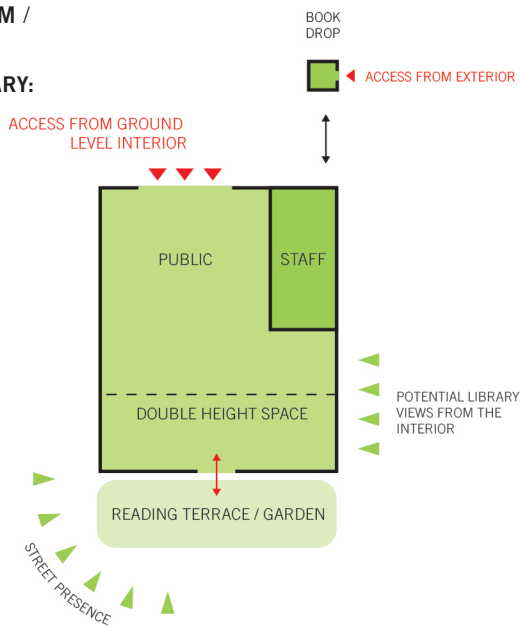


MULTI PURPOSE:

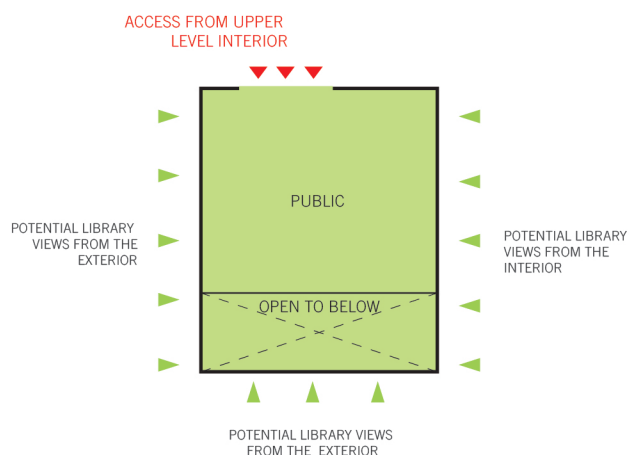
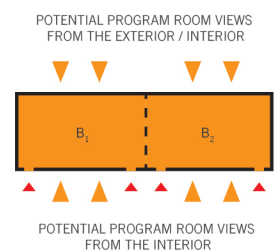
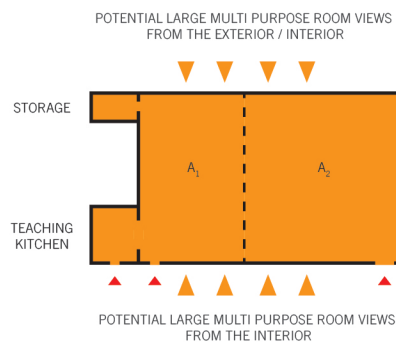


SALEM /

LIBRARY:



MULTI PURPOSE:



FUNCTIONAL PROGRAM /

Pool, Fitness + Gymnasium



VISION

Due to their shared secure access, the aquatic centre, fitness centre and gymnasium will be located adjacent to each other. The double height volumes of the pool and gymnasium lend themselves to a bold expression along the Hewitt and Salem front facades showcasing the community centres' diverse activities. Strategic use of glazing should be used to display the interior activities to the exterior surrounding, however, glare and exterior distraction should be mitigated for the interior users.

PROXIMITY

Administration / Building Entrance:

It would be beneficial to locate the pool-gym-fitness program block adjacent to one of the building's main entrances. A reception desk is required to control pool and fitness access and function as the facilities' welcome and service point.

Public Circulation:

To maximize interior views into the pool, fitness centre, and gymnasium,

the program should be aligned along the facilities' main public corridor, with change rooms and other back of house program located between.

OCCUPANCY

Aquatic Centre:

A combination of regularly scheduled programming, as well as drop-in use times, will occur accommodating local swim teams as well as casual pool users of all ages and abilities.

Gymnasium:

A combination of regularly scheduled programming, as well as casual drop-in use times, will occur with varying requirements for materials and equipment.

Fitness Centre:

An equipment-based fitness centre containing weight-training and cardiovascular equipment. Supported by fitness/active living studios and an indoor walking track.

ACCESS AND SECURITY:

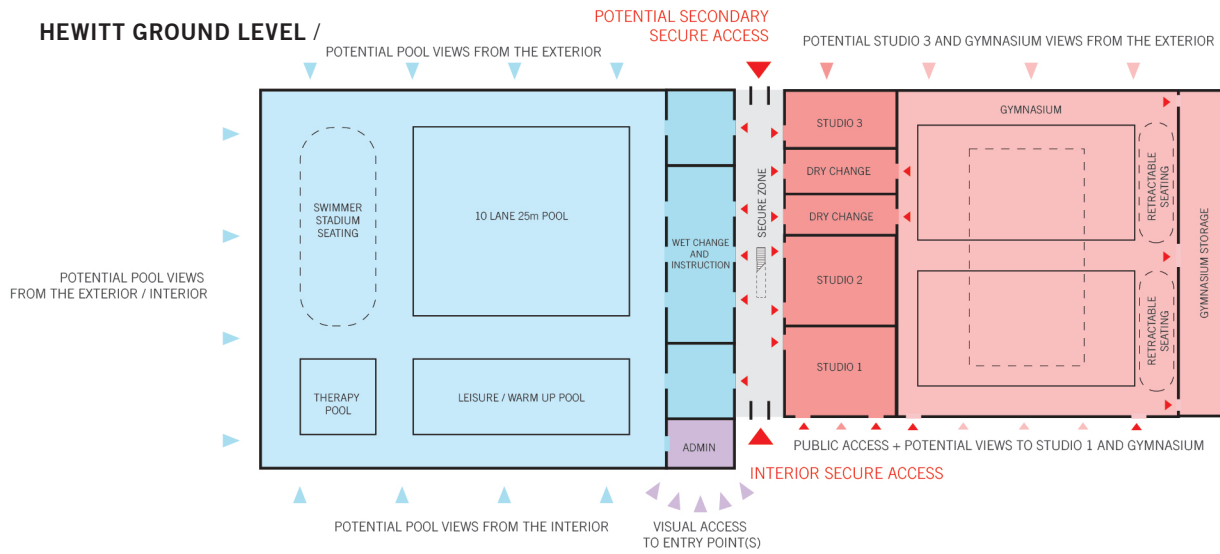
To access the pool and fitness areas, users must pass through a secure zone

controlled by an adjacent reception desk. Within the ground floor control zone, fitness users will have access to stairs and elevators connecting them to the 2nd floor open fitness area. The gymnasium and fitness studios will have access from the secure zone, as well as access from the public corridor. The dry and wet change rooms, pools, and open fitness area will have secure access only.

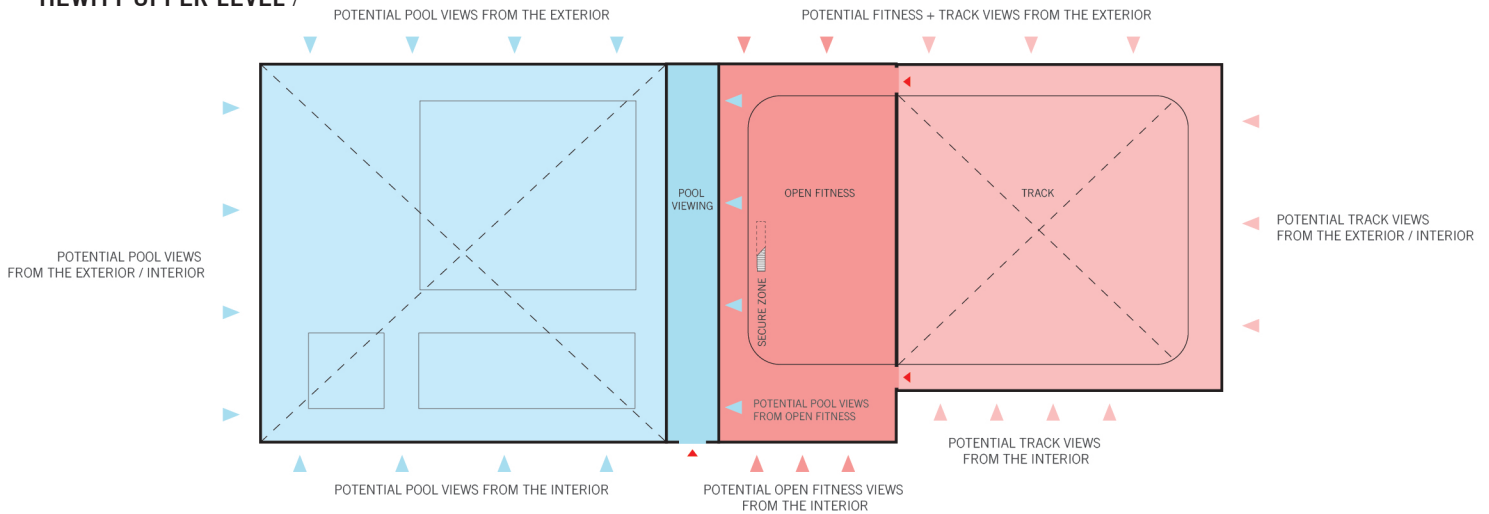
DESIGN REQUIREMENTS:

- Gymnasium to have retractable seating - min. 100 spectators
- Indoor track should be 3 lanes wide
- Gymnasium designed with appropriate ceiling height to accommodate sanctioned events
- Universal, female and male wet change rooms are to be provided
- Only male and female dry change rooms are to be provided. The possible interconnection of fitness change rooms to pool was discussed, however, this requires further design investigation

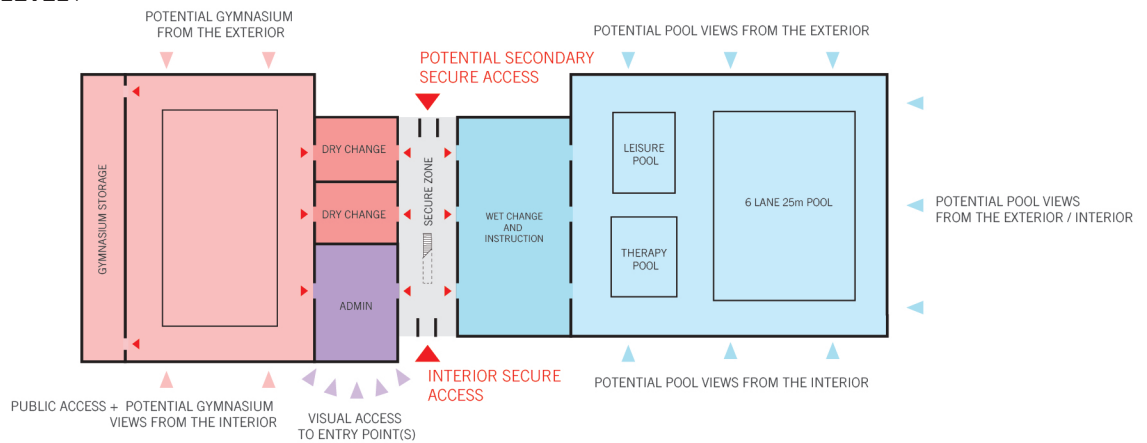
HEWITT GROUND LEVEL /



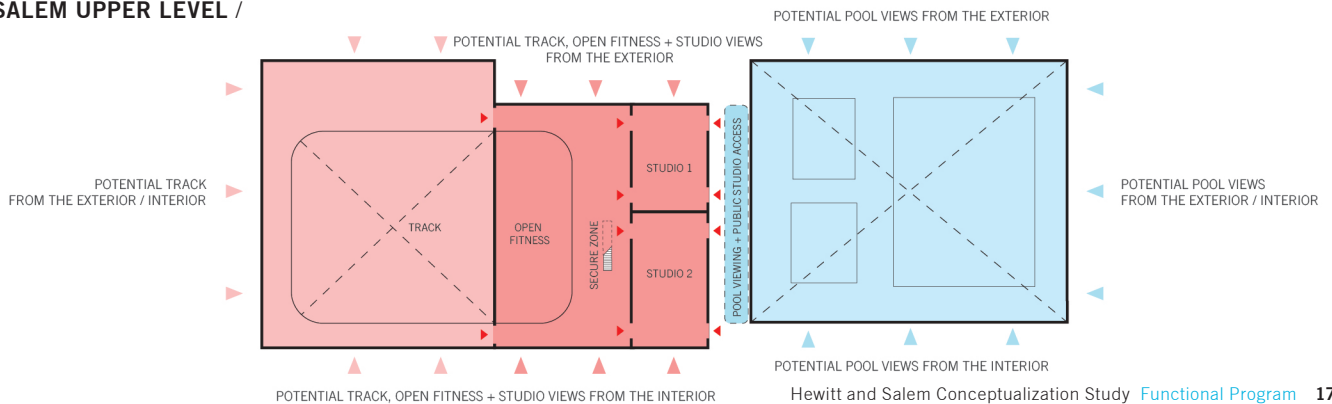
HEWITT UPPER LEVEL /



SALEM GROUND LEVEL /



SALEM UPPER LEVEL /



FUNCTIONAL PROGRAM /

Administrative + Support Spaces



VISION

Administrative + support spaces, such as the reception/control counter, lobby space, common seating, public washrooms, viewing areas, administration space and maintenance areas, are the backbone to any recreation centre's daily operation. Their location and adjacencies are important and should be carefully considered throughout the facilities' design.

PROXIMITY

Washrooms

Washrooms should be centrally located on the ground and upper levels with clearly defined access off of the main public circulation corridor. If washrooms need to be located at one end of the building, they should be adjacent to, and help service, exterior programs, such as the outdoor playground and splash pad.

Reception Desk / Secure Access Point

A secure access point is required near the aquatic centre and fitness centre entrances and should function as the facilities' main reception desk. Clear sight lines should be maintained from each building entrance to the reception desk to ensure patrons can easily navigate to their destination in the multi-use facilities.

Public Circulation + Lobby:

The facilities' public circulation can double as secondary viewing space for the aquatic centre, gymnasium, fitness centre and arena. Careful consideration should be given to the design of the building's public realm to maximize each program's exposure.

OCCUPANCY

Administration and support areas will generally be used by the recreation centre's staff, however, washrooms will be public and used by patrons using both the interior and exterior facilities.

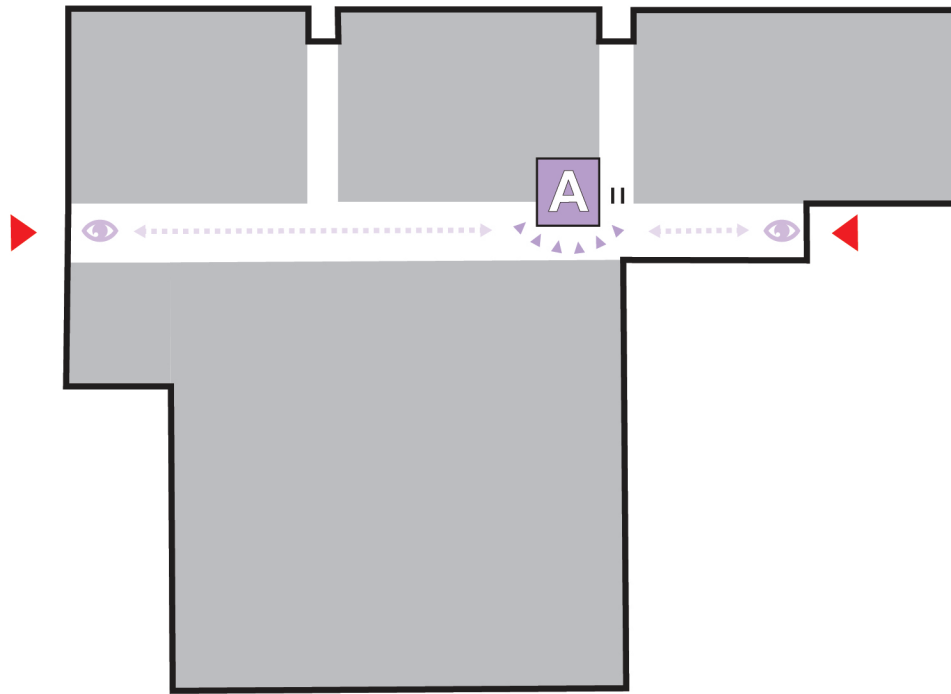
ACCESS AND SECURITY:

Administrative offices and meeting rooms are intended for staff only and will therefore be located in a secure and lockable zone of the building.

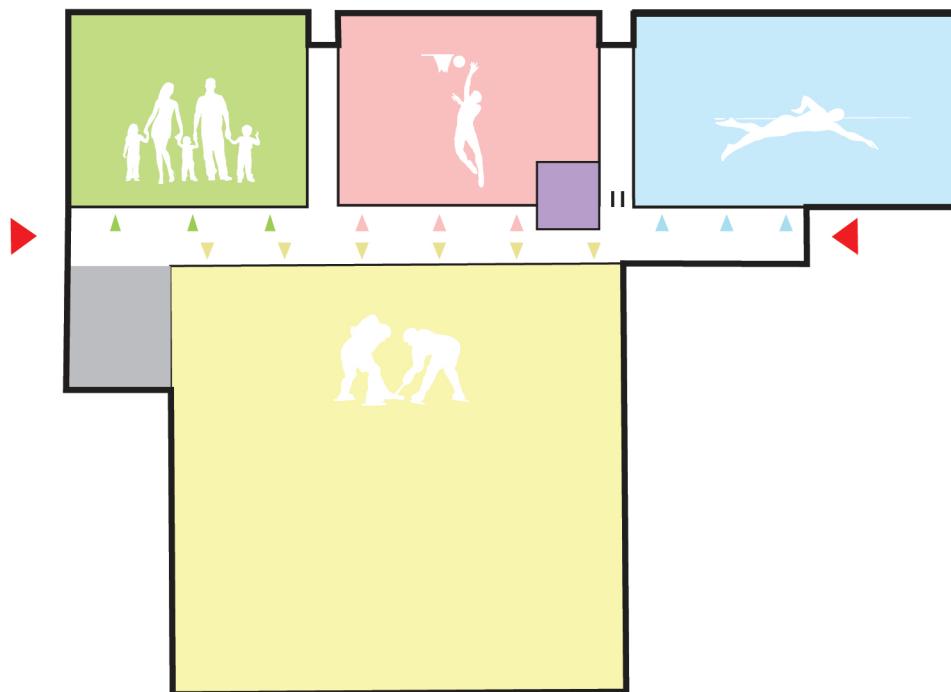
DESIGN REQUIREMENTS:

- Clear sight lines to reception desk from building entrances
- Washrooms optimally located to serve both interior and exterior programs
- Public circulation + Lobby designed to maximize views into multiple recreation spaces

RECEPTION DESK SIGHT LINES /



PUBLIC CIRCULATION VIEWS /



FUNCTIONAL PROGRAM /

Rental / Partner Spaces



VISION

Only the Hewitt facility will have rental and partner space. These spaces offer another layer of activity & service to the recreation facility and can help the City of Barrie offset operational costs with rental income. Future tenants for these spaces should be chosen carefully to ensure they augment the user experience of the Hewitt facility.

PROXIMITY

Rental Space 1 - Possible Day Care:

A possible partner for the Hewitt facility is a Day Care centre or Pre School. This program should be located in close proximity to the library and on the ground level for convenient drop off and pick up.

Rental Space 2 - Sports Medicine / Therapy:

The Hewitt facility would be an ideal location for a Sports Medicine facility. This program could be located on the upper level with close proximity to Agency 1 (possible health related agency / clinic).

Rental Space 3 - Food Service:

The Hewitt facility will be a larger premiere facility that could host a variety of sanctioned events. Providing a food service space for players and spectators spending all day at the facility would be a great way to differentiate the facility from others nearby. A possible drivethru adjacent to the food service space will be investigated further once a partnership is established.

Agency 1 - Health related agency or clinic:

The Hewitt facility would be an ideal location for a Health agency or clinic. This program could be located on the upper level with close proximity to the potential Sports Medicine / Therapy space.

OCCUPANCY

The specific users and activities occupying the rental spaces will depend on the future tenants. Tenants, or type of tenants, should be confirmed during design development

so that the spaces can be adequately designed.

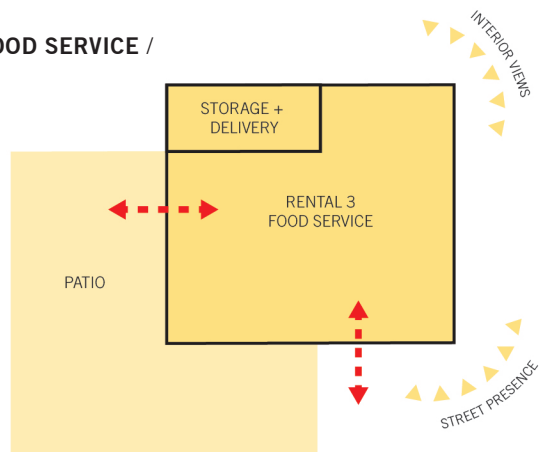
ACCESS AND SECURITY:

Required access and security will also depend on the future tenants, however, most spaces would have their own control access point. The Hewitt reception desk should only be used to assist with wayfinding.

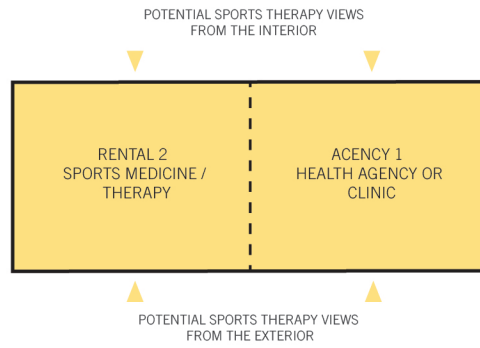
SPECIAL REQUIREMENTS:

- Ground floor rental spaces would benefit from adjacent outdoor space
- Upper level rental spaces will require wayfinding / signage to highlight their presence and allow users to easily navigate to and from

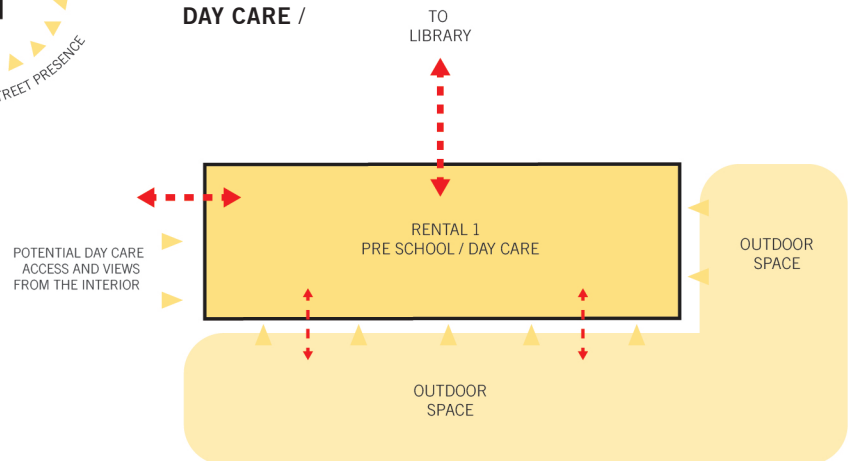
FOOD SERVICE /



SPORTS + HEALTH /

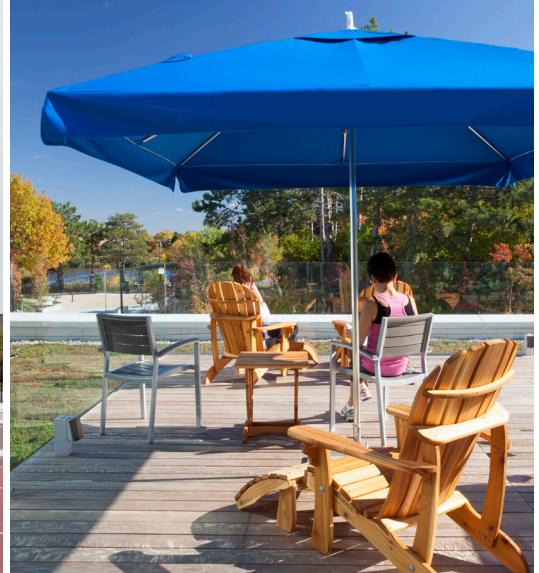


DAY CARE /



FUNCTIONAL PROGRAM /

Exterior Spaces



VISION

Site design is as important as building design. The exterior programs at both the Hewitt and Salem Recreation Centres will play a central role in attracting new community centre users. The design of these exterior spaces should be integrated with the building design, ensuring a holistic vision for the entire site is achieved.

PROXIMITY

Soccer Field + Tennis Courts

The soccer field and tennis courts, at both the Hewitt and Salem facilities, are large programs that can attract many participants and spectators. Close proximity to parking is beneficial for user convenience. Additionally, the large rectangular field and courts should be aligned North-South to help reduce the effects of the setting sun on soccer and tennis players.

Playground + Splash Pad

Close proximity of the playground and splash pad to the building will allow families engaged in rec centre

+ library programs convenient access to additional play programs. Locating the building's washrooms close to the exterior playground and splash pad would also be a valuable convenience.

Skate Park + Basketball Court

Skate parks and basketball courts are great exterior programs that engage older children and adolescents. To ensure these smaller programs are displayed to, and subsequently used by, the surrounding communities they should be located along a street edge to maximize their visibility. This also allows for good passive observance.

Parking

Providing adequate and properly located parking is an important part of all recreation centres and libraries. Site design that allows for zoned parking, with multiple parking lots distributed across the site, is ideal. It allows each building program to be associated to a parking area that is in close proximity and can accommodate the demand.

OCCUPANCY

The exterior spaces will be used by both recreation centre + library users and local residents who are non-recreation centre + library users.

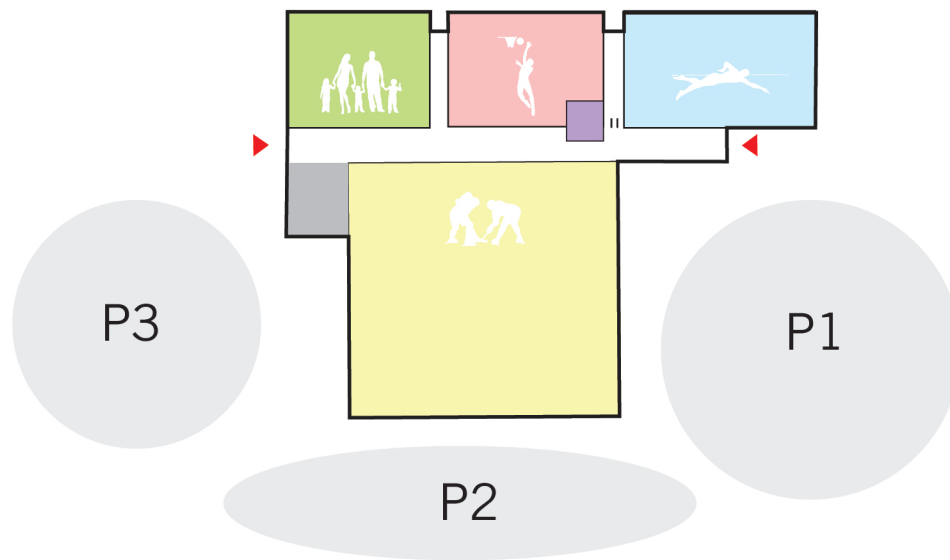
ACCESS AND SECURITY:

Access and security to the exterior spaces will be controlled by the Hewitt and Salem facilities and the City of Barrie.

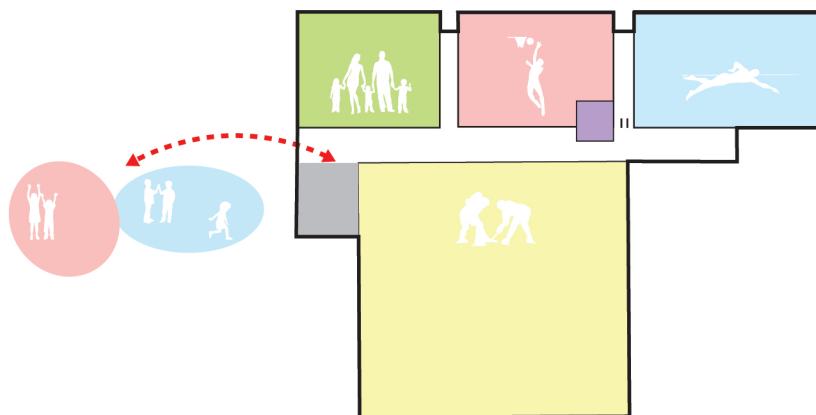
SPECIAL REQUIREMENTS:

- City of Barrie standards should be used for the soccer field, basketball court and tennis court dimensions + play out requirements
- A pathway system throughout the Hewitt and Salem sites should be integrated and help connect the various exterior spaces and building

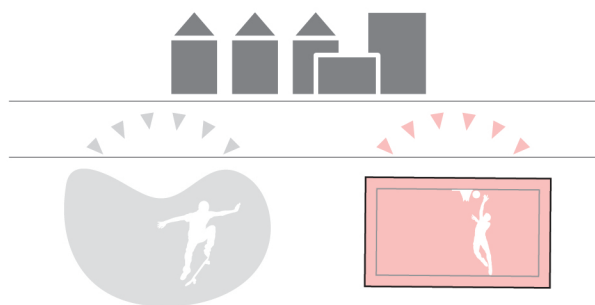
ZONED PARKING /



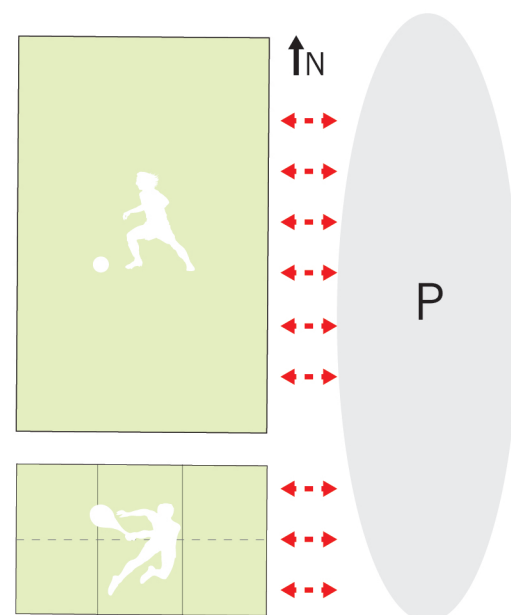
PLAYGROUND + SPLASH PAD /



SKATE PARK + BASKETBALL COURT /



SOCCER FIELD + TENNIS COURTS /





SUSTAINABILITY /

Introduction

“Sustainability, in the context of cities, refers to the capacity to endure challenges and disturbances, while ensuring that the current and future functioning of the city is not jeopardized.”

- ‘Sustainable Barrie’ (2016) prepared by The City of Barrie Planning Services

The development of the Hewitt and Salem communities allows the City of Barrie a unique opportunity to raise the sustainability bar and create new neighbourhoods that holistically address the environmental, economical, cultural, and social concerns of today and tomorrow. “Public concern continues to grow over the present and future challenges of climate change, change in our economic systems, changing demographics, continued migration and population growth, pressures on the natural ecological systems, rising oil and energy costs, and increases in severe weather events.” (‘Sustainable Barrie’, 2016). Status quo sustainability targets are no longer adequately preparing us for the future, and more ambitious targets, such as Carbon Neutral, Net Zero, and Resilient design, are becoming the focus for provincial and federal governments.

The City of Barrie has numerous documents that will help shape the development of the Hewitt and Salem communities. Sustainability goals and initiatives focused on in this report stem from the following publications:

- Sustainable Barrie, 2016
- The City of Barrie Official Plan, January 2017
- The City of Barrie Energy Management Plan, 2012-2017
- The City of Barrie Climate Change Adaptation Strategy 2017

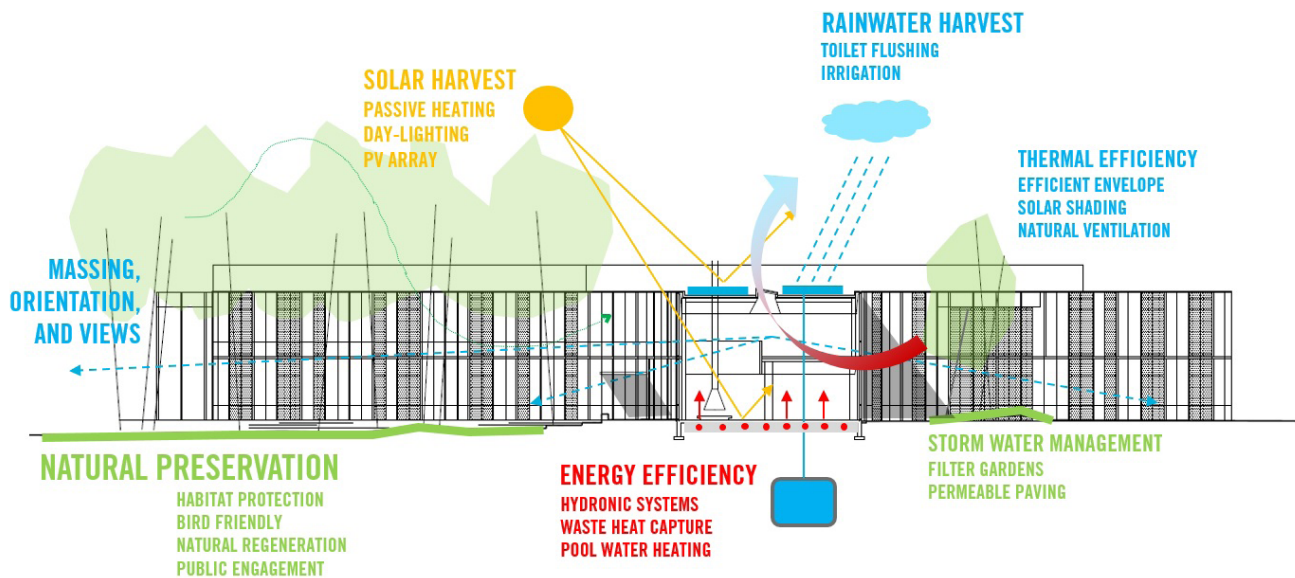
These documents not only outline present day sustainability requirements, but also describe future sustainability goals and strategies that will help progress the City of Barrie to more ambitious targets.

The following section will highlight various sustainability strategies that can be implemented at the Hewitt and Salem Recreation Centres + Libraries. Current industry trends of energy efficiency and resilient design will be focused on, as these initiatives offer the most opportunity for community impact.

The Salem and Hewitt Secondary Plans’ objective, as described in the City of Barrie Official Plan, is to create “a complete community providing a range of employment, housing, and a mix of other uses that allow residents to live, work, and play in their community. *High quality and sustainable community design is a key to the achievement of this objective*”. The Hewitt and Salem Recreation Centre + Libraries can be emblems for this bold community vision. They are public facilities that engage all demographics within a community. In essence, they are physical manifestations of the communities they serve and it is therefore important that the vision for these communities is encapsulated in the design of both the Hewitt and Salem facilities.

SUSTAINABILITY /

Energy Strategies



“Buildings, and the energy they consume, account for almost one quarter of Ontario’s total greenhouse gas pollution”

- ‘Ontario’s Climate Action Plan’

Currently, the City of Barrie requires all new buildings to target LEED Silver as a minimum standard. This requires a building to achieve a total of 50-59 LEED points. The LEED Energy category can contribute 33 points to a certification, with 18 points attributed solely to energy consumption. In addition to the City of Barrie standards, there are new GHG targets that the Ontario Government is implementing. ‘Ontario’s Five Year Climate Change Action Plan 2016-2020’ calls for a 15% reduction in GHG emissions by 2020 and a 37% reduction by 2030. The Hewitt and Salem facilities will be constructed between 2020-2030 and should therefore be designed to meet these future targets rather than today’s minimum standards.

PASSIVE DESIGN STRATEGIES

Sustainable design should begin at project conception. Strategies implemented as after-thoughts, that are not fully integrated in the building design, are too easily removed during value engineering. Passive design

strategies that are embedded into the building’s expression and design will ensure the building’s sustainable goals are achieved through construction.

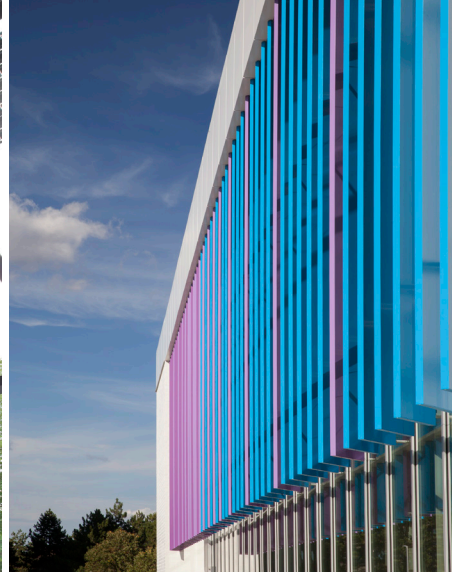
Views + Shading + Massing

Access to daylight and maximizing views into and out of the recreation + library facilities is important for the building’s function and the users’ experience. By integrating appropriate shading for each facade orientation, views can be provided year round while heat gains are controlled. Exterior shading devices and louvers should be integrated elements used for building expression and character.

The building’s massing and orientation can also be designed for mitigating heat gain. Building overhangs that help shade spaces below; minimal glazed west and north facades; and a compact building form with a low surface-area to volume ratio will help reduce the building’s heat transfer.

Building Envelope

A well insulated building with a high-performance envelope will help the



building stay cool during the summer and warm during the winter, reducing demand on the building's mechanical system. A building envelope with an R-30+ target, which has been detailed to ensure thermally broken construction, will significantly reduce the building's energy consumption.

ACTIVE DESIGN STRATEGIES

Capturing Synergies

There are energy efficiencies that can be capitalized on by locating the aquatic centre and the arena adjacent to one another. Waste heat released by the arena's refrigeration plant can be captured and used by the pool's water heating system. CO₂, Eco-Chill, and Ice Kube refrigeration systems all have the ability to capture waste heat.

Lighting

Recreation centres + libraries are often associated with large sites that accommodate a significant amount of parking and other exterior programs that require illumination. Using LED lights for all exterior and interior lighting, designing for a zero cut-off at

the property line, and using SMART occupancy sensors in the building interior will help reduce energy consumption.

District Energy

The City of Barrie is considering a district energy system within the Hewitt and Salem Secondary Plans, both to be located in close proximity to the Recreation + Library facilities. Designing these facilities to connect to these systems will increase the buildings' energy efficiencies and reduce overall energy consumption.

RENEWABLE ENERGY

Renewable energy systems, such as ground source heating and the use of photovoltaic panels, can help further reduce the buildings' energy consumption by capturing energy from renewable resources. When used for energy generation, photovoltaic panels should be integrated into the building design and showcased to the public in a thoughtful and intentional way.

VISIBILITY + EDUCATION

The Hewitt and Salem recreation centres + libraries are an opportunity for the City of Barrie to showcase their commitment to sustainability, as they will be community hubs for the new Hewitt and Salem neighbourhoods. Native plants with minimal maintenance requirements should be used in all landscaped zones. The entire site should be idle free with signage located at all dropoff zones. Pedestrian and cyclist access should be easy and extend throughout the entire site, encouraging active transportation (walking and cycling) for local residents. Bike storage facilities should be accommodated for and located at all building entrances.

The Hewitt and Salem facilities' can play an educational role for their communities, highlighting the various ways buildings can integrate with, and reduce their impact on, the surrounding environment.

SUSTAINABILITY /

Resilience Strategies



“Sustainable development requires a balance of a healthy environment, economy, and society which can be achieved by creating development which is adaptive and resilient”

- ‘The City of Barrie Official Plan’

“While climate change is being experienced across the globe, the impacts on natural and human systems are being felt at the local level. According to the Intergovernmental Panel on Climate Change, scientific evidence for warming of the climate system is now considered unequivocal. More frequent and extreme weather events, increasing summer temperatures, changes to freeze-thaw cycles, and prolonged heatwaves are only some of the changes being

experienced in cities across central Ontario. The City of Barrie recognizes the threat that climate change poses, both to its community and to City operations. While the City is already undertaking mitigation efforts to reduce greenhouse gas emissions, adaptation efforts are also needed to *increase local resilience to the consequences of climate change.*”
- City of Barrie Climate Change Adaptation Strategy 2017

CLIMATE CHANGE ADAPTATION STRATEGY 2017

In the Climate Change Adaptation Strategy 2017 document, the City of Barrie has established seven goals to help reduce the risks of current climate change impacts on Barrie’s physical, economic, social and ecological systems:

- Maintain Public Health and Safety
- Minimize Risks to Buildings and Properties
- Strengthen Infrastructure Resilience
- Help Local Businesses and the Tourism Industry Adapt to Changing Conditions

- Protect Biodiversity and Enhance Ecosystem Functions
- Minimize Disruption to Corporate Services
- Build Community Resilience

The Hewitt and Salem Recreation Centres + Libraries can directly and indirectly contribute to all seven goals. Community centres are inclusive spaces that service surrounding neighbourhoods in diverse ways. They not only provide recreation activities for people of all ages and abilities, but are also locations for social and educational gatherings. Their engagement with local residents of all demographics highlights them as ideal locations for community outreach programs that the City of Barrie has highlighted as an integral part to building community resilience. Essentially, the Hewitt and Salem Recreation Centres + Libraries will be communication hubs, supporting their respective communities daily under both normal and extreme conditions.



01 Maintain Public Health and Safety



02 Minimize Risks to Buildings + Properties



03 Strengthen Infrastructure Resilience



04 Help Local Businesses + Tourism Adapt



05 Protect Biodiversity + Enhance Ecosystem Functions



06 Minimize Disruption to Corporate Services



07 Build Community Resilience

REFUGE CENTRE

Resilience is about being proactive. It's looking for long-term solutions that allow a community to withstand extreme weather events. The Hewitt and Salem Recreation Centres + Libraries need to be built for maximum adaptation. Adaptation is managing the unavoidable, and changing weather patterns are unavoidable. Climate projections for the City of Barrie include:

- Temperature increase of approximately 1.5C by 2030
- More frequent heat waves
- Annual increase in precipitation by 26.8 mm in 2020
- Increase in intensity, duration, and frequency of extreme rainfall

In recent months, nature's unpredictableness has been on full display. The importance of refuge centres is undeniable and preparing the Hewitt and Salem facilities to serve this function for their respective communities is a proactive initiative for the City of Barrie.

Communication and established operation protocols are important for the success of a refuge centre, however, there are also important design requirements. Both the Hewitt and Salem facilities should be designed to accommodate a portable generator that can allow the gymnasium, arena and other large spaces to stay warm with emergency lighting and running boilers. As outlined in the costing summary on pg. A10 in the appendix, this generator premium will be between \$250,000 to \$300, 000 and should be budgeted for.

Both the Hewitt and Salem facilities should be accessible to all and be designed as open and inviting spaces that provide safety and security to those in need during times of duress.

“The City of Barrie will work to build awareness of climate change and educate citizens on what climate change means for them and how they can prepare. We all have a role in preparing and adapting to climate change. Small actions by many can go a long way.”-

- 'Climate Change Adaptation Strategy 2017'

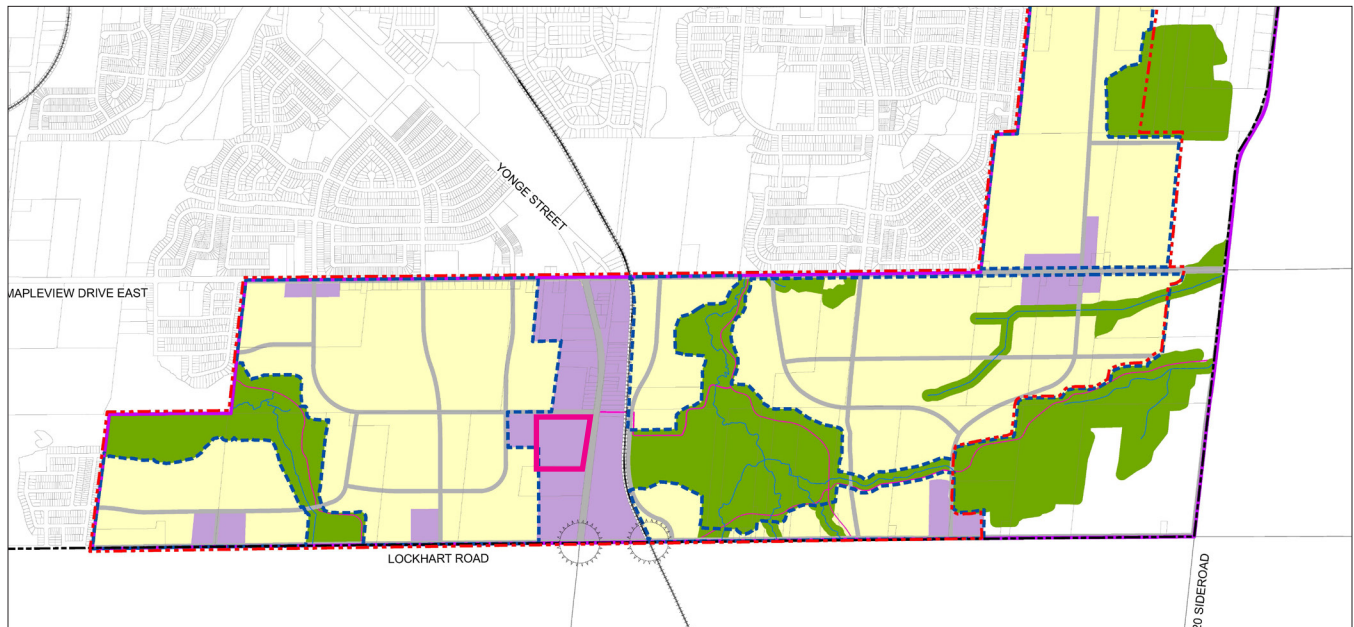
DOWNTOWN
BARRIE

LOCKHART ROAD

YONGE STREET

HEWITT DESIGN /

Hewitt Context



“Salem and Hewitt’s Secondary Plan Areas will be gateways to the City of Barrie, providing a range of employment, housing, and a mix of other uses that allow residents to live, work, and play in their community.”

- Hewitt + Salem Secondary Plan

The future Hewitt Recreation Centre + Library will be a major contributor to the recreational programming options envisioned for the new Hewitt community. Located on Yonge Street, the facility will be a civic landmark, not just for the local residents, but for the City of Barrie and the greater surrounding region.

The Hewitt Secondary Plan Area is comprised of five residential districts and the Yonge street mixed use corridor. It is bounded by:

- North: Maplevue Drive and big Bay Point Road
- East: 20th Sideroad
- South: Lockhard Road, and
- West Property boundaries and existing residential subdivisions

The development of these areas is based on an interconnected natural heritage system, open space network and transportation system that will help incorporate them into the Barrie

community, encouraging active transportation and transit.

The housing mix target for the Hewitt Secondary Plan is 83% low and medium density that are ground related and 17% medium and high density that are non-ground related. Most of this medium and high density housing will occur along the more urban mixed use corridor of Yonge Street, which will be a major transit artery into downtown Barrie.

The Hewitt Recreation Centre + Library has a prime location on Yonge Street with maximum exposure to those living, working and visiting the Hewitt Community. This is an ideal location for a larger premiere facility to be developed.

HEWITT DESIGN /

Hewitt Site Analysis



Before site design could begin, Perkins+Will analyzed the immediate surroundings and access requirements for the Hewitt Recreation Centre + Library site. An initial site visit confirmed the site to be flat farmland and brush, with no visual site obstructions or concerns that would prove the location difficult to build on.

ADJACENCIES

Housing

Initial plans of the surrounding subdivisions envision low to medium density housing to the north, west and south of the Hewitt site. Single family homes and town homes are the predominant housing typology, creating an optimal community for young families. Connections through the Hewitt site, from the residential streets to Yonge Street, will be important to maintain in site design.

Green Space

To the east of the mixed use Yonge Street corridor is a significant portion

of Hewitt's natural heritage system. Connections to and from the Hewitt site's exterior pathway system to the natural heritage system can help embed the recreation centre into the Hewitt community's broader pedestrian and cycling pathway network.

Schools

Two schools are planned for the surrounding lands of the Hewitt site:

- An elementary school is planned for the lot immediately west of the Hewitt site
- A secondary school is planned for a lot south of the Hewitt site.

By showcasing the Hewitt Recreation Centre + library's interior and exterior programs the facility has the potential to be a hub of activity for various after school programming.

Yonge Street

The mixed use corridor of Yonge Street will be a hub of employment for the Hewitt Community. Recreation facilities catering to after school and work drop-in programs can help foster

a live- work-play identity for Yonge Street and the Hewitt Community.

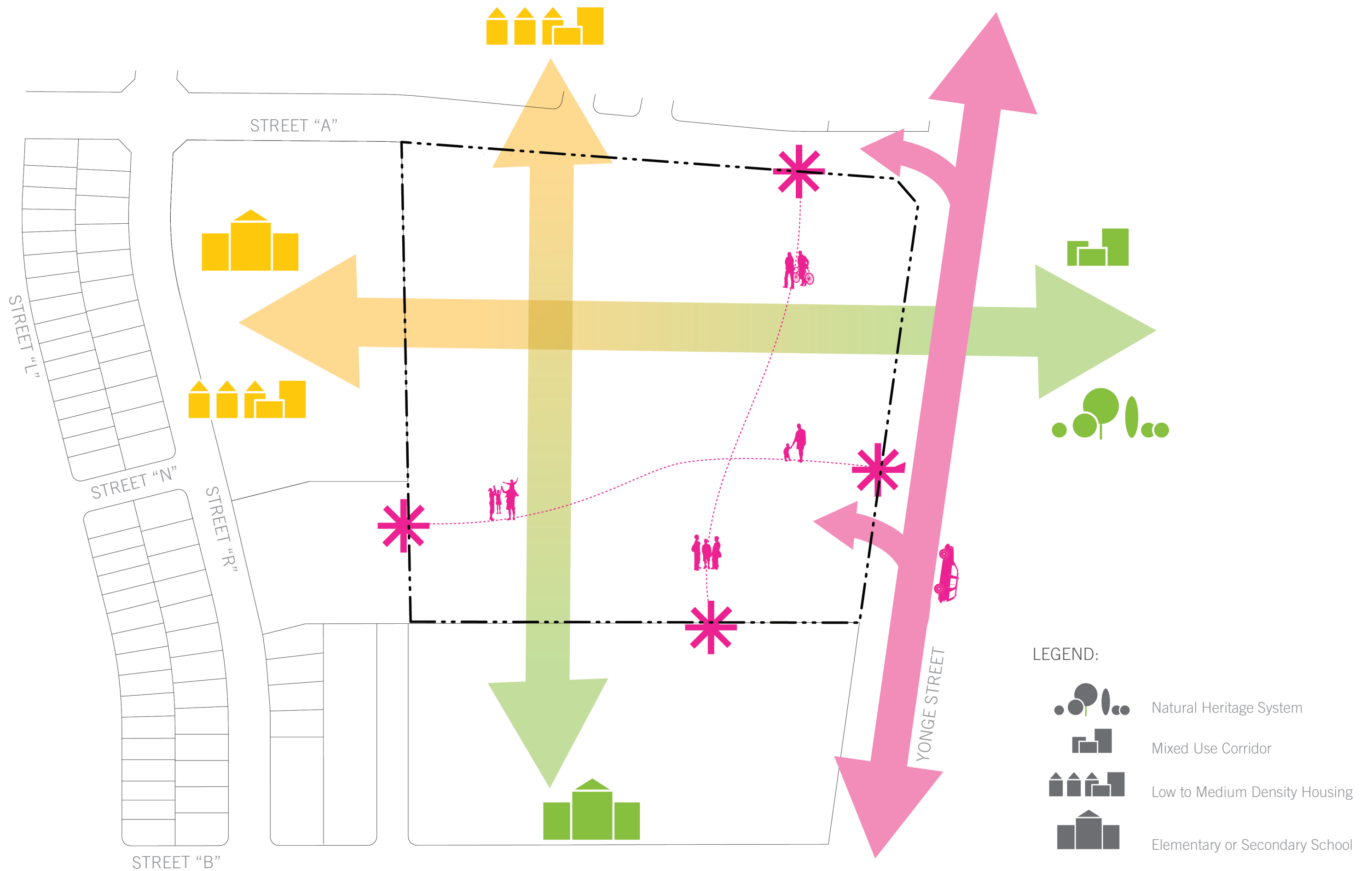
SITE ACCESS

Pedestrian Connections

Despite the large scale of the Hewitt Recreation Centre + Library the site design should maintain pedestrian connections to ensure local residents can easily navigate to the centre by foot or bike.

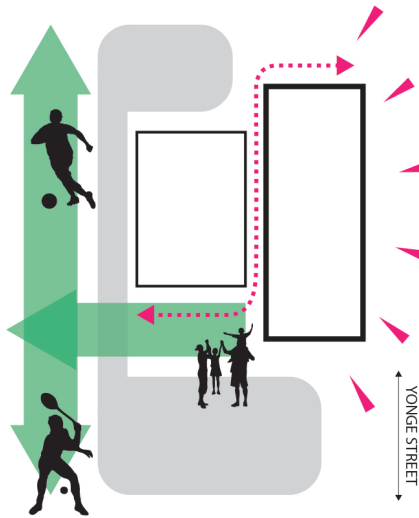
Vehicle Access + Parking

A traffic signalized intersection will be implemented at the corner of Yonge Street and Street "A". This intersection will be the primary gateway for vehicles to the Hewitt facility with parking lot access from Street "A". A secondary access will also be provided to the south end of the site from Yonge Street. A drive aisle will connect these two access points through a series of distributed parking lots around the building, each catering to an adjacent interior and/or exterior program.



HEWITT DESIGN /

Hewitt Design



The large premiere Hewitt Recreation Centre + Library will be an ‘urban showcase’ of recreational and learning activities that demonstrates Barrie’s commitment to community development.

BUILDING LOCATION + CONFIGURATION

The Hewitt facility is located at the north-east corner of the site, where the large double height pool anchors the building to the prominent Yonge Street - Street “A” Intersection. Continuing south along Yonge street are the building’s additional feature programs, such as the fitness centre + interior track, Double Gymnasium, and Library. The twin pad arena is situated on the west side of the building plan. This location ensures that the large blank masses of the arena are strategically

located internally and do not occupy valuable exposure along Yonge Street. The rental space is located along the “Play Path” adjacent to the building’s south entrance. Its exterior patio/ outdoor space, adjacent to the playground and splash pad, helps create a hub for family gatherings, providing an enjoyable space for both children and parents to occupy for long periods of time.

EXTERIOR RECREATION SPACES

A spine of exterior program runs down the west edge of the Hewitt site. The skate park and basketball court have been located along Street “A” to maximize exposure to local residents. To the south is the large 67.5m x 105m rectangular field, orientated north-south and sized to City of Barrie standards with appropriate play out limits accounted for. Located in the south-west corner of the site are 3 tennis courts (6 pickle ball courts). There is potential for the City of Barrie to acquire 2 additional acres of land along the south edge of the site. If this occurs, 3 additional tennis courts (6 pickle balls courts) can be added. Between the soccer field and tennis courts is an exterior plaza space titled the ‘Play Path’. Integrated within the ‘Play Path’ are the exterior playground and splash pad located adjacent to the building’s south entrance and the rental space patio, allowing for convenient building and washroom access.

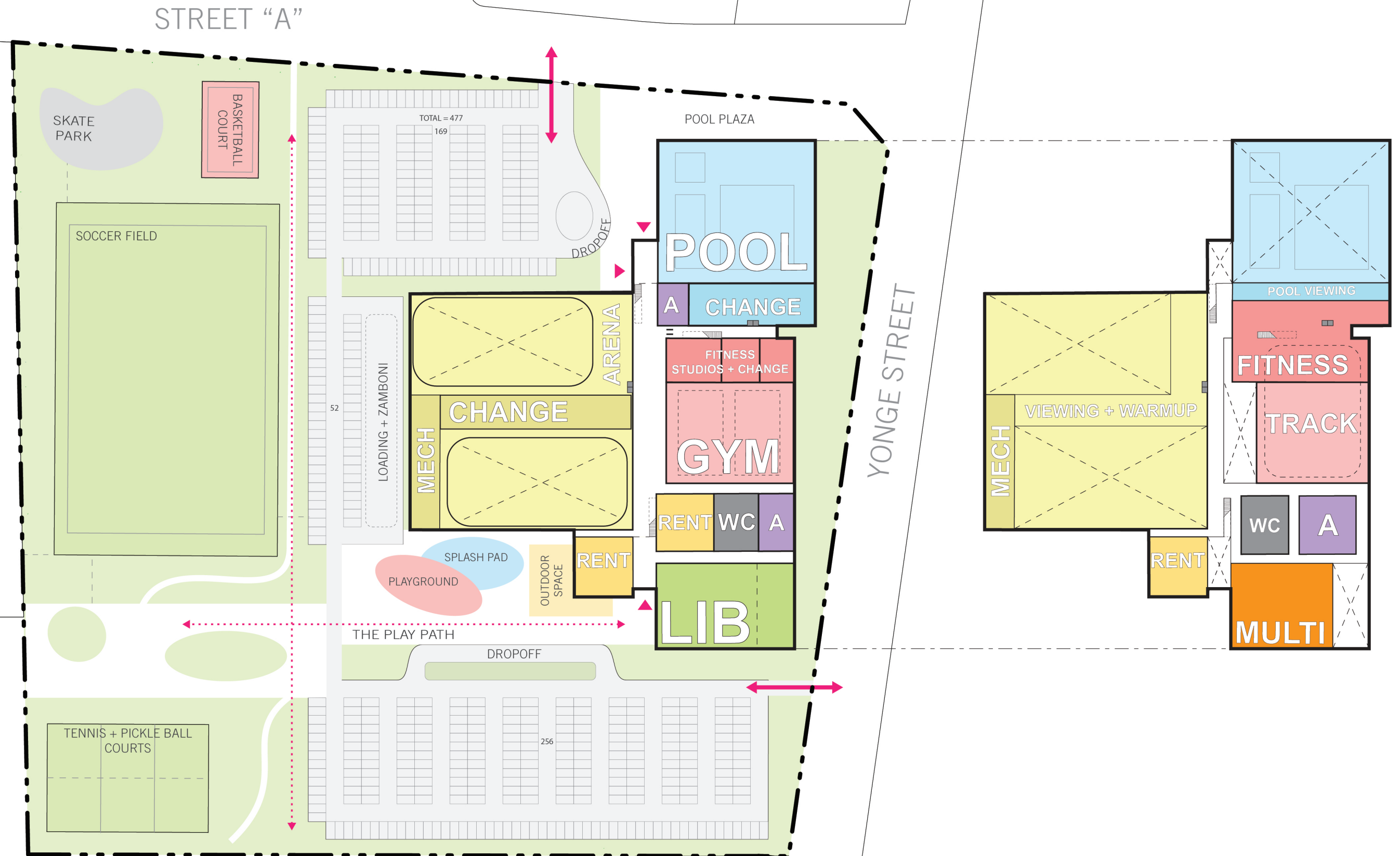
PEDESTRIAN + CYCLING ACCESS

Pedestrians and cyclists arriving from the Yonge Street - Street “A” intersection can access the site and building via the ‘Pool Plaza’. They can then travel south through the building

to the ‘Play Path’ which connects them through the site to the west residential neighbourhood, or south to the secondary school. Secondary pathways extend out from the ‘Play Path’ connecting pedestrians to the various exterior programs throughout the site.

VEHICLE ACCESS + PARKING

The main vehicle entrance will be from Street ‘A’ via the Yonge Street - Street ‘A’ intersection. The Street ‘A’ entrance provides access to Parking Lot 1 (159 spaces), which has a dropoff at the building’s north entrance. This parking lot will be used by both arena and pool users. A drive aisle at the west end of Parking Lot 1 connects to Parking Lot 2 (52 spaces). This parking lot is ideal for soccer field and arena users. Secondary arena access can be provided from parking lot 2 via a rear exit stair. The west drive aisle continues south and connects Parking Lot 2 to Parking Lot 3 (256 spaces). At this location, the drive aisle bisects the ‘Play Path’. To minimize the ‘Play Path’ disruption, a pedestrian-friendly paving should be used to help highlight the area as a pedestrian zone. Parking Lot 3 is the Hewitt facility’s largest parking lot, and will be used by library, gym, multi-purpose, rental space, tennis court, playground and splash pad users. It has a dropoff at the building’s south entrance, and an entrance/exit to and from Yonge Street. It is anticipated that this Yonge Street access will accommodate left-in and left-out access.

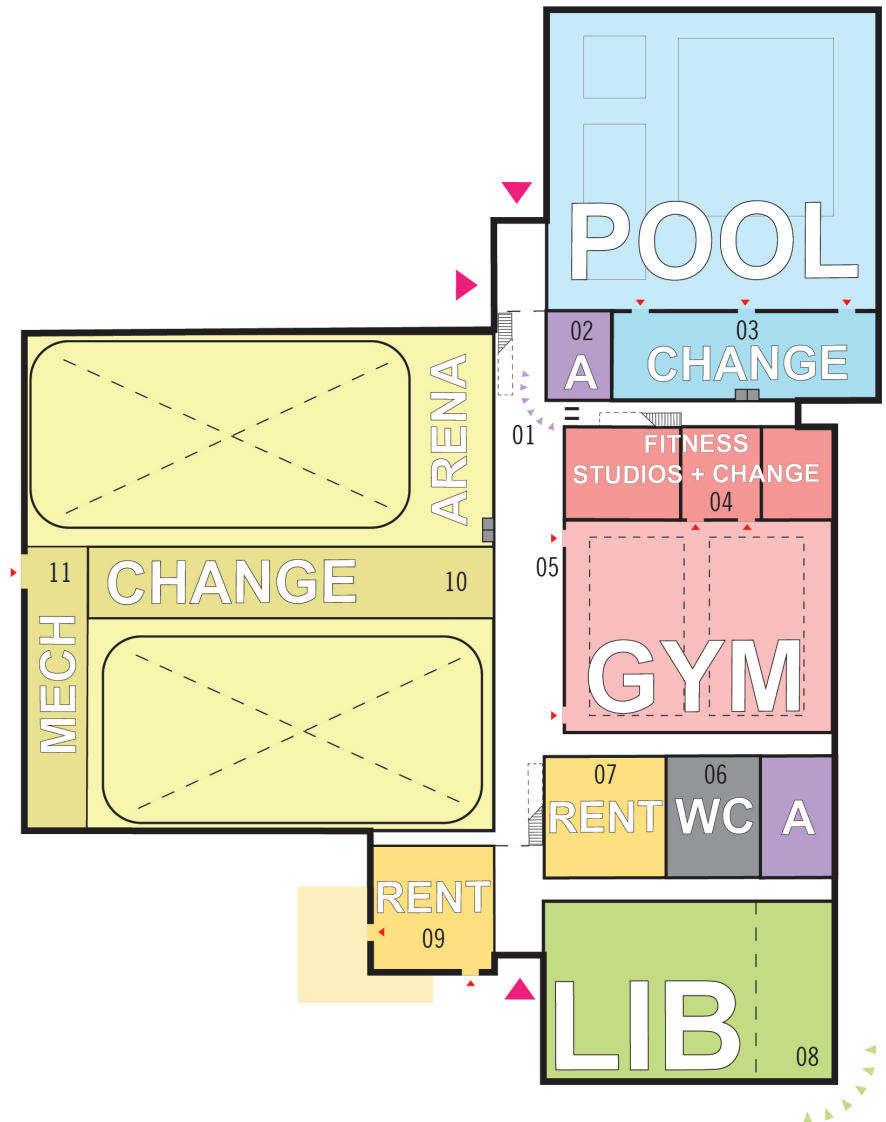


HEWITT DESIGN /

Hewitt Design

GROUND FLOOR DESIGN FEATURES

- 01** Ground Floor Administration / Main Reception desk is located at north entrance. Fitness studio and gymnasium are pulled back to increase administration visibility to patrons arriving from the south entrance.
- 02** Main reception desk doubles as secure access point for the pool, fitness centre and gymnasium.
- 03** Wet Change rooms have direct pool access
- 04** Dry change rooms have direct gymnasium access
- 05** Gymnasium will also have public access to accommodate spectators
- 06** Washrooms are centrally located for convenient use by all recreation users and staff
- 07** Potential rental space conveniently located adjacent to the south entrance and library.
- 08** The library is located at the south corner of the Hewitt facility to maximize it's exposure to Yonge Street. A double height reading space along the east facade gives the library a bolder street presence.
- 09** Potential rental space located adjacent to the south entrance with direct exterior access. South exposure will maximize daylight into the space and onto its associated outdoor space.
- 10** The large twin pad arena will have minimal glazing and is therefore ideally located along the building's west facade.
- 11** The arena's mechanical space is located in the south-west corner, adjacent to the exterior loading zone and zamboni snow storage.

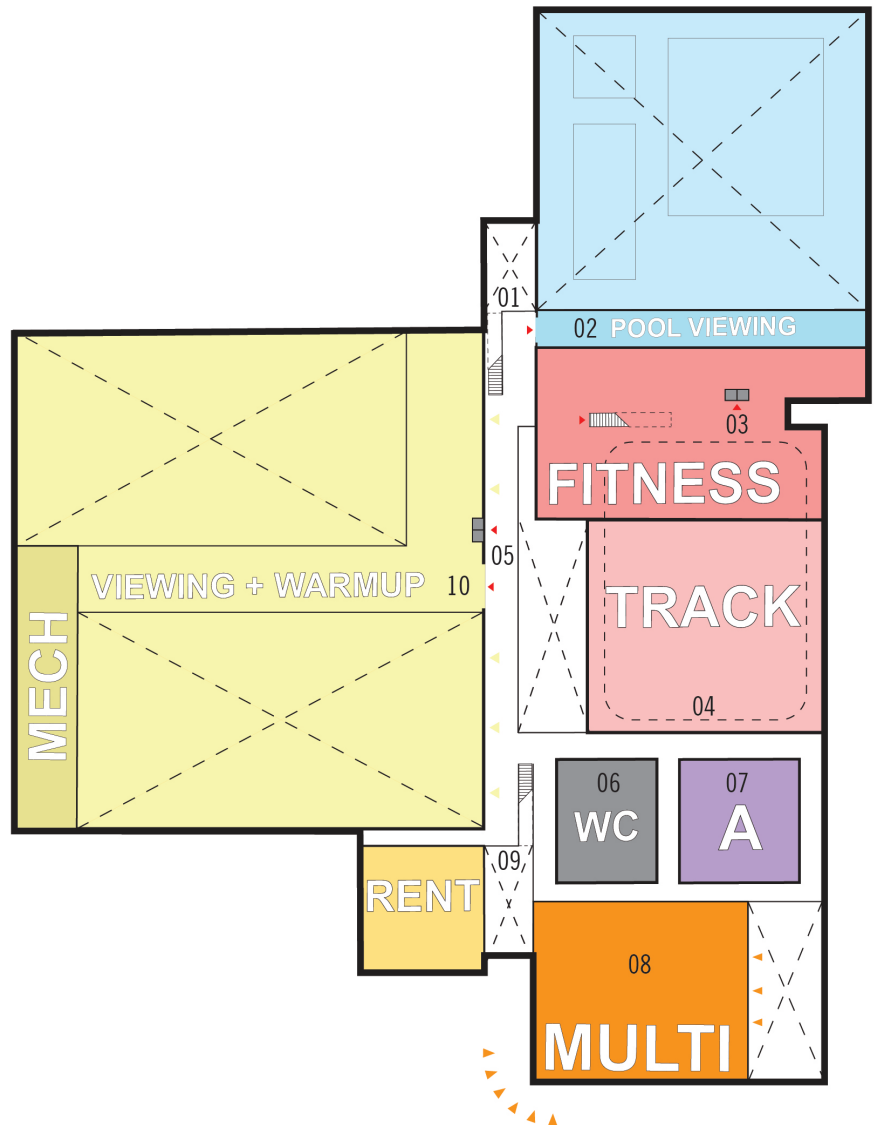


HEWITT DESIGN /

Hewitt Design

UPPER FLOOR DESIGN FEATURES

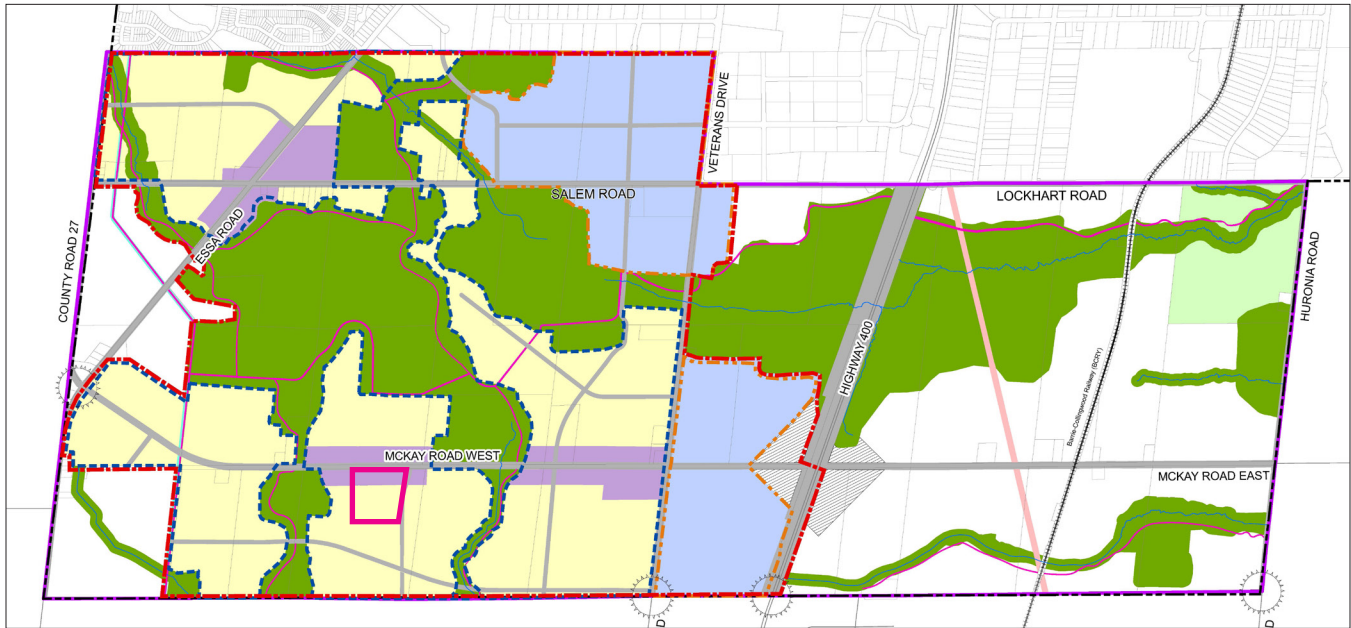
- 01** The north entrance space is a double height space with a stair connecting patrons immediately to the 2nd level
- 02** Pool viewing is provided along the south edge of the pool and accessed from the public corridor. Glazed walls allow views from the open fitness area to the pool.
- 03** 2nd Floor Open fitness area can be accessed via the stair or elevators located within the ground level secure zone
- 04** The fitness track will be accessed only from the open fitness area. It will wrap around a portion of the fitness area and the entire double gymnasium.
- 05** Public elevators are centrally located for convenient use by all recreation users and staff
- 06** Washrooms are centrally located for convenient use by all recreation users and staff
- 07** Additional administration space is provided close to the multi purpose space. Staff lunchroom and work stations will have views to the building exterior.
- 08** The multi-purpose suite is located in close proximity (immediately above) the library and the south entrance. It will have exterior visibility from the south parking lot and play path, and interior visibility from the library's double height space.
- 09** The south entrance space is a double height space with a stair connecting patrons immediately to the 2nd level
- 10** Arena spectators can access the 'cold' viewing area from the public corridor. Warm viewing is also provided, to both rinks, along the corridor.





SALEM DESIGN /

Salem Context



“Salem and Hewitt’s Secondary Plan Areas will be gateways to the City of Barrie, providing a range of employment, housing, and a mix of other uses that allow residents to live, work, and play in their community.”

- Hewitt + Salem Secondary Plan

The future Salem Recreation Centre + Library will be a major contributor to the recreational programming envisioned for the new Salem community. Located on McKay Road West, the facility will be a community hub for local residents and a valuable addition to the City of Barrie’s growing recreation + library network.

The Salem Secondary Plan Area is comprised of four residential districts and two industrial/business park districts. It is bounded by:

- North: Mapleview Drive West and Salem/Lockhart Road
- East: Huronia Road
- South: Mid concession south of McKay Road between Huronia Road and Simcoe County Road 27; and,
- West: Simcoe County Road 27

The development of these areas is based on an interconnected natural heritage system, open space network and transportation system that will

help incorporate them into the Barrie community, encouraging active transportation and transit.

The housing mix target for the Salem Secondary Plan is 83% low and medium density that are ground related and 17% medium and high density that are non-ground related. A portion of this medium and high density housing will occur along the more urban mixed use corridor of McKay Road.

The Salem Recreation Centre + Library has a prime location on McKay Road. This building will be centrally located in the heart of the Salem community allowing it to truly develop into a community hub for Salem’s future residents.

SALEM DESIGN /

Salem Site Analysis



Before site design could begin, Perkins+Will analyzed the immediate surroundings and access requirements for the Salem Recreation Centre + Library site. An initial site visit confirmed the area to be flat farmland and brush, with no visual site obstructions or concerns that would prove the location difficult to build on.

ADJACENCIES

Housing

Initial plans of the surrounding subdivisions envision low to medium density housing to the east, south and west of the Salem site. Single family homes and town homes are the predominant housing typology, creating an optimal community for young families. Connections through the Salem site, connecting the residential streets to each other and to McKay Road, will be important to maintain in site design.

Green Space

To the west of the Salem site is a

significant portion of Salem's natural heritage system. Connections to and from the site's exterior pathway system to the natural heritage system can help embed the recreation centre into the Salem community's broader pedestrian and cycling pathway network.

Schools

Two schools are planned for the surrounding lands of the Salem site:

- An elementary school is planned for a lot south of the Salem site
- A secondary school is planned for a lot north of the Salem site, across McKay Road.

By showcasing the Salem Recreation Centre + library's interior and exterior programs the facility has the potential to be a hub of activity for various after school programming.

McKay Road

The mixed use corridor of McKay Road will be a hub of employment for the Salem Community. Recreation facilities catering to after school and

work drop-in programs can help foster a live- work-play identity for McKay Road and the Salem Community.

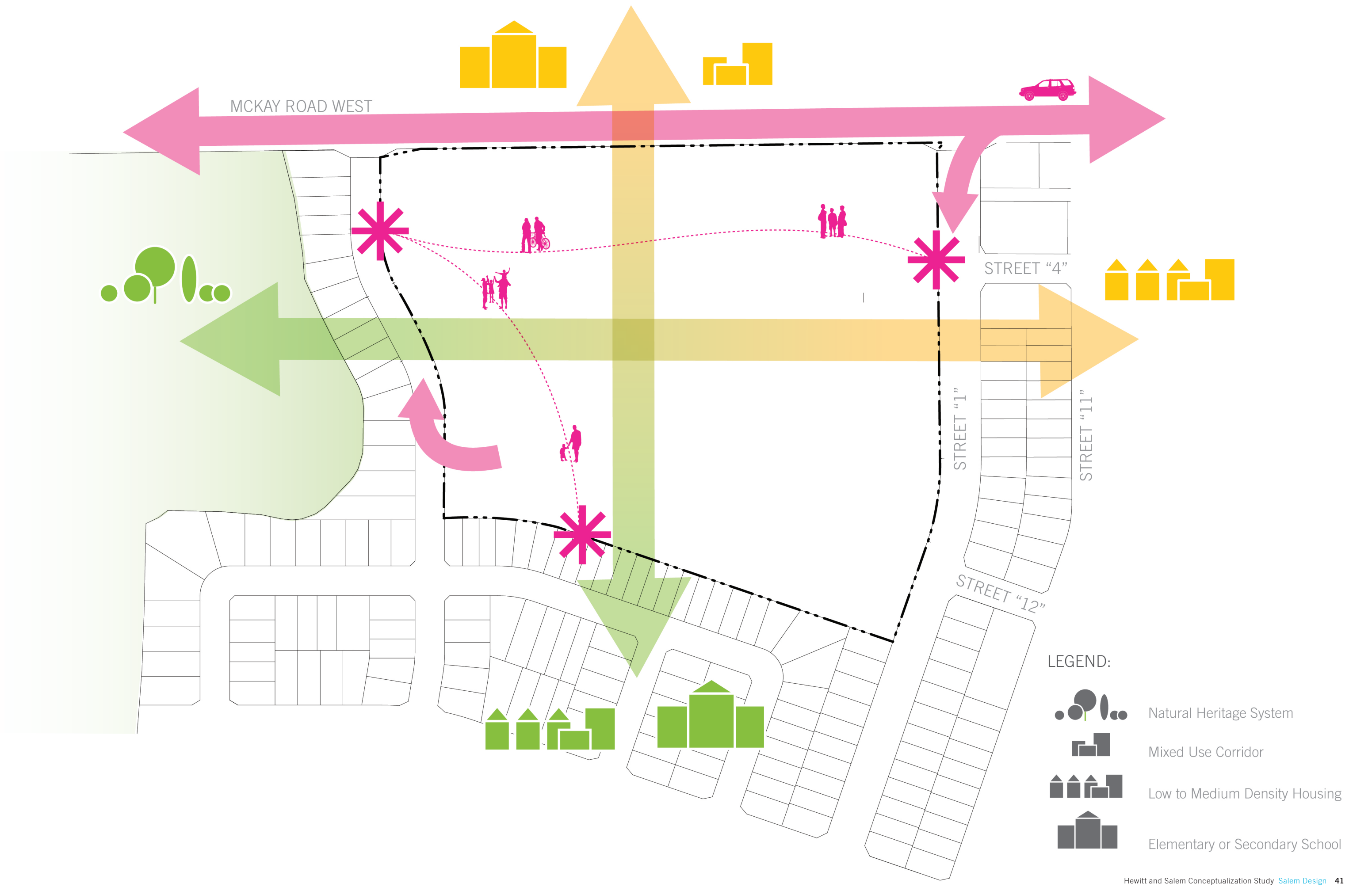
SITE ACCESS

Pedestrian Connections

Despite the large scale of the Salem Recreation Centre + Library the site design should maintain pedestrian connections to ensure local residents can easily navigate to the centre by foot or bike.

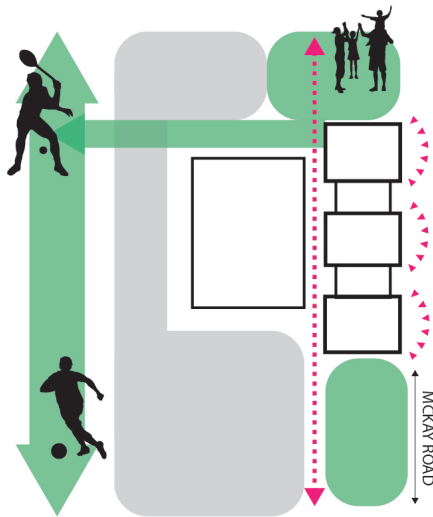
Vehicle Access + Parking

A traffic signalized intersection will be implemented at the corner of McKay Road and Street "1". This intersection will be the primary vehicle gateway to the Salem facility with parking lot access from Street "1". A secondary right-in, right-out access will also be provided at the west edge of the site. A drive aisle will connect these two access points through a series of distributed parking lots around the building, each catering to an adjacent interior and/or exterior program.



SALEM DESIGN /

Salem Design



The ‘activity avenue’ of the Salem Recreation Centre + Library will offer local residents recreational and learning options that will help foster civic engagement for the new Salem neighbourhood.

BUILDING LOCATION + CONFIGURATION

The Salem facility is located along McKay Road centered within the site. This allows the site corners to be green spaces that help buffer the adjacent single family homes from the large facility. The double height spaces, such as the large two storey 25,000sf library, the single gymnasium, and the pool, are expressed as distinct volumes by recessing the single storey spaces between. An outdoor patio space, associated with the library, is

located in the “Play Plaza” adjacent to the building’s west entrance. Its adjacency to the skate park, basketball court, playground, and splash pad, helps create an exterior hub for family gatherings, providing an enjoyable space for both children and parents to occupy for long periods of time. The twin pad arena is adjacent to the library and gymnasium. As a large, mostly opaque, volume it does not require or benefit from exposure along McKay Road.

EXTERIOR RECREATION SPACES

A ‘Play Plaza’ / exterior hub is located at the north-west corner of the Salem site. Integrated within this ‘Play Plaza’ is the skate park, basketball court, playground and splash pad. The skate park and basketball court are located along McKay Road to maximize exposure to local residents. South of the skate park and basketball court are the exterior playground and splash pad, located adjacent to the building’s west entrance allowing for convenient building and washroom access. These programs are pulled off McKay road to ensure young children can play safely, away from the busy traffic corridor. A series of pathways extend out from the ‘Play Plaza’ connecting to the west edge of the site and the Natural Heritage System beyond, and to the south edge of the site where the 6 tennis courts (12 pickle ball courts) are located. The tennis courts and large 67.5m x 105m rectangular field create a spine of exterior program along the south edge of the Salem site. The soccer field is aligned north-south and sized to City of Barrie standards with appropriate play out limits accounted for. Pathways adjacent to the tennis courts connect the large rectangular

field to the site’s exterior pathway system.

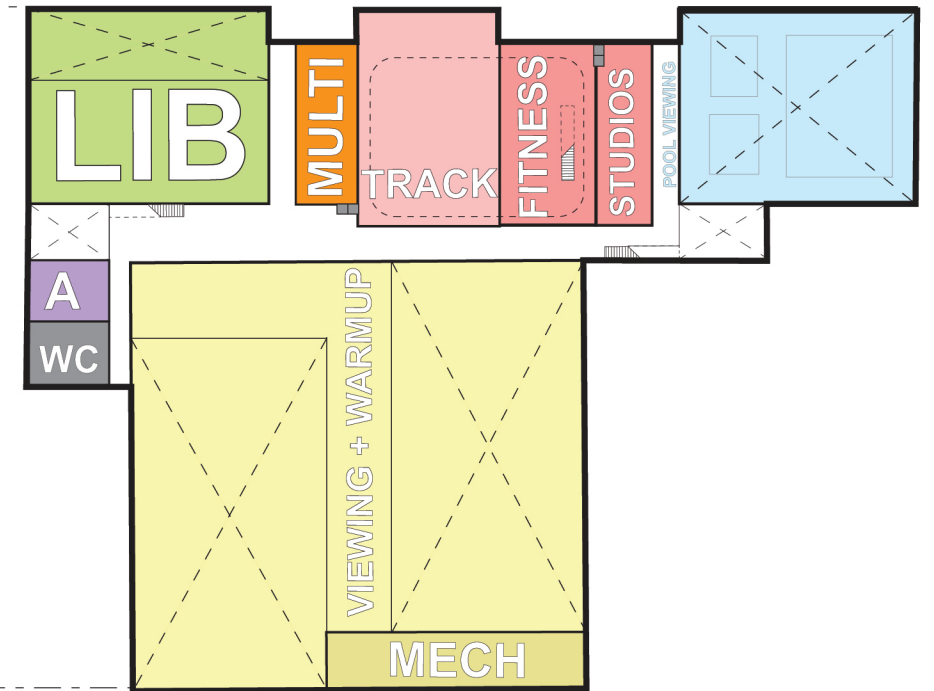
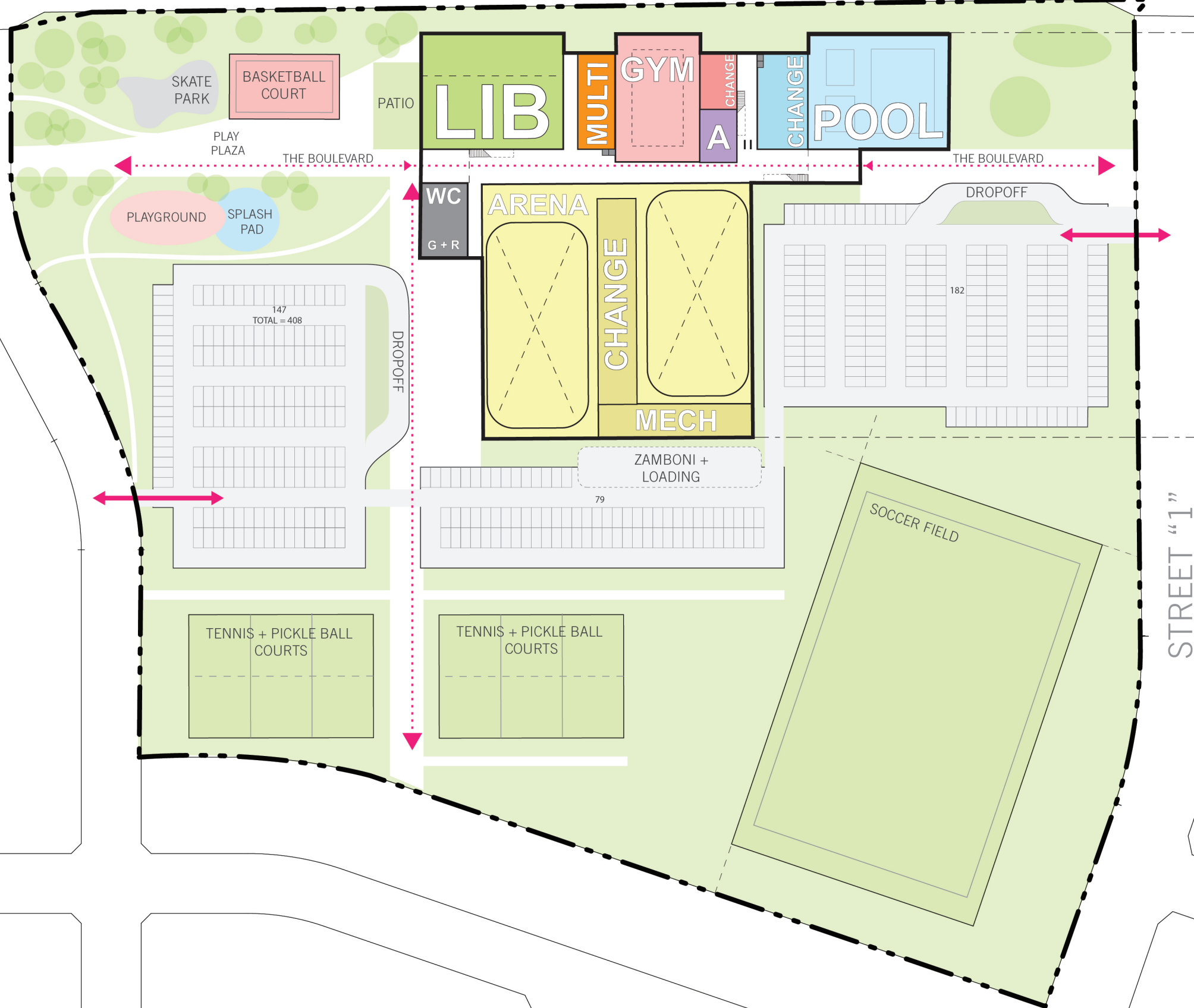
PEDESTRIAN + CYCLING ACCESS

Pedestrians and cyclists arriving from the signalized McKay Road - Street “1” intersection can access the site and building via ‘The Boulevard’. ‘The Boulevard’ is an indoor-outdoor pathway that bisects the Salem facility, acting as an east-west ‘high street’ through the site. At the West end of ‘The Boulevard’ is the ‘Play Plaza’, which connects commuters with the site’s secondary pathway network guiding them to the various exterior programs.

VEHICLE ACCESS + PARKING

The main vehicle entrance will be from Street ‘1’ via the McKay Road - Street ‘1’ intersection. The Street ‘1’ entrance provides access to Parking Lot 1 (182 spaces), which has a dropoff at the building’s east entrance. This parking lot will be used by both arena and pool users. A drive aisle at the west end of Parking Lot 1 connects to Parking Lot 2 (79 spaces). This parking lot is ideal for soccer field, tennis court and arena users. Secondary arena access can be provided from parking lot 2 via a rear exit stair. The main drive aisle continues west and connects Parking Lot 2 to Parking Lot 3 (147 spaces). Parking Lot 3 will be used by library, gym, multi-purpose, skate park, basketball court, playground and splash pad users. It has a dropoff at the building’s west entrance, and an entrance/exit to and from the residential street along the site’s western edge. It is anticipated that this entrance/exit will only accommodate right-in and right-out access.

MCKAY ROAD WEST

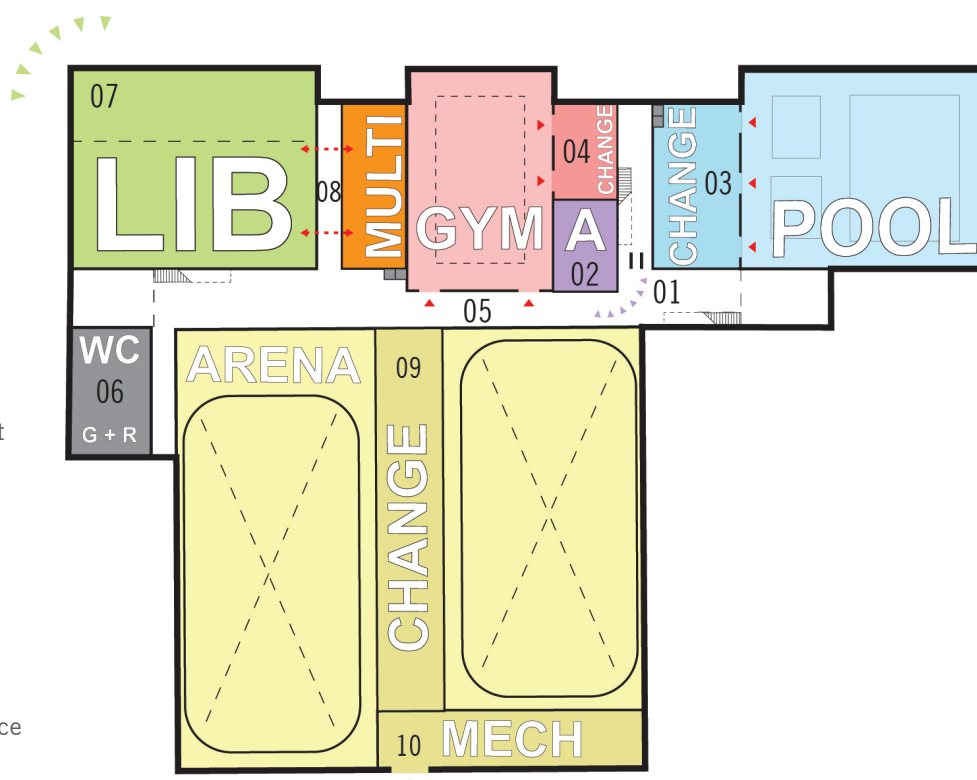


SALEM DESIGN /

Salem Design

GROUND FLOOR DESIGN FEATURES

- 01** Ground Floor Administration / Main Reception desk is located at east entrance. Administration space is pulled forward to increase visibility to patrons arriving from the east and west entrances.
- 02** Main reception desk doubles as secure access point for the pool, fitness centre and gymnasium.
- 03** Wet Change rooms have direct pool access
- 04** Dry change rooms have direct gymnasium access
- 05** Gymnasium will also have public access to accommodate spectators
- 06** Washrooms are located at the west entrance adjacent to the exterior 'Play Plaza' program. They're opaqueness will help mitigate heat gains through the west facade.
- 07** The library is located at the west corner of the Salem facility to maximize it's exposure to McKay Road. A double height reading space along the north facade gives the library a bolder street presence.
- 08** Multi-purpose space is located adjacent to the library space. The corridor between the two programs will allow users to move back and forth between the complementary programs.
- 09** The large twin pad arena will have minimal glazing and is therefore ideally located off of McKay Road.
- 10** The arena's mechanical space is located in the south-east corner, adjacent to the exterior loading zone and zamboni snow storage.

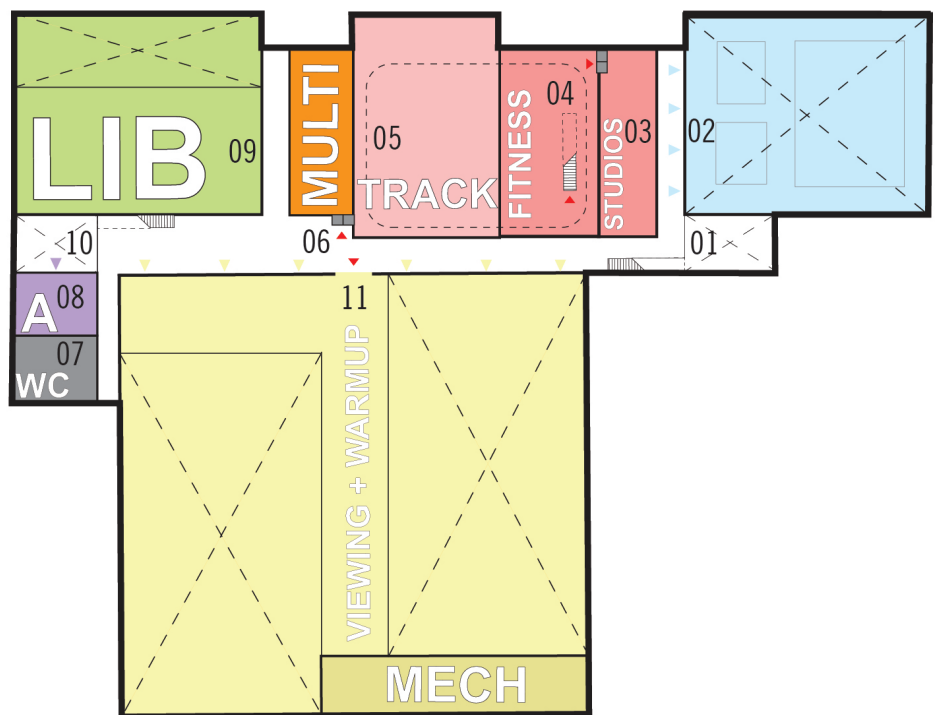


SALEM DESIGN /

Salem Design

UPPER FLOOR DESIGN FEATURES

- 01** The east entrance space is a double height space with a stair connecting patrons immediately to the 2nd level
- 02** Informal pool viewing is provided along the west edge of the pool in the public corridor.
- 03** Glazing along the east walls of the fitness studios will allow views into the pool.
- 04** 2nd Floor Open fitness area and fitness studios can be accessed via the stair or elevators located within the ground level secure zone.
- 05** The fitness track will be accessed only from the open fitness area. It will wrap around the entire fitness area and a portion of the gymnasium.
- 06** Public elevators are centrally located for convenient use by all recreation users and staff
- 07** Washrooms are located above the ground floor washrooms for easy wayfinding
- 08** Additional administration space is provided close to the west entrance space, with visibility to and from the double height lobby.
- 09** The Salem library is a large 2 storey library. Similar to the ground level, additional multi-purpose space is located adjacent to the library space.
- 10** The west entrance space is a double height space with a stair connecting patrons immediately to the 2nd level
- 11** Arena spectators can access the 'cold' viewing area from the public corridor. Warm viewing is also provided, to both rinks, along the corridor.





APPENDIX

HEWITT AREA SUMMARY/

Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Aquatic Centre						
	Lane Pool	1	715	7696	715	7696
	Leisure Pool	1	250	2691	250	2691
	Therapy Pool	1	100	1076	100	1076
	Pool Deck Area @ Lap Pool	1	536	5772	536	5772
	Pool Deck Area @ Leisure & Therapy Pool	1	313	3364	313	3364
	Spectator Seating Area	1	238	2562	238	2562
	On Deck WC	1	18	194	18	194
	Aquatic Monitor	1	46	495	46	495
	Pool Tank/Deck / Aquatic Mon. Subtotal					
	Pool Staff Change Room	2	27	291	54	581
	Universal Change Rooms	1	240	2583	240	2583
	Female Changerooms	1	75	807	75	807
	Male Changerooms	1	75	807	75	807
	Pool Instruction Room/Multipurpose	1	40	431	40	431
	Pool Storage Area	1	80	861	80	861
	Pool Chemical / CO2 Storage	1	9	97	9	97
	Above Grade Subtotal				2789	30018
	Pool Water Treatment	1	200	2153	200	2153
	Pool HVAC Treatment	1	115	1238	115	1238
	Pool Tunnels	1	500	5382	500	5382
	Below Grade Subtotal				815	8773
	Assigned Area Sub-Total				3104	33408
	Component Circulation & Walls, HVAC, Structural Allowance			30%	837	9005
	Gross Area Total				3940	42414
Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Fitness Centre						
	Stretching and warm up	1	19	205	19	205
	Cardio/ Strength / Weights / Functional Fitness	1	1000	10764	1000	10764
	Studio 1 & 2	2	180	1938	360	3875
	Studio 3	1	90	969	90	969
	Studio Storage	2	7	75	14	151
	Fitness Reception Desk	1	17	183	17	183
	Fitness Change Rooms	2	95	1023	190	2045
	Assigned Area Sub-Total				1690	18191
	Component Circulation & Walls, HVAC, Structural Allowance			15%	254	2729
	Gross Area Total				1944	20920
Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Gymnasium						
	Gymnasium	1	1300	13993	1300	13993
	Retractable Seating	1	0	0	0	0
	Gym Office	1	9	97	9	97
	Staging Area / Kiss & Cry	1	19	205	19	205
	Track	1	800	8611	800	8611
	Gym Storage	2	60	646	120	1292
	Assigned Area Sub-Total				2248	24197
	Component Circulation & Walls, HVAC, Structural Allowance			10%	225	2420
	Gross Area Total				2473	26617

HEWITT AREA SUMMARY/

Division / Space Type		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Multi Purpose						
	Large Multi Purpose Room	1	460	4951	460	4951
	Storage	1	46	495	46	495
	Program Room 1, 2, 3	3	93	1001	279	3003
	Storage	3	9	97	27	291
	Program Room 4 - senior + youth touchdown space	1	100	1076	100	1076
	Storage	1	10	108	10	108
	Storage	1	10	108	10	108
	Dedicated HC Accessible WC	1	5	54	5	54
	Teaching Kitchen	1	32	344	32	344
	Assigned Area Sub-Total				969	10430
	Component Circulation & Walls, HVAC, Structural Allowance			20%	194	2086
	Gross Area Total				1163	12516

Division / Space Type		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Support and Amenity Spaces						
	Reception Counter and support	1	35	377	35	377
	Main Lobby - registration area	1	70	753	70	753
	Main Lobby - Seating Area	1	400	4306	400	4306
	Public Circulation	1	1000	10764	1000	10764
	Administration Offices Enclosed	4	9	97	36	388
	Administration Cash Room	0	14	151	0	0
	Work Room /Copy/Lost&Fnd	1	15	161	15	161
	Staff Lunch Room	1	20	215	20	215
	Board Room	1	35	377	35	377
	Program Staff- Unassigned WorkStn	8	5	54	40	431
	Facility General Storage	1	25	269	25	269
	Food Concession	1	15	161	15	161
	Jantiorial Supply Closet	1	18	194	18	194
	Recycling/Garbage	1	50	538	50	538
	Public Washrooms	1	120	1292	120	1292
	Second floor Washrooms	1	50	538	50	538
	Assigned Area Sub-Total				1929	20764
	Component Circulation & Walls, HVAC, Structural Allowance			25%	482	5191
	Gross Area Total				2411	25954

Division / Space Type		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Rental or Partner Space						
	Rental 1	1	550	5920	550	5920
	Rental 2	2	110	1184	220	2368
	Rental 3	1	300	3229	300	3229
	Agency 1	1	110	1184	110	1184
	Assigned Area Sub-Total				1180	12701
	Component Circulation & Walls, HVAC, Structural Allowance			15%	177	1905
	Gross Area Total				1357	14607

HEWITT AREA SUMMARY/

Division / Space Type		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Ice Arena						
	NHL rink	1	1586	17072	1586	17072
	Olympic Rink	1	1800	19375	1800	19375
	Benches Boxes & Apron - NHL	1	570	6135	570	6135
	Benches Boxes & Apron - Olympic	1	675	7266	675	7266
	Team Dressing Rooms and Showers	12	57	614	684	7363
	Referee Dressing Room 1	1	37	398	37	398
	Referee Dressing Room 2	1	25	269	25	269
	Spectator Seating Area	1	380	4090	380	4090
	Spectator Seating Area	1	190	2045	190	2045
	Dedicated Warm Up Area	1	176	1894	176	1894
	Arena Skate Rental/Sharpening	1	10	108	10	108
	First Aid Room	1	14	151	14	151
	Skater Friendly HC accessible WC	1	10	108	10	108
	Ice Resurfacing Room	1	415	4467	415	4467
	Sound Boot/AV space	2	7	75	14	151
	Arena Administration Office	1	19	205	19	205
	Workshop	1	42	452	42	452
	Arena Storage	1	93	1001	93	1001
	Area Totals				6740	72549
	Boilers	1	110	1184	110	1184
	Electrical/Comm. Room	1	50	538	50	538
	Support Area Totals				160	1722
	Assigned Area Sub-Total				6900	74271
	Component Circulation & Walls, HVAC, Structural Allowance			10%	674	7255
	Gross Area Total				7574	81526
Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Library						
	Common Area/ Vest / Study Rooms	1.0	180.0	1938	180	1938
	Public Service / check out/ Self serve	1.0	200.0	2153	200	2153
	Children's Area (Stacks, seating, computer stations)	1.0	110.0	1184	110	1184
	Tween Area (Stacks, play area, computer stations)	1.0	45.0	484	45	484
	Teen Area (Stacks, play area, computer stations)	1.0	65.0	700	65	700
	Adult (stacks, computer stations, seating)	1.0	120.0	1292	120	1292
	Large Community Room	1.0	150.0	1615	150	1615
	Meeting room (Computer Classroom/Training)	1.0	37.0	398	37	398
	Washroom	2.0	9.0	97	18	194
	Offices	3.0	11.0	118	33	355
	Work Room/ Book Drop rm.	1.0	75.0	807	75	807
	Staff Lounge	1.0	25.0	269	25	269
	Server Room	1.0	17.0	183	17	183
	Shipping & Receiving	1.0	10.0	108	10	108
	Storage	1.0	15.0	161	15	161
	Assigned Area Sub-Total		1,069	11,507	1,100	11,840
	Component Circulation & Walls, HVAC, Structural Allowance			30%	330	3552
	Gross Area Total				1430	15392

HEWITT AREA SUMMARY/

Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
	Aquatics		2,789	30,018	3,940	42,414
	Fitness Centre		1,690	18,191	1,944	20,920
	Gymnasia		2,248	24,197	2,473	26,617
	Multi Purpose		969	10,430	1,163	12,516
	Facility Support		1,929	20,764	2,411	25,954
	Ice Arena		6,740	72,549	7,574	81,526
	Rental / Partner space		1,180	12,701	1,357	14,607
	CC Subtotal		17,545	188,850	20,862	224,554
	Library		1,430	15,392	1,430	15,392
	Total Floor Area			20,334	218,868	22,292

Net to Gross Factor

1.10

Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Open Space						
	Soccer	1				
	Pickeball Courts	3				
	Tennis Courts	3				
	Basket Ball Courts	1				
	Skateboard Park	1				
	Water Play Structures	1				
	Parks	1				
	Parking	1				
	Assigned Area Sub-Total				0	0
	Component Circulation			10%	0	0
Gross Area Total				0	0	

SALEM AREA SUMMARY/

Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Aquatic Centre						
	Lane Pool	1	410	4413	410	4413
	Leisure Pool	1	84	904	84	904
	Therapy Pool	1	84	904	84	904
	Pool Deck Area @ Lap Pool	1	308	3310	308	3310
	Pool Deck Area @ Leisure & Therapy Pool	1	105	1130	105	1130
	Parents Viewing Area	1	25	269	25	269
	On Deck WC	1	18	194	18	194
	Aquatic Monitor	1	21	226	21	226
	Pool Tank/Deck / Aquatic Mon. Subtotal					
	Pool Staff Change Room	2	27	291	54	581
	Universal Change Rooms	1	170	1830	170	1830
	Male Change room	1	110	1184	110	1184
	Female Change room	1	115	1238	115	1238
	Pool Instruction Room/Multipurpose	1	40	431	40	431
	Pool Storage Area	1	80	861	80	861
	Pool Chemical / CO2 Storage	1	9	97	9	97
	Above Grade Subtotal				1633	17572
	Pool Water Treatment	1	200	2153	200	2153
	Pool HVAC Treatment	1	115	1238	115	1238
	Pool Tunnels	1	400	4306	400	4306
	Below Grade Subtotal				715	7696
	Assigned Area Sub-Total				1948	20963
	Component Circulation & Walls, HVAC, Structural Allowance			30%	522	5623
	Gross Area Total				2470	26586
Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Fitness Centre						
	Stretching and warm up	1	19	205	19	205
	Cardio/ Strength / Weights / Functional Fitness	1	500	5382	500	5382
	Studio 1	1	180	1938	180	1938
	Studio 2	1	90	969	90	969
	Studio Storage	2	7	75	14	151
	Fitness Reception Desk	1	17	183	17	183
	Fitness Change Rooms	2	95	1023	190	2045
	Assigned Area Sub-Total				1010	10872
	Component Circulation & Walls, HVAC, Structural Allowance			15%	152	1631
	Gross Area Total				1162	12502

SALEM AREA SUMMARY/

Division / Space Type		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Gymnasium						
	Gymnasium	1	846	9106	846	9106
	Retractable Seating	1	0	0	0	0
	Gym Office	1	9	97	9	97
	Staging Area / Kiss & Cry	1	19	205	19	205
	Track	1	430	4628	430	4628
	Gym Storage	1	60	646	60	646
	Assigned Area Sub-Total				1364	14682
	Component Circulation & Walls, HVAC, Structural Allowance			10%	136	1468
	Gross Area Total				1500	16150

Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Multi Purpose						
	Large Multi Purpose Room	1	280	3014	280	3014
	Storage	1	28	301	28	301
	Program Room 1	1	100	1076	100	1076
	Storage	1	10	108	10	108
	Program Room 2 - senior + youth touchdown space	1	70	753	70	753
	Storage	1	7	75	7	75
	Storage	1	7	75	7	75
	Dedicated HC Accessible WC	1	5	54	5	54
	Teaching Kitchen	1	32	344	32	344
	Assigned Area Sub-Total				539	5802
	Component Circulation & Walls, HVAC, Structural Allowance			20%	108	1160
	Gross Area Total				647	6962

Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Support and Amenity Spaces						
	Main Lobby - registration area; Reception Counter + Support	1	72	775	72	775
	Public Circulation + Main Lobby Seating Area	1	900	9688	900	9688
	Administration Offices Enclosed	4	9	97	36	388
	Administration Cash Room	0	14	151	0	0
	Work Room /Copy/Lost&Fnd	1	15	161	15	161
	Staff Lunch Room	1	20	215	20	215
	Board room	1	35	377	35	377
	Program Staff- Unassigned WorkStn	8	5	54	40	431
	Facility General Storage	1	25	269	25	269
	Food Concession	1	15	161	15	161
	Jantiorial Supply Closet	1	18	194	18	194
	Recycling/Garbage	1	50	538	50	538
	Public Washrooms	1	120	1292	120	1292
	Second floor Washrooms	1	50	538	50	538
	Assigned Area Sub-Total				1396	15026
	Component Circulation & Walls, HVAC, Structural Allowance			25%	349	3757
	Gross Area Total				1745	18783

SALEM AREA SUMMARY/

Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Ice Arena						
	NHL rink	2	1579	16996	3158	33992
	Benches Boxes & Apron	2	570	6135	1140	12271
	Team Dressing Rooms and Showers	12	57	614	684	7363
	Referee Dressing Room 1	1	37	398	37	398
	Referee Dressing Room 2	1	25	269	25	269
	Spectator Seating Area	1	380	4090	380	4090
	Spectator Seating Area	1	190	2045	190	2045
	Dedicated Warm Up Area	1	176	1894	176	1894
	Arena Skate Rental/Sharpening	1	10	108	10	108
	First Aid Room	1	14	151	14	151
	Skater Friendly HC accessible WC	1	10	108	10	108
	Ice Resurfacing Room	1	415	4467	415	4467
	Sound Boot/AV space	2	7	75	14	151
	Arena Administration Office	1	19	205	19	205
	Workshop	1	42	452	42	452
	Arena Storage	1	93	1001	93	1001
	Area Totals				6407	68964
	Boilers	1	110	1184	110	1184
	Electrical/Comm. Room	1	50	538	50	538
	Support Area Totals				160	1722
	Assigned Area Sub-Total				6567	70687
	Component Circulation & Walls, HVAC, Structural Allowance			10%	641	6896
	Gross Area Total				7208	77583
Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Library						
	Common Area/ Vest / Study Rooms	1.0	220.0	2368	220	2368
	Public Service / check out/ Self serve	1.0	200.0	2153	200	2153
	Children's Area (Stacks, seating, computer stations)	1.0	200.0	2153	200	2153
	Tween Area (Stacks, play area, computer stations)	1.0	80.0	861	80	861
	Teen Area (Stacks, play area, computer stations)	1.0	100.0	1076	100	1076
	Adult (stacks, computer stations, seating)	1.0	250.0	2691	250	2691
	Maker Space	1.0	25.0	269	25	269
	Large Community Room	1.0	150.0	1615	150	1615
	Large Community Room Storage	1.0	21.0	226	21	226
	Meeting room (Computer Classroom/Training)	1.0	37.0	398	37	398
	Small Community Room	1.0	75.0	807	75	807
	Small Community Room Storage	1.0	10.0	108	10	108
	Washroom	2.0	9.0	97	18	194
	Staff Washroom	2.0	9.0	97	18	194
	Offices	4.0	40.0	431	160	1722
	Work Room/ Book Drop rm.	1.0	100.0	1076	100	1076
	Staff Lounge	1.0	25.0	269	25	269
	Server Room	1.0	15.0	161	15	161
	Shipping & Receiving	1.0	20.0	215	20	215
	Storage	1.0	20.0	215	20	215
	Assigned Area Sub-Total		1,606	17,287	1,744	18,772
	Component Circulation & Walls, HVAC, Structural Allowance			30%	523	5632
	Gross Area Total				2267	24404

SALEM AREA SUMMARY/

Division / Space Type		SPACE PROGRAM					
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)	
	Aquatics		1,633	17,572	2,470	26,586	
	Fitness Centre		1,010	10,872	1,162	12,502	
	Gymnasia		1,364	14,682	1,500	16,150	
	Multi Purpose		539	5,802	647	6,962	
	Facility Support		1,396	15,026	1,745	18,783	
	Ice Arena		6,407	68,964	7,208	77,583	
	CC Subtotal		12,349	132,918	14,731	158,566	
	Library		2,267	24,404	2,267	24,404	
	Total Floor Area			13,981	150,490	16,999	182,970

Net to Gross Factor

1.22

Division / Space Type		SPACE PROGRAM				
		No.	ASM/Unit (sq. m)	ASF/Unit (sq.ft)	ASM (sq. m)	ASF (sq.ft)
Open Space						
	Soccer	1				
	Pickeball Courts	3				
	Tennis Courts	3				
	Basket Ball Courts	1				
	Skateboard Park	1				
	Water Play Structures	1				
	Parks	1				
	Parking	1				
	Assigned Area Sub-Total				0	0
	Component Circulation				10%	0
Gross Area Total				0	0	

HEWITT + SALEM COSTING SUMMARY/

HEWITT CLASS D REPORT (Including 9.75% Escalation):

Aquatics:

- 42,414 sf
- \$19,518,000
- \$460 / sf

Fitness Centre:

- 20,920 sf
- \$8,022,000
- \$383 / sf

Gymnasium:

- 26,617 sf
- \$11,134,000
- \$418 / sf

Multi Purpose:

- 12,516 sf
- \$4,799,000
- \$383 / sf

Facility Support:

- 25,954 sf
- \$7,238,000
- \$279 / sf

Arena:

- 81,526 sf
- \$17,052,000
- \$209 / sf

Rental / Partner:

- 14,607 sf
- \$2,852,000
- \$195 / sf

Library:

- 15,392 sf
- \$5,366,000
- \$349 / sf

Total Hewitt Building Cost (239,946 sf):

\$75,981,000 (\$317 / sf)

Total Hewitt Site Cost (7.29 Ha.):

\$8,183,000

Total Hewitt Construction Cost**:

\$84,164,000 (\$351 / sf)

SALEM CLASS D REPORT (Including 24.75% Escalation):

Aquatics:

- 26,586 sf
- \$13,905,000
- \$523 / sf

Fitness Centre:

- 12,502 sf
- \$5,449,000
- \$436 / sf

Gymnasium:

- 16,150 sf
- \$7,680,000
- \$476 / sf

Multi Purpose:

- 6,962 sf
- \$3,036,000
- \$436 / sf

Facility Support:

- 18,783 sf
- \$5,954,000
- \$317 / sf

Arena:

- 77,583 sf
- \$18,444,000
- \$238 / sf

Library:

- 24,404 sf
- \$9,669,000
- \$396 / sf

Total Salem Building Cost (182,970 sf):

\$64,137,000 (\$351 / sf)

Total Salem Site Cost (8.09 Ha.):

\$10,333,000

Total Salem Construction Cost**:

\$74,470,000 (\$407 / sf)

** Construction Cost does not include soft costs, FFE, fees, permits, testing, and HST.

HEWITT AND SALEM OPERATING COSTS ESTIMATES + ADDITIONAL PREMIUMS:

LEED Premiums:

- LEED Silver: 1 - 2% of hard cost
- LEED Gold: 3 - 5% of hard cost

Refuge Centre Premiums:

- Generator: \$250,000 - \$300,000
- Additional Infrastructure: TBD

Turner & Townsend Operating Costs:

- Aquatic Centre: \$24 - \$28 / sf / year
- Arena: \$13 - \$15 / sf / year

Holly CC Operating Costs:

- Facilities: \$14.57 / sf / 2016
- Programs: \$12.34 / sf / 2016



06 November 2017

Report

Class D Cost Report

City of Barrie, Hewitt & Salem Community Centres
Perkins + Will

making the **difference**

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Cost Consultant

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Contents

1	EXECUTIVE SUMMARY
2	FUNCTIONAL PROGRAMME ESTIMATES

Rev	Status	Prepared by	Checked by	Date	Issued to	Company	Transmission	Date
0		Tim McNamara	Marcos Sibal	8/9/17	Phil Fenech	Perkins + Will	Email	8/9/17
1	Final	Tim McNamara	Marcos Sibal	11/6/17	Phil Fenech	Perkins + Will	Email	11/6/17

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1 EXECUTIVE SUMMARY

1.1 Introduction

Turner & Townsend is retained to provide Cost Planning & Design Cost Control services, including preparation of this Class D Construction Cost Analysis. Our estimate is an Opinion of Probable Cost only and reflects current local market rates based on normal competitive conditions. Our estimate is intended to be comparable to a range of bids received from a number of competitive general contractors and sub-trades.

Turner & Townsend does not guarantee that tenders or actual construction costs will not vary from this estimate. Adverse market conditions, proprietary and/or sole source specifications, single sourcing of materials and equipment or reduced competition among contractors may cause bids to vary from reasonable estimates based on normal competitive conditions.

The purpose of this Cost Plan is to provide Perkins + Will with a budget framework within which the project can be developed and cost managed, from Feasibility to Tender award stage.

The Cost Plan has been prepared solely in accordance with the documentation outlined within this document.

This Cost Plan is subject to review, confirmation and/or amendments following revisions to the information stated and discussion(s) with the Client and Design Consultants at which time this report will be reviewed and may be re-issued if required.

1.2 Procurement and Schedule

The Construction Cost Estimate includes all direct construction costs and contractor's overhead and profit. It assumes that the project will be procured on a **Stipulated Lump sum basis**, and that bids will be received from a minimum of five pre-qualified general contractors. We also assume that the project will be completed in a reasonable time frame and have not included any premiums related to "fast-tracking" the project, if required. The unit rates in our estimate are based on construction activities occurring during normal working hours and proceeding within a non-accelerated schedule.

1.3 Risk Assessment

Pricing reflects 4Q 2017 rates and present market/local conditions. Escalation allowance to the anticipated construction start date has been INCLUDED in our cost analysis @ 3% per Annum.

The estimate includes an Estimating/Design Contingency Allowance to account for increases in cost as a result of design development through to 100% complete tender documentation.

Post-Contract Contingency (i.e. for Change Directives/Change Orders that may arise during construction) has been Included in our cost report @ 5%.

We have not accounted for a construction market allowance within the report, however based upon our past and ongoing construction cost project experience in Barrie, ON, we do not foresee any risk of receiving non-competitive bids from major sub – trades.

1.4 Level of Documentation and Assumptions

The estimate is based on the Functional Program information provided. It is supplemented by correspondence and discussions with the Design Consultants.

We outline some of the major assumptions we have made with respect to this cost analysis:-

- Estimating Contingency is 10%
- General Requirements is 8% & Fee is 2%
- Project to be procured via Stipulated Lump Sum contract
- No 'Accelerated' schedule premiums allowed
- Open cut excavation, no shoring allowed

1.5 Measurement and Pricing

The estimate has been developed using generally accepted principles on method of measurement as per the Canadian Institute of Quantity Surveyors Elemental Cost Analysis (CIQS).

The rates used for this estimate include labour and material, equipment, and subcontractor's overheads and profit. Pricing developed for this project is based upon our company's experience with similar projects, and/or quotes provided by subcontractors and suppliers as noted within the estimate. It does not take into account extraordinary market conditions, where bidders may be limited and may include in their tenders disproportionate contingencies and profit margins.

1.6 General Conditions and Fee

The fee included within the estimate for the General Contractor is included as a percentage of the hard construction cost. The general requirements are based on our assumptions of the anticipated construction approach and construction schedule for the project (see section 1.2). The general requirements percentage includes the cost associated with bonding and insurance, however excludes development and/or building permit costs.

1.7 Taxes

Our cost estimate excludes HST.

1.8 General Statement of Liability

This report is not intended for general circulation, publication or reproduction for any other person or purpose without prior express written permission to each specific instance. Furthermore, this report was written for the exclusive use of Perkins + Will and is not to be relied upon by any other party. Turner & Townsend does not hold any reporting responsibility to any other party.

Turner & Townsend strongly recommends the owner and/or design team review the cost estimate report including line item descriptions, unit prices, allowances, assumptions, exclusions, and contingencies to ensure the appropriate design intent has been accurately captured within the report.

1.9 Exclusions

The following have been specifically excluded:

- 1 HST
- 2 Professional Consultant Design Fees
- 3 Specialist Consultant Design Fees
- 4 Legal Fees and Expenses
- 5 Project Management Fees
- 6 Furniture, Furnishings and Equipment (other than detailed in the estimate)
- 7 Owner's Administration Expenses
- 8 Removal of Contaminated Material, if any
- 9 Permits and Development Charges
- 10 Garbage Equipment/Bins
- 11 Food Equipment/Kitchen Equipment
- 12 PV System
- 13 Communications active hardware
- 14 Independent Commissioning
- 15 Smoke Evacuation System
- 16 Clock System
- 17 Timing System
- 18 Pre-emptive system
- 19 Traffic Signalization
- 20 AV Equipment
- 21 Office Workstations
- 22 Premiums for Single Sourced Materials
- 23 Schedule Acceleration Premium

HEWITT COMMUNITY CENTRE
FUNCTIONAL PROGRAMME COST ANALYSIS

PROGRAM DATE: AUGUST 2017										
GROSS FLOOR AREA (sq ft)	SUBTOTAL	OVERHEAD & PROFIT - SUB TOTAL		SUBTOTAL	ADD DESIGN CONTINGENCY	CONSTRUCTION BUDGET SUB-TOTAL - 2Q 2017 DOLLARS (\$)	POST TENDER CHANGES	TOTAL CONSTRUCTION BUDGET 1Q 2017 DOLLARS (\$)	ESCALATION ALLOWANCE - Q1 2021 - (3% per annum) - (13Q in total)	OVERALL PROJECTED CONSTRUCTION COST 1Q 2021 Dollars (\$)
		\$	%							
1 BASE BUILDING ONLY										
A Aquatics	42,414	330	13,997,000	363	15,397,000	1,540,000	5.00%	17,937,000	399	19,518,000
B Fitness Centre	20,920	275	5,753,000	302	6,282,000	633,000		7,309,000	383	8,032,000
C Gymnasium	26,617	300	7,985,000	330	8,784,000	878,000		10,145,000	418	11,134,000
D Multi Purpose	12,516	275	3,442,000	302	3,786,000	379,000		4,373,000	383	4,799,000
E Facility Support	25,554	200	5,191,000	220	5,710,000	571,000		6,595,000	254	7,238,000
F Ice Arena	81,526	150	12,229,000	165	13,452,000	1,345,000		15,537,000	191	17,052,000
G Rental/Partner Space - (Shell)	14,607	140	2,045,000	154	2,250,000	225,000		2,599,000	178	2,852,000
H Library	15,392	250	3,848,000	275	4,233,000	423,000		4,889,000	318	5,366,000
Total BUILDING Cost Analysis										
2 SITE DEVELOPMENT/LANDSCAPING, SERVICES & CIVILS	239,946	227	54,490,000	250	59,940,000	5,994,000		69,231,000	289	75,981,000
2.1 SITE Development - Paving, Landscaping, Services & Civils (+/-1.8 Acres)			5,868,000	587,000	6,455,000	646,000		7,456,000	31	8,183,000
Subtotal - SITE Development & Allowance			5,868,000	587,000	6,455,000	646,000		7,456,000	31	8,183,000
TOTAL BUILDING AND SITE ALLOWANCES										
			60,358,000	6,037,000	66,395,000	\$ 73,035,000		76,687,000	7,477,000	84,164,000
Public Art (Not Applicable)										EXCLUDED
Special Soil and Site Conditions										EXCLUDED
Subtotal - Allowances										
TOTAL BASE BUILDING CONSTRUCTION COST - ITEMS 1,2 & 3										
	239,946	252	60,358,000	6,037,000	66,395,000	6,640,000		76,687,000	7,477,000	84,164,000
Total CONSTRUCTION COST - ITEMS 1,2,3 (129,344 sq ft)										
						73,035,000		76,687,000	351	84,164,000

Job: can18117
 Date: Nov 06 2017
 File: Program Analysis
 Rev: 1

SALEM COMMUNITY CENTRE
 FUNCTIONAL PROGRAMME COST ANALYSIS

PROGRAM DATE: AUGUST 2017	GROSS FLOOR AREA (1.22 GROSS UP) (sq ft)	SUBTOTAL		OVERHEAD & PROFIT - STIP SUM %	SUBTOTAL		ADD DESIGN CONTINGENCY %	CONSTRUCTION BUDGET SUB-TOTAL - 4Q 2017 DOLLARS (\$)	POST TENDER CHANGES		TOTAL CONSTRUCTION BUDGET 4Q 2017 DOLLARS (\$)		ESCALATION ALLOWANCE - Q1 (33Q in annum) - (33Q in total) %	OVERALL PROJECTED CONSTRUCTION COST 1Q 2026 Dollars (\$)	
		\$/sf	\$		\$/sf	\$			%	\$/sf	\$	\$/sf		\$/sf	\$
1 BASE BUILDING ONLY															
A Aquatics	26,586	330	8,773,000	10.0%	363	9,650,000	965,000	10%		5.00%	531,000	11,146,000	24.75%	523	13,905,000
B Fitness Centre	12,502	275	3,438,000		303	3,792,000	376,000				208,000	4,368,000		436	5,449,000
C Gymnasium	16,150	300	4,845,000		330	5,330,000	533,000				293,000	6,156,000		476	7,680,000
D Multi Purpose	6,962	275	1,915,000		303	2,107,000	211,000				115,000	2,434,000		436	3,036,000
E Facility Support	18,783	200	3,757,000		220	4,133,000	413,000				227,000	4,773,000		317	5,954,000
F Ice Arena	77,583	150	11,637,000		165	12,801,000	1,280,000				704,000	14,785,000		238	18,444,000
Library															
G Library	24,494	250	6,101,000		275	6,711,000	671,000				369,000	7,755,000		396	9,669,000
Total BUILDING Cost Analysis	182,970	221	40,466,000		243	44,514,000	4,451,000				2,448,000	51,413,000		351	64,137,000
2 SITE DEVELOPMENT, LANDSCAPING, SERVICES & CIVILS															
2.1 SITE Development - Paving, Landscaping, Services & CIVILS (+/-20 Acres)			6,520,000			7,172,000	717,000				394,000	8,283,000		56	10,333,000
Subtotal - SITE Development \$ Allowance			6,520,000			7,172,000	717,000				394,000	8,283,000		56	10,333,000
TOTAL BUILDING AND SITE ALLOWANCES			46,986,000			51,686,000	5,168,000								
3 ALLOWANCES															
Public Art (Not Applicable)															EXCLUDED
Special Soil and Site Conditions															EXCLUDED
Subtotal - Allowance															
TOTAL BASE BUILDING CONSTRUCTION COST - ITEMS 1,2 & 3	182,970	257	46,986,000		282	51,686,000	5,168,000				2,842,000	59,696,000		407	74,470,000
TOTAL CONSTRUCTION COST - ITEMS 1,2,3 (129,344 sf)															
											59,696,000	326		407	74,470,000

