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1.0 **Executive Summary**

The modernization and preservation of Galbraith School, grades K-5, is currently the number one capital priority for Lethbridge School Division (the Division).

Gailbraith School, located in the north sector of Lethbridge, is currently utilized at 70% with an adjusted enrollment of 360 students. The Division's enrollment projections indicate that Galbraith School's enrollments will remain steady; however, as a result of the anticipated growth in the north sector of the City of Lethbridge the Division may be looking at future school boundary changes which could impact Galbraith School's enrollment and potentially increase utilization in the near future.

The original Galbraith School was built in 1912 and is 110 years old. Additions were made to the original building in 1962, 1968 and 1993. The school was modernized in 1963 and 1993. The original 1912 portion of the school is in very good condition; however, the rest of the facility is in need of a major modernization to address the aging building condition; mechanical, electrical, HVAC, and lighting, as well as to meet program requirements for modern teaching and learning styles. The historic significance of the original 1912 portion of the school is greatly valued by the Division, community, and City of Lethbridge and consequently its integrity is of utmost importance which makes this project unique from other projects.

On May 11 and 12, 2022, a Visioning Session was undertaken by Lethbridge School Division which included 10 participants from the school jurisdiction, two representatives from the Alberta government and nine consultants. The objective of the Visioning Session was to explore a variety of scenarios for the modernization and upgrading of Galbraith School.

During the two day Visioning Session, participants worked through a facilitated process to discuss, formulate and identify scenarios for the accommodation of students in a modernized school facility while respecting the historic integrity of the original 1912 portion of the school. Four potential solutions were developed:

Scenario 1a: Preserve and modernize the 1912 original building, demolish the 1962 administration area and north wing, repurpose the gymnasium and stage area, add a new administration area, gymnasium, and east classroom wing.

Scenario 1b: Preserve and modernize Galbraith School, demolish the 1962 administration area, repurpose the stage area, add a new administration area and gymnasium storage.

Scenario 2a: Preserve and modernize 1912 original building, demolish the 1962 administration area and north wing, repurpose the gymnasium and stage area, add a new administration area, gymnasium, and north classroom wing.

Scenario 2b: Preserve and modernize Galbraith School, demolish the 1962 administration area, repurpose the stage area, add a new administration area and gymnasium storage.

Scenario 3: Provided as a baseline model for comparison. K-6 Replacement school, 400 capacity and demolition of existing Galbraith school. There are no quidelines available for a K-5 school and the areas remain consistent.

2.0 Workshop Process

The Visioning Session involved a number of phases that the participants worked through:

The **pre-workshop phase** involved preparation and information gathering, including a tour of the existing building to determine the physical condition and functional challenges of the buildings, identifying program requirements, code issues, site opportunities and a review of current and trending demographics.

The workshop phase was a facilitated, two-day session that included context setting, functional analysis, identification of principles as well as a creative brainstorming exercise for the development of potential scenarios. Block schematic drawings and cost estimates were developed for each scenario, followed by an informal evaluation (discussion) which compared the scenarios, program achievements, extent of scope and value for money.

The **post-workshop phase** involved the compilation of a draft report for review by the school division prior to the completion of a finalized report.

3.0 Background Information

- The modernization of Galbraith School is the top modernization priority in Lethbridge School Division's most recent three year Capital Plan for 2021-2022 to 2023-2024. For consideration of possible funding approval, it is important that the potential scope of work and the anticipated project cost be fully understood based on the best scenario for accommodating students, addressing the requirements of aging building components and meeting modern educational pedagogy, including programming requirements and student learning and teaching styles.
- In Alberta Education's Area Capacity and Utilization Report for the 2020-2021 school year, Galbraith School, grades K-5, has an adjusted enrollment of 360, a net capacity of 515 and a utilization of 70%.
- The original Galbraith School was built in 1912, with additions in 1962, 1968 and 1993. The school was modernized in 1963 and 1993 and the original 1912 portion of the school is in very good condition.
- A Facility Audit was conducted on December 1, 2004 which assigned an Facility Condition Index (FCI score) of 5.27%. The original 1912 portion of the building was considered to be in very good condition. Structurally, the building was sound, the envelope tight and the interior well-maintained. It was indicated that the mechanical, specifically, the 1962 boilers and unit ventilators required replacement.
- Overall, the school is aging and requires extensive upgrades to address the aging building condition; mechanical, electrical, HVAC, lighting, plumbing and overall efficiency, as well as building code and building safety need to be addressed.
- The school reflects designs of other eras and educational times and requires program upgrades to meet modern learning requirements and provide 21st century learning spaces that enable modern teaching and learning opportunities.
- The historic significance of the original 1912 portion of the school is greatly valued by the Division, community, and City of Lethbridge and consequently, its integrity is of utmost importance which makes this project unique from others.
- There are currently no partnerships with other agencies in place; however, the City of Lethbridge typically provides funding for school projects to increase the size of the gymnasium for use by the community as well as the particular school division.

4.0 List of Participants

4.1 Lethbridge School Division

- Allison Purcell, Board Chair
- Christine Light, Board Member and Chair of the Facilities Committee
- Dr. Cheryl Gilmore, Superintendent
- Christine Lee, Associate Superintendent Business Affairs
- Daniel Heaton, Director of Facility Services
- Nicole Court, Acting Principal
- Tracy Vanson, Administrative Assistant, Galbraith Elementary School
- Nicole Garlock, Teacher, Galbraith Elementary School
- Christine Perreaux, Teacher, Galbraith Elementary School
- Kira Kinahan, Parent, Galbraith Elementary School

4.2 Government of Alberta

- Ross Newton, Alberta Education (via video-conferencing)
- Janelle Devine, Alberta Infrastructure

4.3 Consultant Team

- Doug Ramsey, Group2 Architecture Interior Design Ltd.
- Jilaine Lask, Group2 Architecture Interior Design Ltd.
- Mehak Sidhu, Group2 Architecture Interior Design Ltd.
- Laurel Udell, Educational Planning Consultant
- Kevin Drake, Tech Cost Consultants Ltd.
- Darrell Babuk, Boreas Architecture, Heritage Architect
- Dan Chronik, MPE Engineering (Structural)
- Jeff Swart, Remedy Engineering (Mechanical)
- Rob Anthony, SMP Engineering (Electrical)

5.0 Summary of the Process

The objective of the Galbraith School Visioning Session was to develop a variety of scenarios for the modernization and upgrading of Galbraith School. No ranking of the options was included in the process; however, block schematic drawings and cost estimates were developed for each scenario, followed by an informal evaluation (discussion) to compare the scenarios, program achievement, extent of scope, and value for money.

The scenarios will assist Lethbridge School Division in developing a school capital request for the modernization of Galbraith School using a preferred scenario or blended versions of the scenarios should they choose to do so.

5.1 Agenda

Day One: May 11, 2022

Stage One: Information and Analysis

- Consultant School Tour
- Meeting Protocol
- Overview of Workshop Process (guidelines and instructions for the discussions)
- Introductions of Participants
- Identification of individual participant's project objectives
- Lethbridge School Division's project objectives
- Alberta Education and Alberta Infrastructure project objectives
- Questions and Answers

Stage Two: Development of Criteria

- Common Criteria Discussion
 - Project Criteria Planning benchmarks including enrollment growth, demographics, utilization, programming requirements, unique project requirements, government criteria for project approvability.
 - Discussion of school tour and facility condition including deficiencies, program restraints, site considerations
 - Area comparator
 - What participants like about the school and what they'd like added

Stage Three: Creativity (Split into two groups)

- Review of Protocol
- Explanation of the required outcomes of the Brainstorming Exercise to develop the planning options
- Brainstorming Planning Session
- Development of Planning Scenarios
- Presentation back to team
- Outline of tasks for Day Two

Day Two: May 12, 2022

Stage Four: Evaluation of Scenarios

- Introduction to the Session
- Presentation of Scenarios
- Discussion of advantages and disadvantages of scenarios
- Presentation of Cost Benefit Analysis
- Next Steps
 - Preparation and review of final report as the basis for the Capital Request Submission

6.0 Summary of Planning Discussion

6.1 Project Criteria

To provide context for the brainstorming exercise and discussion, the team participated in a brief review of project criteria and discussion on the benchmarks typically used in the capital planning process:

- School capital projects are reviewed and prioritized by Alberta Education, with technical support and input from Alberta Infrastructure, prior to being submitted to the government's capital planning process led by Infrastructure.
- The projects identified in the Three Year Capital Plans should include sufficient information to support the school jurisdiction's priority ranking.
- The following criteria is used for establishing and demonstrating provincial capital project priorities:
 - Health and safety
 - Building Condition
 - Utilization Rates
 - Enrollment Projections
 - Education Program Delivery and Impact
 - Site Readiness
 - Infrastructure Performance
 - Legal Rights
 - Additional information, including opportunities for partnership/collaborations between one or more school jurisdictions and/or other partners and supplementary information such as studies and delivery capacity.

6.2 Planning Benchmarks

- To support the provincial criteria used for establishing and demonstrating provincial capital project priorities the following planning benchmarks are key considerations:
 - The age and the condition of an existing school facility are major project drivers. Facility Condition Index is used in facilities management to provide a benchmark to compare the relative condition of a group of facilities based on a pre-determined set of criteria. Typically, Alberta Infrastructure audits schools every five years.¹
 - Program and Instructional Assessment is used to determine the functionality of an existing school facility. Modern schools and learning focus on "21st Century Learning Pedagogy", or elements of this learning style combined with traditional learning styles. 21st century teaching needs to be inclusive, life long, digital, flexible, adaptable, innovative, creative, unstructured, interactive and project based (handson, collaborative, multi disciplinary, student centered, real-time, real-world). It is important for educational practices to be flexible and responsive to the strengths, needs and learning preferences of individual students. To achieve this, learning spaces need to be flexible. Gone are the days of endless boring corridors and multiple classrooms. Spaces are now increasingly fun, bright, flexible, and adaptable: movable walls, informal teaching pods in communal areas, group learning in libraries with interactive walls and state-of-the-art creative studios and maker spaces.
 - Current demographics and enrollment trends and projections are used to establish the required capacity for a new school or modernization/addition project.
 - The utilization rate, displayed as a percentage, is used to measure the student capacity of a school. It represents how close a school is to the maximum capacity of students it can accommodate. A school is not considered full until its utilization is 100%; however, 85% typically indicates the need to commence planning for future capacity. Every year, Alberta Infrastructure provides Area Capacity and Utilization (ACU) reports to each school jurisdiction. The reports provide information about the gross area, capacity, and utilization rate of their facilities based on September 30th head counts.

^{1.} The Facility Condition Index is used in facilities management to provide a benchmark to compare the relative condition of a group of facilities based on a pre-determined set of criteria. Typically, Alberta Infrastructure audits schools every five years.

CONDITION	FACILITY CONDITION INDEX	CPI DEFINITION
Good	Less than 15%	Adequate for intended use and expected to provide continued service life with average maintenance.
Fair	Equal to or greater than 15% And equal to or less than 40%	Aging components are nearing the end of their life cycle and require additional expenditures for renewal or refurbishing.
Poor	Greater than 40%	Upgrading is required to comply with minimum codes* or standards and deterioration has reached the point where major repairs or replacement are necessary.

^{*} Current minimum codes and standards are defined by the Alberta Building Code, which is revised periodically. Older buildings are 'grandfathered' and required to comply with the standards applicable at the time they were constructed, and not the current standards.

- Area comparators, the comparison of the existing school area to that of an
 equivalent new school based on Alberta Education's guidelines, are used to assess
 space deficiencies and requirements in an existing school, as well as assist in
 developing the framework for the scope of a modernization and/or addition project.
- Unique project requirements are also used to assist in the development of project scope. In the case of Galbraith School, the historic significance of the original 1912 building is a unique project requirement.
- To provide context, over the last 10 years, there have been approximately 400 capital requests per year on average and approximately 20 projects per year have been approved. Visioning and Value Scoping Sessions demonstrate that school jurisdictions have done their homework for Treasury Board and that the projects developed represent well thought out plans that provide value for money, justify the need and confirm the proposed project is the best of those considered, meeting the needs of the school jurisdiction, the students, and community.

6.0 Summary of Planning Discussion

6.3 Tour and Facility Condition Discussion

Consultants' Comments

Historic

- Experience indicates that buildings can be grouped into categories of best to worst condition based on their date of construction.
- The heritage wing (original wing) of Galbraith School was built in 1912, with additions dating to the Post WWII era. The buildings in the worst shape were built pre-1900; the buildings in second worst shape were built in the Post WWII era, between 1945 and 1970.
- Noting that the Lethbridge School Division wishes further construction to meet or exceed LEED -Silver standards as prescribed by Alberta Infrastructure, the existing school building contains a massive amount of embedded carbon. For the energy it took to to build the existing building both heritage and new wings, for the energy it would take to demolish this building, then adding the energy it would take to rebuild this building, there are major sustainability targets attainable by keeping the existing building and retrofitting it for future use.
- To attain heritage designation, a building must demonstrate that its history was physically, culturally or socially significant on a federal, provincial or municipal level.
- To be designated as a National Historic Resource gains that building a plaque and prestige; however, there is no current financial incentive with this designation.
- Galbraith School is currently designated as a Municipal Heritage Resource, which protects the original 1912 heritage wing of the school from demolition. The City of Lethbridge is discussing what further incentives may be offered for a Municipal Heritage Designation. Being a Municipal Heritage Resource, the Heritage Preservation Partnership Program of the Province of Alberta will fund improvements to the "Character Defining Elements" in a grant worth up to 50% of construction costs to a maximum of \$50,000. Should the Division wish to pursue this designation for Galbraith School, it may be applied in conjunction with the municipal grant offered by the Heritage Preservation Partnership Program.
- Character defining elements are described as:
 - The Standards and Guidelines for the Conservation of Historic Places states character-defining elements are "the materials, forms, spatial configurations, uses and cultural associations or meanings that contribute to the heritage value of an historic place, which must be retained in order to preserve the heritage value."
 - The Standards and Guidelines also includes a description of heritage value: "the aesthetic, historic, scientific, cultural, social or spiritual importance or significance for past, present or future generations. The heritage value of an historic place is embodied in its character-defining materials, forms, location, spacial configurations, uses and cultural associations or meanings."
- In the case of Galbraith School, the "Character Defining Elements" which need to be
 protected include exterior elements such as chimneys, stonework and windows and
 interior elements such as original millwork, doors, banisters, and flooring. Refer to
 Appendix F for the City of Lethbridge Heritage Inventory information.

Mechanical

• Mechanically the school operates with 2 completely standalone systems, with the 1912 and 1962 buildings generally operating independently. If the school is to undergo a major modernization and/or addition, then generally the existing mechanical systems have reached the end of their useful service life and complete replacement should be considered. There was an addition in 1993 with some mechanical upgrades. Refer to Appendix E for the RECAPP Facility Evaluation Report.

Structural

- Generally the building is in good condition.
- The 1912 portion of the building is a concrete foundation with masonry bearing walls and wood floor, roof structure, and ceilings.
- The 1962 classroom wing, Preliminary calculation based on Roof joist capacity (DF #1/2, 2x12 @ 16"oc span 17' as shown on original drawings):
 - Roof Joists, have additional capacity to add dead load (1.6kPa 32psf)
 - 16WF support beams and 4WF columns can support Full Roof joist allowable load.
 - Pad footings shown (2' Sq) do not have capacity to accommodate todays design snow/rain loads. (They will support the 1961 design roof snow load of 18psf (0.87kPa) and associated Dead loads only.) Any changes to roof structure will require structural work (underpin/ etc) to the footings.
- The preliminary look was at the interior pad footings, it's expect the others to be the same. Refer to Appendix E for the RECAPP Facility Evaluation Report.

Electrical

- Renovations have occurred at different times and consequently, systems have been done piece by piece.
- All systems and lights have reached their life expectancy. For example, the main building power distribution. Upgrades for power systems and outlets in each classrooms are required and fluorescent lighting changed to LED.
- Communication systems are good, however they will have to be redone when renovating.
- Clock system needs an update.
- Access controls for community control- card access on perimeter doors with lock and unlock throughout the day.
- Intrusion alarm requires modification with renovation.
- AC throughout building will increase the electrical demand. (A/C funded for schools in Lethbridge)
- Emergency generator 1985- due for replacement.
- Paging system needs modification.

Alberta Education

- It can take years to develop a school project and the better developed the project the better the success for provincial approval and funding. Also, the higher the utilization of the school (the closer it is to 85% utilization) also strengthens the project's approvability.
- It was communicated to government on May 10, 2022, that by 2025, \$240 million in federal funding would be made available for up to 65,000 child care spaces in Alberta for children between the ages of zero and kindergarten.
- Historic elements to be recreated or repaired or replaced, including sandstone columns and portico cornice on the 1912 building.

School Division

- The Learning Commons, which was modernized and added in 1993, is a beautiful, welcoming space and the staff would like the rest of the school to be like this; bright, spacious and inclusive.
- As the school is multi-storey and is not barrier free, the existing elevator is essential to move students around from floor to floor.
- Although the classrooms in the basement are not ideal, the ceiling heights are good and the classrooms are large. However, due to the flood risk they are not a preferred location for instructional space.
- There are spaces in the existing school that can't be used functionally.
- A larger administration space and more functional main entrance is required.
- The current heating and electrical systems are problematic and are a barrier to students' learning.
- The school needs to be more inclusive overall with strong sensory spaces with a "re-set" room and flexible learning spaces, including small group opportunities.
- The school needs accessible washrooms on each floor which include changing tables and enough room for two staff.
- The school's ambiance is one of "caring about each other." Overall, the school is very segmented and needs to be more group oriented.
- The school is a very innovative school and requires more spaces for project based hands on learning opportunities like the existing maker space and breakout areas to make the space more innovative overall.
- As much as the big rooms and history of the school are loved and appreciated, there needs to be more opportunities for flexible spaces and shared teaching spaces.
- The existing space does not lend itself to comprehensive learning and regrouping. Teachers aim for this but the space isn't currently available.
- The current character and charm is key; however, there needs to be an opportunity for open spaces and gathering spaces. Joining the buildings with gathering space and maker spaces and bringing in a new modern element. Intermingle the old with the new.
- Intermingling of the stories by mixing heritage features with modern features.
- Currently, the school is using non-instructional space for a gardening program. It could be ideal for the modernized school to provide space for this program.
- Lethbridge has the highest rate of poverty in Alberta. The school strives to support
 students in finding success in their learning experiences and provides breakfast and lunch
 programs, as well as opportunities for activities such as haircuts, a tradition that dates
 back to the original school. There is currently limited space to provide these programs.
 The fridge and supply storage areas are spread out and there is no designated area for
 the students to eat. There needs to be appropriate space to provide a seamless delivery
 of these programs.
- The school is the first stop for families for accessing counselling and mental health programs. Currently, there is no place to welcome these families or provide privacy for delicate conversations and it is these little things that matter and make a difference. The school needs to recognize diverse and indigenous families within the school community and requires liaison space. Wrap around space is required.

- The washrooms within the school are not ideally located. The grade one students on the second floor must go down to the basement to access the washrooms. This creates an issue with supervision. Also, the students are afraid to go to the basement and often their motor skills are compromised and with this challenge they often don't get there in time.
- It seems the vulnerable population is becoming more vulnerable in our current economic times. Many families within the community do not have access within close proximity to community programming and child care and do not have transportation available to them. The school does not currently have the space to provide these services and they must be offered in storage rooms. It would be extremely beneficial if the modernized school could incorporate space for these wrap around services.
- Potential school boundary and zoning changes could support the need for a 500 capacity school in the near future.

6.4 Area Comparitor

The existing school has a net capacity of 515 student places.

Based on the current adjusted enrolment of 360 students and utilization of 70%, for the basis of the comparison of building and program space deficiencies and surplus to Alberta Education's Area Guidelines for new schools, a 400 capacity, K-6 school was used as a model. (There are no quidelines available for a 400 capacity K-5 school and the areas remain constant.)

In comparison, the overall instructional space of the existing school has a surplus of approximately +751m² in regular/traditional classroom space and + 329m² in large ancillary space. Information services space is also over by +49m².

There is a deficit of -190m² in science classrooms, -130m² in small ancillary space, -29m² in gymnasium space, -28m² in gymnasium storage and -34m² in library/learning commons.

Total surplus of instructional space is +788m².

Overall, non-instructional space has a +23m² surplus of wrap around services space, +90m² in washroom space and +219m² in storage space.

The administration and staffroom areas are short -86m², recycle room -11m², phys-ed -70m², accessible washroom -12m² and flexible space -96m².

Mechanical and meter rooms, circulation, wall areas and washrooms are surplus overall by +672m².

In summary, the existing school is over in area by +1,396m² when compared to the current school design guidelines for a 400 capacity K-6 new school. It should be noted, that this comparison considers area only and does not consider the program functionality of the existing school.

Area Guidelines are provided for assistance in a school jurisdiction's design process for a new school, addition and/or modernization project. The areas provided by school grade configuration and capacity for instructional and non-instructional space and total area must be adhered to; however, school jurisdictions may choose to modify the sizes of individual spaces to reflect their preferences in educational pedagogy and requirements.

Galbraith School - Existing Capacity 515

Grades K-6 - Core Scho	ool Capit	al Man	ual	m2
Student Capacity	400			
Instructional Area				
Classrooms	11	@	80	88
Science	2	@	95	19
Ancillary - Large	1	@	130	13
Ancillary - Small	2	@	90	18
Info Services	0	@	115	
Gym				43
Gym Storage				4
Library				16
Subtotal				2,01
Non Instructional Area				
Admin/Staff				22
Wrap-Around Services				2
Mechanical & Meter Rooms				10
Recycle Room (LEED)				1
Phys Ed.				7
Circ.				50
Wall Area				24
Storage				7
Washrooms				4
Accessible Washroom				1
Flexible Space				9
Wiring Network				3
Subtotal				143
Required Area				3,45
	per	student		8.6
Total Required				3,45

Calle and Cale and				2
Galbraith School				m2
Existing Capacity	51	5		
Instructional Area				
		10.0	05.07	4 (04 4
Classrooms		19 @	85.86	1,631.4
Science				0.0
Ancillary - Large				458.8
Ancillary - Small				50.0
Info Services				49.4
Gym				401.3
Gym Storage				15.3
Library				194.3
Subtotal				2800.5
No. 1 and a second Association				
Non Instructional Area				4.40.0
Admin/Staff	- ,			140.9
Wrap Around (Conf. & Sensory	Rms)			42.9
Mechanical & Meter Rooms				206.2
Recycle Room (LEED)				0.0
Phys Ed.				0.0
Circ.				788.0
Wall Area				440.5
Storage/Janitor				289.1
Washrooms				137.6
Accessible Washroom				0.0
Flexible Space				0.0
Wiring Network				0.0
Subtotal				2045.3
Area				4,845.8
	pe	r stude	nt	9.4
Total Area				4,846

Differences		m2
Student Capacity	Capital Manual vs Existing	
Instructional Area		
Classrooms		751
Science		-190
Ancillary - Large		329
Ancillary - Small		-130
Info Services		49
Gym		-29
Gym Storage		-28
Library		34
Subtotal		788
Non Instructional Area		
Admin/Staff		-86
Wrap-Around Services		23
Mechanical & Meter Rooms		98
Recycle Room (LEED)		-11
Phys Ed.		-70
Circ.		285
Wall Area		199
Storage		219
Washrooms		90
Accessible Washroom		-12
Flexible Space		-96
Wiring Network		-30
Subtotal		608
Area Difference		1,396
	per student	0.78
Area Over by		1,396

6.5 Likes and Dislikes

Existing building's positive features:

- Innovate and inclusive and achievement oriented
- Love that the staff make visitors feel welcome
- The multiple spaces including learning commons
- Bright, strong and deep learning
- The 1912 building classrooms
- Family the personality of the staff and community
- Proud of our history
- The daylight
- Character of the historic building
- Generational building
- Kids feel safe in school.

Existing building's deficiencies:

- Accessibility
- More inclusive
- Different spaces for kids where kids can regulate
- Flexible learning spaces
- Electric and heating issues currently prohibit student learning
- Smaller area- work together spaces breakout spaces
- Strong sensory room(s)
- Barrier free washroom with change table.
- Washrooms on each floor
- Larger administration area
- Segregated. Missing feeling of togetherness and sense of community
- Project-based hands-on-learning and the spaces to accommodate this learning style - maker space.
- Shared teaching spaces
- Gathering spaces for kids open space
- Grouping gathering spaces togethernew modern spaces.
- Space for breakfast, lunch and snack programs
- Currently, no windows in the ECS classroom
- Kitchen space- universal space for all students to learn a variety of skills
- Missing the history of community outreach
- Functionality of the administration and support spaces
- Gardening program- grow own food
- Welcoming space for community support - counselling services
- Privacy- sound proofing
- Child care spaces
- Bathrooms sight lines safety concern
- Safe feeling space Play room
- Full time teacher councellor, family support worker - twice a week, child family services, no space for assessments. No privacy. Few flexible rooms that can be locked and filing cabinets.

7.0 Creativity

The visioning session participants explored, discussed and developed scenarios for meeting the objectives of the proposed Galbraith School modernization.

7.1 Brainstorming Discussion

Discussion revolved around the existing school floor plans and site layouts, while respecting the integrity of the historic portion of the building and explored and identified educational, functional and program requirements that are appreciated or deficient in the existing school. It was noted that the school site is capable of handling a larger building footprint with the possible relocation of the current play grounds and sports fields.

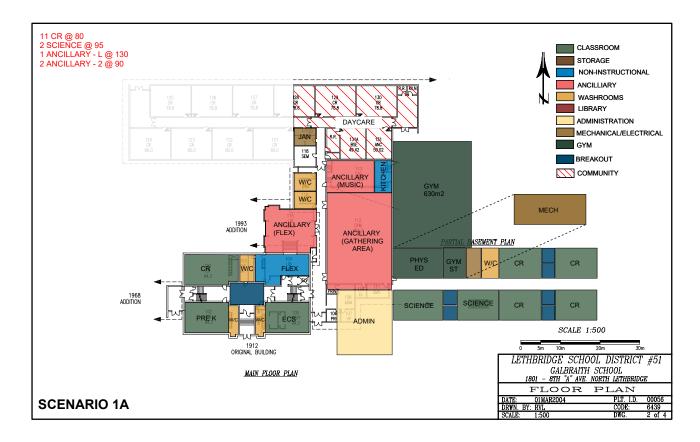
7.2 Development of Planning Scenarios

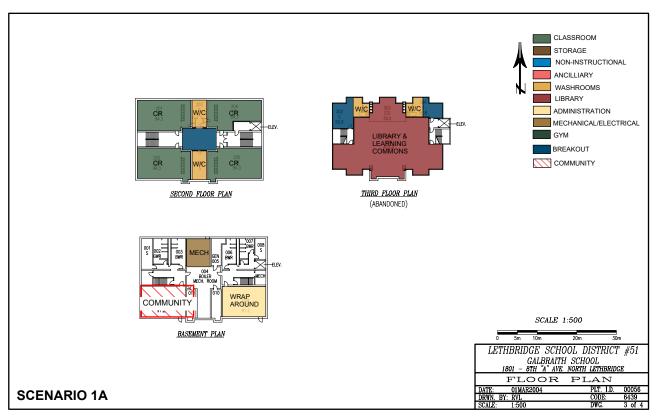
In the brainstorming exercise, after discussion around the potential partnership with the City of Lethbridge to upsize the gymnasium by 200m² to 630m² from Alberta Infrastructure's allocation of 430m², the utilization and enrollments, the major building components to be addressed, as well as the educational functional requirements that are deficient in the existing school, four potential scenarios were developed. A fifth scenario of a new replacement school was provided as a baseline model for comparison only.

7.3 Group Presentations

Scenario 1A

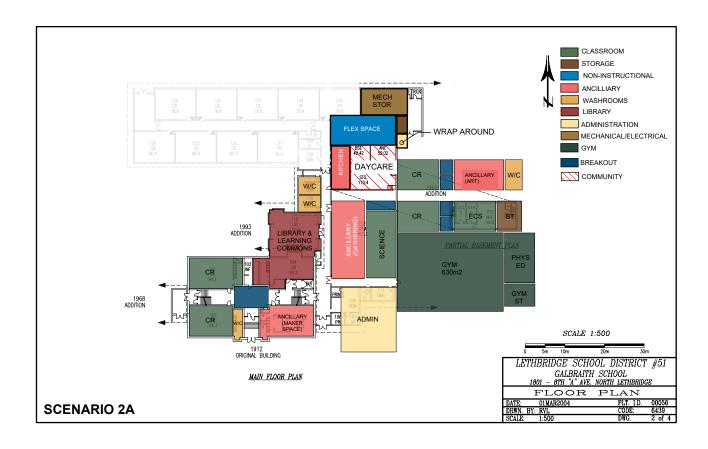
- Preservation and modernization of the original 1912 building.
- Demolition of the existing 1962 wing and the addition of a newly constructed 630m² gymnasium and classroom wing towards the northeast side.
- Relocation of the library to the third floor as it does not require constant access by the students. There is also opportunity to repurpose the existing storage room as flex space/ breakout rooms.
- The existing gymnasium is converted into a large, multipurpose gathering area in the centre of the school to allow for and accommodate a variety of activities.
- The music room is located adjacent to the flex space, creating an opportunity to open up into the multipurpose space with close proximity to the gymnasium stage for easy access for performances.
- ECS and Pre-K classes are relocated in the original structure into the front two classroom with private washroom access for each. This allows for a separate entrance for the the ECS and Pre-K students.
- The original administration area is replaced with an addition of a larger administration area and staffroom and creates a more spacious entrance with optimal visibility, alleviating the current concerns with the security and safety of students and staff.
- The second floor of the original space will be utilized as classrooms with the addition of washrooms.

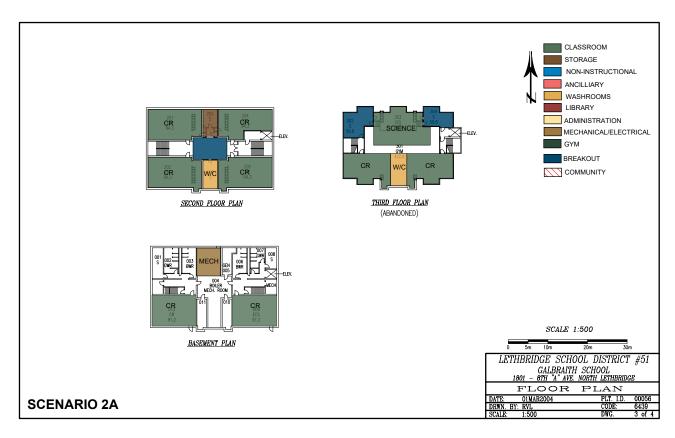




Scenario 2A

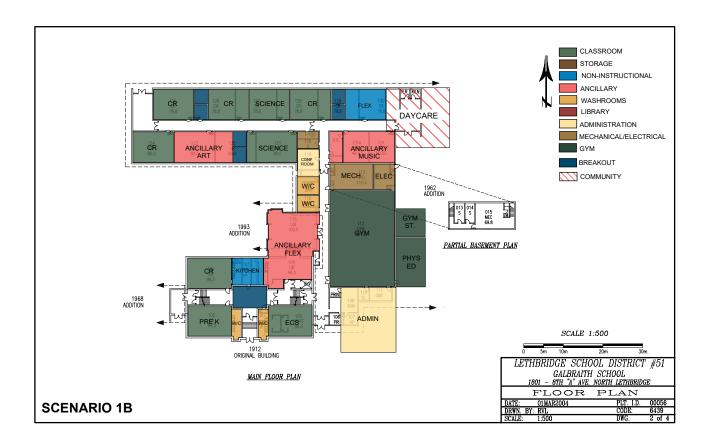
- Demolition of the exiting 1962 wing and the addition of a newly constructed 630m² gymnasium and classroom wing. The gymnasium extends into the east field of the existing school site. Towards the north of the reconstructed gymnasium there is a wing of 4 classrooms with flex and breakout spaces in between.
- The original administration space is to replaced with a larger administration and staffroom allowing for a more spacious entrance with natural light and providing optimal visibility, alleviating the current concerns with the security and safety of students and staff.
- This option extends the library/learning commons in the existing library space. The
 gathering space is located adjacent to the learning commons providing an opportunity
 to cross pollinate. The kitchen and daycare are located towards the north side of the
 building providing direct access to outside.
- The existing staff room is repurposed into maker space and flex space and also provides adjacency to the learning commons.
- This option utilizes the existing classrooms on the second floor of the original building with washrooms located in between.
- The third floor is reconfigured to include two classrooms as well as a bigger science room. The existing storage is utilized as breakout spaces.
- The existing classrooms on the west side of the main floor remain as classrooms with an additional washroom added.

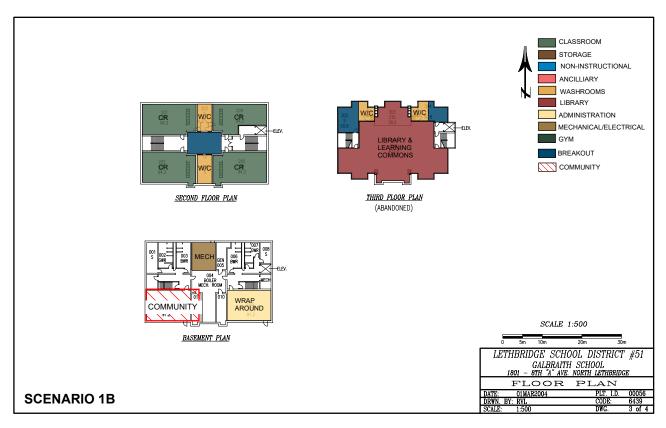




Scenario 1B

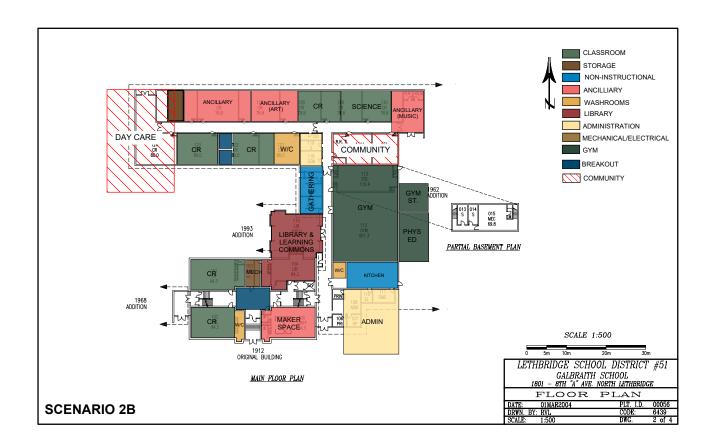
- This scenario renovates the existing school, keeping to the original footprint with a limited addition of gymnasium storage and a larger administration area with the opportunity for a larger front entrance with better sight lines and support space.
- The ECS and Pre-K are located in the original building, taking advantage of the original, existing entrance and adding a washroom to each classroom.
- The library/learning commons is converted to flex space, taking advantage of the repurposed existing administration area and gymnasium across the hall.
- A kitchen is located adjacent to the flex space creating the opportunity to provide space for community and lunch programs.
- The existing classrooms are repurposed to art and science rooms to take advantage of the outdoor courtyard space for learning opportunities.
- Many of the existing classrooms in the 1962 remain as classrooms; however they will be reconfigured to allow for breakout rooms in between.
- A daycare addition is added to the east end of the 1962 addition.

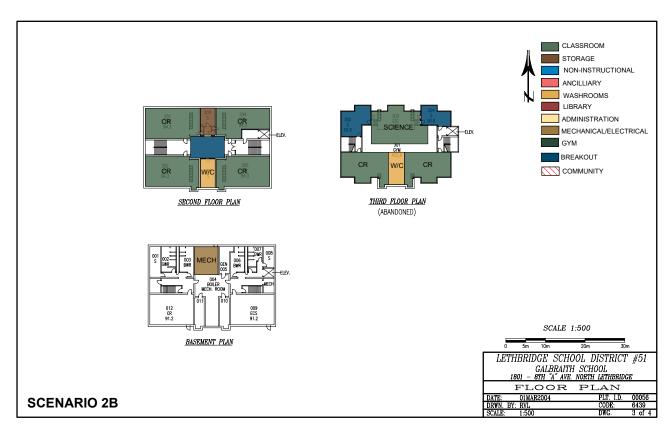




Scenario 2B

- The original administration area is replaced with a large addition which expands the administration area and staffroom and allows for natural light and good sight lines, eliminating the current concern with the security and safety of staff and students.
- This scenario looks at expanding the gymnasium into the stage area and using the space in between the administration area and new gymnasium as a community kitchen.
- The library/learning commons remains in the centre of the school with makerspace located in front.
- Gathering space is located on the other side of the library/learning commons with an opportunity to open up into the library/learning commons.
- The science and math rooms are located on the main floor in this scenario with the large ancillary spaces in the north part of the wing.
- The daycare is located on the north east corner of the school taking advantage of the 9A Avenue entrance and drop off. It also allows for more distance between the daycare and the main entrance of the school.
- The ECS classroom is located adjacent to the daycare with washrooms in the existing wing and allows for easy access of the courtyard for outdoor learning opportunities.





8.0 Review and Comparison of Scenarios

In order to evaluate the planning options reasonably and objectively, a weighted criteria evaluation process is typically used in Value Scoping Sessions. Participants identify key criteria they consider important in achieving a planning solution and a weighting is applied to each criteria based on each participant's perception of its relative importance. A blind ballot process is used to collect each participant's weighting for each criteria (out of a total score of twenty across all the criteria) and the participant's weightings are then used to provide a fair, group wide assessment of the relative importance of each criteria.

At the request of Lethbridge School Division, this exercise was one of visioning rather than value scoping, and the outcome was to develop a variety of scenarios. Consequently, the evaluation portion of the session was not included; however, the scenarios were reviewed and compared.

The objective was to explore potential, viable scenarios for the modernization of Galbraith School to support and provide some direction for the school jurisdiction in their planning and to assist in making future decisions for an overall facility plan.

8.1 Summary of Scenarios

Scenario 1A

Scenario 1A explores the demolition of the 1962 wing on the north side and looks at extending the school into the east field. The extension primarily utilizes classrooms with breakout spaces in between. The library/learning commons is relocated to the third floor with the multipurpose space located in the center of the school adjacent to the gymnasium and flex space. The administration area is expanded to create a functional and efficient area allowing for a spacious and secure entrance.

Scenario 2A

Scenarios 2A investigates the demolition of the entire 1962 wing and extends the gymnasium and classroom block into the east playground. The third floor explores dividing the space into classrooms with a large breakout/science space in the centre to take advantage of interdisciplinary learning.

The library/learning commons will remain in its existing location with the gathering space located across the hallway allowing for the opportunity for programs to spill into one another.

Scenario 1B

Scenario 1B considers a full renovation to the existing school with a larger and more functional administration area and reconfigured front entrance. The scenario looks at re-purposing the original structure as classrooms with the large breakout space in the centre. The library/learning commons is relocated to the third floor of the original structure to take advantage of the large open floor space. The current library/learning commons will be converted into a flex/multipurpose space located across the hall form the exiting gymnasium. A daycare addition is added to the east end of the 1962 addition.

Scenario 2B

Scenario 2B also considers a full renovation to the existing school with a larger and more functional administration area and front entrance. The original building footprint is utilized to provide classrooms in each corner with a large breakout space in the centre. The 1962 addition will be re-purposed to include large ancillary classrooms for various different activities and a community daycare is located in the northwest corner. A daycare addition is added to the west side of the 1962 addition.

Discussion of Advantages and Disadvantages 8.2

Scenario	Inclusion	Innovation
Scenario 1A East	 Some concerns with learning commons being on 3rd floor as the library/learning commons is separated from the rest of the school, and it needs to be integrated into the daily practice to become a central and integral part of school. Could have concerns with mobility and inclusion if the 3rd floor is classrooms. Science, art and flex space - struggle with one class on the 3rd floor. More common spaces on the 3rd floor. 	 Small break out rooms shown but need a larger "innovative" shared project based space. There is an opportunity to design modern classrooms with shared breakout/ project space. Used for music and art with movable walls. Ancillary space (proper storage of instruments to allow for sharing). Music should be closer to gym for performance.
Scenario 2A West	Not as inclusive for children with mobility issues (having to go up and down a lot) more inclusive because everyone feels like they are together.	Learning commons, library, maker space, flex space all together. Administration being closer " central" to the larger gathering areas for supervision. "Community and cross grade activity - promotes integration between all students and staff" creating a culture where learning is the focus.
Scenario 1B East	Separate entrance for Pre-K and ECS and have a common learning space and connection to the learning commons.	 Art science and music room all have access to the outdoor leaning space (strength) - having the direct access really helps create outdoor learning.
Scenario 2B West		 Want the daycare to be attached but the daycare, parking and entrance to be off 9th ave at the opposite end of the school - has to be a "different area" Kitchen attached to administration for staff and community use and close to the gymnasium

opportunities in modern and multipurpose spaces.

9.0 Cost Benefit Analysis

The costing process identifies the area(s) of new construction and area(s) to be demolished and modernized by breaking the existing school into zones to identify the intensity or level of modernization, as well as the approximate construction schedule and duration. Location is also factored in to the support price.

Alberta Infrastructure has a supported Construction Rate determined by previous school projects tendered and completed that are used to forecast project budgets.

In establishing the costs for modernization projects, the school is broken down into components; foundations, finishes, substructure, shell (roof, windows and doors), stairs and services; heating, ventilation, plumbing, electrical and air conditioning where warranted.

The components of the modernization projects are broken into groups by intensity for pricing:

- Major modernization are most complex and may include full mechanical upgrades, structural changes, slab-on-grade, the raising of ceilings, roof alignment and changes to corridors.
- Medium modernization does require some structural work but has no changes to load bearing walls.
- Minor modernization involves no structural change or upgrades and basically involves a coat of paint and new fixtures. "The walls stay in place."

The estimated costs for hazardous materials abatement as well as soft costs are also factored into a project budget for design fees, site work and furniture and equipment.

Finally, the cost of constructing a new 400 capacity replacement school, grades K-4, is provided as a baseline model for comparison.

Comments:

- Value for money does not mean the lowest price. Value for money reflects the stewardship of assets.
- The process is not a formula, it considers value, history and pedagogy.
- The process is not qualitative it is quantitative.

	OPTIONS				
	Option 1a – Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and east classroom wing	Option 1b – Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage	Option 2a – Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and north classroom wing	Option 2b – Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage	Option 3 – Replacement K4 400 capacity school, demolish Galbraith school
Area (m²)	5,301	4,980	5,137	4,980	3,450
CAPITAL COSTS - 2022					
Hard Construction Cost	\$18,530,500	\$14,835,892	\$17,833,617	\$14,794,368	\$14,570,254
Soft / Other Construction Cost	\$3,057,532	\$2,447,922	\$2,942,547	\$2,441,071	\$2,476,943
GST - Non Refundable	\$345,409	\$276,541	\$332,419	\$275,767	\$272,755
Escalation	\$0	\$0	\$0	\$0	\$0
TOTAL CURRENT CAPITAL COSTS (April 2022)	\$21,933,441	\$17,560,355	\$21,108,583	\$17,511,205	\$17,319,952

10.0 Additional Considerations

Lethbridge School Division is considering a review of north Lethbridge elementary schools to align boundaries within the schools in this sector. This review will consider walk limits for students, transportation, school transitions, current enrollments and projections and facility capacities to achieve a balancing of enrollments and programming needs and opportunities resulting from the current and anticipated growth occurring in the far north end of the sector.

Should the school division elect to revise the school boundaries for the north sector of Lethbridge in the near future, there may be a requirement for Galbraith School to accommodate more students. Consequently, a 500 capacity, K-5 school may be required. This scenario would also include the potential partnership with the City of Lethbridge to upsize the gymnasium by 200m² to 630m² from Alberta Infrastructure's allocation of 430m².

It should be noted that the Brainstorming Exercise used a 400 capacity school as a model.

In comparison with Alberta Education's Area Guidelines for new schools, a 500 capacity, K-6 school was used as a model. (There are no guidelines available for a 500 capacity K-5 school and the areas remain constant.)

In comparison, the overall instructional space of the existing school has a surplus of approximately +511m² in regular/traditional classroom space and + 329m² in large ancillary space. Information services space is also over by +49m².

Total surplus of instructional space is +418m².

Overall, non-instructional space has a +13m² surplus of wrap around services space, +78m² in washroom space and +206m² in storage space.

The administration and staffroom areas are short -166m², recycle room -11m², phys-ed -70m², accessible washroom -12m² and flexible space -120m².

Mechanical and meter room, circulation, wall areas and washrooms are surplus overall by 469m².

In summary, the existing school is over in area by 696m² when compared to the current school design guidelines for a 500 capacity K-6 new school. It should be noted, that this comparison considers area only and does not consider the program functionality of the existing school.

The Brainstorming Exercise used a 400 capacity school as a model.

The cost of constructing a new 400 capacity replacement school, grades K-5 is \$17,319,952 and is provided as a baseline model for comparison. The construction cost for a 500 capacity, K-5 school was not included in the exercise; however, it would be higher than the 400 capacity cost of \$17,319,952.

Galbraith School - Existing Capacity 515

Grades K-6 - Core Schoo	I Capit	al Manua	ıl	m2
Student Capacity	500			
Instructional Area				
Classrooms	14	@	80	1,120
Science	2	@	95	190
Ancillary - Large	1	@	130	130
Ancillary - Small	3	@	90	270
nfo Services	0	@	115	
Gym				43
Gym Storage				4
Library				20
Subtotal				2,38
Non Instructional Area				
Admin/Staff				30
Wrap-Around Services				3
Mechanical & Meter Rooms				16
Recycle Room (LEED)				1
Phys Ed.				7
Circ.				59
Wall Area				28
Storage				8
Washrooms				6
Accessible Washroom				1.
Flexible Space				12
Wiring Network				3
Subtotal				176
Required Area				4,15
	per:	student		8.3
Total Required				4,150

Galbraith School			m2
Existing Capacity 5	15		
Instructional Area			
Classrooms	19 @	85.86	1,631.4
Science			0.0
Ancillary - Large			458.8
Ancillary - Small			50.0
Info Services			49.4
Gym			401.3
Gym Storage			15.3
Library			194.3
Subtotal			2800.5
Non Instructional Area			
Admin/Staff			140.9
Wrap Around (Conf. & Sensory Rms)			42.9
Mechanical & Meter Rooms			206.2
Recycle Room (LEED)			0.0
Phys Ed.			0.0
Circ.			788.0
Wall Area			440.5
Storage/Janitor			289.1
Washrooms			137.6
Accessible Washroom			0.0
Flexible Space			0.0
Wiring Network			0.0
Subtotal			2045.3
Area			4,845.8
I-	er stude	nt	9.4
Total Area			4,846

Differences		m2
Student Capacity	Capital Manual vs Existing	
Instructional Area		
Classrooms		511
Science		-190
Ancillary - Large		329
Ancillary - Small		-220
Info Services		49
Gym		-29
Gym Storage		-28
Library		-6
Subtotal		418
Non Instructional Area		
Admin/Staff		-166
Wrap-Around Services		13
Mechanical & Meter Rooms		44
Recycle Room (LEED)		-11
Phys Ed.		-70
Circ.		192
Wall Area		155
Storage		206
Washrooms		78
Accessible Washroom		-12
Flexible Space		-120
Wiring Network		-30
Subtotal		278
Area Difference		696
	per student	1.11
Area Over by		696

11.0 Next Steps

The Visioning Session developed and provided costing models for four scenarios for Lethbridge School Division to consider in formulating a capital project request for Galbraith School.

All four options range in cost from \$\$17,511,205 million to \$21,933,441.

For comparison the baseline model of a 400 capacity K-6 replacement school is costed at \$17,319,952.

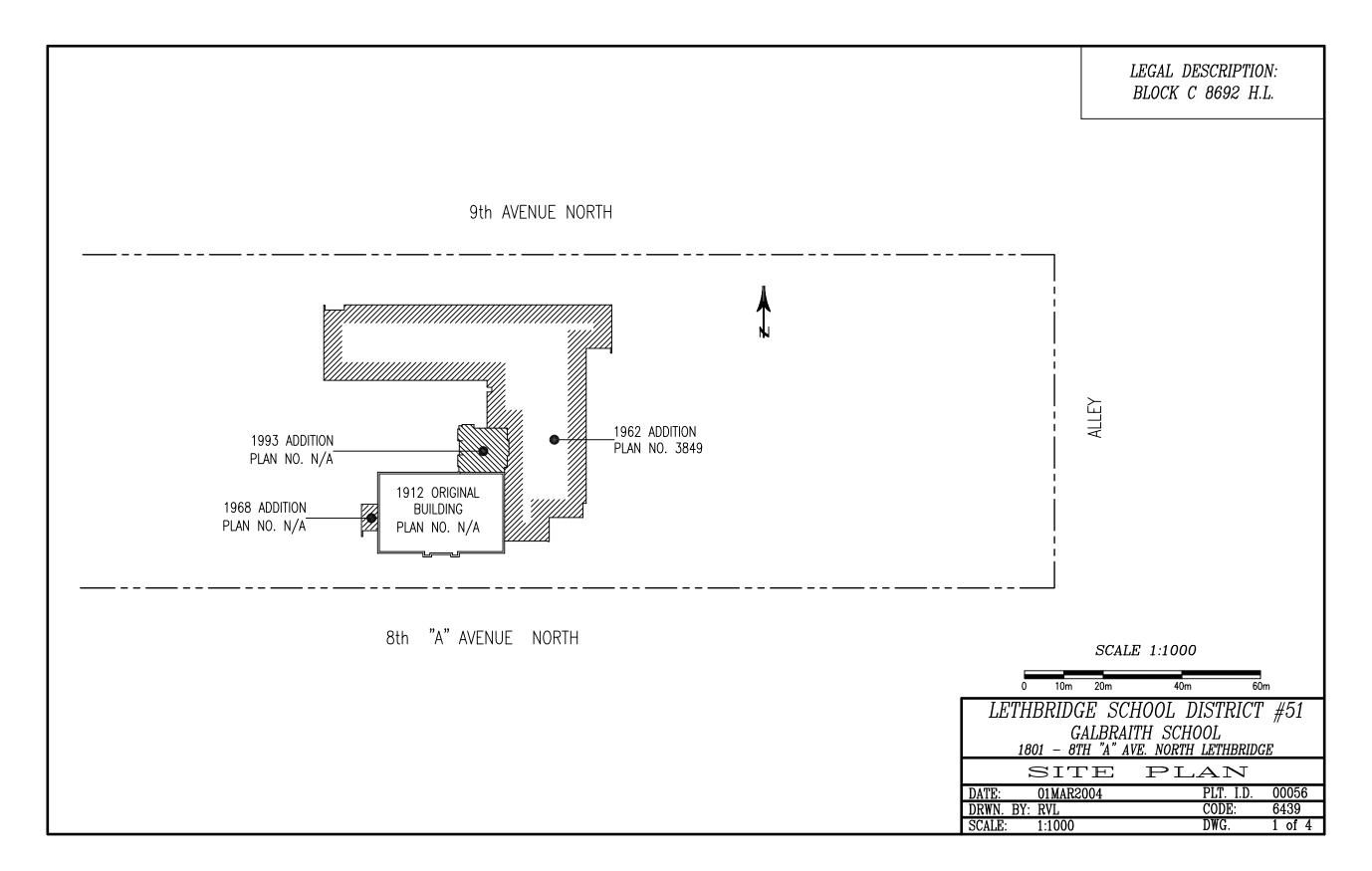
A partnership opportunity may exist with the City of Lethbridge for an expansion a of the gymnasium for community use.

Although Lethbridge School Division need not choose any of the scenarios developed in the Visioning Session, the scenarios do confirm the scope of work that needs to be undertaken and the level of investment required for each scenario for comparison which may be considered in any decision making and/or used to support a capital submission.

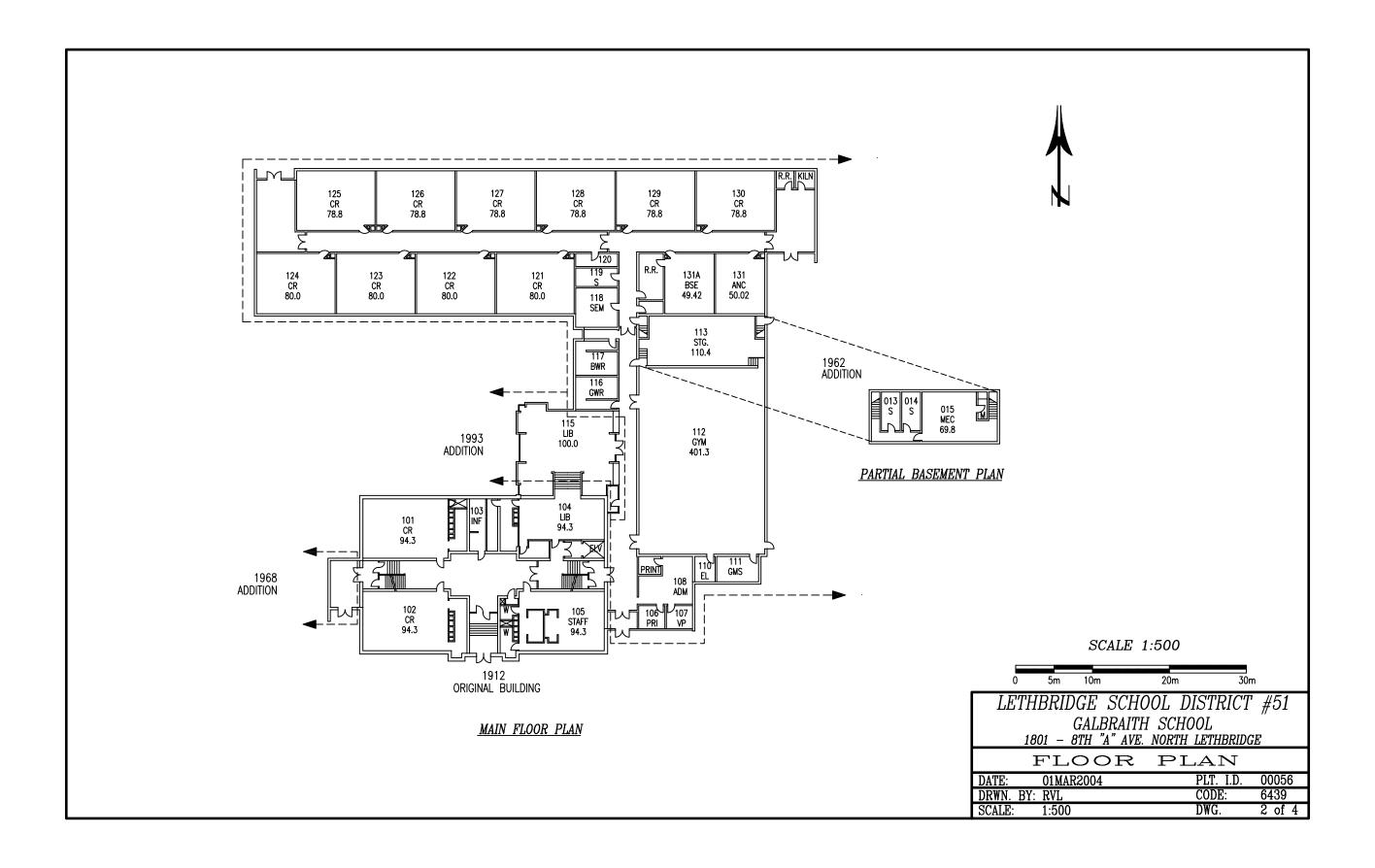
Should Lethbridge School Division elect to a revise the school boundaries in north Lethbridge elementary schools to achieve a balancing of enrollments and programming needs and opportunities, it may consider the scenarios developed in the Visioning Session for a 400 capacity, K-5 school with an overall area of 3,450m² and adapt the additional area of 700m² required for a 500 capacity, K-5 school with an overall area of 4,150m².

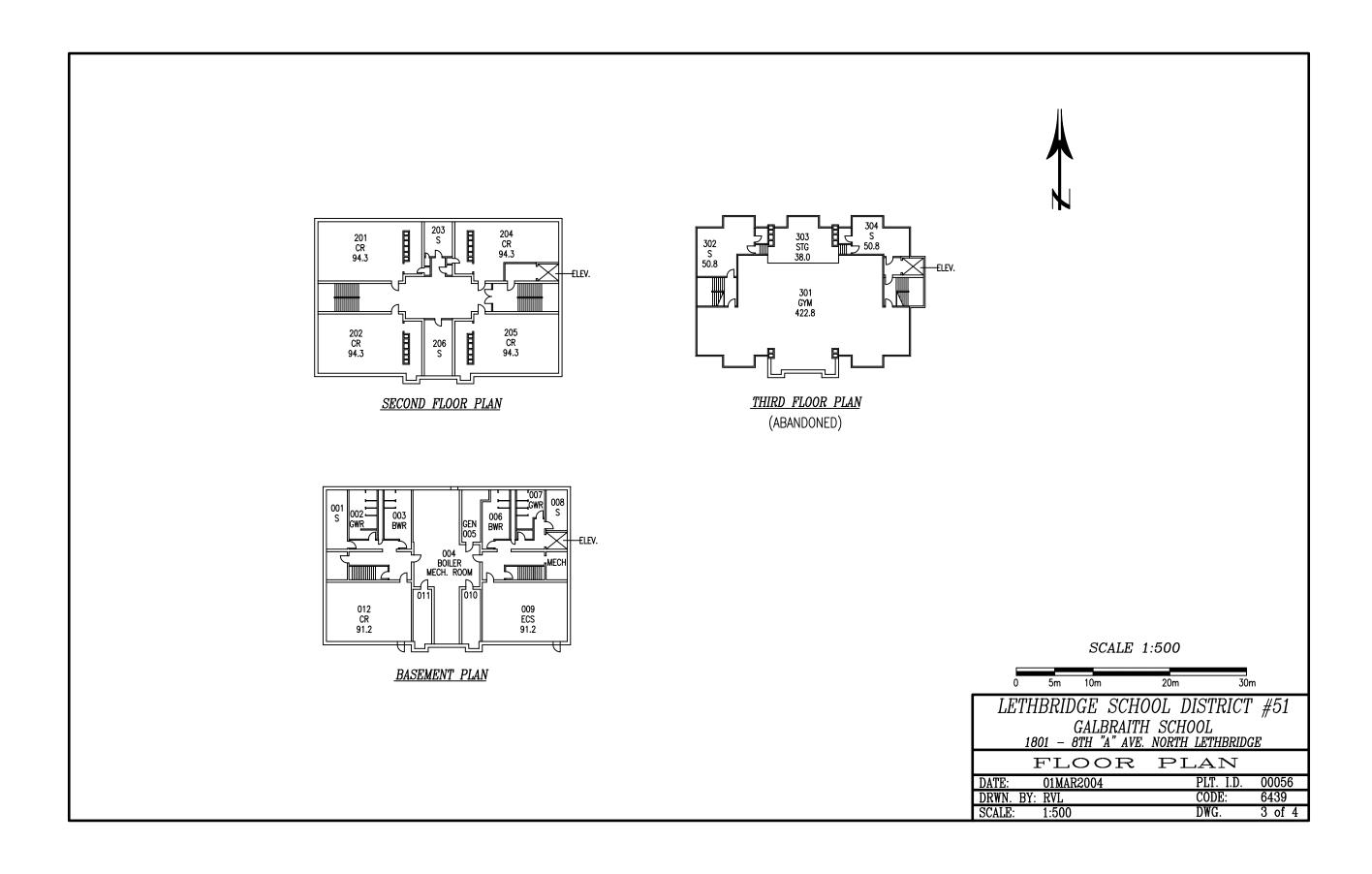
12.0 Appendices

Appendix A: Galbraith School Plans

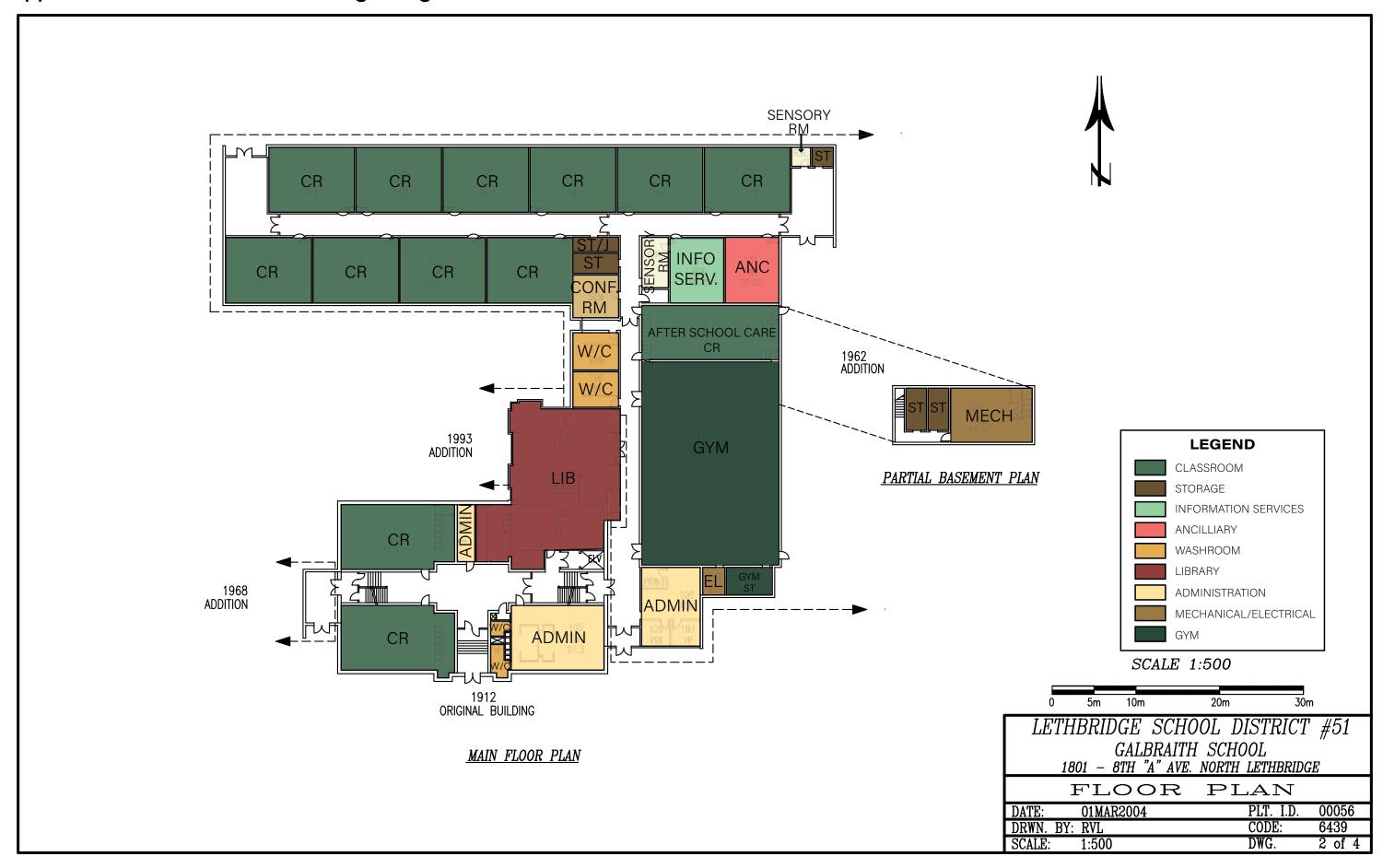


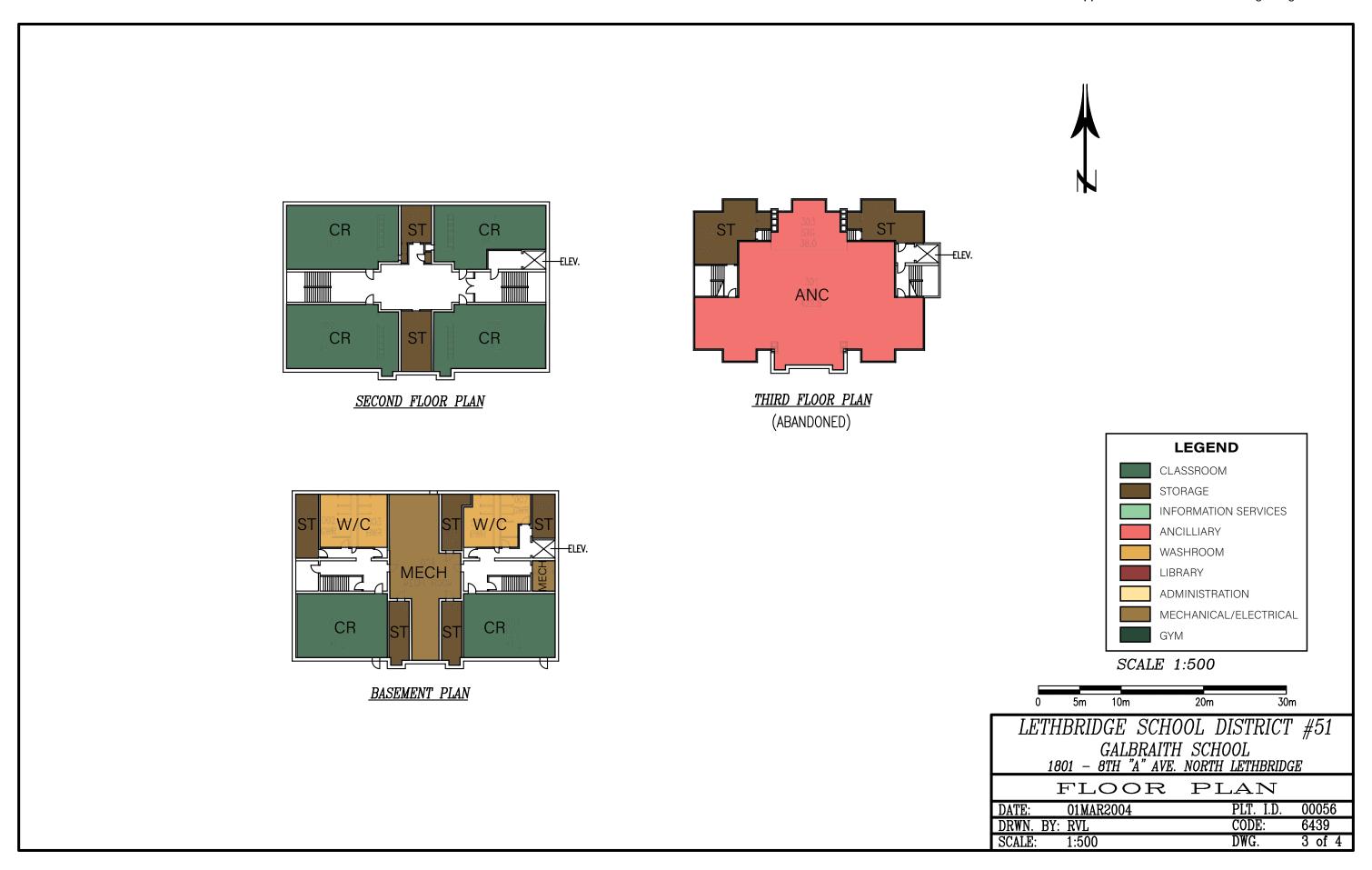
Group2 | Lethbridge School Division Visioning Session



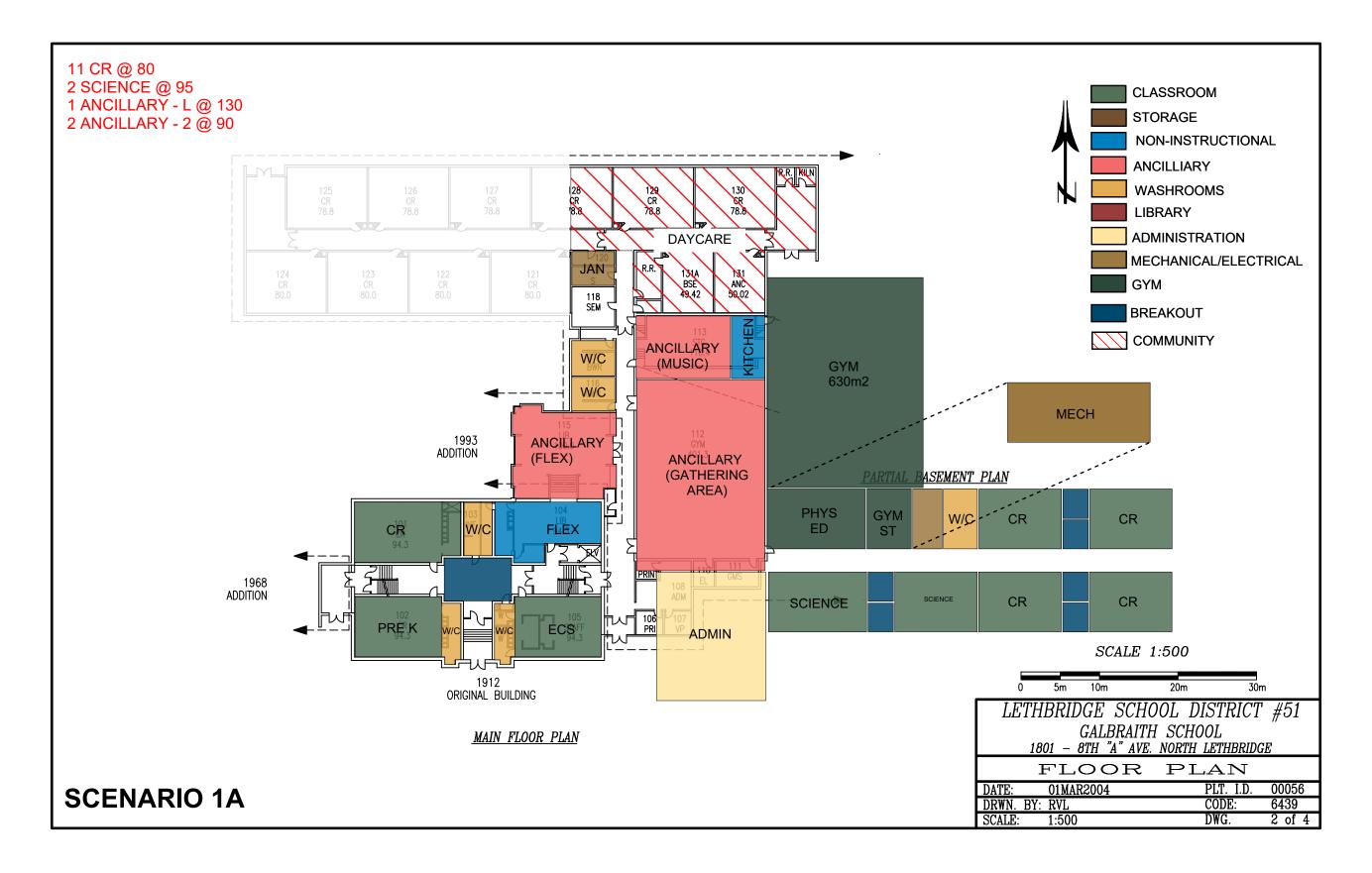


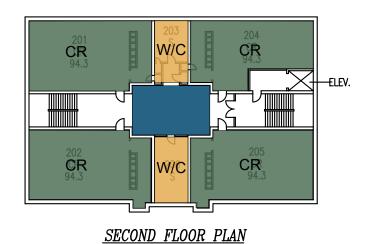
Group2 | Lethbridge School Division Visioning Session

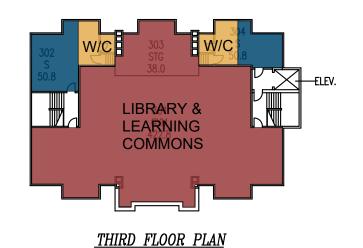




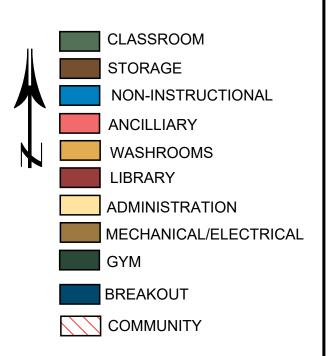
Appendix C: Galbraith School Usage Diagrams - Proposed







(ABANDONED)



003 BWR MECH 004 BOILER MECH. ROOM WRAP COMMUNITY AROUND BASEMENT PLAN

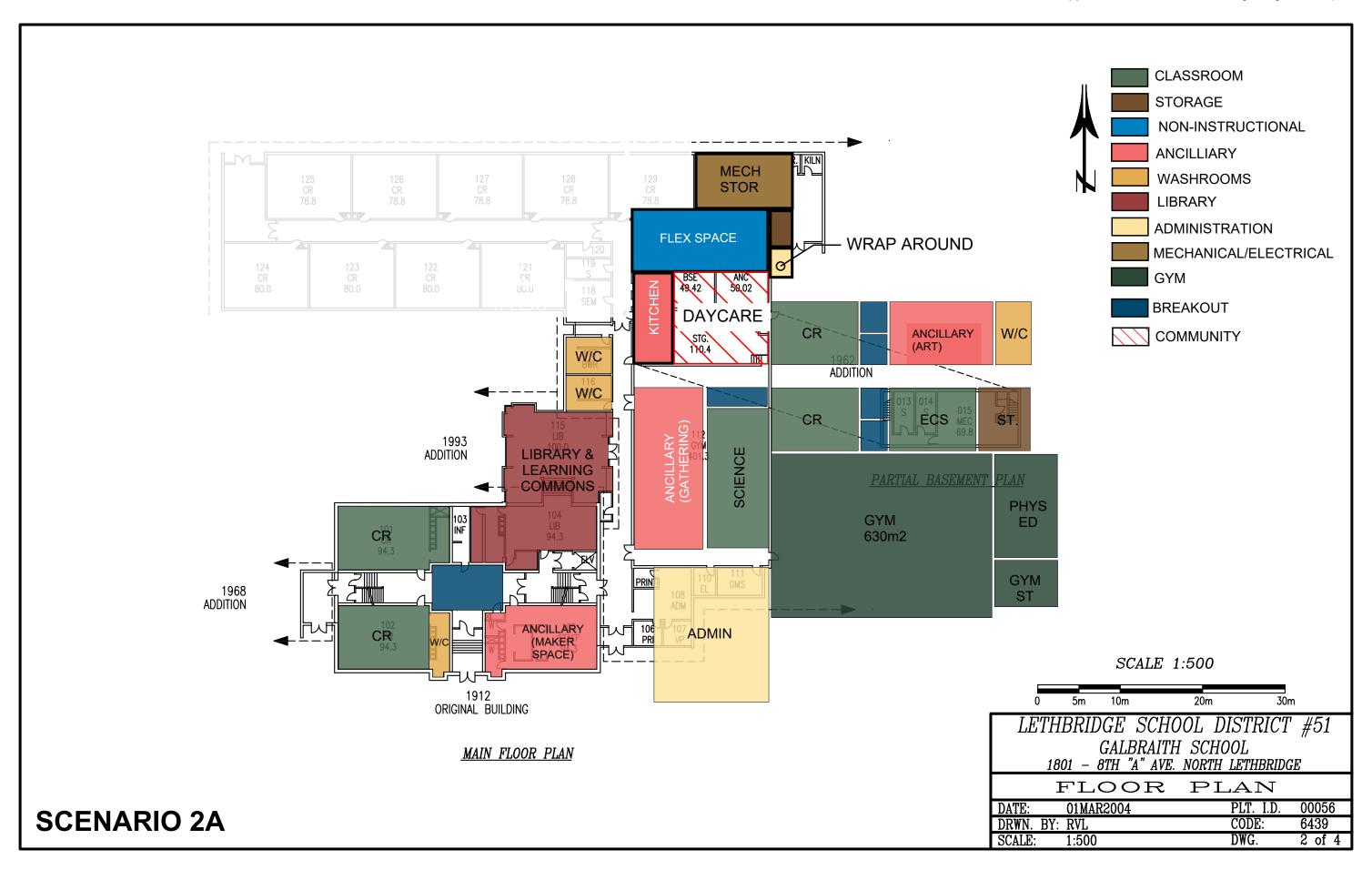
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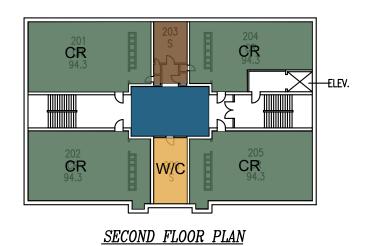


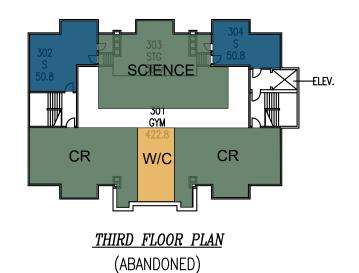
LETHBRIDGE SCHOOL DISTRICT #51 GALBRAITH SCHOOL 1801 – 8TH "A" AVE. NORTH LETHBRIDGE

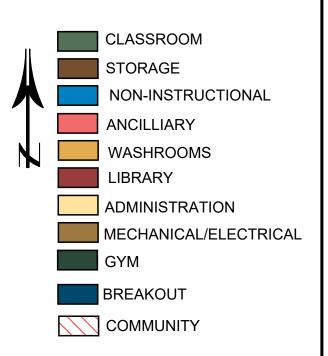
	FLOOR	PLAN	
DATE:	01MAR2004	PLT. I.D.	00056
DRWN. 1	BY: RVL	CODE:	6439
SCALE:	1:500	DWG.	3 of 4

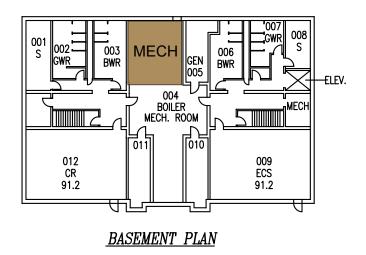
SCENARIO 1A









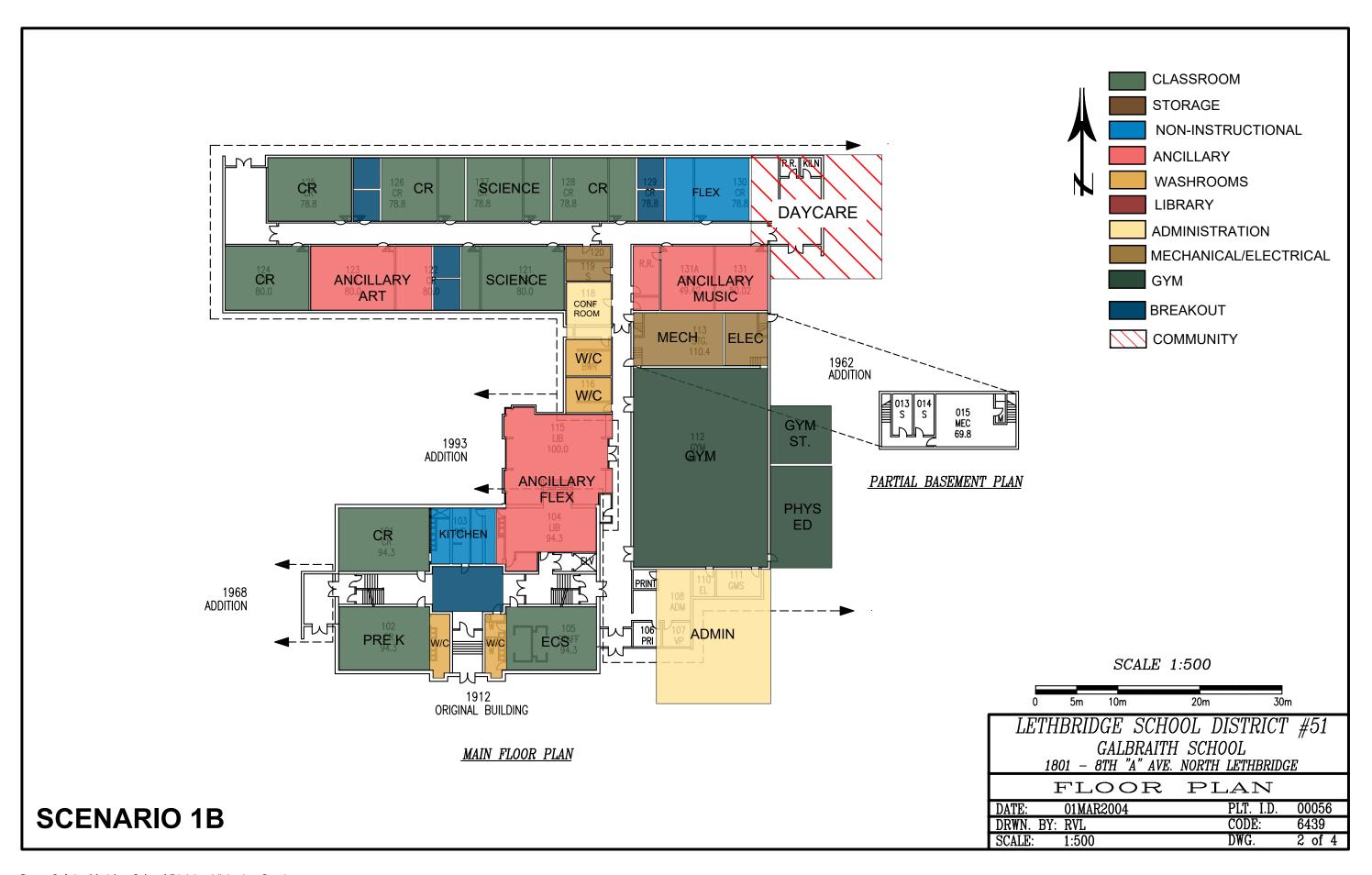


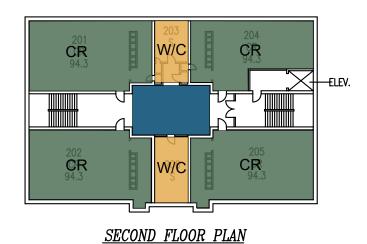
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5m 10m 20m 30m

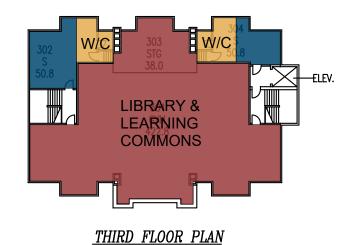
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	FLOOR	PLAN	
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SCALE:	1:500	DWG.	3 of 4

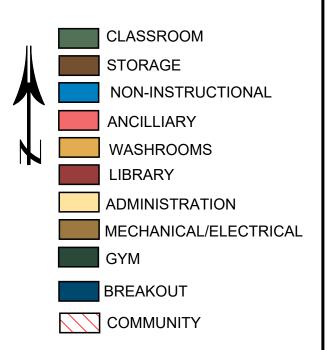
SCENARIO 2A







(ABANDONED)



001 002 003 MECH GEN 006 BWR 008 S BWR MECH. ROOM WRAP AROUND 91.2

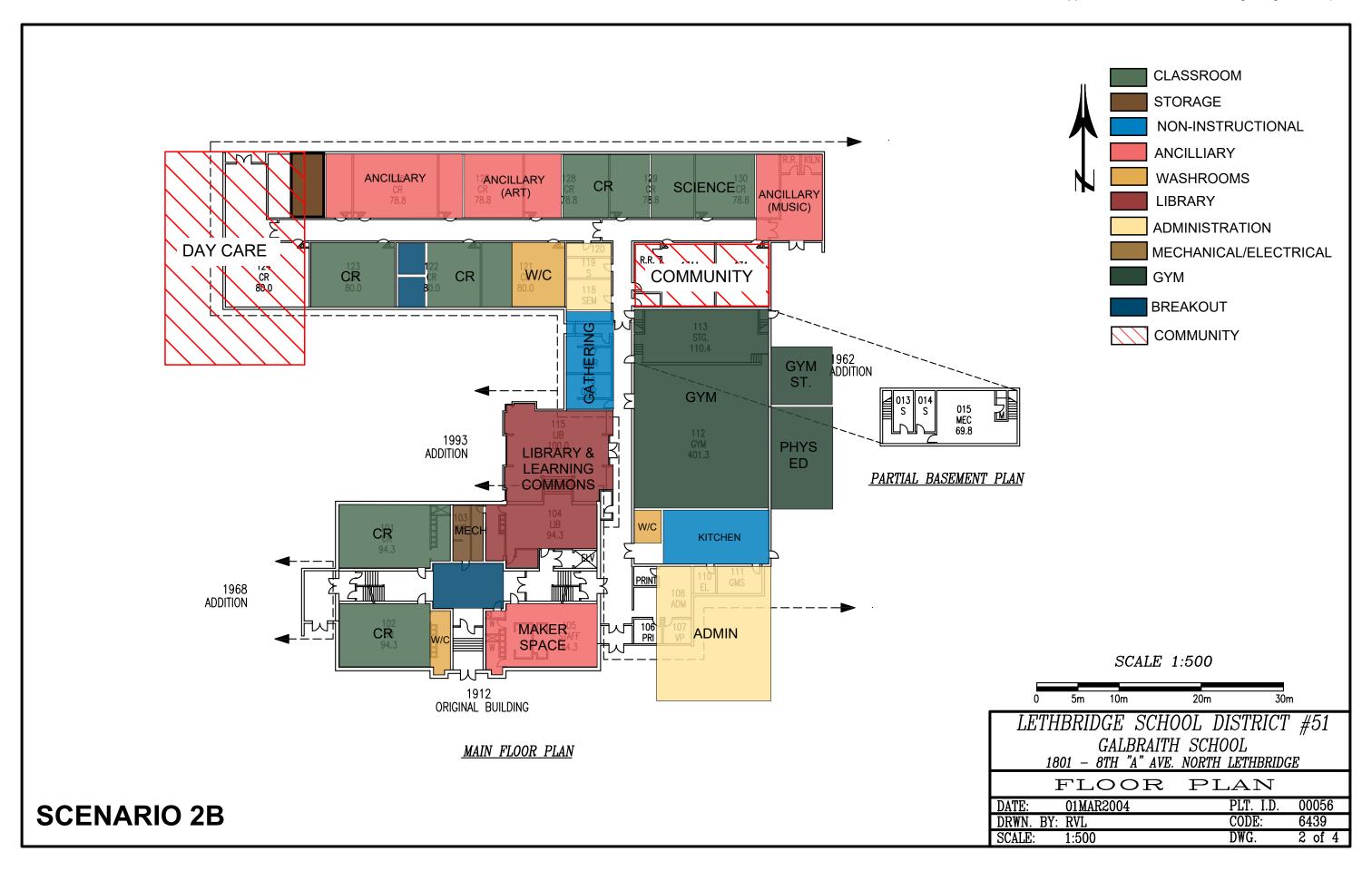
BASEMENT PLAN

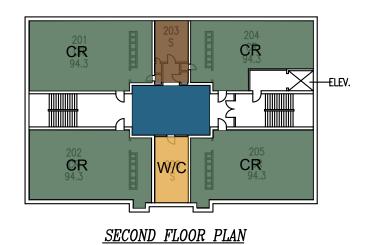
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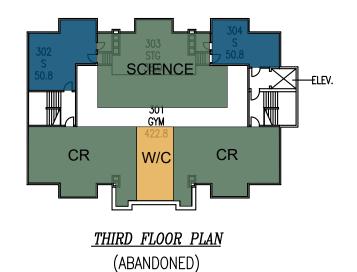
LETHBRIDGE SCHOOL DISTRICT #51 GALBRAITH SCHOOL 1801 – 8TH "A" AVE. NORTH LETHBRIDGE

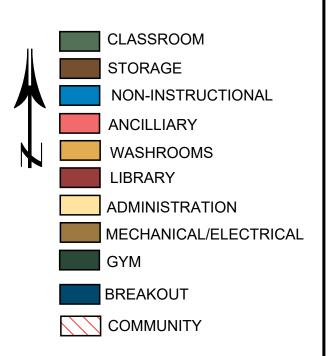
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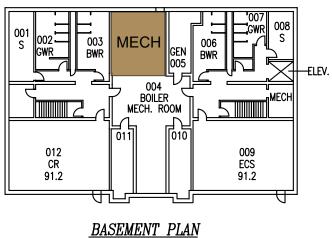
SCENARIO 1B



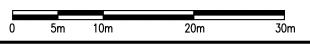








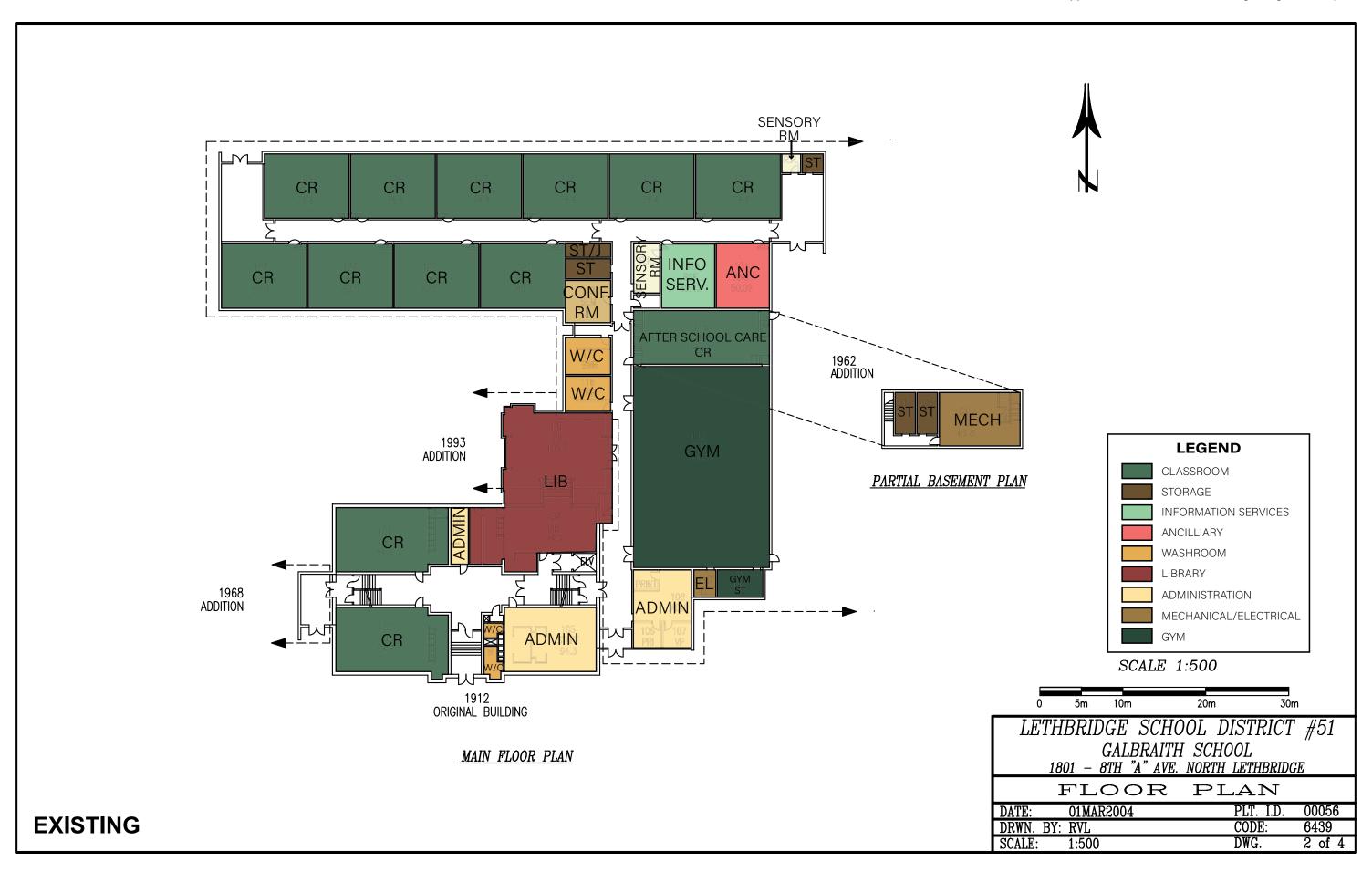
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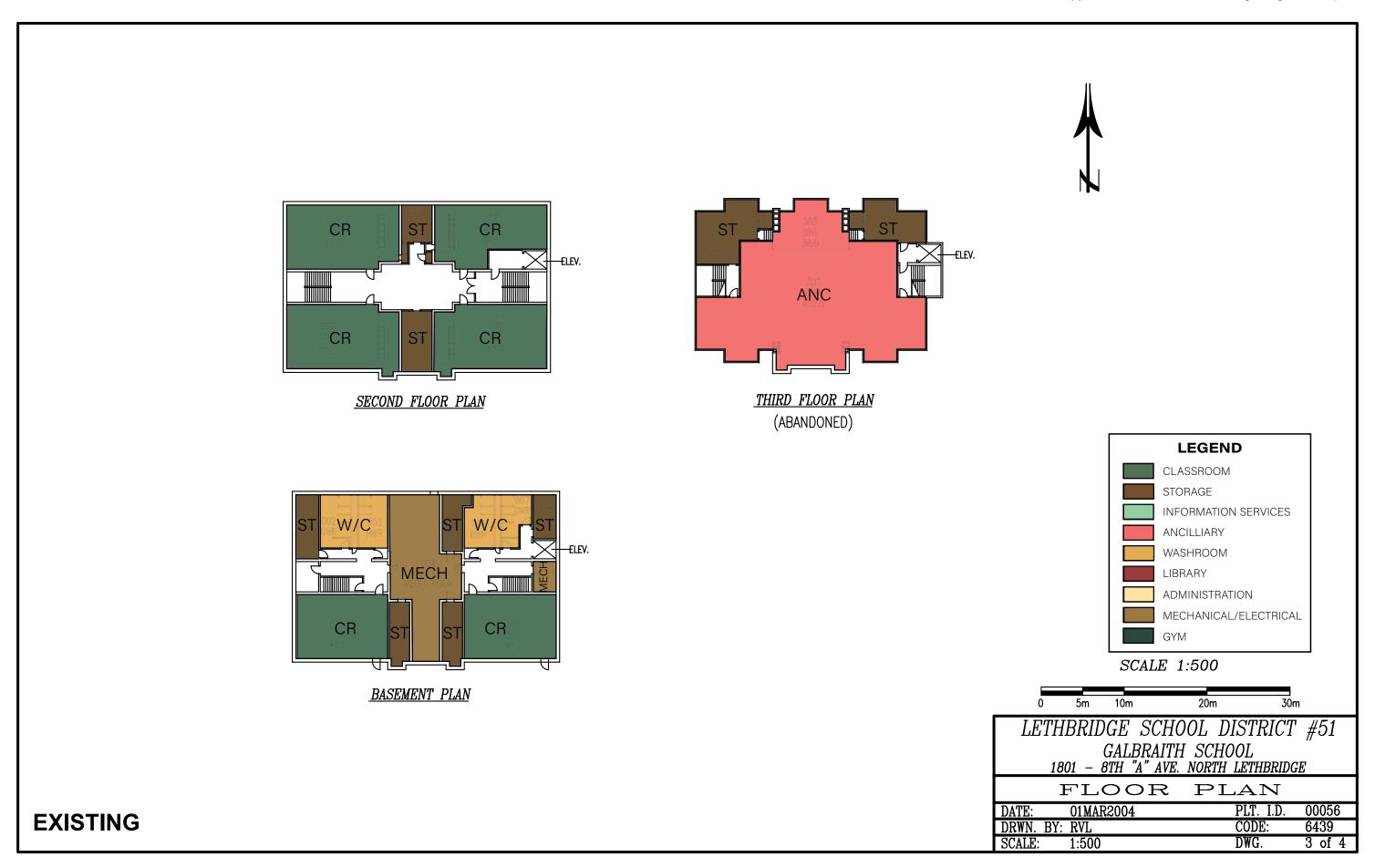


LETHBRIDGE SCHOOL DISTRICT #51 GALBRAITH SCHOOL 1801 – 8TH "A" AVE. NORTH LETHBRIDGE

	FLOOR	PLAN	
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DRWN. BY	: RVL	CODE:	6439
SCALE:	1:500	DWG.	3 of 4

SCENARIO 2B





Appendix D: Area Capacity & Utilization Report

451

Alberta Education Friday, January 15, 2021

9

Area Capacity & Utilization Report (2020/2021 school year)

												Enroln	Enrolment 2020/2
Facility Name	Facility Location	Grade Configura tion	Grade Configura Instructional tion Area m2	Instructional Area per Student	CTS Cap	GYM/PAR Cap	Lib Cap	Total Capacity	Exempt Total Instructional pacity Area m2	Net Capacity	ECS	Ec Gr.1-12	ECS Sp. Ed. Severe
Chinook High School (1465)													
CHINOOK HIGH SCHOOL (F5352)	LETHBRIDGE	9-12	4,270.70	3.65	09	95	20	1,375	00:00	1,375	0	1,162	0
Coalbanks Elementary School (2144)													
COALBANKS ELEMENTARY SCHOOL (F6165)	LETHBRIDGE	K-5	2,121.85	3.47	0	0	0	611	00:00	611	109	518	4
Dr. Gerald B. Probe Elementary School (6451)													
DR. GERALD B. PROBE ELEMENTARY SCHOOL (F1707)	LETHBRIDGE	K-5	2,317.68	3.47	0	0	0	899	00:00	899	105	473	∞
Ecole Agnes Davidson School (6435)													
ECOLE AGNES DAVIDSON SCHOOL (F1681)	LETHBRIDGE	K-5	2,462.00	3.47	0	0	0	710	00:00	710	136	408	12
École Nicholas Sheran School (6445)													
NICHOLAS SHERAN COMMUNITY SCHOOL (F1691)	LETHBRIDGE	X-5	2,521.40	3.47	0	0	0	727	00:00	727	92	359	10
Fleetwood Bawden School (6438)													
FLEETWOOD BAWDEN SCHOOL (F1684)	LETHBRIDGE	K-5	1,744.24	3.47	0	0	0	503	00:00	503	51	259	9
G. S. Lakie Middle School (1097)													
G.S. LAKIE MIDDLE SCHOOL (F2506)	LETHBRIDGE	8-9	2,633.60	3.61	40	0	0	770	00:00	770	0	491	0
Galbraith School (6439)													
GALBRAITH SCHOOL (F1685)	LETHBRIDGE	K-5	1,786.34	3.47	0	0	0	515	00:00	515	77	299	12
General Stewart School (6440)													
GENERAL STEWART SCHOOL (F1686)	LETHBRIDGE	K-5	646.18	3.47	0	0	0	186	00:00	186	98	98	13
Gilbert Paterson Middle School (6442)													
GILBERT PATERSON MIDDLE SCHOOL (F1688)	LETHBRIDGE	8-9	3,179.90	3.61	09	0	0	941	00:00	941	0	763	0

School Authority: The Lethbridge School Division (3040)

Appendix E: RECAPP Facility Evaluation Report

RECAPP Facility Evaluation Report



Galbraith School

B3676A Lethbridge

Facility Details

Building Name: Galbraith School

Address: 1801 - 8a Avenue N.

Location: Lethbridge

Building Id: B3676A Gross Area (sq. m): 0.00

Replacement Cost: \$8,727,757

Construction Year: 0

Evaluation Details

Evaluation Company: Ferrarri Westwood

Evaluation Date: December 1 2004

Evaluator Name: Mr. Art Ferrarri

Total Maintenance Events Next 5 years: \$459,540 5 year Facility Condition Index (FCI): 5.27%

General Summary:

The original Galbraith Elementary School was constructed in 1912. A 2421m2 classrom addition complete with new gymnasium was constructed in 1962, and two smaller additions constructed in 1968 and 1993.

The 1912 portion of the building is in very good near original condition, with some modernization done to upgrade lighting and heating.

Structural Summary:

Building is structurally sound throughout with the exception of a problem with grade beams that has developed below the Gym floor, with will require replacement of floor and supporting structure. (ref: C3020.04 Wood Flooring)

Envelope Summary:

Envelope is generally tight. 1912 section of building has had complete window in 2001. Windows in 1962 wing appear to have been replaced in 1993.

Interior Summary:

Well maintained and generally good condtion throughout. But most finishes are old. Seams are separating in original linolium in corridors between classrooms on main and second floor of 1912 section. Carpet is worn Staff Room (seams duct taped). Carpet in Library and General Office is also showing wear.

Mechanical Summary:

The building is heated by two hot water heating systems and ventilated by a combination of classroom unit ventilators, roof top units with air conditioning, and an indoor air-handling unit. The 1962 wing boilers and unit ventilators require replacement.

The plumbing facilities are in working condition with only minor deficiencies. The sanitary service in the 1962 wing should be replaced due to suspect condition and reported blockages.

Adding ventilation to the gymnasium is recommended.

Installing a BMCS is recommended with the HVAC upgrades recommended.

Electrical Summary:

The condition of the buildings electrical systems in general is poor. The lighting, power, and fire alarm systems should be upgraded. The remaining electrical systems are in good working order.

Rating Guide			
Condition Rating	Performance		
1 - Critical	Unsafe, high risk of injury or critical system failure.		
2 - Poor	Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.		
3 - Marginal	Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.		
4 - Acceptable	Meets present requirements, minor deficiencies. Average operating/maintenance costs.		
5 - Good	Meets all present requirements. No deficiencies.		
6 - Excellent	As new/state of the art, meets present and foreseeable requirements.		

S1 STRUCTURAL

A1010 Standard Foundations*

1912/162/1993 - Concrete foundations.

RatingInstalledDesign LifeUpdated4 - Acceptable0100DEC-04

A1030 Slab on Grade*

1962/1993 - Concrete slab on grade.

RatingInstalledDesign LifeUpdated4 - Acceptable0100DEC-04

A2020 Basement Walls*

1912 - Concrete basement walls.

RatingInstalledDesign LifeUpdated4 - Acceptable0100DEC-04

B1010.01 Floor Structural Frame*(Building Frame)

1912 - Wood frame floor structure.

RatingInstalledDesign LifeUpdated4 - Acceptable0100DEC-04

B1010.02 Structural Interior Walls Supporting Floors*

1912 - Brick structrual walls in corridors.

1962 - Concrete block structural walls in corridors.

RatingInstalledDesign LifeUpdated4 - Acceptable0100DEC-04

B1010.06 Ramps: Exterior*

1962 - Concrete ramp up to south main entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

B1010.07 Exterior Stairs*

1912 - Large concrete stair up to original entrance. (now exit only)

1968 - Large concrete stair up to west entrance vestibule.

1962 - Small concrete stair up to main south entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

B1010.09 Floor Construction Fireproofing*

1912 - Wood lath with concrete plaster ceiling.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

B1020.01 Roof Structural Frame*

1912 - Wood frame.

1962 - Wood joists.

1993 - Wood joists. (assumed.)

RatingInstalledDesign LifeUpdated4 - Acceptable0100DEC-04

B1020.04 Canopies*

1962 - Canopies over entrances.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	100	DEC-04

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

1912 - Structural brick exterior walls.

1962 - Brick veneer. 1993 - Brick veneer.

Rating
N/A

Installed
0
Design Life
Decorporate
Decorp

B2010.01.03 Stone Assemblies: Exterior Wall Skin*

1912 - Sandstone trim between concrete foundation. Sandstone lintel and sill on windows, sandstone archway and columns at original main entrance. Some damage and spalling, but mostly in good condition.

RatingInstalledDesign LifeUpdated4 - Acceptable075DEC-04

B2010.01.09 Expansion Control: Exterior Wall Skin*

1962 - Expansion control on exterior brick veneer.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

B2010.01.11 Joint Sealers (caulking): Ext. Wall*

1968 - Expansion joints caulked. Weathered but intact.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

B2010.09 Exterior Soffits*

1962 - Painted wood soffit under entrance canopys.

RatingInstalledDesign LifeUpdated4 - Acceptable020DEC-04

B2020.01.01.02 Aluminum Windows*

2001 - Aluminum thermally broken windows w/sealed unit glazing installed in 1912 wing.

1993 - Aluminum thermally broken windows w/sealed unit glazing.

RatingInstalledDesign LifeUpdated4 - Acceptable035DEC-04

B2030.01.01 Aluminum-Framed Storefronts*

Aluminum entrance framing in 1962 wing at north west, north east and south main entrance. Non thermally broken, single glazed. Installation date unknown. North west entrance newer.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

B2030.02.01 Metal Doors and Frames

Insulated metal doors with half glazing and pressed metal frames located in 1968 west entrance and west entrance into courtyard from 1962 wing. Date of installation unknown, not original.

B3010.01 Deck Vapor Retarder and Insulation*

1993 - Vapour barrier and insulation assumed in 1993 portion only.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

B3010.02.01.01 Asphalt Shingles*

1985 - Asphalt shingles on 1912 portion of building. Curling and cupping, some wind damage and some leaks reported.

Rating Installed Design Life Updated 3 - Marginal 0 25 DEC-04

Event: Replace roof on 1912 portion of building.

Concern:

Existing shingle roof on 1912 wing is 20 years old. Shingles are cupping and there has been some wind damage. Maintenance has reported that there are some minor leaks. As upper level is all original and currently not used as instructional space damage has been minimal.

Recommendation:

Remove and replace asphalt shingle roof on 1912 portion of building.

TypeYearCostPriorityFailure Replacement2006\$59,400Low

Updated: February 18 2005

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)*

1988 - Built-up asphalt and Gravel roof installed on classroom and corridor portion of 1962 wing.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)*

2001 - SBS roof installed on Gym.

RatingInstalledDesign LifeUpdated5 - Good025DEC-04

B3010.08.02 Metal Gutters and Downspouts*

Eavestrough and downspouts installed on 1912 portion of building. Installation date unknow.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

S3 INTERIOR

C1010.01.03 Unit Masonry Assemblies

1912 - Brick walls with plaster finish

1968 - Concrete block painted.

 Rating
 Installed
 Design Life
 Updated

 N/A
 0
 0
 DEC-04

C1010.01.07 Framed Partitions (Wood Stud)

1912 - Wood stud partitions with lath and plaster finish.

 Rating
 Installed
 Design Life
 Updated

 N/A
 0
 0
 DEC-04

C1010.05 Interior Windows*

1993 - Steel frame interior windows.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

C1020.01 Interior Swinging Doors*

1912 - Solid oak classroom doors with beveled glass windows on top.

1962 - Wood doors in pressed steel frames. (Most corridor doors rated.)

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

C1020.03 Interior Fire Doors*

1962 - All classroom doors to corridor rated. Rated doors to Storage and Service Rooms.

Updated doors in stairwells of 1912 wing to third floor and basement.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

C1030.01 Visual Display Boards*

Chalkboards, tackboards and whiteboards throughout. Ages vary from original 1912 & 1962 installation to new whiteboards installed in Computer Room.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

C1030.02 Fabricated Compartments(Toilets/Showers)*

2000 - Washroom partitions in 1912 addition. Non-conforming handicap stalls.

Partitions in the 1968 wing have been updated but date unknown.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

C1030.08 Interior Identifying Devices*

Room numbering and name signage.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

C1030.12 Storage Shelving*

Wood storage shelving of various ages and condition throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

C1030.14 Toilet, Bath, and Laundry Accessories*

2000 - Accessories upgraded at time of partition installation in 1912 wing.

1962 - Mostly original accessories in 1968 wing.

RatingInstalledDesign LifeUpdated4 - Acceptable020DEC-04

C2010 Stair Construction*

1912 - Wood stair construction.

RatingInstalledDesign LifeUpdated4 - Acceptable0100DEC-04

C2020.05 Resilient Stair Finishes*

Rubber stair treads to basement, main and second floors with rubber flooring to match on landings. Very old, possibly original linolium flooring on stairs and landings to third floor.

RatingInstalledDesign LifeUpdated4 - Acceptable020DEC-04

C2020.08 Stair Railings and Balustrades*

1912 - heavy wood railings and balustrades.

1993 - Decorative metal railing with heavy wood handrail.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

C3010.01 Concrete Wall Finishes*

1912 - Painted concrete walls in service areas of basement.

RatingInstalledDesign LifeUpdated4 - Acceptable0100DEC-04

C3010.03 Plaster Wall Finishes*

1912 - Structural brick walls plastered.

Rating Installed Design Life Updated 4 - Acceptable 0 40 DEC-04

C3010.04 Gypsum Board Wall Finishes*

Painted gwb on newer framed partitions in 1912 wing and in framed partitions in 1968 wing.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

C3010.06 Tile Wall Finishes*

1968 - Original 4x4 wall tile in washrooms up to 2133mm a.f.f.

C3010.11 Interior Wall Painting*

All interior walls painted.

RatingInstalledDesign LifeUpdated4 - Acceptable05DEC-04

C3010.13 Wall Trim and Decoration*

1912 - Original paneling and decorative trim on walls of west stairwell.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

C3020.01 Concrete Floor Finishes*

Concrete floor in lower level service spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable075DEC-04

C3020.02 Tile Floor Finishes*

1962 - Original 1x1 mosaic tile in washroom.

6x6 ceramic tile in north west, north east and south main entrance. (Date unknown)

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

C3020.04 Wood Flooring*

1912 - Original hardwood gym flooring on third floor. (space currently not used for instruction)

1968 - Original hardwood flooring in Gym.

RatingInstalledDesign LifeUpdated3 - Marginal025DEC-04

Event: Replace hardwood floor in 1968 Gymnasium.

Concern:

Floor has crown on east vollyball line, full length of gym. Door on south wall adjacent to crown has had bottom trimmed to permit operation. Inspection report identifies a combination of causes, including poor construction techniques as reason for floor failing. The surface of (3) grade beams are very uneven and the shimming was done very poorly or not at all. Soil swell was what probably initiated the problem, but current moisture levels are not considered high. Attempting to fix the problem on the only north east side of the gym will only make the problem worse.

Recommendation:

Full removal of floor and supporting structure. Reconstruction of the footings and floor system.

TypeYearCostPriorityFailure Replacement2006\$54,000Low

Updated: February 18 2005

C3020.07.01 Resilient Tile Flooring

12x12 VCT installed throughout 1968 wing and in some upgraded areas in 1912 wing

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	DEC-04

C3020.07.02 Resilient Sheet Flooring

1912 - Some original battleship linolium still in place in corridors. Some separation of material at seams. Corlont installed on lower level of landings in 1912 wing.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	DFC-04

C3020.08 Carpet Flooring*

Carpet installed in Library, General Office and Staff Room. Showing signs of wear.

RatingInstalledDesign LifeUpdated4 - Acceptable010DEC-04

Event: Carpet replacement.

Concern:

Carpet worn throughout building. Staff Room carpet has duct tape on seams. Other carpeted areas are not as bad but showing signs of wear.

Recommendation:

Replace carpet in Staff Room, Library, General Office and Computer Room.

TypeYearCostPriorityFailure Replacement2006\$41,040Low

Updated: February 18 2005

C3020.11 Floor Painting

Floor painted in basement of 1912 wing.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

C3030.03 Plaster Ceiling Finishes*

1912 - Plaster ceiling above "T-bar" throughout 1912 wing. Existing plaster ceilings exposed on third floor in very poor condition, currently not used as instruction space.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

C3030.04 Gypsum Board Ceiling Finishes*

1968 - GWB ceilings in washrooms and service rooms of 1968 wing.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

C3030.06 Acoustic Ceiling Treatment (Susp.T-Bar)*

"T-bar" installed throughout 1912 wing as part of previous upgrade programs and in General Office located in 1968 wing. (Dates unknown)

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

C3030.07 Interior Ceiling Painting*

GWB ceilings painted.

RatingInstalledDesign LifeUpdated4 - Acceptable010DEC-04

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C3030.09 Other Ceiling Finishes*

1968 - Original 12x12 acoustic tile ceilings throughout 1968 wing.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D1010.02 Lifts*

1993 - Handicap lift to (4) levels of 1912 wing.

Rating	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	25	DEC-04

S4 MECHANICAL

D2010.01 Water Closets*

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D2010.02 Urinals*

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D2010.03 Lavatories*

Vitreous china and stainless steel. Faucets are worn on some fixtures.

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Replace lavatory faucets.

Concern:

The lavatory faucets on some fixtures are worn.

Recommendation:

Replace lavatory faucets where required.

TypeYearCostPriorityFailure Replacement2005\$5,400Low

Updated: February 17 2005

D2010.04 Sinks*

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D2010.08 Drinking Fountains / Coolers*

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D2020.01.01 Pipes and Tubes: Domestic Water*

Above grade and in slab copper piping and above grade galvanized piping.

RatingInstalledDesign LifeUpdated3 - Marginal040DEC-04

Event: Replace galvanized piping.

Concern:

Some of the domestic water distribution piping is galvanized.

Recommendation:

Replace the galvanized piping with copper. Price based on estimated quatity of 100m.

TypeYearCostPriorityCode Upgrade2005\$16,200Low

Updated: February 17 2005

D2020.01.03 Piping Specialties (Backflow Preventors)*

Required on 1962 wing service.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Add backflow prevention.

Concern:

No backflow provided for 1962 water service.

Recommendation:

Add backflow prevention.

TypeYearCostPriorityCode Upgrade2005\$1,080Low

Updated: February 17 2005

D2020.02.06 Domestic Water Heaters.1912 wing*

(Approximately 1980) John Wood, 10 kW input, 125 L capacity. No recirculation.

RatingInstalledDesign LifeUpdated3 - Marginal020DEC-04

Event: Replace domestic water heater.

Concern:

The water heater in the 1912 wing is old and operates inefficiently.

Recommendation:

Replace the water heater with a newer more efficient model.

TypeYearCostPriorityEnergy Efficiency Upgrade2005\$2,160Low

Updated: February 17 2005

D2020.02.06 Domestic Water Heaters.1962 Wing*

Jetglas 21 kW input, 284 L capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable020DEC-04

D2030.01 Waste and Vent Piping.1912 Wing*

(1978)

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

D2030.01 Waste and Vent Piping.1962 Wing*

Original cast iron service has reported problems with blockages.

RatingInstalledDesign LifeUpdated3 - Marginal050DEC-04

Event: Replace sanitary service.

Concern:

The original sanitary service in the 1962 wing has caused problems with blockages. Because of this, and due to its age, the condition is suspect.

Recommendation:

Replace the sanitary service in the 1962 Wing. This will create an opportunity to replace the in-slab distribution piping in this wing as well.

TypeYearCostPriorityFailure Replacement2005\$54,000Low

Updated: February 17 2005

D2040.01 Rain Water Drainage Piping Systems*

Roof drains convey water to storm sewer, scuppers drain water to site.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

D3020.02.01 Heating Boilers and Accessories: H.W.1912*

(1978) 2 Weil McLain MGB-16 hot water boilers, 747 kW input each.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D3020.02.01 Heating Boilers and Accessories: H.W.1962 Wing*

(1962) 2 Liberty Boilers, estimated input capacity of 293 kW each.

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Replace hot water boilers.

Concern:

The hot water boilers in the 1962 wing are original. Furthermore they operate inefficiently.

Recommendation:

Replace the boilers with newer more efficient boilers.

TypeYearCostPriorityEnergy Efficiency Upgrade2005\$81,000Low

Updated: February 17 2005

D3020.02.02 Chimneys (&Comb. Air): H.W. Boiler*

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3020.02.03 Water Treatment: H. W. Boiler*

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3020.03.01 Furnaces*

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D3020.03.02 Chimneys (&Comb. Air): Furnace*

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3040.01.01 Air Handling Units: Air Distribution.1912 Wing*

(1993) Scott Springfield 3680 L/s complete with hot water coil ventilates the entire wing.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D3040.01.01 Air Handling Units: Air Distribution.Gymnasium*

Not ventilated.

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Provide ventilation for gymnasium.

Concern:

The gymnasium is not ventilated.

Recommendation:

Provide a ventilation system for the gymnasium.

TypeYearCostPriorityIndoor Air Quality Upgrade2005\$64,800Low

Updated: February 17 2005

D3040.01.04 Ducts: Air Distribution*

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

D3040.01.07 Air Outlets & Inlets:Air Distribution*

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

D3040.03.01 Hot Water Distribution Systems*

Hot water pumps, approximately 1kW, distribute heating water for both hot water systems.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

D3040.04.01 Fans*: Exhaust.Kitchen

Stove in basement of 1912 wing has no exhaust fan.

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Provide exhaust fan for kitchen stove.

Concern:

The kitchen stove has no exhaust.

Recommendation:

Provide exhaust fan for kitchen stove.

TypeYearCostPriorityIndoor Air Quality Upgrade2005\$1,080Low

Updated: February 17 2005

D3040.04.01 Fans*: Exhaust.LAN room

The LAN room has no exhaust fan.

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Install exhaust fan in LAN room.

Concern:

The LAN room has no ventilation and may overheat.

Recommendation:

Install and exhaust fan and transfer air grille for the LAN room.

TypeYearCostPriorityIndoor Air Quality Upgrade2005\$1,080Low

Updated: February 17 2005

D3050.01.01 Computer Room Air Conditioning Units*

Tappan roof top unit with estimated 14 kW air conditioning serves the computer room. No economizer.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)*

York gas fired roof top unit for office area complete with 14 kW cooling and 42 kW heating input.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3050.05.03 Finned Tube Radiation*

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D3050.05.06 Unit Heaters*

Cabinet unit heater in the gymnasium pose a safety hazard.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Provide finned tube radiation in gymnasium.

Concern:

The heating cabinets in the gymnasium pose a safety concern.

Recommendation:

Replace the heating cabinets with finned tube radiation.

TypeYearCostPriorityProgram Functional Upgrade2005\$43,200Low

Updated: February 17 2005

D3050.05.07 Unit Ventilators*

Shelva duct unit ventilators provided in classrooms of 1962 wing.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Replace unit ventilators.

Concern:

The unit ventilators in the classrooms incur high maintenance costs and operate inefficiently due to their age.

Recommendation:

Replace the unit ventilators with newer more efficient models with hot water coils. Coordinate this with the boiler replacement also recommended for this wing of the school.

TypeYearCostPriorityFailure Replacement2005\$162,000Low

Updated: February 17 2005

D3060.02.02 Pneumatic Controls*

Pneumatic thermostat controls in the 1962 wing.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

D3060.02.05 Building Systems Controls(BMCS, EMCS)*

No BMCS.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

Event: Provide BMCS system.

Concern:

A school of this size can benefit from the energy savings potential of a BMCS. This will also eliminate the need for the aging and inefficient pneumatic system.

Recommendation:

Provide a BMCS to control all HVAC system and devices.

Type Year Cost Priority
Operating Efficiency Upgrade 2005 \$162,000 Low

Updated: February 17 2005

D4030.01 Fire Extinguisher, Cabinets and Accessories*

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

S5 ELECTRICAL

D5010.01 Main Electrical Transformers*

1993 - Service utility transformer is a pad mount 150 KVA 120/208V 3 phase transformer, with underground primary and secondary lines.

RatingInstalledDesign LifeUpdated4 - Acceptable040DEC-04

D5010.03 Main Electrical Switchboards (Main Distribution)*

1993 - Main disconnect is a Federal Pioneer 600 AT/800AF main breaker. The CDP is a 800A Federal Pioneer with lots of spare capacity and is feeding the old single phase panels. There is no TVSS on the main CDP.

RatingInstalledDesign LifeUpdated3 - Marginal040DEC-04

Event: Add Transient Voltage Protection.

Concern:

Existing system has no protection against surges or spikes, and damage to computer equipment is possible.

Recommendation:

Add TVSS units to the main CDP and the computer lab panel.

TypeYearCostPriorityPreventative Maintenance2005\$8,100Low

Updated: February 17 2005

D5010.05 Electrical Branch Circuit Panelboards 1962*

Panels are single phase Square D panels which are 95 to 100% full.

RatingInstalledDesign LifeUpdated3 - Marginal025DEC-04

Event: Panel Upgrading

Concern:

Existing panels are full and cannot handle any additional circuits and nearing the end of thier life span.

Recommendation:

Install new 3 phase panels with additional capacity.

TypeYearCostPriorityLifecycle Replacement2005\$48,600Low

Updated: February 17 2005

D5010.05 Electrical Branch Circuit Panelboards 1993*

Panels are Federal Pioneer, 42 circuit, 3 phase, bolt-on panels, that are generally 60 to 75% full.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D5010.07.02 Motor Starters and Accessories*

1993 - Motor starters are magnetic motor starters located adjacent to the motors they control and are generally in good condition. Some of the other controls associated with this equipment is much older, such as the pump transfer switch and the boiler controls.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Replace Older Motor Switch Gear.

Concern:

Existing pump and boiler controls are outdated and require a large amount of maintenance.

Recommendation:

Replace switches with interlocking motor starters, and add automated controls to boiler system.

TypeYearCostPriorityFailure Replacement2005\$27,000Low

Updated: February 17 2005

D5020.01 Electrical Branch Wiring 1962*

Branch wiring is minimal and is insufficient for classrooms. All wiring is in EMT conduit and concealed in wall spaces, and wiring devices are in functional condition.

RatingInstalledDesign LifeUpdated3 - Marginal050DEC-04

Event: Add branch circuits and receptacles to classrooms

Concern:

Existing wiring devices are not provided in areas of classrooms where they are needed.

Recommendation:

Add 2 to 3 receptacles in each classroom, and additional circuits as required.

TypeYearCostPriorityProgram Functional Upgrade2005\$17,280Low

Updated: February 17 2005

D5020.01 Electrical Branch Wiring 1993*

Wiring devices and branch circuit wiring was upgraded in 1912 section in 1993 and devices and wiring are mounted on the surface.

RatingInstalledDesign LifeUpdated4 - Acceptable050DEC-04

D5020.02.01 Lighting Accessories (Lighting Controls)*

1962 - Lighting controls consist of line voltage switches in each classroom.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D5020.02.02.01 Interior Incandescent Fixtures*

1962 - Storage and janitorial spaces have some incandescent keyless fixtures for lights.

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D5020.02.02.02 Interior Florescent Fixtures 1962*

Classroom fluorescents are primarily pendant mount wrap fixtures, hallways have surface strip lighting and the gym has surface lights with wire guards, and all fixture have T-12 lamps. The lights currently provide light that is more than adequate for the hallways, classrooms, and gymnasium.

Rating Installed Design Life Updated 3 - Marginal 0 30 DEC-04

Event: Upgrade T-12 light fixtures to T-8 and T-5 lighting

Concern:

Existing lights are inefficient and spaces are over lit, causing higher utility bills.

Recommendation:

Replace hall and classroom lights with T-8 fluorescent fixtures and replace gym fixtures with T-5 HO high bay fixtures.

TypeYearCostPriorityEnergy Efficiency Upgrade2005\$194,400Low

Updated: February 17 2005

D5020.02.02.02 Interior Florescent Fixtures 1993*

Fluorescent fixtures are T-12 recessed fluorescents in the 1912 portion of the school, these fixtures provide more light than what is required and are inefficient.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Upgrade fixtures with a ballast and lamp replacement

Concern:

Existing T-12 lighting is inefficient and additionally these spaces are extremely over lit.

Recommendation:

Retrofit existing fixtures with T-8 ballasts and lamps, and reduce the total number of fixtures.

TypeYearCostPriorityEnergy Efficiency Upgrade2005\$48,600Low

Updated: February 17 2005

D5020.02.03 Emergency Lighting*

1985 - Exit and emergency lights are powered from an emergency generator located in the 1912 portion of the school. Exit lights are incandescent and emergency lights are a number of fluorescents in the hallways

RatingInstalledDesign LifeUpdated4 - Acceptable030DEC-04

D5020.02.05 Special Purpose Lighting*

1962 - Stage lighting consists of sever banks of incandescent fixtures with coloured flood lamps.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

1993 - Exterior fixture is a wall mount area light which does not cover adequate area, several exits are not covered

RatingInstalledDesign LifeUpdated3 - Marginal030DEC-04

Event: Add Exterior lighting by all exits.

Concern:

Existing exits don not have adequate lighting for exterior egress.

Recommendation:

Add exterior light fixtures adjacent to all exits on the building.

TypeYearCostPriorityProgram Functional Upgrade2005\$16,200Medium

Updated: February 17 2005

D5020.03.02 Lighting Accessories (Lighting Controls)*

Exterior lighting controls consists of a local photocell on the wall pack.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D5030.01 Detection and Alarm Fire Alarm*

1993 - Fire alarm system is an Edwards 6616 located by the main front entrance. The system is a conventional system with 6 inch bells and no visual devices.

RatingInstalledDesign LifeUpdated3 - Marginal025DEC-04

Event: Install Addressable Fire Alarm System.

Concern:

Currently there are no visual fire alarm devices in the building and the main entrance is misleading for the fire alarm annunciator to be located where it is.

Recommendation:

Install new addressable fire alarm system with visual devices (horn-strobe devices) and an additional annuciators at critical entrances.

TypeYearCostPriorityCode Upgrade2005\$27,000Medium

Updated: February 17 2005

D5030.02.02 Intrusion Detection*

1993 - Security system is a Magnum Alert 1000 with Infrared motion detectors and door sensors.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D5030.02.03 Security Access*

1998 - proximity card readers have been installed at the main door and the security keypad enclosure.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D5030.03 Clock and Program Systems*

1993 - There is no centralized clock system but the change bells are controlled by a programmable clock.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D5030.04.01 Telephone Systems*

2000 - Telephone system is a Nortel Norstar with a 25 pair phone line coming in underground. System is functioning well.

RatingInstalledDesign LifeUpdated4 - Acceptable025DEC-04

D5030.04.02 Paging Systems*

1998 - Dukane system is in good condition, part of PA system

 Rating
 Installed
 Design Life
 Updated

 N/A
 0
 25
 DEC-04

D5030.04.04 Data Systems*

1998 - Data lines are CAT 5 cables run on the surface in conduits, and in the computer lab the lines are run in pack poles and surface raceways. There is 2 fiber lines coming into the school one from Bell Supernet, and the other is a Telus fiber.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D5030.05 Public Address and Music Systems*

1998 - Dukane PA system is in good condition, does paging and intercom as well

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D5030.06 Television Systems*

1993 - CATV has been brought in to the school but is not used

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

D5090.02 Packaged Engine Generator Systems (Emergency Power System)*

1985 - The Gen-set is from Waterous in Calgary, and is an Isuzu diesel with a Leroy Somner Alternator. The generator powers several emergency lighting circuits and several critical heating and control loads.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	35	DEC-04

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1090.04 Residential Equipment*

Residential kitchen equipment installed in lower level of 1912 wing, used for breakfast programe. (2) stoves, (2) fridges.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E2010.02.05 Educational Facility Casework*

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E2010.02.07 Kitchen Casework*

Kitchen cabinets of varying ages located in 1912 wing. Oldest dating from approx 1950. Newest from approx 1995.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E2010.02.09 Library Casework*

1993 - Library shelving and storage cabinets.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

E2010.03.01 Blinds*

Vertical blindes installed in all classroom windows.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

F2020.01 Asbestos*

Asbestos repor,t dated July 7, 1994, identifies presence of asbestos in pipe elbows and fittings, pipe insulation, vinyl sheet flooring, stair treads, glasweld panels where original windows were filled in and asbestos board use as fire proofing in 1968 crawl space.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

Lethbridge - Galbraith School (S3676)

Facility Details

Building Name: Galbraith School

Address:

Location: Lethbridge

Building Id: \$3676
Gross Area (sq. m): 0.00
Replacement Cost: \$0
Construction Year: 0

Evaluation Details

Evaluation Company: Ferrarri Westwood

Evaluation Date: December 1 2004

Evaluator Name: Mr. Art Ferrarri

Total Maintenance Events Next 5 years: \$30,240 5 year Facility Condition Index (FCI): 0%

General Summary:

Large site with mature trees and several sports fields. Repair of asphalt courtyard on east side of school required. School sign required. Future consideration for enlargement of staff parking lot.

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

Rating Guide		
Condition Rating	Performance	
1 - Critical	Unsafe, high risk of injury or critical system failure.	
2 - Poor	Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.	
3 - Marginal	Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.	
4 - Acceptable	Meets present requirements, minor deficiencies. Average operating/maintenance costs.	
5 - Good	Meets all present requirements. No deficiencies.	
6 - Excellent	As new/state of the art, meets present and foreseeable requirements.	

S7 SITE

G2020.02.02 Flexible Paving Parking Lots(Asphalt)*

Asphalt parking lot with 24 stalls on south east corner of school. Lot is undersized. Several teachers park on narrow street in front of school.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	DEC-04

G2020.06.02 Parking Bumpers*

Concrete parking bumpers provided for stalls in lot.

Rating	Installed [Design Life	<u>Updated</u>
4 - Acceptable	0	0	DEC-04

G2030.02.02 Asphalt Pedestrain Pavement*

Asphalt play areas on east and west side of school. West side replaced in 2003. East side likely original 1962 installation. Rough and weathered.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	DEC-04

Event: Apply 50mm asphalt topping to existing asphalt area on east side of school.

Concern:

East side asphalt play area is worn and weathered. Likely original 1962 installation.

Recommendation:

Apply 50mm asphalt topping to existing asphalt area. Cut around perimeter as required to match with adjacent concrete pads.

<u>Type</u>	<u>Year</u>	Cost	Priority
Repair	2007	\$30,240	Low

Updated: February 17 2005

G2030.04 Rigid Pedestrian Pavement (Concrete)*

Concrete apron around south main entrance and on south east corner of building adjacent to gym.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	DEC-04

G2030.06 Exterior Steps and Ramps*

Large exterior concrete stairs up to main level of 1912 wing. Small exterior concrete stairs up to south main entrance and north west entrance.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	DEC-04

G2040.02 Fences and Gates*

Chain link fencing around entire perimeter of large site.

Rating	Installed	Design Life	<u>Updated</u>
4 - Acceptable	0	0	DEC-04

Report run on: February 13, 2006 3:55 PM

G2040.05 Site and Street Furnishings*

Several "park like" benches situated on west side of school.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2040.06 Exterior Signs*

Poor school signage. Only school sign is above original front entrance of 1912 wing, which is now exit only.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Event: Install new school sign.

Concern:

Existing sign on front of school is on original 1912 wing above doors that are now used for only exiting.

Recommendation:

Provide new site sign near front entrance.

TypeYearCostPriorityProgram Functional Upgrade2006\$7,560Unassigned

Updated: February 17 2005

G2040.08 Flagpoles*

1962 - Steel flagpole mounted adjacent to main south entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2050.01 Irrigation Systems*

Underground irrigation to landscaped area on north side of school.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2050.04 Lawns and Grasses*

Large grassed site with several ball diamonds and soccer fields.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G2050.05 Trees, Plants and Ground Covers*

Mature trees and shrubs around perimeter and on north face of school adjacent to street.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G3010.02 Site Domestic Water Distribution*

(1) 50mm and (1) 75mm municipal water services.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G3020.01 Sanitary Sewage Collection*

(2) municipal sanitary sewer services to site.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G3030.01 Storm Water Collection*

Municipal storm sewer connection.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G3060.01 Gas Distribution*

Underground natural gas service to building.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G4010.03 Electrical Power Distribution Equipment*

300 KVA 208v pad mounted transformer with underground primary and secondary lines.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G4010.04 Car Plugs-ins*

Car plug-ins mounted on wooden rail on fence around parking lot. Connected to non-controlled panel.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

G4020.01 Area Lighting*

HPS fixtures at some exit doors but not all. Costs associated with these lights are included in the electrical section of reports.

RatingInstalledDesign LifeUpdated3 - Marginal00DEC-04

Report run on: February 13, 2006 3:55 PM

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance

Level grade from parking to building. Ramp up to main south entrance door.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

K4010.02 Barrier Free Entrances

Ramp up to main south entrance. No power assist on door opener.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

K4010.03 Barrier Free Interior Circulation

Barrier free access throughout except stage in gym.

RatingInstalledDesign LifeUpdated4 - Acceptable00DEC-04

K4010.04 Barrier Free Washrooms

Handicap washrooms located in lower level of 1912 wing. (non-conforming)

Rating Installed Design Life Updated 4 - Acceptable 0 0 DEC-04

Appendix F: Galbraith School Heritage Information





24 April, 2018

To: Property owner

Dear Sir or Madam:

RE: Potential for historic designation

On 27th February 2018 the City's Historic Places Advisory Committee held an open house at City Hall on the process of achieving historic designation for your property. I'm sorry you couldn't make it to this session, but I thought you may be interested in taking a look at the draft Statement of Significance for your property (enclosed).

The Statement of Significance is an important document that describes the heritage value of a designated historic place and lists its Character-Defining Elements. These are the most important elements for conservation. The draft Statement of Significance for your property was created as part of the City's efforts to create an Inventory of Historical Resources. Only those few properties considered "designation-ready" had Statements of Significance drafted for them, having been selected from thousands of candidates.

Should you choose to apply for formal designation as a Municipal Historic Resource, I would be delighted to help lead you through the process. Note that there is no cost to apply for designation. There are numerous benefits to designation, including being eligible to apply for grant funding from the Alberta Historical Resources Foundation to assist with conservation and restoration work.

Please contact City of Lethbridge Heritage Planning at heritage@lethbridge.ca or Ross Kilgour, Community Planner II, using the details below if you would like more information about designating your potentially historic property.

Sincerely,

Ross Kilgour

Community Planner II / Heritage Advisor

Phone: 403-320-4237 * E-Mail: ross.kilgour@lethbridge.ca

1801 8th Avenue North

Galbraith Elementary School



Description of the Historic Place

The three-storey brick Galbraith Elementary School has a hipped roof with intersecting pediment gables at each corner, a central flat roof dormer flanked by two large brick chimneys, and a classically styled main enfrance with columns and a hooded curved pediment. It is located on a large schoolyard on a residential street in Lethbridge.

Heritage Value

Galbraith Elementary School is significant for its association with the theme of early educational development in Lethbridge, for its association with Dr. Walter Stuart Galbraith, and for its Palladian design influences.

The 1912 Galbraith Elementary School is significant for its association with early educational development in Lethbridge. After its official incorporation as a City in May of 1906, Lethbridge experienced rapid economic growth for the next seven years as it developed into a commercial hub in Southern Alberta. City infrastructure expanded to meet the demands of the increasing population, and included streetear lines, a power plant, a water treatment plant, and schools. Galbraith School was built in 1912 and was officially opened in 1913 by Dr. Galbraith and his wife Matilda, the latter of whom had used a silver trowel to lay the school's cornerstone. Since its construction the school has continued to serve educational needs in the city of Lethbridge as Galbraith Elementary School, and had a modern flat-roofed addition built on the side around the 1950s.

Galbraith Elementary School is significant for its association with Dr. Walter Stuart Galbraith. Walter Galbraith was a trained pharmacist who moved to Lethbridge in 1891 and worked for Higinbotham & Co. The community had yet to attract a full complement of medical personnel, and Galbraith soon found himself pressed into service as an anaesthetist for surgeries by Dr. Mewburn, Lethbridge's first doctor. Dr. Mewburn convinced Galbraith to return east in 1895 to attend McGill Medical School, and Walter returned as Dr. Galbraith four years later with a Doctorate of Medicine and as a Master of Surgery. Aside from his medical work, Dr. Galbraith was a member of the Lethbridge

City of Lethbridge Heritage Inventory

City Council, was member of the school board from 1904 to 1912, and served as mayor of Lethbridge in 1907, during which time he helped to develop a health bylaw that became a template for provincial health laws. One of the more memorable moments associated with Galbraith's time as mayor involved his having to read the Rjot Act during Lethbridge's Christmas Day Riot. A Chinese waiter had attacked Harry Smith with a hammer, and angry citizens descended upon Chinatown seeking vengeance for the attack. Galbraith School was named in Dr. Galbraith's honour when it opened in 1913. Dr. Galbraith died in 1939, at the age of sixty-nine.

Galbraith Elementary School is significant for its Palladian design influences, which include the school's symmetrical façade with matching pediment gables and central connecting cross gable, brick chimneys, and oxeye windows. Palladian design referenced classical architecture, to create a sense of balance and formality, visible in such elements as the symmetrical brick pilasters with cast stone capitals, the broad central steps, and the front entrance with Tuscan columns, a hooded curved pediment, and the fanlight above the door. This large and impressive structure was one of Lethbridge's early architectural gems, providing residents with a sense of permanence and emphasising the city's role as a leading centre in Southern Alberta.

Character Deliging Elements

The character defining elements as expressed in the form, massing, and materials of the 1912 three-storey school include:

- The hipped roof with intersecting pediment gables
- The brick cladding
- * The classically-styled front entrance with Tuscan columns, a booded curved pediment and a fanlight
- The moulded frieze
- The brick pilasters with cast stone capitals.
- The except windows in the pediment gable ends.
- The cycbrow dormers at the centre of the side façades.
- The flat roof dormers at the centre of the front and rear façades.
- * The large entablature
- The large symmetrical brick chimneys
- The concrete foundation imitating a plinth.
- The concrete sills and lintels on all windows.
- The cornerstone on the southwest corner of the building
- The pattern, style and construction of all original windows



Galbraith School Visioning Session Lethbridge School Division

Lethbridge, AB

Client





Calgary – HEAD OFFICE #208, 2725 – 12th Street NE Calgary, AB T2E 7J2 403.291.5566 | calgary@tccl.ca

#2, 2207 – 90B Street SW Edmonton, AB T6X 1V8 780.433.7224 | edmonton@tccl.ca

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1. PREAMBLE

This report is intended to demonstrate the capital cost analysis (CCA) solutions developed during the Visioning Session held on May 11&12, 2022. These analyses are used to compare cost estimates for the qualitative concepts presented, with reasonable budgets forecast in planning for the long-term facility planning. The qualitative value recommendations for improvements ensuring proper occupational safety, operation and supply of quality learning are addressed in other sections of this report.

Options compared are listed below:

Option 1a: Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and east classroom wing

•	Demolished	
	 Selective demolition 	1,016 m2
•	Galbraith School	
	 Modernization 	3,644 m2
	 Addition 	1,657 m2
	o Sub-Total	5,301 m2
	o Option Total	5,301 m2

Option 1b: Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage

•	Demolished	
	 Selective demolition 	150 m2
•	Galbraith School	
	 Modernization 	4,710 m2
	 Addition 	270 m2
	○ Sub-Total	4,980 m2
	o Option Total	4,980 m2

Option 2a: Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and north classroom wing

•	Demolished	
	 Selective demolition 	1,180 m2
•	Galbraith School	
	 Modernization 	3,680 m2
	Addition	1,457 m2
	Sub-Total	5,137 m2
	 Option Total 	5,137 m2

Option 2b: Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage

•	Demolished	
	 Selective demolition 	150 m2
•	Galbraith School	
	 Modernization 	4,710 m2
	 Addition 	270 m2
	○ Sub-Total	4,980 m2
	o Option Total	4,980 m2

Option 3: Replacement K4 400 capacity school, demolish Galbraith school

•	Demolished	
	 Selective demolition 	5,061 m2
•	New Replacement School	
	o Schedule "A"	3,450 m2
	o Sub-Total	3,450 m2
	o Option Total	3,450 m2

2. METHODOLOGY

Facility-Life Cost Planning

Facility-Life-Cost Planning applies to the long-term acquisition and ownership of assets. This report reviews options over a 25-year study period and can be used to compare the effect of costs over each facility life from different economic perspectives, enabling the Owner to understand the effects of Capital, Operating and Cyclical influences.

The purpose of life-cost planning is to use discounted cash flow analysis to determine the total costs of a building over a specified time frame in order to objectively assess the performance of the design in terms of durability, quality, energy usage and the like. Life-cost planning also establishes estimated target costs for the capital and running costs of a building or its elements. These targets provide a constraint and a useful measure against which selected design solutions can be later compared or evaluated. For this project, the various categories of capital and operating expenses shown are summarized as follows:

Capital cost

- Land costs (not applicable)
- Construction costs
- Soft Costs

The basic capital dollars are expressed in current **April 2022** dollars, that is, as if the project were tendered in **April 2022**.

Where possible, elements have been assessed or measured, then priced at rates considered competitive for a project of this type. This report is developed using standardized methods and techniques. Formatting of the report in accordance with the following documents:

Canadian Institute of Quantity Surveyors. "<u>Elemental Cost Analysis-Method of Measurement and Pricing"</u> (Toronto ON, Canada: Canadian Institute of Quantity Surveyors, 1990).

Construction Specifications Institute. "<u>UniFormat™: A Uniform Classification of Construction Systems and Assemblies"</u>(Alexandria, VA, USA: The Construction Specifications Institute, 2010 Edition).

Construction Specifications Institute. "<u>MasterFormat 2010™</u>" (Alexandria VA, USA: The Construction Specifications Institute, 2010 Edition).

Costing for the estimated areas of work is developed using the historical data of similar projects. Consideration is made to include for project complexity, geographic location and current market pricing.

Allowances / Contingencies:

As this project is currently at <u>functional scoping development</u> the following allowances have been included:

- a. Design Allowance / Contingency
 - An allowance for design changes during the development of the design. The allowance is to cover unforeseen items during the design phase that do not change the project scope. The allowance, which is included in the primary stages, is ultimately absorbed into the design and

Teckion

quantified work as more detailed information becomes available and is therefore normally reduced to zero at tender stage

- b. Phasing Allowance / Contingency
 - An allowance for increased requirements for projects being executed in multiple phases. This restriction leads to increased costs due to increased temporary protection requirements, etc.
- c. Construction Allowance / Contingency
 - An allowance for changes to the contract price during construction. The allowance is to cover unforeseen items during the construction period which will result in change orders
- d. Location Allowance / Contingency
 - Location factors are applied to baseline unit costs, to allow for the higher costs of construction
 in locations that are further away from the main centers of operations, notably Edmonton and
 Calgary. Initially, these factors are calculated by assessing the extra costs of supplying skilled
 labour and delivering materials from either of the two main city centers to those remote
 locations, and incorporating the relative risks involved in doing business there.

3. FINANCIAL OVERVIEWS

3.1 Summary of Costs

The capital cost comparison is summarized in following tables for the options. Totals are represented in current April 2022 dollars for comparison purposes.

Overall Summary:

			OPTIONS		
	Option 1a – Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and east classroom wing	Option 1b – Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage	Option 2a – Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and north classroom wing	Option 2b – Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage	Option 3 – Replacement K4 400 capacity school, demolish Galbraith school
Area (m²)	5,301	4,980	5,137	4,980	3,450
CAPITAL COSTS - 2022					
Hard Construction Cost	\$18,530,500	\$14,835,892	\$17,833,617	\$14,794,368	\$14,570,254
Soft / Other Construction Cost	\$3,057,532	\$2,447,922	\$2,942,547	\$2,441,071	\$2,476,943
GST - Non Refundable	\$345,409	\$276,541	\$332,419	\$275,767	\$272,755
Escalation	\$0	\$0	\$0	\$0	\$0
TOTAL CURRENT CAPITAL COSTS (April 2022)	\$21,933,441	\$17,560,355	\$21,108,583	\$17,511,205	\$17,319,952

3.2 Analysis

The capital cost has been generated by the varying levels of modernization intensity. The values range from a minimal modernization of \$1,900/m² to a major modernization of \$2,400/m² or 71% of replacement. All options assume full M&E and life safety upgrades. New construction support rates (\$3,400/ m² for K-6) are factored with a 10% location factor.

These construction rates have been applied to the affected facility components identified in the workshop to produce the capital cost investment.

3.3 Assumptions

The life cycle cost analysis uses the following key assumptions.

- 1) All construction capital costs **exclude** future escalation.
 - a. 10.0% 2022
 - b. 5.0% 2023
 - c. 3.5% 2024 onward
- 2) O&M annual cost are **excluded** for:
 - a. Facility Operations utilities
 - b. Facility Operations maintenance
 - c. Facility Operations expenses
- 3) Decanting & phasing are excluded.
- 4) Cyclical renewal costs are excluded.
- 5) Residual values have been **excluded**.

3.4 Exclusions

This is a comparative exercise only and the following items that may affect these projects have been excluded from the calculations compared in the options presented:

- 1. IT equipment and communications cabling
- 2. Land Costs
- 3. Property tax or its equivalent Grants-in-lieu.
- 4. Financing/Fundraising costs
- 5. Abnormal Soil conditions not covered in the Facility Evaluation reviews
- 6. Cyclical renewals



Galbraith School Visioning Lethbridge, Alberta

Capital Cost Analysis May 11 & 12, 2022

4. Options - Calculations

Option 1a – Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and east classroom wing

PROGRAM AREA (m²)		A Demolition	B Preservation	C New	D Modular's	Total (B+C+D+E)
Galbraith School - 5,061 m2						
1912 - 2616 m2						
Basement	-		700			700
Main Second	-		700			700 700
Third	-		700 516			516
1962 - 2421 m2	-					
Demo Admin		150				0
Demo North Wing	-	866				0
Gym	_		401			401
Stage	_		130			130
Circulation	-		244			244
Mechanical	-		130			130
Gym	-			430		430
Admin	-			227		227
Classroom wing 1968 - 23 m2	-		23	1,000		1,000
1966 - 23 M2 1993 - 100 m2	-		100			100
	TOTAL :	1,016	3,644	1,657		5,301
Daycare	TOTAL:	1,016	500	1,657		500
CAPITAL COST						
A Demolition						
Demo Building	1,016 m²	\$200.00	\$203,200			
Interior Selective Demo	3,644 m²	\$75.00	\$273,300			
Hazmat	5,061 m²	\$55.00	\$278,355			
	A Demo	olition Net :	\$754,855			
B Preservation/Modernization						
M&E Upgrade	•	•	•			
Galbraith School - 5,061 m2	3,644 m²	\$919.44	\$3,350,426			
1912 - 2616 m2	Ì		i .			
Basement	700 m²	\$496.11	\$347,279			
Main	700 m²	\$992.23	\$694,558			
Second	700 m²	\$992.23	\$694,558			
Third	516 m²	\$992.23	\$511,988			
1962 - 2421 m2			1			
Gym	401 m²	\$1,488.34	\$596,824			
Stage	130 m²	\$1,364.31	\$177,360			
Circulation	244 m²	\$1,116.25	\$272,366			
Mechanical	130 m²	\$248.06	\$32,247			
1968 - 23 m2	23 m²	\$496.11	\$11,411			
1993 - 100 m2	100 m²	\$992.23	\$99,223			
B Pr	eservation/Moderni	zation Net :	\$6,788,239			
C New/Expansion						
Gym	430 m²	\$4,964.00	\$2,134,520			
Admin	227 m²	\$3,128.00	\$710,056			
Classroom wing	1,000 m²	\$3,400.00	\$3,400,000			
	C New/Expa	insion Net :	\$6,244,576			
D Modular's	0 1	#0.00l	40			
Construction	0 no	\$0.00	\$0			
	D Moo	lular's Net :	\$0			

LSD - Galbraith School Scoping Session

Appendix G Capital Cost Analysis CALCULATIONS AND ASSUMPTIONS

Option 1a – Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and east classroom wing

. •••	-			
Other				
Stage Floor	130 m	\$600.00	\$78,000	
12 - 2616 m2	L	•	<u> </u>	
Repointing	2,093 m	\$160.00	\$334,848	
Fascia / cornice	140 m	\$1,200.00	\$168,000	
Windows	419 m2	\$1,100.00	\$460,416	
Limestone sills	180 m	\$2,000.00	\$360,000	
		Other Net :	\$1,401,264	
Contingencies			\$15,188,934	_
Location	-	10.0%	\$1,518,893	
Project	-	5.0%	\$759,447	
Construction	_	7.0%	\$1,063,225	
	Z Continge	encies Net :	\$3,341,566	
(A+E	B+C+D+E+Z) Constr	uction Net :	\$18,530,500	
		\$/m² :	\$3,495.66	_
oft/Other Costs				
Land Purchase	acre	\$0.00	\$0	
Site Services	1 sm	\$0.00	\$0	
Project Admin		2.0%	\$370,610	
Programming	-	0.0%	\$0	
Design Fees	-	10.0%	\$1,853,050	
Furnishings & Equipment	-	4.5%	\$833,872	
IT	-	0.0%	\$0	
CTS Equipment	-	sum	\$0	0 streams @ 100K
Decanting	-	0.0%	\$0	
	Soft	Other Net :	\$3,057,532	
SUB-TOTAL			\$21,588,032	
Non-refundable GST	-	1.60%	\$345,409	
CAPITAL COST TOTAL (April 20)22 \$)		\$21,933,441	
Escalation	-			
CAPITAL COST TOTAL			\$21,933,441	

LSD - Galbraith School Scoping Session

Option 1b - Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage

PROGRAM AREA (m²)		A Demolition	B Preservation	C New	D Modular's	Total (B+C+D+E)
Galbraith School - 5,061 m2						
1912 - 2616 m2						
Basement	-		700			700
Main Second	-		700 700			700 700
Third	-		516			516
1962 - 2421 m2	-	_	010			
Demo Admin	_	150				0
North classroom wing	-		1,050			1,050
Music / ancillary	-		90			90
Gym	-		401			401
Stage Circulation	-		130 170			130 170
Mechanical	-		130			130
Admin	-			227		227
Gym storage	-			43		43
1968 - 23 m2	-		23			23 100
1993 - 100 m2	=		100			
Daycare	TOTAL :	150	<u>4,710</u> 300	270	0	4,980 300
CAPITAL COST	-					
A Demolition						
Demo Building	150 m²	\$200.00	\$30,000			
Interior Selective Demo	4,710 m²	\$75.00	\$353,250			
Hazmat	5,061 m²	\$55.00	\$278,355			
	A Dem	olition Net :	\$661,605			
B Preservation/Modernization						
M&E Upgrade Galbraith School - 5,061 m2	4,710 m²	\$919.44	\$4,330,545			
1912 - 2616 m2	4,7 10 111	ψ919.44	ψ4,330,343			
Basement	700 m²	\$496.11	\$347,279			
Main	700 m²	\$992.23	\$694,558			
Second	700 m²	\$992.23	\$694,558			
Third	516 m²	\$992.23	\$511,988			
1962 - 2421 m2		,	1 , , , , , , , , , , , , , , , , , , ,			
North classroom wing	1,050 m²	\$1,364.31	\$1,432,526			
Music / ancillary	90 m²	\$1,736.39	\$156,276			
Gym	401 m²	\$496.11	\$198,941			
Stage	130 m²	\$1,984.45	\$257,979			
Circulation	170 m²	\$1,488.34	\$253,017			
Mechanical	130 m²	\$248.06	\$32,247			
1968 - 23 m2	23 m²	\$496.11	\$11,411			
1993 - 100 m2	100 m²	\$1,488.34	\$148,834			
ВР	reservation/Moderni	zation Net :	\$9,070,158			
C New/Expansion						
Admin	227 m²	\$3,128.00	\$710,056			
Gym storage	43 m²	\$2,822.00	\$121,346			
	C New/Expa	nsion Net :	\$831,402			
D Modular's	^ I	#0.00l				
Construction	0 no	\$0.00	\$0			
	D Mod	lular's Net :	<u>\$0</u>			

Option 1b - Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage

Ē Other		_		
Stage Floor	130 m	\$600.00	\$78,000	
1912 - 2616 m2				
Repointing	2,093 m	\$160.00	\$334,848	
Fascia / cornice	140 m	\$1,200.00	\$168,000	
Windows	419 m2	\$1,100.00	\$460,416	
Limestone sills	180 m	\$2,000.00	\$360,000	
		Other Net :	\$1,401,264	
Z Contingencies	_		\$11,964,429	_
Location	_	10.0%	\$1,196,443	
Project	_	7.0%	\$837,510	
Construction	_	7.0%	\$837,510	
	Z Continge	ncies Net :	\$2,871,463	
(A+B	+C+D+E+Z) Constru	iction Net :	\$14,835,892	
		\$/m² :	\$2,979.09	_
Soft/Other Costs	_	_	_	
Land Purchase	acre	\$0.00	\$0	
Site Services	1 sm	\$0.00	\$0	
Project Admin	_	2.0%	\$296,718	
Programming	_	0.0%	\$0	
Design Fees	_	10.0%	\$1,483,589	
Furnishings & Equipment	_	4.5%	\$667,615	
IT	_	0.0%	\$0	
CTS Equipment	_	sum	\$0	0 streams @ 100K
Decanting	_	0.0%	\$0	
	Soft/	Other Net:	\$2,447,922	
SUB-TOTAL			\$17,283,814	
Non-refundable GST	<u>-</u>	1.60%	\$276,541	
CAPITAL COST TOTAL (April 20)	22 \$)		\$17,560,355	
Escalation	_			
CAPITAL COST TOTAL			\$17,560,355	

Option 2a – Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and north classroom wing

PROGRAM AREA (m²)		A Demolition	B Preservation	C New	D Modular's	Total (B+C+D+E)
Galbraith School - 5,061 m2						
1912 - 2616 m2						
Basement	-		700			700
Main Second	-		700			700 700
Third	-		<u>700</u> 516			516
1962 - 2421 m2	-					310
Demo Admin		150				0
Demo North Wing	-	1,030				0
Gym	_		401			401
Stage	<u>-</u>		130			130
Circulation	-		280			280
Mechanical	-		130			130
Gym	-			430		430
Admin Classroom wing	-			227		227 800
1968 - 23 m2	-		23	800		23
1993 - 100 m2	-		100			100
	TOTAL :	1,180	3,680	1,457	0	5,137
Daycare	=	1,100	300	1,401		300
CAPITAL COST						
A Demolition						
Demo Building	1,180 m²	\$200.00	\$236,000			
Interior Selective Demo	3,680 m²	\$75.00	\$276,000			
Hazmat	5,061 m²	\$55.00	\$278,355			
	A Demo	olition Net :	\$790,355			
B Preservation/Modernization				•		
M&E Upgrade			1			
Galbraith School - 5,061 m2	3,680 m²	\$919.44	\$3,383,526			
1912 - 2616 m2	700 3	4400 44	1 40.47.070			
Basement	700 m²	\$496.11	\$347,279			
Main	700 m²	\$992.23	\$694,558			
Second	700 m²	\$992.23	\$694,558			
Third	516 m²	\$992.23	\$511,988			
1962 - 2421 m2	404 0 1	المحمدية	1			
Gym	401 m²	\$1,488.34	\$596,824			
Stage	130 m²	\$1,364.31	\$177,360			
Circulation	280 m²	\$1,116.25	\$312,551			
Mechanical	130 m²	\$248.06	\$32,247			
1968 - 23 m2	23 m²	\$496.11	\$11,411			
1993 - 100 m2	100 m²	\$992.23	\$99,223			
B Pr	eservation/Moderni	zation Net :	\$6,861,524			
C New/Expansion						
Gym	430 m²	\$4,964.00	\$2,134,520			
Admin	227 m²	\$3,128.00	\$710,056			
Classroom wing	800 m²	\$3,400.00	\$2,720,000			
	C New/Expa	insion Net :	\$5,564,576			
D Modular's			,			
Construction	0 no	\$0.00	\$0			
		lular's Net :	\$0			

LSD - Galbraith School Scoping Session

Appendix G Capital Cost Analysis CALCULATIONS AND ASSUMPTIONS

Option 2a – Preserve and modernize 1912 original building, demolish 1962 admin area and north wing, repurpose gym and stage area, add new admin, gym and north classroom wing

==	_			
Other				
Stage Floor	130 m	\$600.00	\$78,000	
)12 - 2616 m2	•	•		
Repointing	2,093 m	\$160.00	\$334,848	
Fascia / cornice	140 m	\$1,200.00	\$168,000	
Windows	419 m2	\$1,100.00	\$460,416	
Limestone sills	180 m	\$2,000.00	\$360,000	
		Other Net:	\$1,401,264	
Contingencies			\$14,617,719	_
Location	-	10.0%	\$1,461,772	
Project	-	5.0%	\$730,886	
Construction	- -	7.0%	\$1,023,240	
	Z Continge	encies Net :	\$3,215,898	
(A+	B+C+D+E+Z) Constr	uction Net :	\$17,833,617	
		\$/m² :	\$3,471.60	
ft/Other Costs				
Land Purchase	acre	\$0.00	\$0	
Site Services	1 sm	\$0.00	\$0	
Project Admin		2.0%	\$356,672	
Programming	-	0.0%	\$0	
Design Fees	-	10.0%	\$1,783,362	
Furnishings & Equipment	-	4.5%	\$802,513	
IT	-	0.0%	\$0	
CTS Equipment	-	sum	\$0	0 streams @ 100K
Decanting	-	0.0%	\$0	
	Soft	Other Net:	\$2,942,547	
SUB-TOTAL			\$20,776,164	
Non-refundable GST	-	1.60%	\$332,419	
CAPITAL COST TOTAL (April 2	(022 \$)		\$21,108,583	
Escalation	-			
CAPITAL COST TOTAL			\$21,108,583	

Option 2b - Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage

PROGRAM AREA (m²)		A Demolition	B Preservation	C New	D Modular's	Total (B+C+D+E)
Galbraith School - 5,061 m2						
1912 - 2616 m2						
Basement	-		700			700
Main Second	·-		700 700			700 700
Third	-		516			516
1962 - 2421 m2	-					010
Demo Admin	_	150				0
North classroom wing	-		1,140			1,140
Gym	-		401			401
Stage	-		130			130
Circulation Mechanical	·-		<u>170</u> 130			170 130
Admin	-		130	227		227
Gym storage	-			43		43
1968 - 23 m2	-		23			23
1993 - 100 m2	-		100			100
	TOTAL:	150	4,710	270	0	4,980
Daycare	-		300			300
CAPITAL COST						
A Demolition	1		1			
Demo Building	150 m²	\$200.00	\$30,000			
Interior Selective Demo	4,710 m²	\$75.00	\$353,250			
Hazmat	5,061 m²	\$55.00	\$278,355			
	A Dem	olition Net :	<u>\$661,605</u>			
B Preservation/Modernization M&E Upgrade						
Galbraith School - 5,061 m2	4,710 m²	\$919.44	\$4,330,545			
1912 - 2616 m2	4,7 10 111	ψο 10.44	ψ4,000,040			
Basement	700 m²	\$496.11	\$347,279			
Main	700 m²	\$992.23	\$694,558			
Second	700 m²	\$992.23	\$694,558			
Third	516 m²	\$992.23	\$511,988			
1962 - 2421 m2						
North classroom wing	1,140 m²	\$1,364.31	\$1,555,313			
Gym	401 m²	\$496.11	\$198,941			
Stage	130 m²	\$1,984.45	\$257,979			
Circulation	170 m²	\$1,488.34	\$253,017			
Mechanical	130 m²	\$248.06	\$32,247			
1968 - 23 m2	23 m²	\$496.11	\$11,411			
1993 - 100 m2	100 m²	\$1,488.34	\$148,834			
ВР	reservation/Moderni	zation Net :	\$9,036,671			
C New/Expansion	,		<u> </u>			
Admin	227 m²	\$3,128.00	\$710,056			
Gym storage	43 m²	\$2,822.00	\$121,346			
, ,	u	ansion Net :	\$831,402			
D Modular's			, , , , , , , , , , , , , , , , , , , ,			
Construction	0 no	\$0.00	\$0			

Option 2b - Preserve and modernize Galbraith school, demolish 1962 admin area, repurpose stage area, add new admin and gym storage

Other		_		
Stage Floor	130 m	\$600.00	\$78,000	
912 - 2616 m2		•		
Repointing	2,093 m	\$160.00	\$334,848	
Fascia / cornice	140 m	\$1,200.00	\$168,000	
Windows	419 m2	\$1,100.00	\$460,416	
Limestone sills	180 m	\$2,000.00	\$360,000	
		Other Net:	\$1,401,264	
Contingencies	_		\$11,930,942	_
Location	_	10.0%	\$1,193,094	
Project	_	7.0%	\$835,166	
Construction	<u>_</u>	7.0%	\$835,166	
	Z Continge	Z Contingencies Net :		
(A-	+B+C+D+E+Z) Constru	iction Net :	\$14,794,368	
	\$/m² :		\$2,970.76	_
oft/Other Costs	_	_	_	
Land Purchase	acre	\$0.00	\$0	
Site Services	1 sm	\$0.00	\$0	
Project Admin	_	2.0%	\$295,887	
Programming	_	0.0%	\$0	
Design Fees	_	10.0%	\$1,479,437	
Furnishings & Equipment		4.5%	\$665,747	
IT		0.0%	\$0	
CTS Equipment		sum	\$0	0 streams @ 100K
Decanting	_	0.0%	\$0	
	Soft/	Other Net :	\$2,441,071	
SUB-TOTAL			\$17,235,438	
Non-refundable GST	<u> </u>	1.60%	\$275,767	
CAPITAL COST TOTAL (April 2	2022 \$)		\$17,511,205	
Escalation				
CAPITAL COST TOTAL			\$17,511,205	

LSD - Galbraith School Scoping Session

Option 3 - Replacement K4 400 capacity school, demolish Galbraith school

PROGRAM AREA (m²)		A Demolition	B Preservation	C New	D Modular's	Total (B+C+D+E)
Galbraith - 5,061 m2		5,061				0
Replacement Facility K4 400 Cap				3,450		3,450
	TOTAL:	5,061	0	3,450	0	3,450
CAPITAL COST						
A Demolition			, .			
Demo School	5,061 m²	\$175.00	\$885,675			
Hazmat _	5,061 m²	\$50.00	\$278,355			
	A Dem	olition Net:	<u>\$1,164,030</u>			
Preservation/Modernization				_		
n/a _	0 m²	\$0.00	\$0			
B Pres	servation/Modern	ization Net:	\$0			
C New/Expansion				_		
Replacement Facility K4 400 Cap	3,450 m²	\$3,400.00	\$11,730,000			
	C New/Exp	ansion Net :	\$11,730,000			
O Modular's				_		
Construction	0 m²	\$0.00	\$0			
	D Mo	dular's Net:	\$0			
Other				_		
n/a	0 m	\$0.00	\$0			
		Other Net:	\$0			
Z Contingencies			\$12,894,030	_		
Location		10.0%	\$1,289,403			
Project		0.0%	\$0			
Construction		3.0%	\$386,821			
	Z Conting	encies Net :	\$1,676,224			
(A+B+	C+D+E+Z) Consti	ruction Net :	\$14,570,254			
		\$/m² GFA:	\$4,223	_		
Soft/Other Costs	0		I #0			
Land Purchase Site Services	0 acre	\$10,000.00 \$50,000.00	\$0 \$0			
Project Admin	0 acre	2.0%	\$291,405			
Programming		0.0%	\$0			
Design Fees		8.0%	\$1,165,620			
Furnishings & Equipment		7.0%	\$1,019,918			
IT		0.0%	\$0			
CTS Equipment		0 LS	\$0	0 streams @ 10	00K	
Decanting		0.0%	\$0			
	Sof	t/Other Net:	\$2,476,943			
SUB-TOTAL			\$17,047,197			
Non-refundable GST		1.60%	\$272,755			
CAPITAL COST TOTAL (April 202)	2 \$)		\$17,319,952			
Escalation						
CAPITAL COST TOTAL			\$17,319,952			

Galbraith School Visioning Lethbridge, Alberta

Capital Cost Analysis May 11 & 12, 2022

5. Appendix

LSD - Galbraith School Scoping Session

Appendix A - Replacement K4 450 capacity school, demolish Galbraith school

ROGRAM AREA (m²)		A Demolition	B Preservation	C New	D Modular's	Total (B+C+D+E)
albraith - 5,061 m2		5,061				
Replacement Facility K4 400 Cap		<u> </u>		3,879		3,87
	TOTAL:	5,061	0	3,879	0	3,87
APITAL COST						
Demolition						
Demo School	5,061 m²	\$175.00	\$885,675			
Hazmat	5,061 m²	\$50.00	\$278,355			
-		olition Net :				
	A Dem	ontion Net :	<u>\$1,164,030</u>	_		
Preservation/Modernization	0 2	φο οο .	1 00			
n/a - B Pres	0 m²	\$0.00	\$0			
	servation/Modernization Net:		\$0			
New/Expansion				_		
Replacement Facility K4 400 Cap	3,879 m²	\$3,400.00	\$13,188,600			
	C New/Expa	ansion Net :	\$13,188,600			
Modular's				_		
Construction	0 m²	\$0.00	\$0			
_	D Moo	dular's Net :	\$0			
Other				_		
E Other n/a -	0 m	\$0.00	\$0			
	0 111	•				
		Other Net :	<u>\$0</u>	_		
Contingencies	·		\$14,352,630			
Location		10.0%	\$1,435,263			
Project Construction	•	0.0% 3.0%	\$0 \$430,579			
Construction						
		encies Net :	\$1,865,842			
(A+B+C+D+E+Z) Construction Ne			\$16,218,472			
oft/Other Costs		\$/m² GFA:	\$4,181	_		
Land Purchase	0 acre	\$10,000.00	\$0			
Site Services	0 acre	\$50,000.00	\$0			
Project Admin	0 2.510	2.0%	\$324,369			
Programming	•	0.0%	\$0			
Design Fees	•	8.0%	\$1,297,478			
Furnishings & Equipment		7.0%	\$1,135,293			
IT		0.0%	\$0			
CTS Equipment	·	0 LS	\$0	0 streams @ 10	00K	
Decanting	,	0.0%	\$0			
	Soft/Other Net :		\$2,757,140			
SUB-TOTAL			\$18,975,612			
Non-refundable GST	-	1.60%	\$303,610			
CAPITAL COST TOTAL (April 202	2 \$)		\$19,279,222			
Escalation	· · · · · · · · · · · · · · · · · · ·					
CAPITAL COST TOTAL			\$19,279,222			

LSD - Galbraith School Scoping Session

Appendix B - Replacement K4 500 capacity school, demolish Galbraith school

PROGRAM AREA (m²)		A Demolition	B Preservation	C New	D Modular's	Total (B+C+D+E)
Galbraith - 5,061 m2		5,061				0
Replacement Facility K4 400 Cap				4,150		4,150
	TOTAL:	5,061	0	4,150		4,150
CAPITAL COST	TOTAL :	3,001		4,100		4,100
A Demolition	5 004 ··· 3	l #475.00l	1 0005 075			
Demo School	5,061 m²	\$175.00	\$885,675			
Hazmat _	5,061 m²	\$50.00	\$278,355			
	A Dem	nolition Net :	\$1,164,030			
3 Preservation/Modernization				_		
n/a	0 m²	\$0.00	\$0			
B Pre	eservation/Modernization Net :		\$0			
C New/Expansion				_		
Replacement Facility K4 400 Cap	4,150 m²	\$3,400.00	\$14,110,000			
	C New/Expansion Net:		\$14,110,000			
D Modular's				_		
Construction	0 m²	\$0.00	\$0			
_	D Mo	dular's Net :	\$0			
E Other				_		
n/a	0 m	\$0.00	\$0			
		Other Net :	\$0			
Z Contingencies		Other Net .		_		
Location		10.0%	\$15,274,030 \$1,527,403			
Project		0.0%	\$1,527,403			
Construction		3.0%	\$458,221			
Construction	7.Comtinu					
		jencies Net :	\$1,985,624 \$17,259,654			
(A+B+	(A+B+C+D+E+Z) Construction Net : \$/m² GFA :					
Soft/Other Costs		φ/III GFA .	\$4,159	_		
Land Purchase	0 acre	\$10,000.00	\$0			
Site Services	0 acre	\$50,000.00	\$0			
Project Admin		2.0%	\$345,193			
Programming		0.0%	\$0			
Design Fees		8.0%	\$1,380,772			
Furnishings & Equipment		7.0%	\$1,208,176			
IT		0.0%	\$0			
CTS Equipment		0 LS	\$0	0 streams @ 10	00K	
Decanting		0.0%	\$0			
	Soft/Other Net:		\$2,934,141			
SUB-TOTAL			\$20,193,795			
Non-refundable GST		1.60%	\$323,101			
CAPITAL COST TOTAL (April 202	2 \$)		\$20,516,896			
Escalation						
CAPITAL COST TOTAL			\$20,516,896			

Appendix H: Photos













group2.ca

Group2

Edmonton 900, 10150 100 Street NW Edmonton AB T5J 0P6 +1 780 447 2990

Red Deer 200-4706 48th Avenue Red Deer AB T4N 6J4 +1 403 340 2200

Calgary 505-237 8th Avenue SE Calgary AB T2G 5C3 +1 403 212 0960

Saskatoon 630c 10th Street E Saskatoon SK S7H 0G9 +1 306 979 2935

Ottawa 371A Richmond Road Ottawa, ON K2A 0E7 +1 343 549 4851