

PEACHLAND HUB SOCIETY
PEACHLAND HUB

BUILDING ASSESSMENT REPORT



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EXECUTIVE SUMMARY

The goal of this Building Assessment Report is to provide a summary of the existing physical conditions of the existing Seniors Activity Building, and to identify areas that require upgrade and/or are in non-conformance with current building code requirements. Upgrades and existing non-conformance conditions identified will be reviewed in the context of any proposed alteration or addition to the existing building as part of the Concept Design Phase.

SCOPE OF WORK

Urban Arts Architecture (UAA) has been contracted by the Peachland Hub to prepare a Building Assessment Report as part of Schematic Design for the creation of the new Hub facility. This Report provides a preliminary assessment of the existing building and site conditions to help inform the design and planning decisions through the Concept Design and Schematic Design stages of the project.

This assessment builds upon the following documents provided for reference by the Peachland Hub Society :

- Assessment Report, April 6, 2016
- Hazardous and Regulated Materials Assessment Report, July 16, 2015, Peake Environmental Ltd.
- Business Case - Peachland Hub, April 1, 2022, Peachland Hub Society
- Existing Drawings (1975, 1978, 1987 Additions)

FUNCTIONAL CHALLENGES

During the walkthrough, the following challenges were noted by the team and the steering committee members:

- Circulation difficulties as all spaces are accessed from the Hall;
- Lack of multi-purpose rooms;
- Inadequate power and difficulty in

- adding more due to concrete block walls;
- Low ceiling height in the main hall area (less than 10')
- Hidden entry not visible from Beach Ave;
- Lack of indoor-outdoor connectivity;
- Inaccessible stage;
- No acoustic separation or privacy, as need to access all spaces from the Hall;
- Lack of accessibility to the washrooms;
- Dis-orientation upon entering due to two halls;
- Undersized kitchen space;
- Inadequate office space;
- Difficulty in controlling heating within the space;

Following is a summary from each for each of the disciplines. Refer to the Appendices for full reports.

ARCHITECTURAL

The building is comprised of three wings, and constructed in three phases. Many of the building components have exceeded or are approaching the end of their useful life. The building envelope is performing poorly, with little insulation and would not meet today's energy code.

The building is also located within the 2'-0" freeboard flood zone. If retained, in this location, consideration should be given to exterior preventative measures to mitigate flood risk.

From a functional standpoint, the spaces present a number of challenges limiting the use and rental capacity of the Hall.

There is significant work required across the disciplines to bring the building up to today's standards with regards to energy, accessibility and function.

STRUCTURAL

No significant signs of structural neglect or distress were observed, however there are some slight signs of settlement between the original building and the 1987 addition. If the existing building is to be retained, then structural alterations should be kept to a minimum to avoid triggering a significant structural upgrade. Alterations to the roof loads and removal of blockwork walls would be particularly onerous as these would have significant effects to the lateral system.

ELECTRICAL

Electrical service to the site is limited. Building electrification may require the incoming service to be upgraded as the existing heating is via gas. The majority of the electrical systems in the building are dated and securing spare parts will be difficult. If the existing building is retained, most of the existing building systems would require replacement.

MECHANICAL

The following summarizes the condition and recommendations for the mechanical systems:

HVAC SYSTEM:

There are two existing roof top units providing heating, cooling, and ventilation. One unit is at end of life (~20 years old). There is a newer 7.5 ton gas fired roof top unit installed in 2021. Removing gas from the project would not allow reuse of this roof top unit. Furthermore, there are only MERV 8 filters in the unit and best practise is to provide minimum MERV 13 filters. For wildfire mitigation it is recommended to use minimum MERV 14 and/or provide a section for carbon filters to be inserted during smoke events.

PLUMBING SYSTEM:

There is an existing 2 or 2 ½" incoming water service. This service will need to be upgraded to minimum 4" service to accommodate washrooms, kitchen, and for adding a code required sprinkler system throughout. It is recommended to centralize the domestic hot water generation and provide new tanks.

FIRE PROTECTION SYSTEM:

The building has a single stage fire alarm system installation. The current control panel is an Edwards Fire Shield. Only two zones are being used, one for the main floor and one for the kitchen fire suppression system. The building is not sprinklered and there are fire alarm detectors throughout.

LANDSCAPE

Through the site visit and discussion with the community the following theme emerged - make the building responsive to its beautiful setting by opening it up to both the expansive and more intimate views. This means blurring the boundary of interior and exterior to enhance the presence of the building in the community. While attending the meeting, a reunion was occurring outside. The necessity for accommodating this kind of function played out in front of the meeting attendees. Tied to this is the approach to the building and its sense of welcoming. One group mentioned an outdoor stage. With the ball field as a plane for the building to sit on, any raised terrace on the south side of the building could become a stage for people sitting on the ball field. This all relates to the building's interface with the exterior and how people interact at that narrow zone.

Another recurring theme was around the community gardens currently at the Senior's Centre to be relocated. These might be associated in conjunction with the food bank annex to that will sit at the back of HUB. Integrating the two buildings

through landscape brings the ability to break down barriers and provide support to those needing it; in part this is a reference to the mental health support services that will also be housed in the expanded HUB. These are delicate interactions fraught with emotion and sometimes crisis and a garden setting can be a calming and welcoming experience.

The last principal was the prominence and importance of the ball field. With the opening up of the building to the views of the park, the risk of broken windows rises. Add in the possibility of a populated multi-use terrace and the necessity for screening becomes apparent. This could be a band of trees doing double duty as screening and shading elements in the summer. The score board may have to be relocated.

SUSTAINABILITY FRAMEWORK

Project Goals: The team has identified funding opportunities as the primary driver of the sustainable goals for the project. Two funding opportunities were identified as potential sources of funding with goals for sustainable design.

- Green and Inclusive Community Buildings (GICB) Grant
- New buildings must be Zero Carbon through the CaGBC's Zero Carbon Building Standard
- Buildings must identify and mitigate medium to high climate risks
- Green Municipal Fund
- New buildings must be Zero Energy
- New buildings must include considerations for transportation, water, waste, and land-use
- Buildings must manage stormwater.

PRELIMINARY COST ASSESSMENT

A Class D Order of Magnitude was prepared to evaluate the cost implication of renovation vs new construction. Refer to the Appendix G at the end of this report.



View of existing 50+ Activity Centre at Beach Ave. - looking south



View looking north along Beach Ave. towards the 50+ Activity Centre

METHODOLOGY

Urban Arts Architecture together with the structural and landscape consultants conducted a site visit on May 25, 2022. The team was given an overview and tour of the facility by Committee members Rick Ingram and Janice Liebe. The use and primary concerns of each space were highlighted. The team conducted a review of all interior and exterior spaces. Following the site review, the consultant team met for a workshop to summarize the preliminary findings from the site review. Mechanical and Electrical review took place on May 11, 2022.

During the tour of each building, the spaces were reviewed for physical and functional assessment with the intention of retaining the building and expanding the facilities for the Peachland Hub facility.

PHYSICAL ASSESSMENT:

The Physical Assessment documents the existing conditions of the building components. An Architectural Assessment Checklist was completed for each space, itemizing building components and ranking the condition of the facility as follows:

- *Poor: Major or Minor Renovation/ Remediation required with 3 years*
- *Acceptable: Minor maintenance required*
- *Good: Acceptable, no work needed*

The detailed Assessment Checklists for each space is included in the appendix.

In addition, each consultant prepared a report outlining observations and deficiencies as per the respective discipline, including Structural, Mechanical, and Electrical. The assessments build upon the work previously completed as noted in the Executive Summary.

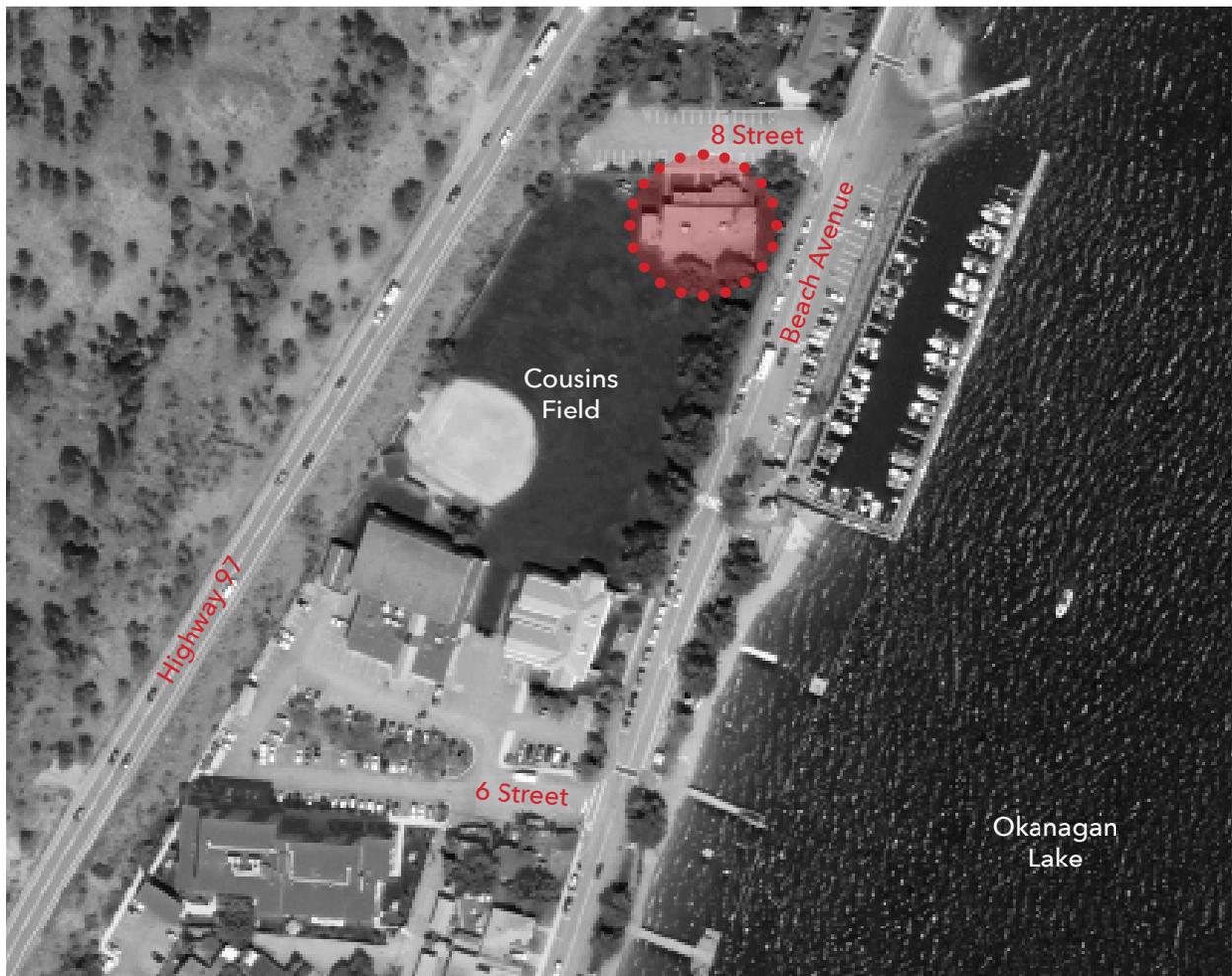
ADDRESS: 5672 Beach Avenue, Peachland, BC
V0H 1X6, Canada

TOTAL AREA: ~ 6200 sq.ft.

YEAR BUILT: 1975, 1978, 1987

DESCRIPTION:

The original 50+ Activity Hub was built in 1975 as a Senior Citizens Activity Centre, and then was expanded in both 1978 and 1987. The building entrance and parking is located along 8 Street. Key elements of this site are Okanagan Lake, the historical Cousins Field, mature trees along the Beach Avenue promenade, and Highway 97 which is to the west of the site.



SITE

LOCATION

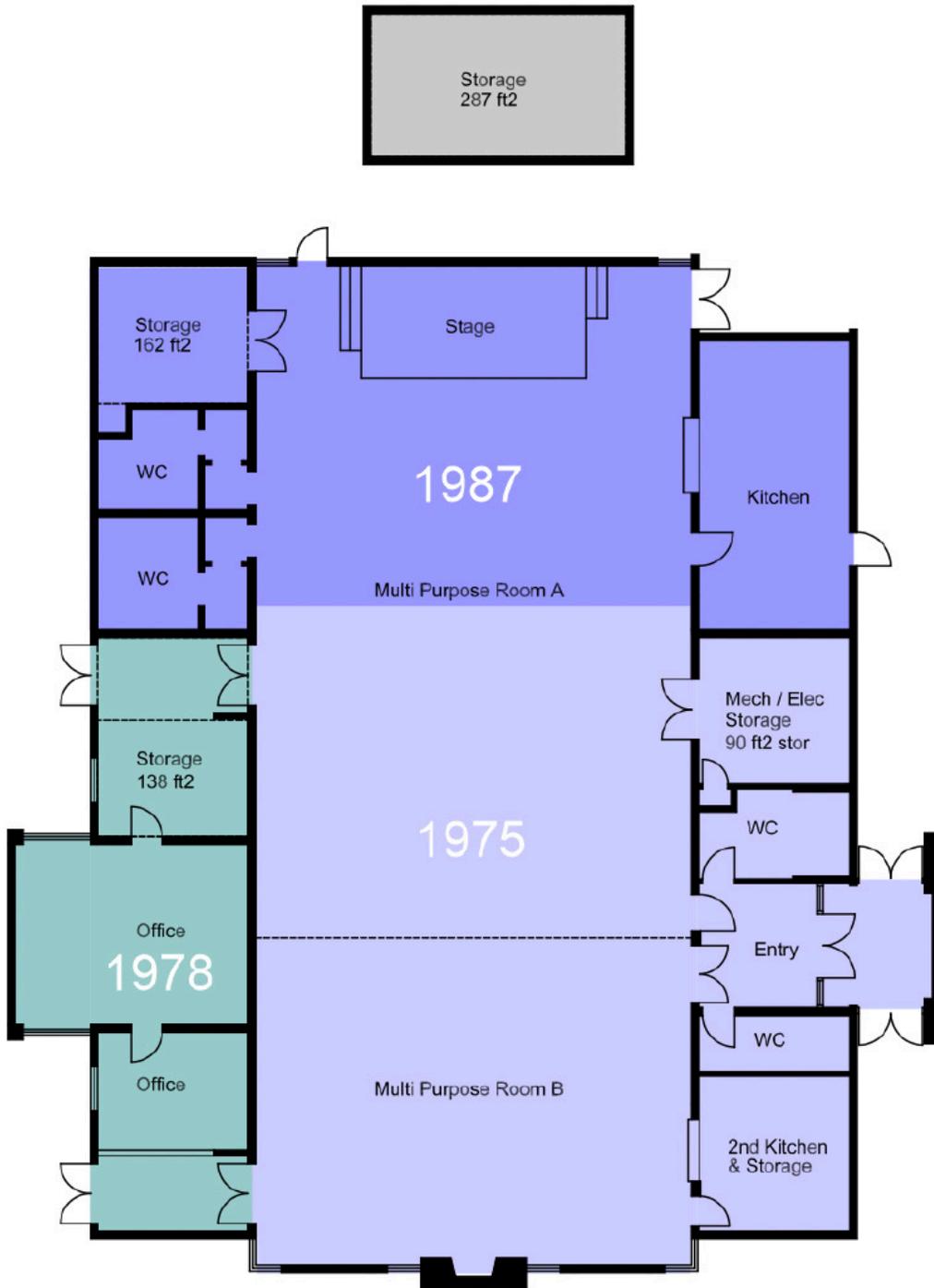
The building is located at the corner of Beach Ave and 8th Street, across the street from the Lake. Cousins Ball Diamond is located immediately to the south. The prominent waterfront location is on the promenade - a popular walking route for residents and visitors. The building is part of a cultural/recreational precinct with the Community Centre and Art Gallery located directly to the south of Cousins Field. Downtown Peachland is located a six minute walk to the south, along the promenade.

Currently, part of the building is located below the Regional recommended flood plain.

Refer to the Appendix for site analysis diagrams for further information.

COMMUNITY CONNECTIONS





GROUND FLOOR PLAN



DESCRIPTION

BUILDING HISTORY

The building was constructed in 1975 as a Community Building for the Seniors Association, with two significant additions. The 1978 addition added a support wing to the south with additional office space. The 1987 addition expanded the Hall, added additional washrooms and a kitchen. The majority of finishes, inside and out, are from this time.

All rooms are accessed directly from the Hall space, limiting functions to one at a time.

BUILDING DESCRIPTION

The 6200 sq ft building is 1 storey and contains the following spaces:

1. Entry: A small vestibule and entry leads directly into the Hall.
2. The Community Hall: A flexible gathering stage with a small inaccessible platform stage, accessed from the Lobby. The Hall can be divided into two areas - the Fireplace Lounge to the east and the Stage Room to the west.
3. Washrooms: Washrooms are located in the two locations - off the Lobby and within the 1987 addition, directly access from the Hall.
4. Kitchen: The kitchen is well used by the community and is directly accessed from the Hall.
5. Offices: Two offices are located in the south wing.
6. Storage: Two storage rooms are accessed directly from the Hall.

The building is comprised of three volumes - the higher form enclosing the Hall and two lower wings with support services. The exterior is generally exposed single wythe vermiculite insulated concrete block, painted with a wood clad fascia and soffit, containing lead paint. The west wall of the 1987 wing is wood stud construction, most likely to facilitate further expansion.

The building assessment undertaken in August 2021, notes that the building generally has minor to moderate deterioration.



View of existing 50+ Activity Centre at Beach Ave. - looking north



View of existing 50+ Activity Centre - looking south



View of existing 50+ Activity Centre from Cousins Field.

ARCHITECTURAL BUILDING ASSESSMENT

EXTERIOR SUMMARY

SUBSTRUCTURE

The substructure of the existing Seniors Facility consists of concrete foundation walls on reinforced concrete strip footings. The floor is a reinforced concrete slab. Refer to Structural report for more detail.

SUPERSTRUCTURE

The building is a single wythe concrete block construction with vermiculite insulation within the concrete block walls. The roof is comprised of wood trusses at the high bay, and 2x8 joists at the lower wings. The concrete block walls support the trusses, with a small cantilever overhang. The overhang has a wood stud wall and is clad in cedar siding. The primary trusses are 30" deep by 43' 9 /34" long at 2' on centre.

Interior walls are generally concrete block with 2x4 wood stud walls in some locations.

ENVELOPE

The majority of the building is the painted exposed concrete block, generally in good condition considering the age. However, there is very little insulation. The upper roof includes a painted T&G cedar fascia that is showing wear in some locations. It is assumed that insulation in the exterior walls is limited/past its useful life and as it is asbestos containing would require environmentally monitored removal during demolition/renovation.

ROOFING

The roof over the Theatre and Lobby space is a flat SBS roof installed in 2009. Extent of rigid insulation is unknown. The existing drawings include 1.5", which would have an R value of approximately R6. According to the assessment report, there is a 1.0 sq ft air pocket/bubbling identified. A new mechanical unit was installed in 2021 on the roof. The roof would most likely need replacement if significant energy upgrading occurs. It is approximately halfway through its life cycle.

EXTERIOR DOORS

The exterior doors are solid wood and are equipped with panic hardware. The doors are at the end of their life, showing significant wear and with weather seals missing or damaged, allowing for air infiltration. Replacement of exterior doors with new hardware, weather seals and auto openers is recommended.

WINDOWS

There are very few windows in the facility, contributing to poor daylighting within the space. The majority of the exterior windows are double glazed with aluminum frames. Replacement of all windows is recommended.

HAZARDOUS MATERIALS

The Pre-renovation Hazardous Materials Survey by Peak Environmental Ltd on July 16, 2015, outlines the Hazardous materials within the building, identified through a non-intrusive survey. Hazardous materials include, but are not limited to the following:

ASBESTOS

- Amosite ceiling tiles
- Window putty applications
- Vermiculite concrete block insulation

Additional asbestos may be found as follows:

- flooring level compound
- Pipe flange gaskets
- Mortar
- Electrical insulation
- Tar and Gravel Roofing (may be still in place if 2009 roof installed over existing)

Lead - suspected in exterior painted siding and soffit¹

Mercury - in fluorescent light tubes and thermostats
Polychlorinated Biphenyls (PCBs) - fluorescent light fixtures

The removal/disruption of these materials shall follow Safe Work procedures, as noted in the Hazardous and Regulated Materials Assessment Report.



View of Community Hall looking to Fireplace Room.



View of Community Hall looking to Stage Room

INTERIOR SUMMARY

COMMUNITY HALL

The 46' x 93' Hall is an open floor area with an accordion partition separating the Stage Room from the Fireplace Room to the east. All other rooms generally are accessed from the Hall. There are four exits from the Hall - two at the west end, one at the south elevation in the southeast corner, and two through the Entry space.

FLOORS:

The flooring in the seating area is sheet vinyl throughout, applied directly to the concrete slab, and is nearing the end of its life. There is some wear at the junction with the 1987 addition.

CEILING:

The dropped acoustic T-Bar ceiling (Amosite Asbestos containing ceiling tiles) covers the space. It is located at the underside of the trusses and is 9'-10" above the finished floor. The ceiling appears significantly low in proportion to the size of the space. There is an additional approximately 32-36" in the truss space above. A dropped bulkhead is located at all sides with the underside approximately 8' above finished floor.

WALLS:

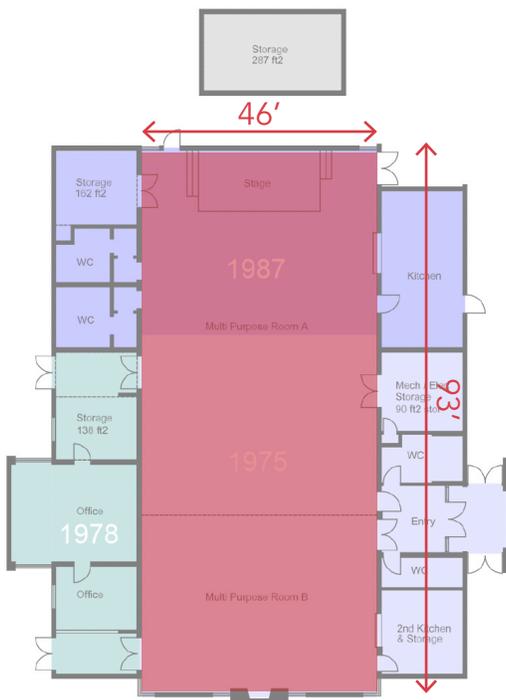
The majority of the wall finishes are painted concrete block. Windows are located at the east side only.

FIREPLACE:

A non-working wood burning fireplace and chimney is located at the east side of the space.

FIXTURES + FURNITURE + EQUIPMENT:

Stage: There is a small stage located at the west end of the space. It is a wood platform and is not accessible.



Key Plan - Ground Floor

RECOMMENDATION:

- If Hall is renovated, explore increasing ceiling height and increasing natural daylighting.
- Provide direct connection to exterior gathering spaces.
- Remove direct access to washrooms, offices and kitchen for acoustic performance and privacy.
- Replace all finishes, and add acoustic materials to enhance performance.
- Review mechanical system.
- Add AV Room and equipment.

ENTRY

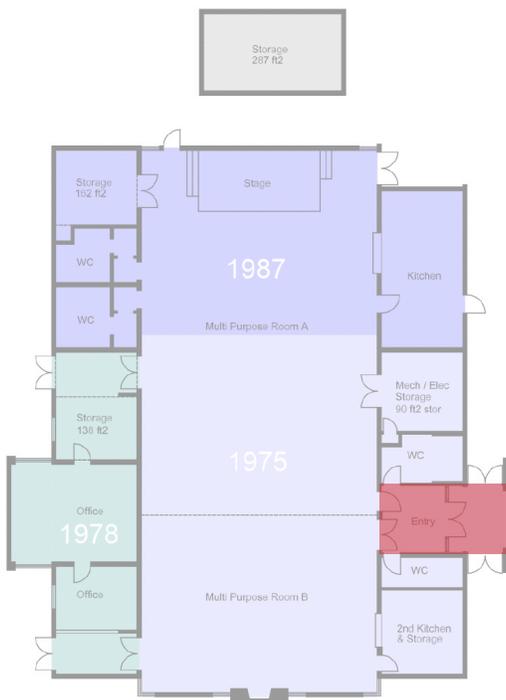
The Entry Hall and Vestibule are accessed from 8th Street. Two sets of double doors led in to a small 11' x 9' vestibule, that leads into the entry area (11' x 11'). Washrooms are accessed directly from the entry. The entry hall is significantly undersized and cannot support any pre-function activities.

FLOORS: "Brick" quarry tile

CEILINGS: Sprayed Drywall Ceiling application

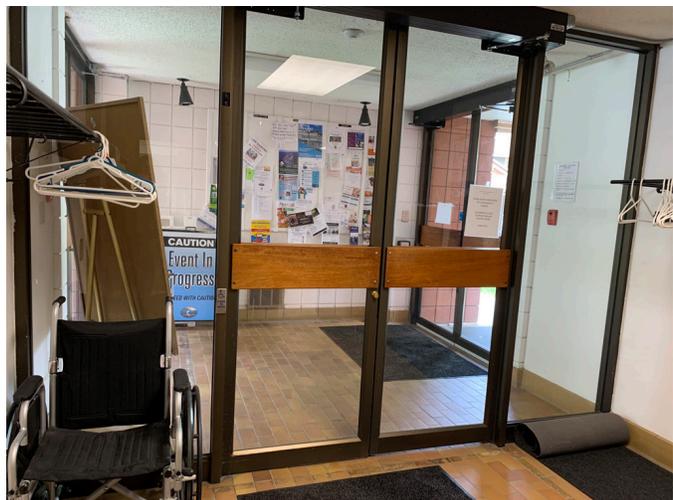
WALLS: The majority of the wall finishes are painted GWB on insulated wood stud walls. Concrete block at north elevation of Vestibule. Natural daylight is limited with light from glazed panels at exterior doors.

DOORS: Aluminum Entry Door system with automatic openers. No glazed film, for safety, at sidelites.



RECOMMENDATION:

Demolish existing vestibule. Relocate and provide new entry with adequate space for pre-function and increased accessibility. Vestibule area may be reused for other function.



WASHROOMS

The existing washrooms are in two location:

- Men and Women's 2 stall washrooms located off the entry;
- Men (1 stall and 3 urinals) and Women's (3 stalls) located directly from the Hall.

The washrooms do not meet the accessibility requirements due to lack of interior circulation area. Automatic door openers are located within the Entry washrooms to assist in access. The washrooms located directly off the Hall compromise the acoustics of the Hall space. Refer to mechanical report for comments on fixtures.

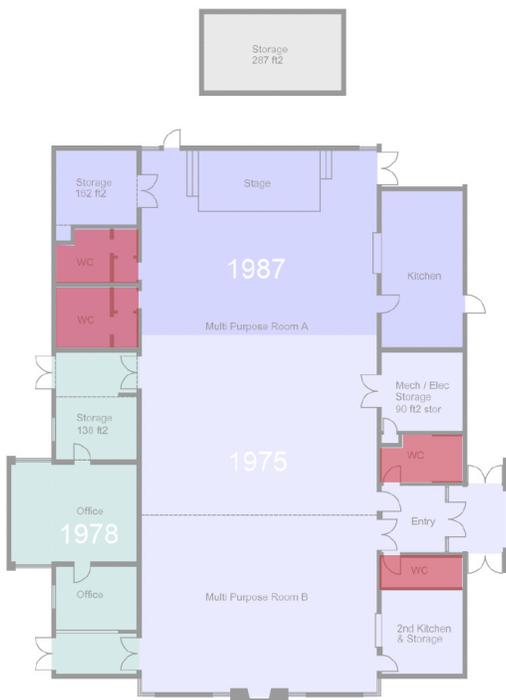
FLOORS: Ceramic Tile

CEILINGS:: Sprayed Drywall Ceiling application

WALLS: Tile at GWB/wood partitions or painted block.

FIXTURES + FURNITURE + EQUIPMENT:

Washroom fixtures are dated and approaching the end of their life.



RECOMMENDATION:

Demolish existing washrooms. Relocate and expand washroom areas to meet new occupant load. Include minimum of two universal accessible unit washrooms - one with a change table. Include tile flooring, tile walls, where exposed to moisture, low flow fixtures. Centrally locate in a location that is acoustically separated from the Hall.



KITCHEN

There are two kitchens - the small original 1976 kitchen, and the main kitchen located in the northwest corner. Both areas are accessed directly from the Hall. The main kitchen includes two gas fired ranges with a hood system above. The smaller kitchen is used primarily for serving.

FLOORS:

The flooring in the seating area is sheet vinyl throughout with an integrated coved base.

CEILING:: Drywall Ceiling , with semi-gloss finish, at underside of wood joist.

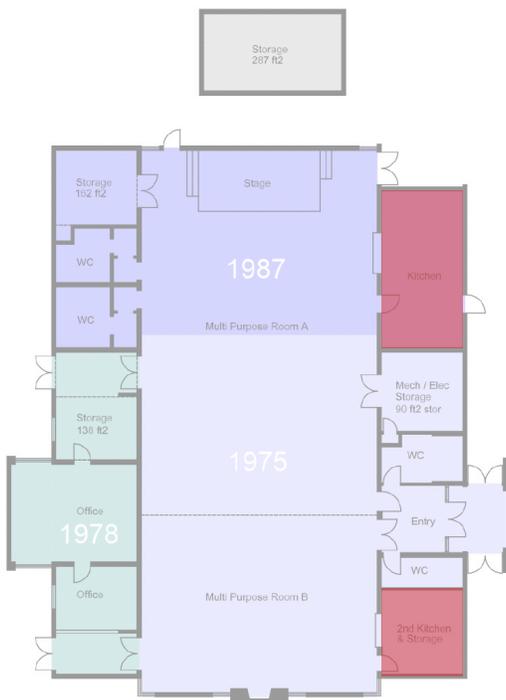
WALLS: The majority of the wall finishes are painted GWB with tile backsplash.

EQUIPMENT & MILLWORK: Cabinets are original to the 1987 addition, including plastic laminate countertops. Equipment include the following:

Fridge

RECOMMENDATION:

Redo/expand kitchen space with all new finishes, acoustic ceiling, additional power, new lights and update ventilation system. Provide new electric induction cooktops and stainless steel counters and new cabinets. Use stainless steel mobile shelving system where possible.



OFFICES & STORAGE AREAS

Located in the 1978 addition, the office and storage area are accessed through the Hall. There are two additional exits to Cousins Field. The spaces area currently being used as a small office and as a workshop/storage area.

FLOORS: Vinyl Asbestos Tile/Carpet

CEILINGS: Sprayed Drywall Ceiling application on 1/2" GWB

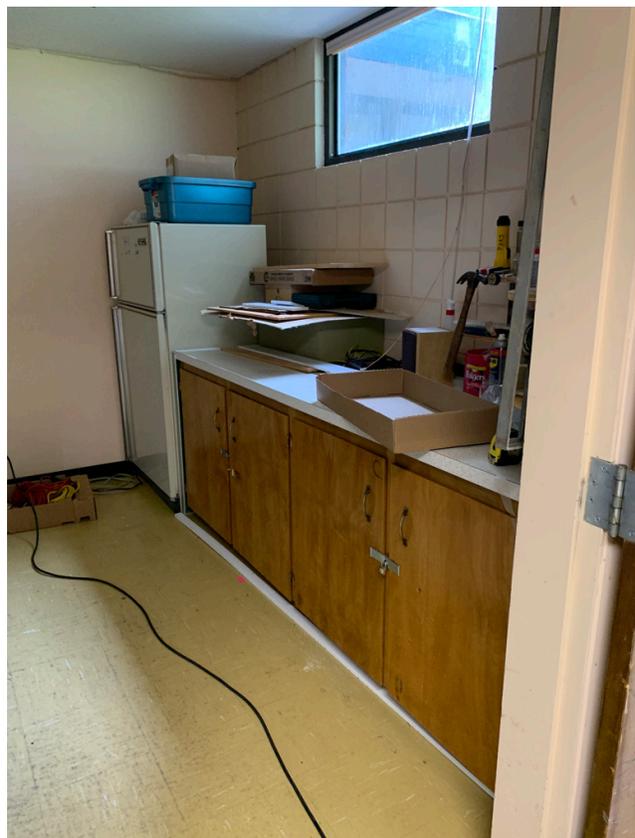
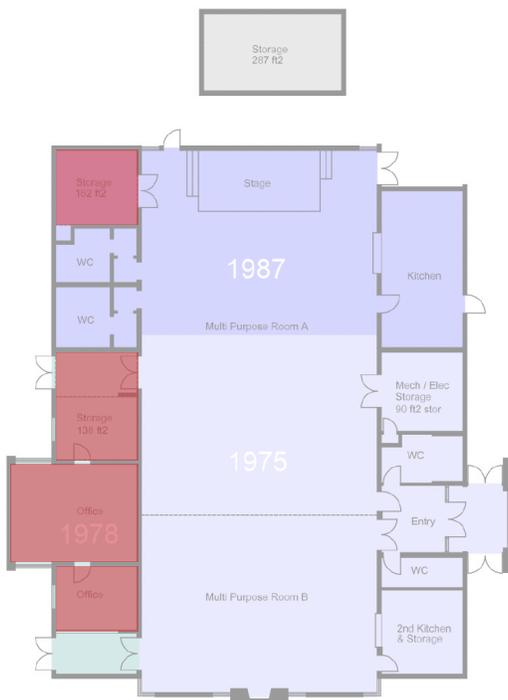
WALLS: Painted concrete block and wood stud with GWB.

EQUIPMENT & MILLWORK:

1987 cabinets and fridge in the storage area.

RECOMMENDATION:

Relocate office functions. Explore opening up this area to the park. Redo all finishes.



MECH/ELEC SPACE

The mechanical/electrical room is accessed directly from the Hall. It is currently also being used as a storage room (none code compliant use). Refer to mechanical and electrical reports for further information.

FLOORS:

The flooring is sheet vinyl throughout with taped markings showing clearance to the panels.

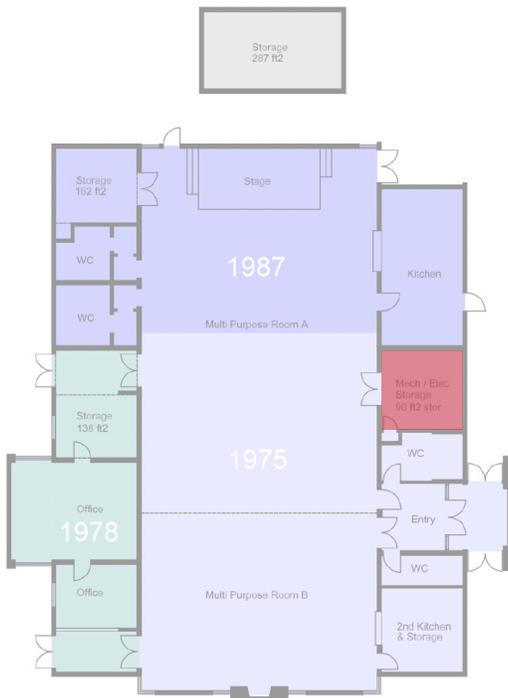
CEILINGS:: Drywall ceiling at underside of wood joist.

WALLS: The majority of the wall finishes are painted GWB.

EQUIPMENT & MILLWORK: Refer to the electrical report for description of panels within the space.

RECOMMENDATION:

Explore relocation of the electrical equipment/room during the design stage, as this space is currently located within the 2'-0" freeboard flood zone.



APPENDIX A : ARCHITECTURAL ASSESSMENT MATRIX

Building Assessment Checklist: PEACHLAND COMMUNITY HUB					
Location:		8672 Beach Ave			
Construction Year:		1975, 1978, 1987			
Date of Review:		25. May 2021			
Item	Location	Condition			Comments / Recommendations
		P	A	G	
A SUBSTRUCTURES					
A.1	Foundations	Throughout			Unknown
A.2	Slabs on grade	Throughout		X	Condition varies. Some cracking at junction with 1987 addition evident through resilient flooring
A.3	Insulation	Throughout	X		1.5" underslab insulation approximately 2'0" wide at exterior walls noted on original drawings. 1.5" rigid insulation at exterior foundation at 1978 addition,
B. SHELL					
B.1 Superstructure		Review to Structural Report			
B.2 Exterior Enclosure					
B.2.1	Painted Wood Siding	Upper Roof Fascia		X	Paint, Repair Required
B.2.2	Concrete Block	Exterior material throughout		X	Paint finish, Reasonable condition, some crumbling identified in Assessment Report, Vermiculite within Concrete Block
B.2.3	Flashing, Gutters	Roof cap flashing		X	Galvanized metal
B.2.4	Exterior Double Glazed Metal Windows, Doors and Storefront Entry System	Throughout		X	Seals failing in some units. Kawneer aluminum storefront window system, double glazed, non-thermally broken. Asbestos in window putty.
B.2.5	Wood Window	West Elevation			not reviewed
B.2.6	Exterior Doors - Metal	Throughout		X	Reasonable condition at all exits. Aluminum Thresholds.
B.2.8	Insulation	Throughout	X		3 1/2" fiberglass insulation at stud walls, Vermiculite in cavity at concrete block. 1.5" rigid insulation at roof. Removal of vermiculite at all areas disturbed required. Additional insulation required (minimum R20 at walls and R40 at roof, for enhanced energy performance)
B.3 Roofing					
B.3.1	SBS Flat Roof	Throughout		X	Replaced in 2009. If insulation upgraded or solar added, will require removal and replacement.
C INTERIORS					
C.1 Wall Finishes					
C.1.1	Painted Wall board	Throughout		X	Signs of wear at high traffic locations. Refinishing, patching, painting required throughout
C.1.2	Painted Concrete Block	Throughout		X	Painted throughout. See B2.2 above.
C.1.3	Ceramic Tile	Washrooms		X	Dated, but in acceptable condition
C.2 Ceiling Finishes					
C.2.1	Acoustic Amosite T-Bar tile	Hall	X		Remove - asbestos containing
C.2.2	Painted wall board with spray finish	Washrooms, Offices, Lobby, Kitchen		X	Condition varies, but overall in need of refinishing.
C.3 Floor finishes					
C.3.2	Linoleum Tile	Offices, Storage	X		Most likely Asbestos containing, showing signs of wear
C.3.3	Resilient Flooring	Hall,	X		No major damage, showing signs of wear particularly at junction with 1987 additional.
C.3.5	Broadloom Carpet	Offices	X		Signs of wear - recommend removal
C.3.7	Ceramic Tile	Lobby, Kitchen (under resilient), Washrooms	X		Dated, but in acceptable condition
C.4 Interior Doors					
C.4.1	Solid Wood Doors	Throughout	X	X	Majority are showing signs of wear
E Fixtures, Fittings & Equipment					
E.2 Casework					
E.2.1	Kitchen Cabinets	Kitchen (two locations)	X	X	Recommend replacement
E.2.2	Storage Cabinets	Storage/Office area	X		Approaching the end of their life, recommend replacement
E.2.3	Washroom Counters	Washrooms (four locations)	X		Approaching the end of their life, recommend replacement
E.3 Equipment					
E.3.1	Food Services Equipment			X	Functional - to be further reviewed for possible reuse.
E.3.2	Fireplace				Currently not being used - recommend review by mason/chimney sweep.
E.3.3	Washroom Partitions		X		Approaching the end of life - recommend replacement
F. BUILDING SITEWORK					
F.1 Site Improvements					
F.1.1	Rain Water Drainage			X	Some upgrades to RWL noted, reasonable state
F.1.2	Trees	South side of building		X	Large trees on South side
F.1.3	Plaza Pavers/Slabs	East side of building		X	Cracking in some locations.
F.1.4	External Lighting			X	Minimal for security, not welcoming

APPENDIX B : STRUCTURAL ASSESSMENT

PROJECT	Peachland Hub 5672 Beach Ave, Peachland, BC V0H 1X6
RE	Site Observations of Existing Building
DATE	June 06, 2022
ATTN	Shelly Craig Meghan Froehlich
COMPANY	Urban Arts Architecture Inc.
ADDRESS	#300 - 111 Water Street, Vancouver, BC, V6B 1A7
EMAIL	craig@urban-arts.ca; meghan@urban-arts.ca

Dear Shelly and Meghan

Below is a short report outlining our site observations from the site investigation undertaken by Evan Peatt on May 25th, 2022.

1. Background

The Peachland Hub will be a new facility created by renovating and expanding the existing 50+ Activity Centre that will house many of Peachland's non-profit groups.

The existing 50+ Activity Centre is a 6,200 sqft. building first constructed in 1975 with two subsequent additions. The first addition in 1978 added tree rooms to the south, and the addition in 1987 to the west enlarged the main hall whilst providing washrooms, a larger kitchen and additional storage space.

The building is a single storey structure founded on conventional strip and pad foundations. Foundations are approximately 2'-6" below grade. A 5" thick slab on grade is provided across the whole building. The 1975 and 1978 structures comprise of single wythe concrete block walls which are generally filled with vermiculite. Reinforced piers are provided at end of walls and adjacent to openings. The 1987 addition is wood framed and has been constructed using 2x6 studs, which have been sheathed with 3/8" plywood. The roof across the whole building is formed using gang nailed trusses at 2' centres which are sheathed with 1/2" tongue and grooved plywood.

2. Observations

. Record drawings from Alton K. Hanson & Associates Architects, have been provided for the original building and subsequent additions. The record drawings provide a significant amount of information about the existing construction however the referenced specification documents have not been provided at this time. From our site observations, the existing structure is as expected and as per the record drawings. No significant signs of structural neglect or distress were observed, however there are some slight signs of settlement between the original building and the 1987 addition This is noted by some minor cracking near the interface between the original building and the 1978 addition (see page 4 of attached site report)

3. Additional Comments

The client requested a review of the existing structure to allow for the addition of solar panels to the roof. It is Aspect's position that it may be possible for the existing roof structure to accommodate the additional weight of the panels, however the existing roof structure would need to be reviewed in detail for capacity to confirm this. Additional structural members could be easily added if the structure was found to be deficient.

Whilst the existing structure may be capable of supporting gravity loads arising from the solar panels, the larger issue would be justifying the additional forces on the existing lateral load resisting system. Although the seismic demand is likely to be low, the likelihood is that the additional forces on the lateral load system would trigger a seismic upgrade that may require extensive upgrades to the existing building in order satisfy current code requirements. From the existing record drawings, we understand that the building is generally constructed from unreinforced masonry, which is an expensive system to reinforce.

We understand that the current scheme is under development and several options are currently being explored. If the design team wishes to retain the existing building, then structural alterations should be kept to a minimum to avoid triggering a significant structural upgrade. Alterations to the roof loads and removal of blockwork walls would be particularly onerous as these would have significant effects to the lateral system which is likely to be deficient with respect to the current building code requirements.

We would recommend that any new loading is constrained to areas of new construction where these additional loads could easily be resisted by new structure, and that alterations to the existing structure are kept to a minimum.

A new build structure (assuming the old building is demolished) would provide the “best fit” and could be tailored to suit the needs of all the programs that the Peachland Hub project is looking to house without compromising on spatial requirements or usability. Furthermore, new construction would benefit from being able to achieve better energy performance through careful detailing and material selection. However, the demolition of a building is inherently less sustainable than if it were to be repurposed.

We would tend to favor keeping the existing building and supplementing the hub with a new purpose-built structure to accommodate programs which cannot be adequately housed in the existing building, assuming it makes commercial sense to do so.

We trust that this report is helpful in determining the next steps for the project, however if you have any other queries, please feel free to get in touch.

Sincerely,



Ilana Danzig
P.Eng., Struct.Eng., M.Eng., PE, SE
Associate Principal

David Rajendran
P.Eng., MStructE, M.Eng
Senior Engineer

SITE REPORT 1

1735 - Peach Land Hub Project
Renovation and addition to 50+ activity centre
5672 Beach Ave.
Peachland, BC V0H 1X6 (CA)
Report number: 1735-1
Date: 05/25/2022 09:30 AM

Purpose of Visit

Janice - peachland HuB

Project Status Photo



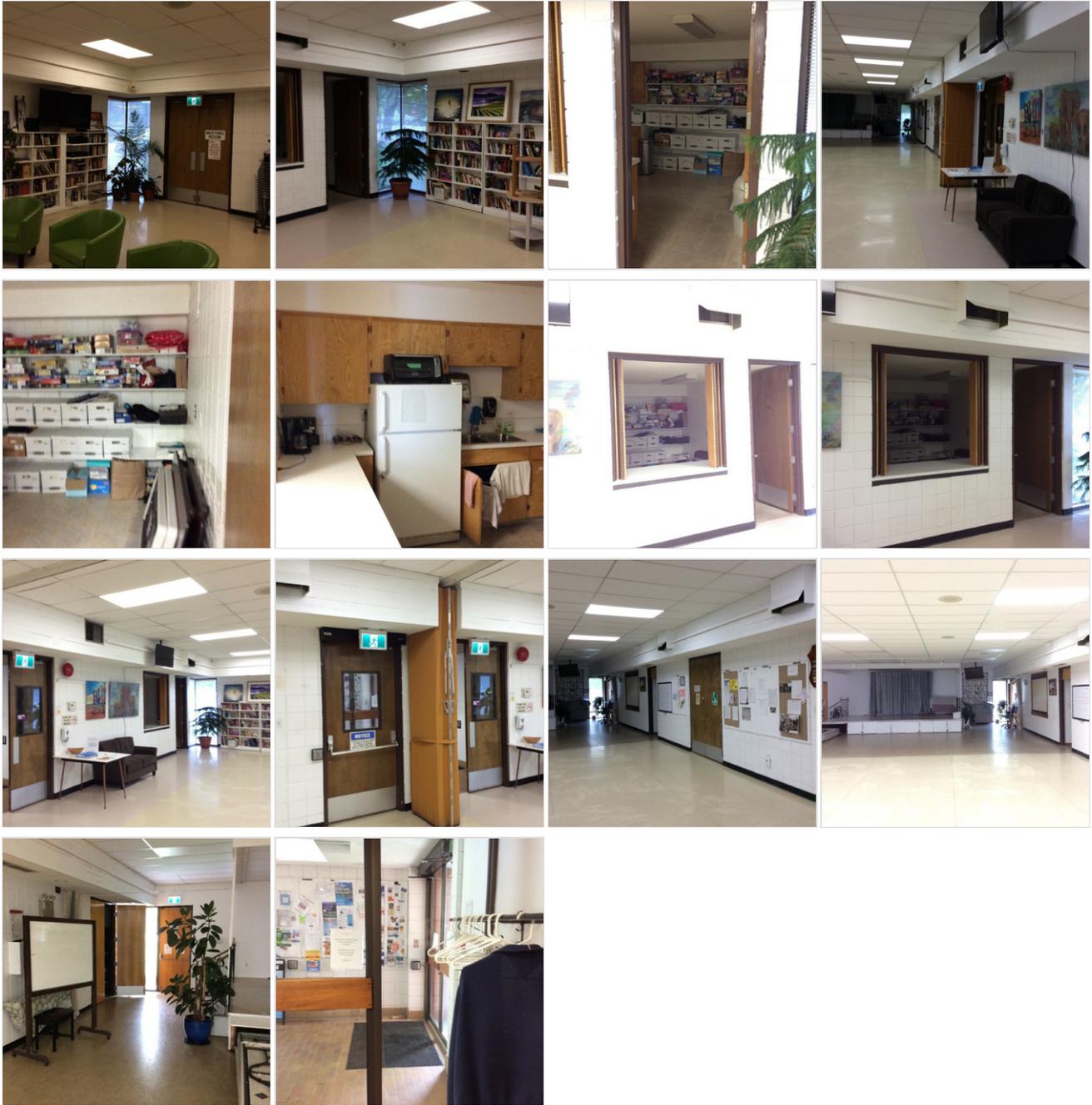
Observations

General

1.1 Exterior Photos



1.2 Interior photos



1.3 Relocation of baseball scoreboard to happen. Footings?

1.4 Retaining wall at rear of site along ball diamond at highway. Hoping to not need to expand the retaining wall for the foodbank.

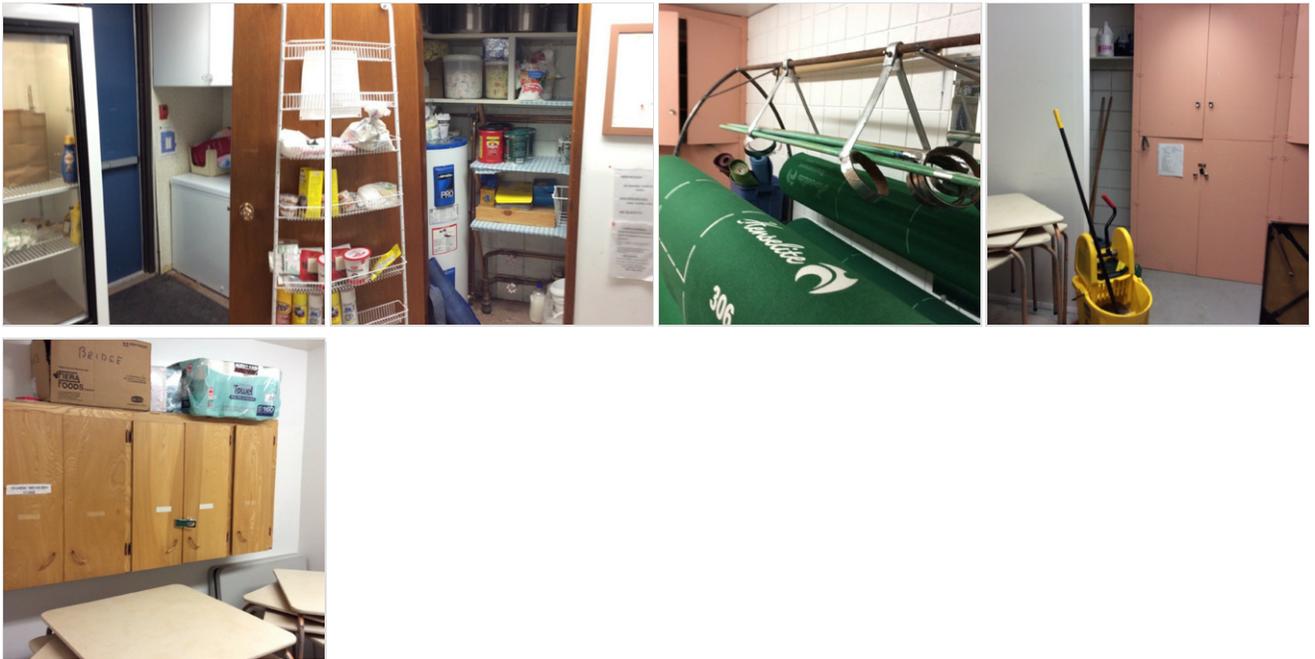
1.5 2 storey option not a necessity

1.6 FCL for the district does not run through the site but a national map does

1.7



1.8



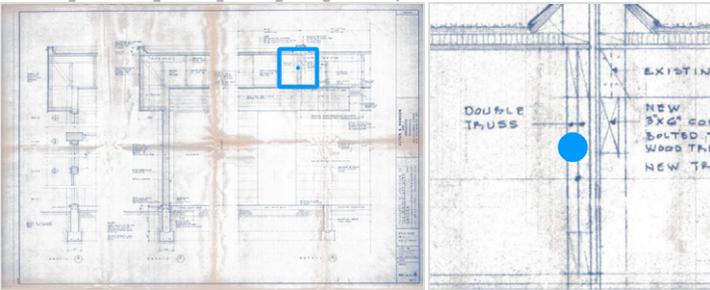
1.9 Differential settlement at existing foundation line
May 25, 2022



1.10 Photos at 1987 addition
May 25, 2022



Hub-001_Peachland_Seniors_Centre_1987_Addition(...)



General conditions

This site report is issued as a written clarification of the intention of the Contract Documents and / or instructions to bring the works into conformity with the Plans & Specifications at no extra cost to the owner. The above notes / instructions shall not be construed as a complete list nor shall it relieve the Contractor from the responsibility to properly perform their work duties in accordance with the Contract Documents.

APPENDIX C : ELECTRICAL ASSESSMENT

ELECTRICAL SITE OBSERVATIONS:

1. Site services enter the building off the overhead utility services (BC Hydro/Telus) running along 8th Street. Overhead service lines cross the road and enter the buildings main electrical/communication room.
2. Existing building electrical service is 400A, 120/208V, 3PH, 4W. The electrical distribution equipment is mainly located in the main electrical room, with a sub-panel in the general space. The service distribution is a combination of fused disconnect switches, splitters, and panels that is being used to service the space loads.
3. Lighting appears to be 2x4 fluorescents, with some halogen-based tracks and down lights.
4. Lighting control are basic line voltage switching for interior spaces and time clock/photocells for the exterior lighting.
5. Fire Alarm system - the building has a single stage fire alarm system installation. The current control panel is an Edwards Fire Shield.
 - Only two zones are being used, one for the main floor and the other for the kitchen fire suppression system.
 - Building is not sprinklered and there are fire alarm detectors installed through out.
 - Fire alarm pull stations are located at the egress doors.
 - Fire alarm bells are being used for audibility.
 - It did not appear the fire alarm system is being currently monitored by an ULC listed monitoring agency. This will need to be confirmed.
6. Emergency lighting and battery packs are installed through out the space. Devices have their service tags indicating that they are being maintained annually.
7. Exit signs are the new green running man exit signs and appear to be a recent installation.
8. Intrusion alarm system (DSC) system was installed in the space.
9. Communication services were terminated in the main electrical / communication room.

ELECTRICAL BUILDING CONCERNS:

1. Electrical service to the site is limited. Building electrification may require the incoming service to be upgraded as the existing heating is via gas.
2. Majority of the electrical systems in the building are dated and securing spare parts will be difficult. Most of the building system if we kept the building would need to be removed. System which would need to be replaced, but not limited too:
 - Electrical panels / Branch wiring
 - Fire Alarm system
 - Lighting
 - Lighting control
 - Emergency Lighting
 - Security
 - Communication system
3. Photovoltaic system installation would require the existing mechanical roof top units to be relocated to provide a clear roof to maximize and installation. There are concerns with the proximity of the existing trees near the building which would shade the potential roof top array in the early morning.
4. Existing storage in the electrical room should be removed.
5. Fire alarm system does not appear to be currently monitored by an ULC listed monitoring agency.

APPENDIX D : MECHANICAL ASSESSMENT

MECHANICAL SYSTEM OBSERVATIONS:

1. There is an existing gas service that serves the existing roof top units. This service will be removed should the project do full electrification.
2. The current kitchen is electric based and does not use gas.
3. There are three electric hot water tanks in the building. It is recommended to centralize the domestic hot water generation and provide new tanks.
4. There is currently no sprinkler system serving the building.
5. The existing water closets are tank type with 6lpcf. It is recommended to use flush valve waterclosets in the future project which required larger water service.
6. There is an existing 2 or 2 ½" incoming water service. This service will need to be upgraded to minimum 4" service to accommodate washrooms, kitchen, and for adding a code required sprinkler system throughout. The service does not have appropriate backflow devices; a new water entry station with code minimum backflow prevention stations and new water meter will need to be provided.
7. The kitchen drainage does not appear to connect to a grease interceptor. A grease interceptor is required with current code for all kitchens that produce grease laden vapor.
8. There are two existing roof top units providing heating, cooling, and ventilation. One unit is at end of life (~20 years old) and contains R22 refrigerant which is being phased out of the industry. There is a newer 7.5 ton gas fired roof top unit installed in 2021. Removing gas from the project would not allow reuse of this roof top unit. Furthermore, there are only MERV 8 filters in the unit and best practise is to provide minimum MERV 13 filters. For wildfire mitigation it is recommended to use minimum MERV 14 and/or provide a section for carbon filters to be inserted during smoke events.
9. There are ceiling washroom exhaust fans that are interlocked with the light. The new project would remove these units and invoke central unit that is scheduled to operate through the building management system.
10. There is a new radon removal system which exhausts to a cowel on the roof.

APPENDIX E : LANDSCAPE ASSESSMENT

OBSERVATION BRIEF:

Peachland is an incredible community. Listening to the team leaders and then members from the larger community one cannot help but feel these people are determined and they have a vision. As the landscape consultants on the project, we came away with a set of notes with a recurring theme—make the building responsive to its beautiful setting by opening it up to both the expansive and more intimate views. This really means blurring the boundary of interior and exterior. For us, this is a major guiding principal. It plays to the presence of the building in the community, to its integration within the immediate landscape and its more practical role as community hall for gatherings big and small needing a multiuse spill-out space. While attending the meeting, a reunion was occurring outside. The necessity for accommodating this kind of function played out in front of the meeting attendees. Tied to this is the approach to the building and its sense of welcoming. One group mentioned an outdoor stage. With the ball field as a plane for the building to sit on, any raised terrace on the south side of the building could become a stage for people sitting on the ball field. The newly revisioned building as the stage backdrop. This all relates to the building's interface with the exterior and how people interact at that narrow zone.

Another recurring theme was around the community gardens. These are currently at the Senior's Centre and will need relocating due to the construction of the next phase of Senior's housing. These might be associated in conjunction with the food bank annex to that will sit at the back of HUB. Integrating the two buildings through landscape brings the ability to break down barriers and provide support to those needing it; in part this is a reference to the mental health support services that will also be housed in the expanded HUB. These are delicate interactions fraught with emotion and sometimes crisis and a garden setting can be a calming and welcoming experience.

The last principal (though not major) we saw was the prominence and importance of the ball field. With the opening up of the building to the views of the park, the risk of broken windows rises. Add in the possibility of a populated multi-use terrace and the necessity for screening becomes apparent. This could be a band of trees doing double duty as screening and shading elements in the summer. The score board may have to be relocated

LANDSCAPE OBSERVATIONS:

- Scoreboard to be relocated closer to trees
- World of wheels kicks off summer tourism season
- No space left in the flats/downtown
- Historic school house near the baseball diamond, acts on history/visitor centre
- Community centre is adjacent ball diamond with large gym (pickle ball central)
- Cousins field is named for baseball team made up of 9 brothers
- Right field restricted to 235ish feet, left field is longer closer to 275ish
- Scoreboard must stay
- Does the field need to be fenced? Preferably not.
- Field is used for many things
- Below grade service location needs to be done
- Survey needs to be done
- No required parking on site, community centre visitors can park on the street
- parking challenges during summer

- Bike racks are very much needed
- Currently a community garden behind the wellness centre, they would like to add plots to the site
- Spill out space, or outdoor plaza, wedding space indoor or outdoor
- Signage out front is very important, don't want it to be an afterthought, want it digital
- Fire and evacuation alerts are a concern, smoke is maybe a more serious concern
- Being ember smart, fire stop landscaping, no coniferous, deciduous is okay (check ft mc murray project), no flammable materials within 5'-0" of building
- Donor recognition somewhere, may be in the landscape
- EV requirement? Maybe a rough in?
- One landscape design for CC and foodbank annex.
- Outdoor seating and shelter for foodbank

AFTERNOON PRESENTATION

Reflecting Peachland

- Indoor outdoor connectivity
- Being able to eat outside, come in and out
- Bringing people inside from the street
- Have it be a meeting space for friends
- Concentrate on seniors
- Privacy for users of foodbank
- Integration with community centre and other surrounding community amenities
- Breakdown some privacy barriers or concerns around foodbank
- Making the place more intergenerational, a lot of seniors have kids or grand kids
- Protecting the baseballs through architecture
- Like ideas of different kitchens
- Simple kids areas with boulders
- Important to understand that senior only programming will stay, and be supplemented by multi generational programming.
- Like the idea of the hub being a campus
- Possible easement for highway expansion
- There is an environmental committee that has specialists in many areas (soils, wildlife, vegetation)
- Important that we reflect the past, present, future of Peachland
- First nations reconciliation is very important
- Graffiti concerns

Group 1

- Turning the building inside out, making it a destination, right now building has a functional purpose, but not a drop in or destination, make it the heart or centre of the community
- Building has to feel warm, modern is fine, but not cold, liked the feel of wood
- Welcoming came up a lot
- What does the historic element mean, can it be more than representation of past
- Protected entry
- Want separate washrooms
- Ability to see out and in
- Not only see the lake, but also see the park

Group 2

- Like the open air concept, especially with garage doors
- Revenue opportunities such as weddings
- Outdoor stage

- Sustainability
- Outdoor gathering areas, intergenerational, accessible, a place to stage outdoor events
- Focusing on lake view, capitalize on it
- Like idea of community garden
- Thought about green roof

Group 3

- Really liked open space that could be transformable
- Liked idea of offices up stairs, communal offices with a couple private space
- Having a central coffee area for staff and visitors
- Important to have greeting area
- Kitchen that can fulfill current function, not industrial, serving window
- Separate washrooms
- Intergenerational aspect
- Connecting indoor and outdoor
- Very important to keep community gardens, maybe connect to food bank

Group 4

- Make sure the building was welcoming on approach
- Ensuring the building was well lit at entry, protected from elements
- Having a front desk manned by volunteers or staffed position
- Office space on 2nd floor, but not necessarily a closed office space, allow people to work together or separate, meeting room
- Bathrooms are contentious
- Great to have shared kitchen area with teaching, but priority is for current meal/kitchen operations, would like some connection with a serving bar
- Really want to ensure community gardens in raised beds, would love a rooftop garden but understand that may not be possible
- Open to either divided or open community spaces
- Very important to have inside outside connection

APPENDIX F : SUSTAINABILITY FRAMEWORK

DATE: June 8, 2022
TO: District of Peachland
CC: Urban Arts Architecture inc.
FROM: Integral Group
RE: **Peachland Hub- Sustainability Workshop Debrief Memo**

To whom it may concern,

Following the Peachland Hub Sustainability Kick-off conducted by Integral Group May 26th, 2022, the team has collected some preliminary thoughts and opinions concerning the opportunities and challenges related to the sustainability of the proposed Peachland Hub project. Using feedback from the team, a preliminary framework for the sustainable design of the project has been drafted below. The ultimate goal is to deliver a concise strategy capable of satisfying the goals of the project and the funding opportunities available while being sensitive to the affordability of the project.

The following conclusions were drawn following discussions held with the team:

Project Goals- The team has identified funding opportunities as the primary driver of the sustainable goals for the project. Two funding opportunities were identified as potential sources of funding with goals for sustainable design.

Green and Inclusive Community Buildings (GICB) Grant

- New buildings must be Zero Carbon through the CaGBC's Zero Carbon Building Standard
- Buildings must identify and mitigate medium to high climate risks

Green Municipal Fund

- New buildings must be Zero Energy
- New buildings must include considerations for transportation, water, waste, and land-use
- Buildings must manage stormwater

In discussion with the client team, the GICB grant was identified as the "best fit" and most likely candidate for funding for the project. Subsequent discussions focused primarily on the needs and opportunities of the GICB grant.

Zero Carbon Design- Understanding the priority of the project is to respond to the GICB funding requirements and by extension the Net-Zero Carbon design, the team reviewed key aspects of Net-Zero design as it relates to the proposed Peachland Community Hub project. Feedback gained from the team through this exercise includes the following:

Occupant Strategies- Defined as occupant facing opportunities to reduce building loads or avoid energy intensive programming.

- The existing building is already considered to be "thermally uncomfortable"; occupant groups may be amenable to some variability in temperature setpoints if it can still improve occupant comfort relative to current condition. This could potentially support energy reductions and heating and cooling loads during peak events.
- The project programming includes cooking and meal preparation spaces which currently utilize electric cooking appliances. There is no anticipated need for gas cooking appliances.

Passive Strategies- Defined as static building design attributes like orientation and envelope performance which primarily reduce Thermal Energy Demand Intensity (TEDI) which in turn reduces energy consumption and emissions.

- Urban Arts has extensive experience optimizing building orientation for reduced TEDI. This will include a delicate balance of wall and window areas and performance.
- The existing building may be reused but to a very limited extent. At present, an option is being considered where most of the existing building would be enclosed by a new higher performance envelope which would mitigate the impacts of heat loss through older lower-performance envelope assemblies.

Active Strategies- Defined as energy consuming building systems used for conditioning or operating the building.

- The existing building is served by several rooftop air-handling units. Most are near the end of their service life. There are some units more recently replaced that should be considered for retention as a potential cost savings measure. Following a site evaluation, mechanical can better comment on the state of this equipment.
- Heat-pump technologies are generally considered to be the best opportunity to efficiently meet the building needs while also using low-carbon electricity. For peak winter demands, electric resistance equipment may be necessary to supplement heat-pump equipment.
- All electric building could be feasible if electric reheat coils could be utilized in lieu of natural gas. This could potentially offer value by reducing or eliminating natural gas service.

Renewable Energy Strategies- Defined as the opportunity to generate energy on site to offset operational energy consumption and carbon emissions associated with it.

- Project is best positioned for solar Photo Voltaic (PV).
- Solar PV will be studied in greater detail to assess the impacts of the shadowing of the hills adjacent to the project site. It is unlikely there would be sufficient capacity on site for a complete offset of annual energy consumption making Net Zero energy highly unlikely.

Carbon Offsets- Defined as the carbon emissions “balancing mechanism” purchased on an annual basis to mitigate or balance the carbon emissions associated with the building’s operations.

- Required to be calculated and considered as part of CaGBC ZCB standard.
- Project team could use a similar mechanism to quantify the impact of building reuse. Future lifecycle impact assessments (LCAs) could be utilized to estimate the carbon associated with the construction of the project. To operate as a Net-Zero Carbon project, the project will need to consider offsets of the construction-related carbon.

Resilient Building Response- As noted above, the other requirement of the GICB funding is a Climate Change Resilient design. The team reviewed specific risks identified by Urban Arts in their preliminary site review.

Temperature Rise- Defined as a general increase in the frequency and intensity of extreme heat.

- Is partially mitigated through passive design practices outlined under Zero Carbon Design.
- Mechanical systems would need to be “right sized” to balance future increased cooling demands and the project goal of maintaining affordability.

Flooding- Defined as lake level rise and increased intensity of rainfall events which could cause localized flooding.

- The project is currently and will likely be partially within a flood risk area considering future climate projections.
- Mechanical and electric services and equipment areas will be designed “uphill” and on elevated platforms to avoid risk of damage by flooding.
- Building could be designed for flood events (i.e. lower portions of the envelope finish may be occasionally submerged and in need of replacement/remediation). The team should consider this and plan around this risk when selecting wall treatments.

Wildfires- Defined as the risks imposed by increased frequency and scale of wildfire events. This risk includes both the immediate risk of the fires themselves as well as health risks like smoke inhalation.

- Building location is not considered to be at immediate risk of wildfires themselves. The building is somewhat “upwind” of brush areas identified as fire risks.
- Area is considered a risk for wildfire smoke which would require mitigation through additional filtration capacity in air-handling equipment.

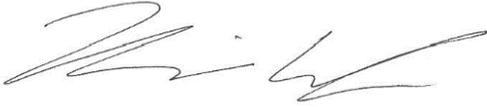
Next Steps-The following actions were identified as priority for the over the remainder of the concept design:

- Conduct renewables evaluation for the site
- Develop preliminary Energy Model
 - Compile existing utility bills
 - Confirm preliminary building form and envelope attributes (i.e. window to wall ratio, etc.)
- Conduct site evaluation of **mechanical and electrical** systems to confirm what equipment may be viable for retention.
- Evaluate carbon saving options for the building
 - Evaluate impacts of building retention vs. new build
 - Review and discuss value of different energy systems

The ZCB kick-off presentation shared with the team to facilitate the discussion above has been appended to this memo under APPENDIX A- Peachland Hub Sustainability kick-off

Should you have any concerns, please contact the undersigned.

Yours truly,

A handwritten signature in black ink, appearing to read 'Kevin Welsh', with a stylized flourish at the end.

Kevin Welsh, CPHC, LEED® AP O+M, BD+C, HOMES Associate

APPENDIX G : PRELIMINARY COSTING ASSESSMENT

This is the key information abstracted from the business case document dated April 1, 2022 prepared by the Peachland Hub Society.

Main Hub – Renovate & Expand

Renovation to the Existing Building - Envelope upgrade, modernization of HVAC and kitchen, upgrade washrooms and re-purpose multi-function spaces.

Expansion - Add circulation and a new face for the building as well as a 2-storey addition of multipurpose spaces, washrooms and office.

Annex – New Addition (essentially a warehouse)

New Annex building will house the Peachland Food Bank and additional storage.

Suggested Class D Order of Magnitude +/-25% range of expected accuracy excluding site works, demolition of existing, HazMat abatement (if any), all soft costs, design pricing contingency (suggest 15%), escalation contingency (8% per annum compound calculated), construction change order contingency (5%) with rates representing current Q2 2022 Peachland pricing and NetZero cost implications:

Option 1 – Total New Build Main Hub

(Approx. 16,000 sf @ ~\$700/sf including roof solar panels).

Total New Build Annex (Approx. 2,000 sf @ ~\$250/sf).

Option 2 – New Addition & Renovate Existing

(New Build – Approx. 10,000 sf @ ~\$700/sf;

Reno Existing – Approx. 6,000 sf @ ~\$680/sf x 90% = \$612/sf).

(Note: The unit rate for renovating existing assumes major renovation (including new M&E systems) plus upgrading the envelope to NetZero requirements.)

APPENDIX H : HAZARDOUS AND REGULATED MATERIALS INVENTORY REPORT

APPENDIX I : EXISTING DRAWINGS

APPENDIX J : SITE ANALYSIS

