GRAND FORKS COMMUNITY CENTRE

FINAL REPORT

JUNE 15, 2020

Urban arts
Architecture Urban Design

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WITH THANKS...

To the Grand Forks community members, the City of Grand Forks and the Regional District Kootaney Boundary who generously gave their time to advise on this important project.

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EXECUTIVE SUMMARY

PROCESS
Urban Arts Architecture was retained to complete a feasibility report for the Grand Forks Community Centre, a facility to be located on the site of the existing Aquatic Centre, Arena and Curling Club. UAA worked collaboratively with the community, City of Grand Forks and Regional District Kootenay Boundary (RDKB) community to establish the vision, program, site strategy and concept design options. Two options were reviewed with the community at a public open house in January, 2020. The project received overwhelming support, and the preferred option was then further developed and a Class C Cost Estimate was produced.

VISION
Working with the community, a vision was created for facility, with guiding principles as follows:

- Reflect the Ethos of Grand Forks
- One Roof - Continuity of Space, Place and Service
- Create a Gathering Place for All
- Include a Variety of Flexible Meeting Spaces
- Create a Sustainable Building that Demonstrates the love of the Land
- Support Resilience
- Invest in Youth
- Create a Healthy Place
- Consider Ongoing Operations

PROGRAM
The program was established through the visioning workshop and further developed in the programming workshop. The Program is comprised of the base program and an optional add-on flexible shell space. The base program includes the public spaces, community center, emergency operations centre (EOC), administration and support spaces and has a total gross area of 13,153 sf (1,222m2)

SITE
The building is located to minimize the impact on existing parking and roadways; with additional consideration of the renewal and replacement of the Recreation facilities on site. The proposed building is attached to the Aquatic Centre and shares a single entry. It is located adjacent to the existing Skate Park with potential for future expansion. The Hall opens to the south creating a sunny gathering spaces with connectivity to Dick Bartlett Park across 72nd Ave.

BUILDING
The building is a single storey with double height volume over the Hall and Lobby. The lobby is a central spine running east/west connecting the entry, Admin, cafe, Hall, Maker Space and EOC. Connectivity to the outdoors is reinforces with views directly through the building at the entry/cafe and the building opening to a south facing terrace and gathering space. The Community Kitchen is located to the south to support outdoor gatherings and ease of access to 72nd Ave for servicing and deliveries. The EOC and meeting room are located together with access to a separate entry to support EOC and after hours use.

COST
A Class C cost estimate was prepared by LTA Consultants for the Grand Forks Community Centre.

The total estimated construction cost (excluding GST) is $8,523,856.

The total estimated soft costs (excluding GST) is $1,208,102.

The total estimated project cost (excluding GST) is $9,731,958.

EXECUTIVE SUMMARY CONTINUED

SUSTAINABILITY AND RESILIENCY
The City of Grand Forks has a target to reduce carbon emissions by 33% by 2030 (from 2007 levels) and the Regional District Kootenay Boundary requires buildings to meet a LEED Gold equivalent level of sustainable design and operation.

With these targets in mind, the City of Grand Forks Sustainable Community Plan focuses on three key areas: (building for) Long Term, Conserve Water and Energy, Food (security), with priority placed on flood and drought resilience in response to an increase in major flooding and frequent drought conditions in recent years.

Working with the Building Committee, the key goals for the project were identified as follows:

- **Energy Security:** Renewable, Solar
- **Future Planning:** Long Term, Longevity, Generation, Resilient
- **Responsible Planning:** Finance, Affordable, Feasible.

As the Community Centre and the Emergency Operations Facility creating a resilient, durable home is a location that is central and outside of the flood area is a key consideration. The proposed location meets these key criteria.

The location will also support social sustainability through the connectivity to the Aquatic Center, Arena and Curling Rink.

CIVIL INFRASTRUCTURE
The proposed site is supported by existing infrastructure at 19th Street and 72 Ave. Impact to existing services include:
- Relocation of the existing sanitary system line to the Arena to the northeast of the proposed building;
- Modification to the existing parking lots; and
- Potential on-site percolation system for storm water management.

RISK ASSESSMENT
In order to set the project up for success, a risk management workshop was undertaken. The probability of risk occurrence and the impact on the project (both ranked as High, Medium or Low) were identified. Mitigation strategies were identified to address high risk items.

Potentially high risk items were identified as follows.

- **Project Approval** - Including Public (through referendum), Council and RDKB, has a medium to high risk of occurrence, and a high impact.
- **Funding** - lack of funding has a medium risk of occurrence, and a high impact
- **Resources** - Availability of local construction manager, trades and project manager has a medium to high risk of occurrence, and a high impact.

Refer to the Risk Assessment chapter for mitigation strategies.



COMMUNITY VISION

THE WELL BUILDING STANDARD™

SEVEN CONCEPTS FOR HEALTHIER BUILDINGS



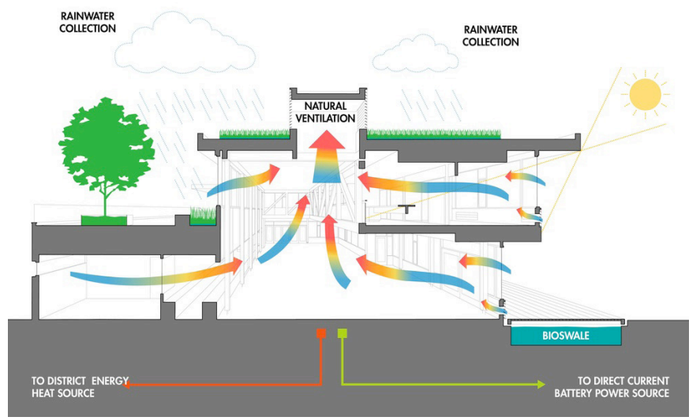
2017 © INTERNATIONAL WELL BUILDING INSTITUTE PBC



Community Garden/Green Roof/ Support local agricultural industry



Support Festivals and events



Passive Design Strategies



Accessible and inclusive

The City of Grand Forks (CGF), Regional District of Kootenay Boundary (RDKB) and local residents worked together to create a vision for the Community Centre. The guiding principles for the facility are as follows:

1. REFLECT THE ETHOS OF GRAND FORKS

- Create a place that reflects the Grand Forks and environs community;
- Establish a Food-Centric - "Feed-Local" approach to reflect community culture;
- Explore technology and build for the future;
- Create a new CGF identity for the community that can be used throughout the City and is anchored to the Community Centre;
- Create a place of social, economic and environmental resilience providing a home for everyday and a refuge in times of crisis;
- Support economic development of the region through the provision of a community venue that can host events and attract new residents and tourists;
- Build partnerships to create a facility that is built by the community for community, and
- Demonstrate environmental stewardship that is in harmony with the land, building on the agrarian heritage.

2. ONE ROOF - CONTINUITY OF SPACE, PLACE + SERVICES

- "One-roof Hub" - Work in concert with other buildings on the site to create a campus of play, gathering, celebrating and healing;
- "One-Stop Shop" - the buildings are currently silos with little connection in the public realm - this is an opportunity for connectivity between buildings AND programs;
- Create flow and connection between the buildings creating an environment that is inviting to wander through;
- Consider as a campus for activity - such as agricultural events, Fall Fair, markets;
- Include visibility from Central Avenue to establish the facility as an emblem of the community;
- Ensure there is adequate parking; and
- Consider all uses of the site, future renewal of existing buildings - a Recreation Master Plan approach.

3. CREATE A GATHERING PLACE FOR ALL

- Support the community events such as Fall Fair, Lobsterfest, Agricultural events;
- Design a multi-generational, multi-cultural, inclusive and accessible place for all;
- Create a place for the Youth;
- Support wellness - a healthy place for social and physical participation and healing;
- Create a place of imagination and inspiration;
- Create a place of social connectivity;
- Include spaces within highly visible and transparent to promote activity and connection; and
- Build for future generations.

4. INCLUDE A VARIETY OF FLEXIBLE MEETING SPACES

- Design for 250 - 300 person events in a Community Hall;
- Include flexible multi-purpose rooms for 30-40 persons;
- Consider a dividable hall or separate the stage for flexibility;
- Include places for children inside and out;
- Support gathering such as conferences, ceremonies; presentations, weddings, funerals and graduation;
- Support informal sports including pickleball, badminton, dancing, aerobics, zumba, yoga and carpet bowling;
- Include multi-purpose space that can be used as an Emergency Operations Centre (EOS);
- Create collaborative cultural space, and
- Expand use through indoor/outdoor continuity.

5. CREATE A SUSTAINABLE BUILDING THAT DEMONSTRATES THE LOVE OF THE LAND:

- Demonstrate environmental sustainability that works with the climate of the valley;
- Include a passive design approach - orient the building to maximize benefits of the micro-climate;
- Harvest the power of the sun;
- Include renewable energy;
- Consider harvesting excess energy from the pool;
- Consider a community garden on the roof;
- Facilitate daylighting and also screen spaces from hot summer sun; and
- Use local materials - feature wood.

6. SUPPORT RESILIENCE

- Accommodate the Emergency Operations Centre, and ensure that the space is available for as long as they need it;
- Hall could also function as a Reception Centre;
- Undertake economically responsible development that is right sized for the community;
- Include a back-up Generator; and
- Future-proof - include lots of power and capacity for digital technology.

7. INVEST IN YOUTH

- Create space for youth activities - indoor sports, maker/ creation/gaming, recording, garage band practice and lounging;
- Create a safe place for youth; and
- Facilitate connection with seniors and elders.

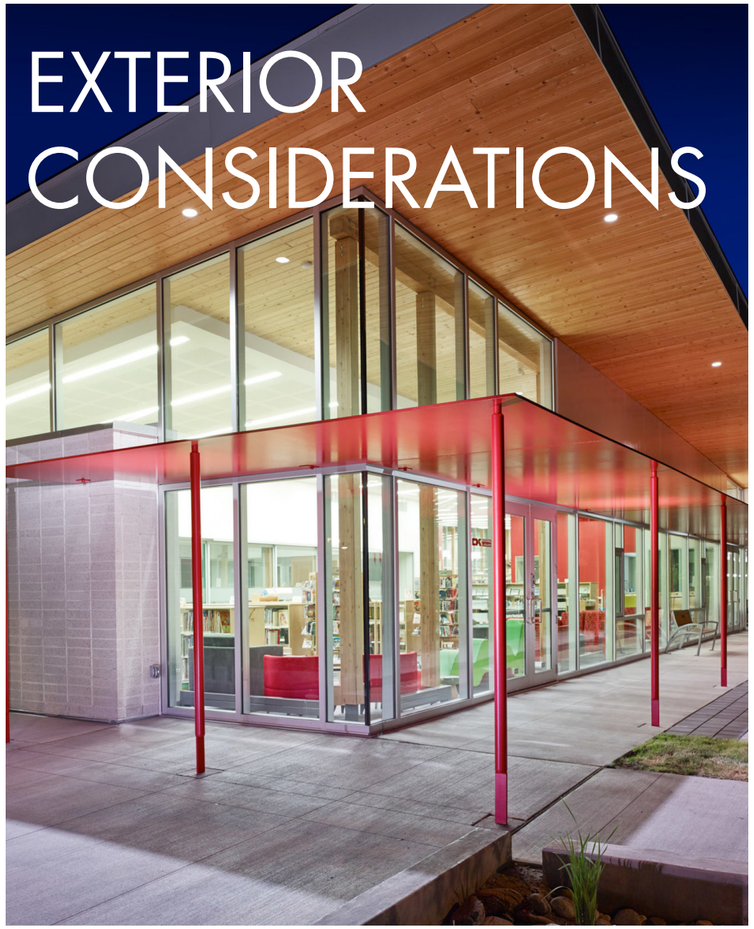
8. CREATE A HEALTHY PLACE

- Address loneliness and create mental wellness through a place for social connectivity;
- Create health through participation;
- Include multi-purpose space for health programs to support preventative health care;
- Consider office space for health services such as foot care, mental health;
- Create a place that feeds the spirit and the body; and
- Establish a smoke free environment.

9. CONSIDER ONGOING OPERATIONS

- Right size the facility to balance future needs with operational costs (maintenance, energy and staffing);
- Create durable and robust building to minimize maintenance;
- Include passive energy strategies to reduce operations costs and maintenance;
- Harvest excess heat from existing buildings; and
- Consider connecting to the Aquatic Centre for combined supervision and connection,

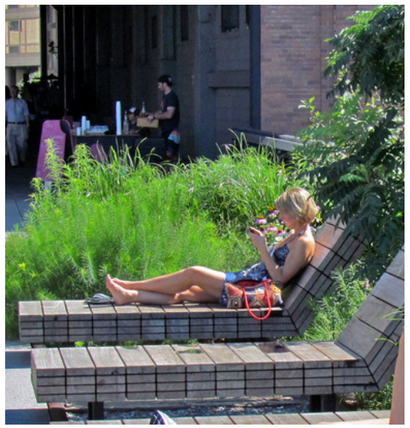
EXTERIOR CONSIDERATIONS



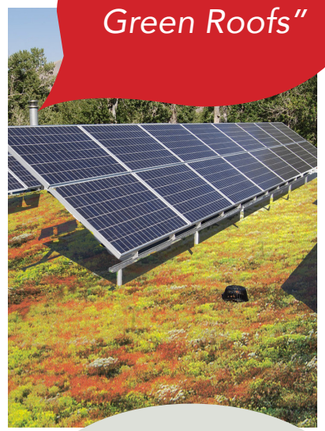
Indoor/Outdoor Connectivity



Sheltered Gathering



Place to linger



"Solar Power + Green Roofs"



Musical Events



Support the Fall Fair

Support the Fall Fair



Welcoming Front Porch



"Multi-Generational"

Community Court

"VIBRANT AND ACTIVE"



Agricultural Events/Farmers Market

SPACE NEEDS

The following spaces and places will support the vision for the Grand Forks Community Centre:

1. SPATIAL QUALITIES
- Welcoming and warm;
- Natural materials;
- Naturally lit spaces;
- Incorporate acoustics;
- Connect spaces so people can view into the Hall; Could be 2 storeys to provide a gradation of privacy (particularly for the EOC).

2. Transparency + Visibility
- Visible from Central Ave to act as emblem for the community;
- Display activities within;
- Visual connection inside between the spaces to promote cross pollination.

3. Exterior Spaces and Places
- Connect to other buildings on the site to create a "Hub";
- Enhance existing public realm - add gathering spaces to linger, community court, routes through the site;
- Welcoming front porch and entry;
- Sheltered outdoor gathering area; and
- Include community gardens - consider the cultivating the roof for pot industry!

4. Entry
- Spacious welcoming entry;
- Consider including a cafe for cross pollination and to add vitality;
- Include displays and art from the Gallery, Museum, and Indigenous community; and
- Consider including a circular gathering space.

5. Hall
- Design to accommodate 250-300 persons in a banquet celebration;
- Define the size by the proposed activities - and project into the future;
- Banquets and events are the primary needs such as weddings, celebrations, graduation, funerals, and community events;
- Size to accommodate informal recreation activities such as pickle ball, badminton, zumba, dance, yoga;
- Accommodate trade shows, public presentations, lectures, performances;
- Include a stage for dance, performances and flexibility;
- Accommodate a bar - permanent or temporary;
- Carefully consider the acoustics, and
- Run efficiently to create a good source of revenue.

6. Kitchen
- Commercial kitchen that is a community kitchen;
- Accessible to all;
- Place to make jams;
- Place to hang out - classes, seniors groups; and
- Accommodate caterers.

7. Multi-Purpose Space
- Include a variety of scale of meeting rooms for a wide range of functions from break-out rooms, classes, lectures, clubs, cards etc;
- Use as learning spaces - can partner with Selkirk College for Adult Education; and
- Design for use by the Emergency Operations Centre (EOC).

8. Maker/Hacker Space
- Include space for creation, inspiration and imagination to attract youth and support ongoing learning for all ages.

9. Youth Space
- Create spaces to attract youth and provide a place for them to hang out; and
- Include Maker/Creation/Recording space (see above) and/or lounge area.

10. Service Spaces
- Provide traditional and gender neutral washrooms;
- Consider child size sinks and fixtures; and
- Consider including lockers, showers and change facilities.

11. Additional Spaces to consider
- Gymnastics space,
- Potential Offices for Health providers - particularly senior care (palliative services, foot care, counseling), or relocated RDKB offices, or Recreation offices (from Arena), and
- Cafe/Retail in the Lobby.



Generous lobby with space to hang out



Consider a cafe in the Lobby

INTERIOR SPACES



Celebrations, Banquets, Catered events



Adjustable Space



Multi-Purpose Community Space



Commercial Kitchen



And a Kitchen that works for community

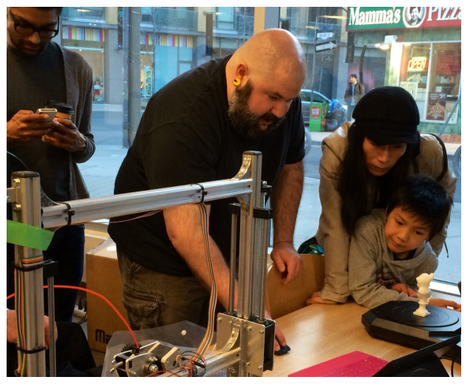


INTERIOR SPACES



Flexible meeting space with access to natural light.





Creation Space for all ages

"Creative Hacker Space/ Collaborative Space"



Presentation Space



Light filled healthy environment



"Lots of Power for EOC"

Wired meeting space



Staff Kitchen/Meeting

PROGRAM

The following program was established through the visioning workshop and further developed in the programming workshop. The Program is comprised of the base program and an optional add-on flexible shell space. The base program includes the public spaces, community centre, administration and support spaces and has a total gross area of 13,153 sf (1,222m2)

The optional program is a 2,500 sf (232m2) shell space that may be used as a Flexible Office Suite, and/or a Wellness Suite. It will be operated on a cost-recovery basis, with renovations to be done by the tenant. Possible programs may include office use by the City, RDKB, or by individual practitioners, or as a cooperative work space. Wellness programs may include massage, counseling, or a movement studio (yoga, pilates, physio, etc.). The inclusion of the Flexible tenant space builds in flexibility, creates the potential for positive synergies with businesses, increasing the vibrancy and vitality of the site and bring a greater flow of people to the community centre.

BASE PROGRAM

	SPACE REQUIREMENTS	Area		Occupant	Notes
1	**PUBLIC SPACES**				
1.1	Entry Vestibule	70	6.5		Airlock vestibule
1.2	Lobby	300	27.9	37	Includes linear closet coat area, circulation and 6 lounge chairs. Consider fireplace or art in lounge area
1.3	Café (Servery)	145	13.5	1	Servery/café area approximately 16' x 9' with expresso area, 6 lin ft grab+go coolers, cash till and back counter prep zone only. Food prepared elsewhere - reheat capacity only. Beverage fridge.
1.4	Café (Servery)	190	17.7	15	Tables and chairs for 12 - 6 x 2 ganging and 4 perch at counter in window.
1.5	Retail Display Units	150	13.9	4	4 units @ 12 sq ft and circulation space
1.6	Community Display Units	20	1.9	1	12 lin ft 20" deep for retail or art
1.7	Universal Washroom	48	4.5	N/A	1 Universal
1.8	Universal Shower Room	66	6.1	N/A	1 Universal
	TOTAL PUBLIC SPACES	989	92	58	
2	**COMMUNITY CENTRE**				
2.1	Hall	4264	396.1	417	Size 52' x 82'. Divide into two 52' x 41' 290 persons banquet 416 persons for lecture or events 14' deep stage area with capability to be separated from main hall space
2.2	Chair Storage	290	26.9		
2.3	General Storage	200	18.6		
2.4	AV Closet	20	1.9		
2.5	Community Kitchen	450	41.8	4	
2.6	Pantry	100	9.3		
2.7	Walk-in Cooler	0	0.0		
2.8	Bar/Servery Area	100	9.3	1	
2.9	Garbage + Recycling	190	17.7		
2.10	Washrooms	650	60.4		Male: 4 stalls required (1 Barrier free) Female: 9 stalls required (1 Barrier free) May be designed to accommodate gender neutral use.
2.10	Meeting Room	200	18.6	10	Small meeting room for groups, clubs, board meetings Include video conference capacity
2.11	Hacker/Maker Space	400	37.2	20	16' Linear portable tables/counter with printers and equipment with storage for supplies below. Space for class of approximately 16 persons at portable tables.
2.12	Conference Room/EOC	1000	92.9	50	Meeting/Training 30 persons. Accommodate EOC for 40 persons at 3' linear workspace/shared worktables. Include sink area & lockable storage for Tech equipment.
	TOTAL COMMUNITY CENTRE	7864	731	503	
3	**ADMINISTRATION - Small suite to suit Recreation Offices + Reception**				
3.1	Reception/Work-station	100	9.3	1	At junction or overlooking lobby to function as meet and greet for facility
3.2	Workroom / Copier	100	9.3		
3.3	General storage room	120	11.1		
3.4	Open office	252	23.4	3	Open area with 3 work stations
3.5	Meeting Room				Use Flex and meeting rooms above
3.6	Staff Room	120	11.1	6	Kitchenette with full size fridge, dishwasher, microwave. Used by building staff and for EOC.
3.7	Staff Washroom (Unisex)	48	4.5		Accessible WC unit stall, 1 toilet, 1 sink, change table
3.8	Server Room	48	4.5		Back-up power for EOC
	TOTAL ADMINISTRATION	788	73	9	
	TOTAL NET AREA EXCL SUPPORT	**9641**	**896**	**569**	
4	**SUPPORT SPACES**				
4.1	Mechanical / Electrical (4.5% net)	434	40.3		
4.2	Janitor Room	43	4.0		1 Sink
4.3	Back-up Generator	N/A	N/A		Include back-up generator for EOC on site in external enclosure. Size T.B.C.
	TOTAL SUPPORT SPACES	477	44	0	
			57.6		
	TOTAL NET AREA	10118	940		
	GROSS AREA	3035	282		Circulation / Walls 1:1.30
	TOTAL GROSS AREA	**13153**	**1222**	**569**	

OPTIONAL

5	***COST-RECOVERY TENANT SPACE***				
5.0	*Flexible Tenant Suite*	*2273*	211.2	*1*	*Shell space with renovations by tenant, operated on a cost-recovery basis. May be used as a Flexible Office suite and/or Wellness suite by multiple tenants or a single tenant.*
	TOTAL TENANT SPACE	*2273*	*211*	*1*	
	TENANT SPACE GROSS AREA	*227*	*21*		*Circulation / Walls 1:1.10*
	TOTAL GROSS AREA	***2500***	***232***	***1***	

EXTERIOR DESIGN GUIDELINES

The following list incorporates feedback gathered from community through the Vision and Program Workshop. It provides strategies on how the Community Vision can be supported by the site and exterior environment.

INCLUSIVE + WELCOMING

- Provide welcoming entry and intuitive wayfinding on site, allowing visitors to orient themselves;
- Consider physical mobility in and around the site. Ensure all outdoor gathering spaces are barrier free and have a variety of seating options (i.e. chairs and benches with and without arms);
- Provide welcoming outdoor gathering spaces encouraging people of all ages to hang out and linger;
- Adhere to CPTED (Crime prevention through environmental design) principles to create a safe environment for all;
- Use glazing strategically on exterior to act as a beacon and showcase activities within.

CONNECTIVITY

- Consider connections with the skate park;
- Provide south facing community plaza, optimally connected to the hall;
- Reinforce connection with existing buildings on site (Arena, Pool);
- Reinforce connection with the park to the south, allowing new community centre to support the Fall Fair and other outdoor events.

SUSTAINABLE

- Highlight sustainable building and landscaping elements - making them a feature and educational component;
- Reduce hardscaping on site, ensuring runoff goes into the ground rather than city's system;
- Incorporate Electric Vehicle charging stations
- Collect rainwater on site for use for food roof and toilets;
- Include food roof - an accessible garden space;
- Provide xeriscaping with local drought resistant plants;
- Support bees with pollinator friendly plants, and consider including hives on rooftop garden;
- Include passive design principles in terms of orientation, compact building form and strategically placed openings to capture daylight.

PROMOTE WELLNESS

Promote physical, social and mental wellness through the design of spaces by including the following:

- Promote social connectivity through informal gathering spaces, encouraging people to lounge, talk and linger;
- Include weather protection for outdoor gathering spaces;
- Support play - include landscaping features that encourage interaction and capture the imagination;
- Create usable walking space around the building, use well connected pathways to connect to recreation spaces on the site, sports fields adjacent the site and beyond;
- Reinforce connection to the surrounding landscape. Preserve and capture mountain views;
- Include food gardens to support agricultural + food culture and promote nutrition.

MATERIAL + FORM

- Select sustainable and locally sourced materials;
- Incorporate water - physically or symbolically - as water is a significant force in the community;
- Embrace the ethos of Grand Forks with innovative use of local materials;
- Use a warm palette featuring wood;
- Use durable, easily maintained materials that age well.



Reinforce connection with site - capture views



Building as a sustainable showcase



Welcoming entry, gathering places, connected paths throughout the site to encourage movement

INTERIOR DESIGN GUIDELINES

The following list incorporates feedback gathered from community through the Vision and Program Workshop. It provides strategies on how the Community Vision can be supported by the interior environment.

INCLUSIVE + WELCOMING

- The building shall be physically and socially accessible and welcoming to people of all ages;
- Provide a welcome entry with visual connectivity to spaces within;
- Consider the needs of the visually, hearing and physically challenged as well as those facing mental health issues;
- Design to the highest standards of accessibility;
- Consider gender neutral washrooms;
- Provide intuitive layout of spaces that are easy to navigate for people of all ages and abilities;
- Provide spaces for youth, encouraging them to make it their own and linger.

INCORPORATE FLEXIBILITY

- Include spaces that can support a variety of activities and gatherings of various sizes;
- Provide adequate and well designed storage allowing for multi-purpose spaces to support a variety of functions;
- Seamlessly integrate technology so power/ data is available when and where needed;
- Design spaces to allow them to spill out into circulation spaces to increase capacity and functionality;
- Utilize movable partitions in hall to support a variety of gathering sizes;
- Utilize movable, modular furnishing in lobby and meeting spaces to support a variety of activities.

SUSTAINABLE

- Incorporate storm water management, passive systems and efficient plumbing and lighting fixtures;
- Select materials that are local and environmentally conscious;
- Consider building as learning environment - showcase sustainability through interaction;
- Maximize efficiencies between existing buildings - consider heat from swimming pool as an energy source.

PROMOTE WELLNESS

Support physical, social and mental wellness through the design of spaces by including the following:

- Promote social connectedness through informal gathering spaces adjacent to circulation;
- Maximize access to daylight and views;
- Provide natural ventilation;
- Provide connection to a variety of outdoor spaces;
- Encourage movement by having stair as a central feature for upper levels.
- Create a space for celebration + food events;
- Community Kitchen to be accessible to all to promote healthy eating.

EFFECTIVE/EFFICIENT

- Maximize synergies between programs;
- Create flexible spaces to support a variety of activities and functions;
- Utilize a compact efficient building form, and minimize jogs in the building envelope;
- Ensure visual connection between spaces to maximize efficiency of building staff. Consider lock off areas for portions of building operating at different hours;
- Promote partnerships between organizations (i.e. food services)

MATERIAL + FORM

- Select sustainable and locally sourced materials;
- Embrace the ethos of Grand Forks with innovative use of local materials;
- Use a warm palette featuring wood;
- Use durable, easily maintained materials that age well;
- Utilize a compact efficient building form;
- Select cozy, comfortable furnishings.



Local material palette. Capture views.



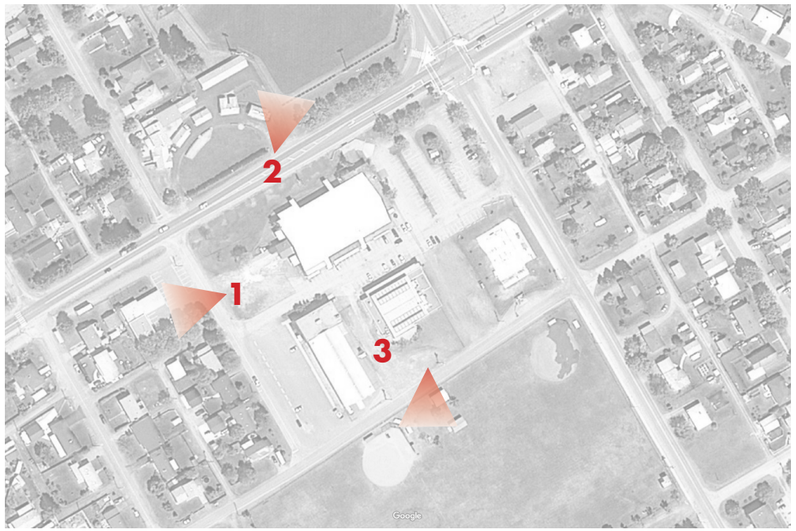
Durable east to maintain materials, adequate storage, modular furniture to increase flexibility



Flexible, interconnected welcoming spaces

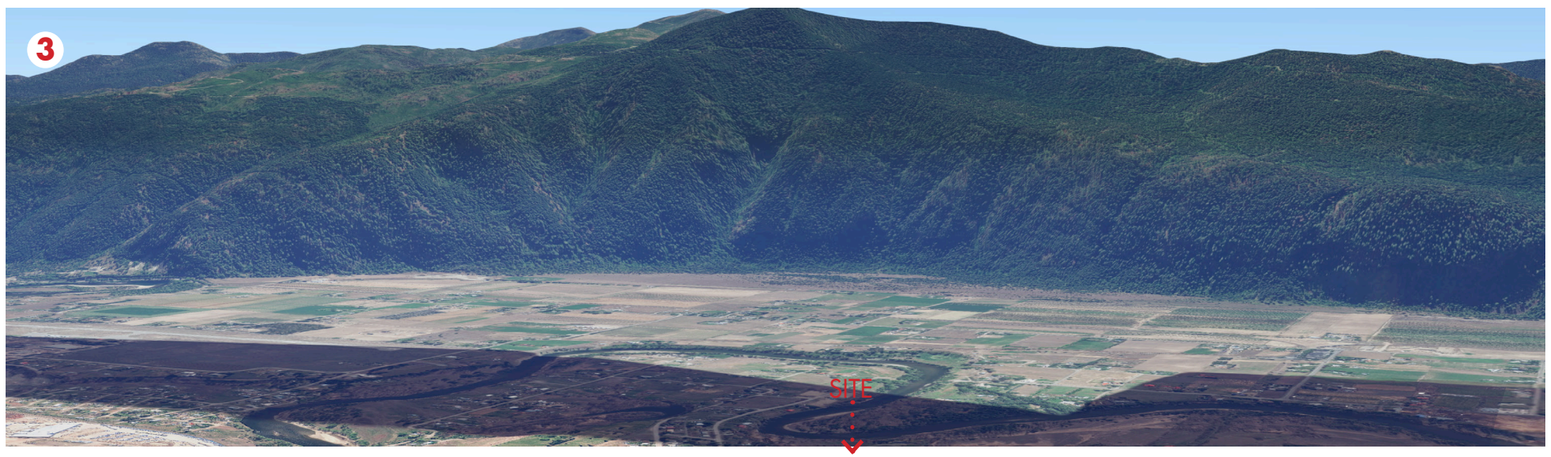
SITE ANALYSIS

CONTEXT









SITE VIEWS OUT

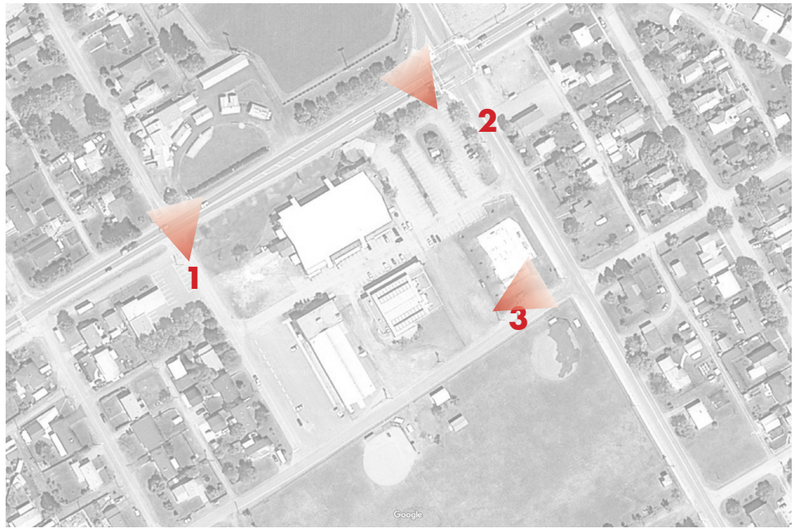




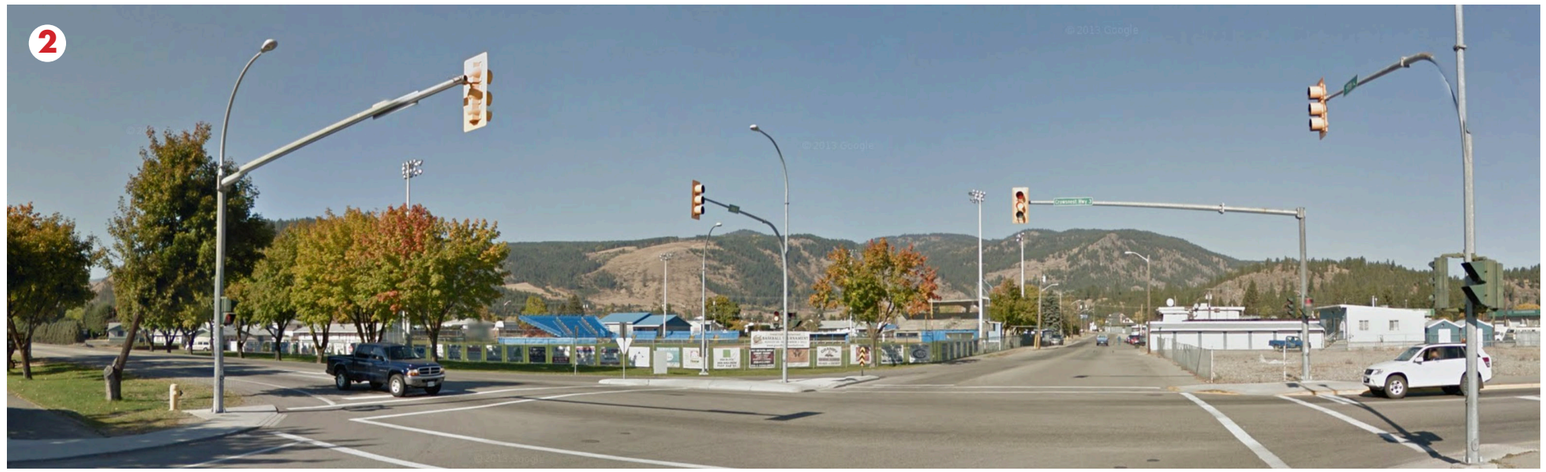




SITE VIEWS OUT









SITE VIEWS IN















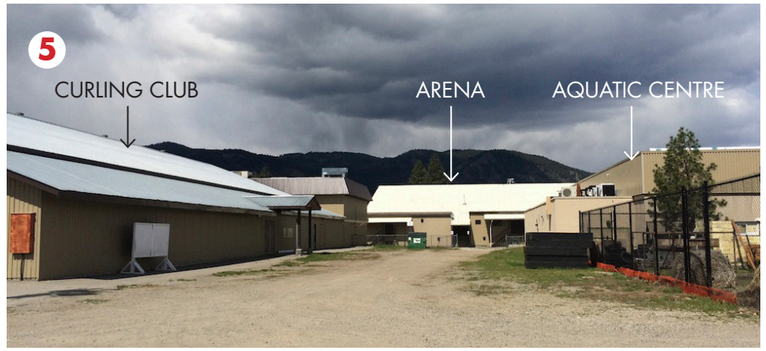




SITE VIEWS IN











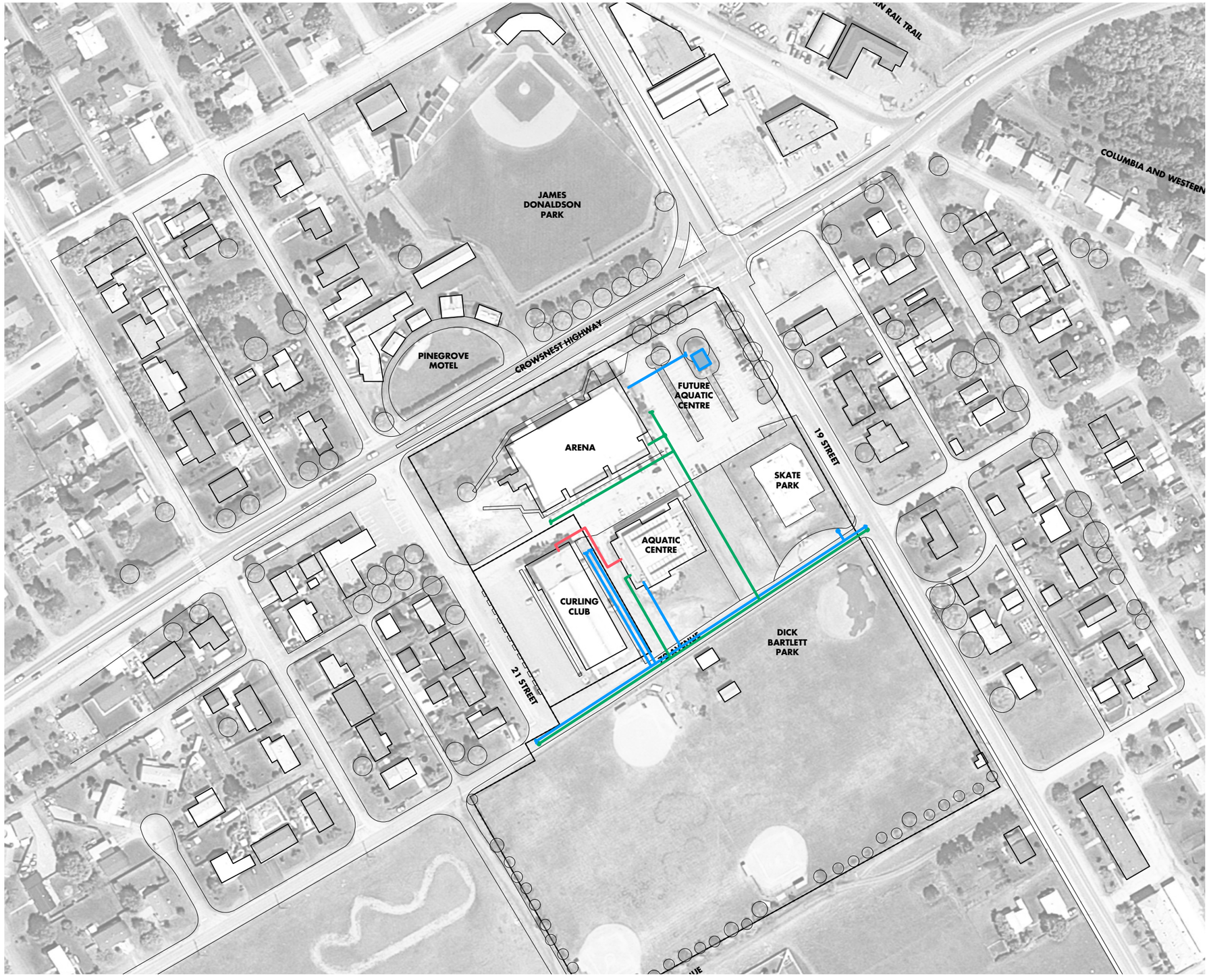








SERVICES

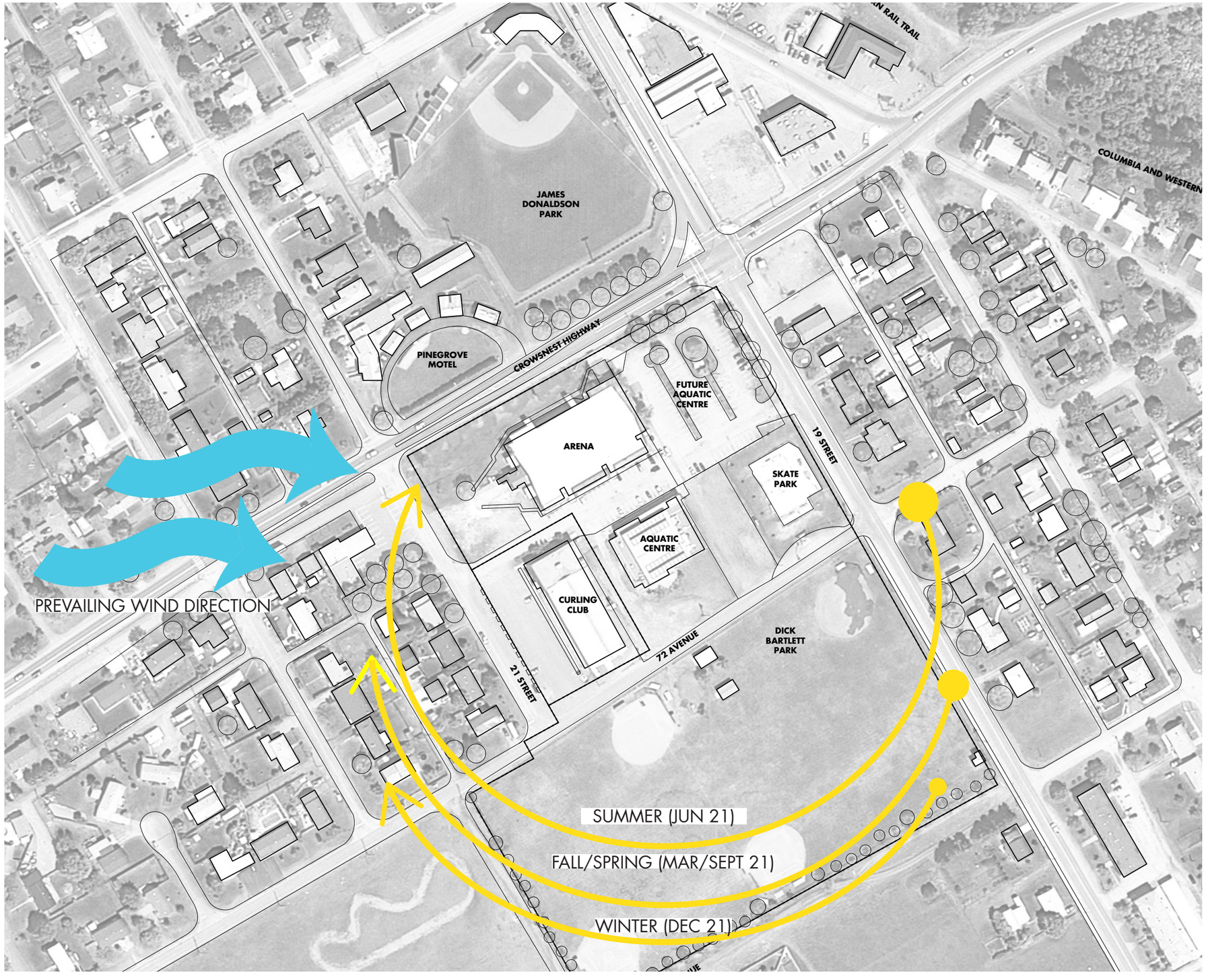


WATER SUPPLY
GAS SUPPLY
SANITARY SERVICE

0′ 100′ 200′ 400′

MICRO CLIMATE

While wind from any direction is common, there is a prevalence of wind from the west.



0′ 100′ 200′ 400′

ACCESS

The is located to the south of the Crowsnest Highway, which leads to downtown to the northeast and toward Almond Gardens to the southwest.

Vehicle access to the site is provided off of 19th street and 21st street. The southwest corner of the site has no defined curb and allows the large asphalt surface in front of the curling club to be accessed off 72nd ave.

The sidewalk network is discontinuous, located on the east side of the site only. The Columbian and Western Rail Trail is in close proximity, and could tie into a complete sidewalk network.



VEHICLE ROUTE

SITE ACCESS (VEHICLE)

PEDESTRIAN ROUTE (SIDEWALK/TRAIL)

PRIMARY BUILDING ENTRANCE

SECONDARY/SERVICE ENTRANCE

0′ 100′ 200′ 400′

PARKING



	ON-SITE PARKING	179
	3-5 MIN STREET PARKING	
	(NORTH OF CROWSNEST)	98
	(SOUTH OF CROWSNEST)	276

0′ 100′ 200′ 400′

GREEN SPACE

The site is located in close proximity to three green/parkspaces.

James Donaldson park, located to the north is a premiere baseball field and home to the annual Grand Forks International Baseball tournament.

Dick Bartlett park to the south across 72nd access. This spaces has recreational baseball diamonds and is the location of the Grand Forks Fall Fair.

The Columbia + Western Rail Trail to the northwest provide a linear greenspace with bike and pedestrian access in close proximity to the site.



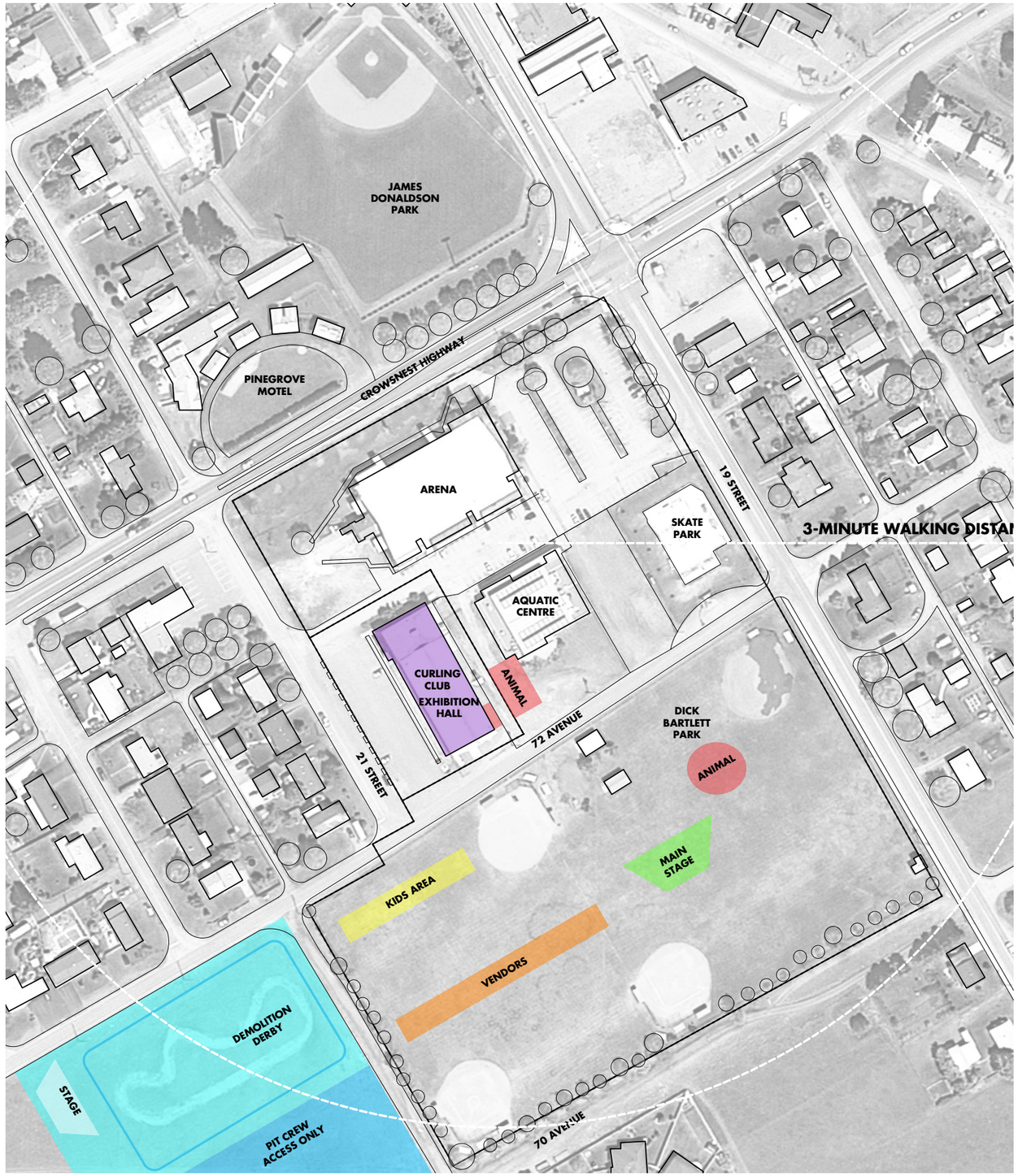
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FALL FAIR

The Grand Forks & District Fall Fair Society is a non-profit organization that promotes agriculture, horticulture, crafts, arts, hobbies, home cooking and food preservation through presentation of an annual Fair. The Society cooperates with public and private agencies, government departments and other groups and organizations interested in the purpose of the society.

The local curling rink, located at the park, is rented to us for storage space, office use, and for 3 days out of the year our Fall Fair event location. It is transformed into an agricultural exhibit hall for residents of the community to display their accomplishments. The remaining areas are utilized for local vendors, an entertainment stage, an animal exhibition, and most recently a demolition derby showcase.

The Fall Fair is a grassroots event that brings the community together and celebrates the history, the culture, and unity for the benefit and overall wellness of the community.









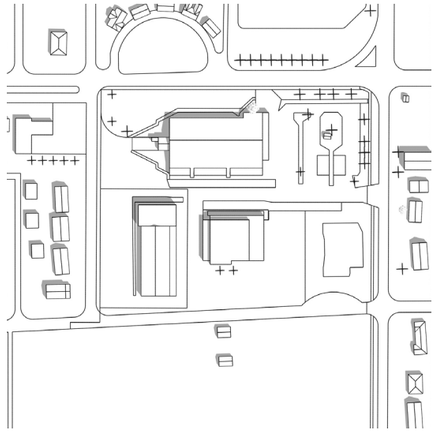


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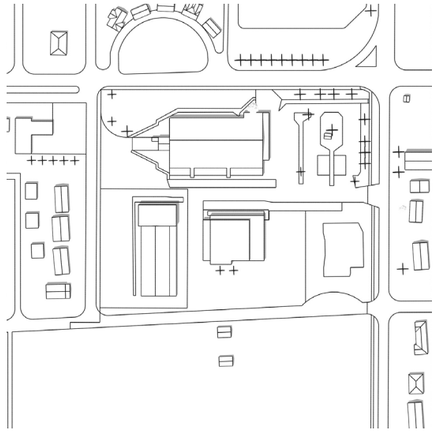
DEVELOPABLE AREA



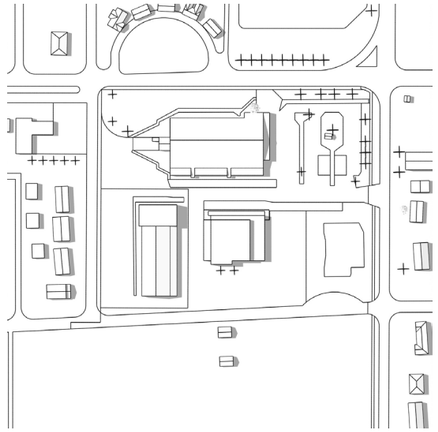
SHADOW STUDY



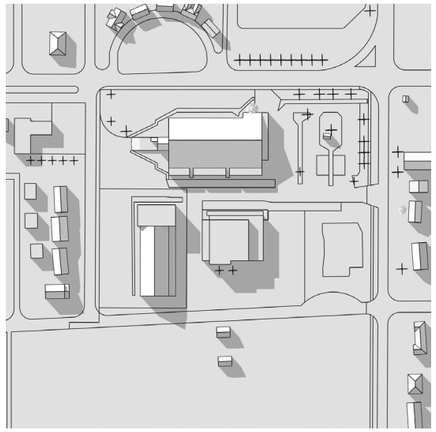
SUMMER SOLSTICE 9:00am



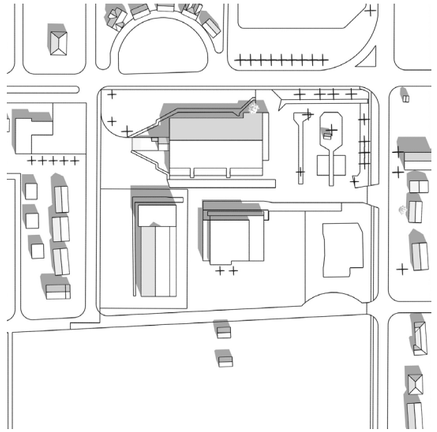
SUMMER SOLSTICE 12:00pm



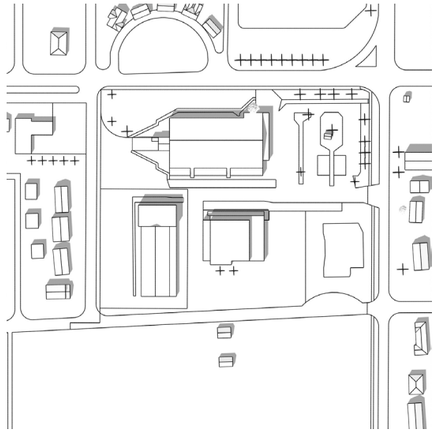
SUMMER SOLSTICE 3:00pm



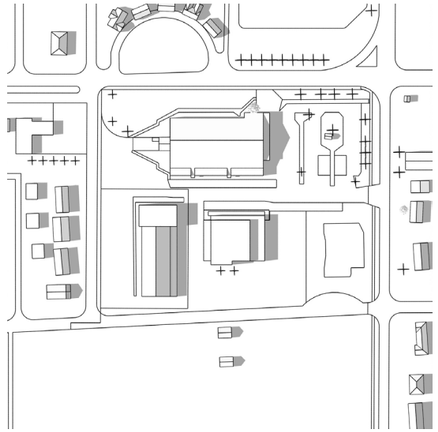
SUMMER SOLSTICE 6:00pm



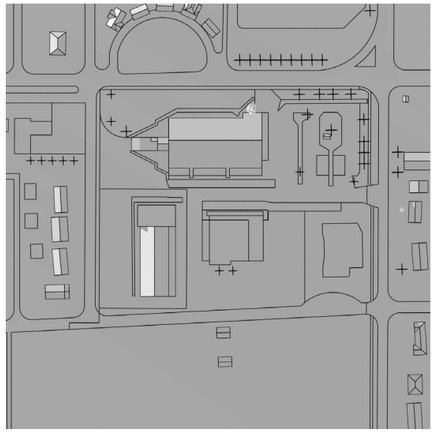
EQUINOX 9:00am



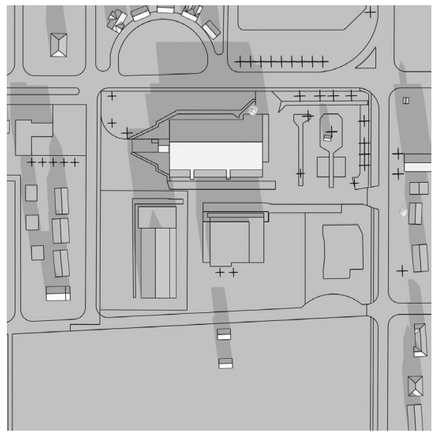
EQUINOX 12:00pm



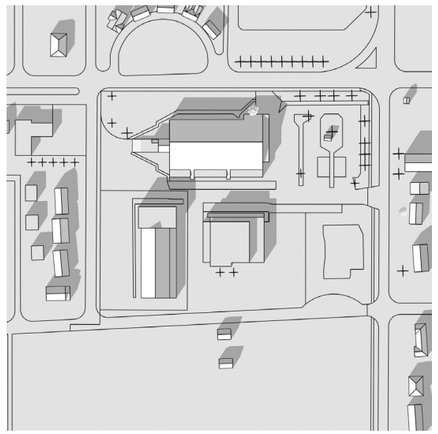
EQUINOX 3:00pm



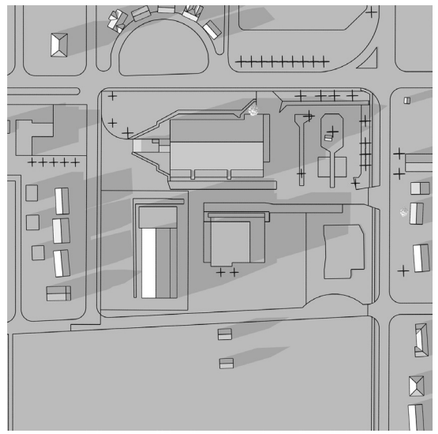
EQUINOX 6:00pm



WINTER SOLSTICE 9:00am



WINTER SOLSTICE 12:00pm



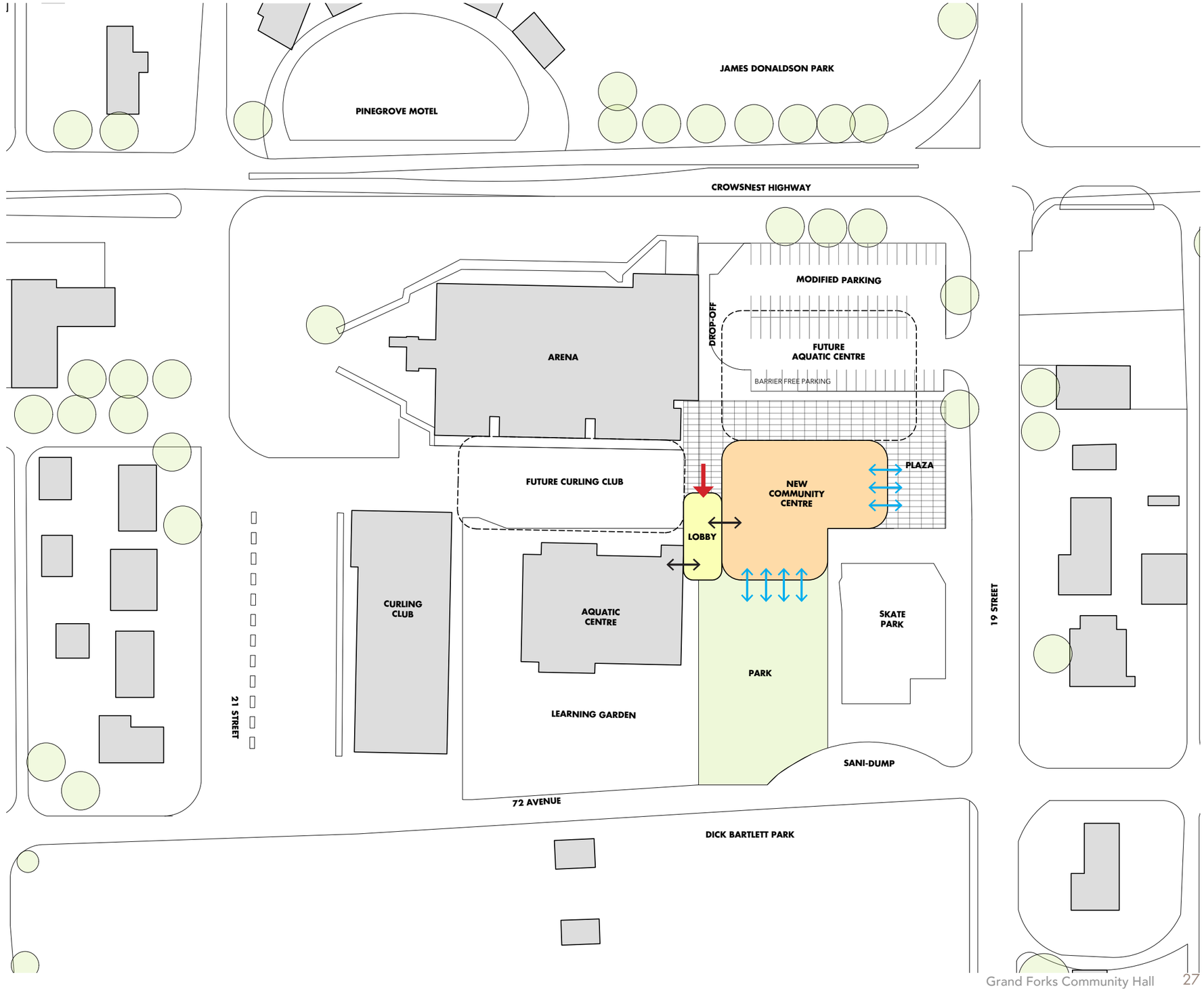
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SITE STRATEGY

OPTION 1 PHASE 1

The construction of the new Community Centre and potential first phase of the renovation/ redevelopment of amenities on site includes the following:

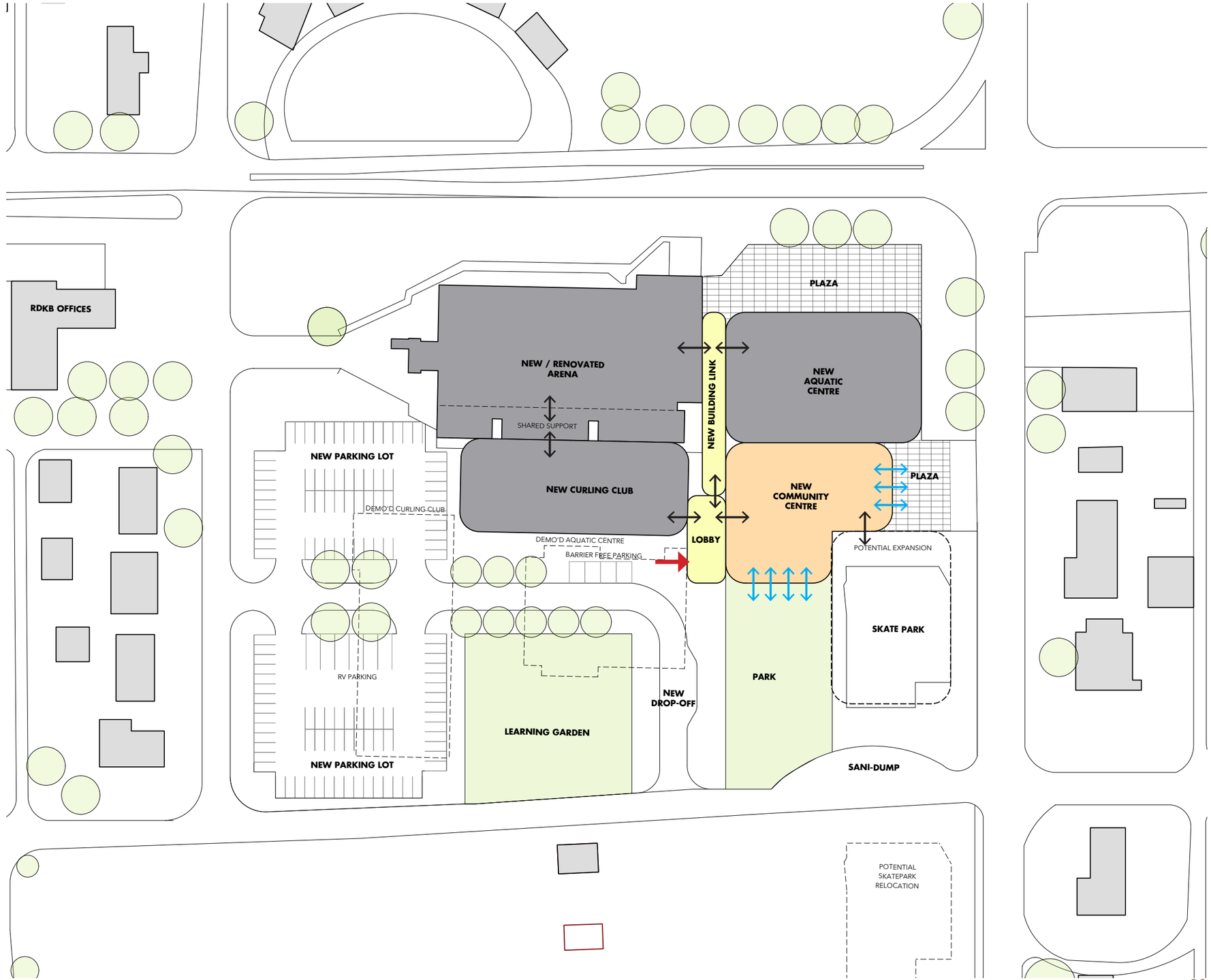
- Lobby links the existing Aquatic Centre to the new Community Centre, while allowing the Aquatic Centre to remain operational during construction.
- A generous plaza/parkspace to the south of the community centre allows for program areas to spill out to the exterior and reinforces the connection to Dick Bartlett Park.
- The community Centre serves as a beacon to the North West Anchoring the site.
- Existing surface parking on the northwest corner of the site is modified to suit, creating a drop-off area, barrier free parking, and an entrance plaza.



OPTION 1 PHASE 2

The potential second phase of the site development includes the following:

- Renovation of the existing Arena. Add building link (circulation atrium) to connect to the new Aquatic Centre and Community Centre.
- Build a new Aquatic Centre on the northeast corner of the site. This location will allows the existing Aquatic Centre to remain operational during construction. The location on site will increase visibility from the Crowsnest Highway. The location enhances the street presence of the site with the new Aquatic Centre serving as a beacon. Natural light from the north is optimal for the Aquatic Centre.
- The circulation/building link connects public space on the north and south side of the site and reinforces the connection to the greenspace surround the site.
- Demolish the existing Aquatic Centre and build a new Curling Club adjacent the arena to maximize the synergies between the programs.
- Demolish the existing Curling Club.
- Create an enhanced parking/ entry area with drop-off zone, barrier free parking and entry forecourt
- Relocate the Skate Park to Dick Bartlett Park if required for expansion / inclusion of anchor tenant.



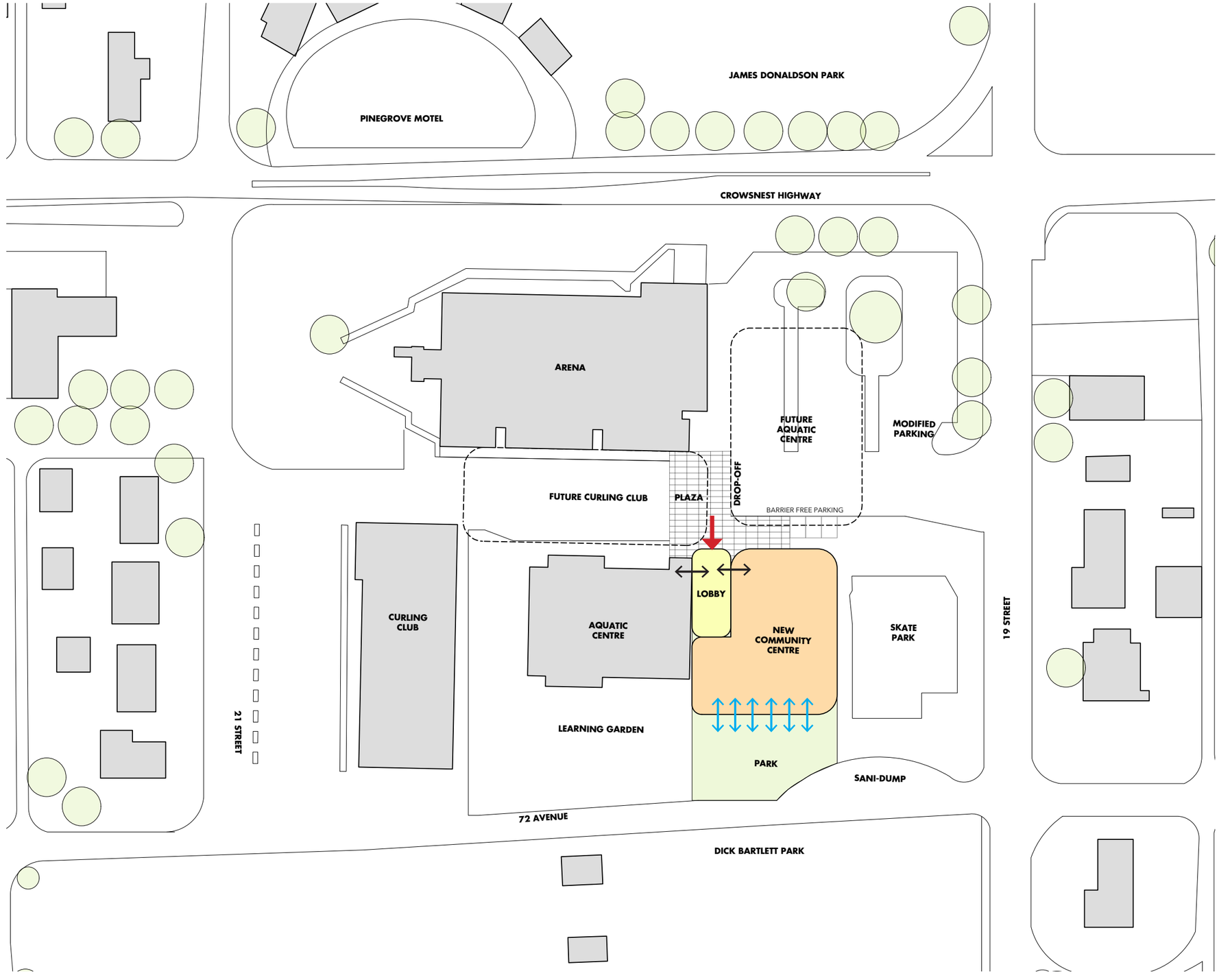
Primary Entrance
Connection to Exterior
Key Connection

0′ 100′ 200′

OPTION 2 PHASE 1

The construction of the new Community Centre and potential first phase of the renovation/ redevelopment of exciting amenities on site includes the following:

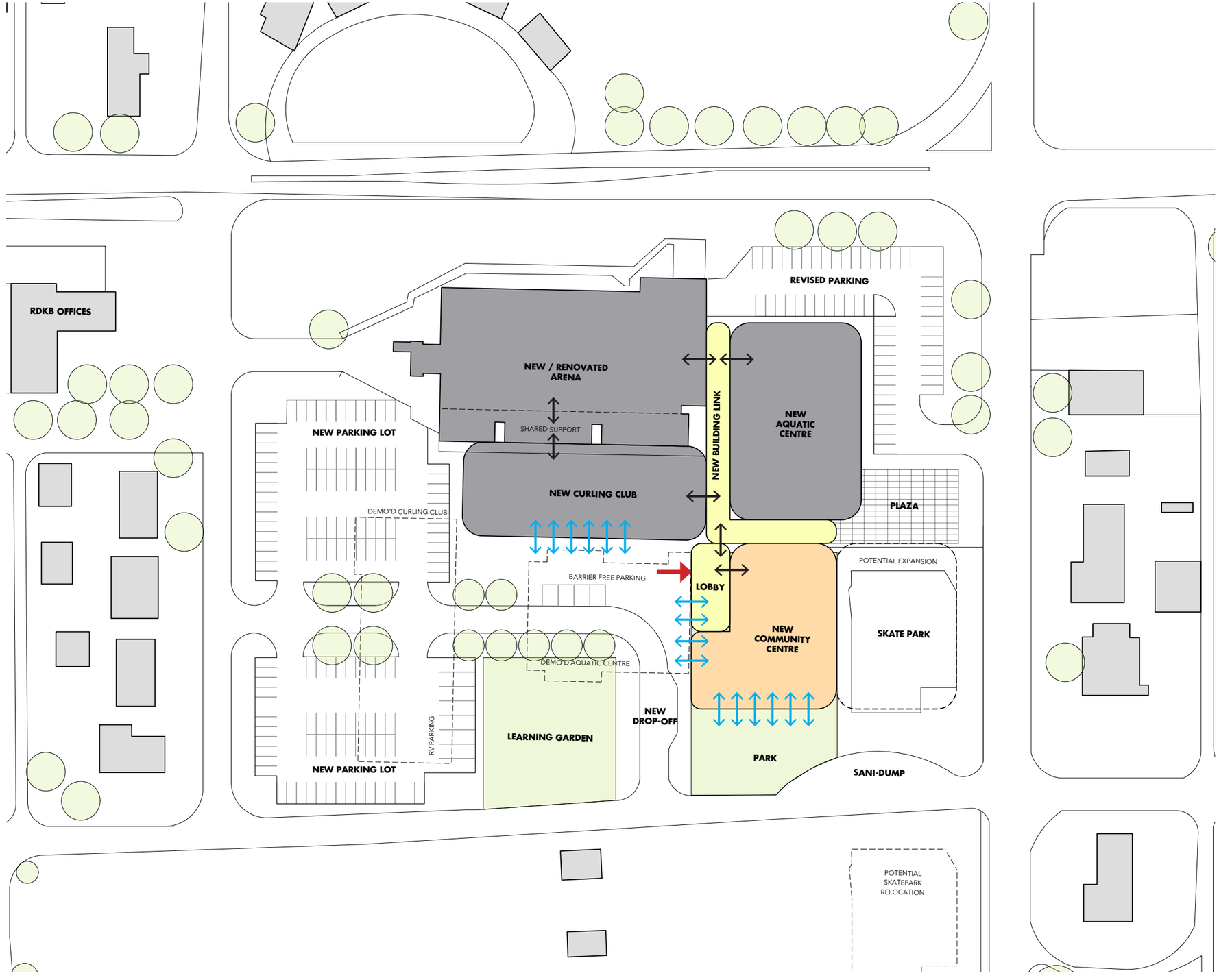
- Lobby links the existing Aquatic Centre to the new Community Centre, while allowing the Aquatic Centre to remain operational during construction.
- A plaza/parkspace to the south of the community centre allows for program areas to spill out to the exterior and reinforces the connection to Dick Bartlett Park.
- The existing surface parking on the north-west corner of the site is maintained, with minor modifications to create a drop-off zone, barrier free parking and entry area.



OPTION 2 PHASE 2

The potential second phase of the site development includes the following:

- Renovation of the existing Arena. Add building link (circulation atrium) to connect to the new Aquatic Centre and Community Centre.
- Build a new Aquatic Centre on the north-east corner of the site. This location will allows the existing Aquatic Centre to remain operational during construction. The location on site will increase visibility from the Crowsnest Highway Natural light from the north is optimal for the Aquatic Centre.
- Demolish the existing Aquatic Centre and build a new Curling Club adjacent the arena to maximize the synergies between the programs.
- Demolish the existing Curling Club.
- Create an enhanced parking/ entry area with drop-off zone, barrier free parking and entry forecourt.
- Create parking on the north east corner of the site.
- Relocate the Skate Park to Dick Bartlett Park if required for expansion / inclusion of anchor tenant.



Primary Entrance
Connection to Exterior
Key Connection

0′ 100′ 200′

SUSTAINABLE GOALS WORKSHOP REPORT
INTEGRAL GROUP

This document represents a summary of key aspects of the discussion that occurred during the May 23rd workshop. The insight and knowledge shared in this workshop will be integrated into recommendations for the City of Grand Forks Community Centre Sustainability Strategy.

Building upon the visioning workshop, conducted by UAA, to identify a common vision and set of guiding principles for the Community Centre design, this workshop served to establish common sustainability-focused aspirations for the Grand Forks Community Centre project. The goal was to introduce a range of sustainability requirements and possibilities and to ultimately identify key targets and strategies to address sustainability and resilience for the long-term of the building and site.

Attendees of this workshop included members from the City, the consultant team (Urban Arts and Integral Group), and members of Regional District Kootenay Boundary associations. The workshop began with a short presentation on sustainability requirements from provincial and regional jurisdictions, as well as examples of similar projects that achieved key targets of interest to the group. Through facilitated discussion in the workshop, the group identified common goals and potential targets and strategies. We have collated feedback from the workshop below and developed the first draft of a Strategy Matrix that identifies key goals and strategies for the project as well as high-level ranges for capital and operational costs.

Workshop Feedback + Results
To begin the workshop, participants were asked to give one word that came to mind when thinking of sustainability. While participants sought to use unique words, the results can be grouped together to Illustrate the key goals for the project and City of Grand Forks:

- **Energy Security:** Renewable, Solar
- **Future Planning:** Long Term, Longevity, Generation, Resilient
- **Responsible Planning:** Finance, Affordable, Feasible, Necessary

The City of Grand Forks has a target to reduce carbon emissions by 33% by 2030 (from 2007 levels) and the Regional District Kootenay Boundary requires buildings to meet a LEED Gold equivalent level of sustainable design and operation. With these targets in mind, the City of Grand Forks Sustainable Community Plan focuses on three key areas: (building for) Long Term, Conserve Water and Energy, Food (security), with priority placed on flood and drought resilience in response to an increase in major flooding and frequent drought conditions in recent years.

The visioning workshop identified critical community and design goals for the building that echo the discussion in the sustainable goals workshop:

- Resilience
- Social Connectivity
- Food Security
- Renewable Energy/Passive Design
- Healthy Place
- Connection to Land – reflect Agrarian roots
- "One Roof" Connection to other buildings – synergy of programs, sharing resources, adaptable

The group agreed to specific goals and strategies that support a holistic approach for the building that must be functional but also meaningful and inspiring. Also, the building must fulfill the following:

- Must be financially feasible – so as not to take steps backwards
- Leverage city programs and community groups to contribute to sustainable initiatives
- Do not achieve targets for the sake of certification
- Use the building to inspire, engage with and connect with community
- Be authentic - "Practical solutions to complex problems"
- Rooted in food culture – "Food Roof" – accessible rooftop garden
- Incorporate health and wellbeing throughout the design
- Use local materials and services where possible
- Consider energy and water security
- Design for future generations

Throughout the discussion, it became clear that the site of the proposed building should undergo a master planning exercise to ensure that strategies implemented in this project can be carried over to other buildings on site and maximize the opportunity to create a community hub for recreation and events while meeting increasingly stringent energy and water targets in future.

The Strategy Matrix has been developed to help the group define critical priorities (must haves for the project) with a list of secondary priorities (nice to haves) with a master planned approach in mind. Priorities include rough order of magnitude cost for capital investment and long-term operational Impacts. The goal is to quantify the benefits of strategies to support the dialog with and buy-in from the community as the project takes shape.

During a workshop on September 18, 2019, the building committee worked together to evaluate the sustainable strategies and identify those with the highest value for the project (ranked 1 through 3 with 1 being the highest value). Following the workshop, UAA added a high level magnitude of cost for capital investment and operations. Refer to Appendix B for the Sustainable Strategy Matrix.

Next Steps:
1. Identify synergies with certification programs
2. Incorporate final strategies in to project design
3. Monitor and measure success of strategies throughout the life of the building

CIVIL INFRASTRUCTURE

WSP

This document is an initial site servicing feasibility for the proposed Grand Forks Community Center, with the proposed location as per the concept design produced by Urban Arts Architecture. The design criteria for this review are based on the City of Grand Forks Subdivision, Development & Servicing Bylaw No. 1970 and MMCD Design Guidelines.

Existing City Infrastructure
The existing infrastructure on the surrounding streets is as follows:

19TH STREET
- Watermain: 150mm dia. Asbestos Cement – Age unknown
- Watermain: 150mm dia. Ductile Iron, 1982
- Sanitary: At the 72nd Street and 19th Street intersection, 250mm Vitrified Clay Tile- Age unknown
- Storm: No existing storm system

72ND AVE
- Watermain: 150mm dia. Asbestos Cement – Age unknown
- Sanitary: 250mm Vitrified Clay Tile- Age unknown
- Storm: No existing storm system Workshop Feedback + Results

The following summarizes the approach to infrastructure services.

Water Service:
The water service approach has been based on the assumption that the building will be equipped with a sprinkler system for fire protection. It is recommend that the water service be provided from 72nd Ave, between the skate-park and the proposed building, connecting to the mechanical room at the northeast side of the building.

WSP estimates that the required water service for the proposed building will be a 150mm diameter PVC DR- 18 pipe, to provide both potable water and fire protection to the building. The sizing of the water services will be confirmed with a building mechanical engineer at the next stage of the project.

The existing 150mm diameter asbestos cement watermain on 72nd should have sufficient capacity to provide water service to the proposed building. Existing network capacity is to be confirmed by the City of Grand Forks.

There is a fire hydrant located within 45m of the proposed building location, at the intersection of 19th Street and 72nd Avenue, meeting the requirement for hydrant separation under MMCD Design Guidelines for institutional developments. Prior to the design phase, the hydrant should be tested for fire flow and service pressure to confirm the City's water infrastructure can provide adequate fire protection per the Fire Underwriter's Survey (FUS) requirements for the future development.

Sanitary Service:
There is an existing sanitary network within the shared parking lot area. The existing sanitary service for the arena is currently located between the Aquatic Center and the Skate Park; and will therefore need to be relocated as part of the project scope as it is within the proposed buildings footprint. The recommendation is to intercept the existing service upstream of the proposed Community Center, divert with new manholes and relocate to along the northeast side of the new building. It will tie into the existing 250mm VCT sanitary main on 72nd Ave.

This new location will be in alignment with the water service, reducing excavation and tie-in locations and facilitating future servicing. The proposed line will be 150mm diameter service. The service size is to be confirmed by the building mechanical engineer at the next stage of the project.

Storm Network and Service
There is currently no storm sewer pipes in the adjacent streets, as the runoff water is managed with drywells in the parking area. No historical flooding or prolonged ponding has been reported in the parking lots with the existing system.

A geotechnical assessment will need to be conducted to evaluate the percolation rate of the existing soil, to assess the adequate management of the storm runoff water. It is proposed that the new building and site layout will have equal or less impermeable surfaces then existing. Strategies will be developed in the next stage to include on-site natural infiltration systems as required.

Other Site Works
The construction of a new building will require some modifications to the existing parking lot. The site servicing for storm sewer, water service and sanitary service for the entire site should be based on future site development scenarios to reduce potential site servicing conflicts.

Next Steps
The following additional information will be required at the next stage of the project to confirm the preliminary approach:
- Geotechnical Report;
- Phase 1 Environmental Report;
- Topographic Survey;
- Hydrant flow testing;
- Clarification of storm servicing with the City of Grand Fork
- Existing water system capacity;
- Existing sanitary sewer system capacity;

Refer to Appendix E for further detail and preliminary concept drawings.

RISK ASSESSMENT

In order to set the project up for success, it's necessary to consider the risks and establish a mitigation plan to address the areas of highest risk.

During a risk assessment workshop on September 18, 2019, the building committee reviewed potential risks. The probability of risk occurrence and the impact on the project (both ranked as High, Medium or Low) were identified.

The identified risks are categorized as follows:

- **Project Approval** - Includes the public, Council and RDKB.
- **Funding** - Impacts sources of initial funding and project cost.
- **Resources** - Impacts the ability to complete the project on schedule and on budget.
- **Site** - Impacts the site preparation, remediation, schedule and budget.
- **Climate** - impacts the ability to complete the scope of work on schedule.
- **Design** - Impacts the facilities functionality, operations and user experience.
- **Procurement** - Impacts procurement of the design team, consultants, services and FF&E.
- **Schedule** - Impacts the Master Project Schedule.
- **Operation** - Impacts the ease of operation, life cycle, maintenance and energy costs
- **Stakeholder** - Impacts stakeholder involvement and satisfaction in the project.

The following table highlights the project risks that have the highest impact on the project success and the preliminary mitigation strategies.

Refer to Appendix C for the complete Risk Assessment Worksheet. This worksheet is intended to be a living document, to document and plan mitigation strategies for risks at the various project stages.

Mitigation of risk is an ongoing project process. Identifying risk early allows time to develop strategies and implement procedures to eliminate or reduce risk. Developing an open, transparent and inclusive project process from the outset of the project is the first step in ensuring community buy-in and facilitating approval for the project.

HIGH RISK SUMMARY TABLE

Project Risk Assessment	Risk Evaluation		Preliminary Risk Mitigation Plan
	Probability	Impact	
PROJECT APPROVAL			
Failure of referendum for project approval and/or borrowing referendum	M	H	-Success is related to cost – ensure right size of project so costs are within reason. -Identify community leaders who can be project champions. -Create strategic marketing package, incorporating lessons learned from swimming pool referendum. -Secure multiple funding sources for greater success and prepare for longer timeline if required to secure funding.
Lack of Council approval	M	H	-Ensure distribution of costs is fair between City + RDKB. -Ensure council is part of the process in all project stages. -Ensure operational costs are managed. -Secure multiple funding sources for greater success. Prepare for longer timeline if required to secure funding.
Lack of RDKB approval	M	H	-Ensure operational costs are managed. -Secure multiple funding sources for greater success.
FUNDING			
Timely fundraising (grants & donations)	M	H	-Develop a clear understanding of the grant process and apply as early as possible. Ensure sufficient project resources to manage grant process. -Establish a fundraising plan, goals + objectives. Reach out to champions in the community and local industry early to secure support and funding.
RESOURCES			
Availability of qualified **Construction Manager / Contractor**	H	H	-Determine procurement method and if proceeding with Construction Management, engage construction manager early. -Perform market sounding to determine construction market capacity. Market project and ensure it is well known to construction industry.
Availability of **local labour** (Contractors + Trades)	H	H	-Perform market sounding to determine construction market capacity. -Market project and ensure it is well known to construction industry.
Availability of local materials, equipment	M	H	-Foster relationships with local trades throughout the contract. -Connect with local industry (Interfor, Rockwool, etc) and capitalize on existing knowledge.
Available resources for project manager / RDKB / City representative (Owner's team)	M	H	-Select procurement method suited to the City/RDKB's priorities during construction. -Request internal resources as part of council approval for the project.
SITE			
Impact of construction on aquifers.	L	H	-Ensure containment protocol and strategies are specified by civil consultant. -Ensure contractor has site management protocol.
PROCUREMENT			
Choosing the right procurement method	L	H	-Create a development corporation (between City + RDKB) to develop RFP. -Review risks/advantages and disadvantages of different procurement methods. Review in conjunction with market conditions.
SCHEDULE			
Delay due to required site / utility works	L	H	-Involve BC Hydro early in the process.
Delay due to Contractor lack of trades experience	M	H	-Perform market sounding of local capabilities and other available resources.
STAKEHOLDER			
Insufficient project engagement with public and elected officials	L	H	- Host open house and gather public input and feedback. - Manage expectations with public engagement and stakeholder management.

CONCEPT OPTIONS

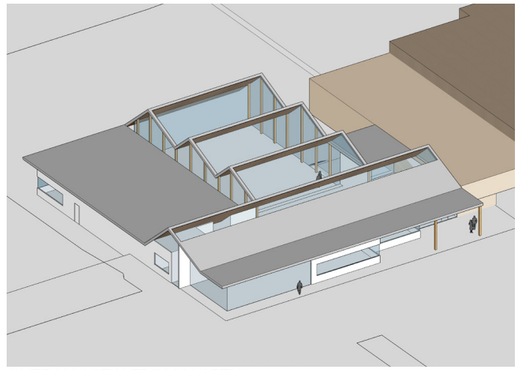
CONCEPT OPTION A

SITE

- Compact design maximizes passive benefits;
- Future development possible to the east (with relocation of the Skatepark) or on an upper level;
- Building is located to minimize impact on the existing parking + access;
- Hall is located to the south maximizing solar orientation and connection to the outdoors;

BUILDING

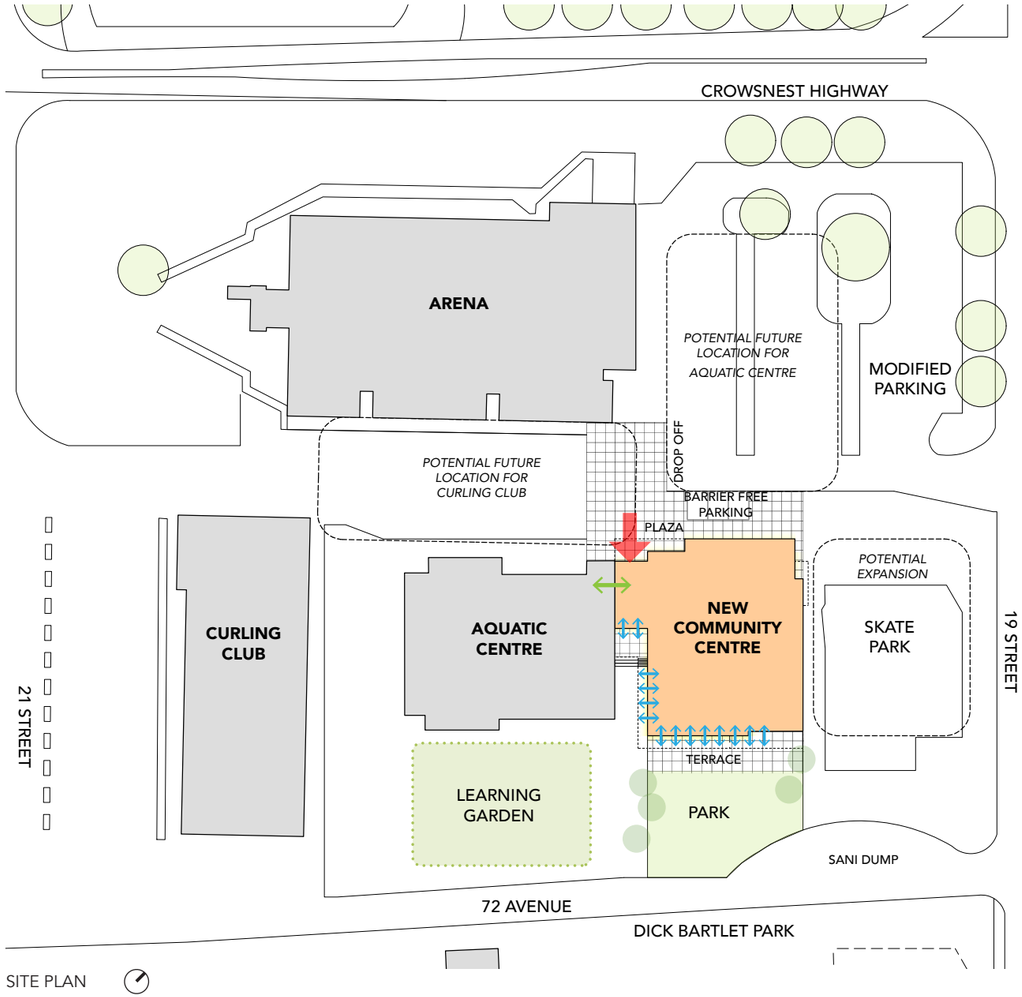
- Hall opens directly onto the lobby;
- Includes raised stage (optional);
- Kitchen is located at in the south corner with direct connection to the exterior to support outdoor gathering;
- Link is created with the Aquatic Centre for cross pollination and effective staffing;
- Cafe is located near the entry with direct access to the exterior and provide view through the building;
- Maker space is located near the entry for visibility and displaying activities within;
- EOC and meeting room are located together with access to a separate entry to support EOC and after hours use.



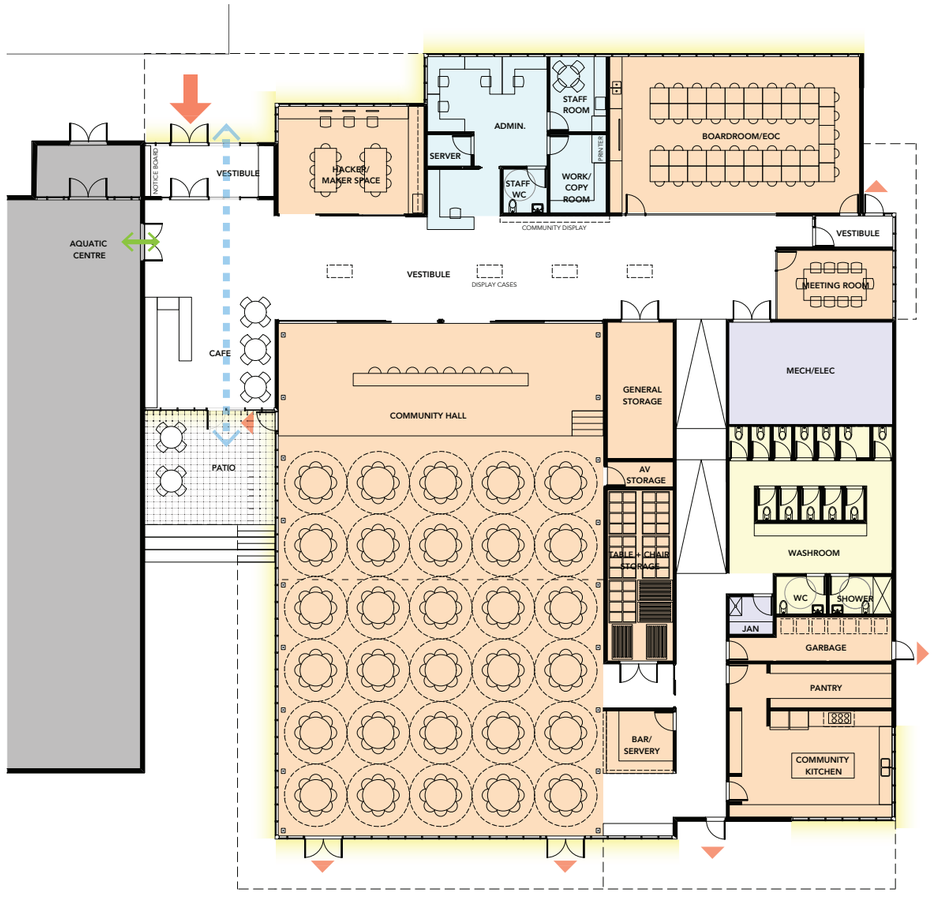
OVERALL VIEW FROM NORTH



INTERIOR VIEW OF HALL



SITE PLAN



FLOOR PLAN

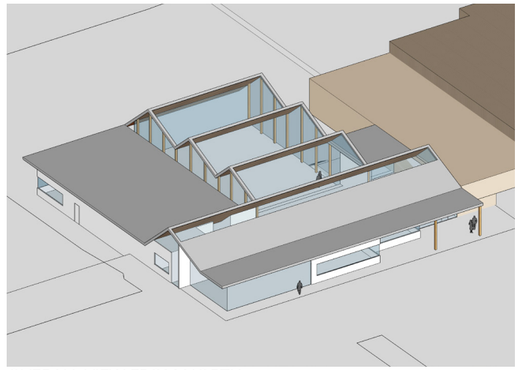
CONCEPT OPTION B

SITE

- Compact design maximizes passive benefits
- Future development possible to the east (with relocation of the Skatepark) or on an upper level;
- The building is located further north to serve as a beacon to the north and create larger gathering space to the south;
- Hall is located to the south to maximize solar orientation and connection to the outdoors and is aligned east-west (will require modification to existing parking lot.

BUILDING

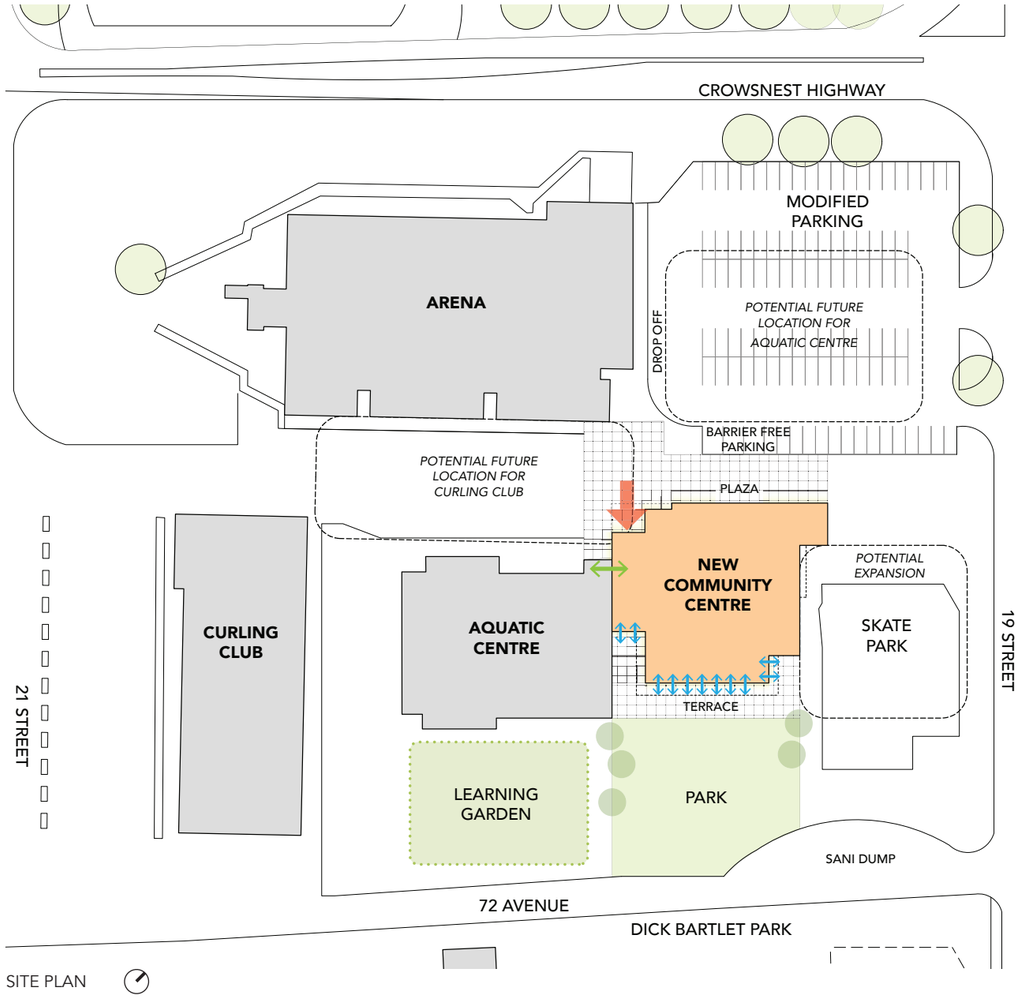
- Kitchen is located at the heart of the facility with direct access to the lobby and hall, and in close proximity to the cafe;
- Link is created with the Aquatic Centre for cross pollination and effective staffing;
- Cafe is located near the entry with direct access to the exterior and provide view through the building;
- Maker space is located near the entry for visibility and displaying activities within;
- EOC and meeting room are located together with access to a separate entry to support EOC and after hours use;
- Mechanical spaces are located on an upper mezzanine to reduce the building footprint.



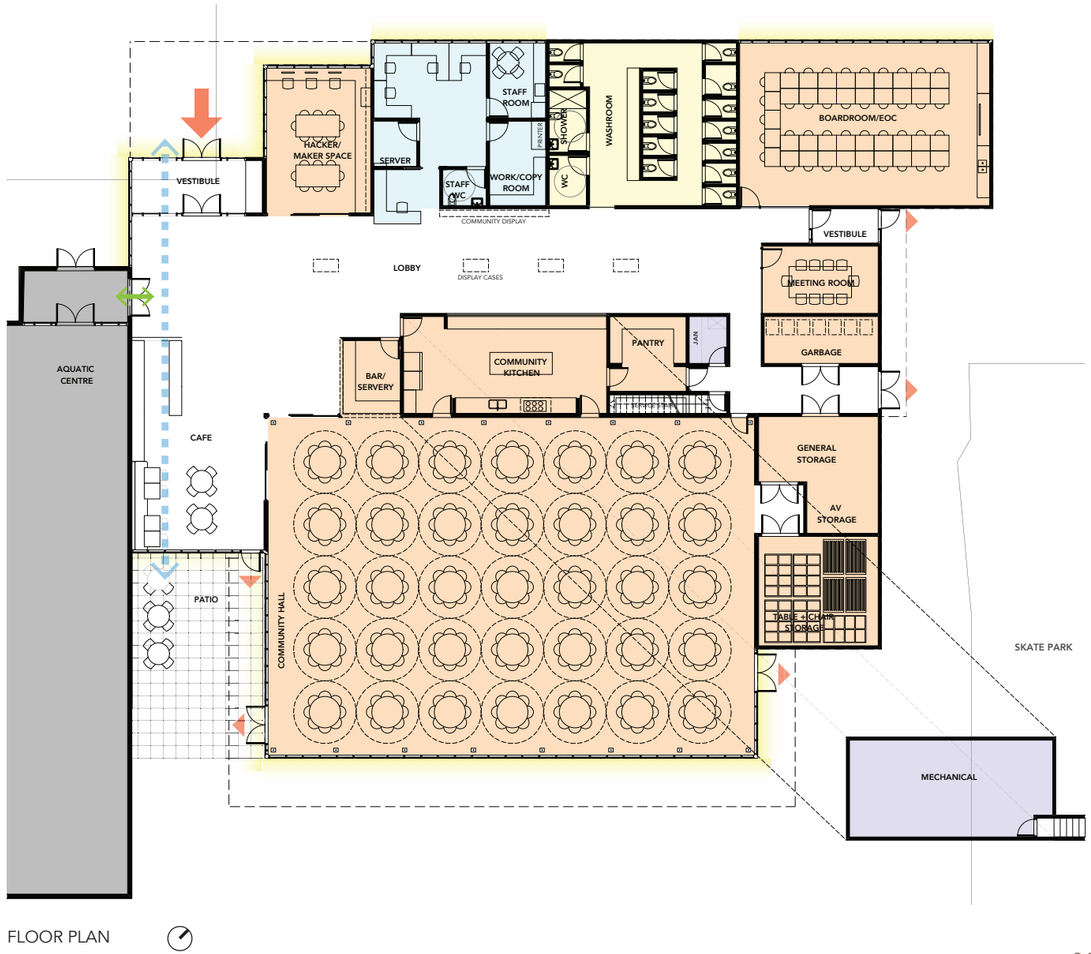
OVERALL VIEW FROM NORTH



INTERIOR VIEW OF HALL



SITE PLAN



FLOOR PLAN

OPEN HOUSE

PROCESS



On January 23, 2020 an Open House to present and receive feedback on the concept options for the Grand Forks Community Centre.

The event was held in the Aquatic Centre Lobby. Presentation boards summarized the work done to date including vision, program, sustainability strategy, site analysis and 2 concept options.

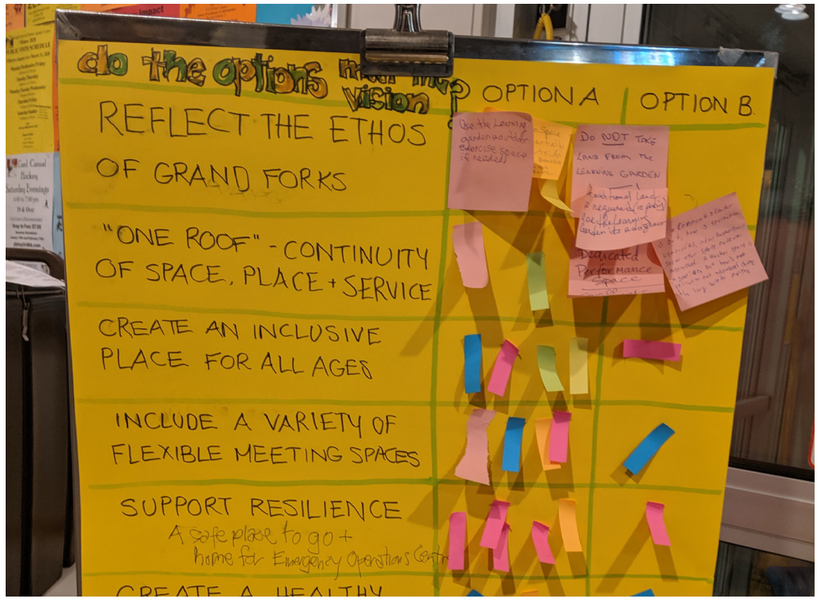
The project team gave an informal presentation at pea attendance and was available to answer questions and receive feedback.

It is estimated that approximately 100 attended the Open House. Four key questions were asked of the attendees, with responses collected on sticky notes. The responses are summarized on the following pages.

In general the feedback from the community was very positive with a strong preference for Option A. The majority of questions/concerns centered around parking, lack of specialized fitness space, the learning garden and desire for project to be larger.

Information on the event has been posted on the RDKB website and feedback is continued to be received.





FEEDBACK SUMMARY

DO THE OPTIONS MEET THE VISION?

REFLECT THE ETHOS OF GRAND FORKS

OPTION A — 5 responses
OPTION B — 1 response

"ONE ROOF" CONTINUITY OF SPACE, PLACE + SERVICE

OPTION A — 5 responses
OPTION B — 1 response

CREATE AN INCLUSIVE SPACE FOR ALL AGES

OPTION A — 4 responses
OPTION B — 1 response

INCLUDE A VARIETY OF FLEXIBLE MEETING SPACES

OPTION A — 4 responses
OPTION B — 1 response

SUPPORT RESILIENCE)A SAFE PLACE TO GO + HOME FOR THE EMERGENCY OPERATIONS CENTRE

OPTION A — 5 responses
OPTION B — 1 response

CREATE A HEALTHY PLACE

OPTION A — 3 responses
OPTION B — 3 responses

CREATE A SUSTAINABLE BUILDING

OPTION A — 4 responses
OPTION B — 0 responses

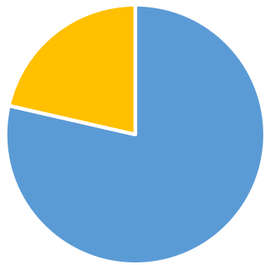
CONSIDER ONGOING OPERATIONS

OPTION A — 7 responses
OPTION B — 2 responses

TOTAL

OPTION A 34 responses
OPTION B 10 responses

QUESTION 1: WHAT IS THE BEST LOCATION FOR THE KITCHEN?



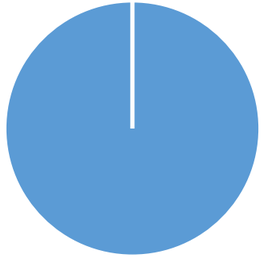
OPTION A (Kitchen to the South)
79% (11 responses)

OPTION B (Kitchen at the Heart)
21% (3 responses)

QUESTION 1 COMMENTS:

- Need east access for loading/unloading – neither is good

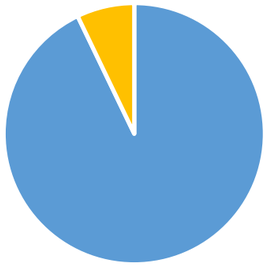
QUESTION 2: WHICH HALL LAYOUT AND RELATIONSHIP TO LOBBY DO YOU PREFER?



OPTION A
100% (10 responses)

OPTION B
0% (0 responses)

QUESTION 3: WHICH OPTION DO YOU PREFER & WHY?



OPTION A
93% (26 responses)

OPTION B
7% (2 responses)

QUESTION 3 COMMENTS:

Option A

- A – but bigger
- A – Love the kitchen, lobby and stage locations
- Aesthetics, appearance, + kitchen location
- I prefer Option A because it would have more natural light and I find the design more aesthetically pleasing
- Kitchen not front and centre – easier access for loading/unloading
- Option A because:
  - Performance Stage
  - Kitchen has access for outdoor events
  - The aesthetics/light
  - The 4-6 meters of [option b] being further north seems minor
- Option A – Kitchen to garden; delivery to kitchen. Don't like kitchen in the middle
- Prefer design with stage – important part of the community
- Like outside access for kitchen, stage area (YES!) Smells and heat of kitchen not in centre.
- Kitchen to Connect with the Outside/Patio
- Option A is the better alternative for the following reasons:
  - It allows the expansion of the hall into the lobby
  - Outside access to the kitchen to allow its use in conjunction with outside activities
  - Interesting roof line to allow natural light and passive solar
  - Better suited for use and size of solar panels

Option B

- Option B – can still include solar options on roof
- I Like Option B – close access from the Kitchen to café and hall

GENERAL COMMENTS:

General Comments:

- Let's go!! Built It!!
- LOVE this project, please keep up the great work.
- In all aspects I here, this is the best plan I have seen! Go for it!
- Very important to get this built - bring on the referendum.

Environmental:

- Please consider solar panels for the entire complex, esp. rinks.
- Solar panels – great idea and anything else that will conserve/store energy and promote sustainability.

Process + Cost:

- Costs? Increase in taxes for GF residents?
- What will the tax increases be?

Program Components:

- Need space for Gymnastics – public/private partnerships!
- Utilize Lobby for card/board games/tournaments.
- I'd like to see a performance/arts stage. Perhaps a tiny recording space. Make Kitchen a programming space too, teaching class or canning or group cooking to help seniors and families make meals to freeze.
- I like the stage part of the community hall. Very conducive to large presentations and gatherings – band, speeches, etc. Important to have the audio/visual technology to go along with this.
- Dedicated Performance Space/Small Intimate.
- Computers in community hall with laser technology to beam coloured lines on the floor for badminton, volleyball, pickleball, etc.
- If a Community space is built, how is a recreation/gymnastics/indoor basketball/sport not even addressed. A hacker space is a good idea, but how is recreation not addressed winter months.
- I was really hoping for a covered track in the winter.

Design Considerations:

- The light from the roof/clerestory will be amazing……but how do you clean something like that?
- The kitchen needs road access from 72nd Avenue at the rear and it would be advisable for the community hall to have access to 72nd Avenue parking from the rear of the hall also.
- Let's put lots of outlets for charging devices inside and out. Provide WiFi – Great for teens, homeless, poor families
- No, No, No to gender neutral washrooms

Site Considerations:

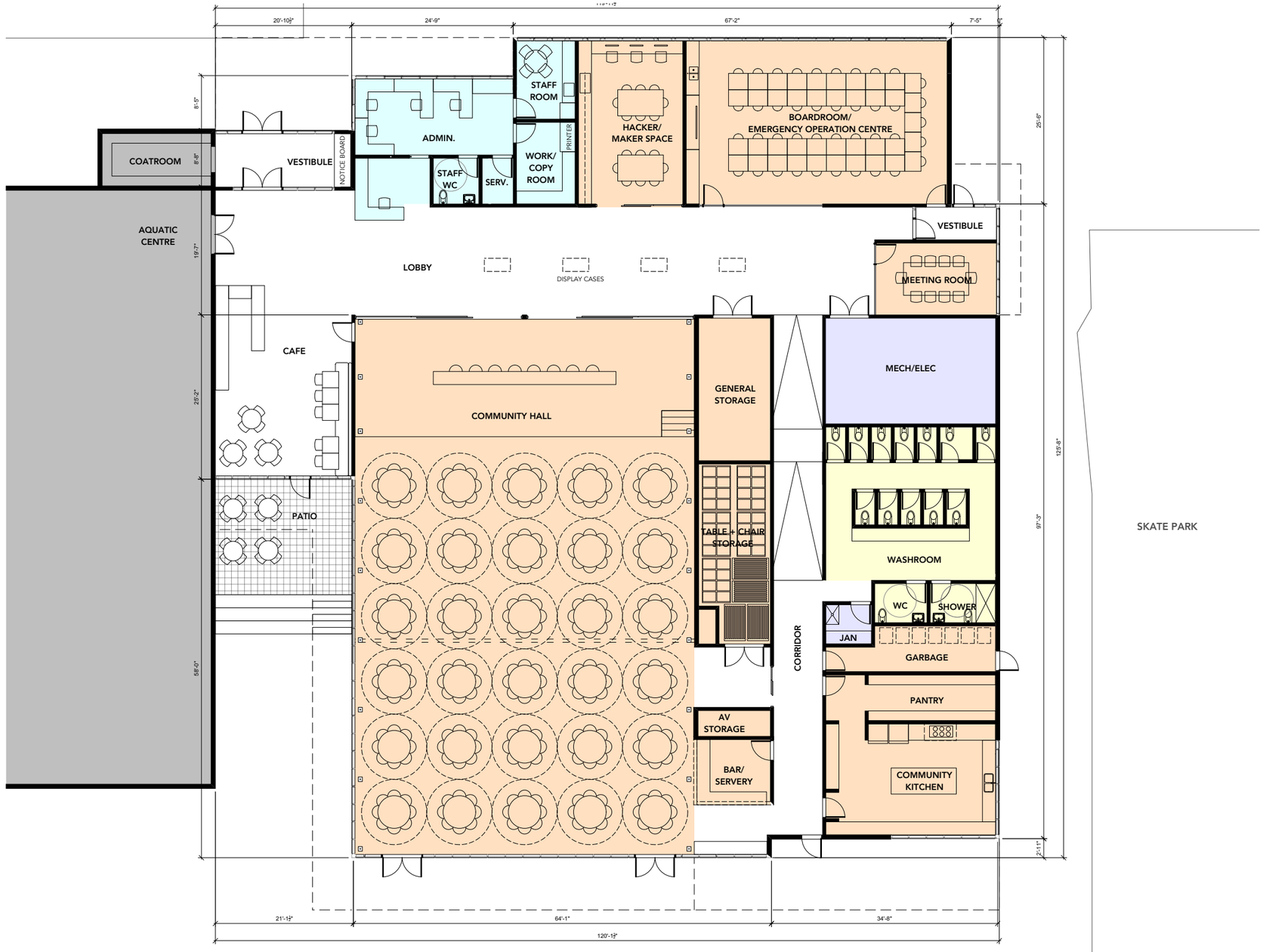
- Do not take land from the learning garden.
- The Outdoor space could be partially used for outside exercise and benches/picnic tables, as well as garden area.
- If additional land is required for parking, use the Learning Garden – it's a disgrace.
- Parking?? Leave Park space as is.
- Use the learning garden as outdoor exercise space if needed.
- Due to the parking issue it's not a suitable location. It would be nice to have this complex a multi-floor building maybe in North Ruckle's Addition .

PREFERRED CONCEPT DEVELOPMENT

Based on the feedback received from the Open House, Option 1 was developed as the preferred option to incorporate feedback received.

BUILDING

- The Hall opens directly onto the lobby;
- Includes raised stage (optional);
- Kitchen is located at in the south corner with direct connection to the exterior to support outdoor gathering;
- Link is created with the Aquatic Centre for cross pollination and effective staffing;
- Cafe is located near the entry with direct access to the exterior and provide view through the building;
- Maker space is located near the entry for visibility and displaying activities within;
- EOC and meeting room are located together with access to a separate entry to support EOC and after hours use.



FLOOR PLAN

CREATING RESILIENCE

The concept design is based on the sustainable strategies developed with the community, designing for future generations and meeting the key goals of:

- **Energy Security:** Renewable, Solar
- **Future Planning:** Long Term, Longevity, Generation, Resilient
- **Responsible Planning:** Finance, Affordable, Feasible.

ENVIRONMENTAL STEWARDSHIP

The project starts with a passive design approach that works to maximize benefits from natural systems to create a resilient facility that will act as the heart of the community and provide a safe haven and home for the Emergency Operations Centre. A passive design approach is aligned with the community's key goal of authenticity and practical solutions to complex problems.

A passive strategy that commences with consideration of building orientation and massing come at no additional cost to the project and significantly reduce the impact the building has on the environment. Strategies include:

HARMONY WITH THE LAND

The Community Centre and Emergency Operations Centre will be located to:

- Support the existing facilities on the site minimizing disruption to existing services and infrastructure;
- Create indoor-outdoor connectivity supporting a food-centric and reflect agrarian roots;
- Blur the boundaries between inside and outside bringing the environment into the building;
- Minimize the project footprint by not adding any additional parking area, as supported by the parking study.

COMPACT BUILDING FORM RESPONDS TO SITE MICROCOSM

The proposed design creates a compact building form that combines passive energy strategies with solar orientation. The massing provides height only where it is required and that is aligned with the footprint of the gathering spaces, and responds to the south orientation. The saw-tooth roof form facilitates solar panels on the south face, and clerestory natural light to the north, aligning form, height, and energy strategies.

DAYLIGHTING STRATEGIES FOR HEALTH AND WELLNESS

In a northern climate, it is essential to site the building to facilitate natural lighting in all of the public spaces. The north facing clerestory bring steady north light into the central Lobby and Hall spaces. This uniform daylighting strategy will help to reduce the electrical load of the building.

CONTROLLED SOLAR GAIN

Openings to the south are calibrated to support direct daylight in the winter and to protect the building from solar gain in the summer.

NATURAL VENTILATION

The building has been sited to facilitate natural ventilation, while protecting the building from the cold winter winds. The mass of the Aquatic Centre will shield the building from the winter winds, while operable skylights will facilitate drawing air through the building in the summer. Using natural ventilation will also reduce the load on the building mechanical systems, reducing energy consumption.

MATERIALS

The new Community Hall and EOC will use local materials wherever possible:

- The project will support BC Wood First Policy. The building will be a combination of mass timber and light frame construction supporting the local wood economy and reducing Greenhouse Gases (GHG).;
- All insulation can be supplied by the local Rockwool facility;
- Landscaping will include a xeriscaping approach to minimize water consumption and will be based on indigenous planting;
- Identification of other local trades and resources will be undertaken at the start of the design stage.

DURABILITY and RESILIENCE

Robust, low maintenance building materials and systems will be specified to facilitate longevity, wild fire resilience and reduce maintenance:

- Mechanical systems will be reduced as much as possible;
- Non-combustible metal cladding will be the primary exterior material for durability and wildfire resilience; and
- Wood will be used as a cladding material in protected soffit areas only.

STORMWATER MANAGEMENT

Rainwater run off from the site and from the building will impact local ecosystems. In order to reduce the amount of the storm water and mitigate some of the potential impacts, we are proposing to harvest the rainwater from the roof and surface and to reuse onsite to support the south garden area.

SOCIAL CONNECTIVITY

The proposed design support social connectivity thorough a "One-Roof" approach to the site providing synergy of programs, as follows:

- Siting strategies that connect the facility with the Aquatic Centre and support easy pedestrian connection to the Arena,
- Flexible connected interior spaces;
- Inclusion of a flexible Hall with expansion to the Lobby, and indoor-outdoor connectivity;
- Provision of a generous Lobby and Cafe to encourage lingering;
- Inclusion of an accessible community kitchen to support the agrarian, food-centric culture and ensuring food-security;
- Provision of a community garden to the south of the facility; and
- Spaces for all ages supporting mental health and wellness through physical and socially connectivity.

FINANCIAL SUSTAINABILITY

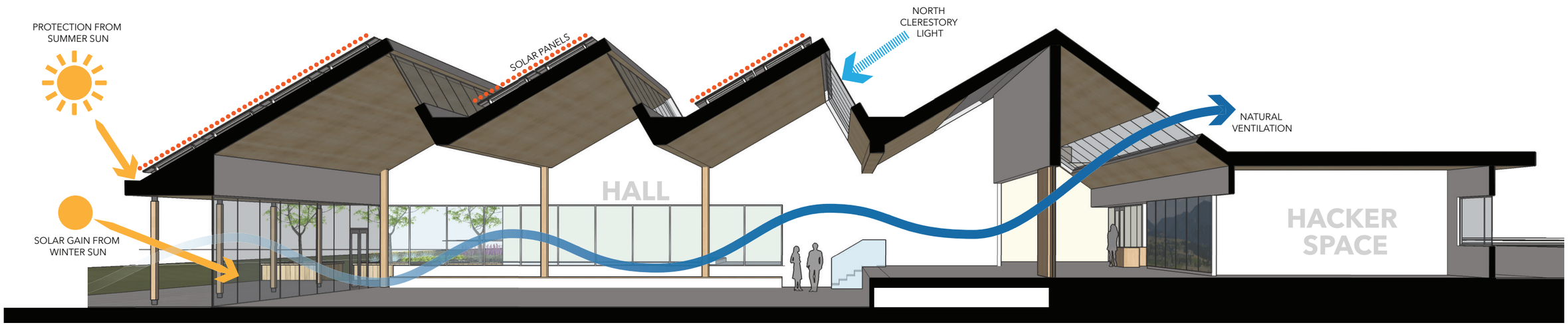
Working closely with the community, the final program is "right-sized" for the community to ensure financial viability, consolidate existing operations (pool and arena staff have new combined, accessible offices), and support future expansion/development on the site.

ENERGY SECURITY THROUGH RENEWABLE ENERGY

In addition to high insulation values and an air tight envelope to facilitate energy performance, the project will include renewable energy strategies to facilitate a net zero energy approach. Taking advantage of the local sunny micro-climate, the building will include photo-voltaic solar panels to provide on-site energy from the sun.

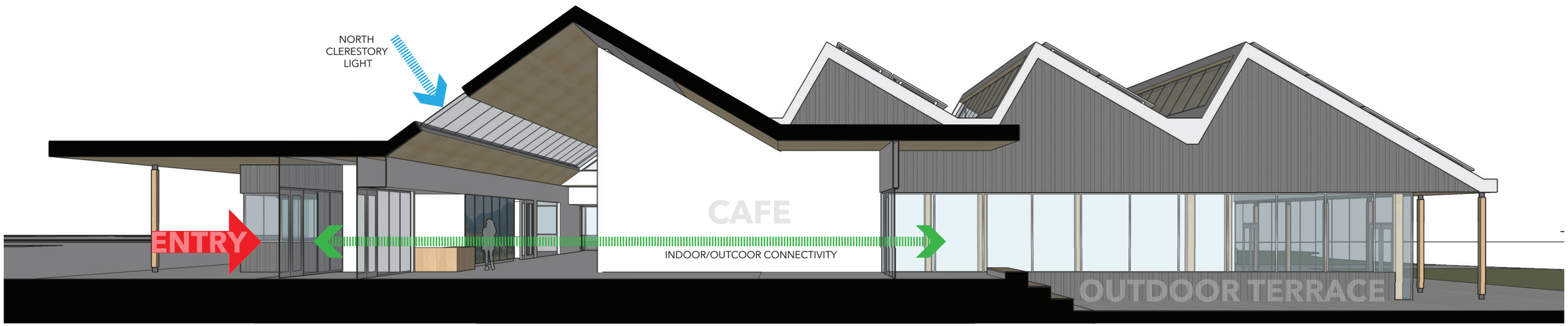


View from the South, looking towards the Hall, Community Kitchen and Outdoor gathering area.



SECTION THROUGH HALL LOOKING WEST

The south facing slopes of the sawtooth roof have solar panels to harvest solar energy. The north facing glazing offers even clerestory lighting in the Hall and Lobby space. The south overhang provides shading from the summer sun and protection for an outdoor gathering space, while allowing the winter sun to penetrate the space.



SECTION THROUGH ENTRY + CAFE LOOKING EAST

From the entry to the north, there are views directly through the cafe to the south-facing terrace and parkspace beyond.



View from the Hall looking toward stage and Lobby beyond. The north glazing of the sawtooth roof provides even lighting to the Hall and Lobby. As well as direct connectivity to the south facing garden, the Hall also opens up to a sheltered courtyard to the west.



View of lobby from the entry opening to the Hall beyond. The Admin desk is positioned to provide visibility to the Hall and Aquatic Centre to allow operational efficiency. High clerestory windows provide views to the surrounding hills. Operable skylights facilitate natural ventilation.



View of the Community Centre from the North. The entry is combined with the Aquatic Centre to provide operational efficiency. The roof form echoes the surrounding landscape. The EOC, Meeting room, Hacker Space have glazing to the exterior offering views of activities within.

Exterior non-combustible metal cladding is used for durability and to limit exposure to wildfires. Wood is used in protected areas only, such as the roof soffits to create warmth at the entries.

COST SUMMARY

A Class C cost estimate was prepared by LTA Consultants for the Grand Forks Community Centre. This is a preliminary class 'C' opinion summary of probable cost estimate with a level of accuracy of minus 15% to plus 20% 18 times out of 20.

The new building comprises a single storey, or part single storey/part two storey structure with a gross floor area of approximately 13,153ft2. Programming for the new facility includes the following:

- Public spaces including main entrance lobby, café, and washrooms;
- Community Centre including a large hall, community kitchen, meeting room, hacker/ maker space, conference room, washrooms and associated ancillary storage spaces;
- Administration spaces including open office spaces, workroom, meeting room, filing storage spaces, staff room and washrooms.

Please note, the optional Flexible Tenant Space has not been included in this class 'C' program estimate.

The total estimated construction cost (excluding GST) is $8,523,856.
The total estimated soft costs (excluding GST) is $1,208,102.
The total estimated project cost (excluding GST) is $9,731,958.

The following separate prices were included:

1. Fire Suppression System $114,829 (Excl GST)
2. Window Coverings (Excludes Skylights) $97,353 (Excl GST)
3. Solar panels $167,651 (Excl GST)
4. Delete Raised Stage -$100,357 (Excl GST)

Escalation
Over the past twelve months, we have experienced a construction market condition in British Columbia that has resulted in construction costs rising by approximately 10% across public sector projects. As the demand for construction services remains high across residential, commercial and institutional sectors of the market, we can expect costs to continue to rise at the rate of approximately 6% per annum for the foreseeable future. Please note, no allowance has been included in this estimate for forward escalation/market condition contingency, as the schedule for the approval process required to move the project into the detailed design, tender and construction phases has not been determined. However, we caution that an allowance of at least 6% per annum should be budgeted for the year, based on the current economic climate. Please refer to our comments under the 'Contingency' and 'Market Conditions' sections of this report for further information.

Refer to Appendix E for full Cost Estimate Report.

MAIN SUMMARY OF ESTIMATED PROJECT COSTS

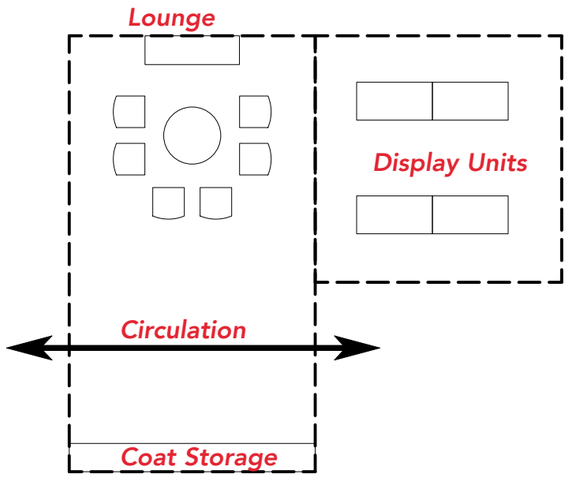
			m^2	ft^2
		Gross Floor Area	1,221.66	13,150
Description		**Estimated Value**	**$/$m^2$**	**$/$ft^2$**
Net Building Cost (Community Centre)		$6,383,646	$5,225.37	$485
Site Development		$875,356	$716.53	$67
Ancillary Work - Interface with Aquatic Centre		$120,960	$99.01	$9
Design and Construction Contingency Allowances		$1,143,894	$936.34	$87
Escalation Contingency Allowance - **Specifically Excluded *(Refer to commentary in Report)***		Excluded	$0.00	$0
ESTIMATED CONSTRUCTION COSTS (Excluding GST)		**$8,523,856**	**$6,977.25**	**$648**
GST	5.00%	Excluded	$0.00	$0
ESTIMATED CONSTRUCTION COSTS (Excluding GST)		**$8,523,856**	**$6,977.25**	**$648**
SOFT COSTS				
Design Fees				
Architects Fees		$426,193	$348.86	$32
Structural Engineers Fees		$81,466	$66.68	$6
Mechanical Engineers Fees		$67,444	$55.21	$5
Electrical Engineers Fees		$51,402	$42.08	$4
Civil Consultants Fees		$65,000	$53.21	$5
Landscaping Consultant Fees		$15,000	$12.28	$1
Geotechnical Engineers Fees		$20,000	$16.37	$2
Miscellaneous Consultants Fees		$85,239	$69.77	$6
Quantity Surveying Fees		$55,405	$45.35	$4
Owners Costs				
Owners Project Management Fees		$255,716	$209.32	$19
Development Cost Charges		Excluded	$0.00	$0
Off-site Costs and Associated Bonding Fees		Excluded	$0.00	$0
Building Permit Fees		$85,239	$69.77	$6
Course of Construction Insurance		Excluded	$0.00	$0
Equipment				
Loose Furniture, Furnishings and Equipment		Excluded	$0.00	$0
ESTIMATED SOFT COSTS (Excluding GST)		**$1,208,102**	**$988.90**	**$92**
GST	5.00%	Excluded	$0.00	$0
ESTIMATED SOFT COSTS (Excluding GST)		**$1,208,102**	**$988.90**	**$92**
TOTAL PROJECT COSTS (Excluding GST)		**$9,731,958**	**$7,966.14**	**$740**

SEPARATE PRICE ITEMS - EXCLUDED FROM THE BASELINE ESTIMATE ABOVE

1) Fire Suppression System	$114,829 (Excl GST)
2) Window Coverings (Excludes Skylights)	$97,353 (Excl GST)
3) Solar panels	$167,651 (Excl GST)
4) Delete Raised Stage	-$100,357 (Excl GST)

Note:
The above noted separately priced item includes an allowance for General Contractors Overhead and Fee, Design Contingency Allowance, and Construction Contingency Allowance, but excludes Escalation Contingency Allowance and GST.

APPENDIX A:
ROOM DATA SHEETS

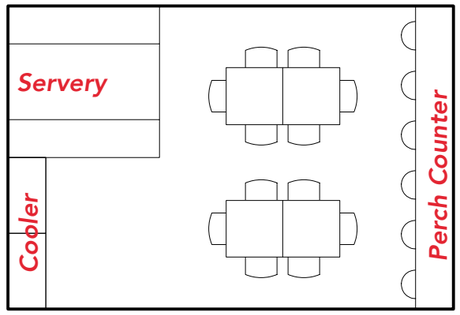




LOBBY

GENERAL DESCRIPTION:
Welcoming entry, gathering space for circulation and informal gathering. May be double height space. The lobby provides a connection between various program areas including the cafe, hall, meeting areas and Office Area.

SIZE (NASM):	27.9m2 (300sf) Lobby + 15.8m2 (170sf) Display
DIMENSIONS:	N/A
HEIGHT:	4.5m minimum (may include double height space)
OCCUPANT LOAD:	37 persons (Lobby) + 5 people (Display)
ADJACENCIES:	Direct Access: Entry Vestibule, Hall, Cafe Close Proximity: Office Area, Washrooms, Meeting Room, Hacker/Maker Space
FINISHES:	Floor: Polished Concrete Walls: GWB, Wood Accent/Acoustic panels Doors: N/A Ceiling: Exposed Structure, Skylight
MILLWORK:	• Linear Coat Storage • Retail Display Units (mobile podiums) • Community Display (linear wall display)
LIGHTING:	Natural Light: Required Light Fixtures: integrated lighting system with structure; accent lighting for art.
SPECIAL REQUIREMENTS:	• Fireplace (T.B.D.) • Digital Display Screens • Power: Wall receptacles at strategic locations • Plumbing: Water Fountain
FURNITURE/EQUIPMENT:	• Lounge seating for 6





CAFE

GENERAL DESCRIPTION:
Servery/café area with coffee counter, 6 lin ft grab+go coolers and beverage fridge, cash till and back counter prep zone. Food prepared elsewhere - reheat capacity only. Includes seating at modular tables for 12 and a perch counter at window.

SIZE (NASM):	13.5m2 (145sf) Servery + 17.7m2 (190sf) Eating Area
DIMENSIONS:	Servery 16' x 9'
HEIGHT:	3.6m minimum Seating Area, 2.7m Servery
OCCUPANT LOAD:	1 (Servery) + 15 (Seating Area)
ADJACENCIES:	Direct Access: Lobby Close Proximity: Administration, Washrooms, Exterior
FINISHES:	Floor: Polished Concrete Walls: GWB, Wood Accent/Acoustic panels Doors: Sliding Security Grille at counter Ceiling: Exposed Structure, GWB (Acoustic)
MILLWORK:	• Servery counter • Perch counter at window
LIGHTING:	Natural Light: Required Light Fixtures: integrated lighting system with structure; accent lighting for art.
SPECIAL REQUIREMENTS:	• Fireplace (T.B.D.) • Digital Display Screens • Power: Wall receptacles at strategic locations, Power for coolers + Appliances • Plumbing: Sink, handwash sink, Plumbed Coffee Line, Floor Drain, Dishwasher
FURNITURE/EQUIPMENT:	• Modular Cafe Tables • Seating for 12-14 • Beverage Cooler • Coffee Machine • Cash Machine/IPad • Dishwasher • Sink + Handwash Sink • Microwave/Warming Oven

ENTRY VESTIBULE

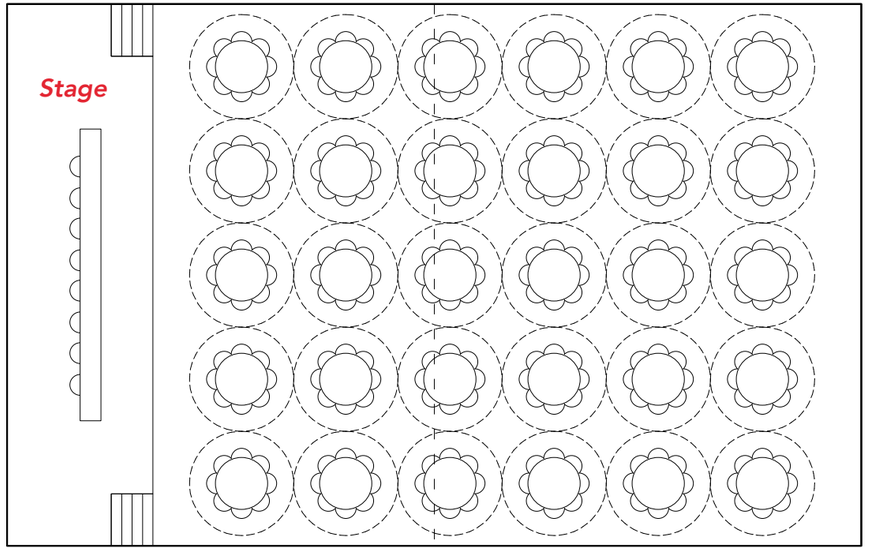
GENERAL DESCRIPTION:
Airlock Vestibule with 2 sets double doors on Automatic opener.

SIZE (NASM):	6.5m2 (70sf)
DIMENSIONS:	Minimum Depth: 1.8m
HEIGHT:	2.7m minimum
OCCUPANT LOAD:	N/A
ADJACENCIES:	Direct Access: Lobby, Exterior
FINISHES:	Floor: Tile/ Polished Concrete, Recessed Entry Mat Walls: GWB, Storefront Glazing Doors: Aluminum with Glazing Ceiling: GWB
MILLWORK:	• Recessed Display with Notice Board
LIGHTING:	Natural Light: Required Light Fixtures: Recessed lighting
SPECIAL REQUIREMENTS:	• Auto Opener • Recessed Entry Mat
FURNITURE/EQUIPMENT:	N/A

UNIVERSAL WASHROOM + SHOWER ROOM

GENERAL DESCRIPTION:
Universal barrier free washroom with toilet + lavatory. Universal barrier free shower room with toilet, lavatory and shower. Shower use by community in emergency situations as well as end-of trip facilities.

SIZE (NASM):	Washroom: 4.5m2 (45sf) Shower: 6.1m2 (66sf)
DIMENSIONS:	Washroom: 1.8m x 2.5m Shower: 1.8m x 3.4m
HEIGHT:	2.8m minimum
OCCUPANT LOAD:	N/A
ADJACENCIES:	Direct Access: Circulation Close Proximity: Lobby, Cafe, Administration, Hall
FINISHES:	Floor: Tile/ Polished Concrete Walls: GWB, Tile (Shower) Doors: Solid Core Wood Door Ceiling: GWB
MILLWORK:	• N/A
LIGHTING:	Natural Light: Not Required Light Fixtures: Recessed lighting
SPECIAL REQUIREMENTS:	• Power: Wall receptacle • Plumbing: Shower, Toilet, Lavatory, Toilet
FURNITURE/EQUIPMENT:	• Washroom accessories: Grab bars, hooks, toilet paper dispenser, soap dispenser, paper towel dispenser and/or hand dryer, waste bin, etc. • Shower accessories: Curtain + Rod, Shower seat, recessed soap holder, etc.

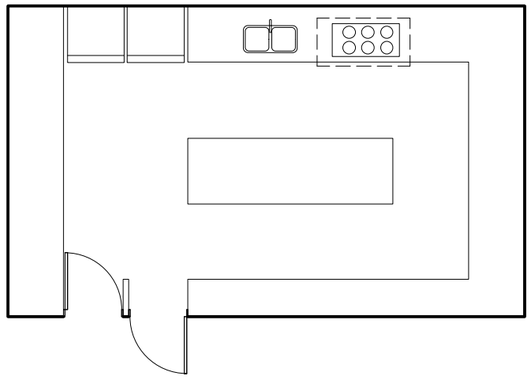




HALL

GENERAL DESCRIPTION:
Multi-purpose supports gatherings of 290 persons for banquets, and up to 416 people for lectures or events. Dividable into two spaces with folding acoustic wall. Includes a raised stage area (14' deep) that can be separated from the main hall area. Located adjacent to the Lobby with capacity to open up on to the space. Connect to gathering area at the exterior.

SIZE (NASM):	396m2 (4264sf)
DIMENSIONS:	15.8m (52') x 25m (82')
HEIGHT:	4.5m minimum
OCCUPANT LOAD:	417
ADJACENCIES:	Direct Access: Lobby, Exterior, Bar/Servery Close Proximity: Community Kitchen, Washrooms, Chair Storage
FINISHES:	Floor: Spring floor system with resilient or wood flooring Walls: GWB, Wood Accent/Acoustic treatment Doors: Solid Core wood door with Vision Panel Ceiling: Exposed Structure, acoustic panels
MILLWORK:	• Under stage storage • Bench at perimeter
LIGHTING:	Natural Light: Required Light Fixtures: integrated lighting system with structure; adjustable lighting at stage
SPECIAL REQUIREMENTS:	• Folding acoustic wall to divide space + separate stage • Projector and Screen • Power: Wall receptacles at strategic locations, recessed floor outlets • Sound System + Speakers
FURNITURE/EQUIPMENT:	N/A

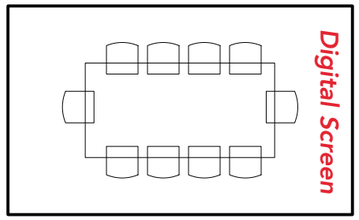




COMMUNITY KITCHEN

GENERAL DESCRIPTION:
Kitchen for preparation of food and catering of events. Located adjacent the Hall. May includes pantry and may include walk-in cooler.

SIZE (NASM):	Kitchen: 41.8m2 (450sf) Pantry: 9.3m2 (100sf) Walk-in Cooler: T.B.D.
DIMENSIONS:	15.8m (52') x 25m (82')
HEIGHT:	3.0m minimum
OCCUPANT LOAD:	4
ADJACENCIES:	Direct Access: Hall, General Circulation Close Proximity: Servery/Bar, Exterior
FINISHES:	Floor: Sealed Concrete Walls: Tile, GWB Doors: double acting with vision panel Ceiling: T-Bar
MILLWORK:	• Upper and Lower Cabinets, stainless steel countertop • Island with stainless steel countertop + storage
LIGHTING:	Natural Light: Preferred Light Fixtures: integrated lighting system with structure; adjustable lighting at stage
SPECIAL REQUIREMENTS:	• Power: Power for appliances, above counter for small appliances. • Plumbing: hand sink, double sink with goose-neck faucet, floor drain, dishwasher, waterline for coffee
FURNITURE/EQUIPMENT:	Commercial Kitchen Standard: • Oven (x2)/stove-top with fume hood • Fridge/Freezer • Dishwasher • Microwave • Coffee Machines • Small appliances T.B.D. • Ventilation System (Commercial Standards) • Movable Stainless Steel racks in Pantry



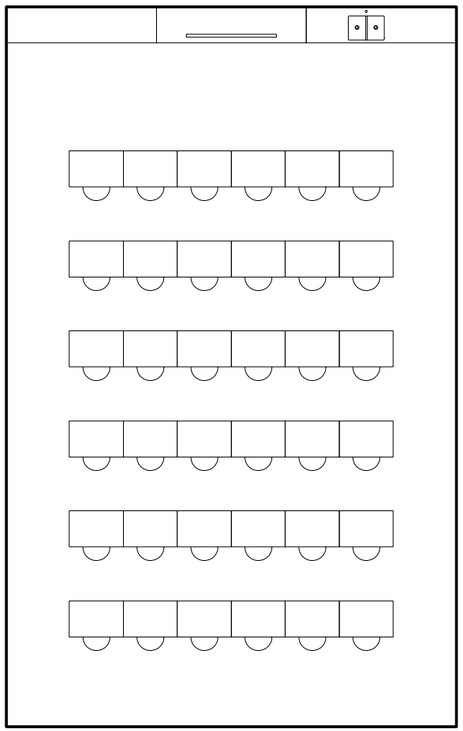
MEETING ROOM

GENERAL DESCRIPTION:
Meeting room for 10 people, to be used by groups, clubs, and by staff. Include Digital Screen and Video Conferencing Capability (T.B.D.)

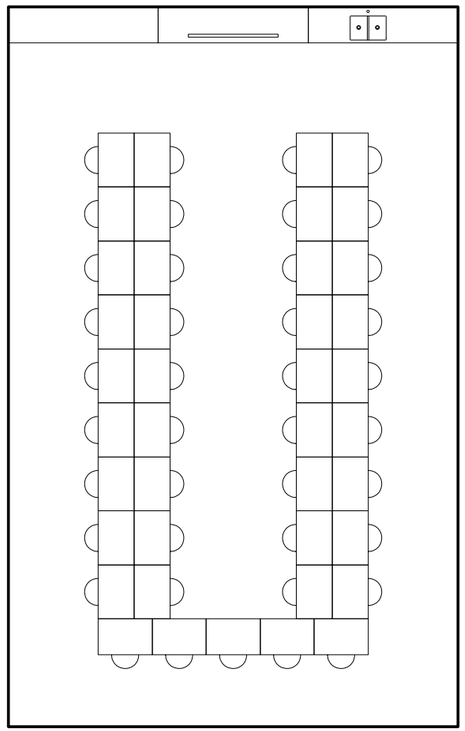
SIZE (NASM):	18.6m2 (200sf)
DIMENSIONS:	5.5m (18') x 3.4m (11')
HEIGHT:	3.0m minimum
OCCUPANT LOAD:	10
ADJACENCIES:	Direct Access: General Circulation Close Proximity: Lobby, Administration, Washrooms
FINISHES:	Floor: Carpet Tile, Resilient Walls: GWB, Include backpainted glass for writing surface Doors: Solid Core wood door with Vision Panel or sidelight Ceiling: Acoustic Tile
MILLWORK:	N/A
LIGHTING:	Natural Light: Desirable Light Fixtures: Recessed fixture, with controls for presentation
SPECIAL REQUIREMENTS:	• Digital Display Screen • Video Conferencing (T.B.D.) • Back-painted Glass writing wall, strategically located • Power: Integrated power/data in table
FURNITURE/EQUIPMENT:	• Meeting table + 10 Chairs



Training Configuration



EOC Configuration

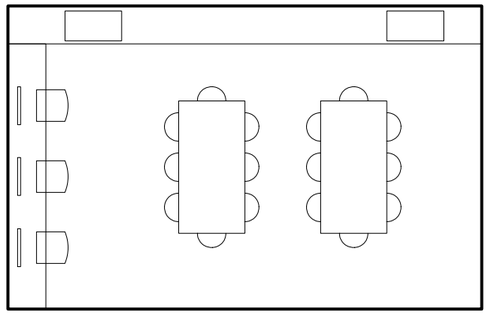




CONFERENCE ROOM (EOC)

GENERAL DESCRIPTION:
Meeting/Training room for 36 persons. Can accommodate EOC (Emergency Operations Centre) for 40 persons at 3' linear workspace/shared tables. Include sink area and lockable storage for tech equipment.

SIZE (NASM):	92.9m2 (1000sf)
DIMENSIONS:	12.1m (40') x 7.6m (25')
HEIGHT:	3.0m minimum
OCCUPANT LOAD:	50
ADJACENCIES:	Direct Access: General Circulation Close Proximity: Administration, Staff Room, Staff WC
FINISHES:	Floor: Carpet Tile Walls: GWB, Include backpainted glass for writing surface Doors: Solid Core wood door with Vision Panel or sidelight Ceiling: Acoustic Tile
MILLWORK:	• Full height lockable cabinet for tech equipment • Kitchenette with base cabinet + upper storage
LIGHTING:	Natural Light: Required Light Fixtures: Recessed fixture, with controls for presentation
SPECIAL REQUIREMENTS:	• Digital Display Screens • Back-painted Glass writing wall, strategically located • Power: Integrated in floor to suit a variety of table configurations, standard wall outlets to suit, power for digital screens • Plumbing: Sink
FURNITURE/EQUIPMENT:	• Mobile rectangular meeting/training tables + 40 chairs

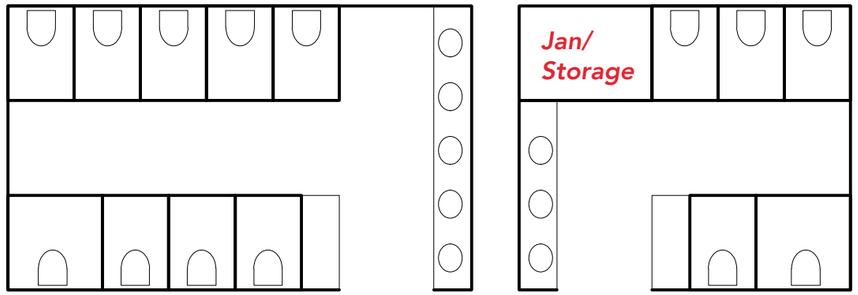




MULTI-PURPOSE HACKER/MAKER SPACE

GENERAL DESCRIPTION:
Multi-purpose meeting/activity room with Maker capacity. Include linear counter for printers/equipment with storage below. Include computer work counter. Movable work tables can accommodate a class of up to 16 people.

SIZE (NASM):	37.2m2 (400sf)
DIMENSIONS:	7.6m (25') x 4.8m (16')
HEIGHT:	3.0m minimum
OCCUPANT LOAD:	20
ADJACENCIES:	Direct Access: General Circulation Close Proximity: Lobby, Meeting room, Washrooms
FINISHES:	Floor: Sealed Concrete Walls: GWB, Include back painted glass for writing surface Doors: Solid Core wood door with Vision Panel Ceiling: Acoustic Tile/ GWB/ Exposed Structure
MILLWORK:	• Lower cabinets for equipment/storage • Computer work counter • Full height lockable cabinet for equipment storage
LIGHTING:	Natural Light: Required Light Fixtures: Recessed /suspended fixtures
SPECIAL REQUIREMENTS:	• Ventilation as required for equipment • Back-painted Glass writing wall, strategically located • Power: Integrated power/data in at counter
FURNITURE/EQUIPMENT:	• Equipment T.B.D. May include 3d printer, sewing machine, desktop laser cutter, etc. • Mobile work tables - durable finish • 15 Chairs

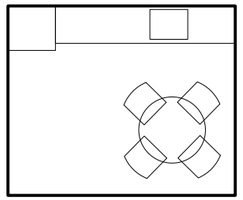




WASHROOM

GENERAL DESCRIPTION:
General facility washrooms for men and women. Design to support future gender neutral use (T.B.D.)

SIZE (NASM):	Female: 37.2m2 (400sf) Male: 24.5m2 (264sf)
DIMENSIONS:	T.B.D.
HEIGHT:	2.8m minimum
OCCUPANT LOAD:	N/A
ADJACENCIES:	Direct Access: General Circulation Close Proximity: Janitor, Hall, Lobby
FINISHES:	Floor: Sealed Concrete/Tile Walls: Tile, GWB Doors: Solid Core Wood doors at stalls Ceiling: GWB
MILLWORK:	• Vanity counter
LIGHTING:	Natural Light: Preferred but not required Light Fixtures: Recessed downlights
SPECIAL REQUIREMENTS:	• Mirror • Power: Housekeeping power as required • Plumbing: Lavatories, toilets, floor drain
FURNITURE/EQUIPMENT:	• Washroom accessories: Grab bars, hooks, toilet paper dispenser, soap dispenser, paper towel dispenser and/or hand dryer, waste bin, etc.

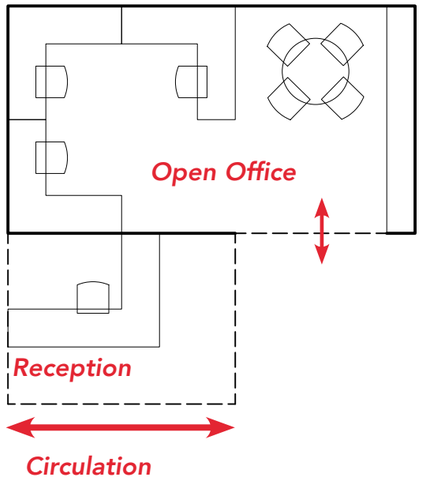


STAFF ROOM

GENERAL DESCRIPTION:
Kitchenette with full size fridge, dishwasher, microwave + coffee machine. May be used as an informal meeting area. Used by building staff and for the EOC.

SIZE (NASM):	11.1m2 (120sf)
DIMENSIONS:	T.B.D.
HEIGHT:	3.0m minimum
OCCUPANT LOAD:	3
ADJACENCIES:	Direct Access: Open Office Close Proximity: Lobby, Copy/Workroom
FINISHES:	Floor: Resilient Walls: Tile or backpainted glass backsplash, GWB Doors: Solid Core wood door with vision panel Ceiling: GWB/Acoustic Tile
MILLWORK:	Kitchenette with upper + lower cabinets
LIGHTING:	Natural Light: Preferred Light Fixtures: Recessed LED fixtures, under cabinet lighting
SPECIAL REQUIREMENTS:	• Power: Counter height outlets, power for appliances • Plumbing: Sink, Dishwasher, water line for coffee
FURNITURE/EQUIPMENT:	• Fridge • Microwave • Dishwasher • Coffee Machine



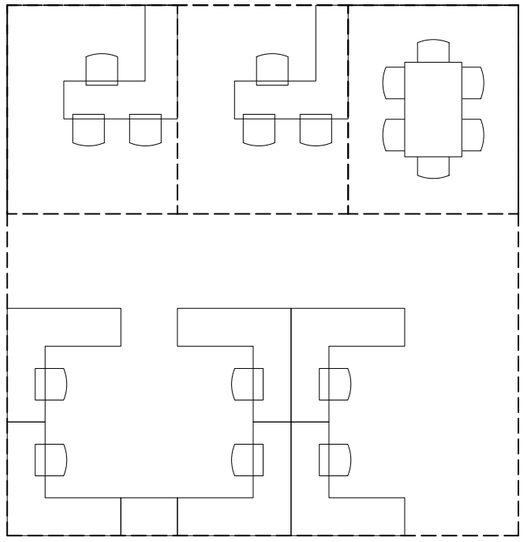




RECEPTION + OPEN OFFICE

GENERAL DESCRIPTION:
The reception is to be located within view of the entry and to serve as a meet and greet to the facility as well as a reception to the office suite and contains a workstation. May be an eddy in the lobby. The open office contains three workstations to accommodate Recreation staff.

SIZE (NASM):	Reception: 9.3m2 (100sf) Open Office: 23.4m2 (252sf)
DIMENSIONS: HEIGHT:	T.B.D. 3.0m minimum
OCCUPANT LOAD:	3
ADJACENCIES:	Direct Access: Reception / Workstation Close Proximity: Lobby, Staff Room, Staff Washroom, Copy/Workroom
FINISHES:	Floor: Carpet Tile Walls: Tile, GWB Doors: Include Solid Core wood door with vision panel to close off office area. Ceiling: Acoustic tile
MILLWORK:	N/A
LIGHTING:	Natural Light: Required Light Fixtures: Recessed LED fixtures
SPECIAL REQUIREMENTS:	• Power: Wired Workstations + standard wall outlets
FURNITURE/EQUIPMENT:	• System furniture workstations + Task chairs • Lockable storage/filing cabinets • Informal meeting table with 4 chairs





FLEX OFFICE SUITE (OPTIONAL)

GENERAL DESCRIPTION:
Flexible Office Suite to may be used by the City departments with a good programmatic fit with the Centre such as DMAF and EcDev. Office suite of 70.1m2 (755sf) supports 6 open office workstations and up to 3 closed offices/meeting rooms of 9.3m2 (100sf) each. The office suite may share reception with the facility + recreation staff. If this program is included increase the staffroom 50% (60sf) and add one additional single occupancy Staff Washroom.

SIZE (NASM):	Reception: 70.1m2 (755sf)
DIMENSIONS:	T.B.D.
HEIGHT:	3.0m minimum
OCCUPANT LOAD:	9
ADJACENCIES:	Direct Access: Reception Close Proximity: Rec Offices, Staff Room, Copy/Workroom
FINISHES:	Floor: Carpet Tile Walls: Tile, GWB Doors: Include Solid Core wood door with vision panel to close off office area. Ceiling: Acoustic tile
MILLWORK:	N/A
LIGHTING:	Natural Light: Required Light Fixtures: Recessed LED fixtures
SPECIAL REQUIREMENTS:	• Power: Wired Workstations + standard wall outlets
FURNITURE/EQUIPMENT:	• System furniture workstations + Task chairs • Lockable storage/filing cabinets • Meeting Table + Chairs

APPENDIX B:
PARKING STUDY



CITY OF GRAND FORKS
COMMUNITY CENTRE MASTER PLAN
PARKING STUDY

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April 08, 2020

Urban arts
Architecture Inc



Figure 1. Site for proposed Grand Forks Community Centre.

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1. Executive Summary

Community Futures Boundary have asked Urban Arts Architecture to prepare a parking strategy to support the the feasibility study and concept design for the Grand Forks Community Centre. This document is intended to guide the parking related decisions surrounding the proposed site.

Major elements of this study includes:

- Current vs Proposed Condition
- Parking Requirements
- Street-side Parking Strategy
- Recommendations

2. Introduction

2.1 Background

The City of Grand Forks has identified a need to develop a parking strategy to facilitate the proposed Grand Forks Community Centre. This study will support the principles and goals identified in the Official Community Plan, includin

- Build upon the complete community concept;
- Protect the environment and diversity of the community;
- Manage urban growth;
- Improve mobility;
- Build a network of open spaces, greenways parks and trails, linking neighborhoods, and;
- Enhance visual appearance of the entire community.

2.2 Study Purpose

The purpose of this study is to develop a parking strategy for the new proposed community centre while preserving and enhancing the natural features present on the site.

2.3 Location

The study area is bounded by Crowsnest Trail in the north and 72nd Avenue in the south. The western border is 21st Street and the eastern border is 19th Street. For this analysis, the roadways outside of the site area were considered to ensure that solution options were feasible in the context of a larger network.

3. Current vs. Proposed Condition

According to Section 26.10 of the Corporation of the City of Grand Forks Bylaw No. 2039, the required number of off-street parking spaces is determined by the class of building/ use. A community centre requires 1 space for every 10 sqm. of floor a ea; while recreation facilities require a space for every 10 sqm. of ice, pool or game area.

3.1 Existing

As per the parking bylaw, the total number of parking stalls required for the existing Aquatic Centre, Arena, and Curling Club outlined in Table 1.

At 1 space/ 10 sqm, this results in a total of 251 parking spaces. There are currently 157 stalls resulting in an existing non-conforming condition that is short 94 parking stalls.

3.2 Proposed

The proposed Grand Forks Community Centre has a floor a ea of 1,220 sqm. which requires 122 parking spaces, as per the parking bylaw.

Table 1: Existing Parking Stall Condition

Building Use	Relevant Area for Calculation	Calculation Method	Number of Required Stalls
Arena	Ice Rink: 1,337 sqm. (14,400)	1 Parking Stall/ 10 sqm. Of pool, ice or game area.	133
Aquatic Centre	Main Pool: 339 sqm. (3,650 sqft)		34
Curling Club	Rink: 836 sqm. (9,000 sqft.)		84
Total Required			251

Table 2: Proposed Parking Stall Condition

Building Use	Relevant Area for Calculation	Calculation Method	Number of Stalls
Arena	Ice Rink: 1,337 sqm. (14,400)	1 Parking Stall/ 10 sqm. Of pool, ice or game area.	134
Aquatic Centre	Main Pool: 339 sqm. (3,650 sqft)		34
Curling Club	Rink: 836 sqm. (9,000 sqft.)		84
Community Centre	1,220 sqm. (13,132 sqft.)	1 Parking Stall/ 10 sqm of floor area	122
Existing Stalls:			145
Total Stalls Required:			374



Existing on-site parking provides 165 parking spaces for the Aquatic Centre and Arena.



50 parking spaces are provided to the west of the Curling Club.



Wide roads provide opportunity for street-side parking.



Pedestrian + bicycle trails located along Crowsnest Trail connects the site to the downtown and East Grand Forks.

Figure 2 on the following page summarizes all parking that is available within a 5 minute walk, including existing parking on site, adjacent Regional District Offices and available st eet parking.

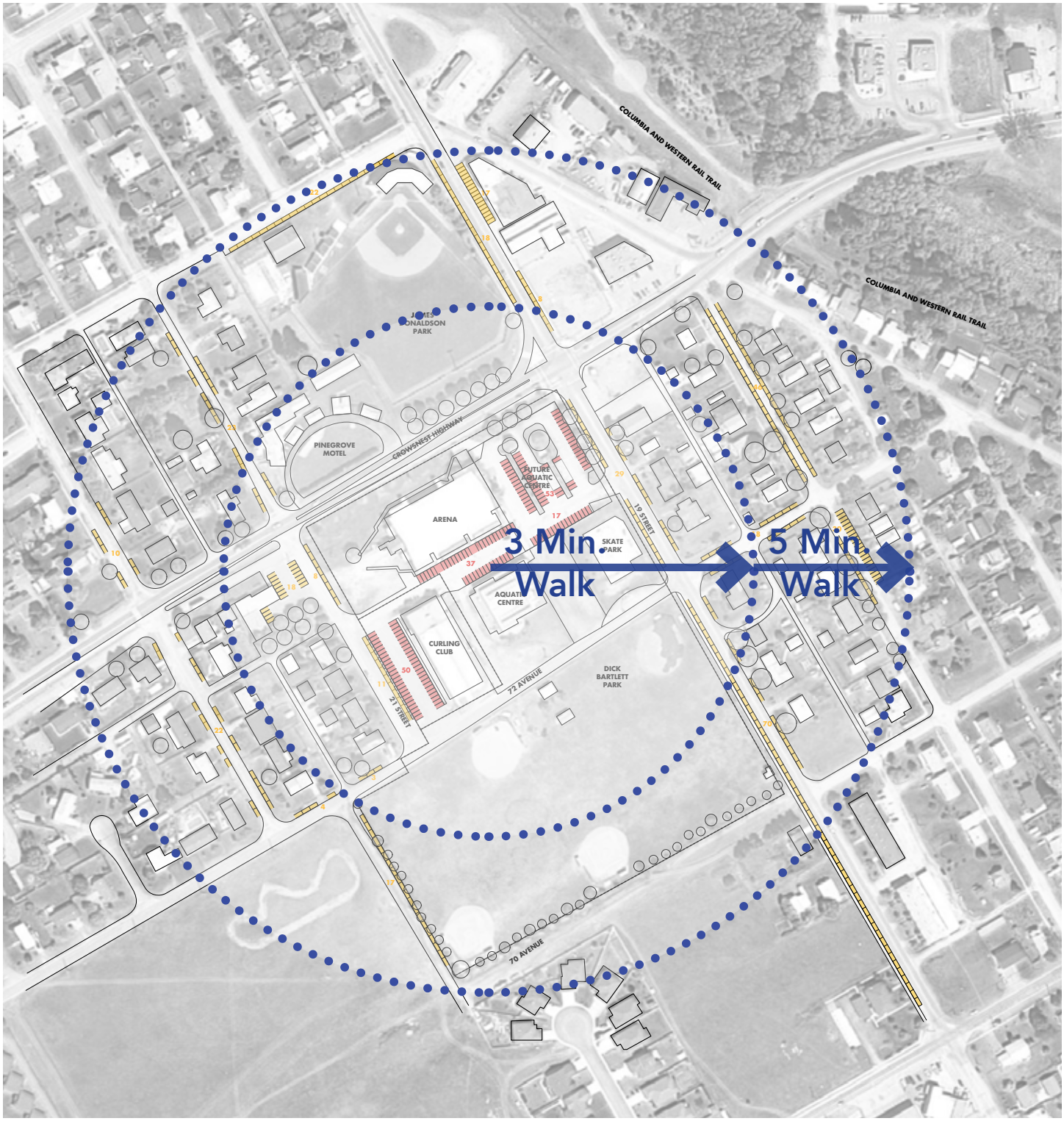


Figure 2. Vehicle spaces located in close proximity to site.

ON-SITE PARKING	**157**
3-5MIN STREET PARKING (NORTH OF CROWSNEST)	**98**
3-5MIN STREET PARKING (SOUTH OF CROWSNEST)	**276**
TOTAL AVAILABLE SPACES:	**531**

4. Vehicle Parking Requirements

Section 19.10.9 of the City of Grand forks Official Community Plan states that "o f-street parking should be encouraged where possible and designed to promote safe and efficient vehicle entrances and exits, and on site circulation."

The proposed parking strategy takes into consideration on-site and off-site parking, 3-5 minute walking radius. This approach is based on regular use of the streets surrounding the site for large events, such as the Fall Fair.

The following scenarios explore options where one, two or more of the buildings on-site are open and holding events.

4.1 Community Centre only

The proposed Community Centre will require 122 parking stalls. This can be accommodated within the existing parking on site

4.2 Community Centre and Aquatic Centre

For times when both the Community Centre and the Aquatic Centre are at capacity, all of the on-site parking will be required, with 18 additional parking stalls required on nearby streets. This will most likely be provided by roadside parking located along 19th Street, as it is in close proximity to the two facilities.

4.3 Community Centre, Aquatic Centre and Arena

Simultaneous large events taking place in the Community Centre, Aquatic Centre and the Arena will require all of the parking on site with an additional 151 stalls of street parking in the surrounding neighbourhood.

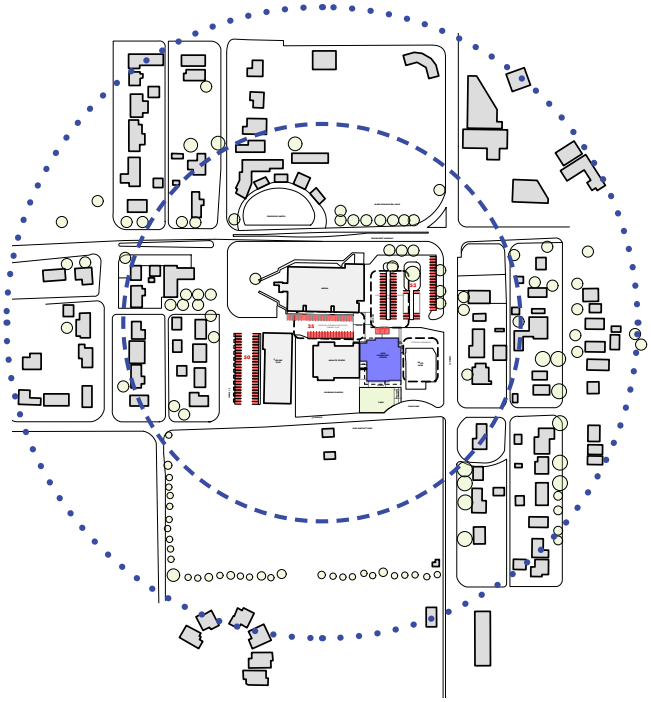
4.4 Community Centre, Aquatic Centre, Arena and Curling Club

Similarly, if all buildings are operating simultaneously at capacity, it will require parking in roadside parking spaces in the surrounding area. 236 roadside parking spaces will be required.

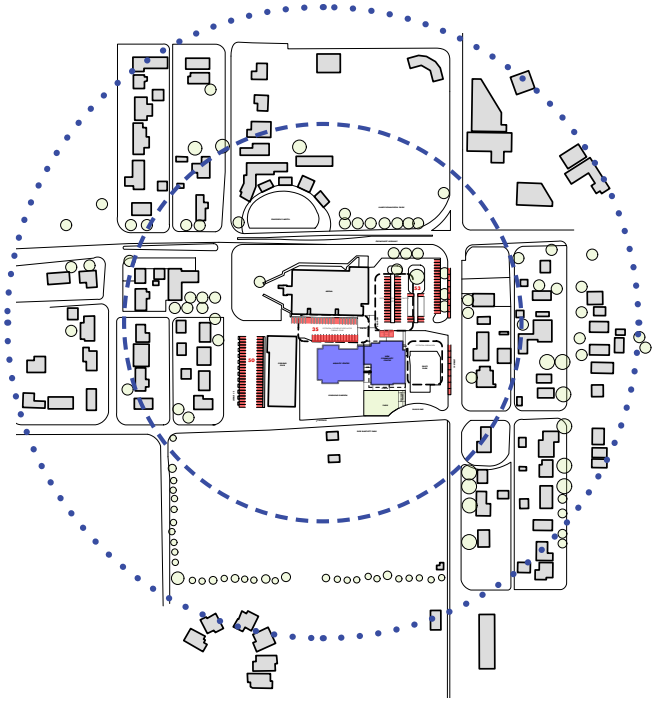
The table below provides a breakdown of required parking stalls based on building use, and available roadside parking available within a 3-5 minute walking distance.

Table 3: Building Use vs. Required Parking

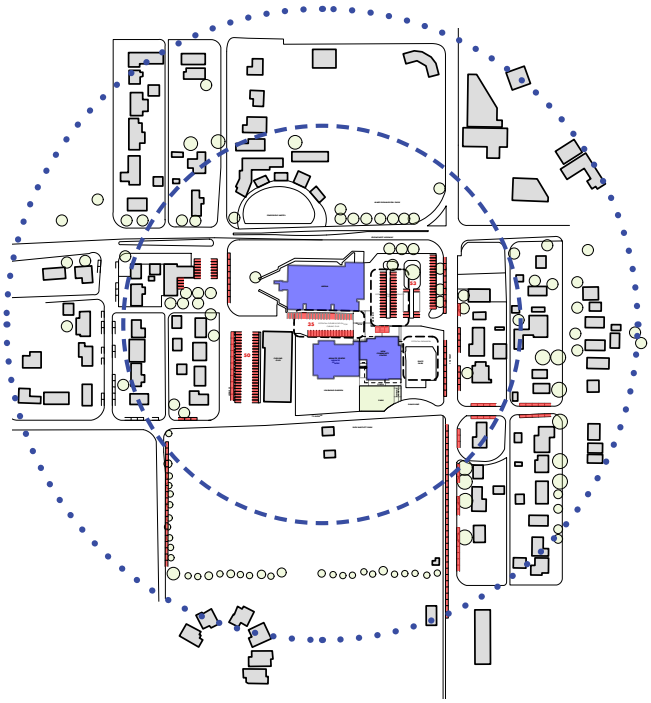
Scenario	Description	Required Stalls	# of On Site Parking	# of Street Parking
1	Community Centre	122	122	0
2	Community Centre + Aquatic Centre	156	138	18
3	Community Centre +Aquatic Centre + Arena	290	138	152
4	Community Centre +Aquatic Centre + Arena + Curling Club	374	138	236



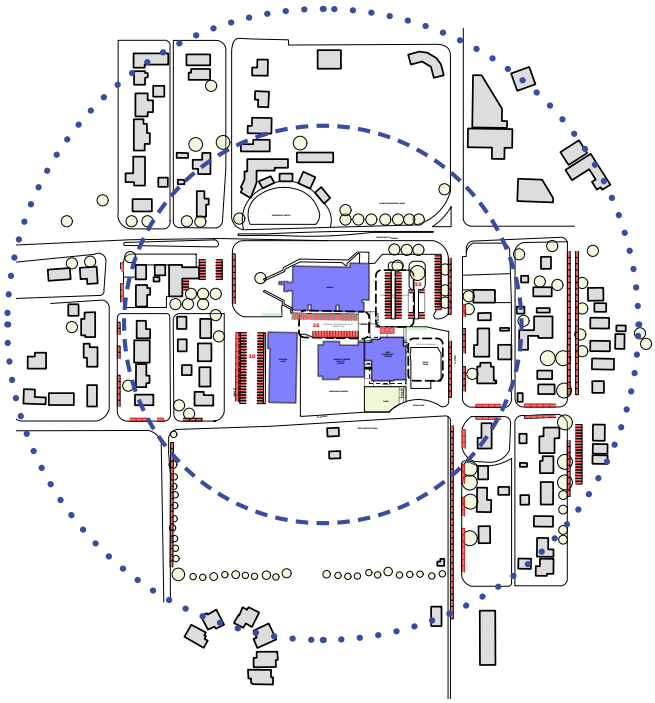
4.1: 122 On Site Parking Spaces



4.2: 138 On Site Parking Spaces, 18 Street Parking



4.3: 138 On Site Parking Spaces, 152 Street Parking



4.4: 138 On Site Parking Spaces, 235 Street Parking

Legend

Buildings Serviced

Vehicle Spaces

3 minute walk radius

5 minute walk radius

Figure 3. Spaces required based on use.

5. Active Transportation

As part of the parking study, walking and cycling are also considered as primary modes of transportation to connect the proposed community centre to the surrounding neighbourhoods. The City of Grand Forks Official City Plan section 19.10.10 states that "sites should be designed in a way that accommodates alternative modes of transportation, with provisions made for features such as pedestrian sidewalks, bicycle and walking paths or lanes, and bicycle racks on the site."

5.1 Walking

Walking is an essential ingredient of active transportation. Regardless of the transportation method, all trips begin and end with walking. Encouraging the walk-ability of this area create a friendly neighbourhood through social connectivity, reduce carbon emissions, and provide accessible and affordable exercise for citizens.

Figure 4 below demonstrates the 3-5 minute walking radius surrounding the site of the proposed community centre. The site is connected to the surrounding neighborhoods with a sidewalk located along 19th Street, an intersection with traffic signals and a pedestrian crossing on 19th Street and Crowsnest Trail, and sidewalks located on neighborhood roads.

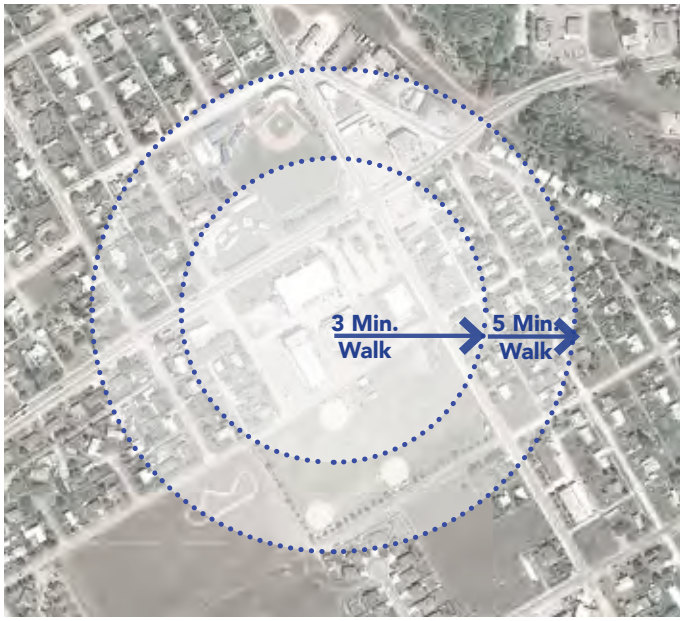
5.2 Cycling

The neighborhood roads surrounding the site are potential cycling routes so long as they provide sufficient lane width to allow cyclists to ride with traffic and allow vehicles to safely pass. Providing secure bicycle parking near the entrances and oriented for maximum bicycle usage will encourage maximum bicycle usage and extend accessibility to the new proposed community centre.

Walking/bicycle trails connect the site to the downtown core as well as East Grand Forks. The Highway Three Trail located on the north side of Crowsnest Trail connects citizens traveling east to west, while the Trans Canada Trial connects the north to the downtown. Commuters can use this trail to access the River Front Trail and the Barbara Anna Park Trail and connect to the rest of the city.

As demonstrated in Figure 5 below, the 15 minute bicycle radius extends accessibility to the Valley Heights neighborhood in northeast Grand Forks.

Figure 4. 3 minute vs 5 minute Walk Radius

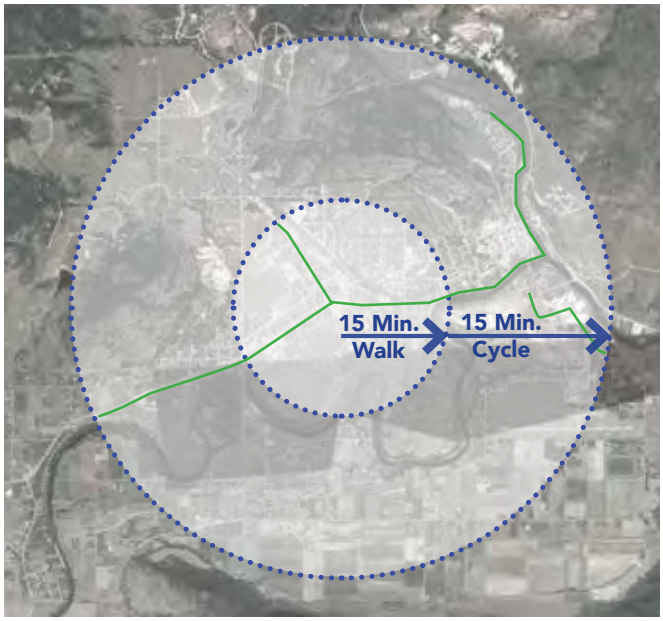


Legend

Travel Radius

Bicycle Trail

Figure 5. 15 minute Walking vs 15 minute Cycling Radius



6. Recommendations

This report recommends building upon the shared use of existing parking spaces to provide for the recreation buildings as well as the proposed community centre. During events that occur in multiple buildings, parking will be supplemented through the use of neighborhood roadside parking. This is an established pattern of use that occurs every year during the Fall Fair.

By providing a total of 60 bicycle parking spaces along the existing skate park to the east of the proposed Grand Forks Community Centre and north of the Curling Club parking lot. The City and Regional District will further demonstrate their support of cycling and healthy living and improve mobility.

Table 5 summarizes that the existing parking on site, complemented by new bicycle spaces will address community need. Space that would be taken up for parking can be used for outdoor living space, including gardens and terrace creating indoor-outdoor connectivity.

Table 5: Parking calculation considering existing on site parking, street side parking, and bicycle spaces.

Required Spaces	374
Parking Spaces On Site	141
Roadside Parking Spaces	276
Total Parking Spaces	**417**
Bicycle Spaces	60
Total Persons Serviced (2 persons/vehicle)	**894**

This approach fulfills the Community Plan by p oviding a vibrant Community and emergency operations Centre that:

- Build upon the complete community concept, creating a recreation and social hub with connections to outdoor space;
- Protect the environment and diversity of the community by providing natural garden in lieu of non porous surfaces, and reducing demand on storm drainage from paved areas.
- Manage urban growth by consolidating growth at the recreation hub and limiting the need for additional parking
- Improve mobility by the inclusion of bike spaces and dedicated accessible parking stalls;
- Build a network of open spaces, greenways parks and trails, linking neighborhoods through the inclusion of green space instead of parking lots, and;
- Enhance visual appearance of the entire community through the development of new facility that is defined by envi onmental stewardship in the management of the land.

Figure 6. Recommended distribution of vehicle and bicycle parking spaces.



APPENDIX C:
SUSTAINABLE STRATEGY MATRIX

GOAL	TARGET	STRATEGY	PRIORITY (1, 2, 3)	ORDER OF MAGNITUDE COST (Low, Medium, High)	
				CAPITAL	OPERATIONAL
ENERGY + CARBON					
Reduce energy demand for the building and site for future buildings	Strive for Net-Zero design	Apply Passive Design principles			
		Draw heat and cooling from existing arena and pool			
		Right-size HVAC equipment			
	Use renewable energy sources on site	Install solar photovoltaics to offset energy demand			
		Install a wind tree as a demonstration project to power site lighting			
	Optimize operational maintenance + function	Involve building operations team in design and construction process			
		Consider long-term operational impacts of design			
		Educate building users on energy reduction strategies			
		Evaluate existing buildings on site to identify other energy efficiency opportunities			
Reduce carbon emissions at the building, site and community levels	Reduce GHG emissions by 33% by 2030 (as compared to 2007 levels)	Collect and analyse energy and emissions reductions to track progress			
	Encourage the use of low-emissions, active modes of transportation	Replace City fleet vehicles and equipment with low-emissions options (alternative fuels, electric)			
		Create a corporate bike share program for traveling to meetings			
		Creative incentives for City employees who walk or bike to work			
		Promote carpooling to the building to reduce SOV use			
	Consider biofuels as an alternative fuel source	Use pellet/wood chips to power boiler/furnace			
WATER EFFICIENCY + MANAGEMENT					
Reduce potable water use for the building and site	No irrigation	Use captured rainwater to water food roof			
		Design xeriscaped landscape that requires no irrigation			
	Use high efficiency water fixtures	Select high-efficiency flush and flow fixtures for new building and replace existing building flush and flow fixtures			
	Reuse pool water and arena ice water	Conduct a feasibility study to investigate opportunities			
	Community engagement	Educate the community on water-saving strategies			

GOAL	TARGET	STRATEGY	PRIORITY (1, 2, 3)	ORDER OF MAGNITUDE COST (Low, Medium, High)	
				CAPITAL	OPERATIONAL
Manage stormwater for the site	Maintain pre-runoff conditions on site: ensure stormwater goes back to the ground rather than into the City's limited storm system	Reduce hardscape on site (ashphalt, concrete)			
		Install water-retention features such as a pond or swales			
ECOLOGY + BIOPHILIA					
Incorporate biophilic design	Design the building to incorporate biophilic strategies and connect to the rest of the site	Connect the indoor to the outdoor through courtyards and gardens			
		Bring in natural light through windows and orientation			
		Useable walking space around the outside of the building. Connect to paths, sidewalks and other recreation areas.			
		Ensure the development connects to the skatepark			
Directly connect to nature	Incorporate nature-based elements where possible	Use local forestry industry materials			
		Install a rooftop food-based garden			
		Select deer and other animal-proof plants			
		Encourage a vibrant bee culture by planting pollinator-friendly plants			
		Grow cannabis in a safe and educational way			
Conservation leadership	Be a leader in conservation principles and practice	Make the site a demonstration site for conservation principles aand action			
		Conduct mapping of waterways and other natural elements			
		Naturalize more areas of turf on site and adjacent public lands			
WASTE MANAGEMENT					
Reduce facility waste and divert as much waste as possible	Implement a robust waste management plan	Develop a waste management plan for the entire site, including existing buildings			
		Install accessible and highly visual bins to capture compost, recycling and waste			
		Create a recycling hub on site to collect electronic waste, batteries, etc.			
		Reuse compost on-site			
		Enducate the community on recycling and compost best practices			

GOAL	TARGET	STRATEGY	PRIORITY (1, 2, 3)	ORDER OF MAGNITUDE COST (Low, Medium, High)	
				CAPITAL	OPERATIONAL
Reduce construction waste and divert as much waste as possible	Implement a robust construction waste management plan	Reuse materials wherever possible			
		Minimize waste when cutting and installing products			
		Divert as much construction waste as possible			
BUILDING RESILIENCE					
Apply financially sound decision-making for capital and operational costs	Plan for long-term lifecycle of the building	Design the building structure to last for 50+ years			
	Plan for operations and maintenance	Develop a long term strategy for operations and maintenance (eg capital plan, etc.)			
		Develop a retrofit plan for the existing buildings on site			
	Build in revenue opportunities	Develop building program to support revenue-generation			
Design for flexibility	Design for future	Design infrastructure to support future technology needs			
	Design for flexibility	Design the building to have flexible and adaptable spaces			
Design for durability	Design for emergency	Select materials that are wildfire resilient			
		Install a generator for backup energy in times of emergency			
	Select durable materials	Select natural and local materials that are durable			
	Minimize materials	Specify exposed concrete floors and other strategies to eliminate additional material use and wear (eg carpet or linolueum installed on top of concrete slab)			
HEALTH, WELLNESS + SAFETY					
Diversity and inclusion	Support diversity	Design a building that is sensitive to and representative of cultural diversity			
	Ensure building is accessible by all	Incorporate accessibility and inclusivity throughout the building			
	Support community groups	Create opportunities for entrepreneurs and community groups to showcase activities and/or sell products and services			
Healthy by design	Incorporate healthy design strategies throughout the building and site	Specify healthy materials			
		Design in access to daylight			
		Incorporate nature through greenspaces and materials selection			
		Design in community gathering/social spaces			

GOAL	TARGET	STRATEGY	PRIORITY (1, 2, 3)	ORDER OF MAGNITUDE COST (Low, Medium, High)	
				CAPITAL	OPERATIONAL
Community and occcupant safety	Implement interior and exterior strategies to create safe surroundings	Ensure occupants are comfortable when alone			
		Ensure appropriate levels of lighting to limit anti-social behaviour in less-populated areas both inside and outside of the building			
		Incorporate a robust security system and plan to connect to existing buildings			
		Incorporate accessible wayfinding and building signage to support senior and disabled occupants			

APPENDIX D:
RISK ASSESSMENT WORKSHEET

RISK ASSESSMENT WORKSHOP

Project: **Grand Forks Community Centre Feasibility Study**

Date: Sept 18, 2019

Location: Community Futures Boundary Offices

Project Risk Assessment	Risk Evaluation		Preliminary Risk Mitigation Plan
	Probability	Impact	
PROJECT APPROVAL			
Failure of referendum for project approval and/or borrowing referendum	M	H	-Success is related to cost – ensure right size of project so costs are within reason (<$20,000). -Identify community leaders who can be project champions. -Create strategic marketing package, incorporating lessons learned from swimming pool. -Secure multiple funding sources for greater success and prepare for longer timeline if required to secure funding.
Lack of Council approval	M	H	-Ensure distribution of costs is fair between City + RDKB. -Ensure council is part of the process in all project stages. -Ensure operational costs are managed. -Secure multiple funding sources for greater success. Prepare for longer timeline if required to secure funding.
Lack of RDKB approval	M	H	-Ensure operational costs are managed. -Secure multiple funding sources for greater success.
Council Changing Priorities	L	M	-Ensure project remains on City's strategic plan with continual communication and engagement with council
RDKB Changing Priorities	L	M	-Ensure project remains on RDKB's priorities with continual communication and engagement.
FUNDING			
Limited availability of funding and grants	L	M	-Risk is low as there are currently numerous grants available within the targeted area. -Ensure the project incorporates items required to achieve grant points.

Project Risk Assessment	Risk Evaluation		Preliminary Risk Mitigation Plan
	Probability	Impact	
Timely fundraising (grants & donations)	M	H	-Develop a clear understanding of the grant process and apply as early as possible. Ensure sufficient project resources to manage grant process. -Establish a fundraising plan, goals + objectives. Reach out to champions in the community and local industry early to secure support and funding.
Construction cost escalation	H	M	-Account for cost escalation in first class D Cost estimate with realistic project timeline. Develop a project budget and not only a cost estimate considering construction market information and projected cashflow.
Limited availability of operational funding contribution by City + RDKB	L	✓	-This is tied to the approval process and will be outlined in the Bylaw if referendum is approved.
Funding agreement between Regional District and City	L	L	-Low risk as there is precedence of City and RDKB working together. -Manage expectations and establish an agreement over operating budget.
Lack of budget left for FF&E	H	L	-Establish budget early and keep separate during construction. -Include FF&E budget in early cost estimates.
Lack of quality assurance due to schedule constraints	M	M	-Invest in planning & preparation. Identify potential schedule constraints related to funding and align work and required steps accordingly.
Funding and physical moving process	L	L	-Low risk of moving Rec offices.
RESOURCES			
Availability of qualified **Construction Manager / Contractor**	H	H	-Determine procurement method and if proceeding with Construction Management, engage construction manager early. -Perform market sounding to determine construction market capacity. Market project and ensure it is well known to construction industry.
Availability of **local labour** (Contractors + Trades)	H	H	-Perform market sounding to determine construction market capacity. -Market project and ensure it is well known to construction industry.
Availability of local materials, equipment	M	H	-Foster relationships with local trades throughout the contract. -Connect with local industry (Interfor, Rockwool, etc) and capitalize on existing knowledge.

Project Risk Assessment	Risk Evaluation		Preliminary Risk Mitigation Plan
	Probability	Impact	
Availability of internal Project Management resources	M	L	-Ensure delivery method is suitable for staff capability + capacity.
Bonding levels limit local contractors	L	L	-It's anticipated that bonding levels will be suitable for the contractor required to deliver the project.
Availability of Consultants (field reviews + letter of assurance)	L	L	-Perform market sounding of local capabilities and other available resources.
Available resources for project manager / RDKB / City representative (Owner's team)	M	H	-Select procurement method suited to the City/RDKB's priorities during construction. -Request internal resources as part of council approval for the project.
Limited experience in industry with passive house standards / certification / Step code 4	M	M	-Capitalize on existing knowledge of trades and industry (Rockwool) -Retain experiences consultants and contractors.
SITE			
Undiscovered geotechnical issues (soil viability)	L	M	-- Conduct Geotechnical investigations as early as possible so any required remediation can be scheduled and accounted for in the budget.
Undiscovered site conditions	L	M	- Conduct Geotechnical investigations and environmental analysis to determine water table, soil contaminants and hazardous material assessments as early as possible so any required remediation can be scheduled and accounted for in the budget.
Undiscovered contamination of soil	L	M	- Soil has been tested on site. Ensure test location include all areas impacted by construction and retest again if required. Account for any remediation necessary in budget and schedule.
Impact of water table on construction.	L	L	- Conduct Geotechnical investigations and environmental analysis to determine water table, soil contaminants and hazardous material assessments as early as possible so any required remediation can be scheduled and accounted for in the budget.
Impact of construction on aquifers.	L	H	-Ensure containment protocol and strategies are specified by civil consultant. -Ensure contractor has site management protocol.
High costs for site servicing	L	M	-Ensure site development is included in cost estimate based on existing site servicing and conditions.

Project Risk Assessment	Risk Evaluation		Preliminary Risk Mitigation Plan
	Probability	Impact	
Off site work (e.g. parking, road improvements)	L	L	-Assess cost of off-site work and determine whether works will be included into the current project or defined as a separate project.
Site safety and public accessibility during construction	H	L	-Review contractor's site safety record with a track record of managing site safety and access to the site. -Ensure adequate bonding and insurance .
CLIMATE			
Delay due to seasonal weather/ crews diverted for flood/wildfire/mitigation	L	L	-Allow sufficient time in schedule according to historical weather conditions. Schedule critical processes during favorable months and build contingency into schedule for unforeseen circumstances.
Losses / Damage during construction due to seasonal weather	M	L	-Ensure contractor has insurance to cover losses/damage.
Climate adaptation of the building	H	L	-Build to passive design standards to mitigate effects of climate change on the building. Ensure quality assurance checks during design and construction.
DESIGN			
Accessibility and inclusivity of building	H	L	-Ensure user groups in engaged throughout the process to ensure the building is a place for all. -Design and building to the highest standard of accessibility.
Limited access to pool/arena during construction	H	L	-Phase and locate building to limit disruption to existing buildings. -Clearly communicate revised access plan and manage public expectations.
Flexibility to accommodate future technology needs	L	L	-Hire a qualified design team to ensure technological needs are met.
PROCUREMENT			
Choosing the right procurement method	L	H	-Create a development corporation (between City + RDKB) to develop RFP. -Review risks/advantages and disadvantages of different procurement methods. Review in conjunction with market conditions.
SCHEDULE			
Delay due to required site / utility works	L	H	-Involve BC Hydro early in the process.

Project Risk Assessment	Risk Evaluation		Preliminary Risk Mitigation Plan
	Probability	Impact	
Delay due to Contractor lack of trades experience	M	H	- Perform market sounding of local capabilities and other available resources.
OPERATION			
Failure to achieve joint operating agreement	L	L	- Engage both entities in a collaborative process to develop a joint operating agreement early on in the process, Sign agreement before RFP.
Difficulty with establishing governance strategy and recruiting volunteers (board and staffing)	L	L	- Determine how and by whom the facility is to be run (regional service? Contracted out?) engage the appropriate party.
Difficulty recruiting volunteers (board and staffing)	M	M	- Enhance community engagement and involvement to secure long-term volunteerism.
STAKEHOLDER			
Increasing tax rates for businesses	H	M	- Enhance community engagement and involvement to secure long-term volunteerism.
Opening hours do not meet public expectations	H	L	- Manage expectations with public engagement and stakeholder management
Public expectation of increased service levels	H	L	- Manage expectations with public engagement and stakeholder management
Insufficient project engagement with public and elected officials	L	H	- Host open house and gather public input and feedback. - Manage expectations with public engagement and stakeholder management.
Lack of stakeholder integration (inclusion of health program)	M	L	- Prepare strategy for engaging various use groups. Integrate stakeholder groups into a collaborative design process.
Expectations re: amount of parking	M	L	- Prepare strategy for engaging various use groups. Integrate stakeholder groups into a collaborative design process.
Use of Community Kitchen	H	L	- Concern is risk of under-utilization of kitchen. Create a clear access policy. Design programming to support use.
Seniors Use of Hall (Have recently found new facility)	L	M	- Engage seniors' group throughout the process in a collaborative design process.

APPENDIX E:
CIVIL REPORT

TECHNICAL MEMORANDUM

TO: Shelley Craig, Urban Arts Architecture

FROM: Jeff Tawil, P. Eng. – Jeff.Tawil@wsp.com

SUBJECT: **Grand Forks and Surrounding Area Community Center Feasibility Study – Civil Infrastructure Initial Assessment - Final**

DATE: May 6th, 2020

The following technical memorandum has been prepared by WSP as an initial site servicing feasibility for the proposed Grand Forks Community Center, with the proposed location as shown on the preliminary site plan[1] produced by Urban Arts Architecture.

The design criteria for this review are based on the City of Grand Forks Subdivision, Development & Servicing Bylaw No. 1970 and MMCD Design Guidelines.

EXISTING INFRASTRUCTURE

The proposed location for the Grand Forks Community Center is located between 21st Street and 19th Street, North West of 72nd Ave. The building would be located between the existing Aquatic Center and the Skatepark, and would share a parking lot with the other adjacent community facilities, such as the Curling Rink and the Arena.

The lot is owned by the municipality and its description is as follows:

PID: 027-467-601

Plan: KAP86407

Legal Description: LOT A DISTRICT LOT 380 SIMILKAMEEN DIVISION YALE DISTRICT PLAN KAP86407

The existing infrastructure on the surrounding streets is as follows:

19TH STREET

Watermain: 150mm dia. Asbestos Cement – Age unknown

Watermain: 150mm dia. Ductile Iron, 1982

Sanitary: At the 72nd Street and 19th Street intersection, 250mm Vitrified Clay Tile- Age unknown

[1] Grand Forks Community Center Concept Design – Option 1 Site Plan, Rev G – Issued for concept design review

5-2114 Columbia Avenue
Rossland, BC
Canada V0G 1Y0

T: +1 250 980 5502
F: +1 250 362-5284
wsp.com

Storm: No existing storm system

72ND AVE

Watermain: 150mm dia. Asbestos Cement – Age unknown

Sanitary: 250mm Vitrified Clay Tile- Age unknown

Storm: No existing storm system

Note that there is no storm sewer on either street, as the entire area relies on a high percolation rate from the existing soil. The parking lot of the building complex contains multiple drywells for storm water.

SERVICING OPPORTUNITIES

WSP has reviewed the proposed site layout prepared by UAA and has determined site servicing opportunities for both water services and sanitary services. The overall site servicing layout is appended to the current study – see appendix A.

WATER SERVICE

The building layout identifies the mechanical room on the North-East side of proposed building. We assume the building will be equipped with a sprinkler system for fire protection. We recommend that the water service be provided from 72nd Ave, between the skatepark and the proposed building.

WSP estimates that the required water service for the proposed building will be a 150mm diameter PVC DR-18 pipe, to provide both potable water and fire protection to the building. Note that the sizing of the water services needs to be confirmed with a building mechanical engineer, to confirm the adequacy of the service size.

The existing 150mm diameter asbestos cement watermain on 72nd should have sufficient capacity to provide water service to the proposed building. Existing network capacity is to be confirmed by the City of Grand Forks.

There is a fire hydrant located within 45m of the proposed building location, meeting the requirement for hydrant separation under MMCD Design Guidelines for institutional developments. The hydrant is located at the intersection of 19th Street and 72nd Avenue. The City of Grand Forks has not measured the fire flow from the hydrant. If there is no fire hydrant located within 45m of the proposed buildings Siamese connections, an additional fire hydrant will need to be installed onsite.

As the site is surrounded by other community buildings, it is assumed that the fire hydrant has adequate fire flows. Prior to the design phase, the hydrant should be tested for fire flow and service pressure to confirm the City's water infrastructure can provide adequate fire protection per the Fire Underwriter's Survey (FUS) requirements for the future development. The City should also confirm that the existing system has sufficient capacity and coverage for all existing buildings, and modify the water system as needed.

SANITARY SERVICE

There is an existing sanitary network within the shared parking lot of the lot. The existing sanitary service for the arena is a gravity fed 150mm diameter Vitrified Clay Tile (VCT) pipe and is located between the Aquatic Center and the Skate Park.

The proposed building location for the new Community Center therefore requires the relocation of the Arena Sanitary service, as the existing service is within the proposed buildings footprint.

We recommend intercepting the existing VCT service upstream of the Community center, and diverting it with manholes, to relocate it along the North-East side of the proposed building. The sanitary service will tie in to the existing 250mm VCT sanitary main on 72nd Ave.

This will facilitate construction of the services as the rerouted sewer line will be on the side of the building where the mechanical room is located. The sanitary service would therefore be in the same alleyway as the water service, which will reduce the footprint of the excavation for the tie-ins on 72nd Ave.

The City of Grand Forks Subdivision, Development and Servicing Bylaw requires the minimal size of a sanitary service to a commercial/institutional building to be 150mm diameter service, which should be sufficient in terms of capacity for the proposed Community Center. Service size is to be confirmed by the building mechanical engineer, and existing sanitary network capacity is to be confirmed by the City of Grand Forks.

Serviceability will need to be confirmed once survey information on the existing pipe network is available. If the existing infrastructure elevations don't allow the proposed design, options would need to be considered, such as going through the proposed building.

STORM NETWORK AND SERVICE

As mentioned previously in the report, there is currently no storm sewer pipes in the adjacent streets, as the runoff water is managed with drywells in the complexes parking area. No historical flooding or prolonged ponding has been reported in the existing parking lot with the existing system.

A geotechnical assessment will need to be conducted to evaluate the percolation rate of the existing soil, which will allow adequate management of the storm runoff water.

It is proposed that the proposed building and site layout will have equal or less impermeable surfaces then existing. If this is not the case, additional infiltration systems and potential ponding will be required onsite. In the next phase of design, once the overall site layout and surfaces have been established, discussions will be had with the City of Grand Forks Engineering to confirm the City's requirements relative to the best management practices for runoff water.

OTHER SITE WORKS

The construction of a new building leads to an overall new layout of the site. This involves more demolition of surface features, the construction of a new parking lot and reconfiguration of the existing lot. The overall site layout and surface features will need to be reviewed by the UAA and the City of Grand Forks in the next phase of work.

Note that site servicing for storm sewer, water service and sanitary service for the entire site should be based on future concepts, to reduce potential site servicing conflicts.

SHALLOW UTILITIES

Although an assessment of the shallow utilities has not been included within the scope of this feasibility study it is likely that, due to the rather central location of the proposed development, the local shallow utility companies should be able to service the proposed building. As design progresses the local shallow utility companies would need to be contacted to determine if they have sufficient capacity to provide the required services to the building.

TRANSPORTATION

The transportation impacts of the proposed development have not been included within the scope of this feasibility study. The traffic impacts, accesses and parking requirements may need to be further assessed as the development progresses, but are assumed to be minor.

Pedestrian access will also need to be reviewed in future phases, including wayfinding and overall pedestrian traffic.

ASSUMPTIONS FOR CIVIL WORKS

The following table identifies the proposed services for the Community center building. As mentioned previously, the adequacy of the service diameters is to be confirmed by the mechanical engineer responsible for the building design. Proposed services for new building are as follows:

SERVICE	SIZE AND MATERIAL	LENGTH OF SERVICE (Excluding Manholes, valves, etc.)
Water	150mm dia. PVC DR-18	Approx. 60 meters
Sanitary	150mm dia. PVC DR-35	Approx. 100 meters
Storm	TBD[2]	TBD

- The current study was redacted based on the attached site plans (Appendix A);
- Storm water management is subject to more developed site plan;

Note that the following assumptions were made for the redaction of this site servicing feasibility study, and will have to be re-assessed in future stages of this project. The following additional information will be required:

- Geotechnical Report;
- Phase 1 Environmental Report;
- Higher detailed site plan with future planned works and surfaces;
- Topographic Survey;
- Hydrant flow testing;

[2] Storm servicing is to be discussed with the City of Grand Forks to determine best management practices, as there is no existing storm sewer on the adjacent streets to the proposed building location.

- Existing water system capacity;
- Existing sanitary sewer system capacity;

We trust this report meets your expectations. Please feel free to contact the undersigned should you require additional information.

Jeff Tawil
Project Engineer

WSP Reference: 191-02054-00

APPENDIX A: CIVIL WORKS – CONCEPTUAL MARKED UP SITE SERVICING PLAN

DONALDSON PARK

PINEGROVE MOTEL

CROWSNEST HIGHWAY

ARENA

Water Supply

Abandoned wells?

150mm Clay Sani

100mm Ø

19 STREET

SKATE PARK

Existing Gas

50mm water service

150mm Fire service

AQUATIC CENTRE

200mm Sani

100mm water service

250mm Ø Sani

150mm Ø Water

CURLING CLUB

21 STREET

W 72 AVENUE

DICK BARTLETT PARK

1 LOCATION
Scale: 1:500

Urban arts
Architecture * Urban Design
300 - 111 Water Street
Vancouver, BC,
Canada. V6B 1A7
t: 604-683-5060
e: info@urban-arts.ca

SEAL

Approximate location of existing services.

NOTES

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The Contractor shall check and verify all dimensions and report any discrepancies before proceeding

Do not scale drawings

Prepared by
J. Tawil - WSP.
2019-05-23

Not to Scale

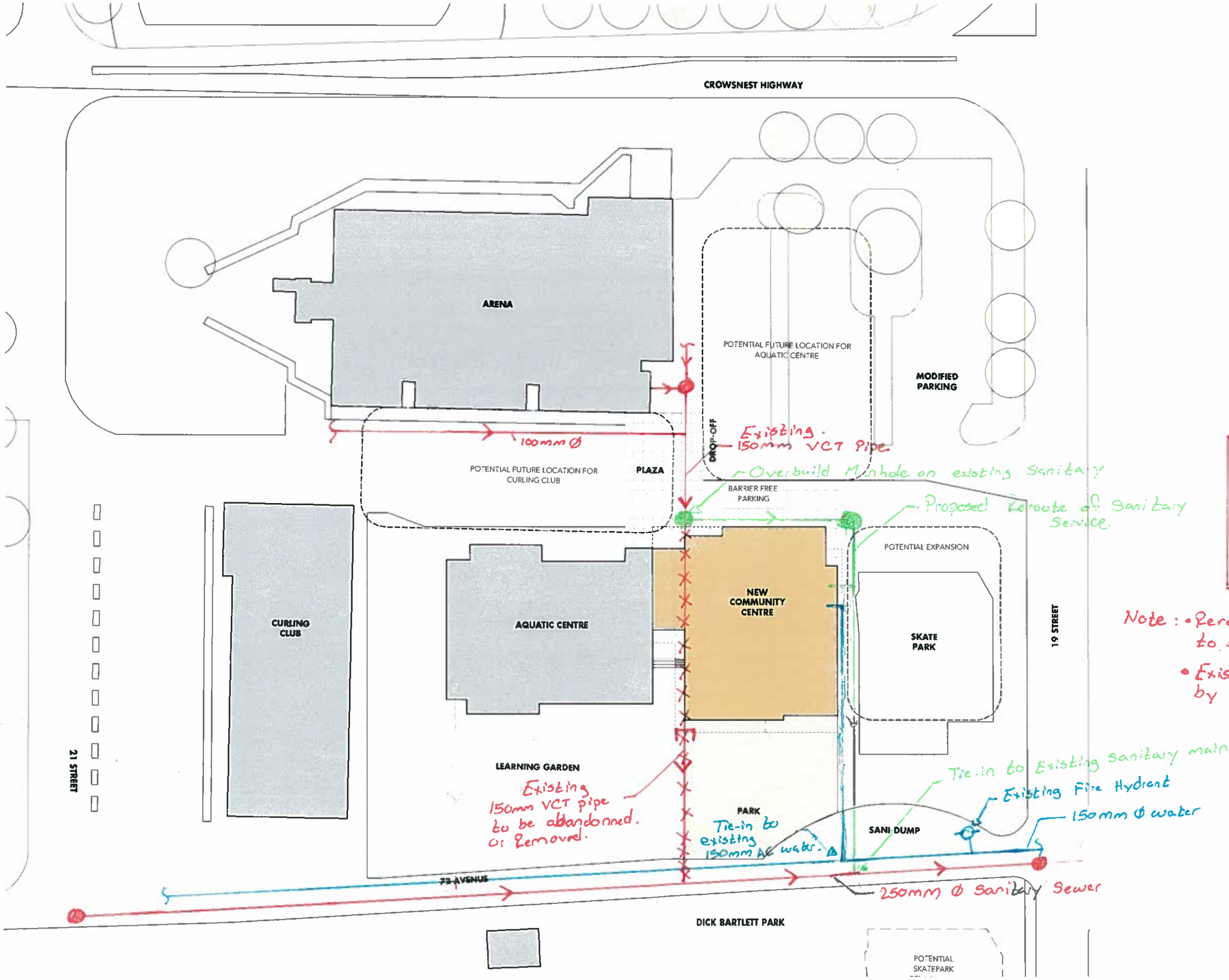
REV DATE ISSUE

GRAND FORKS
Community Centre

LOCATION

N

A-000



1 OPTION 1 SITE PLAN
1/32" = 1'

0' 10' 20' 50' 100'

Urban Arts
Architecture * Urban Design
300 - 111 Water Street
Vancouver, BC,
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SEAL

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The Contractor shall check and verify all dimensions and report any discrepancies before proceeding

Do not scale drawings

2020-02-04
Proposed Site Servicing
Prepared by: Jeff Tawil P.Eng
NTS.

Note: • Rerouting of Sanitary Sewer to be confirmed w/ Survey
• Existing Storm system is manag by dry wells adjacent to the Aren

REV	DATE	ISSUE
G	19-12-19	ISSUED FOR CONCEPT DESIGN REVIEW

GRAND FORKS COMMUNITY CENTRE CONCEPT DESIGN

Option 1 Site Plan

A101

APPENDIX F:
COST BREAKDOWN

GRAND FORKS COMMUNITY CENTRE, GRANDFORKS, BC

CLASS 'C' SCHEMATIC DESIGN ESTIMATE

March 13th, 2020

LTA Consultants Inc.
Professional Quantity Surveyors
& Construction Cost Consultants
905 – 1708 Dolphin Avenue
Kelowna, BC V1Y 9S4
T: (250) 868-8800
F: (250) 868-8819
E: lyndon@ltaconsultants.com
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INTRODUCTION

The City of Grand Forks and the Regional District of Kootenay Boundary (RDKB) is looking at the feasibility of constructing a new Community Centre in Grand Forks, BC.

Urban Arts Architecture has been retained to prepare a schematic design report for the new facility.

The new building comprises a single storey structure with a gross floor area of 13,150ft^2. Programming for the new facility includes the following:

- Public spaces including main entrance lobby, café, and washrooms.
- Community Centre including a large hall, community kitchen, meeting room, hacker/maker space, conference room, washrooms and associated ancillary storage spaces.
- Administration spaces including open office spaces, workroom, meeting room, filing storage spaces, staff room and washrooms.

The design includes for a café with servery/kitchen, utilising standard residential style appliances, for basic food preparation only. Additionally, the design also includes a commercial kitchen component, with commercial equipment, commercial exhaust, commercial appliances and cooler.

According to the details provided the building substructure will utilize conventional/shallow concrete strip and pad footings, with a concrete slab-on-grade. The superstructure of the building incorporates both flat and pitched roof elements. These comprise a mixture of glue laminated members and composite panels at the pitched feature roofs, and traditional wood joists and ply decking at the flat roof. The exterior envelope of the building has been designed using load bearing wood frames walls, with a pre-finished "rain screen" insulated cladding. The building envelope includes extensive fenestrations, which equate to approximately 40% of the overall wall area. Interior finishes will be consistent with a community centre.

Site development work will include site preparation earthworks and the placement of asphalt paving, concrete plaza paving, permeable paving, concrete curbs, and landscaping. Site servicing includes the installation and connection of the sanitary sewer, storm water system, and domestic water. Allowance have also been included for shallow utilities, hydro connection fees, and site lighting.

LTA Consultants Inc. has been retained by Urban Arts Architecture to prepare a class 'C' schematic design estimate.

We have structured this report to include the following:

- Main Summary of Estimated Project Costs (page S1). This summary sets out the total estimated project costs. The summary indicates the project hard costs for the community centre building (Net Building Cost), as well as the site development costs. Project soft costs for design consultants, regulatory costs and equipment are also identified on this

summary. Alternative Price Items #1, #2, #3 and #4 are included at the bottom of the summary;
- Elemental Summary Page Pages A2 – A3;
- Detailed Backup. Please refer to pages A4 – A58 in the back-up to this report for further information.

Please note, no allowances are included in the estimate for Off-site Servicing Costs and Utility Upgrades, Land Costs, Development Cost Charges (if applicable), equipment costs, and financing costs.

Escalation

Over the past twelve months, we have experienced a construction market condition in British Columbia that has resulted in construction costs rising by approximately 10% across public sector projects. As the demand for construction services remains high across residential, commercial and institutional sectors of the market, we can expect costs to continue to rise at the rate of approximately 6% per annum for the foreseeable future. ***Please note, no allowance has been included in this estimate for forward escalation/market condition contingency, as the schedule for the approval process required to move the project into the detailed design, tender and construction phases has not been determined. However, we caution that an allowance of at least 6% per annum should be budgeted for the year, based on the current economic climate. Please refer to our comments under the 'Contingency' and 'Market Conditions' sections of this report for further information.***

DOCUMENTATION & INFORMATION

This class 'C' schematic design estimate is based on the following drawing documentation and information:

- Architectural Drawings A001, A101, Roof Plan, 3D Views, Elevations 1, & Elevations 2; dated December 19th, 2019; Issued for Concept Design Review; prepared by Urban Arts Architecture;
- Outline Specifications, dated February 2020, prepared by Urban Arts Architecture;
- Civil Infrastructure Technical Memorandum dated February 13th, 2020, prepared by WSP.

Budget Estimate

We have reviewed the documentation provided and discussed the project with the Architect to establish the scope and extent of the work.

From the documentation and information provided, we have prepared the enclosed class 'C' schematic design estimate by measuring quantities from the preliminary drawings and applying unit rates to the measured work elements. Where no information was available, we have made reasonable assumptions and stated this in the backup to this report.

Project Procurement and Pricing

Pricing for this project is based upon our opinion of current March 2020 standard construction industry market costs for this size and type of institutional project in Grand Forks, BC. It has been assumed that the project will be procured on a fixed stipulated 'lump sum' contract basis, from a competitive bidding field of at least four competent General Contractors. It has also been assumed that a competitive bidding field of at least three competent sub-contractors for each trade will tender for the work and that there will be no 'sole source' bids.

This class 'C' schematic design estimate attempts to establish a fair and reasonable price for the proposed work and is not intended to be a prediction of 'low bid'.

Contingency Reserves

A Design Contingency Allowance of 10% has been included in this estimate. This allowance is a reserve of funds in the Construction Estimate to cover unforeseen items during the design phase that do not change the project scope. This allowance is ultimately absorbed into the designed and quantified work as more detailed information becomes available and is, therefore, normally reduced to zero at the tender stage.

An Escalation Contingency Allowance of 0% has been included in this estimate. This allowance is a reserve of funds in the Construction Estimate to cover price increases in construction costs due to changes in market conditions between the date the estimate is prepared and the date the tender is called. ***Refer to the comments in the introduction to this report.***

A Construction Contingency of 5% is included in this estimate. This allowance is a reserve of funds in the Construction Estimate to cover unforeseen items during the construction period which will result in Change Orders. This contingency is not intended to cover changes in the scope of the work. The construction contingency is being carried separately by the owner.

Market Conditions

The current Construction Market in British Columbia is very active to the extent that many projects, at the tender stage, are suffering from a lack of interest from General Contractors as well as Sub-trades. Lack of competitive interest will have an effect on the tendered bottom line and will very likely not reflect the estimated value contained in this report.

Level of Accuracy

This is a preliminary class 'C' opinion of probable cost estimate with a level of accuracy of minus 15% to plus 20% 18 times out of 20.

GST

GST has been ***excluded*** from this class 'C' schematic estimate.

Excluded Items

The following items are **specifically excluded** from this class 'C' schematic design estimate:

- GST;
- Land and Associated Purchase Costs;
- Financing Costs;
- Development Cost Charges;
- Course of Construction Insurance;
- Off-site Costs and Utility Upgrade Costs;
- Special Foundations and/or Ground Improvement Work;
- Demolition of Existing Building Structure;
- Building Upgrades to the Existing Aquatic Centre;
- Removal and/or Remediation of Hazardous Materials;
- Loose Furniture, Furnishings and Equipment;
- Fire Suppression System (Refer to Separate Price #1);
- Emergency Generator;
- New Public Art;
- Display Cases/Units;
- Sound, Projection, AV Equipment and Digital Displays;
- Separate Price Items #1, #2, #3, and #4;
- Forward Escalation Contingency Allowance;
- Future Unknown Effects on Materials Pricing due to International Trade Disputes, Embargos and Tariffs;
- Portering, Relocation and Temporary Accommodation.

REPORT QUALIFICATIONS

This report has been prepared for Urban Arts and is for their exclusive use only. The information contained in this report must be treated as confidential and may not be disclosed, reproduced or permitted to be disclosed to any party, without the express written consent of LTA Consultants Inc.

This report is based on the documentation and information provided to us by Urban Arts and its representatives at the date the report is issued. LTA Consultants Inc. does not accept accountability for information that has not been provided to us or was not available at the time of preparing this report.

LTA Consultants Inc. is a firm of Professional Quantity Surveyors and is not qualified to provide planning and design services.

MAIN COST SUMMARY &
ESTIMATE DETAIL

MAIN SUMMARY OF ESTIMATED PROJECT COSTS

Description		Estimated Value	$/m²	$/ft²
		Gross Floor Area	1,221.66	13,150
Net Building Cost (Community Centre)		$6,383,646	$5,225.37	$485
Site Development		$875,356	$716.53	$67
Ancillary Work - Interface with Aquatic Centre		$120,960	$99.01	$9
Design and Construction Contingency Allowances		$1,143,894	$936.34	$87
Escalation Contingency Allowance - **Specifically Excluded** ***(Refer to commentary in Report)***		Excluded	$0.00	$0
ESTIMATED CONSTRUCTION COSTS (Excluding GST)		**$8,523,856**	**$6,977.25**	**$648**
GST	5.00%	Excluded	$0.00	$0
ESTIMATED CONSTRUCTION COSTS (Excluding GST)		**$8,523,856**	**$6,977.25**	**$648**
SOFT COSTS				
Design Fees				
Architects Fees		$426,193	$348.86	$32
Structural Engineers Fees		$81,466	$66.68	$6
Mechanical Engineers Fees		$67,444	$55.21	$5
Electrical Engineers Fees		$51,402	$42.08	$4
Civil Consultants Fees		$65,000	$53.21	$5
Landscaping Consultant Fees		$15,000	$12.28	$1
Geotechnical Engineers Fees		$20,000	$16.37	$2
Miscellaneous Consultants Fees		$85,239	$69.77	$6
Quantity Surveying Fees		$55,405	$45.35	$4
Owners Costs				
Owners Project Management Fees		$255,716	$209.32	$19
Development Cost Charges		Excluded	$0.00	$0
Off-site Costs and Associated Bonding Fees		Excluded	$0.00	$0
Building Permit Fees		$85,239	$69.77	$6
Course of Construction Insurance		Excluded	$0.00	$0
Equipment				
Loose Furniture, Furnishings and Equipment		Excluded	$0.00	$0
ESTIMATED SOFT COSTS (Excluding GST)		**$1,208,102**	**$988.90**	**$92**
GST	5.00%	Excluded	$0.00	$0
ESTIMATED SOFT COSTS (Excluding GST)		**$1,208,102**	**$988.90**	**$92**
TOTAL PROJECT COSTS (Excluding GST)		**$9,731,958**	**$7,966.14**	**$740**

SEPARATE PRICE ITEMS - EXCLUDED FROM THE BASELINE ESTIMATE ABOVE

1) Fire Suppression System	$114,829 (Excl GST)
2) Window Coverings (Excludes Skylights)	$97,353 (Excl GST)
3) Solar panels	$167,651 (Excl GST)
4) Delete Raised Stage	-$100,357 (Excl GST)

Note:
The above noted separately priced item includes an allowance for General Contractors Overhead and Fee, Design Contingency Allowance, and Construction Contingency Allowance, but excludes Escalation Contingency Allowance and GST.

ELEMENTAL COST PLAN

Project Number:	**1931**	**GFA:**	1,222 m^2		
Name:	**Community Centre**	**GFA:**	13,150 ft^2		
Site:	*Grand Foks, BC*				
Date	13-Mar-20				

	Element	Element Quantity		Unit Rate	Element Value	Total	$/m²	$/m²	%
A1	**SUBSTRUCTURE**					**$346,778**		**$283.86**	**4.70%**
A111	Standard Foundations	1,222	m^2	$182.80	$223,380		$182.85		
A112	Special Foundations	0	m^2	$0.00	$0		$0.00		
A12	Basement Excavation	1,222	m^2	$100.98	$123,398		$101.01		
A2	**STRUCTURE**					**$860,122**		**$704.06**	**11.67%**
A21	Lowest Floor Construction	1,222	m^2	$191.61	$234,151		$191.67		
A221	Upper Floor Construction	0	m^2	$0.00	$0		$0.00		
A222	Stair Construction	0	No	$0.00	$0		$0.00		
A23	Roof Construction	1,648	m^2	$379.84	$625,971		$512.39		
A3	**EXTERIOR ENCLOSURE**					**$1,372,494**		**$1,123.46**	**18.61%**
A312	Structural Walls Below Grade	0	m^2	$0.00	$0		$0.00		
A321	Walls Above Grade	389	m^2	$585.72	$227,843		$186.50		
A322	Structural Walls Above Grade	0	m^2	$0.00	$0		$0.00		
A323	Curtain Walls	177	m^2	$1,302.67	$230,572		$188.74		
A331	Windows & Louvers	71	m^2	$1,003.20	$71,227		$58.30		
A332	Glazed Screens	0	m^2	$0.00	$0		$0.00		
A333	Doors	10	lvs	$4,380.00	$43,800		$35.85		
A341	Roofing	1,648	m^2	$333.26	$549,214		$449.56		
A342	Skylights	128	m^2	$1,397.82	$178,921		$146.46		
A35	Projections	271	m^2	$261.69	$70,917		$58.05		
B1	**PARTITIONS**					**$313,337**		**$256.48**	**4.25%**
B111	Fixed Partitions	974	m^2	$168.33	$163,937		$134.19		
B112	Moveable Partitions	2	No	$19,300.00	$38,600		$31.60		
B113	Structural Partitions	0	m^2	$0.00	$0		$0.00		
B12	Doors	42	lvs	$2,638.10	$110,800		$90.70		
B2	**FINISHES**					**$388,706**		**$318.18**	**5.27%**
B21	Floor Finishes	1,168	m^2	$129.54	$151,297		$123.84		
B22	Ceiling Finishes	1,163	m^2	$71.32	$82,945		$67.89		
B23	Wall Finishes	2,360	m^2	$65.45	$154,465		$126.44		
B3	**FITTINGS & EQUIPMENT**					**$461,058**		**$377.40**	**6.25%**
B311	Metals	1,222	m^2	$27.42	$33,503		$27.42		
B312	Millwork	1,222	m^2	$196.36	$239,955		$196.42		
B313	Specialties	1,222	m^2	$30.77	$37,600		$30.78		
B32	Equipment	0	m^2	$0.00	$150,000		$122.78		
B331	Elevators	0	no	$0.00	$0		$0.00		
B332	Escalators & Moving Walkways	0	no	$0.00	$0		$0.00		
B333	Materials Handling Systems	0	no	$0.00	$0		$0.00		
C1	**MECHANICAL**					**$930,265**		**$761.47**	**12.62%**
C11	Plumbing and Drainage	1,222	m^2	$139.96	$171,033		$140.00		
C12	Fire Protection	1,222	m^2	$46.46	$56,775		$46.47		
C13	HVAC	1,222	m^2	$574.84	$702,457		$575.00		
C14	Controls	1,222	m^2	$0.00	$0		$0.00		
C2	**ELECTRICAL**					**$604,724**		**$495.00**	**8.20%**
C21	Service & Distribution	1,222	m^2	$84.98	$103,842		$85.00		
C22	Lighting, Devices & Heating	1,222	m^2	$314.91	$384,824		$315.00		
C23	System & Ancillaries	1,222	m^2	$94.97	$116,058		$95.00		
Z1	**GENERAL REQUIREMENTS & FEES**					**$1,106,161**		**$905.45**	**15.00%**
Z11	General Requirements	12	mths	$52,774.85	$633,298		$518.39		
Z12	Fee	8.00%			$472,863		$387.06		
	Sub-total Net Building Cost					**$6,383,646**		**$5,225.37**	**86.58%**
Z21	Design Contingency Allowance	10.00%				$638,365		$522.54	8.66%
Z22	Escalation Contingency Allowance	0.00%				$0		$0.00	0.00%
Z23	Construction Contingency Allowance	5.00%				$351,101		$287.40	4.76%
	NET BUILDING COST					**$7,373,111**		**$6,035.30**	**100.00%**
D1	**SITE DEVELOPMENT**					**$723,674**		**$592.37**	
D111	Preparation	3,053	m^2	$31.74	$96,915		$79.33		

	Project Number:	**1931**			**GFA:**	1,222 m^2			
	Name:	**Community Centre**			**GFA:**	13,150 ft^2			
	Site:	*Grand Foks, BC*							
	Date	13-Mar-20							
	Element	**Element Quantity**		**Unit Rate**	**Element Value**	**Total**	**$/m²**	**$/m²**	**%**
D112	Hard Surfaces	1,089	m^2	$209.02	$227,624		$186.32		
D113	Improvements	3,053	m^2	$21.03	$64,200		$52.55		
D114	Landscaping	652	m^2	$112.36	$73,260		$59.97		
D12	Mechanical Site Services	3,053	m^2	$35.76	$109,175		$89.37		
D13	Electrical Site Services	3,053	m^2	$49.95	$152,500		$124.83		
Z1	**GENERAL REQUIREMENTS & FEES**					**$151,682**		**$124.16**	
Z11	General Requirements	2	mths	$43,420.43	$86,841		$71.08		
Z12	Fee	8.00%			$64,841		$53.08		
	Sub-total Site Development					**$875,356**		**$716.53**	
Z21	Design Contingency Allowance	10.00%				$87,536		$71.65	
Z22	Escalation Contingency Allowance	0.00%				$0		$0.00	
Z23	Construction Contingency Allowance	5.00%				$48,145		$39.41	
	SITE DEVELOPMENT					**$1,011,036**		**$827.59**	
D2	**ANCILLARY WORK**					**$100,000**		**$81.86**	
D211	Demolition	0	m^2	$0.00	$0		$0.00		
D212	Hazardous Materials	0	m^2	$0.00	$0		$0.00		
D22	Alterations	1,222	m^2	$81.83	$100,000		$81.86		
Z1	**GENERAL REQUIREMENTS & FEES**					**$20,960**		**$17.16**	
Z11	General Requirements	1	mths	$12,000.00	$12,000		$9.82		
Z12	Fee	8.00%			$8,960		$7.33		
	Sub-total Ancillary Work					**$120,960**		**$99.01**	
Z21	Design Contingency Allowance	10.00%				$12,096		$9.90	
Z22	Escalation Contingency Allowance	0.00%				$0		$0.00	
Z23	Construction Contingency Allowance	5.00%				$6,653		$5.45	
	ANCILLARY WORK					**$139,709**		**$114.36**	
	CONSTRUCTION COST (Excluding GST)					**$8,523,856**		**$6,977.25**	
	GST	5.00%				Excluded		$0.00	
	CONSTRUCTION COST (Including GST)					**$8,523,856**		**$6,977.25**	

Code	Description	Quantity	Unit	Rate	Extension
	A1 SUBSTRUCTURE				
	A111 STANDARD FOUNDATIONS				
	Perimeter strip footing assumed; 750mm x 250mm, including excavation, concrete, formwork, reinforcing steel and backfill	134	m	275.06	$36,858.04
	Perimeter strip footing assumed; 750mm x 250mm, including excavation, concrete, formwork, reinforcing steel and backfill; adjacent to existing building	16	m	315.66	$5,050.56
	Interior strip footing assumed 600mm x 250mm, including excavation, concrete, formwork, reinforcing steel and backfill	142	m	159.53	$22,653.26
	Perimeter and Interior Pad Footings; assumed 1500mm x 1500mm x 400mm; including excavation, concrete, formwork, reinforcing steel and backfill	18	No	1,784.92	$32,128.56
	Perimeter foundation walls; 200mm thickness, including concrete, formwork, reinforcing steel and damproofing	160	m^2	362.26	$57,961.60
	Perimeter foundation walls; 200mm thickness, including concrete, formwork, reinforcing steel and damproofing; adjacent to existing	20	m^2	342.61	$6,852.20
	Interior foundation walls; 200mm thickness, including concrete, formwork and reinforcing	142	m^2	279.48	$39,686.16
	Column pedestals; assumed 400mm x 400mm x 900mm; including concrete, formwork and reinforcing steel	18	No	193.29	$3,479.22
	Miscellaneous				
	Miscellaneous foundations	1	l/s	10,000.00	$10,000.00
	Perimeter Drainage				
	Perimeter weeping tile	134	m	65.00	$8,710.00
	TOTAL - A111 STANDARD FOUNDATIONS				**$223,379.60**

Code	Description	Quantity	Unit	Rate	Extension
	A1 SUBSTRUCTURE				
	A112 SPECIAL FOUNDATIONS				
	None anticipated or included				$0.00
	TOTAL - A112 SPECIAL FOUNDATIONS				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	A1 SUBSTRUCTURE				
	A12 BASEMENT EXCAVATION				
	General site clearance	1,222	m^2	5.00	$6,108.32
	Oversite excavation; dispose	1,301	m^3	30.00	$39,030.00
	Structural fill; granular material; compacted in lifts	1,204	m^3	65.00	$78,260.00
	TOTAL - A12 BASEMENT EXCAVATION				**$123,398.32**

Code	Description	Quantity	Unit	Rate	Extension
	A2 STRUCTURE				
	A21 LOWEST FLOOR CONSTRUCTION				
	Slab on grade; 100mm thick concrete, power trowel finish, perimeter formwork, control joints, saw cuts, reinforcing steel, poly vapour barrier and 250mm granular material;	1,222	m^2	140.00	$171,033.07
	Extra over for chair storage area	31	m^2	60.00	$1,860.00
	Extra-over cost for forming ramps	30	m^2	250.00	$7,500.00
	Allowance for forming stage stairs; concrete	1	Flt	3,500.00	$3,500.00
	Under slab insulation	1,222	m^2	35.00	$42,758.27
	Miscellaneous slab formwork allowance	1	l/s	5,000.00	$5,000.00
	Miscellaneous equipment pads	1	l/s	2,500.00	$2,500.00
	TOTAL - A21 LOWEST FLOOR CONSTRUCTION				**$234,151.34**

Code	Description	Quantity	Unit	Rate	Extension
	A2 STRUCTURE				
	A221 UPPER FLOOR CONSTRUCTION				
	Not applicable	0	m^2	-	$0.00
	TOTAL - A221 UPPER FLOOR CONSTRUCTION				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	A2 STRUCTURE				
	A222 STAIR CONSTRUCTION				
	Not applicable				$0.00
	TOTAL - A222 STAIR CONSTRUCTION				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	A2 STRUCTURE				
	A23 ROOF CONSTRUCTION				
	Feature pitched roof structure including 16mm plywood decking, gluelaminated feature beams and trusses, miscellaneous metals exposed decking	855	m^2	500.00	$427,696.46
	Flat roof structure including 16mm plywood decking, pre-engineered wood trusses, miscellaneous beams and columns 16mm type 'X' gypsum board.	793	m^2	250.00	$198,274.70
	TOTAL - A23 ROOF CONSTRUCTION				**$625,971.16**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A312 STRUCTURAL WALLS BELOW GRADE				
	Included with element A111 Standard Foundations	0	m^2	-	$0.00
	TOTAL - A312 STRUCTURAL WALLS BELOW GRADE				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A321 WALLS ABOVE GRADE				
	Typical exterior wall assembly comprising metal siding on rain scree cavity with 150mm thickness mineral fibre insulation, air barrier, 12mm ply sheathing, 38mm x 184mm wood studs,R28 batt insulation and 16mm drywall	389	m^2	580.00	$225,343.16
	Mechanical louvers	1	l/s	2,500.00	$2,500.00
	TOTAL - A321 WALLS ABOVE GRADE				**$227,843.16**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A322 STRUCTURAL WALLS ABOVE GRADE				
	Nil	0	m^2	-	$0.00
	TOTAL - A322 STRUCTURAL WALLS ABOVE GRADE				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A323 CURTAIN WALLS				
	Curtain wall; aluminum frames; triple glazed sealed units; Low E Argon filled; anodised finish; Kawneer or equivalent	177	m^2	1,300.00	$230,572.07
	TOTAL - A323 CURTAIN WALLS				**$230,572.07**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A331 WINDOWS AND LOUVERS				
	Triple glazed sealed units in aluminum window frames; Low E Argon Filled; anodised finish	71	m^2	1,000.00	$71,227.48
	TOTAL - A331 WINDOWS AND LOUVERS				**$71,227.48**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A332 GLAZED SCREENS				
	Refer to Element A333 Doors				$0.00
	TOTAL - A332 GLAZED SCREENS				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A333 DOORS				
	Fully glazed aluminum door and frame; hardware and finish; 914mm x 2440mm				
	Single	2	No	4,200.00	$8,400.00
	Double	3	Pr	8,000.00	$24,000.00
	Hollow metal insulated core door and pressed steel frame; hardware and paint finish				
	Single	2	No	2,200.00	$4,400.00
	Double	0	Pr	4,500.00	$0.00
	Auto assist	1	No	5,000.00	$5,000.00
	Access control	1	l/s	2,000.00	$2,000.00
	TOTAL - A333 DOORS				**$43,800.00**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A341 ROOFING				
	2 Ply SBS Membrane Roofing System; Insulated; R50; sloped insulation package; flat roof structure	793	m^2	315.00	$249,826.12
	Standing seam metal roof finish system; Insulated R50; membrane; pitched roof structure	855	m^2	350.00	$299,387.52
	RCAB - 10 Year	1	l/s	Included	$0.00
	TOTAL - A341 ROOFING				**$549,213.64**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A342 SKYLIGHTS				
	Skylights/Clerestory Glazing; Aluminum Frames; triple glazed sealed units; anodised finish; Kawneer or equivalent	128	m^2	1,400.00	$178,921.07
	TOTAL - A342 SKYLIGHTS				**$178,921.07**

Code	Description	Quantity	Unit	Rate	Extension
	A3 EXTERIOR ENCLOSURE				
	A35 - PROJECTIONS				
	Main entrance sign/artwork - allowance	1	l/s	10,000.00	$10,000.00
	Wood soffit; T&G Pine; Clear Finish - allowance	271	m^2	225.00	$60,916.67
	TOTAL - A35 - PROJECTIONS				**$70,916.67**

Code	Description	Quantity	Unit	Rate	Extension
	B1 PARTITIONS & DOORS				
	B111 FIXED PARTITIONS				
	Typical Interior Partitions; P1; comprising;				
	16mm Gypsum board	462	m^2	45.00	$20,779.44
	Wood Studs	462	m^2	20.00	$9,235.31
	Framing Labour	462	m^2	35.00	$16,161.79
	16mm Gypsum board	462	m^2	45.00	$20,779.44
	Typical Interior Partitions; P2; comprising;				
	16mm Gypsum board	512	m^2	45.00	$23,046.90
	Wood Studs	512	m^2	20.00	$10,243.07
	Framing Labour	512	m^2	35.00	$17,925.37
	Acoustic Batt; Roxul	512	m^2	18.00	$9,218.76
	16mm Gypsum board	512	m^2	45.00	$23,046.90
	Glazed partitions	17	m^2	500.00	$8,500.00
	Vinyl graphic - allowance	1	l/s	5,000.00	$5,000.00
	Calculations:				
	Total face area of Fixed Partition Walls	974	m^2		
	TOTAL - B111 FIXED PARTITIONS				**$163,936.99**

Code	Description	Quantity	Unit	Rate	Extension
	B1 PARTITIONS & DOORS				
	B112 MOVEABLE PARTITIONS				
	Movable partition wall; insulated (Community Hall)	39	m^2	900.00	$35,100.00
	Miscellaneous Counter Shutter - allowance	1	No	3,500.00	$3,500.00
	TOTAL - B112 MOVEABLE PARTITIONS				**$38,600.00**

Code	Description	Quantity	Unit	Rate	Extension
	B1 PARTITIONS & DOORS				
	B113 STRUCTURAL PARTITIONS				
	Nil	0	m^2	-	$0.00
	TOTAL - B113 STRUCTURAL PARTITIONS				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	B1 PARTITIONS & DOORS				
	B12 DOORS				
	Aluminum Doors				
	Metro Aluminum sliding door and frame; double glazed w/ gaskets for acoustic separation; hardware and finish; 1390mm x 2134mm - Community Hall				
	Single	1	No	4,000.00	$4,000.00
	Double	0	Pr	-	$0.00
	Fully glazed aluminum door and frame; hardware and finish; 914mm x 2134mm - Boardroom, Meeting room				
	Single	2	No	4,000.00	$8,000.00
	Double	0	Pr	-	$0.00
	Fully glazed aluminum door and frame; sidelite; 570mm x 2134mm; hardware and finish; 914mm x 2134mm - Vestibule				
	Single	1	No	4,000.00	$4,000.00
	Double	0	Pr	-	$0.00
	Fully glazed aluminum door and frame; sidelites; 2410mm x 2134mm, 570mm x 2134mm; hardware and finish; 914mm x 2134mm - Vestibule				
	Single	0	No	-	$0.00
	Double	1	Pr	10,000.00	$10,000.00
	Wood Doors				
	Solid core premium grade wood sliding door w/ overhead sliding track; double glazed; hardware and finish; 2630mm x 2134mm				
	Single	0	No	-	$0.00
	Double	1	Pr	8,000.00	$8,000.00
	Solid core premium grade wood door and metal frame; hardware and finish; 914mm x 2143mm - storage rooms, kitchen, bar				
	Single	5	No	2,000.00	$10,000.00
	Double	2	Pr	3,800.00	$7,600.00
	Solid core premium grade wood door and frame; hardware and finish; 914mm x 2143mm				
	Single	6	No	2,000.00	$12,000.00
	Double	0	Pr	-	$0.00
	Solid core premium grade wood door and frame; hardware and finish; 820mm x 2143mm				
	Single	12	No	1,900.00	$22,800.00
	Double	0	Pr	-	$0.00
	Wood pocket door and frame; hardware and finish; 914mm x 2032mm	1	No	1,800.00	$1,800.00
	Metal Doors				
	Hollow insulated core metal door and frame; hardware and finish; 914mm x 2134mm				
	Single	4	No	1,600.00	$6,400.00

Code	Description	Quantity	Unit	Rate	Extension
	Double	1	Pr	3,200.00	$3,200.00
	Misc				
	Auto assist	1	No	5,000.00	$5,000.00
	Access control hardware - allowance	1	l/s	8,000.00	$8,000.00
	TOTAL - B12 DOORS				**$110,800.00**

Code	Description	Quantity	Unit	Rate	Extension
	B2 FINISHES				
	B21 FLOOR FINISHES				
	Resilient Sheet Flooring	181	m^2	75.00	$13,571.29
	Cushioned Resilient Sheet Flooring - Community Hall	397	m^2	150.00	$59,492.32
	Ceramic tile	205	m^2	170.00	$34,843.39
	Sealed/Polished Concrete	385	m^2	65.00	$25,044.60
	102mm high Rubber Base	400	m	10.00	$3,995.64
	102mm high Wood Base	195	m	15.00	$2,932.38
	Ceramic Tile Base	120	m	45.00	$5,417.47
	Pedi-mats - allowance	1	l/s	6,000.00	$6,000.00
	TOTAL - B21 FLOOR FINISHES				**$151,297.07**

Code	Description	Quantity	Unit	Rate	Extension
	B2 FINISHES				
	B22 CEILING FINISHES				
	Drywall Ceilings; paint finish	212	m^2	120.00	$25,419.98
	Suspended acoustic ceiling tile	213	m^2	75.00	$15,976.66
	Exposed ceiling stain finish (Vaulted Feature Ceiling)	691	m^2	25.00	$17,273.23
	Dropped wood feature ceiling - Café	48	m^2	300.00	$14,274.73
	Bulkheads and Features	1	l/s	10,000.00	$10,000.00
	TOTAL - B22 CEILING FINISHES				**$82,944.60**

Code	Description	Quantity	Unit	Rate	Extension
	B2 FINISHES				
	B23 WALL FINISHES				
	Paint walls	2,360	m^2	20.00	$47,200.00
	High impact wall protection (Community Kitchen)	123	m^2	150.00	$18,450.00
	Ceramic wall tile; assumed 1200mm high - washrooms and shower	155	m^2	150.00	$23,309.04
	Ceramic tile and miscellaneous backsplashes	1	l/s	12,000.00	$12,000.00
	Acoustic Fabric wall paneling - Community Hall; above 10'	150	m^2	250.00	$37,378.54
	Back painted glass backsplash	18	m	200.00	$3,627.15
	MDF wall paneling w/ wood veneer	1	l/s	5,000.00	$5,000.00
	Miscellaneous finishes - allowance	1	l/s	7,500.00	$7,500.00
	TOTAL - B23 WALL FINISHES				**$154,464.73**

Code	Description	Quantity	Unit	Rate	Extension
	B3 FITTINGS & EQUIPMENT				
	B311 METALS				
	Miscellaneous metals allowance	1,222	m^2	25.00	$30,552.86
	Allowance for adjustable metal shelving on metal standards; Storage Rooms - **Assumed Equipment Budget**	1	l/s	Excluded	$0.00
	Roof access ladder	1	No	2,000.00	$2,000.00
	Roof access hatch	1	No	950.00	$950.00
	TOTAL - B311 FITTINGS & EQUIPMENT				**$33,502.86**

Code	Description	Quantity	Unit	Rate	Extension
	B3 FITTINGS & EQUIPMENT				
	B312 MILLWORK				
	Millwork (AWMAC)				
	Reception				
	Reception Desk; plastic laminate	5.2	m	3,000.00	$15,581.02
	Café				
	Cafe Countertop; plastic laminate	10.2	m	1,400.00	$14,296.26
	Staff Room				
	Lower Cabinets and countertop w/ sink insert	2.9	m	1,600.00	$4,641.45
	Work/Copy Room				
	Lower Cabinets and countertop	4.0	m	1,600.00	$6,400.53
	Hacker Space				
	Lower Cabinets and countertop w/ sink insert	7.6	m	1,600.00	$12,206.97
	Upper Cabinets	6.2	m	1,200.00	$7,399.19
	Boardroom				
	Medical storage cabinets and countertop w/ sink insert	7.6	m	1,600.00	$12,168.78
	Washroom				
	Vanity	5.5	m	1,200.00	$6,611.12
	Bar/Servery				
	Bar Countertop	6.5	m	3,500.00	$22,852.63
	Community Kitchen				
	SS Countertops	21.4	m	3,500.00	$74,900.00
	Pantry Shelving	12.0	m	1,200.00	$14,400.00
	Allowance for miscellaneous millwork	1	l/s	12,500.00	$12,500.00
	AWMAC Standards Guarantee	1	l/s	3,000.00	$3,000.00
	Sub-total Millwork	**$206,958**			
	Miscellaneous				
	Miscellaneous finish carpentry - allowance	1,222	m^2	17.00	$20,775.94
	Miscellaneous rough carpentry	1,222	m^2	10.00	$12,221.14
	TOTAL - B312 MILLWORK				**$239,955.03**

Code	Description	Quantity	Unit	Rate	Extension
	B3 FITTINGS & EQUIPMENT				
	B313 SPECIALTIES				
	Washroom Accessories Allowance				
	Paper towel dispenser/disposal	4	No	300.00	$1,200.00
	Toilet paper dispenser	15	No	75.00	$1,125.00
	Wall mounted soap dispenser	4	No	75.00	$300.00
	H/C Grab bars	15	No	250.00	$3,750.00
	600mm x 900mm Mirror; SS frame	4	No	200.00	$800.00
	Sanitary napkin disposal/dispenser	1	No	750.00	$750.00
	Sanitary napkin disposal/dispenser	15	No	750.00	$750.00
	Baby Change Table	1	No	750.00	$750.00
	Hand drier	6	No	2,200.00	$3,600.00
	Coat Hooks; brushed SS	15	No	25.00	$375.00
	Miscellaneous accessories	1	l/s	1,200.00	$1,200.00
	Corner Guards; SS	19	No	200.00	$3,800.00
	Allowance for Presentation wall writing surface; back painted glass wall with pen rail - meeting room, conference room, and Hacker Space	3	No	1,500.00	$4,500.00
	Glazed display cases - Lobby - **Assumed Equipment Budget**	4	No	Excluded	$0.00
	Tackboards, whiteboards and noticeboards - allowance	1	l/s	2,000.00	$2,000.00
	Signage (Code Related)	52	No	100.00	$5,200.00
	Signage	1	l/s	7,500.00	$7,500.00
	Window coverings - **Refer to Separate Price**	248	m^2	Excluded	$0.00
	TOTAL - B313 SPECIALTIES				**$37,600.00**

Code	Description	Quantity	Unit	Rate	Extension
	B3 FITTINGS & EQUIPMENT				
	B32 EQUIPMENT				
	Commercial Kitchen Equipment, Small Ware and Appliances - **assumed Furniture, Fixtures and Equipment**	1	l/s	150,000.00	$150,000.00
	Furniture - **assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	Office Desks, Chairs, Filing Cabinets and Equipment - **Assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	Lockers; 2 tier - **Assumed Equipment Budget**	1	l/s	Excluded	$0.00
	TV/Monitor Brackets - **assumed Furniture, Fixtures and Equipment Budget**	1	l/s	Excluded	$0.00
	Miscellaneous Kitchen appliances **- assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	Photocopier **- assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	Projection equipment and screens - **assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	Computer Equipment - **assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	Community Centre Signage - **assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	Chair Trolleys - **assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	Cafeteria Equipment and Furnishings - **assumed Furniture, Fixtures and Equipment**	1	l/s	Excluded	$0.00
	TOTAL - B32 EQUIPMENT				**$150,000.00**

Code	Description	Quantity	Unit	Rate	Extension
	B3 FITTINGS & EQUIPMENT				
	B331 ELEVATORS				
	Nil				$0.00
	TOTAL - B331 ELEVATORS				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	B3 FITTINGS & EQUIPMENT				
	B332 ESCALATORS & MOVING WALKWAYS				
	Nil	0	No	-	$0.00
	TOTAL - B332 ESCALATORS & MOVING WALKWAYS				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	B3 FITTINGS & EQUIPMENT				
	B333 MATERIAL HANDLING SYSTEM				
	Nil	0	No	-	$0.00
	TOTAL - B333 MATERIAL HANDLING SYSTEM				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	C1 MECHANICAL				
	C11 PLUMBING & DRAINAGE				
	Plumbing and Drainage	1,222	m^2	140.00	$171,033.07
	TOTAL - C11 PLUMBING & DRAINAGE				**$171,033.07**

Code	Description	Quantity	Unit	Rate	Extension
	C1 MECHANICAL				
	C12 FIRE PROTECTION				
	Sprinklers heads/piping-office - **Refer to Separate Price #1**	1,222	m^2	45.00	$54,974.92
	Fire Extinguishers	6	No	300.00	$1,800.00
	TOTAL - C12 FIRE PROTECTION				**$56,774.92**

Code	Description	Quantity	Unit	Rate	Extension
	C1 MECHANICAL				
	C13 HVAC				
	HVAC - allowance	1,222	m^2	575.00	$702,457.26
	TOTAL - C13 HVAC				**$702,457.26**

Code	Description	Quantity	Unit	Rate	Extension
	C1 MECHANICAL				
	C14 CONTROLS				
	DDC Controls - Included with HVAC	1,222	m^2	Included	$0.00
	TOTAL - C14 CONTROLS				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	C2 ELECTRICAL				
	C21 SERVICE & DISTRIBUTION				
	Service and Distribution (Panels, Feeders and Motor Controls)	1,222	m^2	85.00	$103,841.51
	Emergency Generator	1	l/s	Excluded	$0.00
	TOTAL - C21 SERVICE & DISTRIBUTION				**$103,841.51**

Code	Description	Quantity	Unit	Rate	Extension
	C2 ELECTRICAL				
	C22 LIGHTING, DEVICES & HEATING				
	Lighting	1,222	m^2	245.00	$299,307.88
	Power	1,222	m^2	70.00	$85,516.54
	TOTAL - C22 LIGHTING, DEVICES & HEATING				**$384,824.41**

Code	Description	Quantity	Unit	Rate	Extension
	C2 ELECTRICAL				
	C23 SYSTEMS & ANCILLARIES				
	Systems (Fire Alarm, Data and Tel, CATV, Security, AV rough-in	1,222	m^2	95.00	$116,058.16
	TOTAL - C23 SYSTEMS & ANCILLARIES				**$116,058.16**

Code	Description	Quantity	Unit	Rate	Extension
	Z1 GENERAL REQUIREMENTS & FEES				
	Z11 GENERAL REQUIREMENTS				
	General Requirements	12.0%			$633,298.22
	TOTAL - Z11 GENERAL REQUIREMENTS				**$633,298.22**

Code	Description	Quantity	Unit	Rate	Extension
	D1 SITE DEVELOPMENT				
	D111 PREPARATION				
	General site clearance	3,055	m^2	3.00	$9,165.00
	Break out existing hard paving	826	m^2	25.00	$20,650.00
	Oversite Leveling and Grading/Site Preparation	3,055	m^2	20.00	$61,100.00
	Filling to make up levels	60	m^3	75.00	$4,500.00
	Miscellaneous site demolition	1	l/s	1,500.00	$1,500.00
	TOTAL - D111 PREPARATION				**$96,915.00**

Code	Description	Quantity	Unit	Rate	Extension
	D1 SITE DEVELOPMENT				
	D112 HARD SURFACES				
	Plaza Paving	933	m^2	170.00	$158,610.00
	Extra Over Cost for forming steps	1	l/s	3,000.00	$3,000.00
	Permeable paving	87	m^2	160.00	$13,928.85
	Miscellaneous patching/new paving	1	l/s	35,000.00	$35,000.00
	Asphalt paving (3 Handicap Stalls)	69	m^2	110.00	$7,634.72
	Feathering to existing	12	m	100.00	$1,173.47
	Curb	23	m	90.00	$2,076.80
	Symbols and line painting	1	l/s	1,200.00	$1,200.00
	Miscellaneous pads and bases	1	l/s	5,000.00	$5,000.00
	TOTAL - D112 HARD SURFACES				**$227,623.84**

Code	Description	Quantity	Unit	Rate	Extension
	D1 SITE DEVELOPMENT				
	D113 IMPROVEMENTS				
	Built in benches and furnishings - Allowance	1	l/s	30,000.00	$30,000.00
	Miscellaneous retaining walls	1	l/s	5,000.00	$5,000.00
	Miscellaneous railings	1	l/s	5,400.00	$5,400.00
	Bollards	11	No	800.00	$8,800.00
	Site Signage - allowance	1	l/s	15,000.00	$15,000.00
	Public Art - **Specifically Excluded**	1	l/s	Excluded	$0.00
	TOTAL - D113 IMPROVEMENTS				**$64,200.00**

Code	Description	Quantity	Unit	Rate	Extension
	D1 SITE DEVELOPMENT				
	D114 LANDSCAPING				
	Xeroscaping	652	m^2	105.00	$68,460.00
	Trees	6	No	800.00	$4,800.00
	TOTAL - D114 LANDSCAPING				**$73,260.00**

Code	Description	Quantity	Unit	Rate	Extension
	D1 SITE DEVELOPMENT				
	D12 MECHANICAL SITE SERVICES				
	On-Site Services				
	Domestic Water				
	150mm Water Main	60	m	200.00	$12,000.00
	Connection	1	l/s	2,000.00	$2,000.00
	Hydrant - **Existing**	0	No	7,500.00	$0.00
	Patching paving	1	l/s	2,500.00	$2,500.00
	Sanitary				
	200mm Sanitary	104	m	250.00	$26,000.00
	Manhole	2	No	6,000.00	$12,000.00
	Connection	1	l/s	2,000.00	$2,000.00
	Patching asphalt	1	l/s	2,500.00	$2,500.00
	Abandon existing service	69	m	75.00	$5,175.00
	Storm Sewer				
	Storm Sewer - Allowance	1	l/s	40,000.00	$40,000.00
	Misc				
	Gas - allowance	1	l/s	5,000.00	$5,000.00
	Off-Site Service Upgrades				
	Off-site service upgrades - **Specifically Excluded**				
	TOTAL - D12 MECHANICAL SITE SERVICES				**$109,175.00**

Code	Description	Quantity	Unit	Rate	Extension
	D1 SITE DEVELOPMENT				
	D13 ELECTRICAL SITE SERVICES				
	On-Site Services				
	Hydro Service Utility Connection Fee - Allowance	1	l/s	75,000.00	$75,000.00
	Emergency Generator	1	l/s	Excluded	$0.00
	Site electrical allowance	1	l/s	25,000.00	$25,000.00
	Site lighting allowance	1	l/s	50,000.00	$50,000.00
	Telus/Cable - allowance	1	l/s	2,500.00	$2,500.00
	Off-Site Service Upgrades				
	Off-site service upgrades - **Specifically Excluded**				
	TOTAL - D13 ELECTRICAL SITE SERVICES				**$152,500.00**

Code	Description	Quantity	Unit	Rate	Extension
	Z1 GENERAL REQUIREMENTS & FEES				
	Z11 GENERAL REQUIREMENTS				
	General Requirements	12.0%			$86,840.86
	TOTAL - Z11 GENERAL REQUIREMENTS				**$86,840.86**

Code	Description	Quantity	Unit	Rate	Extension
	D2 ANCILLARY WORK				
	D211 DEMOLITION				
	Assumed not required	1	l/s	Excluded	$0.00
	TOTAL - D211 DEMOLITION				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	D2 ANCILLARY WORK				
	D212 HAZARDOUS MATERIALS				
	Asbestos Abatement - **Specifically Excluded**	1	l/s	Excluded	$0.00
	TOTAL - D212 HAZARDOUS MATERIALS				**$0.00**

Code	Description	Quantity	Unit	Rate	Extension
	D2 ANCILLARY WORK				
	D22 ALTERATIONS				
	Allowance for Interfacing New Community Centre with existing Aquatic Centre Building	1	l/s	100,000.00	$100,000.00
	TOTAL - D22 ALTERATIONS				**$100,000.00**

Code	Description	Quantity	Unit	Rate	Extension
	Z1 GENERAL REQUIREMENTS & FEES				
	Z11 GENERAL REQUIREMENTS				
	General Requirements	12.0%			$12,000.00
	TOTAL - Z11 GENERAL REQUIREMENTS				**$12,000.00**

Code	Description	Quantity	Unit	Rate	Extension
	SEPARATE PRICE #1				
	Fire Protection System				
	Fire Suppression System	1,222	m^2	55.00	$67,191.56
	Water service/fire line - allowance	1	l/s	15,000.00	$15,000.00
	Sub-total				**$82,191.56**
	General Contractors Overhead	12.0%			$9,862.99
	General Contractors Fee	8.0%			$7,364.36
	Sub-total				**$99,418.92**
	Design Contingency Allowance	10.0%			$9,941.89
	Escalation Contingency Allowance - **Excluded**	0.0%			Excluded
	Construction Contingency Allowance	5.0%			$5,468.04
	TOTAL - SEPARATE PRICE #1				**$114,828.85**

Code	Description	Quantity	Unit	Rate	Extension
	SEPARATE PRICE #2				
	Window Coverings				
	Window coverings - automatic operation	232	m^2	300.00	$69,682.92
	Sub-total				**$69,682.92**
	General Contractors Overhead	12.0%			$8,361.95
	General Contractors Fee	8.0%			$6,243.59
	Sub-total				**$84,288.46**
	Design Contingency Allowance	10.0%			$8,428.85
	Escalation Contingency Allowance - **Excluded**	0.0%			Excluded
	Construction Contingency Allowance	5.0%			$4,635.87
	TOTAL - SEPARATE PRICE #2				**$97,353.17**

Code	Description	Quantity	Unit	Rate	Extension
	SEPARATE PRICE #3				
	Solar Panels				
	Solar Panels - allowance	1	l/s	120,000.00	$120,000.00
	Sub-total				**$120,000.00**
	General Contractors Overhead	12.0%			$14,400.00
	General Contractors Fee	8.0%			$10,752.00
	Sub-total				**$145,152.00**
	Design Contingency Allowance	10.0%			$14,515.20
	Escalation Contingency Allowance - **Excluded**	0.0%			Excluded
	Construction Contingency Allowance	5.0%			$7,983.36
	TOTAL - SEPARATE PRICE #3				**$167,650.56**

Code	Description	Quantity	Unit	Rate	Extension
	SEPARATE PRICE #4				
	Delete Raised Stage				
	Interior strip footing assumed 600mm x 250mm, including excavation, concrete, formwork, reinforcing steel and backfill	-52	m	159.53	-$8,295.56
	Interior foundation walls; 200mm thickness, including concrete, formwork and reinforcing	-62	m^2	279.48	-$17,327.76
	Oversite excavation; dispose	-227	m^3	30.00	-$6,810.00
	Structural fill; granular material; compacted in lifts	-360	m^3	65.00	-$23,400.00
	Extra-over cost for forming ramps	-30	m^2	250.00	-$7,500.00
	Allowance for forming stage stairs; concrete	-1	Flt	3,500.00	-$3,500.00
	Miscellaneous slab formwork allowance	-1	l/s	5,000.00	-$5,000.00
	Sub-total				**-$71,833.32**
	General Contractors Overhead	12.0%			-$8,620.00
	General Contractors Fee	8.0%			-$6,436.27
	Sub-total				**-$86,889.58**
	Design Contingency Allowance	10.0%			-$8,688.96
	Escalation Contingency Allowance - **Excluded**	0.0%			Excluded
	Construction Contingency Allowance	5.0%			-$4,778.93
	TOTAL - SEPARATE PRICE #4				**-$100,357.47**