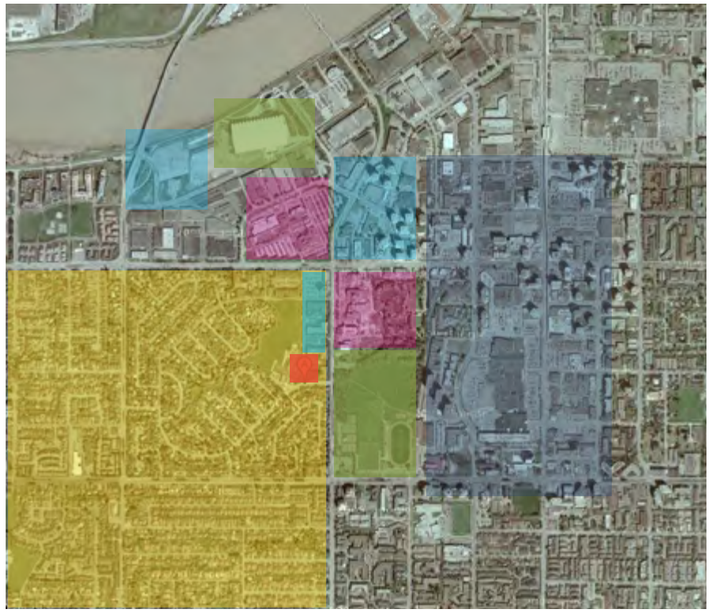
SAMUEL BRIGHOUSE ELEMENTARY SCHOOL

PROJECT VISION STATEMENT

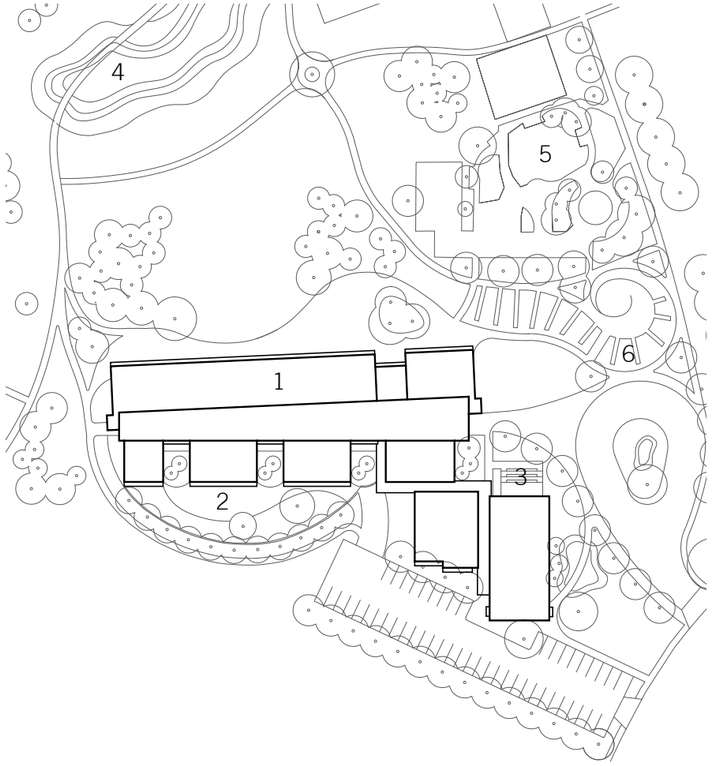
“Our school must be a memorable place that welcomes, reflects and supports a community of diverse learners. It will be a collaborative and inclusive place that instills a sense of belonging around a friendly focus on students and their families. The school reflects and instills all with a strong visible presentation of our values of inclusion, sustainability.”



- Samuel Brighouse Elementary School
- Single Family Neighbourhood
- Downtown Richmond
- Major Amenities
- Densification
- Major Employment Areas

OPPORTUNITIES FOR INTEGRATION

Located in a single-family neighbourhood, the design includes a shared garden that fosters connections with the community and wetlands that help keep playing fields dry.



1 Brighouse Elementary School
2 Outdoor Teaching Area
3 Outdoor Amphitheatre
4 Stormwater Catchment Area
5 Existing Playground
6 Community Garden

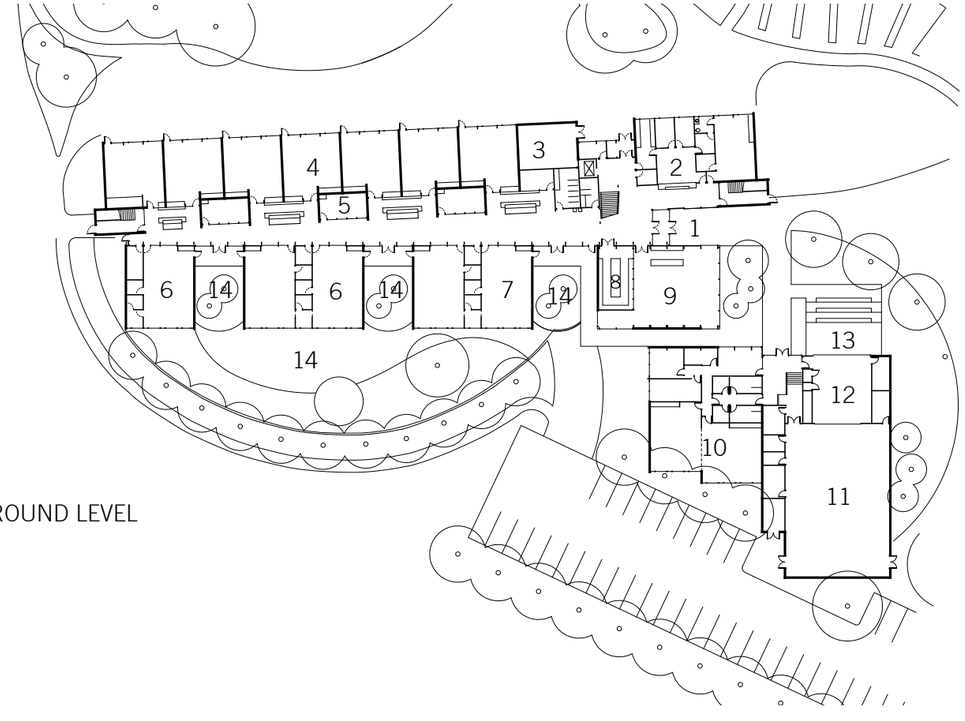
SITE PLAN

0 2 5 10 20m

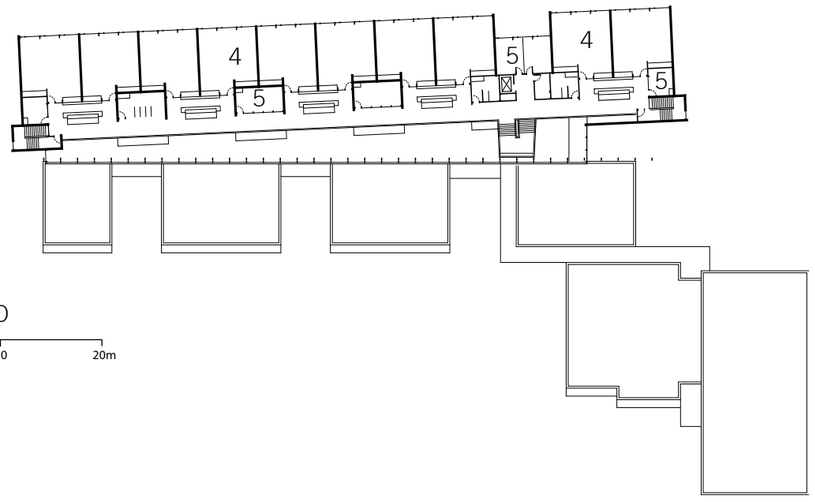
EXECUTIVE SUMMARY

Samuel Brighouse Elementary School, a replacement K-7 school in Richmond, British Columbia, is integrated into a single-family neighbourhood that includes one of the largest immigrant populations in Canada. The school implements a number of new and evolving priorities mandated by the school district, including new approaches to educational planning and sustainable design and operations. A focus on a collaborative methodology provided the most direct path to achieve responsive and successful design solutions. From this collaborative process, broader concepts surrounding learning environments and educational space planning were explored. Programming and planning goals that support the client's educational priorities emerged and affirmed several core values, including sustainability, inclusion, identity, engagement, and community.

Accommodating an enrolment of 505 students, the two-storey 4,777-square-metre structure is located on a 3.2 hectare site and includes north and south wings that are connected by a central atrium, which also serves as a circulation spine. The new school houses classrooms, administration space, a library, community space, and a renovated gymnasium that serves as the anchor between the old and new school.



GROUND LEVEL



LEVEL TWO

0 5 10 20m

1 Main Entrance
2 Administration and Offices
3 Services
4 Classrooms
5 Special Education
6 Kindergarten
7 Pre-Kindergarten
8 Computer Lab
9 Student Resource Centre
10 Neighbourhood Learning Centre
11 Existing Gym
12 MPR and Existing Stage
13 Outdoor Amphitheatre
14 Outdoor Teaching Areas

A NEIGHBOURHOOD OF LEARNING

Built for an enrolment of 505 students, the two-storey school is organized around north and south wings, a central atrium, and a Neighbourhood Learning Centre.

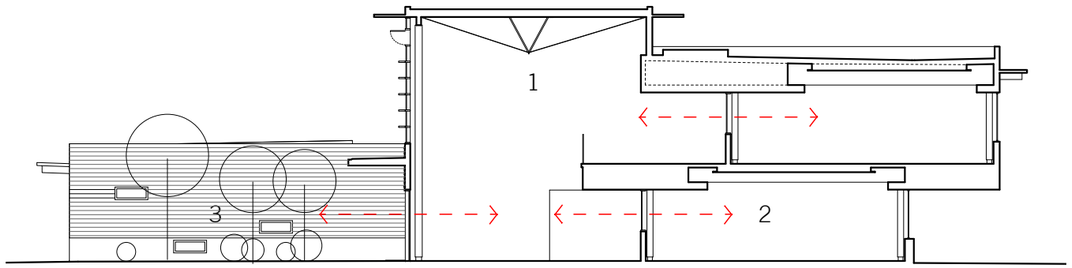
SCOPE OF WORK

The scope of work included an extensive range of consultant services, including architectural design, urban planning, space planning, programming, and interior design. Construction of the new school followed a seismic analysis of the existing structure, which determined that upgrading to current code standards was not economically feasible and that deconstruction of all but the gymnasium was the most practical approach to renewal.

BUDGET

$16,214,581 CAD

1 Spatial Connection and Social Space
2 Visual Connection
3 Social Garden / Courtyard

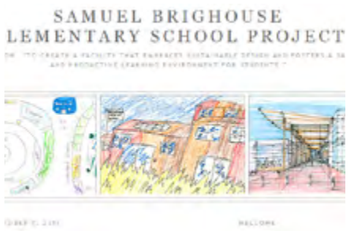


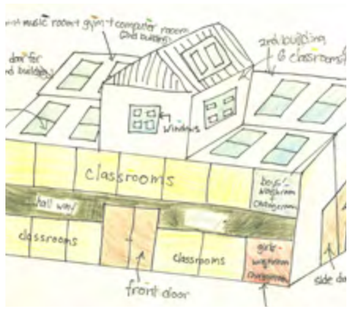
CROSS SECTION

0 1 3 5 10m

SPATIAL INTERCONNECTIONS—SCHOOL COMMUNITY

Spatial interconnections, such as the atrium space, outdoor courtyards, and shared learning areas located between classrooms, help create a spirit of community.





COLLABORATIVE DESIGN—A STUDENT-CENTRED PROCESS

Through charrettes, illustrations, videos, a project blog, and field trips through the construction site, the students fully engaged in the collaborative design process.

WATCH VIDEO

Click icon to watch the video created by the students from the Student Blog and Construction Committee as they say goodbye to the old school and hello to their new state-of-the-art facility.

PROJECT BLOG

Click icon to go to the Samuel Brighouse Project Blog.

COMMUNITY ENGAGEMENT PROCESS

Samuel Brighouse Elementary School is the result of a consultant-led collaborative design process that began with the formation of the project's steering committee. Representatives from the school district, the school itself, the municipality, the parent advisory committee, as well as representatives from the union and teachers' association, participated in the design process for the new facility. While steering committees are typically formed for new school projects, this is the first time the school district formed a full 16-delegate committee for an elementary school. The steering committee met once every two weeks during the programming and design phases of the project, working with the consultant team and members of the surrounding neighbourhood to develop an inclusive design for the school. A series of visioning charrettes were also held during the programming phase, resulting in a programming document that informed the design process as it moved forward and kept the team focused and goal-oriented. *(Excerpts from the programming document are appended at the end of this award submission.)*

A critical additional voice was also heard throughout the design process: that of the students. The students offered the design team informed, dynamic, and environmentally progressive input through their participation in charrettes and their creation of illustrations and videos that captured the qualities they wanted in their school. Furthermore, the students went on field trips through the construction site and were involved in a project blog that kept the community up-to-date. Their input inspired the playful roof form and was used to substantiate many design decisions, such as the provision for touch-screen technology and the inclusion of lots of windows and colour.

As a way to obtain additional funding for the shared project areas, the design team introduced the idea to expand the school's program to include a Neighourhood Learning Centre—a new concept for the region that allocates a portion of the school's floor area to accommodate community-based organizations, allowing the school to extend its operating hours into the evenings, weekends, and summer, maximizing use of the new building. In response to the surrounding community's needs, Brighouse's Neighbourhood Learning Centre includes during- and after-school care programs and adult literacy courses.

"There will be grass growing on the roof. There won't be many light bulbs, but there will be a lot of windows to let natural light in. The main roof is wavy and the V-structure helps support the roof. We have the greenest and best school ever!"

- VY, Grade 4

"We went on a tour to see our new school. We got hard hats and safety glasses. The beams were made out of different materials. The ceiling was made out of wood. My class was stepping on cement. THE NEW SCHOOL WAS AWESOME!"

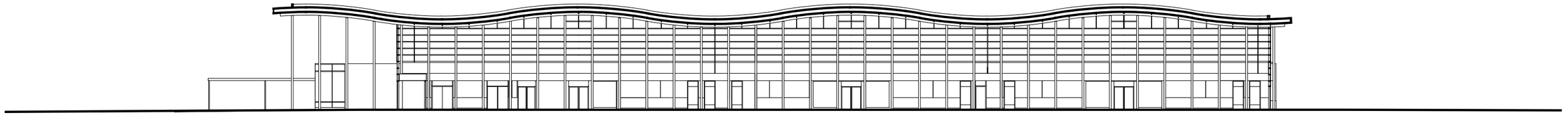
- TW - Grade 3

"We are getting natural light from big windows. I also heard it will be the greenest school in Canada. I had an awesome time. I am going to remember this FOREVER!"

- LA, Grade 4

"I saw a building construction site. I'm so excited to move into the new school. We put our hard hats on, and we went into the new school. We learned about structures and different types of beams."

- JB - Grade 3



LONG SECTION LOOKING NORTH

SOUTH INTERIOR ELEVATION

TRANSPARENCY—COMMUNITY ENGAGEMENT

Large areas of glazing and shared learning spaces support the school's goal of transparency, collaborative learning, and connecting to nature and the community.

EDUCATIONAL ENVIRONMENT—CREATING CONNECTIONS

The design includes indoor collaborative project areas, outdoor courtyards, and low ‘peek’ windows that connect even the youngest students to nature.

EDUCATIONAL ENVIRONMENT

The design for Brighouse supports the school district’s goal of transparency, collaborative learning, and connecting to nature and the community. The school’s design is based on creating flexible and adaptable learning environments, which both promote interactive learning and allow the structure to evolve with the students’ changing needs.

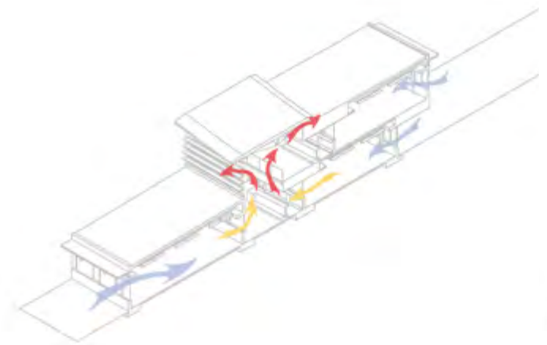
For example, all ground floor classrooms have direct access to outdoor spaces, which serve as classroom extensions. Enclosed outdoor courtyards located between the kindergarten rooms provide secure play areas, and indoor collaborative project areas built between classrooms provide additional project or play space. Low ‘peek’ windows in the kindergarten rooms and classrooms provide visual access to the landscape for even the youngest students. Located next to the playground, a shared community garden is a special place of connection where students, members of the community, and the users of the Neighbourhood Learning Centre can all grow food and learn about nature together.

The school was identified early on by the district as an opportunity to demonstrate its environmental stewardship policy and use the building as a teaching tool. Furthermore, the students made it clear that sustainability was important to them.

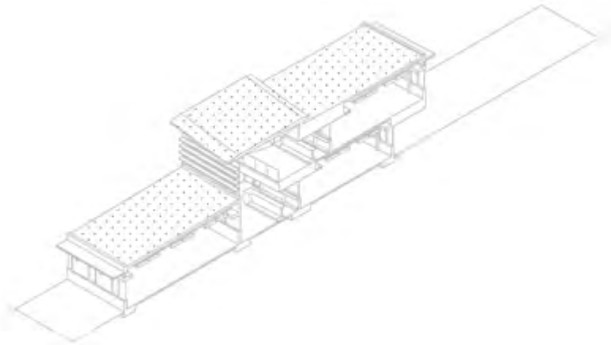
The design pursued a wide range of environmental design strategies, including displacement ventilation, daylight harvesting combined with solar shading, and use of a well-insulated building envelope, triple-glazed classroom windows, and VOC-free interior finishes. Heating and cooling energy comes from a geo-exchange system while domestic hot water is heated by solar collectors. Overall energy consumption is predicted to be 57% below that of a model building under MNECB, and on several occasions the school has operated entirely without consuming fossil fuels. In response to the province’s mandate for carbon neutrality for all publicly funded projects in British Columbia, Brighouse was designed to limit its carbon footprint, meeting the 2030 Challenge and making it one of the most energy-efficient and lowest carbon-emitting schools in Canada.

Water conservation and stormwater management is achieved through the use of low-flow fixtures and site grading that directs run off into a series of constructed wetlands, which helps keep the playing fields dry in the winter and creates a natural habitat that attracts native wildlife, such as black birds. Green roofs are located on the roofs of the kindergarten classrooms, visible from the second-level atrium space. Site landscaping uses native plants to eliminate the need for irrigation.

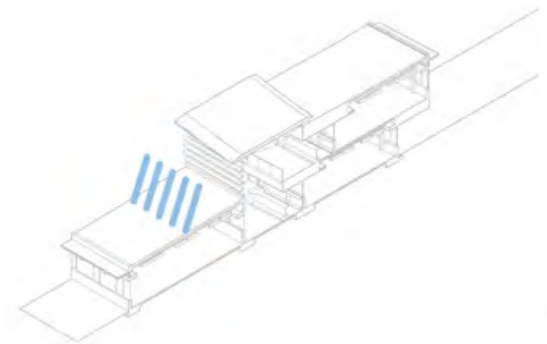
Further facilitating the project goals of transparency and collaboration, the school includes wireless technology and a Smartboard in every classroom. In the atrium, an interactive touch panel displays energy consumption, projects, sustainability goals, and community activities. Students are invited to monitor, study, and celebrate sustainability achievements.



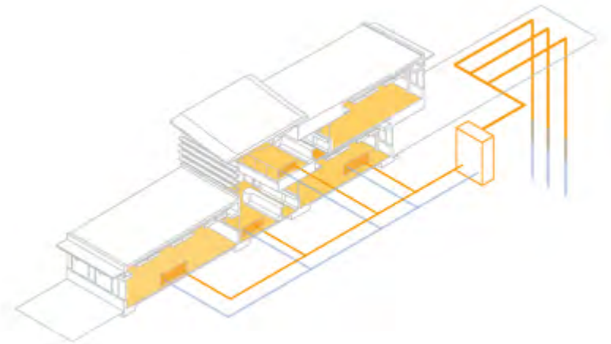
NATURAL VENTILATION



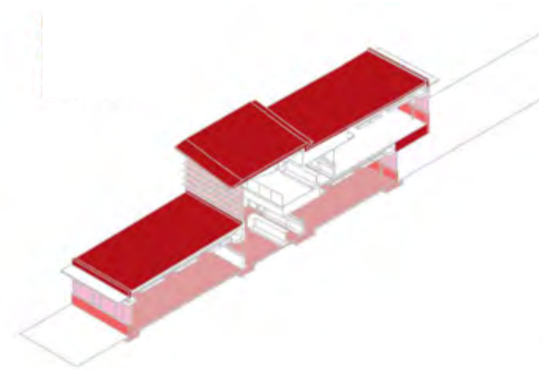
HIGH-ALBEDO ROOF FINISHES



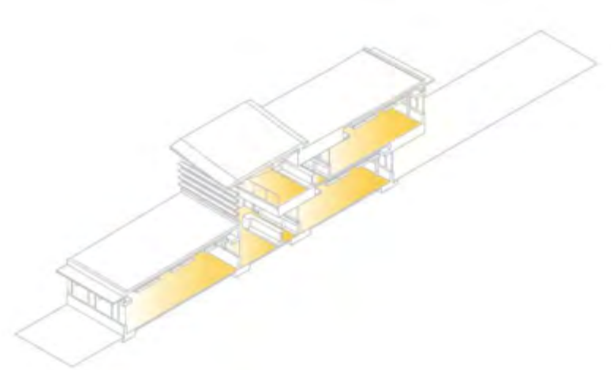
SOLAR HOT WATER



GEO-EXCHANGE ENERGY SOURCE



THERMAL INSULATION



SOLAR ENERGY SOURCE / DAYLIGHTING

SUSTAINABILITY—EDUCATION THROUGH DEMONSTRATION

The school is a teaching tool that demonstrates passive and active strategies, including natural ventilation, daylight harvesting, green roofs, and low-maintenance vegetation.

TRANSPARENCY—DAYLIGHTING

As requested by the students, the design for Brighouse incorporates lots of windows and colour, providing a bright and inviting place to learn.

PHYSICAL ENVIRONMENT

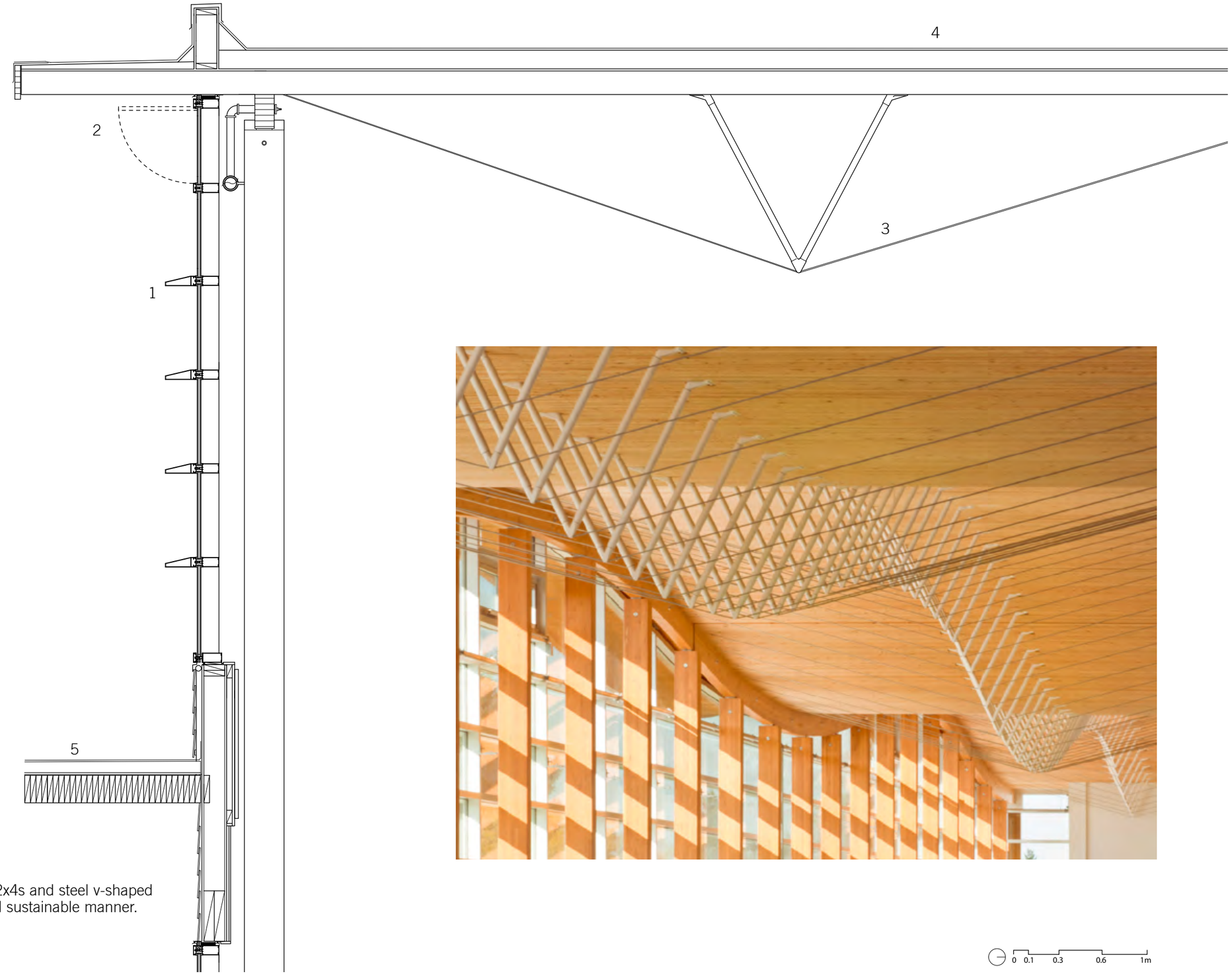
Students spend the majority of their typical school day indoors, and the quality of the indoor environment has a significant influence on their well-being and ability to learn. With that in mind, five key design priorities to promote a healthy indoor learning environment emerged during the design process and influenced almost every design decision made on the project. The five priorities include daylighting, acoustics, indoor air quality, color and texture, and ergonomics, all of which impact student performance, mood, and attendance. A bright color palette, a twist on the typical primary, was used in the design; the contrast of warm wood, vibrant colors, cool concrete, and transparent glass create a dynamic elementary environment for collaboration.

As the primary building material, locally harvested wood greatly contributes to the warm, supportive and inspiring physical environment. Transformed into an evocative architectural gesture, the undulating atrium wood roof—constructed from typical 2x4s and steel v-shaped king-posts—is the signature architectural feature of the school and demonstrates the beauty and capacity of dimensional wood. Much of the roof and post-and-beam structure uses locally harvested wood, including mountain pine beetle wood, which, with its distinctive blue colouring, provides an additional teaching element and supports an important sector of the regional economy.

The choice to use wood was not only environmental—it sequesters carbon—but practical, the prefabrication of the roof elements allowed for an accelerated construction schedule that resulted in the school opening four months early. The choice to use wood was also one of compliance. British Columbia's Wood First Act was enacted in 2009 to "facilitate a culture of wood by requiring the use of wood as the primary building material in all new provincially-funded buildings, in a manner consistent with the British Columbia Building Code".

While trees were harvested to construct the building, some 90 trees were also planted on the new school grounds to provide shade for the students and habitat for birds and other critters. Materials from the demolished school was also salvaged and reused—such as concrete floors that were crushed and used as pedestrian paths to connect the neighbourhood, school, community garden, and Neighbourhood Learning Centre—contributing to the landscaping of the new school and keeping part of the school's history alive.

1 External Sunshades
2 Electronically Operated Vent
3 Steel V-shape King Posts
4 Undulating Roof
5 Green Roof



DETAILING AND MATERIALITY—WOOD EXPRESSION

The undulating atrium wood roof—constructed from typical 2x4s and steel v-shaped kingposts—adds warmth and richness in a cost-effective and sustainable manner.

0 0.1 0.3 0.6 1m

RESULTS

Samuel Brighouse Elementary School cultivates lifelong learners in the school and community with a planning process and design that inspires curiosity, discovery, collaboration, and stewardship. It exemplifies an approach to design that is founded on the belief that learning is fostered in every facet of a student's education including, not only the people they interact with, but the structures that make up their physical environment. Additionally, students are encouraged to interact with the building and with the outdoor environment and learn from their natural surroundings.

From the perspective of the school district, there is no questioning that the collaborative design process laid the foundation for the successful expression of the ambitious goals established for the project. The school is expected to gracefully respond to the evolving process of learning and earn its reputation as a memorable place to attend school for generations of students to come.

In addition, the process delivered a rich experience to all those involved. The students, parents, educators, staff, administrators, school district, the policy makers, the municipality, the neighbours, and the consultants felt inspired and empowered to share in the generation of ideas and the development of the design. This inclusive process has instilled a sense of ownership into all those involved and was so successful the process is expected to be repeated for all future school design across the district.

PROGRAMMING DOCUMENT EXCERPTS

I. Executive Summary

Process

The District Leadership team ("the Project Steering Committee") assembled planning groups consisting of District representatives including leaders from the educational department, facilities, campus, as well as teachers, staff, students, community members and the architects team. This group worked collaboratively in a number of meetings and day long work shops in order to review and define the educational planning goals and priorities for the development of this Project. A Project Mission Statement was drafted, which became the basis for the development of an Outline of the Project Educational Planning Goals and Priorities, Project Program Summary, and initial conceptual site planning alternatives. The following outline represents an summary of topics discussed at length in order to clearly define the objectives of the design and development of this project. These planning teams focused on the following topics for the development of the specific Project goals:

- Needs of Young Learners in an Evolving Global Learning Community
- District Educational Goals
- Project Planning Goals
- Development of Program Summary
- Site Planning Alternatives
- Program Area Relationship Diagrams

Fundamental Educational Program Goals

Over these course of the programming and planning Charrettes, the Educational Planning Group focused on the development of these project goals:

- Fundamental Goal to "Enable all Learners"
- School Educational Planning to be based on "Inclusion"
- "Teaching Students to Teach Themselves"
- Promote Self-Directed Learning
- Develop opportunities for Project Based and Collaborative Learning
- Support the individual needs of each student
- Recognition that students learn and develop skills and knowledge at different times and with different experiences
- Learning vs. Teaching
- Planning for Relevant Learning Experiences for young learners in a global learning community
- Celebrate Multi-Cultural Community
- Redefine the Media Centre/Library- "Interpretive Center"
- Maintaining commitment and Success of Music Program(s)

Educational Planning Goals

With an outline of the fundamental Educational Goals drafted the Educational Planning Team including current students from Brighouse Elementary School, began the develop Project Planning Goals which would support the educational goals and serve as the basis for development of the Project Program and the design. An outline summary of some the planning goals includes:

- Spaces which Respond to Evolving Process of Learning
  "The rooms should all be Different, Exciting and have Places to Hang Out"
- Building should convey Sense of Collaboration, FLEXIBILITY and Diverse Spaces
- Promote Interactive Learning Practices/Spaces
- Support "Coaching multi-class situations"
- Diversity of Spaces Types
- Technology Driven Programming and Planning
- Education/Place should be Transparent, and Legible
- Students should Understand Their Buildings/Place
- Campus should be "Inviting" Welcoming to all Students, Parents and Community
- "Building Should Build the Community"
- Creating and defining a Sense of Place was important to the Students
- *"If its an oval you can just walk around until you find what your looking for."*
- Presence in the Community, reflecting Multi-Cultures
- "Teach" Sustainability, Environmental Awareness with design and operation
- Display Sustainable Design Strategies within the Spaces for Learning
- Promote a Strong Connection to the Environment

Development of Program Summery

A Preliminary Space Program Summary was drafted from the Program Areas as defined by the Ministry with the incorporation of the District's and Educational Planning Committee Goals. This summary of program areas and spaces defines the Program areas to be included with the Project. This document was developed and included incorporation of additional Kindergarten spaces and Pre-Kindergarten spaces within the "Base Program" to serve needs of 'full-day" Kindergarten and additional Pre-Kindergarten programs. In addition to these program areas, the District is pursuing additional program area allocated from the Neighborhoods of Learning Program. This will serve the community and its use of the new campus building areas.

Site Planning Alternatives

The Educational Planning Team then reviewed site analysis and campus planning considerations and established goals for the planning of the new campus. This committee reviewed a number of Preliminary Planning Alternatives including potential new building area locations and single and two-story building areas. These conceptual planning studies also identified potential phased construction alternatives were reviewed in the context of demolition and ongoing campus operations during construction. In addition to site planning considerations, Program Area relationship diagrams were reviewed and discussed by the committee in order to gain their input and preferences in commencing with the schematic design of the project.

II. Process and Participants

Process Overview

Stakeholder's Workshops are vital to a strong programming process. They reinforce the district goals and are a forum for ***collaboration and visioning.*** Between February and April 2009, the design team met in a series of Charrette format meetings to explore and define project goals and programming concepts with various stakeholders. The charrettes led to discussions for involving "Feng shui," Sustainable strategies, and Ecologist expertise to enhance the ***design process,*** and engaging the greater community to contribute to the development and ***planning process.*** During the charrette meetings the design team met with students, teachers, parents and staff of Brighouse Elementary to discuss ideas and insights for the new school. An outline of the collaborative process has been highlighted below.

- Feb. 16, 2009 — Steering Committee Meeting - Project Orientation
- Mar. 09, 2009 — Steering Committee Meeting - Introduce New ideas of Educational/Space Planning
- **Mar. 10, 2009** — **Charrette #1** - Exploration of Project Goals and Vision
- Mar. 23, 2009 — Student Presentation - Brighouse Students present ideas for new school followed by Steering Committee Meeting
- **Mar. 24, 2009** — **Charrette #2** - Vision and Program Summary Developments
- Apr. 06, 2009 — School tours, Staff Meeting, Steering Committee Meeting Parents/Teacher Meeting - Discuss Goals & gain feedback
- **Apr. 07, 2009** — **Charrette #3** - Site utilization analysis; Planning and phasing developments; Preliminary design idea sketched

II. Process and Participants

Charrette Meeting #1: March 10, 2009 - Vancouver

C. Charrette Summary

Charrette #1 was the first of three workshop meetings to discuss and identify project scope and goals for the replacement school at Brighouse Elementary. This initial workshop introduced and explored broader concepts for learning environments and educational space planning.

The committee also collaborated to establish preliminary programming and planning goals to support district educational priorities. Sustainability was identified as a key priority and design objective to pursue. These goals eventually helped formulate a Project Vision which is refined through the Charrette and planning process.

As an exercise to further explore some of the goals and key topics raised, the stakeholders held small group discussions to enhance the brainstorming process. The areas of focus included:

- Environment/Sustainability - Promoting environmental awareness and connection
- Engaging Interiors - (ie: Place of Discovery, Interactive Learning, Open, etc.)
- Inclusion
- Identity
- Centralization vs Decentralization of resources
- Efficiency - Synergies

+ Inclusion and sustainability are the core values

+ MODEL for District Schools

+ A Place that Welcomes a Community of Diverse Learners

II. Process and Participants

Charrette Meeting #2: March 24, 2009 - Vancouver

C. Charrette #2 Summary

During the Charrette and Planning process, the design team had the opportunity to meet and engage with Brighouse Elementary students as they shared some of the ideas and concepts envisioned for their future school.

"If its an oval you can just walk around until you find what you're looking for."

Windows, Windows, WINDOWS!

Colours / not just white walls

These ideas were shared during Charrette #2 as additional resources to shape project and planning goals. During this workshop the vision statement was drafted, and programming development continued. Discussions were made comparing the possibilities of a single vs double storey scheme. Information was provided regarding a two-storey area allotment. Two additional Kindergarten and Pre-K spaces were granted by the Ministry which expanded the original program to support full day Kindergarten. The discussions also revealed expansion opportunities to accommodate a future enrollment of 600 students with the planning of 4 additional classrooms.

During the Charrette, the idea of a Gym Renovation was proposed in an effort to generate savings for potential collaborative spaces (Student Project Areas). The program overall was examined to identify flexible spaces and potential areas for shared collaborative functions. Sustainable Design Strategies continued to be a topic of discussion, and vision of opportunity to display and promote sustainability in these various Learning environments, as well as the community.

II. Process and Participants

Charrette Meeting #3: April 07, 2009 - Vancouver

C. Charrette Summary

Charrette #3 was the last of three workshop meetings where the project vision was defined, goals were reviewed, programming refined and an initial conceptual design envisioned.

During the workshop, the planning committee discussed program relationships and the inclusion of collaborative learning areas (or "Student Project Spaces") to create various learning environments. A preference was made for having more linear collaboration spaces as opposed to isolated pods. The group reviewed site utilization options, potential school planning configurations, and construction phasing options. A single and two-phase approach was discussed.

Additional information was provided from the meeting for programming the Neighbourhoods of Learning component. Additional spaces discussed included two pre and post care spaces, pre-K space, adult washrooms and areas for community literacy programs. In order to fund the maintenance of the NoL, the group discussed options for leasing the spaces to external user groups.

By the end of Charrette #3, an initial concept was envisioned. In an effort to enhance the design process, it was suggested that a local Feng Shui practitioner be involved early in the design process to engage and reach out to the community. The charrettes have proven to be invaluable in the project development and design process. In this effort, students, teachers, staff, and parents have contributed to the project goals and ideas established.

Campus should convey a "Sense of Collaboration"

"Buildings Should Build the Community"

"Hallways" are and should be "Galleries"

III. Project Goals & Educational Priorities

A. Project Vision and Mission

Vision Overview

One of the goals of the Charrette process was to develop a Vision statement for the project. Brainstorming was conducted during the meetings where a list of goals and project priorities were communicated by the district which developed a draft Vision statement in Charrette #2. The final Vision, as stated below, was finalized in Charrette #3, after workshop sessions with various stakeholders, and feedback received through staff and parent-teacher meetings.

Project Vision Statement

"Our school must be a memorable place that welcomes, reflects and supports a community of diverse learners. It will be a collaborative and inclusive place that instills a sense of belonging around a friendly focus on students and their families. The school reflects and instills all with a strong visible presentation of our values of inclusion, sustainability."
-Board Statement

SCHOOL DISTRICT NO.38, (RICHMOND)

III. Project Goals & Educational Priorities

B. Project Priorities & Goals

The following priorities and goals were identified through the series of Charrettes which later also developed into Campus Planning and Programming Goals.

- A Place that Welcomes a Community of Diverse Learners
- A Place which Promotes Collaboration and a Sense of Community Building
- A Place which leaves an imprint, motivates, and reinforces values in a visible way
- A Place as stepping stone
- An Environment that is inclusive – accepts all children
- A Place where first imprint has sense of belonging -part of family and community
- A Place which Celebrates Diversity
- A Place that focusus on the Learner - Students
- A Place that is Transparent
- An Environment that connects to the students – "kid friendly"
- A Place with a Visible entry – Creates a sense of arrival to an elementary school
- A Place which promotes a user friendly space – flexible, public yet private
- A Place within the school where students may gather for social learning
- A Place that has identity for students to identify with place
- A Place that is flexible – gives students a sense of place, but can be flexible as a learning environment

- Inclusion and sustainability are the core values
- Create flexibility within the classroom place – the learning space is more than a teaching space
- Adaptability – Brighouse Elementary will be a Model for other schools

III. Project Goals & Educational Priorities

C. Campus Planning Goals

- **School Planning Based on "Inclusion"**
  - -Integration of every Student to meet their specific Learning Needs.
    All learners welcomed regardless of physical, emotional, mental, intellectual, social or language ability.
- **Fundamental Goal - "Enable all Learners"**
- **Campus should be "Inviting" - Welcoming to Students, Parents & Community**
  - -Brighouse Elementary can be a center for the Community
    In a neighborhood that experiences high levels of transiency, the new school needs to welcome parents and community members, especially new arrivals with limited or no English skills.
- **Campus which Promotes Collaboration**
  - -Building should convey Sense of Collaboration, provide FLEXIBILITY and Diverse Spaces
    Promote Educational Interaction and foster collaborative experiences which support the Process of Learning.
- **Celebrate Multi-Cultural Community**
  - -School should have a presence in the Community which defines the Community and reflects the Multi-cultural population
    "Buildings Should Build the Community"
- **Campus (Buildings) as Teaching Tools**
  - -Students should Understand Their Buildings/Place
    Building systems can educate students in the process of construction and environmental awareness
- **Education/Place should be Transparent, and Legible**
  - -Students mentioned Having a Sense of Place
    "If its an oval you can just walk around until you find what your looking for."
- **Promote a Strong Connection to the Environment**
  - -Identity can be based on Environmental Stewardship
    The students spoke to responsible environmental practices as a fundamental Goal.
- **Integration of Technology Practices/Planning**
- **"The" model for future district schools**

III. Project Goals & Educational Priorities

D. Program Goals

During the Charrettes, the Educational Planning Committee developed program goals to understand the various programming needs and/or values that would best support the learning environments. These goals are listed below:

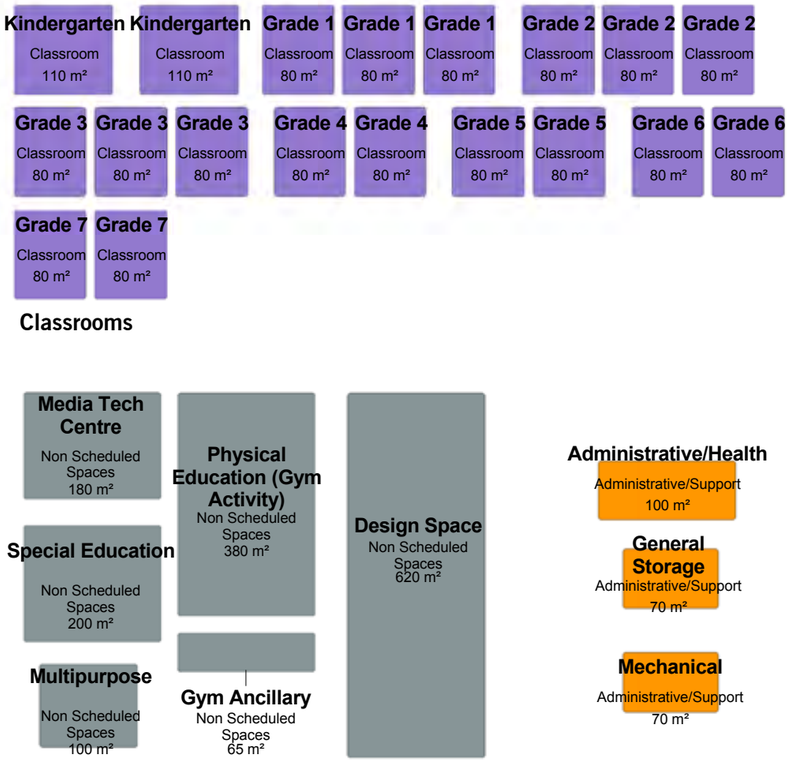
- Develop Flexible "Student Common(s)" Areas
- Develop a Community Literacy Center
- Technology Driven Programming and Planning
- Need for Small Group spaces
- Support collaboration, multi-grade learning
- Support "Coaching multi-class situations"
- Comfortable Spaces for informal student interaction
- Develop Flexible Shared Use Spaces
- Redefine the Media Centre/Library
- "Hallways" are and should be "Galleries"
- Older students need more room for freedom
- Students-grades 4-7 "need to have their spaces"
- Develop "Flexible/Collaborative" Project Space ("garage" model)
- Develop Educational Courtyards
- Sustainable Design (Healthy Places for Learning)

Neighbourhoods of Learning

In addition to the program components for the elementary school, Brighouse will also host a series of programs for a new Neighbourhoods of Learning Center (NoL) on site. The additional area for the NoL will accommodate pre-post day care, pre-K as well as various Educational programs and services that will be available to the community as outlined in *Section VII. Preliminary Organizational Diagrams - NoL*.

VI. Preliminary Organizational Diagrams

Base Program Spaces

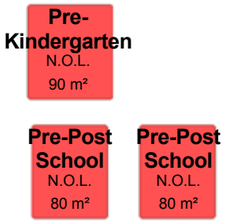


VI. Preliminary Organizational Diagrams

Neighborhood of Learning Spaces (15% = 570 sq.m)

Requested Classrooms

Pre - Kindergarten	110 m²
Pre - Post Day Care Space	80 m²
Pre - Post Day Care Space	80 m²
	270 m²



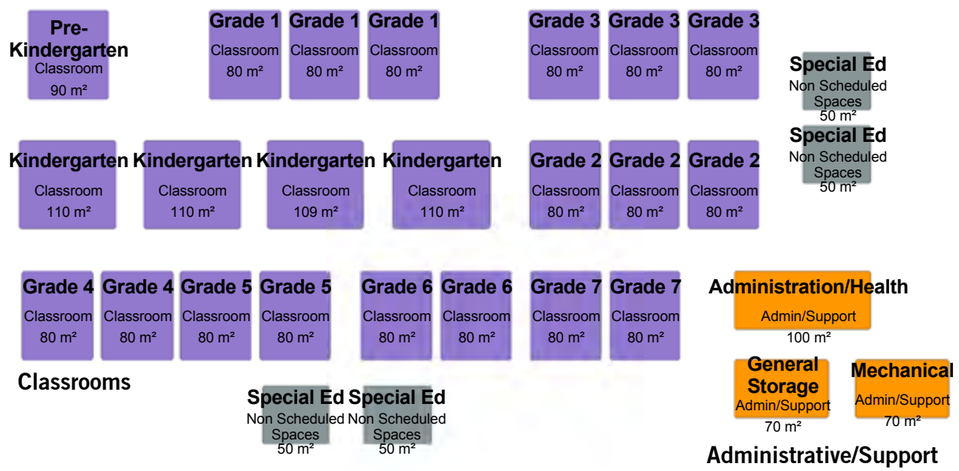
N.O.L. Program List

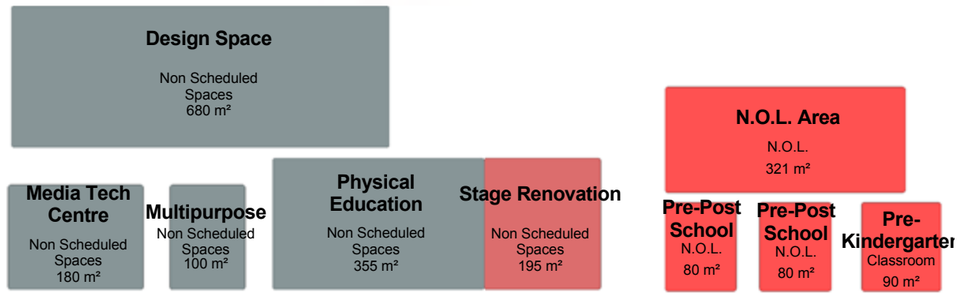
Instructional Teaching Space	TBD m²
Community Literacy Program	TBD m²
Community Adult Education	TBD m²
Community ESL	TBD m²
Community Health/Social Services	TBD m²
Administrative Space	TBD m²
Adult Washrooms	TBD m²
	TBD m²

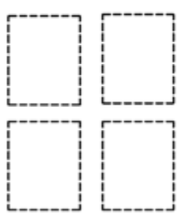
Remaining N.O.L. Area (for Student Project Areas) **300 m²**

VI. Preliminary Organizational Diagrams

Program Area Summary with NoL (15% - 572 sq.m)



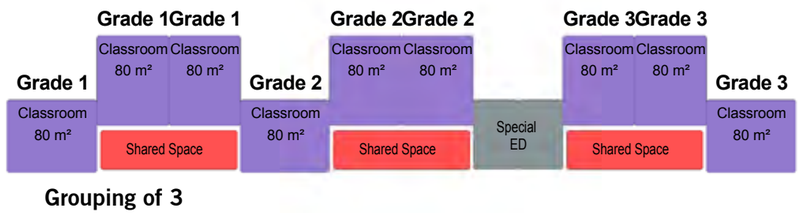




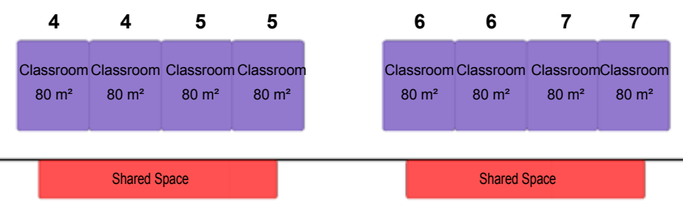
4 Future Standard Classrooms

VI. Preliminary Organizational Diagrams

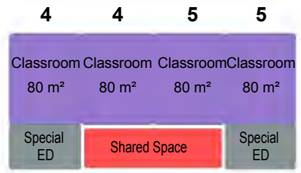
Grade Level Grouping

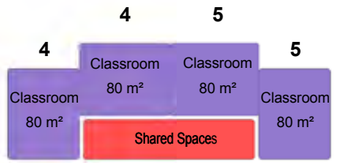


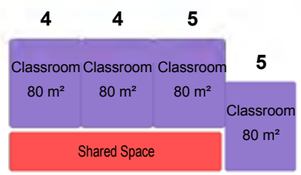
Grouping of 3



Centralized Shared Space







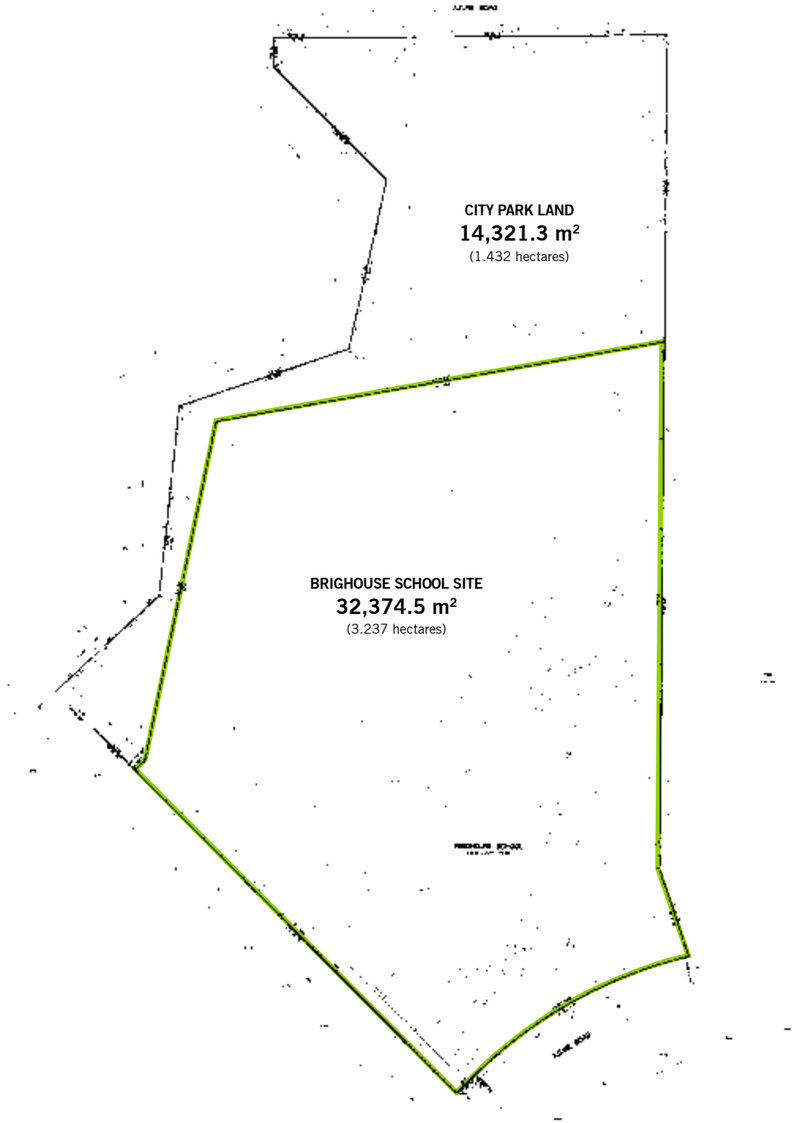
Grouping of 4

IX. Brighouse Elementary School

A. Aerial Photo

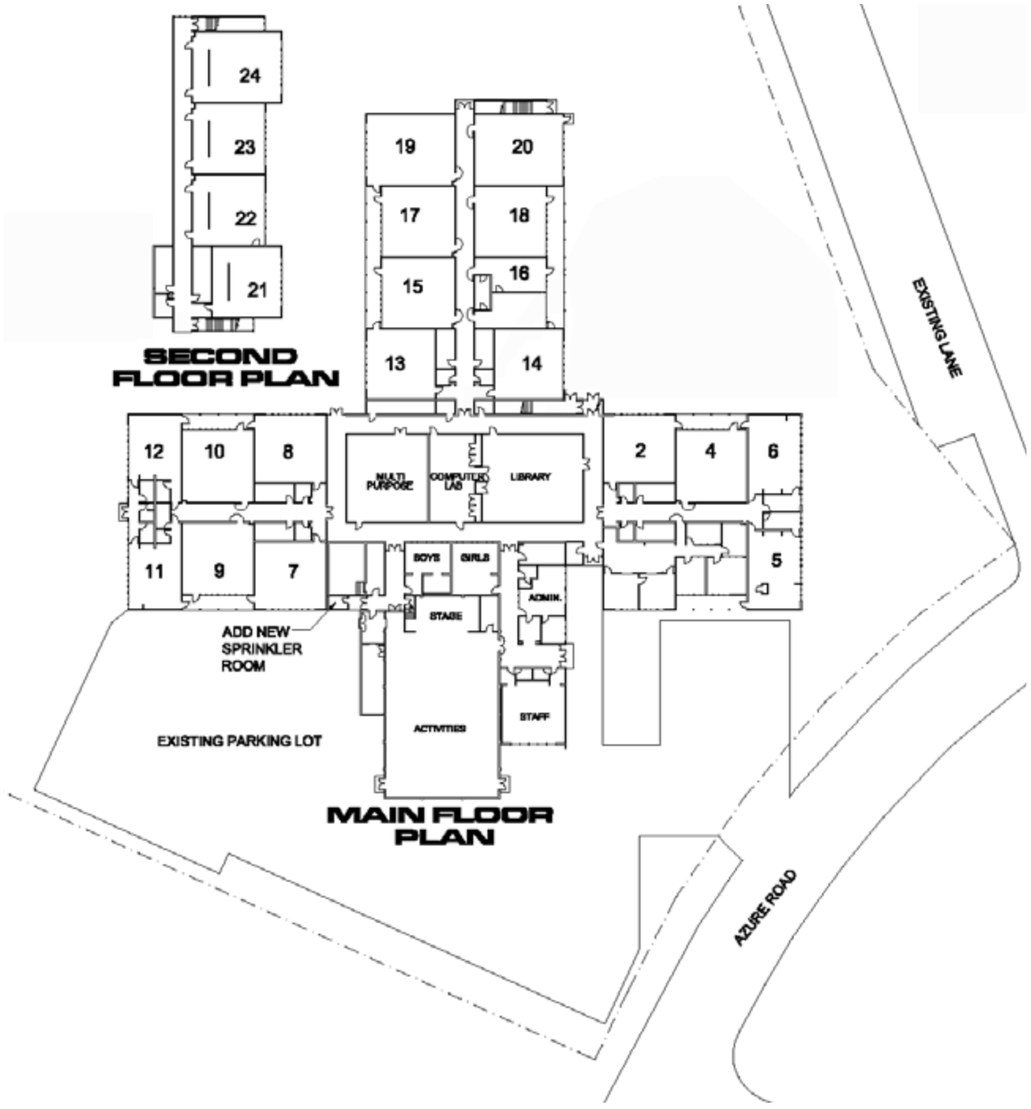
IX. Brighouse Elementary School

B. Topographic Survey



IX. Brighouse Elementary School

C. Existing School Plan



IX. Brighouse Elementary School

D. Photographs - Existing Conditions

South Entry

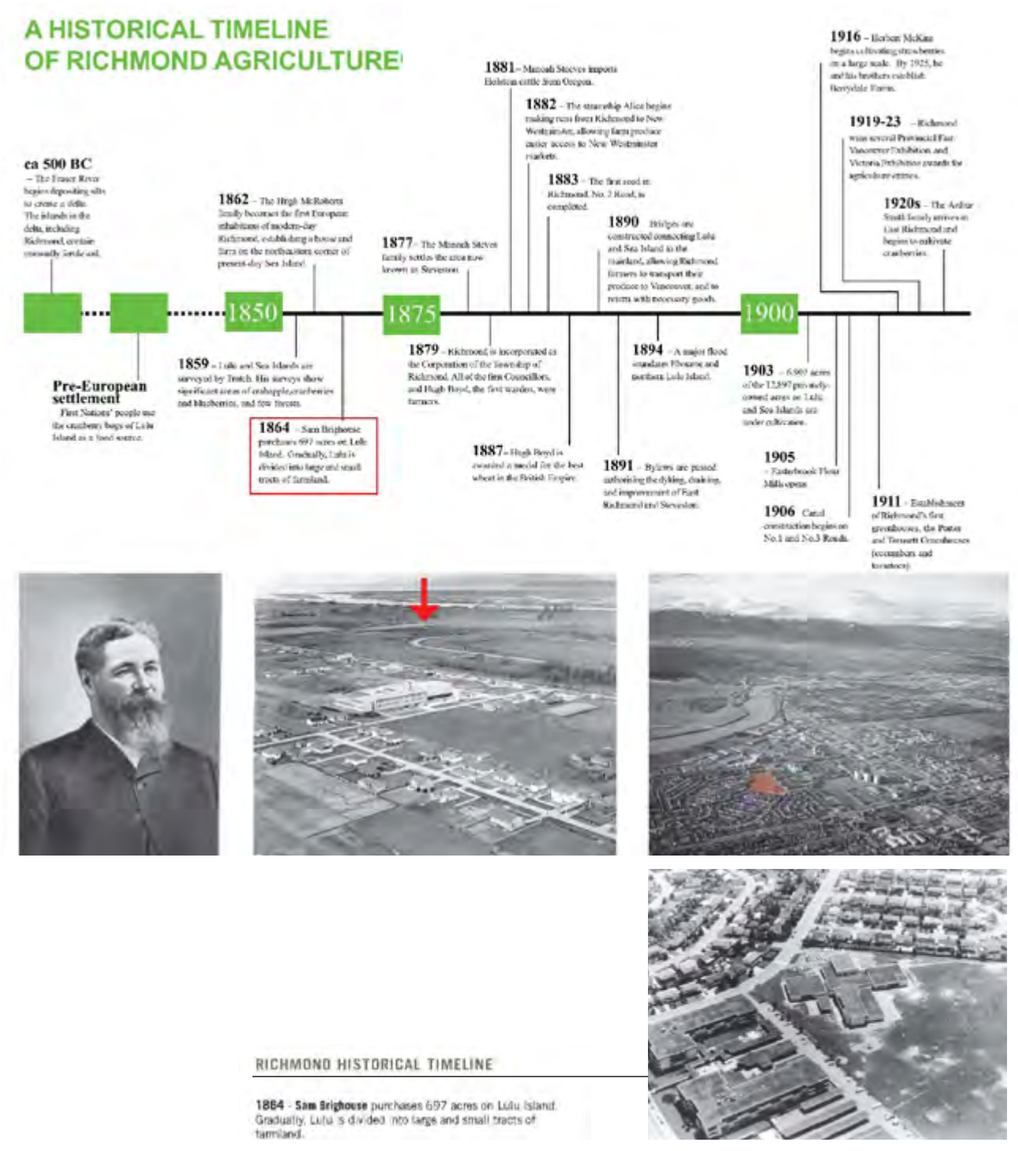
IX. Brighouse Elementary School

D. Photographs - Existing Conditions

Existing School

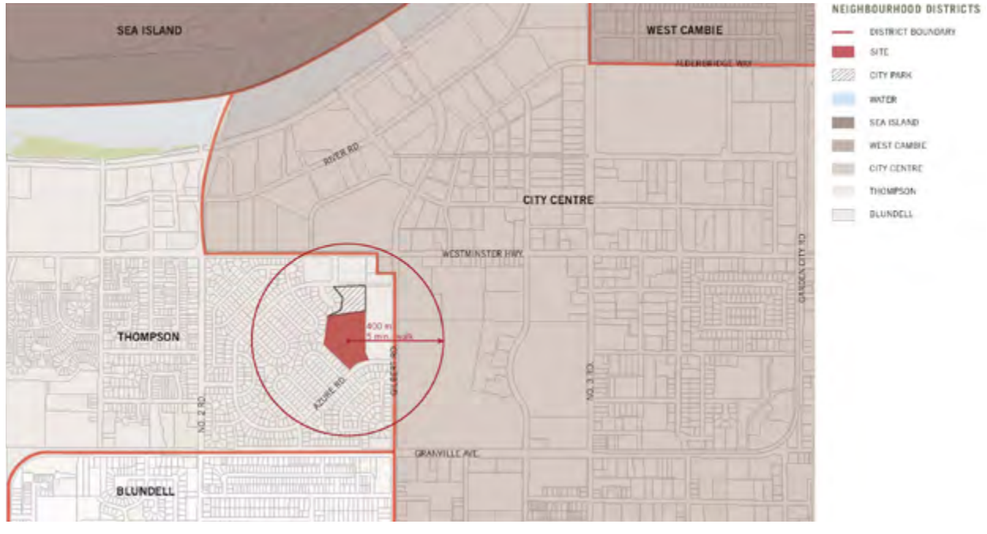
IX. Preliminary Site Analysis

E. Richmond Historical Timeline

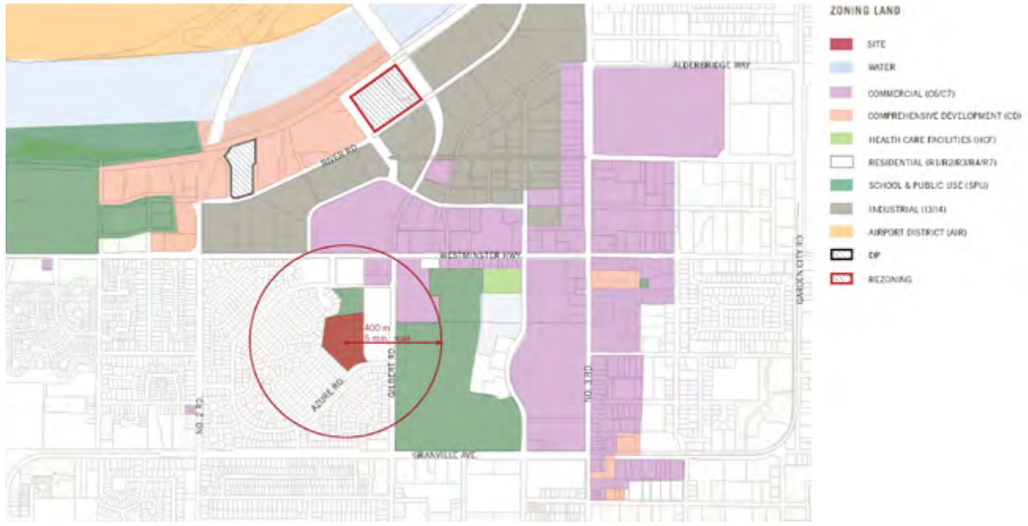


IX. Preliminary Site Analysis

+ Neighbourhood Districts

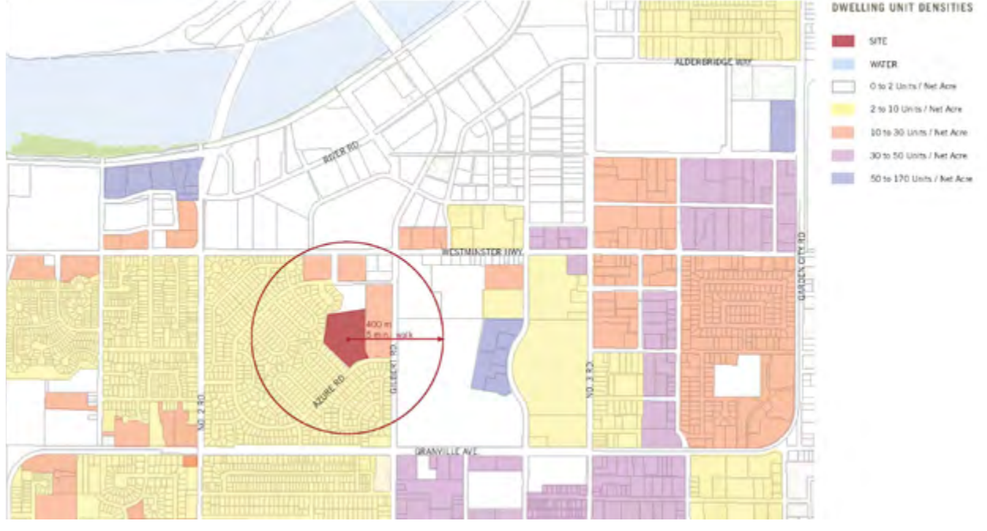


+ Zoning



IX. Preliminary Site Analysis

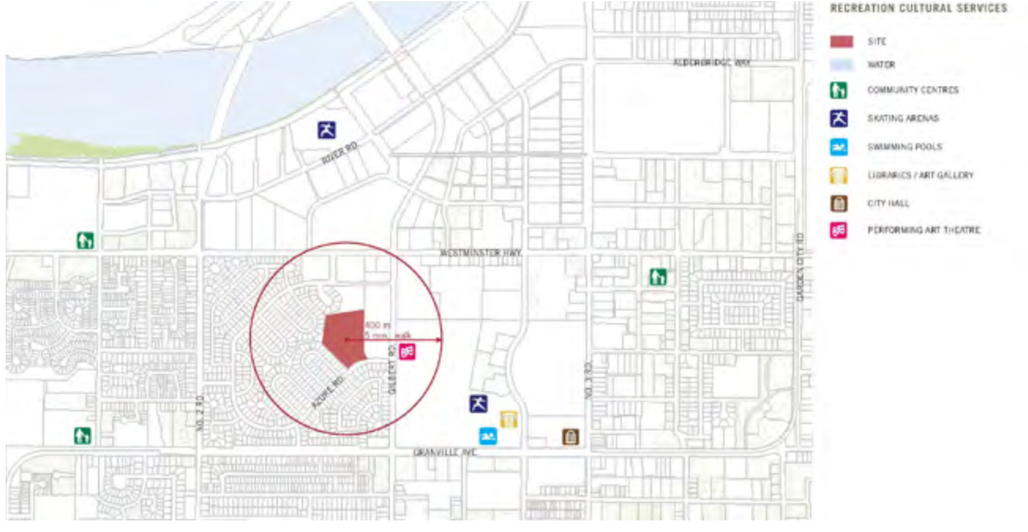
+ Dwelling Unit Densities



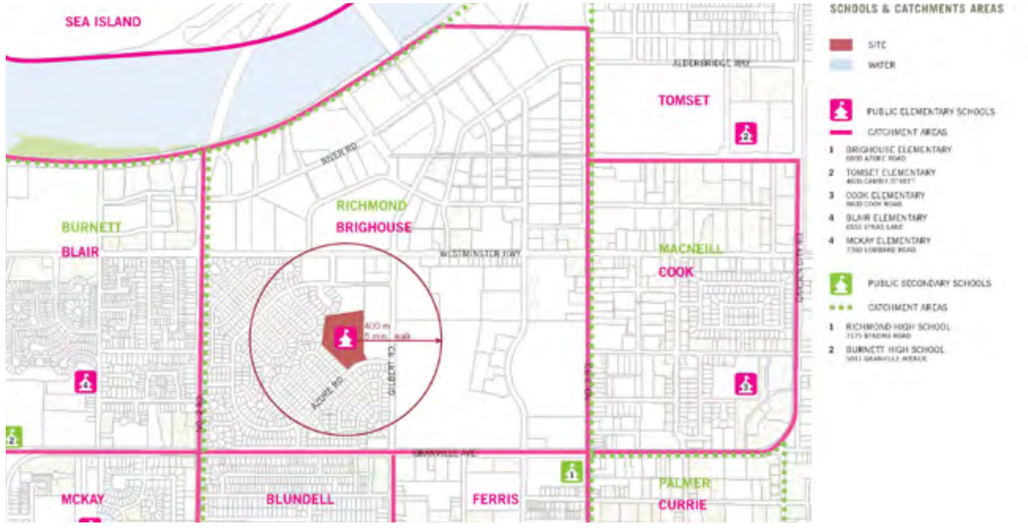
+ Surrounding Green Spaces

IX. Preliminary Site Analysis

+ Recreation and Cultural Services

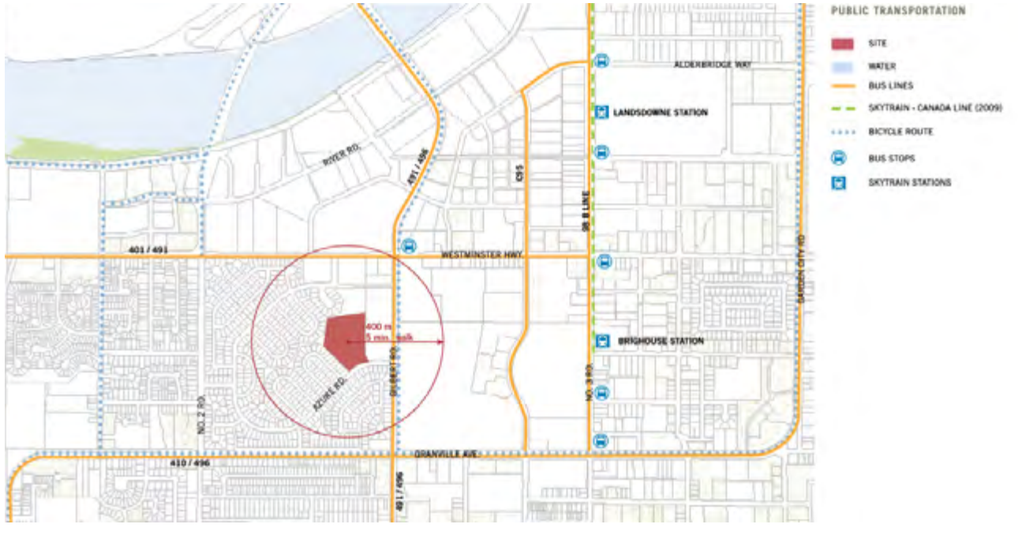


+ Schools & Catchments Areas

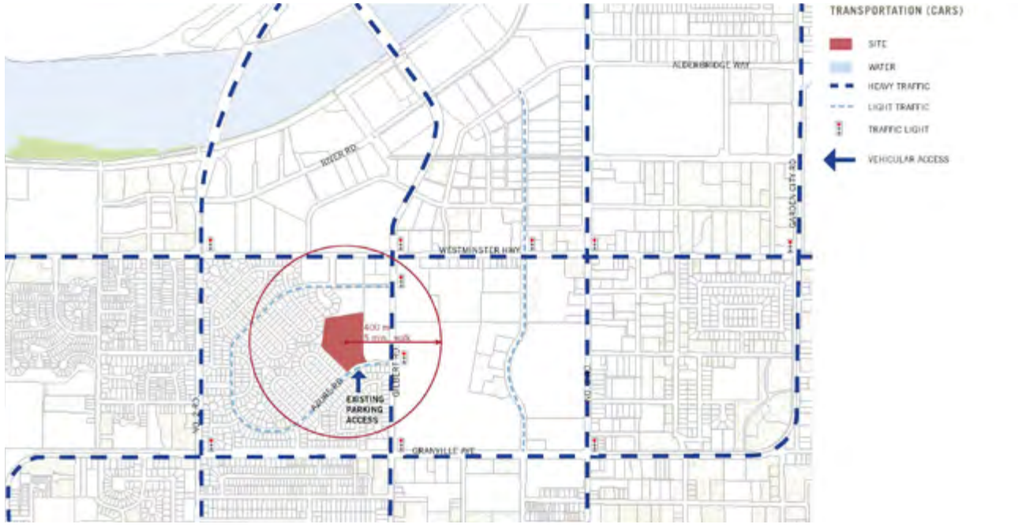


IX. Preliminary Site Analysis

+ Public Transportation



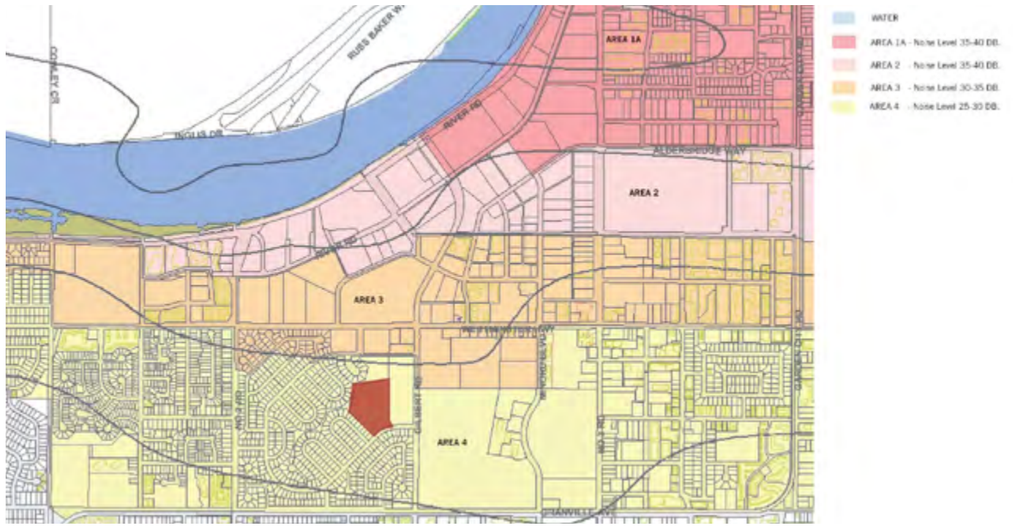
+ Transportation (Automobiles)



IX. Preliminary Site Analysis

+ Aircraft Paths

+ Aircraft Noise Policy



IX. Preliminary Site Analysis

+ Site Analysis - Existing Conditions