



PEACE RIVER REGIONAL DISTRICT

KELLY LAKE COMMUNITY CENTRE PROGRAM AND CONCEPT DESIGN

November 21, 2019

FCAPX

thinkspace

FCAPX was commissioned by the Peace River Regional District to provide building condition assessments for three community centres in their region. One of these centres was the Kelly Lake Community Centre located in Kelly Lake just west of the Alberta British Columbia border. The community centre itself is built on the northern edge of the lake. The views from this location to the lake are excellent and provides a unique and high quality context for the building itself.

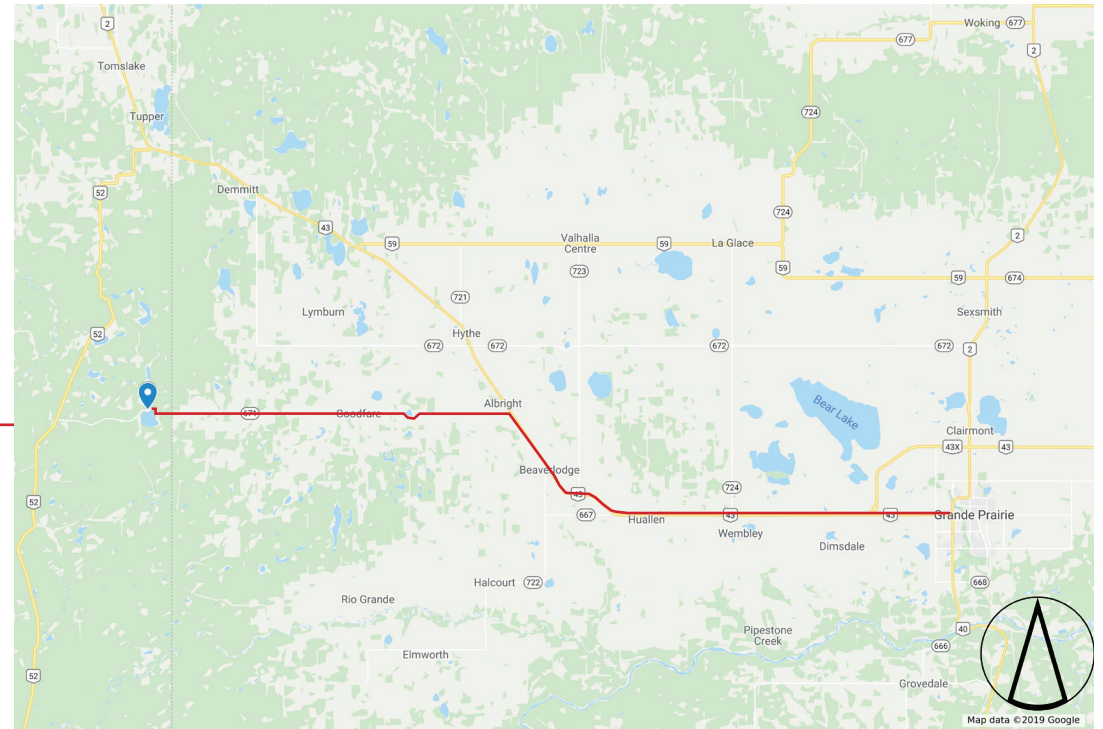
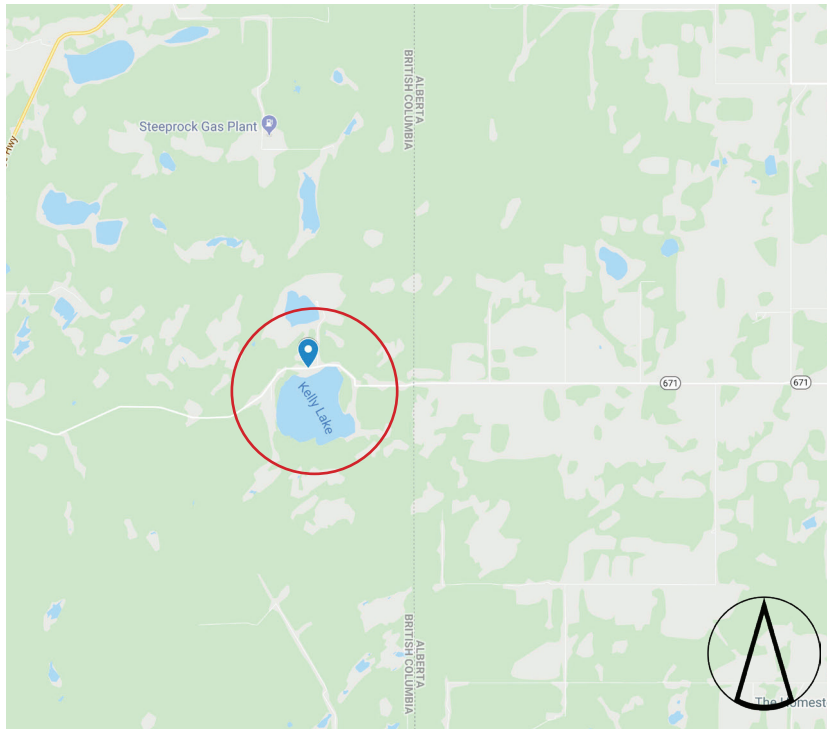
Thinkspace was brought to the project by FCAPX to address the needs requirements of the Kelly Lake Community Centre specifically providing both a program and ideas of how that program might be realized in the location.

Two trips were made to the facility. The first was on July 12, 2019. This workshop was a visioning and programming session to learn about the community and determine the space needs of the group.

The second trip was made on October 11, 2019 to present the outcome of architectural studies done to identify a possible solution to the program developed as a result of the workshop held



PEACE RIVER
REGIONAL DISTRICT

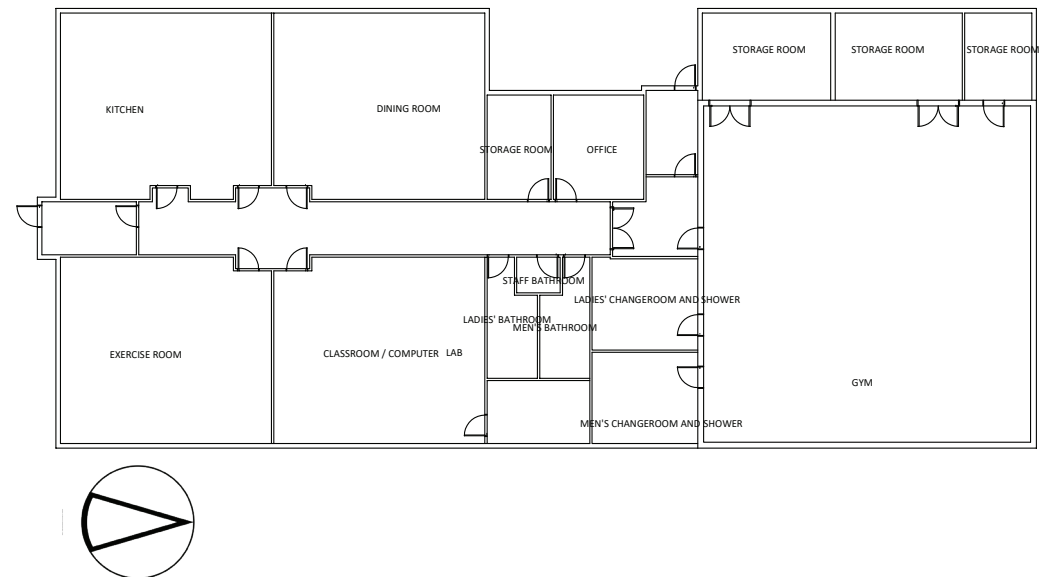


on July 12, 2019.

The Building

Kelly lake Community Centre consists of two connected structures: the gymnasium, and the lower office and classroom area. The gym is constructed of load bearing concrete block with open web steel joists spanning the space. Metal deck spans the joists.

The lower portion of the building was originally part of a school and is a steel frame with open web steel joists spanning from the outside beam to a column and beam located on either side of the central corridor.

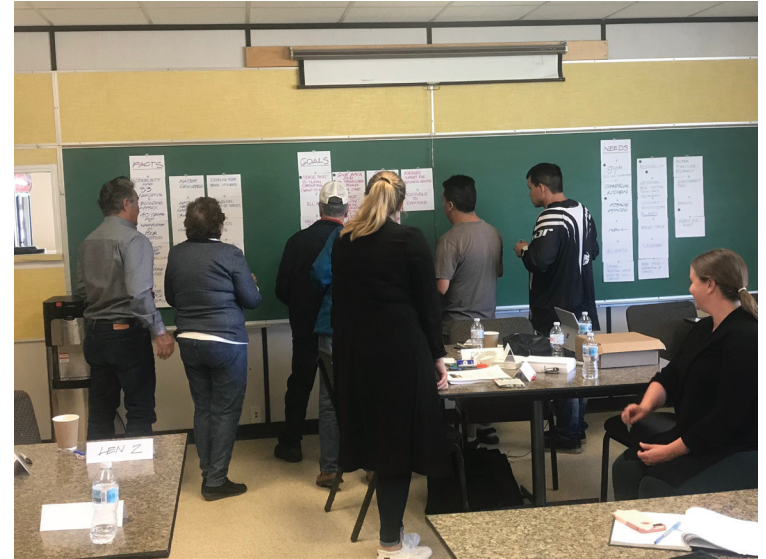


The exterior finishes are the concrete block painted and a profiled metal cladding well above the exit doors for the gym, and brick with the same profiled metal cladding at upper part of the lower building.

Public Consultation

Before we describe the public consultations a short description of what we do might be useful. The intent of this first all day consultation was to establish two components that are required to assess the kind and extent of changes that might be suggested. These are:

- **The “Vision”:** This establishes what the consensus view of the future might look like. The tools we use to get to this are quite straight forward. We facilitate a discussion where everyone is free to speak about about how they see a future version of the Community Centre operating and what programs and services it will offer. Once that discussion is complete, we ask participants to vote on the top 3 goals that were identified. This is done one cards and with small green sticky dots.
- **Programming:** This is the term used by planners for the process of gathering information of the specific functions that must be included and ho much floor area each of this will require. The tool we use here is a spreadsheet where record the different types of rooms and capture the specific areas. The areas we use are based on benchmarking to similar spaes



PEACE RIVER
REGIONAL DISTRICT

in other locations

Consultations

The consultations were done with face-to-face workshops and questionnaires distributed to the community. The first round consisted of Workshop scheduled for July 12, 2019 with preliminary material sent to the Regional District and the community well ahead of the actual workshop date. The meeting occurred in the area designated as the “Dining Room” in the

community centre.

The group was extremely responsive and engaged as we discussed the community’s vision for how the community centre should function. The clear indication emerging from the workshop is that the community centre is a vital location and the centre of community life and enjoys use from across all areas of the community.

The second part of the workshop covered the functional needs of the facility and how they were related to one another.



Existing Gymnasium



Existing Kitchen



Weight Room and General Purpose



PEACE RIVER
REGIONAL DISTRICT



Classroom and
Child Care

Results of the Workshop

The discussion revealed the basic vision of the facility as follows:

- Space that is clean and comfortable
- Available to all ages
- Designed with a sense of community
- Make the internal flow logical
- That it be warm in the winter
- That the facility have adequate power for assembly events
- That the centre be perceived as the centre of the community and be a landmark.
- Have adequate support for a business centre
- That there be a larger gymnasium

As can be seen in the photo to the right by the clustering of the green dots that mark the individual votes on the most important elements of the goals for the facility, the two most important elements were:

1. A gymnasium that was a more workable size - at least that of a typical elementary school
2. That there be the proper infrastructure for the facility in terms of electrical capacity, proper mechanical ventilation and heating, and gas service instead of the existing propane.



Programming

The information gathered at the meeting of July 12, 2019 also provided what was required to prepare a program of the space needs. Once the functional uses were established, Thinkspace benchmarked the uses to similar facilities and placed calculated the net areas required for each one of the functions. This was also compared to the spaces now available. This information is captured in the area to the left on the spreadsheet.

The area of the spreadsheet that captures the room functions and sizes required is on the left of the spreadsheet - tinted light yellow here. The portion of the spreadsheet to the right captures the actual existing area of those functions - here tinted light red. The summary of the areas needed and existing is shown at the top of the following page.

The existing net program area available in the building is **594.10 SM** with a required net area of **749.0 SM**. That is a shortfall of **154.9 SM**. The approximate gross building area required to meet the program is **1,198.4 SM**. The gross area of the existing building is **816.49**. This suggests an addition of some **381.91 SM** is required.



PEACE RIVER
REGIONAL DISTRICT

		Existing Requirements 2019					AS FOUND	
Ref No.	ROOM NAME	No. of Staff	Allow (sm)	Area (asm)	Room Type	AS FOUND LOCATION	Area (SM)	Ratio
A-1.0 INDIVIDUAL AND SHARED OFFICE SPACE								
1.1 KLCC		PER	ALLOW				AS FOUND	
1.1.1	Offices	2	6.5	13.0	●	Front office	18.6	0.7
1.1.2	Front Entry			0.0			0.0	0.0
				13.0			18.6	0.7
1.2 (-----)		PER	ALLOW				AS FOUND	
1.2.1				0.0			0.0	0.0
1.2.2				0.0			0.0	0.0
1.2.3				0.0			0.0	0.0
1.2.4				0.0			0.0	0.0
				0.0			0.0	0.0
				13.0			18.6	
A-2.0 PROGRAM SPACE								
2.1 Classrooms		PER	ALLOW				AS FOUND	
2.1.1	General Purpose 1	15	2.2	33.0	●	Shared classroom	38.2	0.9
2.1.2	General Purpose 2	15	2.2	33.0	●	shared classroom	38.2	0.9
2.1.3	Dining Room	30	2.5	75.0			76.3	1.0
2.1.4				0.0			0.0	0.0
				141.0			152.6	0.9
2.2 Gym		PER	ALLOW				AS FOUND	
2.2.1	Elementary Sized Gym	1	250.0	250.0			216.3	1.2
2.2.2	Weight Room	4	8.0	32.0		In multi-purpose room now	0.0	0.0
2.2.3	Storage	1	60.0	60.0			55.2	1.1
2.2.4				0.0			0.0	0.0
				342.0			271.5	1.3
2.3 Childcare		PER	ALLOW				AS FOUND	
2.3.1	Childcare Space for Adults in Program	5	10.0	50.0	●		76.3	0.7
2.3.2				0.0			0.0	0.0
				50.0			76.3	0.7
				533.0			500.4	
A-3.0 SUPPORT SPECIALTY SPACE								
3.1 Commercial Kitchen		PER/UNIT	ALLOW				AS FOUND	
3.1.1	Kitchen with Loading Zone	1	60.0	60.0		Existing kitchen	75.2	0.8
3.1.2	Gathering	20	2.2	44.0		None	0.0	0.0
3.1.1				0.0			0.0	0.0
				104.0			75.2	1.4
3.2 Others		PER	ALLOW				AS FOUND	
3.1.1	First Aid	1	15.0	15.0		None	0.0	0.0
3.1.2	Elders	6	3.0	18.0		None	0.0	0.0
3.1.1	Business Centre	3	4.0	12.0		None	0.0	0.0
3.1.2	Printer Space	1	4.0	4.0			0.0	0.0
3.1.1	Exterior Event Space	30	2.2	66.0		Not defined	0.0	0.0
3.1.2	Exterior Storage	1	10.0	10.0		None	0.0	0.0
3.1.1	Interior Storage	1	10.0	10.0		One area - the remainder is gym storage	13.1	0.8
3.1.2	Event Space	10	4.0	40.0		Gym used for events currently	0.0	0.0
				175.0			0.0	0.0
				279.0			75.2	



PEACE RIVER
REGIONAL DISTRICT

A-1.0 INDIVIDUAL AND SHARED OFFICE SPACE	13.0		18.6
A-2.0 PROGRAM SPACE	533.0		500.4
A-3.0 SUPPORT SPECIALTY SPACE	279.0		75.2

TOTAL SPACE NEEDED	825.0	594.10	Existing Net Program Area
TOTAL NET SPACE REQUIRED (Less Exterior Needs)	749.0	Total Building Net Area 765.77	Area Inadequate for Need
APPROXIMATE TOTAL GROSS AREA NEEDED.	1198.4	Existing Gross Area 816.49	

Adjacencies

The spreadsheet has an area that captures the adjacencies for the room functions. By adjacency we mean the space that needs to be the closest physically to the one being viewed. For example, if you are looking at room "A" and you indicated that room "B" needs to be the closest, then you would plan the floor to ensure that A was as close to B as possible. The adjacencies for the Program Space portion of the spreadsheet is shown to the right. The adjacency column is tinted light red.

A description of the adjacencies required of the project allows us to begin planning a possible solution. The adjacencies are expressed in a chord diagram that captures the adjacencies identified in the spreadsheet above.

In order to better understand the relationships that emerge from the spreadsheet, we take the information and create what is called a "chord" diagram. The diagram puts all of the functions for which an adjacency has been given on the outermost edge of a circle. It sizes the segments of the circle based on how many times the adjacency has been given to a par-

A-2.0 PROGRAM SPACE						
2.1 Classrooms		PER	ALLOW			
2.1.1	General Purpose 1	15	2.2	33.0	GATHERING	
2.1.2	General Purpose 2	15	2.2	33.0	GATHERING	
2.1.3	Dining Room	30	2.5	75.0	GATHERING	
2.1.4				0.0		
				141.0		
2.2 Gym		PER	ALLOW			
2.1.1	Elementary Sized Gym	1	250.0	250.0	GATHERING	
2.1.2	Weight Room	4	8.0	32.0	GYM	
2.1.3	Storage	1	60.0	60.0	FRONT OFFICE	
2.1.4				0.0		
				342.0		
2.3 Childcare		PER	ALLOW			
2.1.1	Childcare Space for Adults in Program	5	10.0	50.0	GATHERING	
2.1.2				0.0		
				50.0		
				533.0		

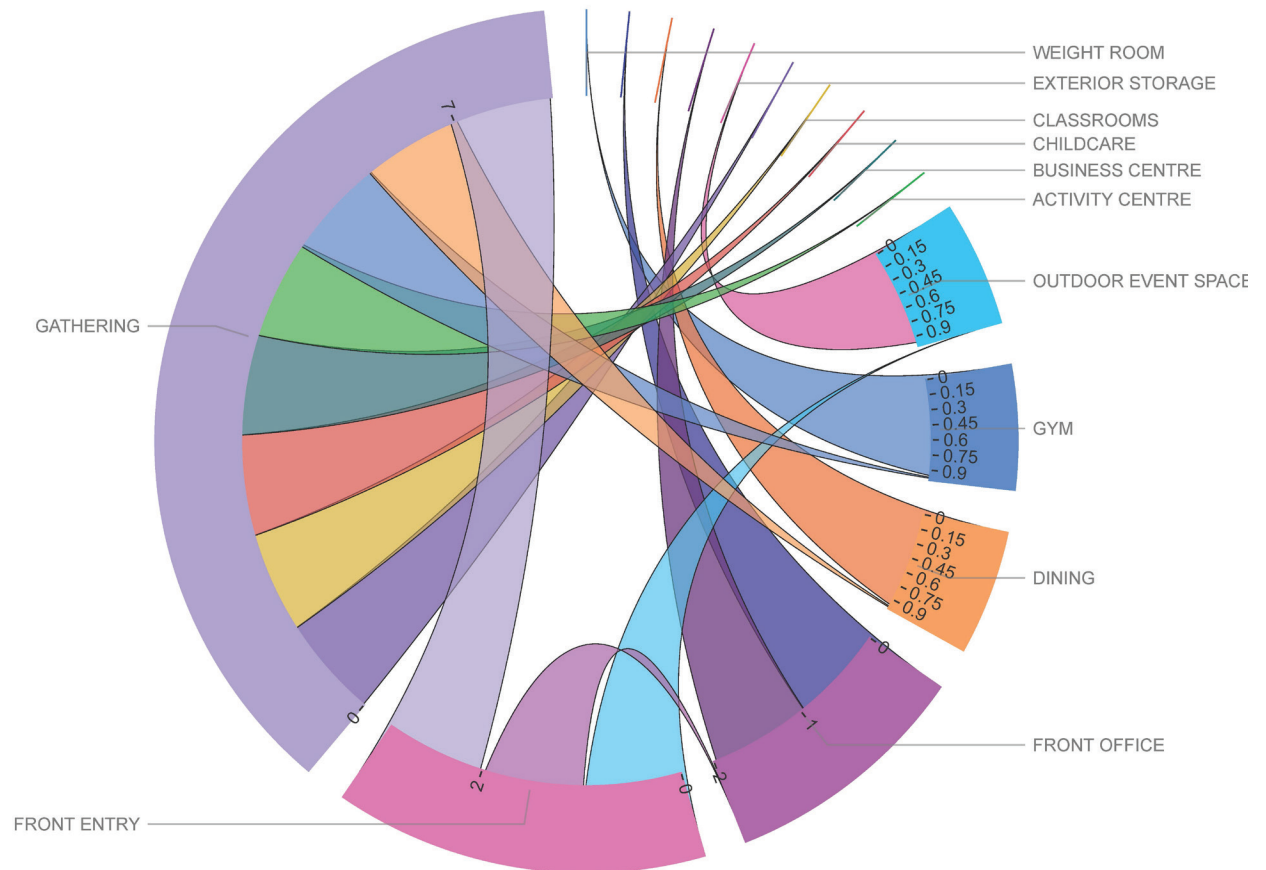
ticular function. The result is a series of coloured connections between the adjacent functions that expresses the frequency and the function to which that adjacency is required.

In the diagram generated for our spreadsheet, the space marked “Gathering” has the most frequent indication of a required adjacency and therefore is the largest. That is followed by the “Front Entry”, then “Front Office” and so forth.

Connections

The outer circle then connects functions together. In the diagram, the “Gathering” function has eight connections to other functions with the heaviest of these connections to the “Front Entry” function. You can trace through the adjacencies by following the connections between functions. The relative sizes of the functions and the connections are again based on the number of times the adjacency is indicated.

The chord diagram clearly shows the importance of the gathering space identified in the program. All public functions are marshaled around this key location. Any solution to the program would require a central



PEACE RIVER
REGIONAL DISTRICT

area for this gathering function that in turn leads to all of the other principal functions within the facility that is shown in the connections in the chord diagram. This immediately identifies a key problem with the existing building: it does not have a gathering area and the functions are strung out along a corridor.

Developing a Solution

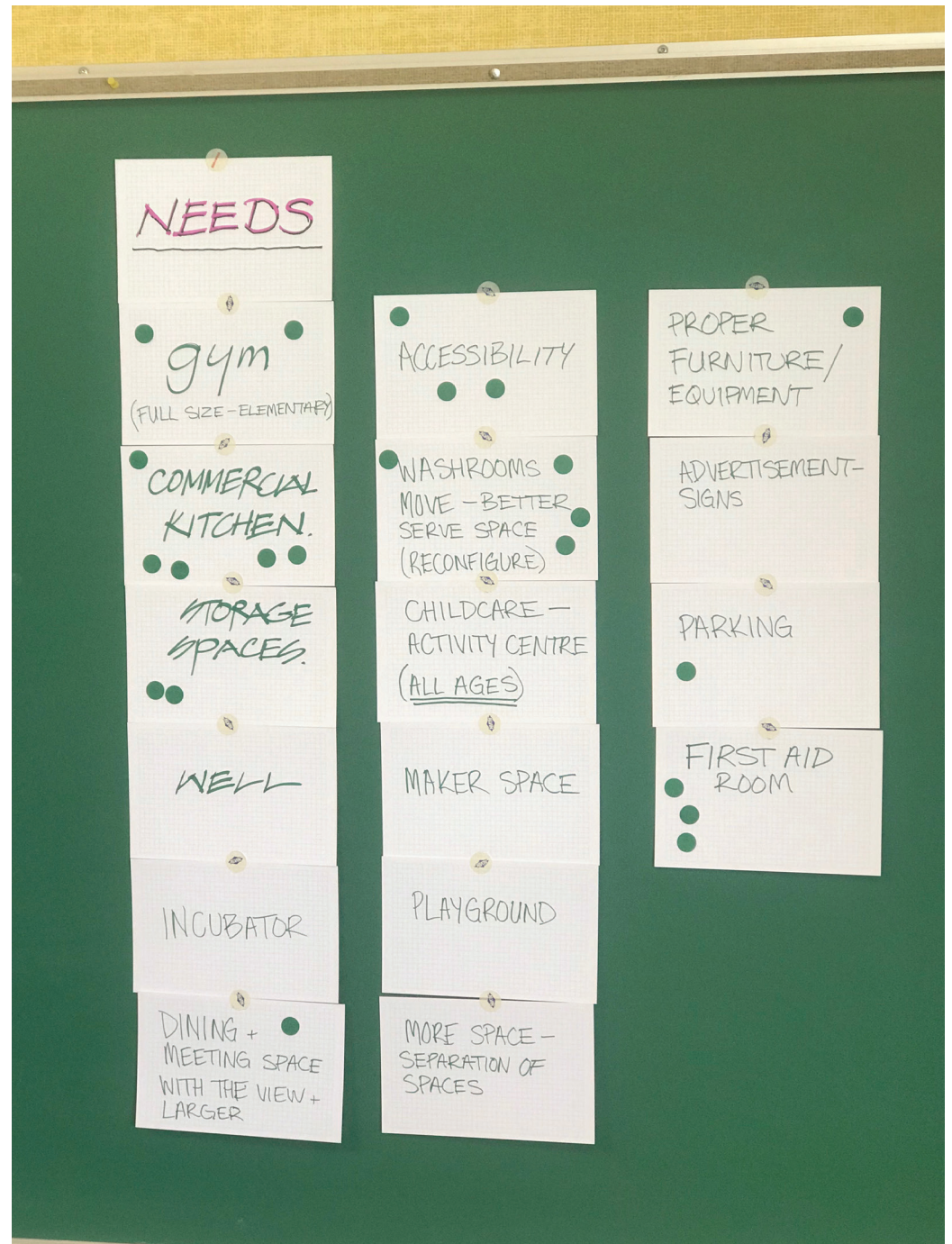
The Thinkspace architectural team worked with the programming document and the chord diagram to develop an approach to the building that could meet the program and yet work with the existing building in a positive and optimal way.

The original scope of this study was to include three alternative approaches. The Peace River Regional District later advised us that two approaches would suffice provided that one alternative considered what could be achieved within the existing envelope and the second looking at the implications of the full program allowing expansion beyond the existing envelope.

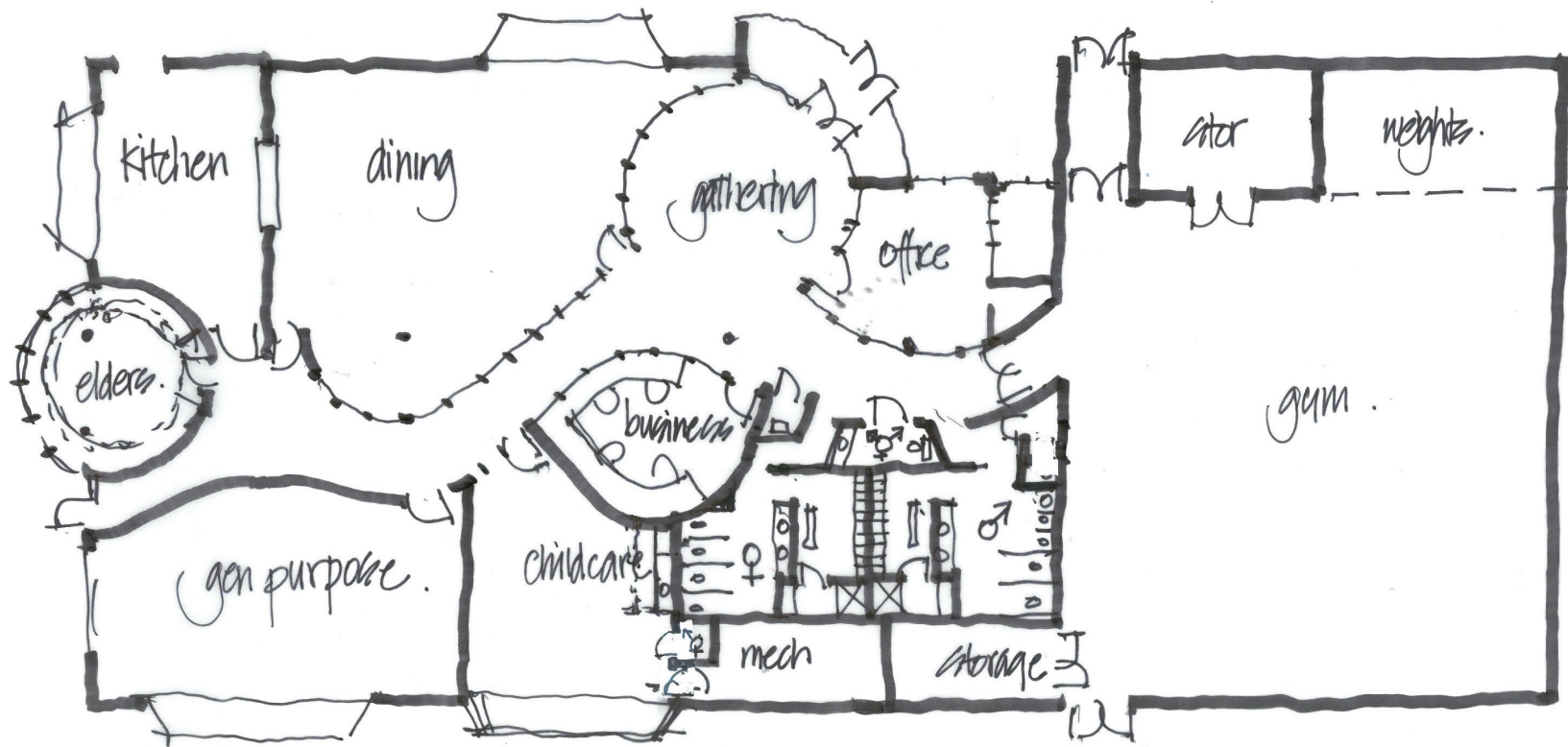
Objectives of the Alternative Schemes

The two alternatives that are presented here have several commonalities based on the siting of the existing building. These include:

- The need for clear visibility from the administrative offices to both the entry and the internal circulation
- Ability of users to see and understand what is occurring within the building. This is intended to make the experience of the Community Centre more inclusive and functioning clear



- Areas should take advantage of the stunning view to the lake and make that view part of the internal experience of the building
- The building classification under the BC Building Code is A2 - Assembly. This applies to the entire building and all occupancy calculations must adhere to that classification



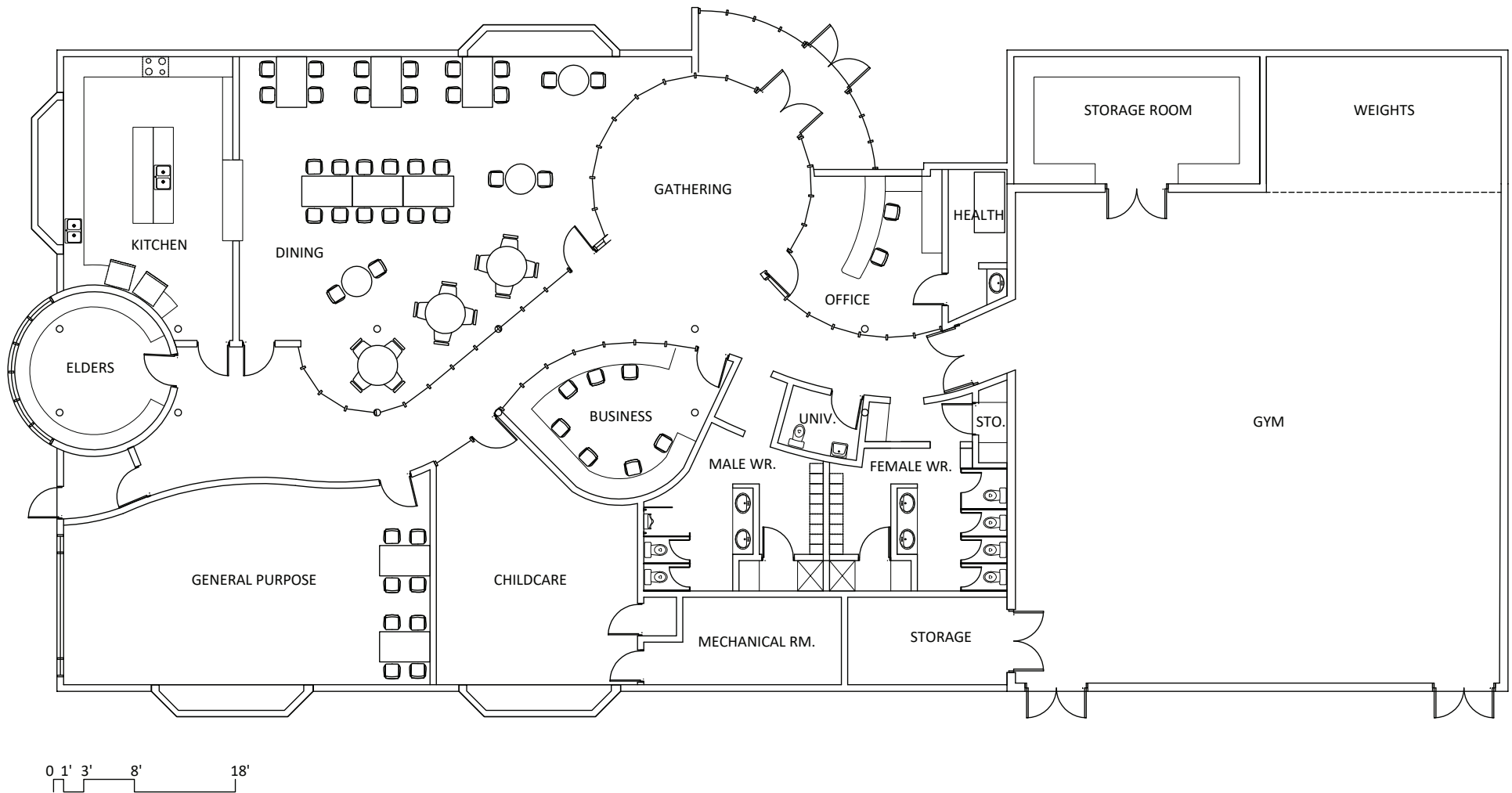
Kelly Lake Community Centre Trial Plan

August 30, 2019

thinkspace



PEACE RIVER
REGIONAL DISTRICT



Concepts - Alternative 1

This alternative is developed to reuse the existing shell with minimal external changes except for the replacement of windows which is required due to their condition. For a fuller description of the building condition, please refer to the building condition assessment done FCAPX.

The first sketch plan is illustrated above. The key features are:

- The interior is organized around the gathering space at the entry

- Circulation allows visibility into most areas
- The washrooms and change areas for the gym are consolidated into a single area where locker/shower access can be restricted when not required
- Elders room is given a lake-side view

The scaled layout in AutoCAD shows the final Alternative 1. The only portions of this scheme that extend beyond the existing envelope are the front entry and the elders area. These extensions are minimal. We also did not relocate the kitchen from its current position, but given the view to the lake, the dining room would benefit from being in the position the kitchen now has. Flipping the arrangement is explored a bit more in Alternative 2.



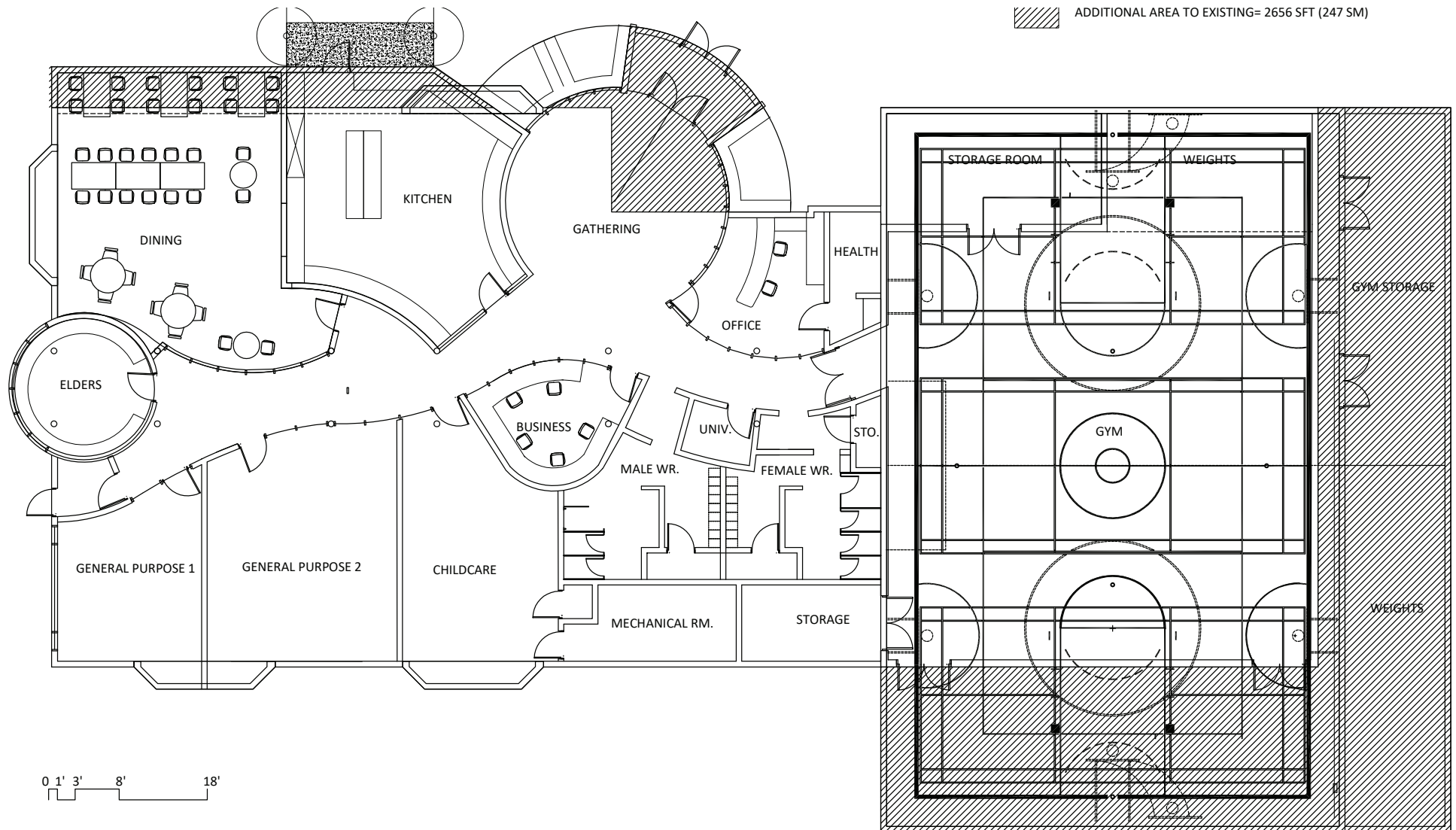
PEACE RIVER
REGIONAL DISTRICT

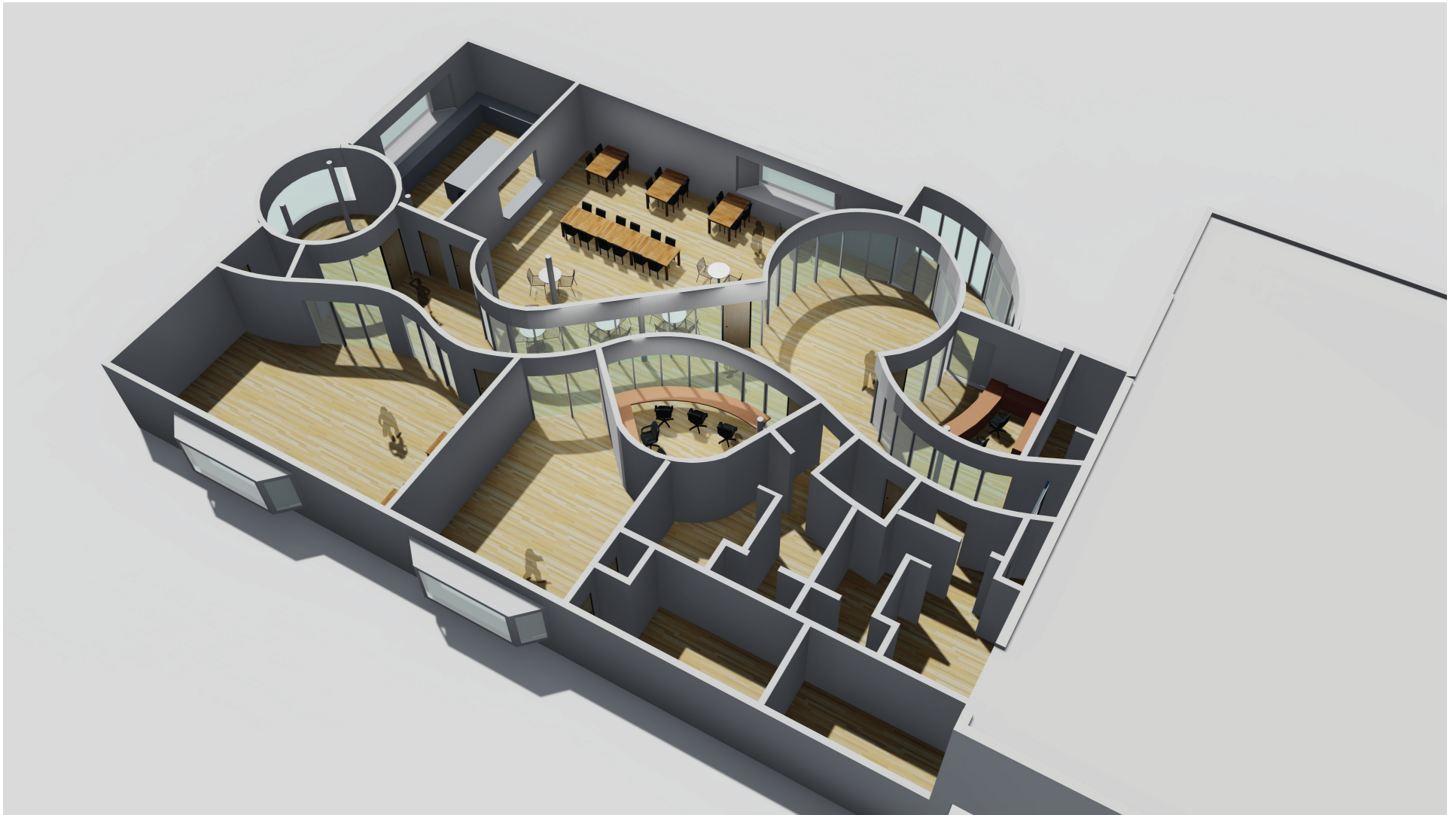
The area for Alternative 1 is below that required by the program as a result of keeping the building envelope intact.

Concepts - Alternative 2

Alternative 2 pursues the entire scope as described in the program document. This necessitates a major expansion mostly centred on the gymnasium where the size of both the gym itself and its storage are much greater than what is currently there.

There is also an expansion to the kitchen dining area to meet the area requirements. All other uses are essentially the same. The two variants studies here are the flipping of the kitchen/dining room arrangement and having two multi-purpose rooms





and child care on the east side. The approach to the interior space remains unchanged.

We should note that the structure of the lower portion of the building in both Alternative 1 and 2 are untouched. **Follow-Up**

The two alternatives were reviewed with stakeholders at a workshop held at the Kelly Lake Community Centre on October 11,



PEACE RIVER
REGIONAL DISTRICT



2019. In addition, a questionnaire was sent out with illustrations of the alternatives prior to the event. A short presentation was made taking the participants through the process beginning with the previous workshop and stepping through the process of programming and developing the alternatives. Knowing that most people have difficulty understanding plans, we created a number of three dimensional imagery including renderings of the interior to provide the group with as cogent an idea of what the changes might look like as we could.

The three dimensional images solicited the most comment. After some further questions and discussion, it was very clearly to us that the group favoured Alternative 2 as the one the community would like to have constructed.



PEACE RIVER
REGIONAL DISTRICT





KELLY LAKE COMMUNITY CENTRE - ELEMENTAL COST SUMMARY					OPTION 1		
Element	Ratio to GFA	Elemental Cost			Total Cost	Rate per gross m ²	
		Quantity	Unit Rate	Sub Total		Sub-Total	Total %
SUBSTRUCTURE					\$4,412.41	\$5.18	0.174%
Normal foundations	0.025	21.11 m ²	162.12	\$3,422.35		\$4.01	
Earthwork for Building	0.025	21.11 m ³	46.90	\$990.06		\$1.16	
Special Conditions	0.000		-			\$0.00	
STRUCTURE					\$15,087.53	\$17.70	0.596%
Slab on Grade	0.025	21.11	68.01	\$1,435.69		\$1.68	
Suspended Floor Construction	0.025	21.11	300.79	\$6,349.68		\$7.45	
Roof Construction	0.025	21.11	345.91	\$7,302.16		\$8.57	
Structural Walls	0.000		290.69			\$0.00	
EXTERIOR CLADDING					\$653,269.93	\$766.33	25.790%
Roof Finish	0.02	21.11 m ²	231.91	\$4,895.62		\$5.74	
Walls Below Ground Floor	0.04	33 m ²	125.00	\$4,125.00		\$4.84	
Walls Above Ground Floor	0	0 m ²	810.32	\$0.00		\$0.00	
Windows	0.14	119 m ²	4,809.49	\$572,329.31		\$671.38	
Exterior Doors and Screens		4 No	17,980.00	\$71,920.00		\$84.37	
Window Shutters	0.00	0 m ²	-	\$0.00		\$0.00	
Sunshades	0.00	0 m ²		\$0.00		\$0.00	
Balcony and Projections	0.00	0 m ²	230.79	\$0.00		\$0.00	
INTERIOR PARTITIONS					\$188,933.11	\$221.63	7.459%
Permanent Partitions	0.45	385.6 m ²	173.79	\$67,013.42		\$78.61	
Interior Windows	0.13	112 m ²	750.00	\$84,000.00		\$98.54	
Operable Walls - Solid Acoustic		0		\$0.00		\$0.00	
Operable Glazed Walls		0	16,764.29	\$0.00		\$0.00	
Gym Divider Curtain		0		\$0.00		\$0.00	
Interior Doors		17 Lvs	1,410.74	\$23,982.58		\$28.13	
Hardware		17 Lvs	819.83	\$13,937.11		\$16.35	
VERTICAL MOVEMENT					\$0.00	\$0.00	0.000%
Stairs			-			\$0.00	
Elevator			-			\$0.00	
Ramps and Steps			-			\$0.00	
INTERIOR FINISHES					\$100,056.96	\$117.37	3.950%
Floor Finishes	0.61	522 m ²	80.32	\$41,927.04		\$49.18	
Ceiling Finishes	0.61	522 m ²	79.57	\$41,535.54		\$48.72	
Wall Finishes	0.61	522 m ²	31.79	\$16,594.38		\$19.47	
FITTINGS AND EQUIPMENT					\$97,239.46	\$114.07	3.839%
Millwork	0.29	250 m ²	81.43	\$20,357.50		\$23.88	
Whiteboards/Tackboards	0.61	522 m ²	7.43	\$3,878.46		\$4.55	
Miscellaneous Specialties	0.61	522 m ²	0.32	\$167.04		\$0.20	
Miscellaneous Metals	0.61	522 m ²	9.66	\$5,042.52		\$5.92	
WC Access and Partitions	0.61	522 m ²	11.77	\$6,143.94		\$7.21	
HC Lift						\$0.00	
Counter Grills						\$0.00	
Walk Off Mats						\$0.00	
Signage				\$1,500.00		\$1.76	
Mirrors				\$950.00		\$1.11	
Rough Carpentry, Caulking, Fire Proofing				\$3,000.00		\$3.52	
Kitchen Equipment (Commercial)				\$45,000.00		\$52.79	
Gym Equipment				\$10,000.00		\$11.73	
Sealants and Firestopping				\$1,200.00		\$1.41	
ELECTRICAL					\$131,538.78	\$154.30	5.193%
Services and Distribution	0.61	522 m ²	62.00	\$32,364.00		\$37.96	
Lighting	0.61	522 m ²	98.00	\$51,156.00		\$60.01	
Power	0.61	522 m ²	38.00	\$19,836.00		\$23.27	
Fire Alarm	0.61	522 m ²	13.00	\$6,786.00		\$7.96	
Tel/Data	0.61	522 m ²	20.99	\$10,956.78		\$12.85	
Security	0.61	522 m ²	13.00	\$6,786.00		\$7.96	
PA and Ancillary Systems	0.61	522 m ²	7.00	\$3,654.00		\$4.29	
MECHANICAL					\$243,064.08	\$285.13	9.596%
Plumbing and Drainage	0.61	522 m ²	90.11	\$47,037.42		\$55.18	
Fire Protection	0.61	522 m ²	32.53	\$16,980.66		\$19.92	
HVAC	0.61	522 m ²	298.00	\$155,556.00		\$182.48	
Controls	0.61	522 m ²	45.00	\$23,490.00		\$27.56	
OVERHEAD AND PROFIT, GC FEE					\$221,995.39	275.21	8.764%
SOFT COSTS					\$463,567.34		18.301%
DESIGN CONTINGENCY					\$413,899.41		16.340%
NET BUILDING COST					\$2,533,064.42		100.000%
Gross Floor Area	852.47			DESIGN CONTINGENCY	15%		

Costs

Alternative 1

The costs of each option were developed to a class D level using current costs for a more remote location. The closest major centre is Grande Prairie which is about a one hour drive from the western edge of the city. The cost of the demolition and rebuilding of the interior is approximately **\$2.53 million**. This includes design contingency, soft costs and contractor overhead, profit, and fees.

Alternative 2

The second alternative totally rebuilds the gymnasium which requires more excavation and foundation work. Below grade work is also required on the west side of the lower building to meet area requirements. The cost of this alternative is **\$3.29 million** including design contingency, soft costs, and overhead profit and fees.

KELLY LAKE COMMUNITY CENTRE - ELEMENTAL COST SUMMARY						OPTION 2		
Element	Ratio to GFA	Elemental Cost			Total Cost	Rate per gross m ²		
		Quantity	Unit Rate	Sub Total		Sub-Total	Total	%
SUBSTRUCTURE					\$51,552.69			1.567%
Normal foundations	0.236	246.64 m ²	162.12	\$39,985.28		\$38.26		
Earthwork for Building	0.236	246.64 m ³	46.90	\$11,567.42		\$11.07		
Special Conditions	0.000		-			\$0.00		
STRUCTURE					\$176,276.07		\$168.69	5.359%
Slab on Grade	0.236	246.64	68.01	\$16,773.99		\$16.05		
Suspended Floor Construction	0.236	246.64	300.79	\$74,186.85		\$70.99		
Roof Construction	0.236	246.64	345.91	\$85,315.24		\$81.64		
Structural Walls	0.000		290.69			\$0.00		
EXTERIOR CLADDING					\$730,648.84		\$699.19	22.213%
Roof Finish	0.236	246.64 m ²	231.91	\$57,198.28		\$54.74		
Walls Below Ground Floor		233.61 m ²	125.00	\$29,201.25		\$27.94		
Walls Above Ground Floor		0 m ²	810.32	\$0.00		\$0.00		
Windows		119 m ²	4,809.49	\$572,329.31		\$547.68		
Exterior Doors and Screens		4 No	17,980.00	\$71,920.00		\$68.82		
Window Shutters		0 m ²	-	\$0.00		\$0.00		
Sunshades		0 m ²		\$0.00		\$0.00		
Balcony and Projections		0 m ²	230.79	\$0.00		\$0.00		
INTERIOR PARTITIONS					\$188,933.11		\$180.80	5.744%
Permanent Partitions		385.6 m ²	173.79	\$67,013.42		\$64.13		
Interior Windows		112 m ²	750.00	\$84,000.00		\$80.38		
Operable Walls - Solid Acoustic		0		\$0.00		\$0.00		
Operable Glazed Walls		0	16,764.29	\$0.00		\$0.00		
Gym Divider Curtain		0		\$0.00		\$0.00		
Interior Doors		17 Lvs	1,410.74	\$23,982.58		\$22.95		
Hardware		17 Lvs	819.83	\$13,937.11		\$13.34		
VERTICAL MOVEMENT					\$0.00		\$0.00	0.000%
Stairs			-			\$0.00		
Elevator			-			\$0.00		
Ramps and Steps			-			\$0.00		
INTERIOR FINISHES					\$117,988.19		\$112.91	3.587%
Floor Finishes		799.56 m ²	80.32	\$64,220.66		\$61.46		
Ceiling Finishes		521.91 m ²	79.57	\$41,528.38		\$39.74		
Wall Finishes		385.00 m ²	31.79	\$12,239.15		\$11.71		
FITTINGS AND EQUIPMENT					\$127,424.66		\$121.94	3.874%
Millwork		450.00 m ²	81.43	\$36,643.50		\$35.07		
Whiteboards/Tackboards		799.56 m ²	7.43	\$5,940.73		\$5.68		
Miscellaneous Specialties		799.56 m ²	0.32	\$255.86		\$0.24		
Miscellaneous Metals		799.56 m ²	9.66	\$7,723.75		\$7.39		
WC Access and Partitions		799.56 m ²	11.77	\$9,410.82		\$9.01		
HC Lift						\$0.00		
Counter Grills						\$0.00		
Walk Off Mats						\$0.00		
Signage				\$1,500.00		\$1.44		
Mirrors				\$950.00		\$0.91		
Rough Carpentry, Caulking, Fire Proofing				\$3,000.00		\$2.87		
Kitchen Equipment (Commercial)				\$45,000.00		\$43.06		
Gym Equipment				\$15,000.00		\$14.35		
Sealants and Firestopping				\$2,000.00		\$1.91		
ELECTRICAL					\$248,112.27		\$237.43	7.543%
Services and Distribution		799.56 m ²	62.00	\$49,572.72		\$47.44		
Lighting		1045 m ²	98.00	\$102,410.00		\$98.00		
Power		1045 m ²	38.00	\$39,710.00		\$38.00		
Fire Alarm		1045 m ²	13.00	\$13,585.00		\$13.00		
Tel/Data		1045 m ²	20.99	\$21,934.55		\$20.99		
Security		1045 m ²	13.00	\$13,585.00		\$13.00		
PA and Ancillary Systems		1045 m ²	7.00	\$7,315.00		\$7.00		
MECHANICAL					\$486,593.80		\$465.64	14.793%
Plumbing and Drainage		1045 m ²	90.11	\$94,164.95		\$90.11		
Fire Protection		1045 m ²	32.53	\$33,993.85		\$32.53		
HVAC		1045 m ²	298.00	\$311,410.00		\$298.00		
Controls		1045 m ²	45.00	\$47,025.00		\$45.00		
OVERHEAD AND PROFIT,GC FEE					\$221,995.39		275.21	6.749%
SOFT COSTS					\$657,867.01			20.000%
DESIGN CONTINGENCY					\$281,943.00			8.571%
NET BUILDING COST					\$3,289,335.05			100.000%



Ref No.	ROOM NAME	Existing Requirements 2019				AS FOUND LOCATION	AS FOUND		Adjacency 1	Adjacency 2	Adjacency 3	COMMENTS
		No. of Staff	Allow (sqm)	Area (sqm)	Room Type		Area (sqm)	Ratio				

A-1.0 INDIVIDUAL AND SHARED OFFICE SPACE												
1.1 KLCC												
1.1.1	Offices	2	6.5	13.0	Front office	AS FOUND	18.6	0.7	FRONT ENTRY			
1.1.2	Front Entry			0.0			0.0	0.0	GATHERING			
				13.0			18.6	0.7				
1.2 (-----)												
1.2.1		PER	ALLOW	0.0		AS FOUND	0.0	0.0				
1.2.2				0.0			0.0	0.0				
1.2.3				0.0			0.0	0.0				
1.2.4				0.0			0.0	0.0				
				0.0			0.0	0.0				
				13.0			18.6					

A-2.0 PROGRAM SPACE												
2.1 Classrooms												
2.1.1	General Purpose 1	15	2.2	33.0	Shared classroom	AS FOUND	38.2	0.9	GATHERING			
2.1.2	General Purpose 2	15	2.2	33.0	shared classroom		38.2	0.9	GATHERING			
2.1.3	Dining Room	30	2.5	75.0			76.3	1.0	GATHERING			
2.1.4				0.0			0.0	0.0				
				141.0			152.6	0.9				
2.2 Gym												
2.2.1	Elementary Sized Gym	1	250.0	250.0		AS FOUND	216.3	1.2	GATHERING			
2.2.2	Weight Room	4	8.0	32.0	In multi-purpose room now		0.0	0.0	GYM			
2.2.3	Storage	1	60.0	60.0			55.2	1.1	FRONT OFFICE			
2.2.4				0.0			0.0	0.0				
				342.0			271.5	1.3				
2.3 Childcare												
2.3.1	Childcare Space for Adults in Program	5	10.0	50.0		AS FOUND	76.3	0.7	GATHERING			
2.3.2				0.0			0.0	0.0				
				50.0			76.3	0.7				
				533.0			500.4					

A-3.0 SUPPORT SPECIALTY SPACE												
3.1 Commercial Kitchen												
3.1.1	Kitchen with Loading Zone	1	60.0	60.0	Existing kitchen	AS FOUND	75.2	0.8	DINING			Residential style similar to high school lab
3.1.2	Gathering	20	2.2	44.0	None		0.0	0.0	FRONT ENTRY			
3.1.1				0.0			0.0	0.0				
				104.0			75.2	1.4				
3.2 Others												
3.2.1	First Aid	1	15.0	15.0	None	AS FOUND	0.0	0.0	FRONT OFFICE			
3.2.2	Elders	6	3.0	18.0	None		0.0	0.0	GATHERING			
3.2.1	Business Centre	3	4.0	12.0	None		0.0	0.0	GATHERING			
3.2.2	Printer Space	1	4.0	4.0			0.0	0.0	BUSINESS CENTRE			
3.2.1	Exterior Event Space	30	2.2	66.0	Not defined		0.0	0.0	FRONT ENTRY			
3.2.2	Exterior Storage	1	10.0	10.0	None		0.0	0.0	OUTDOOR EVENT			
3.2.1	Interior Storage	1	10.0	10.0	One area - the remainder is gym storage		13.1	0.8	FRONT OFFICE			
3.2.2	Event Space	10	4.0	40.0	Gym used for events currently		0.0	0.0	GATHERING			
				175.0			0.0	0.0				
				279.0			75.2					

A-1.0 INDIVIDUAL AND SHARED OFFICE SPACE				13.0		18.6
A-2.0 PROGRAM SPACE				533.0		500.4
A-3.0 SUPPORT SPECIALTY SPACE				279.0		75.2
TOTAL SPACE NEEDED				825.0	594.10	Existing Net Program Area
TOTAL NET SPACE REQUIRED (Less Exterior Needs)				749.0	765.77	adequate fit
APPROXIMATE TOTAL GROSS AREA NEEDED.				1198.4	816.49	
SHORTFALL				381.9		

©Thinkspace Architecture™