

LEGISLATIVE RETURN

SUBMITTED BY: Hon. Richard Mostyn for Highways and Public Works



1. On _____ ,

asked the following question during the Oral Question Period
at page(s) _____ of Hansard

☐ submitted the following written question – WQ No. _____

☐ gave notice of the following motion for the production of papers – MPP No. _____

OR

2. This legislative return relates to a matter outstanding from discussion related to:

Supplementary Budget debate Vote 55, Bill 203

On November 16, 2017 at page(s) 1683-1697 of Hansard

The responses are as follows:

Yukon Resource Gateway Project – schedule of work:

Question: Maybe it would be easier if we could ask the minister if he could commit to providing the House with a schedule of how the work is anticipated to be flowing over the next couple of years.

Answer: The provided schedule is an estimate and is subject to changes based on factors ranging from First Nation Consultation to assessment complexities.

Yukon Resource Gateway Project (Project Timelines Subject to Change)			
Task	Sub Task	Start	End
FN Consultation	THFN, SFN, LSCFN, Kaska, NND, WRFN (ongoing consultation through project)	2017	2018
	Preliminary Design Goldfields	2017	2018
	Preliminary Design Freegold & Carmacks Bypass	2017	2022
	Preliminary Design Nahanni Range	2017	2019
	Final Design & Geotech Goldfields	2018	2019
	Final Design & Geotech Freegold & Carmacks Bypass	2018	2019
	Final Design and Geotech Nahanni Range	2018	2019
Regulatory (EA, Water Licence)	Regulatory Goldfields	2017	2020
	Regulatory Freegold & Carmacks Bypass	2017	2019
	Regulatory Nahanni Range Road Francis River Bridge	2018	2019
Construction	Goldfields	2018	2022
	Carmacks Bypass	2019	2022
	Nahanni Range Francis River Bridge	2019	2021

Nares Bridge – YACA details – list of subs:

Question: Can the Minister provide a list of subs?

Answer: Ruskin partnered with Carcross and Tagish Management Corporation. The construction has not started. It is not currently known who the subs will be.

Signage at the Carcross Cut-off intersection:

Question: Can the Minister provide us with an update on whether the signage will be back in place out in the Carcross Cut-off area?

Answer: The variable message sign was up the week of November 6, 2017. All other regulatory signage is in place.

Street lights in Watson Lake district:

Question: Can we get an update on how the counts went and if there are any updates in regard to whether the street lights may be put in place?

Answer: We collected data on this stretch of road in June. Our winter attempt to collect the data was unsuccessful due to a technical error that caused data loss.

Based on Highways and Public Works' survey we found an average of:

- 4 pedestrians per day;
- 3 cyclists per day;
- 1 off highway vehicle per day.

The counts were completed in the summer when we expect higher traffic especially for pedestrians and cyclists. About 50% of pedestrians would be travelling in the dark in the winter based on the time they were observed in the June counts.

Lights are not warranted on the Campbell between Two and One-Half Mile Subdivision and Watson Lake.

The cost to install street lights is estimated to be between \$500,000 and \$600,000.

Annual operation and maintenance would be about \$12,000.

Justice Supreme Court Capital Project:

Question: On the forecast section of the tender management system, there is a proposed tender for the new Supreme Court Judge's office scheduled to be tendered tomorrow with a starting date of December 19 and completion date of March 20, 2018. I'm curious if the minister can confirm with this House if this is on schedule as planned.

Answer: This project was scheduled to be out for tender November 17, 2017. It is no longer on the Tender Forecast System. This project has been deferred by the department of Justice.

Queen's Printer Agency:

Question: Will Queen's Printer Agency be competing with local companies that are in the printing industry here in the Yukon? Will Queen's Printer be bidding on private sector jobs?

Answer: The Queen's Printer Agency has not and does not compete with the private sector and has not and will not be bidding on private sector jobs. Queen's Printer Agency follows its charter which states:

The Queen's Printer Agency's mandate is to provide services to public agencies. The Queen's Printer Agency will offer its services to any government agency where there is a potential benefit to the taxpayers of the Yukon. The Queen's Printer Agency will offer its services to Yukon government departments, Crown Corporations, the Legislative Assembly, non-government agencies funded by the Yukon government, and to the departments and agencies of other levels of government operating in the Yukon.

The Queen's Printer Agency does not compete with the private sector and does not provide services to new clients that the private sector could provide. The objectives of taking on new clients would be to consolidate activities that are now being carried out by public sector employees in multiple agencies, reducing the number of public sector employees overall that are engaged in these procurement and management practices.

New Francophone High School:

Question: Can the Minister of Highways and Public Works provide us with a copy of the functional plan for the new proposed school?

Answer: Please see the attached Functional Plan.

Lighting at Stewart Crossing:

Question: When will safe street lighting — light standards — be installed at Stewart Crossing?

Answer: Highways and Public Works assessed the lighting requirements for Stewart Crossing in 2012. No additional lighting was warranted at that time. The department reassessed the requirements for Stewart Crossing this year (2017) and found that lighting is now warranted at the intersection of the Klondike Highway and Silver Trail. No additional lights are warranted through the community.

Emergency lighting in all Yukon government buildings:

Question: What testing standards are required for emergency lighting for all buildings?

Answer: Exit and emergency lighting is required by the *Canadian Electrical Code* (CEC) to be tested monthly. Also the *CSA Guideline on Maintenance of Electrical Systems* (CSA—Z463-13) also requires an annual test and maintenance.

Question: How often are they tested? To what Standards are they tested?

Answer: The monthly testing is a functional test to verify that the lighting system is operational. Annual testing and maintenance includes:

- a) Visual inspection of the units for damage and verify correct illumination pattern.
- b) Clean and test batteries.
- c) Perform a 30-minute operational test of system by simulating a power outage to the battery packs.

Question: What are the qualifications of the persons doing the testing?

Answer: Monthly testing is performed by the Building Maintenance Workers and Building Engineers as part of their building checks. Annual testing is performed by Red Seal Electricians.

Question: Does the department maintain records of tests being performed?

Answer: Currently we do not have any special records of monthly testing but any deficiencies should be noted in the building log book. The monthly record keeping is to be addressed with the implantation of Preventative Maintenance Module in the Archibus work request system. Annual testing is recorded on separate forms and the inspection records are kept in the building files located at 9010 Quartz road. Workers' Compensation Board does not require monthly records, but does require annual reporting, which we are keeping.

17/11/27

Date



Signature



May 31, 2016

YUKON GOVERNMENT - FACILITY DEVELOPMENT
FRANCOPHONE SECONDARY SCHOOL COMMUNITY CENTRE
FUNCTIONAL PROGRAMME

THIBODEAU
ARCHITECTURE+DESIGN



FRANCOPHONE SECONDARY SCHOOL COMMUNITY CENTRE

FUNCTIONAL PROGRAMME

1.0 Architectural Design Brief

- 1.1 Introduction
- 1.2 History of Consultations
- 1.3 Design Considerations
- 1.4 Design Standards
- 1.5 Functional Programme
- 1.6 Site Analysis
- 1.7 Conceptual Diagrammes
- 1.8 Project Delivery Methods
- 1.9 Cost Estimates
- 1.10 Conclusion

2.0 Appendix

- 2.1 Precedents
- 2.2 Functional Programme Table
- 2.3 Workshop Meeting Minutes
- 2.4 Workshop Presentations

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1.1 INTRODUCTION

The Highways and Public Works Property Management Division of the Yukon Government retained Thibodeau Architecture + Design to assist the Department of Education (DoE) and the Commission Scolaire Francophone du Yukon (CSFY) in developing a functional programme for a new francophone secondary school community centre (FSSCC).

The francophone secondary school community centre will integrate all of the traditional elements of a school with the addition of community spaces that will benefit both students and the community. This centre will become an important focal point for the francophone community and will allow it to continue to grow and flourish. In particular, the inclusion of a theatre will provide a missing link in the services offered in the city. It will allow the francophone community to develop and showcase their culture, talents, strengths and diversity. And just like other educational facilities, it will provide another important space for other user groups in the community.

There is federal funding available for the shared community spaces from Canadian Heritage through their Official Languages Support Programs. The school community centre model has been successfully implemented in dozens of communities throughout Canada and there are many examples of school community centres that include a theatre facility.

The secondary school will accommodate 200 students attending grades 7 through 12. The addition of community spaces, including a 250-seat theatre are meant to enhance and encourage the communal integration of the overall project. A board office component, that is to host the CSFY administration, is also to be considered in the project.

Our mandate for this project is to develop a detailed functional programme for each component, provide an analysis on how schools are programmed and designed in Alberta and British Columbia, review different project delivery methods and provide a cost estimate for the overall project.

Some of the objectives discussed during the functional programming stage include:

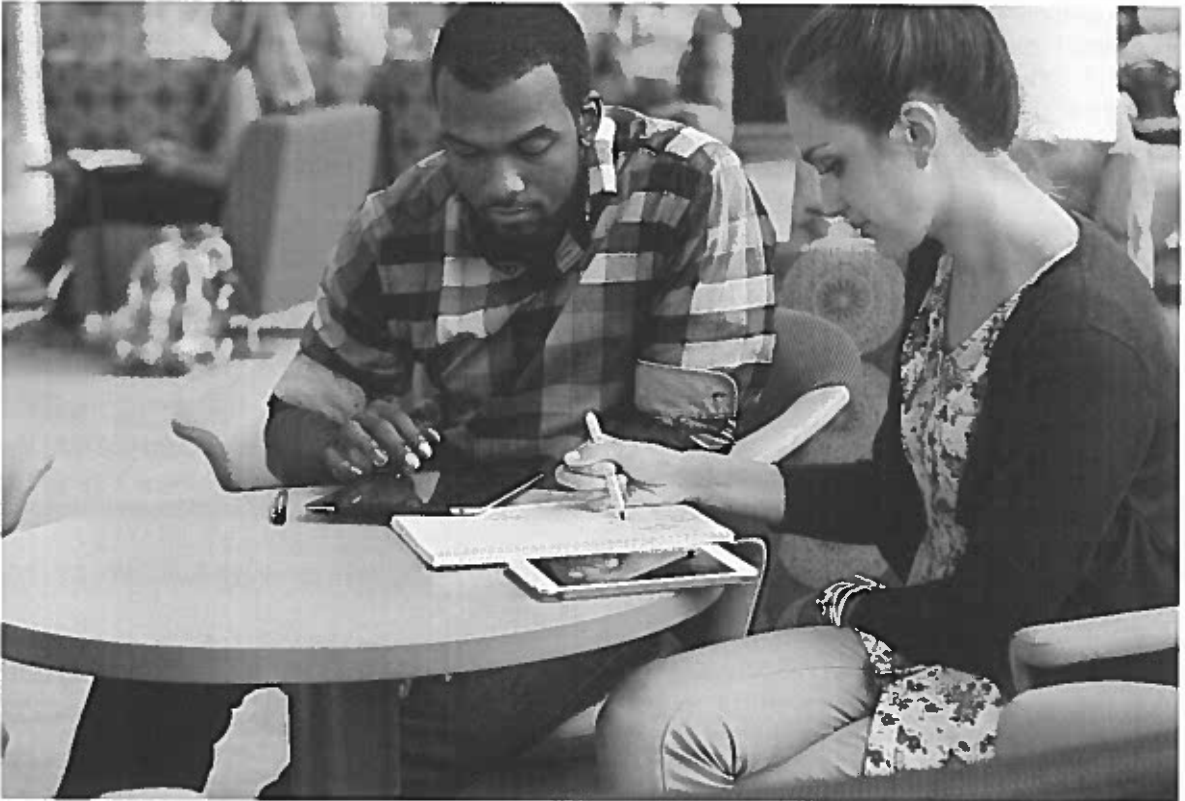
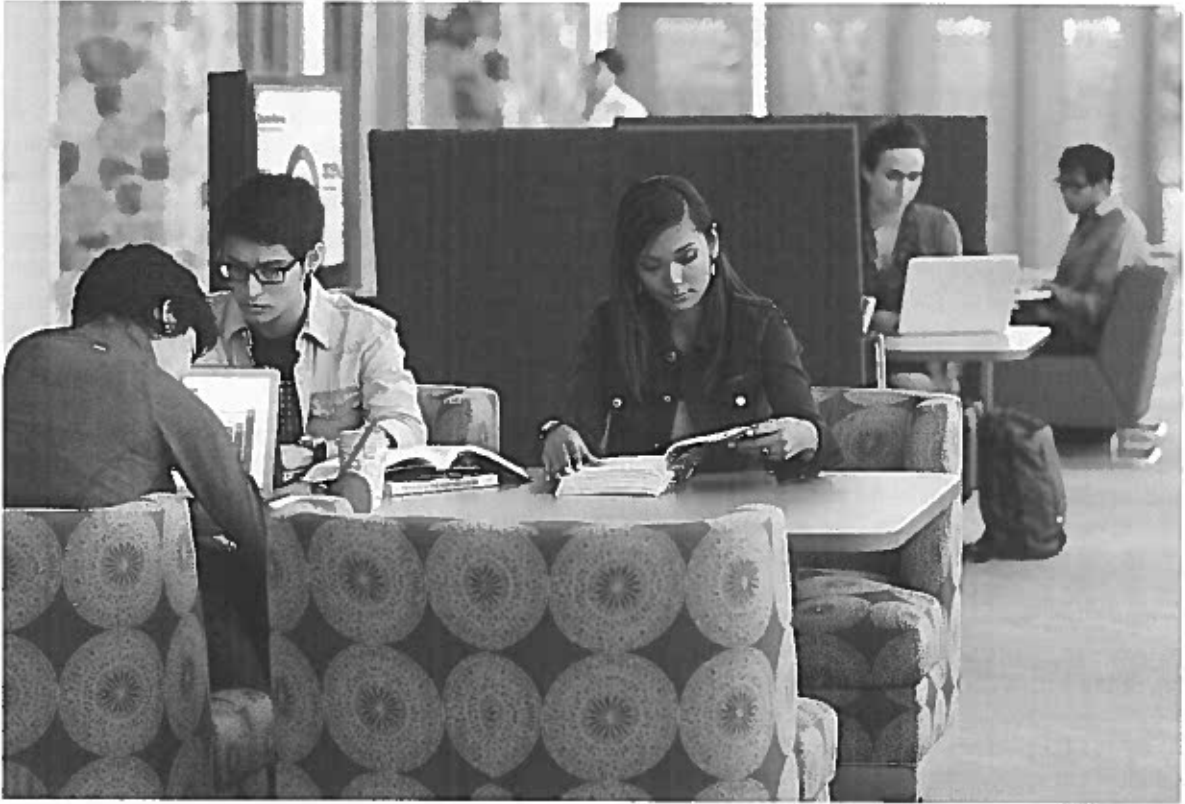
The school is planned to be completed by December 2018. To ensure the project meets this intended schedule and the cost estimate presented in this report, the appropriate project delivery method and the adequate school programming standard are to be selected.

- The school must have a strong francophone presence and identity. The students and teachers in the school must feel a sense of pride, security and well-being when in their new building. The choice of project delivery method and school programming standard will need to ensure this can be met.
- The facility must be built to last 50 to 60 years. Possible expansions of the building must be thought of and incorporated into the design. The selected site must allow for this expansion and growth.
- The school needs to be designed with modern learning principles. This means creating spaces that are learner-centered and suitable for different learning experiences. A healthy environment must be provided throughout the school, and the school must incorporate and visibly demonstrate sustainable design concepts. The overall design needs to be aesthetically pleasing. Participation and involvement of the community is essential.
- The facility needs to be sustainable and aim to perform better than current building codes and standards. Life cycle analysis of building systems and materials used must be studied. Energy efficiency of the envelope and building need to be enhanced.
- The facility needs to be flexible and adaptable. Spaces included in the facility must have multiple uses. Programmes and teaching methods will evolve over the life of the facility and it must be able to adapt.

The following report outlines the process undertaken to create a functional programme for all three programmes that satisfies the different objectives of PMD, Education and CSFY. These include the Secondary School programme, the Community Centre Theater programme and the CSFY Board Offices.

The analysis of different provincial standards has allowed us to suggest a method that is well-suited to attain the numerous and often diverging interests of the parties involved. The project delivery methods reviewed and studied, have also led to the recommendation of one method that is beneficial to the development of this type of facility in the Yukon.

The FSSCC is to be built on the Riverdale Educational Reserve. It is important to acknowledge that this is on the traditional territory of the Kwanlin Dün First Nation and Ta'an Kwäch'än Council. This project will respect all existing agreements with these First Nations in regards to such a project.



1.2 HISTORY OF CONSULTATIONS

Refer to Appendix 2.3 and Appendix 2.4 for workshop presentations.

The concept of a francophone community school was first presented by the CSFY to the Department of Education in the spring of 2007. Heritage Canada was contacted at the beginning of 2008 to further discuss the project of a francophone community school and whether or not there would be possible funds from that organisation to fund the project.

In 2009 Kobayashi + Zedda was retained to design and present some preliminary concepts of what this school could look like. These concepts were presented to the community.

In June of 2013 a series of workshops and a functional programme exercise with VMI Architecture was organised to discuss what a francophone secondary school could look like. These discussions and sessions included Yukon Government and the CSFY. The Department of Education inquired on whether or not the CSFY would be interested in constructing a francophone wing, to be attached to the new FH Collins High School. The CSFY participated in a series of consultation sessions to determine the feasibility of this option. Near the end of the year, the Department of Education indicated there was space on the Riverdale Education Reserve to build a stand-alone francophone school.

In the summer of 2014, students, parents, teachers and different partners meet to discuss the construction of a new secondary school in Whitehorse. Following these meetings the CSFY committed to the construction of this new school. During the annual general assembly of the Association Franco-Yukonaise (AFY), its members mandated the AFY to lead and manage the community component for the new francophone secondary school. Financing of the new school via federal funding (Building Canada Fund, Gas Tax, etc.) was discussed at year's end.

In January of 2015, the Department of Education committed to the construction of a new francophone secondary school. The CSFY indicated that the new school must be a separate building with its own

distinct identity. Discussions on the location of the new school carried on for the remainder of the year. In February 2015, three sites were identified on the Riverdale Education Reserve. A feasibility study was then undertaken by Barr Ryder Architecture to assess the advantages and disadvantages of each site as well as the overall cost of the school. This study included a smaller community component of approximately 120 m2.

In the fall of 2015, Bunt & Associates was engaged to prepare a traffic and transportation plan, to assess the impacts of including the francophone school in the Riverdale Education Reserve.

In January of 2016, Thibodeau Architecture + Design was retained by Yukon Government to develop a functional programme for the design and construction of the new francophone secondary school with a significant community component and include new offices for the CSFY.

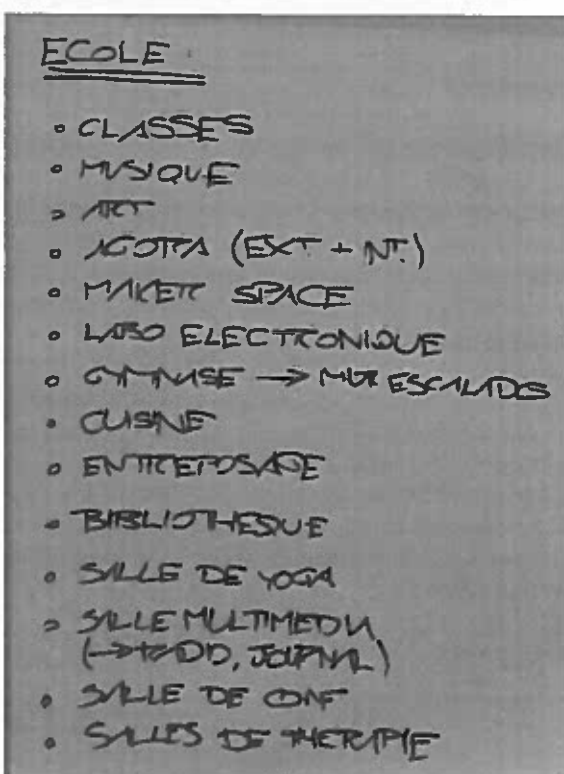
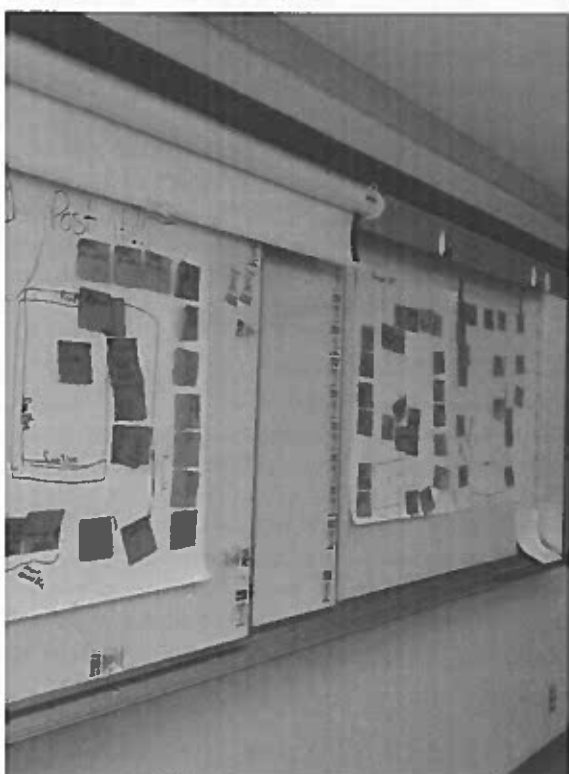
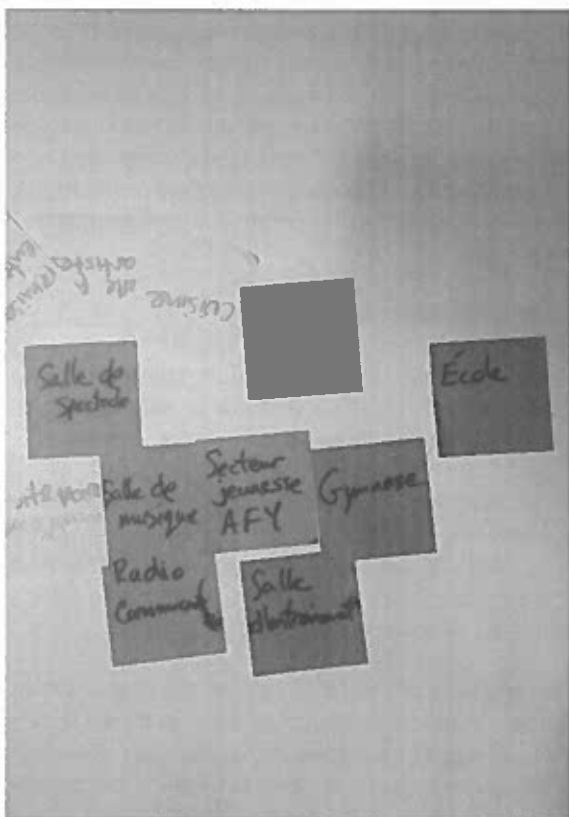
A three-day workshop was organized at the beginning of February. The objective of this workshop was to meet the user groups that could assist in defining the functional programme for the middle/secondary school and the community component of that project. Our intent was to collect as much information as possible from these groups to assist in the creation of a functional programme.

Meetings with each user group were separated into two distinct parts. The first was an information session. The second was a design charrette. Each part was scheduled to last approximately 90 to 120 minutes.

Meetings were held at école Émilie-Tremblay (EET), FH Collins High School and the offices of the Commission scolaire francophone du Yukon.

User groups that were consulted during this process included:

- Teachers and staff of l'Académie Parhélie who would be assigned to the new school and interested staff from EET



ÉCOLE

- CLASSES
- MUSIQUE
- ART
- AGORA (EXT + INT.)
- MARKET SPACE
- LABO ELECTRONIQUE
- GYMNASIUM → MULTIFUNCTIONNEL
- CUISINE
- ENTREPOSAGE
- BIBLIOTHEQUE
- SALLE DE YOGA
- SALLE MULTIMEDIA (→ AUDIO, VIDEO)
- SALLE DE CONF
- SALLES DE THERAPIE

- Students from the 6th grade of EET who would be attending the new school.
- Students from the 7th to the 11th grades of the l'Académie Parhélie, some of whom may be attending the new school, while others could provide insight into what would be needed in the new school.
- Parents of students who would attend the new school.
- Francophone community groups, that would be using the new community component of the school, including AFY, Les EssentiElles (Women's group), La Garderie du petit cheval blanc (Daycare), and Le Partenariat communauté en santé (Community Health Network).
- Theatre groups that would be using the new community component of the school, including Nakai Theatre, Gwaandak Theatre and Ramshackle Theatre.
- Neighbouring community members.
- Trustees and staff of CSFY. This meeting focused primarily on the office component of the project.

Information Sessions

The first part of this session included a presentation that described a typical functional programme for the specific facility the attendees were interested in. It also listed the different types of spaces one might find in this particular facility and described design trends influencing the design of each particular building typology.

Examples of completed buildings were then presented to provide the attendees with general concepts of what these buildings could look like. The intent of these presentations was to provide each user group with a general introduction to each building type. A question and answer period occurred at the end of each presentation.

The second part of this session was a site visit to the new FH Collins High School, which was intended to provide a practical example of what a new school looks like. This visit allowed attendees to understand and experience the different spaces described and get a feel for the areas discussed at the presentations. At the end of each visit a question and answer period was held.

Design Sessions

The design session was held a day after the information session and consisted in a series of exercises. Each exercise was adapted to the user group attending.

It began with a brief summary of the presentation done during that session. The first exercise involved discussing the visit to FH Collins High School. Positive and negative items were listed and debated during animated discussions.

The second exercise consisted in creating a list of spaces through brainstorming that each user group thought would be necessary in the new school or community component. Being in the early conceptual stages of the project, the participants were asked to also consider nice-to-have spaces. During some sessions this list was first established in groups then shared with all attendees. In other sessions, the list was established by everyone participating at once.

The third exercise was to review images from diverse school exteriors and interiors to gauge each group's aesthetic preferences. This exercise was intended to show different school typologies, shapes, materials and colours and assess how each group responded to the different images shown.

The fourth exercise involved the user group being divided into smaller groups. The list of spaces established during the second exercise were noted on individual and coloured post-it notes. Each small group was then asked to lay out the different spaces. They were instructed to focus on adjacencies and how each space would be accessed. Each group was then asked to present their layout to the entire user group. This exercise led to a number of layouts and interesting discussions on which spaces should be adjacent and which ones should be separate.

Information Collected

There was a genuine interest from all user groups and the enthusiasm during each session was at times overwhelming. The data and sketches collected during these information sessions and the design charrettes were invaluable in drafting the first functional programme presented to Yukon Government, the Ministry of Finance and the Commission Scolaire Francophone du Yukon.

A general comment from all groups was that the new school and its community component needed to have a strong identity and be noticeable. There was also a genuine interest in the school becoming part of the community and serving that community not only during school hours, but also outside of school hours.

Each user group was conscientious of the economic limits of a budget and focused on discussing realistic options and objectives for the new school.

There was strong interest from all user groups to design a very sustainable facility. User groups listed proven sustainable technologies that should be incorporated into the new school and also requested innovative technologies be explored during the early design stages and if possible implement some of these.

A real connection to the outdoors and the creation of exterior spaces was mentioned by more than one user group. This access could be facilitated through direct connections from spaces located on the periphery of the new building and terraces or roof gardens. It was deemed very important that exterior spaces be adequately designed to include urban gardens, covered gathering areas, playing fields and a playground.

Teachers were particularly interested in pursuing a 21st century learning design that would provide a multitude of flexible and multi-use spaces. This group was very excited at the opportunity to create spaces that would cater to different teaching methods and students.

Students requested spaces that would allow them to learn in an environment designed for a specific purpose. Although they were aware that spaces in the new school would need to serve multiple uses, specific spaces for specific subjects such as science labs and a home economic space were cited by students from different grades as a necessity.

Most user groups noted functionality as an important objective for the new school and its community component. Sufficient storage spaces and welcoming, yet private washrooms, should be provided. Adequate support spaces, such as change rooms with showers adjacent the gymnasium, are indispensable.

Community Support

Extensive consultations have been held with the various organizations that represent the francophone community and the facilities that have been included have been clearly identified as needs that will allow the community to continue to grow and flourish.

A number of other community groups, representing the arts community, have been consulted about this project and they have identified a need, in Whitehorse, for a theatre facility of this small to mid size range of 100-125 seats. Yukon Film Society has identified seating for 225-250 could be of benefit to their programming, and Music Yukon has also expressed their support.

This project will also meet the needs of various user groups who have expressed the need for more gymnasium space in the city. A full-sized gymnasium, located in close proximity to the FH Collins gymnasium will create opportunities for hosting larger sporting events and tournaments.

Also, Climb Yukon is working on developing a publicly accessible indoor climbing facility in Whitehorse and they have expressed an interest in developing the project in the FSSCC, if the design can accommodate their facility.

1.3 DESIGN CONSIDERATIONS

There are a number of factors that influence the design standards and have the potential to increase the total area for this project in relation to existing standards in Alberta and BC. The following factors must be taken into consideration:

1. Increasing enrolment

- As stated in the BC Area Standards document, local trends must be taken into account when determining the most appropriate capacity (Section 2.2.2, p. 5). In particular, enrolment projections and population growth rates may justify a higher capacity where enrolments are increasing.
- According to the 2011 Census conducted by Statistics Canada, Yukon’s population totalled 33,897, an increase of 11.6% over the 2006 Census. Yukon’s population included 1,540 persons reporting French as their mother tongue, accounting for 4.6% of the population and representing an increase of 32.19% since 2006. Yukon’s French-speaking community has grown by 70% since 1991, compared to a growth of 26% for the population of Yukon.
- Immigration Canada is focussing on increasing Francophone immigration up to 4% annually, which would impact potential enrolment.
- This large increase in the francophone population is mirrored by the large increases in enrolment at École Émilie-Tremblay. Total school population has gone from 112 students in 2005-2006 to 244 students in 2015-2016. Based on current registrations for next year, this trend will continue and there will again be a large increase next year.

- Based on current enrolment, the CSFY will have the following number of secondary students:
 - In 2021-22 there will be 149 students in grades 7-12
 - In 2024-25 there will be 172 students in grades 7-12
 - Given that a school lasts 50 to 60 years, a capacity of 200 students is a minimum and the design must incorporate elements that will allow for future expansion.

2. Equivalency of programs

- An important principle that must be considered is the ability to offer equivalent programs as offered at other local high schools. This includes experiential programs such as those currently offered at Wood Street and elsewhere. These programs require additional areas that are not captured in either the Alberta or BC standards. Examples include theater and music spaces, experiential learning spaces and storage for extra material and outdoor education equipment.
- ## 3. Consideration for the small size of the student population
- In the same way that educational facilities have been built using more generous area standards in various Yukon communities, the smaller size of the Francophone secondary school population will require certain areas that are essential to offer full programming but that are not proportional when compared to much larger high schools. The example of Watson Lake Secondary School is informative for this project.
 - For example, the FSSCC will require all the facilities necessary for special education needs, given that a French First-Language student with special needs cannot access the other programs available in Whitehorse because they would only be available in English.

4. Larger gymnasium

- A full size gymnasium will better accommodate community needs for various user groups, but will also allow the Territory to host sporting events and tournaments that are not possible now. It will also easily accommodate the continued expansion of the student population at the school.

5. Shared community spaces

- It is also important to consider that many of the spaces in the school will have multiple uses that will extend to the entire community.
- These shared community spaces are eligible for funding through Canadian Heritage (up to 50% of the cost) and enable the creation of spaces that will provide benefits to the population of Whitehorse

1.4 DESIGN STANDARDS

Secondary School - Alberta Standards

The standards developed by the province of Alberta are aimed at creating an inspiring education. Innovative approaches are encouraged. These innovations are linked to programme needs, community needs, opportunities and limitations of partnerships and site specifics. All new schools in the province are also required to meet LEED Silver requirements.

The province considers any room or area in a school primarily designated as a learning areas as instructional area. This includes, but is not limited to, classrooms, science labs, ancillary rooms, breakout rooms, computer/IT labs, stages, music rooms, art rooms and drama rooms.

This standard does not breakdown the instructional spaces into different types as outlined in the previous Secondary School/Middle School section.

In addition to the instructional areas, the Province allows Career and Technology Studies (CTS) Labs. The space allocation for these labs is 200m2, including structure and circulation. One such space is allowed for every 200 students.

Some areas can be exempt from the instructional area, thus reducing the school and jurisdictional capacity. These exemptions include areas leased to the public sector that are not educational (e.g. non-profit daycare) and decentralized administration space in schools.

Based on the 200-student capacity agreed to by all parties, a grade 7 to grade 12 secondary school gross floor area and space breakdown, based on the Alberta standards, would be as follows:

1. Determine the net capacity of the school. This is based on the total area of all instructional space divided by the area per student (obtained from a table in the standards: 3.65m2). Added to this are the rated capacities. This is the total area of all the non-instruction spaces.

2. Determine the utilisation rate which measures the student capacity. It is displayed as a percentage, which provides insight to how close a school is to its maximum capacity. This rate is obtained by dividing the total adjusted enrolment divided by the net capacity, multiplied by 100.

3. Based on these two numbers, the Alberta standards provide the following spatial breakdown for instructional areas:

- 4 classrooms: 320m2 (80m2 each)
- 1 science lab: 120m2
- 1 ancillary space: 130m2
- 1 ancillary space: 90m2
- 1 information services: 115m2
- 1 gym: 490m2
- 1 library: 85m2
- 1 CTS Lab: 200m2

Total instructional area: **1,550m2**

4. The total area for non-instructional spaces:

- Administration and Staff: 150m2
- Wrap around and collaborative space: 20m2
- Mechanical and meter rooms: 108m2
- Recycle room: 11m2
- Physical education: 105m2
- Circulation: 350m2
- Gym storage: 49m2
- Storage: 49m2
- Washrooms: 24m2
- Accessible washrooms: 12m2
- Flexible space: 48m2
- Wiring network: 40m2
- Wall area: 168m2

Total non-instructional area: **1,134m2**

The total gross floor area for a 200-student secondary school is **2,684m2**.

An advantage of the Alberta standard is the provision of specific guidelines on the size requirements and capacity. Also ancillary spaces can be selected to best suit the school and community's needs. Experience and expertise of the consultants is less of an imperative when selecting the design team. LEED Silver certification is a minimum requirement.

A disadvantage of the Alberta standards are the lack of minimum sizes for required space functions. There is also less information available on ancillary spaces and how these are to be used.

Alberta Standards
7-12 School
Capacity: 200 student

Room Name	Qty.	Unit Area (m ²)	TOTAL
Alberta Standard			2,684
Instructional Area			1,550
Classrooms	4	80	320
Science Laboratory	1	120	120
Ancillary (Large)	1	130	130
Ancillary (Small)	1	90	90
Information Services	1	115	115
Gymnasium	1	490	490
Library	1	85	85
CTS suite (includes wall and circ. area)	1	200	200
Non- Instructional Area			1,134
Admin/Staff	1	150	150
Wrap-Around Services	1	20	20
Mechanical and Meter rooms	1	108	108
Recycle Rooms	1	11	11
Phys. Ed.	1	105	105
Gymnasium Storage	1	49	49
Storage	1	49	49
Washroom Area	1	24	24
Accessible Washroom	1	12	12
Flexible Space	1	48	48
Wiring Network	1	40	40
Circulation	1	350	350
Wall Area	1	168	168

Secondary School - British Columbia Standards

The area standards in British Columbia, drafted by the Ministry of Education, prescribe areas for spaces in elementary, middle and secondary schools. The nominal capacity of a school is based on the number of students per classroom, defined as the capacity of a school. For middle and secondary schools a baseline of 25 students per classroom and a vocational module are utilized. The minimum area for a classroom, including ancillary space, is 75m².

The area of a space is measured from the inside face of walls, whether these are interior or exterior walls. Mezzanines are considered as normal floor space. Stage areas such as those used for drama, physical education, or multi-purposed uses are included as part of the overall floor area. Any space that is used for storage is designated as such and appears as a separate area. Ancillary rooms, such as storage rooms, workrooms, and cloakrooms must be under 40m². These areas are included as main instructional space if they are accessed directly from another main instructional space. Seminar rooms are required to be over 40m² and are measured as instructional space. Corridors in the facility are to be a minimum of 2m wide.

Gross floor area is measured from the inside face of exterior walls. A standard allowance to include the thickness of walls is added to the gross area. This allowance is obtained by multiplying the perimeter of the building by 150mm. Gross floor area includes stair openings, elevator shafts, mechanical/electrical spaces and mezzanines. Exclusions include storage mezzanines, crawl spaces and covered work areas.

Mechanical and electrical rooms are considered core areas and are based on maximum 3% of the remaining gross floor area. This area may be increased if the need to do so is clearly demonstrated.

In British Columbia, the Ministry of Education started implementing the Neighbourhood Learning Centre program as part of a public school programming. The Ministry would augment the school's budget by 15% to allow an additional 15% of programmatic space within the school. These spaces can range from additional classrooms for adult learning programs, to dedicated wings to be used as dance studios or office space.

The basis of this program was to start effectively using a school facility as an after-hours and weekend facility. Not only would this start to generate income for the school, but also integrate the public community within the school community.

Based on the 200-student capacity, a secondary school gross floor area and space breakdown, based on the British Columbia standards would be as follows:

1. Determine the number of secondary core and elective modules from the tables in the standards. With a 200-student capacity this would translate to 1 Science, 3 Core General Instruction, 1 Elective Module, and 4 Core Modules, a total of 9 Modules
2. Select core and elective modules from the list in the standards. This list provides the areas for each module.
3. Insert module quantities in the design aid sheet #1 to determine core and elective areas
4. Fill out design aid sheet #2 to determine service and activity spaces

The two design aid sheets indicate that the total gross floor area for a 200-student middle/secondary school is 3,440m².

An advantage of the British Columbia standards include the provision of specific information and guidelines on the size requirements based on space functions. As well, there is more design flexibility in the design. With this standard, design and funding can be focused on areas that are deemed more important for the facility. There is also no requirement to undertake a LEED certification of the building.

Disadvantages of the British Columbia standards include the limited information on areas and the standards are applicable at the programming stage, but do not assist in the development of the design at the latter stages. Since no minimum design guidelines are established, the experience and expertise of the consultants is relied upon for design details.

British Columbia Standard
Secondary School
Capacity: 200 student

Room Name	Qty.	Unit Area (m ²)	TOTAL
BC Standard			3,440
Instructional Area			1,750
Core General Instruction	3	80	240
Science Laboratory	1	140	140
Core and Elective Modules (5 of the following)			
Choral Music	0	120	0
Art	1	140	140
Drama & Theatre	1	150	150
Music	1	180	180
Drafting	0	120	0
Technology	0	140	0
Metalworks	0	200	0
Mechanics	0	230	0
Construction (wood)	0	275	0
Separate Clothing or Foods Room	0	120	0
Combined Clothing/Foods Room	0	160	0
Teaching Kitchen	1	180	180
Business Education	0	120	0
Computers	1	120	120
Gym Activity	1	600	600
Non- Instructional Area			1,690
Admin./Health	1	175	175
Counselling	1	50	50
General Storage	1	60	60
Gym Ancillary	1	150	150
Media / Tech Centre	1	270	270
Multi-purpose	1	80	80
Special Ed.	1	80	80
Mechanical Space (3%)	1	80	80
Design Space (28%)	1	745	745

Note: Overall area depends on modules selected. BC guide has an area allowance of 3,490m2.

1.5 FUNCTIONAL PROGRAMME

Refer to Appendix 2.3 for Functional Programme table

A functional programme is a detailed list of all the different spaces that are required to design a functional and effective project. Information that will appear on a functional programme include area, dimensions, space height requirements and any special requirements. In addition to this, information on the location of each space, as well as which spaces should and should not be in proximity of which space, is also provided.

Special requirements can include specific mechanical or electrical systems, uncommon equipment that needs to be provided and specific sustainable or functional criteria that must be considered.

When developing a list of spaces, there is a collaborative process, where the programme is reviewed, discussed and modified before the final version is presented. During this process, a multitude of spaces will be discussed. At the start of the process, many spaces are listed. Some of these spaces are “nice to have” spaces which are eliminated during the collaborative process or become a requirement to ensure the functional programme responds to the needs of the user.

Each functional programme is unique to a project. A programme from a similar project may be used as a starting point but will need to be modified to respond to the needs and requirements of the project users of the specific project.

Secondary School

The FSSCC will include grade 7-12. The school will be built to accommodate 200 students.

Secondary schools have the potential to enhance or undermine the learning process. It is imperative that these buildings be designed to ensure comfort, health, safety and security. Community events are often held in these facilities, it is therefore important that spaces that will be used by the public be clearly identified in the functional programme. These buildings must provide accessibility, flexibility and durability. With the evolution of technology it is important that current and future technologies be fully integrated.

School spaces can be separated into different groups: core areas, support areas and operational spaces. Core areas include: classrooms, studios, science laboratories, computer labs , gymnasium, and library. Support areas include: reading rooms, storage rooms, assistance learning, and administration. Operational spaces include: corridors, foyer, washrooms, change rooms, mechanical room, electrical room, communication room, janitor rooms, and meter room.

Exterior spaces must also be considered when developing a programme for a secondary school. Exterior spaces can include urban gardens, amphitheaters, exterior classrooms, covered gathering areas, hard scaped playing fields, and soft scaped playing fields.

Acoustics are an important component in the design of new schools. This includes appropriate sound separation between different spaces, but also the sound quality within spaces, especially large, open spaces. Improved acoustics can be provided early on in the process by ensuring that quiet and calm spaces are not located adjacent to noisy or busy spaces. Adaptability is also an important element. Learning methods and curriculum change frequently. The different spaces in a school must be able to adapt to these changes. This adaptability of the spaces can also be incorporated during the creation of the functional programme. Flexibility of the spaces is to be considered alongside adaptability. It is important that one space can be used for different purposes. These different uses need to be identified in the functional programme to ensure that during conceptual and schematic design this flexibility is built into the design.

Current trends in school design include creating enhanced learning environments that incorporate state-of-the-art technology and comfort control systems. The development of joint-use facilities that are centers of the community are being considered. Schools are occupied during weekdays but are typically empty evenings and weekends. Allowing the community to use the school spaces when vacant is a more efficient and sustainable use of space, and also decreases the development footprint.

Sustainability that focuses on buildings that not only reduce their impact on the environment, but also improve the environment, such as net-zero buildings and carbon neutral facilities, is also important.

The total area of the proposed secondary school component as per the proposed functional programme is 4,370m².

Modern School Design - 21st Century Learning

21st century learning is a term that refers to the way educators provide knowledge, skills, work habits, and character traits that are believed to be critically important to success in today's world. Students are engaged through inquiry and project based learning and encouraged to think outside the box in broader concepts and ideas. The basic idea is that students need to be taught different skills than those learned by students in the 20th century, and that the skills they learn should reflect the specific demands that will be placed upon them in a complex, competitive, knowledge-based, technology-driven economy and society.

This is reflected in modern school design by providing a multitude of spaces that encourage interaction and the sharing of ideas. Corridors become Learning Commons where students can gather and work collaboratively on a project. If lockers are required they're typically half height with a work surface on top and plug in stations to supply students with an area to work in small groups.

The concept of the quiet library is slowly becoming a thing of the past. Years ago schools would have a separate room for the library and another for a computer lab. Technology has become integrated into our lifestyle and educators now ask designers to incorporate connectivity throughout the school. Some school districts have Media Tech as a three sided room opening the space up to the corridor. This concept allows for students to move freely and to engage with one another in an open concept way.

The principles of modern school design are also applied to classrooms. Many schools now are asking for a 'flexible fourth wall'. This fourth wall can be a

folding partition between adjacent classrooms or something as simple as a sliding glass door between the classroom and corridor. Students can break out into small work teams and spill out into the common area once again. The folding partition between classrooms allows educators to open up two classrooms to have a larger space for a guest speaker or cross pollination of different grades.

Learning and innovation skills are increasingly being recognized as the skills that prepare students for increasingly complex life and work environments. A focus on creativity, critical thinking, communication and collaboration is essential to prepare students for the future. Designers and architects are being asked to provide spaces in schools that allow for this type of learning to succeed, often resulting in functional and engaging spaces.

Community Centre

The community component to this project is to include spaces that will be accessed by the public during and outside school hours. There is the requirement to allow the secondary school and the community centre spaces to be shared depending on the time of day and availability of these spaces. There are many examples of the school community centre model that have been successfully implemented throughout Canada. Many of these examples include a theatre facility.

School buildings are primarily occupied during the day and are vacant in the evening and during weekends. The addition of a community centre to the school as well as the possibility of using some of the school spaces outside of regular hours will create a facility that is more efficiently used and will assist in creating a building with a strong community identity.

The primary objective of the community centre is to offer spaces for the different francophone organisations and the community at large. These spaces and the overall facility are to assist in creating strong relationships with the surrounding community and make this facility an integral part of the neighbourhood.

These types of buildings are a community-based facility that provide education and support programmes for adults and families. Some of the support programmes offered include on-going training for adults, various courses, community services orientation and recreational opportunities.

There are three types of spaces in these buildings: primary communal spaces, communal support spaces and operational spaces. Some typical primary communal spaces are studio, foyer, exhibition space, resource centre, music room, radio room, training rooms, multifunctional space, and an exterior amphitheatre. Support spaces include meeting rooms, ticket booth, archives room, information space, rehearsal room, bistro area, kitchen, cloak room, change rooms and administration spaces. Operational spaces include corridors, entry vestibules, washrooms, storage rooms, mechanical room, electrical room, communication room and janitor room.

These different spaces are typically either public spaces, semi-public spaces or private spaces. The public spaces are accessible by the public without being accompanied by staff. These spaces should be located near the main entrance and be easily visible from outside the facility. The semi-public spaces are accessible to the public, but they will typically be accessed accompanied by a staff member. Private spaces are those that are only accessible to the facility staff. As part of the functional programme the degree of public access to each space will need to be determined.

The need for adaptable, flexible and sustainable spaces outlined as important to implement for the secondary school also apply to the community centre. The programmes offered at the facility will evolve over time and each space must be able to accommodate these changes. To ensure each space is efficiently used multiple uses for each space are to be considered and incorporated into the design.

The theatre space must be flexible and be able to accommodate large meetings, presentations, plays and musical performances. Professional theatre performances will be an important part of this space.

The theatre will need to accommodate plays that are meant for both a proscenium stage and/or a black box stage. Although orchestra pits and flying balconies will not be required, fly galleries should be incorporated into the design. Since they are intended to accommodate large audiences, they tend to have wide spans.

The design should accommodate up to 250 seats, with moveable seating configurations. To provide adequate seating, sightlines and acoustics they are often multiple-stories high. A raised stage and special lighting equipment are often provided as part of the theatre. Lighting must be flexible to accommodate various performances (lectures, plays, musical performances). A multitude of different types of lighting (front lighting, foot lighting, spot lights, follow spot lights, beam lights, and flood lights) are to be provided in this space. Quality acoustical characteristics are important in theatre spaces so that performances and presentations can be clearly heard and understood.

A youth component of the community centre offers organized instructional programs for physical activities such as dance, yoga and martial arts. These programmes can extend to academic, cultural, and arts programs such as science, crafts, music, and theater. Unstructured activities can also be proposed within this component. These include game playing, socializing, club meetings, and outdoor play. Unstructured activities are an essential part of this component. However these are staffed, so control and supervision are critical elements.

Discussions have taken place with different community groups and some of the spaces listed above have been identified as needing to be included in the new facility. A multi-functional theatre for 250 seats as well as all of the support spaces needed to ensure its functionality. The theatre should be flexible and adaptable to allow for theatre representations, concerts, lectures, conferences and ceremonies.

There are no specific standards for these types of facilities. Functional programmes are created primarily with the Client's input, taking into account the activities that will occur in the facility. Areas of the different spaces listed in the functional programme are determined by using previous completed projects.

The total area of the community component as per the proposed functional programme is 1,512m2.

The proposed theatre space is 400m2 and can be transformed to accommodate a variety of seating arrangements and performance types. A 145m2 rehearsal space is planned adjacent to the theatre. Also included in this programme is a 42m2 community archives space as well as a 38m2 entrance space that includes a cloak room and a box office.

Various support spaces for the theatre, including light/sound controls, project booth, dressing rooms, make-up room and green room total 117m2. Administration spaces for the community centre that include offices, training rooms and youth spaces total 169m2. Operational spaces for this portion of the project are 328m2. Total circulation area in for the community component is 124m2. We have allocated a 149m2 gross-up for wall thicknesses and structural elements.

Refer to Appendix 2.4 for Functional Programme table

Offices

Current workplace concepts are based on an enclosed model, an open model or a combination of the open and enclosed models.

The enclosed model is more traditional with enclosed spaces, primarily offices, segmenting the overall office space. This model is applicable to organisations where privacy is of concern and the management structure is well-defined. This model is ideal for focused and quiet work. Legal or accounting offices use this model. The open model encourages collaboration and minimises the amount of enclosed spaces. Privacy is less of a concern, but sharing ideas and being creative is more important. This model is ideal for working in groups and sharing ideas. Marketing or design offices use this model. The hybrid model is a mix of both the enclosed and open models. It strives to offer the advantages of both models while minimising their disadvantages. Established offices looking to transform the way they operate will typically choose this model.

A typical office space will have work spaces, support spaces and operational spaces. Work spaces include enclosed offices, open offices, meeting rooms and board rooms. Support spaces will include the reception, video-conferencing rooms, break rooms, copy rooms and storage rooms. Operational spaces include washrooms, cloakrooms, mechanical room, electrical room, communication room and janitor room.

Collaboration has become an important part of the modern office space. To encourage this more formal and informal meeting spaces are created. The informal spaces allow impromptu and spontaneous meetings which often generate new ideas. Working with others in an open space has led to the reduction of enclosed offices and a shift towards the open office model.

Technology is also changing the way offices are designed. With access to video-conferencing and tele-conferencing, not all work needs to happen in the office. The improvement in online access is now limiting the amount of information that needs to remain in hard copy format. The increase in digital storage has reduced the need for storage rooms within offices.

The well-being and health of the people working in offices has become an important part of office design. Providing appropriate and adjustable furniture is imperative as each person working in an office is different. Access to daylight and views has been proven to increase productivity. Providing adequate air quality, temperature and lighting also contributes to this increased productivity.

The Yukon Government has standards that outline the size of different work spaces and determines allocation of offices depending on each person's occupation and position. There are no guidelines as to the number of support spaces that are to be provided. We are recommending supplementing the Yukon Government standards with the Federal Government's Workplace 2.0. This standard determines the number of support spaces to be provided based on the total number of full-time employees.

The British Columbia Area Standards include provisions for district administrative offices. These can include office space for staff, boardrooms, meeting rooms, computer room and ancillary spaces. These include receptions, circulation, lunchrooms, washrooms, office storage custodian rooms, mechanical rooms and electrical rooms. The area for these spaces is not to exceed 100m2 plus an additional 7.5m2 for every 100 FTE pupils enrolled in the district. The CSFY has a total enrollment of 256 FTE pupils. Based on these standards, the CSFY would be entitled to 119.5m2 (100m2 + 19.5m2). Each trustee is entitled to a parking space. One parking space is also to be provided for every 500 FTE pupil enrolled in the district. Whitehorse by-laws would need to be consulted to confirm this.

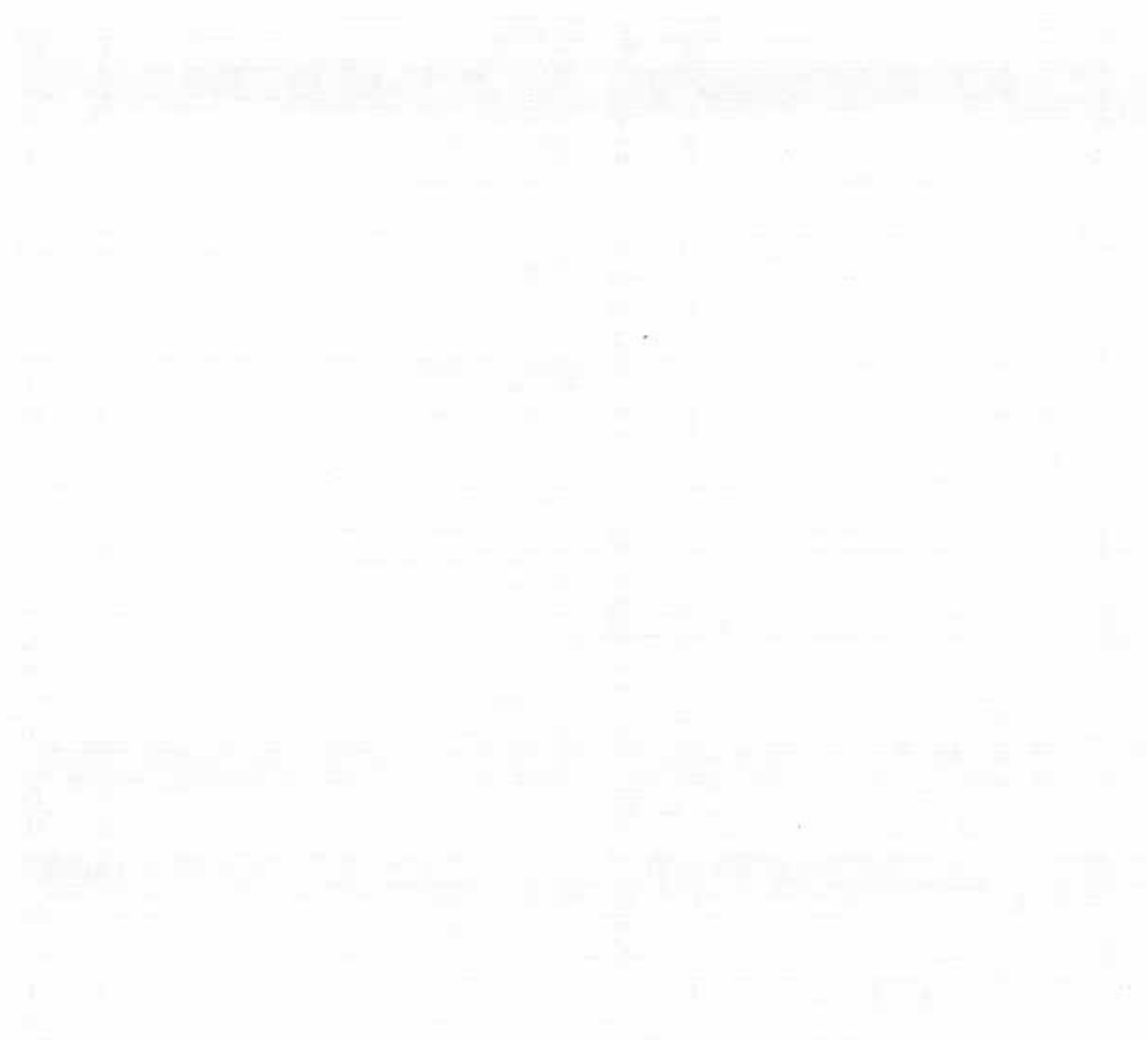
The British Columbia Area Standards also include provisions for a building maintenance facility. The facility may accommodate circulation space, locker room, lunchroom, maintenance workshops, ancillary areas, mechanical space, electrical space, storage for materials, supervisor office, washrooms and showers. The area for these spaces is not to exceed 200m2 plus 25m2 for every 500 FTE pupils enrolled in the district, up to a maximum of 800m2. The CSFY has a total enrollment of 256 FTE pupils. Based on these standards, the CSFY would be entitled to 200m2.

Where a district has a central storage system for school supplies, suitable building space may be constructed not exceeding a net area of 50m2. Such space is likely to be attached to another building such as the district administrative offices.

Based on these standards, the CSFY administrative and maintenance facilities would be a combined 369.5 m2

The total area of the office and facilities management components as per the proposed functional programme is 287m2. Proposed office spaces, both open and enclosed spaces total 147m2. The common areas in the office, such as the meeting room, the reception area, the kitchenette and the lunch room, total 38m2. The workspace support areas includes 50 m2. Other operational spaces are included in the schools operational spaces. Total circulation area in for the office component is 24m2. We have allocated a 28m2 gross-up for wall thicknesses and structural elements.

Refer to Appendix 2.4 for Functional Programme table



SECONDARY SCHOOL PROGRAMME COMPARISON

Room Name	Qty.	Unit Area (m ²)	TOTAL	Room Name	Qty.	Unit Area (m ²)	TOTAL
PROPOSED FRANCOPHONE SCHOOL			4,370	WATSON LAKE HIGH SCHOOL			3,874
Core Areas			1,873	Core Areas			1,874
Classroom	4	80	320	Classrooms	3	90	270
Science Laboratory	1	120	120	Science Laboratory	1	100	100
Science Laboratory Prep	1	30	30	Science Prep	1	25	25
Library (Learning Commons)	1	167	167	Library	1	135	135
Distance Learning	1	39	39				
				Ancillary (small)	2	50	100
				Ancillary (Large)	1	95	95
Ancillary Classroom - Art	1	82	82	Art Room	1	100	100
Ancillary Classroom - Theatre	1	120	120				
Ancillary Classroom - Music	1	115	115				
				Industrial Arts (includes storage)	1	375	375

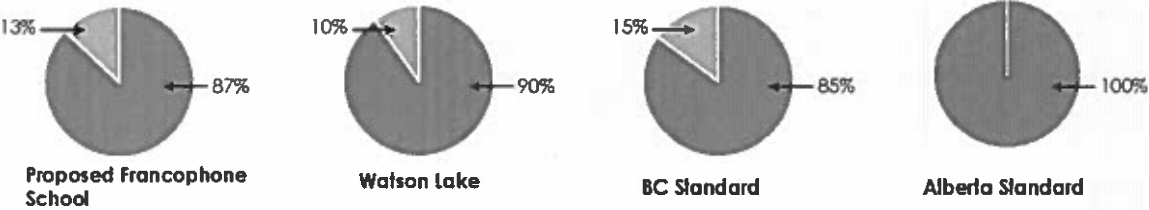
Computer Room	1	100	100	Computer Room	1	90	90
Gymnasium	1	780	780	Gymnasium	1	584	584
Support Areas			1,141	Support Areas			897
School Administration	1	150	150	Admin/Staff	1	86	86
Teachers Lounge	1	52	52	Teachers Lounge	1	56	56
Prep Room	1	18	18	Workroom	1	50	50
Teachers Changeroom (unisex) with shower	1	7	7	Teacher's Washroom	2	4	8
Teachers Changeroom (unisex)	1	5	5				
Advisory Workstation	2	15	30				
Counselling	1	19	19	Counselling	1	8	8
				Sick Room	1	15	15
Storage	1	37	37	Storage	1	57	57
Storage - Art Classroom	1	10	10	Art Storage	1	25	25
Storage - Theatre Classroom	1	28	28				
Storage - Music Classroom	1	28	28				
Gym Storage	1	90	90	Gymnasium Storage	1	74	74
Gymnasium Office	1	16	16	Gym office (includes staff changeroom)	1	22	22
Female Changeroom	1	55	55	Female changeroom	1	100	100
Male Changeroom	1	55	55	Male changeroom	1	70	70
Unisex Changeroom	1	16	16				
Storage (Outdoor Equipment & gear)	1	74	74				
				Flexible Space	1	30	30
Special Ed.	1	70	70				
Mechanical Room	1	111	111	Mechanical and Meter rooms	1	160	160
Electrical Room / Meter Room	1	45	45	Electrical Room	1	10	10
Receiving	1	46	46				
Janitor Room	2	10	20	Janitor Room	1	17	17
Female Common Washroom	2	18	36	Female Common Washroom	2	22	44
Male Common Washroom	2	18	36	Male Common Washroom	2	22	44
Unisex Individual Washroom	8	6	48	Unisex Individual Washroom	2	3	6
Accessible Washroom (for Special Ed.)	1	9	9	Accessible Washroom	1	5	5
IT Lan Room	1	30	30	Wiring Network	1	10	10
Circulation/Wall Area (school only areas)			788	Circulation/Wall Area			720
Circulation	10%		358	Circulation	1	455	455
Gross-up (wall thickness, structure...)	12%		430	Wall Area	1	265	265
Shared Areas (Community Component)			568	Shared Areas (Community Component)			383
Main Entry / Gathering Area / Cafeteria	1	300	300	Main Entry / Gathering	1	113	113
Community Kitchen / Bistro	1	94	94	Food Service / Food Prep / Snack	1	151	151
Conference Room	1	32	32				
Radio/Recording Studio	1	40	40				
Fitness room / Dance / Yoga Studio	1	80	80	Weight Room	1	58	58
Storage - Main Entry / Gathering Area	1	22	22				
				Native Counsel	1	61	61

Room Name	Qty.	Unit Area (m ²)	TOTAL	Room Name	Qty.	Unit Area (m ²)	TOTAL
BC STANDARDS (SECONDARY SCHOOL)				ALBERTA STANDARDS (7-12)			
3,956				2,684			
Core Areas				Core Areas			
2,020				1,550			
Classroom (Core General Instruction)	3	80	240	Classrooms	4	80	320
Science Laboratory (Includes Ancillary)	1	140	140	Science Laboratory	1	120	120
Media / Tech Centre (Learning Commons)	1	270	270	Library	1	85	85
Core and Elective Modules (5 of the following)				Ancillary (small)	1	90	90
Art	1	140	140	Ancillary (large)	1	130	130
Drama & Theatre	1	150	150				
Music	1	180	180				
Choral Music	0	120	0				
Drafting	0	120	0				
Technology	0	140	0	CTS suite	1	200	200
Metatworks	0	200	0				
Mechanical	0	230	0				
Construction (wood)	0	275	0				
Separate Clothing or Foods Room	0	120	0				
Combines Clothing/Foods Room	0	160	0				
Teaching Kitchen	1	180	180				
Business Education	0	120	0				
Computer Room	1	120	120	Information Services (Computer Room)	1	115	115
Gym Activity	1	600	600	Gymnasium	1	490	490
Support Areas				Support Areas			
675				616			
Admin./Health	1	175	175	Admin/Staff	1	150	150
Counselling	1	50	50				
General Storage	1	60	60	Storage	1	49	49
Gym Ancillary	1	150	150	Gymnasium Storage	1	49	49
				Phys. Ed.	1	105	105
Multi-purpose	1	80	80	Flexible Space	1	48	48
Special Ed.	1	80	80	Wrap-Around Services	1	20	20
Mechanical Space (3%)	1	80	80	Mechanical and Meter rooms	1	108	108
				Recycle Rooms	1	11	11
				Washroom Area	1	24	24
				Accessible Washroom	1	12	12
				Wiring Network	1	40	40
Circulation/Wall Area			745	Circulation/Wall Area			518
Design Space (28%)	1	745	745	Circulation	1	350	350
				Wall Area	1	168	168
Shared Areas (Community Component)							
516							
15% allowable for community amenities	15%		516				

SCHOOL PROGRAM COMPARISON GRAPHICS

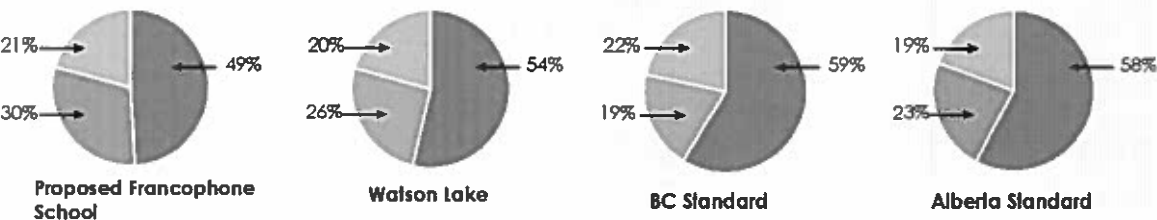
SCHOOL VS. SHARED PROGRAM

- Shared Program
- School Program
(comprised of Core, Support and Circulation/Wall Areas)



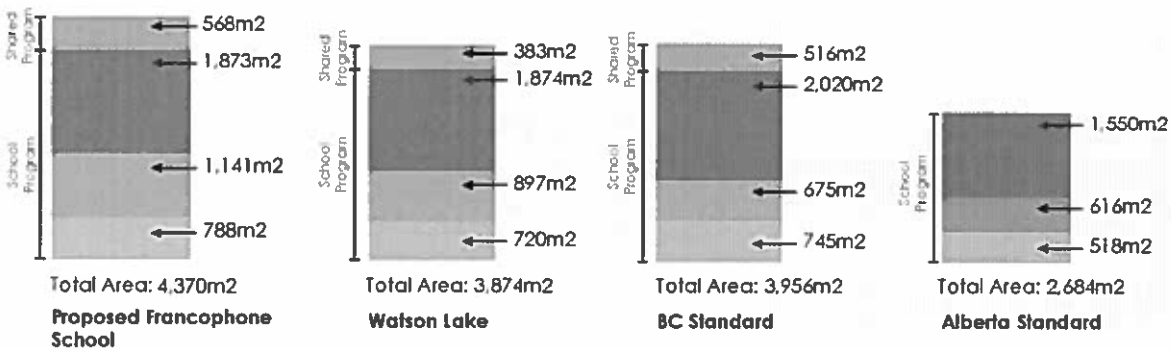
SCHOOL PROGRAM COMPARISON

- Core Area
- Support Area
- Circulation/Wall Area



CORE PROGRAM AREA COMPARISON

- Shared Program
- Core Area
- Support Area
- Circulation/Wall Area



Shared Program: Area shared with community centre and school
Core Program: Where instruction occurs
Support Area: Program supporting instructional areas

COMMUNITY CENTRE PROGRAM COMPARISON

Room Name	Qty.	Unit Area (m ²)	TOTAL	Room Name	Qty.	Unit Area (m ²)	TOTAL
FRANCOPHONE COMMUNITY CENTRE			1,512	WATSON LAKE COMMUNITY COMPONENT			653
Community Spaces			1,512	Community Spaces			653
Cloakroom	1	19	19	Theatre	1	258	258
Box office	1	19	19				
Theatre	1	400	400	Projection	1	10	10
Light and Sound Controls	1	10	10				
Projection Booth	1	12	12	Yukon College space	1	375	375
Community Archives	1	42	42				
Performers' dressing rooms	2	28	56				
Male Performers' washrooms	1	12	12				
Female Performers' washrooms	1	12	12				
Make-up room / Green Room	1	15	15				
Theater Rehearsal Studio Blackbox Stage	1	145	145				
Male Staff washrooms	1	4	4				
Female Staff washrooms	1	4	4				
Administrative offices	2	12	24				
Meeting/Training Rooms	2	30	60	Storage	1	10	10
Youth Group Offices	4	10	40				
Youth Group Studio Space	1	30	30	Circulation	10%	124	124
Money-counting room with safes	1	7	7				
IT /Elec Room	1	19	19				
Janitor Room	3	6	18				
Receiving	1	46	46				
Workshop	1	60	60				
Storage - Workshop	1	19	19				
Storage - General	1	92	92				
Storage - Sealing	1	74	74				
Gross-up (wall thicknesses, structure...)	12%		149				

OFFICE PROGRAM COMPARISON

OFFICES FOR CSFY			287	BC STANDARD SCHOOL BOARD OFFICES			370
Workspaces			287	Workspaces			370
Large Enclosed Office	1	17	17	Base of 100m2	1	100	100
Enclosed Office	1	13	13	Add 7.5m2/100 FTE Pupils in district	2.6	7.5	20
Standard Enclosed Office	2	11	22	Central storage (not to exceed 50m2)	1	50	50
Open Offices	4	11	44				
Open Offices	1	5	5				
Reception	1	9	9				
Facility Manager Office	1	9	9				
Work Room	1	28	28				
Archive Storage	1	9	9				
Pedagogy Storage	1	10	10				
Copy Room	1	7	7				
Unisex Washroom w/ shower	1	7	7				
Unisex Washroom	1	5	5	Base of 200m2	1	200	200
Facility Manager Office	1	9	9				
Facility Maintenance Storage / Workshop	1	50	50	Add 25m2/500 FTE Pupils in district	0	25	0
Circulation			10%	19			19
Gross-up (wall thicknesses, structure...)			12%	23			23

1.6 SITE ANALYSIS

There are two identified sites on the Riverdale Education Reserve that could accommodate the FSSCC. The reserve is located to the south of downtown Whitehorse. It is limited by the Yukon River to the west, Lewes Boulevard to the north and the east, and Selkirk Street to the south.

Notable projects existing on the site include the new FH Collins High School, the old FH Collins technical wing (currently under renovation), Selkirk Elementary School, and the Teen Parent Centre. The FH Collins athletic fields and the Whitehorse skate park are landscape elements on the reserve.

The proposed sites are:

- Site 1 (Skate Park): current skate park location at the north end of the site
- Site 2 (Adjacent FH Collins technical wing): in between the new FH Collins High School and the existing Selkirk Elementary School.

The functional programme developed for this project has the following areas:

- Secondary School: 4,370m²
- Community Centre: 1,512m²
- CSFY Offices: 287m²

The entire floor area for the new building is 6,179m².

Based on this number, two sites were reviewed to determine the viability of locating the new facility on these sites.

For each of these sites, on-site parking requirements, parent drop-off/pick-up zones, and yellow school bus staging areas are still to be determined. Landscape requirements of the City of Whitehorse are also a consideration, and are dependant on the site topography and site coverage of the building.

Site Option 1 - (skate park)

Site 1 would require the relocation and demolition of the current skate park. A new parking lot would be needed as would a bus stop and bus loop.

This site would require more dense building site coverage of approximately 90% of the site. In order to accommodate the programme, a two storey building would be required.

Other site constraints that would impact the building design include utility easements, a steep grade change, the running track location, and an odd corner lot configuration. These have significantly higher costs for the site development, when compared with Site 2.

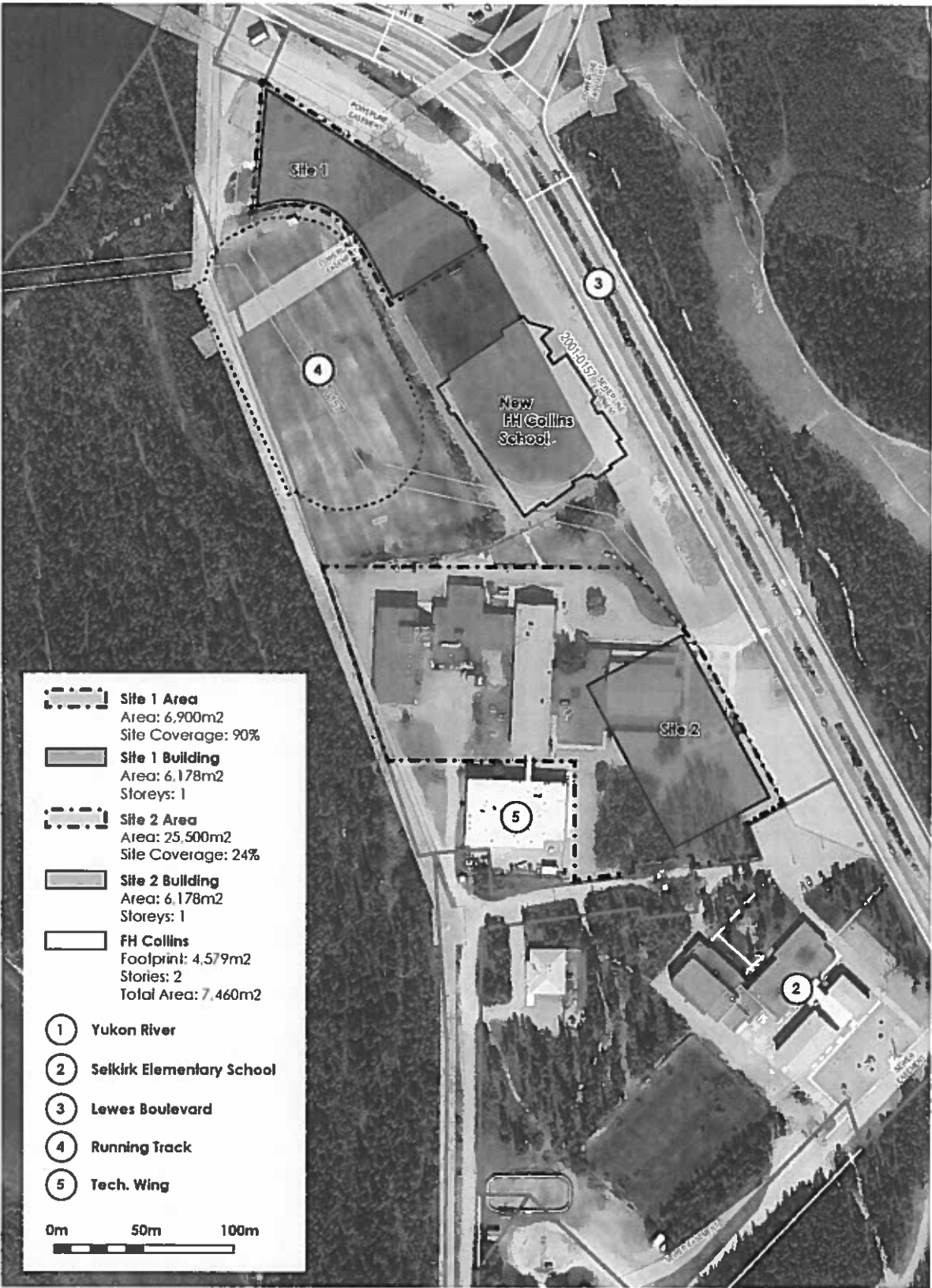
Future expansion of the building would be greatly restricted, unless the possibility of a third storey was included in the structural design.

Advantages:

- School is physically separate from FH Collins and would have its own identity.
- Close proximity to the river and better access to views, with a direct connection to downtown.
- Higher visibility from the street, for community centre identity

Disadvantages:

- Demolition of the skate park has community impacts, and would delay the new building. Construction would not likely begin for the spring of 2017.
- Higher site development costs due to relocating the skate park.
- Power easement relocation could have time delays, and additional site development costs.
- Travel distance and poor proximity to shared programs (ie. tech wing) would be challenging for students to make it to classes efficiently.



- Poor proximity to adjacent parking for large after hour events.
- Either poor proximity to existing bus loop, or new bus loops required.
- Two stories are required to fit the program on the site. A minimum of 25% of the program must be located on the upper floor.
- Do to the shape of the site, the floor plan will have irregular forms that may be less efficient.
- On-site parking, drop-off areas and yellow school bus zones would not be accommodated without significantly affecting the building footprint.
- The school will have its own distinct identity with a good physical separation from the FH Collins School.
- Close proximity to the existing technological wing.
- Close proximity to existing bus lane and bus drop off, and can accommodate additional traffic.
- Can accommodate on-site parking contiguous with the adjacent parking areas, a benefit for large after hours events.

Disadvantages:

- Proposed open area to the south of FH Collins School would be compromised, (depending on intentions of the DoE).
- Physically less attractive than Site 1 and less connected to downtown.
- Higher risk of unknown environmental impacts exposed by demolition of existing building.

Site Option 2 - (recommended site)

The site adjacent the FH Collins technical wing (Site 2) allows for a single-storey building design, with approximately 24% site coverage.

This site maintains a good presence along Lewes Blvd, and can potentially accommodate parking in the front, along with bus access. This option also keeps the land to the north of FH Collins available for future use.

Advantages:

- Large site area allows for more design flexibility in the school building layout. Has the option of having a single storey building on this site
- Sufficient space for future expansion, less physically constrained on the site.
- Demolition of existing buildings is planned for summer 2016 and site should be ready for a new construction by spring of 2017.
- Site work is simplified with less impacts required for new building, ie utility easements, grading, and existing uses. Leaves skate park intact.
- Underground services are already included on this site, installed and planned for the FH 1 design, and could potentially have some use for this building.

1.7 CONCEPTUAL DIAGRAMMES

The first diagramme shows the different components that make up the entire project. Each component of the diagramme is represented in its approximate size relative to the other components. The school component is composed of the learning spaces core, the learning spaces support and the school operational spaces. The community centre component is composed of the community spaces, the administration spaces and the operational spaces. The CSFY component is a single entity.

One of the objectives of this project is to create spaces that can serve multiple uses and users at different times of the day. Proximity of the shared spaces to the entry atrium is important to maintain as much as possible.

The school, the community centre and the offices all grouped around a common atrium space. The main entrance to the facility would be into this atrium. From the atrium, secondary entrances would be provided to the school, the community centre and the CSFY offices.

The atrium would serve multiple purposes in addition to being the entry point into the facility. All three programmes would utilise this space at different times of the day.

The second diagramme shows the spaces noted in the functional programme and sets out preliminary adjacencies between them. One of the main objectives of this project is to ensure spaces are utilised as much and as often as possible by different users. Providing appropriate adjacencies between common spaces will allow for this efficient use of the facility. The large project components represented in the first diagramme have been broken down into smaller components, representing the spaces outlined in the functional programme. As with the first diagrammes, the components are scaled relative to one another.

The gymnasium must be adjacent the change rooms, gym storage and the fitness studio. Providing an access to the exterior to connect to the playing fields would be ideal. The gymnasium should also be located close to the main entry space to allow access

after school hours. This diagramme does not locate the gym relative to the overall facility, its location will be discussed and determined during the design phases

Typical classrooms, science laboratories, computer laboratory, alternative learning and art classroom are clustered in one location. Each classroom should have access to natural daylight and possibly a physical access to the exterior.

The administration component of the school and the CSFY offices are located adjacent to one another. A physical separation between the two is required so each space is independent. A separate entrance to the CSFY offices is provided. A conference room will be shared by the school administration and CSFY.

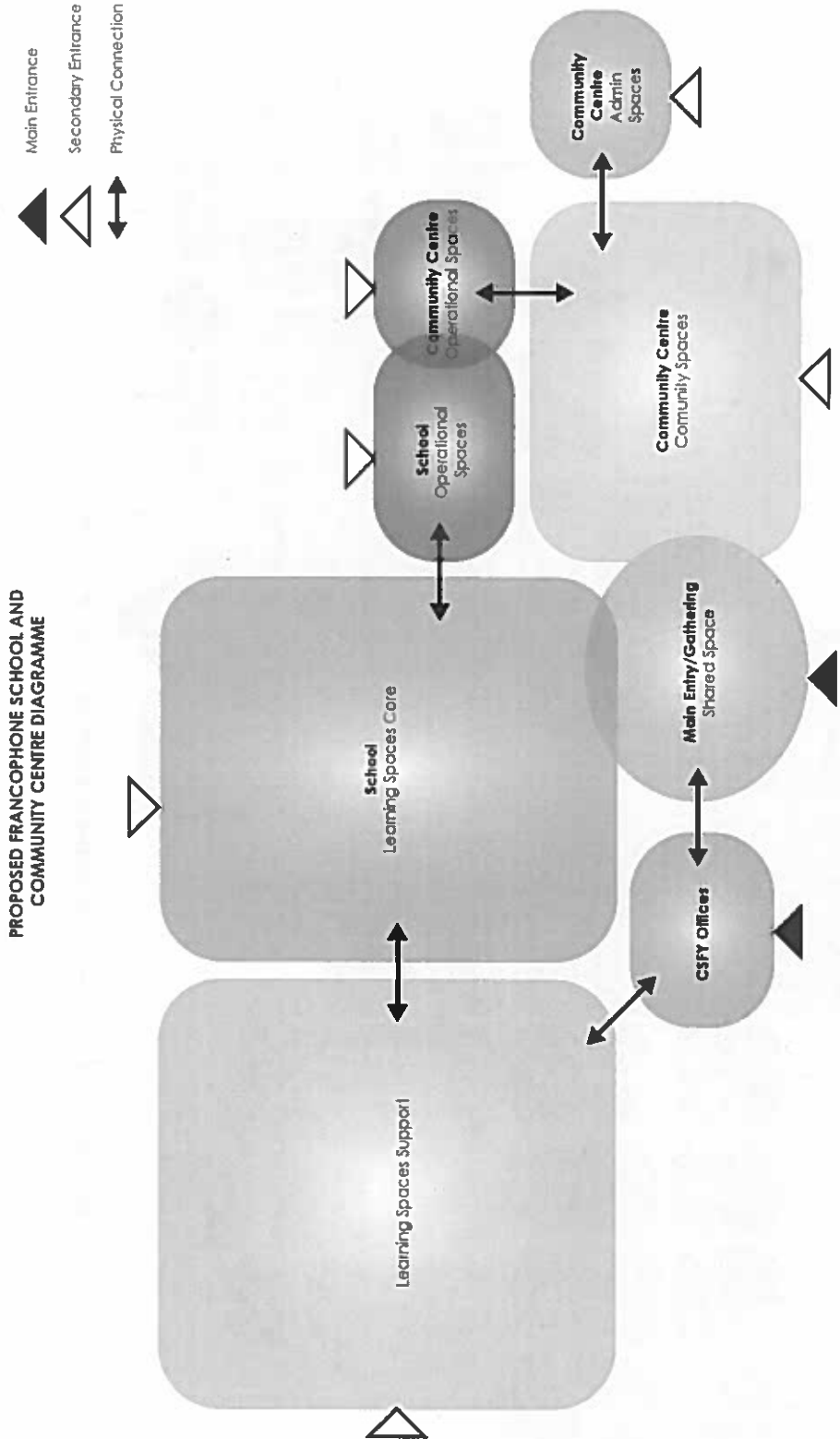
The theatre is adjacent to the main entry space and associated support spaces are directly connected to the theatre. The box office and cloakroom are adjacent to the theatre and the main entry space. Other theatre support spaces with a direct connection to the theatre include chair storage, general storage, workshop, change rooms and the rehearsal space.

Other community spaces are located in proximity to the theatre and its support spaces but have no direct connection to the theatre.

The main entry space will serve as the access to the different components of the facility. The community kitchen, radio studio, theatre classroom and music classroom are all connected to the main entry space, allowing these spaces to be used by the different programmes in the facility.

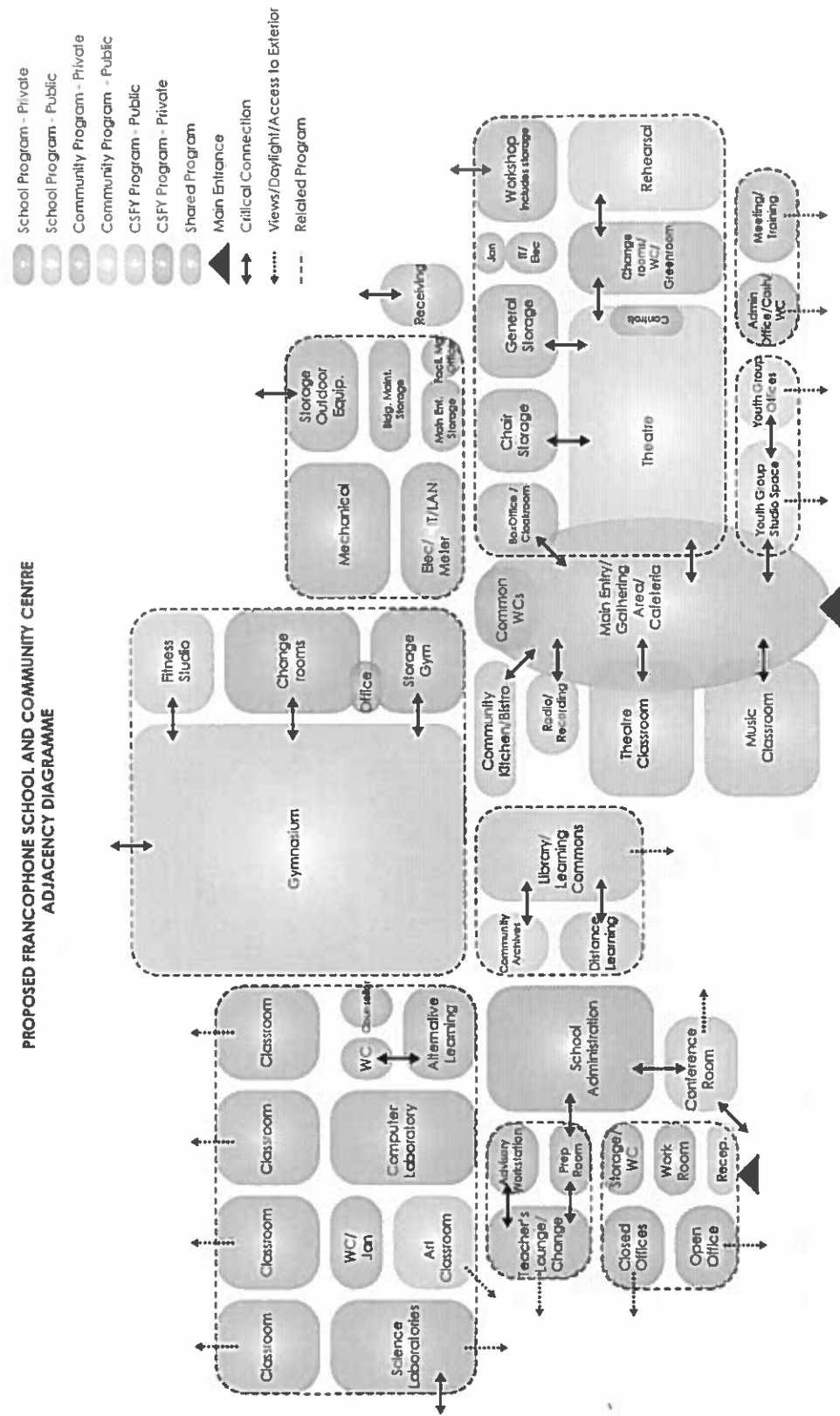
The operational spaces for the school and community centre have been grouped. The mechanical room, electrical room, storage for outdoor equipment, building maintenance storage, Facility manager's office and receiving are shared between the different programme.

Both these diagrammes were created for illustrative purposes and are not a true representation of what the facility layout may look like. Layouts will be developed and discussed during the design phases.



DISCLAIMER: THIS IS A DIAGRAMME FOR ILLUSTRATIVE PURPOSES, IT IS NOT A FLOOR PLAN

PROPOSED FRANCOPHONE SCHOOL AND COMMUNITY CENTRE
ADJACENCY DIAGRAMME





1.8 PROJECT DELIVERY METHODS

Complex building projects that are successful are ones that achieve collaboratively the needs of the user, met on time and on budget. This includes managing expectations, regarding both financial risk and schedule.

The Construction Committee has identified they do not want simply a cost-driven process to select the design team and contractor. Qualification based selection, flexibility on when cost surety is needed, and a realistic timeline for the process have been identified as critical in the procurement process for this project.

The client team for this school includes:

- CSFY
- YG Department of Education, Sponsoring Department
- YG PMD as project manager
- Teachers / School Administration as end-users

The following scheduling targets have been identified:

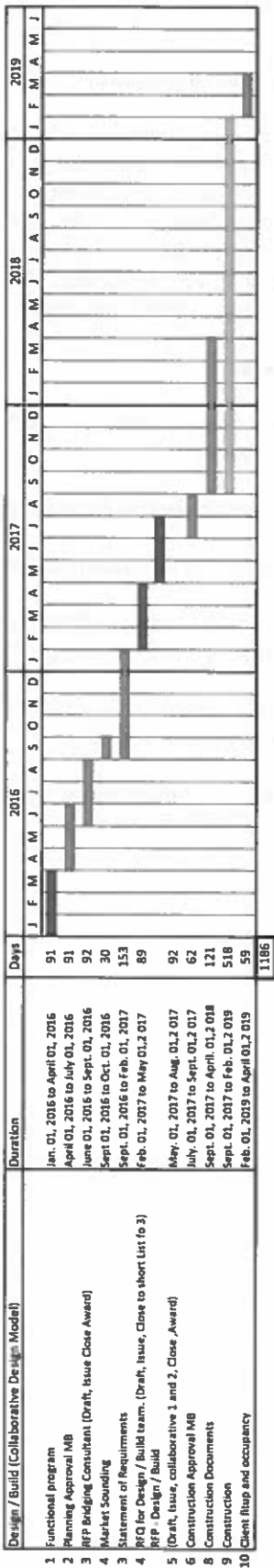
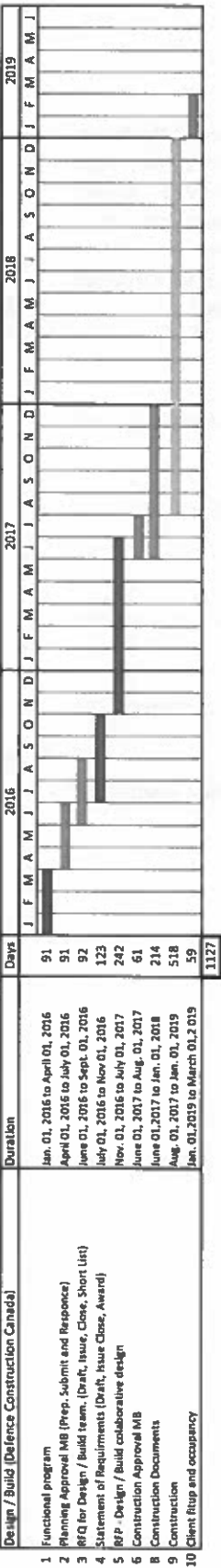
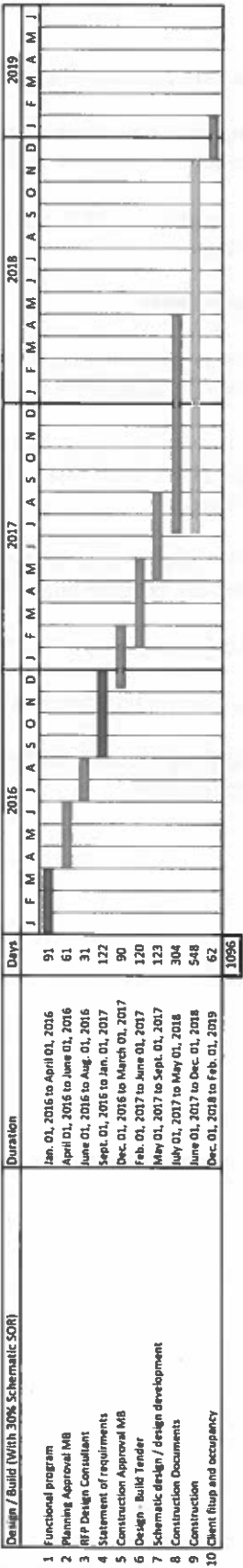
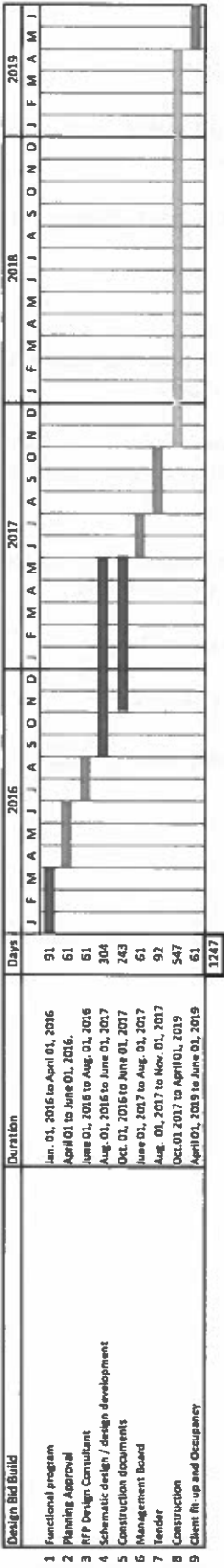
- Functional Programming to be completed Spring 2016, with Planning approvals from Management Board by June 2016.
- Construction approvals from Management Board and ground breaking by Fall 2017.
- Occupancy and client move-in for Spring 2019

This would give approximately 18 months for design /approvals and 18 months for construction to be completed.

Included are potential scheduling approaches that would achieve these targets, depending on the procurement method used.

For each project delivery method, there is an industry standard for the design component, which breaks down the scope into phases. These include Schematic Design, Design Development, Construction Documents, and Construction Administration.

Construction milestones include Site Preparation and Services, Foundation, Framing, Structural install, Building Envelope completion to weather, Mechanical & Electrical rough-ins, Interiors, Landscape, Substantial Completion with Occupancy, and Warranty Period. Weather and timing of construction start is an important factor to consider that impacts both cost and schedule.



Design - Bid - Build (DBB)

Traditional project delivery where project is designed, then tendered as a stipulated price, then constructed. Owner engages consultants to provide design services and prepare construction documents, which are issued for competitive bids. General contractors submit bids for the project and the construction contract is awarded to the lowest bidder.

Advantages:

- Well known method, widespread use and familiarity
- Clear roles assigned to each party
- Generally a transparent process
- Thorough resolution of the program requirements and design prior to construction
- Direct professional relationship between the client and the architect
- A price estimate before construction begins and a well defined scope.

- Simple procurement process
- Focus is on providing a design that meets the requirements and intentions
- Competitive bidding process on a determined design

Disadvantages:

- Separation of design and construction restricts useful collaboration with builders
- Clients sometimes perceive extras to be more prevalent and costly in this form of project delivery
- The contractor qualifications are unknown when the construction documents are prepared.
- No guaranteed price until tender closes.
- Owner retains significant design risk.

This approach would result in substantial completion in April of 2019.

Design - Build (DB) (with 30% Schematic Design)

Design-build is a form of project delivery where an owner contracts, under a single contract, with one entity (a design-builder) to provide and take contractual responsibility for both the design services and the construction.

Owners often use a Request for Proposal (RFP) process to obtain proposals from design-builders for both the design and construction for a fixed price. The RFP would include an owner's statement of requirements and design to the 30% level (schematic). This would pre-design the facility to meet functional and design requirements.

Advantages:

- Functional program, statement of owner's requirements, schematic design and owner's decisions are committed early
- Cost benefit analysis is addressed early in the design process, budget risk is transferred to the Design/Builder.
- Immediate feedback is received from the contractor on design options
- Streamlined process which increases efficiency and shorten timelines.

- Team approach is reinforced
- Focus is on producing a design that meets the bid amount
- Potential issues during construction are identified and addressed early on
- Single point of accountability for design and construction
- Fast-track delivery
- Owner transfers design risk to design-builder.

Disadvantages:

- The responsibility of the design approvals shifts from the owner to the design-builder
- Decisions by the design-builder are based more on initial cost rather than on design or long-term value
- Construction cost is determined before the design is 100% complete.

This approach would result in substantial completion in November 2018.

Design-build (Defense Construction Canada Model)

Project delivery where a request for qualifications (RFQ) is developed and issued and a single design-build team is selected to work collaboratively with the owner's team and advance the project to schematic design. The design-build proponent is provided a project budget and works to develop a functional design within the overall budget constraint (cap). At schematic design, the design-builder submits pricing and if that pricing is within the budget constraint and representative of value for money for the design provided, a construction contract is awarded and the project proceeds. Should the price exceed the cap, or not provide acceptable value for money, the owner retains the design, the design-builder is compensated for the design and the owner tenders for design completion and construction with the design forming part of the statement of requirements.

Advantages:

- Combines some advantages of design-bid-build and design-build in a hybrid approach.
- The potential outcome of working with a single design-build team throughout the process of design and construction would be advantageous.
- The design-build team is operating under a hard budget cap, which cannot be exceeded through

the design and construction phases.

- This approach allows the owner's team to work with the design build team and direct key design decisions throughout the process.
- Allows the owner's team to assess value for money within the design-builder's proposal and to take that design to market if not satisfied.

Disadvantages:

- Selecting and working with a single design-builder early in the process removes competitive tension, lessening the incentive for innovative and cost-effective solutions. The design-builder may provide the minimum required to satisfy requirements within the budget constraint.
- Results in schedule risk if the design-builder is not chosen and the owner is forced to tender a design-build contract after schematic design is complete and the design-builder's proposal is assessed.
- The owner is required to evaluate a single proposal for value for money, without the benefit of competing proposals to compare.

The estimated date of substantial completion under this model is December, 2018.

Design Build (Collaborative Design Build)

Project delivery model that commences with the issuance of a statement of requirements from which three design-build teams are shortlisted. These teams are then issued a request for proposals, which includes a detailed statement of requirements. The owner will include a price ceiling in the RFP, which functions as a mandatory condition. Proponents are also provided incentive, through evaluation criteria, to provide pricing lower than the price ceiling. The statement of requirements is developed by the owner's compliance team, which are most often a contracted team of experts from various disciplines which act as the owners technical representative throughout the procurement, design and construction phases of the project. The design-build teams that are issued a request for proposals are then invited to participate with the owner's team in a collaborative design process, where they have direct access to facility users and engage in interactive design sessions to develop and review design concepts to the schematic level. The teams then submit their schematic designs, which includes acceptance of all terms of the statement of requirements and of the design-build agreement, along with pricing, as their proposals to the owner. The owner evaluates and chooses a preferred proponent and typically offers compensation for the unsuccessful proponents.

Advantages:

- Emphasizes a high degree of collaboration between owner, users, designer and builder through the process of procurement and construction.
- The design process is competitive and the design build teams have access to the owner's team during the procurement phase. This results in greater incentive for design innovation and full consideration of user needs within a competitive environment.
- The price ceiling is set and incentive is provided to proponents to price under the ceiling. This provides cost certainty to the owner and maximizes value for money during the procurement phase.
- With multiple proponents each completing design to the schematic level, any deficiencies in the statement of requirements are more readily detected, potentially resulting in more addendums but fewer changes after the contract is executed.
- The owner has the ability to consider different design perspectives and can see different options, with the possibility of integrating design elements once a preferred proponent is selected.
- Risk allocation is clearly defined during the procurement phase and considered throughout the competitive design process.
- The owner ultimately gets to select from three design submissions, rather than selecting a proponent and working within a single design.

Disadvantages:

- Procurement process requires greater effort and diligence for both the owner's team and the proponents. Not all potential proponents have the capacity for this level of project pursuit.
- The honorarium provided to unsuccessful proponents does not usually fully compensate for their time and effort.
- Can add time to the procurement schedule.

The estimate date of substantial completion under this model is January, 2019.

1.9 COST ESTIMATES

The total built area of the proposed project, including the Secondary School (4,370 m2), the Community Centre (1,512 m2) and the CSFY Board Offices (287 m2), is 6,169 m2.

Based on the FH Collins project costs, this estimate is based on a range of \$5,000 to \$5,500 per square meter, from \$30,845,000 to \$33,929,500.

This estimate includes approximately \$4,200 to \$4,600 per square meter for construction costs, plus up to an additional \$900 per square meter for owner development costs, such as consultant fees, site preparation, permitting, and other costs.

Higher estimates are to be considered if sustainable building design, or LEED certifications are desired, as well as consideration to the occupancy complexity of the building program.

Depending on the site chosen, servicing, grading, paving and landscaping costs would fluctuate.

An additional budget will also have to be developed for the owner’s Fixtures Furnishing & Equipment scope

Education will apply to Heritage Canada to fund part of the shared spaces that would be used by the community, other than core or support spaces for the Secondary School program. The School and Community Centre shared space area is 2,348 m2 (as indicated in red on the Functional Programme Table, in Appendix 2.2)

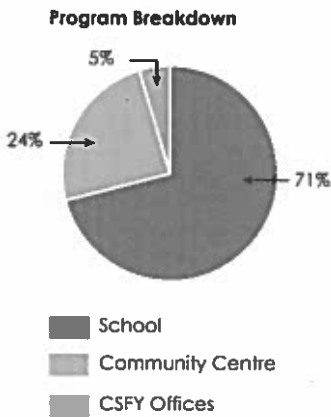
Heritage Canada may also fund part of the Community Centre, with a stand-alone area of 1,512 m2

We are assuming 50% of these above areas will be funded by Heritage Canada, from \$9,650,000 to \$10,615,000 or 31.2% of the project costs.

The remainder of the project costs would be funded by Yukon Government. This ranges from \$21,245,000 to \$23,369,500 or 68.8% of the overall project costs.

We also continue to pursue other avenues for federal funding, other than Heritage Canada.

Project Cost Breakdown		Low Range (\$5,000/m2)	High Range (\$5,500/m2)
Total Gross Floor Area	6,169 m2	\$30,845,000	\$33,929,500
Secondary School	4,370 m2	\$21,850,000	\$24,035,000
Community Centre	1,512 m2	\$7,560,000	\$8,316,000
CSFY Offices	287m2	\$1,435,000	\$1,578,500



1.10 CONCLUSION

The project for a francophone secondary school that includes a community centre, as well as the CSFY offices is a unique and exciting project. One for which it has been challenging to find similar examples in size, location, funding model and complexity of the functional programme. These factors must be considered when selecting a programme, a site, a project delivery method and a funding model. To successfully design and develop this project we are making the following recommendations:

- **Functional Programme:** although both the Alberta and British Columbia standards offer interesting approaches to determining the overall size and types of spaces needed for a school, neither is able to address the uniqueness of the proposed francophone secondary school. Due to its size, cultural importance, different programmatic requirements and location, we are recommending to proceed with the programme developed in collaboration with the Commission Scolaire Francophone du Yukon, Department of Education, and Yukon Government to design this project.
- **Site:** based on the programme developed, the need for the school to have its own identity and the possibility to expand in the future, we are recommending the proposed project be located on Site Option 2.

- **Schedule:** although it is the intention of the CSFY to have the secondary school in operation as soon as possible, realistic timelines for design and construction indicate the work will flow over into 2019.
- **Project Delivery Method:** Of the four delivery methods considered, the unique requirements of this project must be considered and ultimately, the project must support the program needs identified. Given the advantages in scheduling, collaboration and owner's risk transfer, we are recommending that one of the three versions of design-build are considered for implementation of the Francophone Secondary School.
- **Cost Estimate:** based on the total area noted in the functional programme and a unit cost of between \$5,000 and \$5,500 per square meter, the total estimated cost of the project is \$30,845,000 to **\$33,929,500**. As this is a planning level estimate, with major building systems and design features still to be determined, and accuracy of +/- 50% is to be included.

These recommendations will allow the project to be implemented to the satisfaction of the different parties involved.

APPENDIX

2.1 PRECEDENTS

The precedents presented in the next pages represent existing schools and community theatre spaces that are representative of the CSFY’s objectives for the new francophone school. The project the CSFY is seeking is unique and there are no examples of existing projects that meet their exact criteria.

21st Century Learning / Neighbourhood Learning Centres

James Park Elementary School Port Coquitlam, BC

Capacity: 420 Students
Area: 3,560 m2
Value: 15 million
Completed: 2012
www.sd43.bc.ca/elementary/jamespark

This elementary school was designed with area allocated for a Neighbourhood Learning Centre. In addition to the standard school core spaces, The NLC suite includes three classrooms that can be shared with the school, three offices for Fraser Public Health and a Flex room for meetings. A Strong Start classroom (a provincially funded drop in program for parents and children aged 0-5) on the lower floor was also part of the building.

This particular school placed the Learning Commons in a central location on the main floor with direct access to a south facing covered exterior area. This space doubles as a multipurpose space for the school and a rentable reception/meeting space for the public with a community kitchen directly linked to it.

Sunnyside Elementary School Surrey, BC

Capacity: 475 Students
Area: 4,740 sm
Value: 14 million
Completed: 2013
www.surreyschools.ca/schools/sunnyside

Sunnyside Elementary also was designed as a Neighbourhood Learning Centre, with additional program spaces dispersed throughout the school, to make the community component truly integrated.

The main floor consists of two 80sm Early Learning Classrooms with direct access to the outside. There is a 100sm Community room with two meeting rooms. The Community Room has exclusive use of an outdoor patio space with two garage doors to really open the space up. The Early Learning and Community Room share a kitchenette. The lower floor was designed to allow community use after hours. There is an 80sm Before and After School Care classroom with direct access to outside.

The Gym is accessed from this level and has a kitchen attached. The BC Ministry of Education’s Area Standards allows 100sm of multipurpose space. This particular school used some of the allocation to double the space. It is accessed directly from outside, can be partitioned off into two smaller spaces, or opened to the Gym for a much larger event space.

Bawlf School - Battle River School Division Camrose, AB

Capacity: 350 Students
Area: 3,600
Value: 12 million
Completed: 2014
www.brsd.ab.ca/school/bawlf

The Village of Bawlf required a school to replace the existing, aging facility. The new school acts as a hub for community events. Because of the need of a long-lasting and flexible facility, the design of the replacement school is one that is focused on providing a 21st century learning environment.

High School students and Elementary School students have separate common areas, with a third central common area at the main entry. Classrooms are fitted with semi-transparent overhead doors that open into the adjacent common areas, providing flexible and imaginative learning environments and new teaching opportunities based on a variety of sizes of teaching spaces.

Along with all core classrooms, the school has a variety of multipurpose ancillary spaces: Foods, Fashion, Drama, Music, and Art; all rooms being flexible enough to teach a variety of new and evolving programs that otherwise may not be available in a small-scale school.



Community Centres / Theatres

L'Ecole Jules-Verne
Vancouver, BC

Capacity: 350 Students
Area: 6,064 sm
Value: 21.6 million
Completed: 2008
www.julesverne.csf.bc.ca

CSF Vancouver Secondary is the first French Language Secondary School in Vancouver's History. It was built on the same site as the Rose-des-Vents French Elementary School to which it is adjoined.

Built to LEED Silver Standard, CSF is a two-storey high school which features a large Theatre, full-size gymnasium, underground parkade and an ample landscaped green space for the enjoyment of the entire community.

L'Ecole Victor-Brodeau
Victoria, BC

Capacity: 540 Students
Area: 7,000 sm
Value: 19 million
Completed: 2007
www.brodeur.csf.bc.ca

The École Victor-Brodeur was developed to provide kindergarten to grade 12 education to the francophone students of the greater Victoria region, as well as serve as a community centre for the francophone community. The 3-story building, which was designed in close partnership with community and school staff members, includes a day-care centre, pre-school spaces, general and specialised classrooms, multi-functional spaces, a gymnasium doubling as a large presentation space and a black box theatre.

The building is designed to respond to the urban nature of its context as well as the rocky and sloping conditions of the site. The project has received a LEED silver accreditation for its sustainable features, which include a highly efficient mechanical system, a durable rain-screen envelope, generous natural light and environmentally-friendly materials.

L'Ecole Secondaire Marie-Rivier
Kingston, ON

Capacity: 250 Students
Area:
Value:
Completed: 1995
www.marie-rivier.ecolecatholique.ca

Ecole Secondaire Catholique Marie-Rivier welcomes many Francophone community organizations including the Centre Culturel Frontenac, the Optimist Club of Kingston, Radio-Canada, La Route du Savoir and daycare Croque-Soleil.

The Octave Theatre is part of the Centre Culturel Frontenac and can accommodate 100-250 seats. La Route du Savoir offers literacy, numeracy, basic and computer skills workshops in French to Francophone adults in the greater Kingston area. The training program is funded by the Government of Ontario. Croque-Soleil offers a range of programs from daycare for infants, toddlers and preschoolers, before and after school care as well as summer camp for elementary school aged children.

Sullivan Heights Secondary School
Surrey, BC

Capacity: 1,550 Students + 1,100 seat theatre
Area: 54,135 sm
Value: 18 million + 13 million theatre
Completed: 2002
www.surreyschools.ca/schools/sullivanheights

Incorporated in the design of Sullivan Heights Secondary School is the Sullivan Theatre. This innovative project combines the grade 8 - 12 school, and a fully equipped performing arts public theatre operated by the school district.

This Theatre, with fly tower, a full range of in-house facilities and seating, is used both by the school and as a full-fledged theatre for the community. Funding was provided jointly between the Ministry of Education and School District 36. The Multipurpose atrium doubles as a front of house for the theatre as well as a gathering space for the students.



River Run Centre - Co-operators Hall
Guelph, ON

Capacity: 225 seats
Area:
Value:
Completed: 1997
www.riverrun.ca/rent-the-centre/co-operators-hall

Co-operators Hall is the smaller of the two theaters within River Run Centre. The Centre also houses the Main Stage concert theatre; Canada Company Hall, a glass-sided public space; shops; dressing rooms; wardrobe shop; and "green" rooms. The Centre accommodates local performing arts groups in Guelph, as well as outside presenters.

With flexible lighting positioned on pipe grid, a flat sprung floor, and fine acoustics, Co-operators Hall is an ideal space for recitals, recordings, rehearsals, small dramatic productions, cabaret concerts, and business meetings. The room features telescopic seating, as well as the ability to position loose seating around the sides of the room to accommodate a thrust stage configuration. Retractable acoustic curtains allow the room to be adjusted for speech and amplified events. When extended, the acoustic curtains absorb some of the reverberant energy, and create the "dry" environment. Co-operators Hall is accessible to wheelchairs and has an infrared sound system to assist the hearing-impaired.

Conrad Centre - Warnock MacMillan Theatre
Kitchener, ON

Capacity:
Area:
Value:
Completed: 2009
www.kwsymphony.ca/conradcentre/warnock_macmillan_theatre

Home to the Kitchener-Waterloo Symphony, the Conrad Centre for the Performing Arts is a community-based venue for performing arts for the region. In the spring 2009, the Manfred & Penny Conrad Family Foundation stepped in to preserve the former King Street Theatre Centre as a community-based venue for the performing arts with the KWS as anchor tenant and building manager.

The Warnock MacMillan Theatre is equipped with professional standard acoustic treatments. The theatre is a flexible space that can be used in Thrust, Proscenium or as black box with no fixed seating. The theatre also features a sprung floor, providing the ideal surface for showcasing all styles of dance performances.

Vancouver Creative Space - Progress Lab 1422
Vancouver, BC

Capacity:
Area: 650 sm
Value: 0.5 million renovation
Completed: 2009
www.c-space.ca/progress-lab-1422/rentals

In 2009, a dream between four kindred theatre organizations was realized: Boca Del Lupo, Electric Company Theatre, Newworld Theatre and Rumble Theatre opened Progress Lab 1422 (PL1422)

The building in Vancouver's Commercial Drive neighbourhood, contains a well-equipped 42' square studio with mezzanine and sprung floor, common assembly space, media/reading room, light-duty workshop, production storage, and kitchen facilities, plus administrative centres for the partner companies and associates. Studio use is determined on a priority basis, with the top priority being theatre rehearsals and workshops, down to the lowest priorities: performances and parties.

Programme Fonctionnel

2.2 FUNCTIONAL PROGRAMME TABLE

2.3 WORKSHOP MEETING MINUTES

2.4 WORKSHOP PRESENTATIONS