

Sectional Concept Sketch

SCOPE OF WORK

Stratford Hall International Baccalaureate School—Middle Years Program

Stratford Hall International Baccalaureate (IB) School (Stratford Hall) is an innovative and—in many ways—an unusual educational institution. From their inception, they chose to occupy a very urban context and to become a part of the local community and the city. Located on Commercial Drive in Vancouver, BC, Stratford Hall occupies a commercially-zoned site in a very heterogeneous context. Commercial Drive is a busy and popular commercial “high street” and it is typified by buildings of 3 to 6-stories with a mix of uses including retail, office and residential. The buildings on Commercial Drive are typically “zero lot line” buildings meaning that—practically speaking—

the buildings occupy the entire square footage of the site (to the property lines) and the sites themselves are generally not large, 5,000 to 10,000 sq.ft. on average. The context, the relatively high value of the land and the prevailing form of development have led to a form of school which is very non-traditional. There was no space at the ground plane for playgrounds or playing fields, on-site parking or sports courts. The entire program was to be accommodated within a (comparatively) small site footprint. The school does benefit from relatively close proximity to large green spaces (Clark Park and Trout Lake Park) which are maintained by the City of Vancouver and which Stratford Hall utilizes for outdoor activities.

CLARK PARK

On the west side of Commercial Drive, opposite the principal façades of the school building.



SKYTRAIN

A laneway and the elevated guideway of Vancouver's rapid transit system is east of the site.

DP BUILDING

Stratford Hall's Diploma Program building is close by

PYP BUILDING

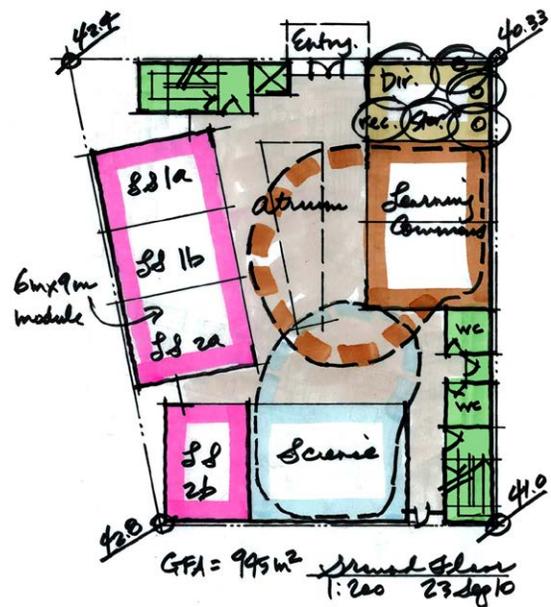
Stratford Hall's Primary Years Program (PYP) is on an adjacent site.

MYP BUILDING

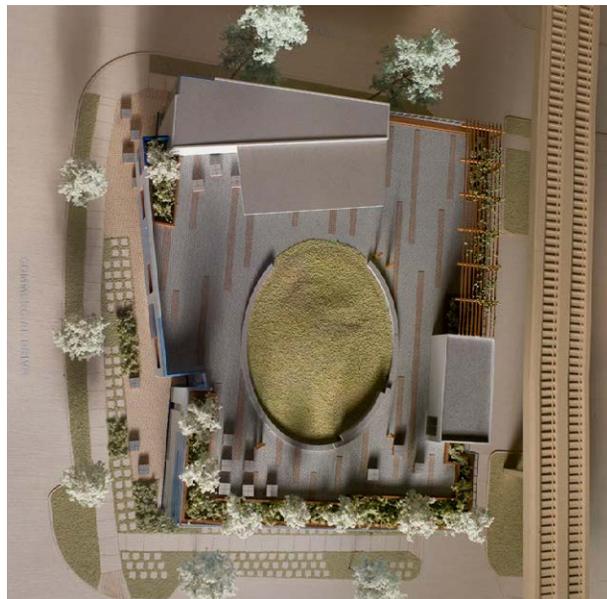
Stratford Hall's Middle Years Program (MYP) building.

Single Family Homes

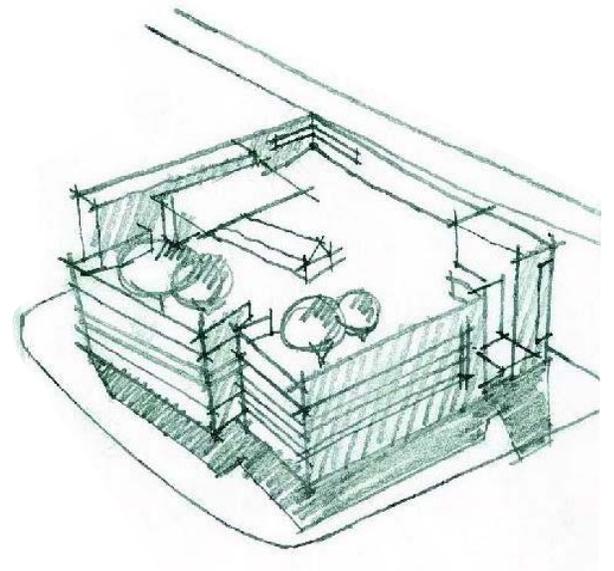
Beyond the lane is a neighbourhood of predominantly single family homes.



Ground Floor Study



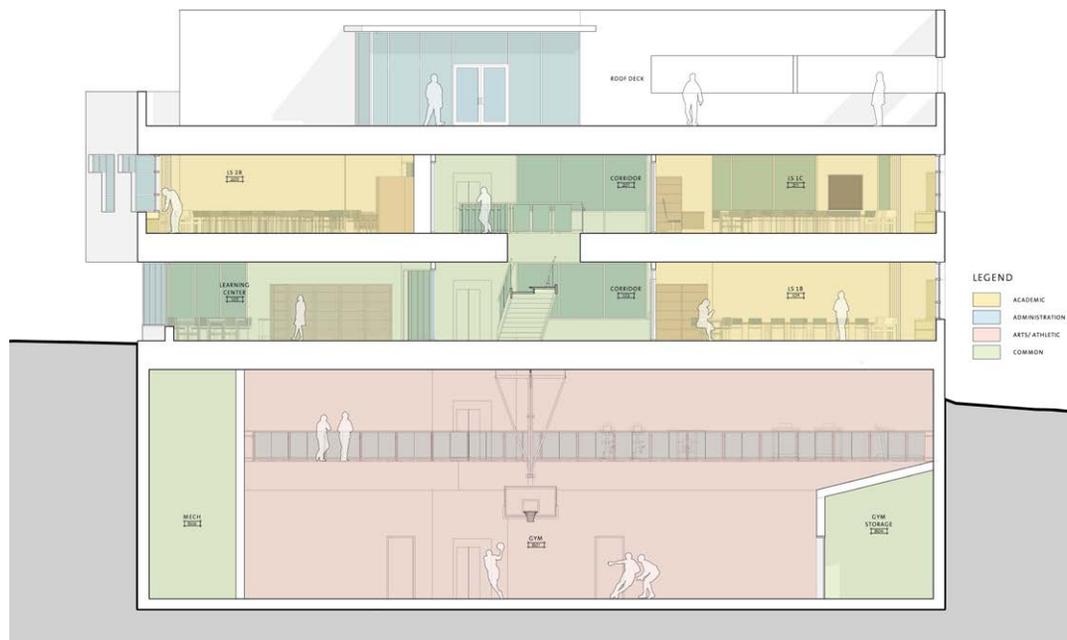
Architectural Model Photograph



Massing Study

Stratford Hall designed their Primary Years Program (PYP) for grades Kindergarten through Grade five on an adjacent site. Though smaller, the PYP building is typologically very similar to the Middle Years Program (MYP) building, the subject of this submission. The PYP and MYP buildings occupy sites on the east side of Commercial Drive on opposite corners of East 15th Street. To the east of the school sites lies a laneway and the elevated guideway of Vancouver's "Skytrain" rapid transit system. Beyond the lane is a neighbourhood of predominantly single family homes. On the west side of Commercial Drive—opposite the principal façade of the school buildings—is the aforementioned Clark Park.

In the predominantly commercial context of urban buildings, we chose to accommodate the program for the MYP building in a densely-planned and vertically-oriented manner. The gymnasium is located at the lowest level below grade, and a below grade mezzanine level houses a fitness area and service rooms. The ground and second floors feature the primary academic spaces: Learning Studios (classrooms), a Learning Commons (Library/Resource Centre), an administration office and boardroom, a science lab, a Teacher's common room, a Teacher's prep room and various support and circulation spaces. Finally, because of the constrained site size, and as with the PYP, we chose to utilize the roof space of the MYP as an outdoor space for recreation and socialization.



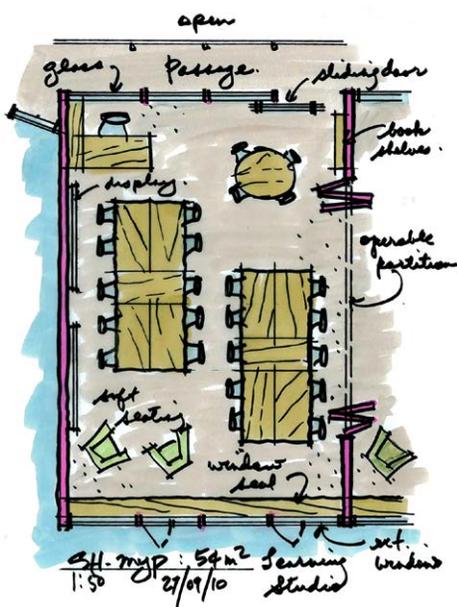
Building Section



“The gymnasium is located at the lowest level below grade, and a below grade mezzanine level houses a fitness area and service rooms.”



Learning Studios (Second Floor)



Learning Studios Study



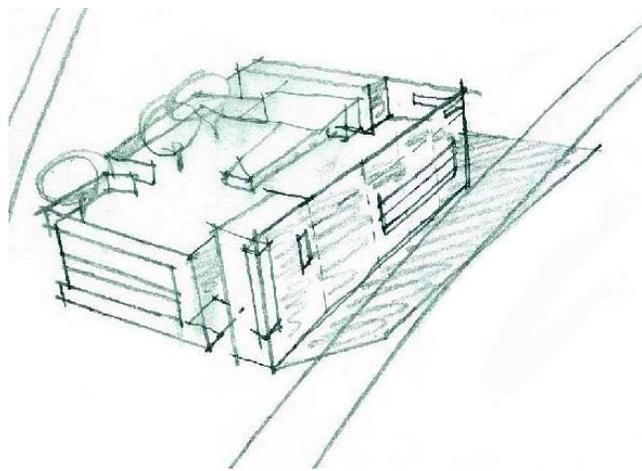
Learning Studios REVIT Study

The non-traditional approach to building design supports Stratford Hall's non-traditional approach to education. Traditional classrooms are replaced by student Learning Studios, reminiscent of graduate student seminar rooms. A high degree of transparency within the building supports IB learning goals, where passive supervision and observation of learning activities is ongoing. The glass-fronted learning studios also ensure direct views to the outside from all parts of the building while pleasantly flooding the interior with

natural daylight. Wireless network / internet connections allow students to share documents and connect online throughout the building, in lieu of carrying heavy text books. The "Atrium Commons" is an "in between" space which creates multiple opportunities for interaction between students and staff while fireplaces on each teaching level further de-institutionalize the school and create areas for quiet study and socialization in a more relaxed, domestic (homey) environment.



Grand Stair in Atrium



Massing Sketch



Perspective Sketch (PYP Building on the Left, MYP Building on the Right)

Budget

The budget for the MYP was \$10.9 million CDN for a 31,500 sq.ft. building (including the occupied roof) or approximately \$345 per sq.ft.



DP Building



PYP Building



PYP Building (left) and Photo Montage with MYP Building



MYP Building Entry on Commercial Drive (PYP Building to the Left)

Community Engagement Process

The stakeholders for the Stratford Hall MYP building are those who use the building—students, teachers and administrators, parents and, occasionally, the community. As an independent school with a unique educational offering (IB), the catchment for the school is not the local neighbourhood.

Stratford Hall draws from a relatively large area of Greater Vancouver and staff and students travel to the school on foot, by bike, by Skytrain, by school bus and by private vehicle. The other stakeholders for the MYP building are the Board and Foundation of Stratford Hall whose vision for an urban school which supports the IB learning model has been realized successfully in the MYP building.

There have been remarkably few challenges with respect to community acceptance of the MYP building in spite of the fact that it is not a facility for the benefit of the immediate neighbourhood. Stratford Hall, which operates three buildings in the same area of Commercial Drive, is a welcome neighbour in this part of Vancouver. This is largely a result of the proactive approach the senior administration of the school has taken to community engagement and the careful and thoughtful approach adopted to address traffic impacts on the

surrounding community. Prior to initiating the MYP, the senior administration of the school and student volunteers canvassed door-to-door to inform neighbours of the impending development and to answer questions and collect comments. Community open houses were also held and the neighbours invited to attend to see project development through various stages with the ability to offer comment for future project development.

With respect to the amount of community involvement in the school, it is necessarily somewhat circumscribed due to the fact that Stratford Hall is independent. However, because it operates from September through June annually, they have made their facilities available for community uses on a leased basis through the summer months. The gymnasiums at both buildings have been used for summer drop-in programs for sports and recreational activities outside of Stratford Hall's curriculum. The buildings also housed delegates from the Swedish Olympic Organizing Committee during the 2010 Vancouver / Whistler Olympic Winter Games for both meetings and training activities.



View of Second Floor (Facing North)

Educational Environment

In the IB Programme (IB), there is a great emphasis placed on “education observed”. Traditional teaching which is teacher-directed and based on an “efficiency model” of educational delivery is antithetical to the IB model and to the vision of Stratford Hall School. Dr. McConnell, the head of Stratford Hall, often speaks of the traditional model of education being one of “cells and bells”. The cells are, of course, the classrooms and they are fit for only one purpose, while lacking flexibility and tend towards the generic in design. They are also (generally) visually-separated from adjacent spaces and when the doors are closed, there is no sense of what is happening inside—education is not observable. The “bells” signal the end of one temporal school segment and the race to the next down corridors which are usually inadequate for this change-over rush but are empty for the other fifty minutes out of each hour. The corridors are generally the “social” spaces in most traditional schools by default as they are the only non-programmed spaces where students interact. However, they are utilitarian and generally uninspiring spaces suitable for transit but not socializing.

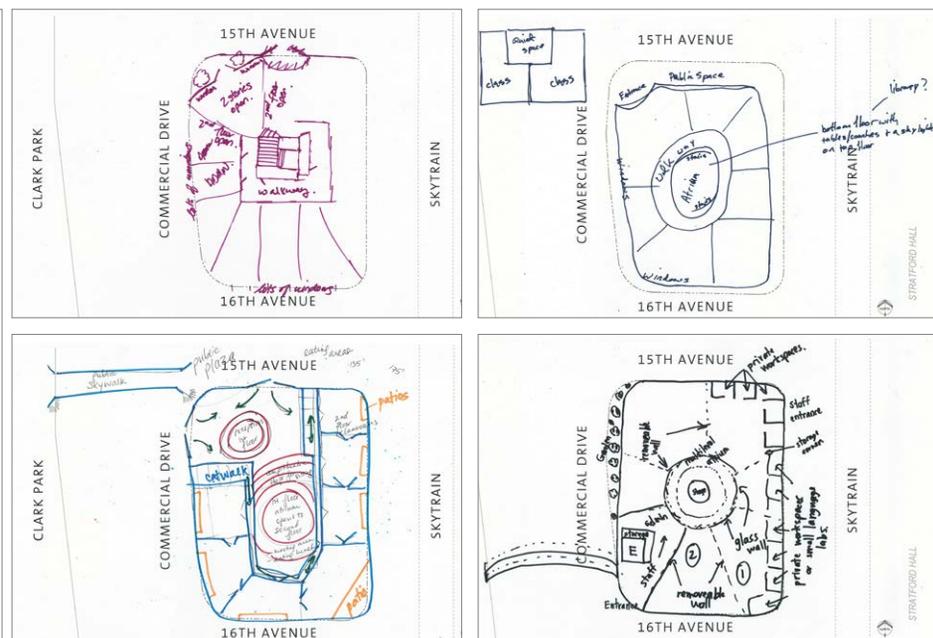
In the MYP building, traditional notions of separate classrooms have been eliminated in favour of Learning Studios and small learning communities where students learn in a variety of ways. Learning Studios are both physically open to reconfiguration and recombination and visually open to the rest of the school community. Clustered in groups of two (Ground Floor) and three (Upper Floor), the Learning Studios can be combined into large spaces or separated to suit a particular educational need. The Learning Studios are wrapped around a central seminar room (or seminar room combined with Teacher’s Prep Room) which provides another alternative learning environment. The U-shaped space can be configured in a variety of ways using flexible partitions which fold away to allow the space to be fully opened up. Sliding glazed partitions separate the Learning Studios from the remainder of the school and can be opened or closed depending on the desired degree of acoustic separation. However, because these partitions are fully glazed from floor to ceiling, they permit visual connection from one part of the school to another at all times and mean that every area of the school is flooded with



View of the Grand Stair from the Second Floor



Student's Charrette Sketches of their "Ideal School"



Charrette Sketches Demonstrate the Preference for a Central Social Space

natural daylight. Shortly after opening, we discovered another unanticipated use for the glazed partitions—as a writing surface. The lack of traditional divisions (walls) between Learning Studios means that there is (relatively) a shortage of space for displaying student work or writing for public view. Within days of opening the school, we discovered that the glass screens had become re-writable “stained glass windows” covered in colourful dry erase markings.

It is the “public” space on the opposite side of the glass partitions that most clearly marks Stratford Hall out as being a uniquely 21st century school, rather than the traditional corridors of the “cells and bells” model, the MYP features a school commons organized around a multi-storey atrium. The atrium features a grand, central stair which animates the space and “lands” on a generous wooden base which acts as a “watering hole” and focal point of casual interaction and informal study. The “stage” at the base of the stair is often occupied

by students in all manner of poses and postures reading, talking or occupied with their tablet computers. Each floor also features a fireplace with an assortment of soft furnishings surrounding it to create another node for casual interaction. The fireplaces are situated on an exterior wall and are centered in a large window opening. Staff and students can sit in front of a fireplace and view the PYP building across the street, the North Shore Mountains and the trees of nearby Trout Lake Park, which fulfills another goal of the school design which is to allow views through and out of the building to connect the school to the city and community.

Within weeks of occupying the new building, the school administrators, teachers and students declared their enthusiasm for the MYP building and remarked that it has exceeded their expectations for how well it supports their shared academic aspirations.



Break-out Room



Learning Commons



Seminar Room

The accompanying plans (see page 10) illustrate the wide variety of learning environments that can be created through flexible and cascading partitioning. It was always intended that the school commons do double and triple duty and function as more than a means of getting from one place in the school to the next. Because all of the glass-fronted, cascading partitions, we intended that the learning spaces would be much more loosely defined and would allow spill over from one space to the next with the “learning” leaping across soft boundaries to permit the shared occupancy of the commons. The Learning Commons and science lab on the ground floor have a cascading glazing system that is fully opened to the rest of the school during the day. We designed book shelving with pneumatic tires so that the books could literally spill out of the Learning Commons on mobile bookcases. Similarly, the operable partitions mean that the activity of the science lab is visible to all passersby who participate vicariously in whatever is happening within.

The application of modular and flexible furniture promotes a variety of learning environments and ultimate flexibility for learning communities. The Learning Studio clusters are arranged by grade level and by home room. Each small learning community of 22 students has ownership of a space within the Learning Studio clusters but they are also grouped by grade so that the students are part of a larger community of 44 grade peers. The flexible layout permits teachers to address multiple combinations of learning community. The smaller break-out rooms allow smaller groups of students to utilize the quiet spaces for project and group work. Finally, the school encourages wide spread adoption of technology and it is very common to see students working individually or in small groups throughout the common areas of the school taking advantage of the wireless internet to complete class and/or distance learning assignments.

Ground Floor



Second Floor





Atrium

Physical Environment

We began the project with a series of charrettes featuring both students and staff. We set them a task (with minimum direction from the architect) to envision their ideal learning environment. We provided them with an empty site plan and a blank piece of paper and asked them to create their ideal school (on the site) and their ideal “learning module”. What was most striking about this process was the high percentage of sketches which featured a central, social “heart” of the school which became an important governing idea for our design.

The design of the building ensures that all regularly occupied spaces within the building are flooded with generous daylighting. Learning Studios wrapped around the two-storey central commons are acoustically-separated

with glazed partitions which permit daylight from the exterior to reach the Commons. Designed with ultimate flexibility, there is only one, interior (i.e. non-perimeter) column which supports the second floor and roof structures. All the remaining vertical structural elements are within the exterior envelope or are provided by concrete stair and elevator cores creating ultimate flexibility in the layout of the space with the opportunity to reconfigure it as necessary. Even within the normally pragmatic spaces of stair cores, generous glazing featuring carefully edited views has been provided to ensure that the stairs are pleasant to occupy and become the primary choice for communicating between floors in favour of the elevator.



MYP Building (Northwest Corner)



Photo Montage of the MYP Building in Context



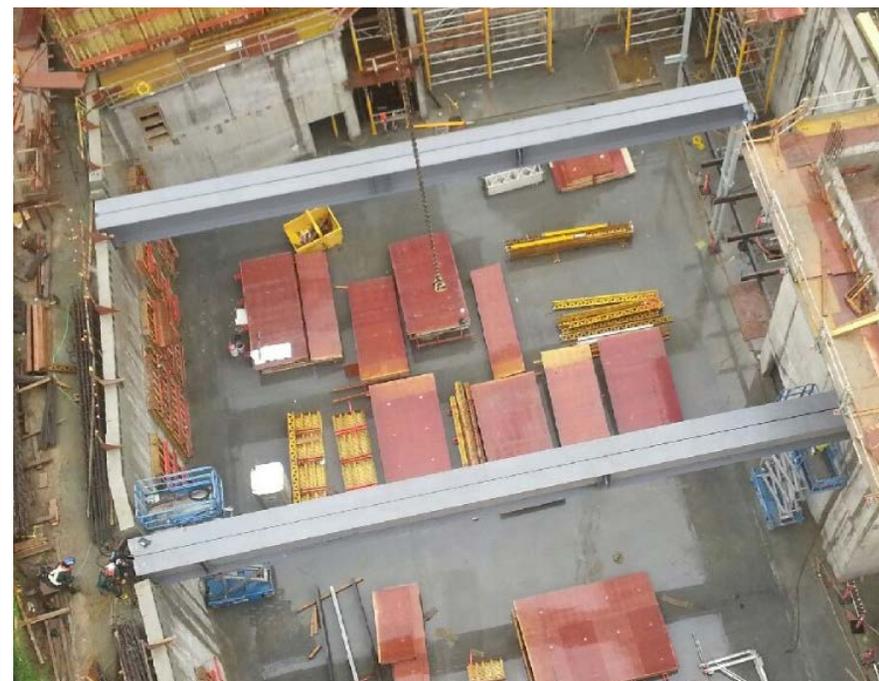
Architectural Model Photograph (Southeast Corner)

There was a very conscious attempt in the design of the space to “de-institutionalize” it and create an environment that was more homey, domestic and comfortable. The decision to utilize carpeting throughout the public areas, the use of a warm colour palette, the use of natural wood as well as domestic touches like the fireplaces imbue the school with a strong sense of home. Windows not only provide daylighting but create an important connection to the exterior environment and are sized to create different experiences. Each Learning Studio features an “L-shaped” window beside a window seat. The high level portion of the window provides daylighting and an edited view of the sky and tree tops. The low level window provides a place to sit beside the glass with a book or tablet and to be able to have a view of the surrounding neighbourhood and its activities.

In terms of the building’s spatial envelope, it fits very comfortably within the larger commercial context of Commercial Drive. It is a good neighbour to adjacent commercial structures housing retail and residential uses. The building presents a welcoming face to the adjacent residential enclave but through material expression and fenestration, marks itself out very clearly as being institutional in nature. This was a very deliberate design strategy intended to create a unique school character to distinguish the Stratford Hall campus within the merchantile context. When we were asked to design the new MYP building in the context of the older PYP building, a challenge was to ensure

each exhibited a unique character but still somehow retained a family resemblance marking the buildings out as being part of the same campus. As a result, the bright red PYP building, with its curvilinear form, was intended to be playful, reflecting the ages of the occupants within. On the other hand, the MYP was proposed to be somewhat more mature, befitting a constituency of students in middle school without becoming too somber.

The project has only been occupied for a few months at the time of writing but the early feedback we have had from students, teachers, administrators and parents has been overwhelmingly positive. It is always more difficult to do something which is non-traditional in the education realm, and a certain suspension of disbelief was required on the part of Client and architects as we held our collective breath to see if the project would be embraced by the occupants. The Learning Studios are working very successfully but it is the social spaces of the school that have pleasantly surpassed our (optimistic) expectations. They have been regularly occupied during school hours (and outside of school hours) in exactly the manner that we had hoped they would and the social spaces augment beautifully the functionality of the Learning Studios. It is hard to draw definitive conclusions about how the school will operate over the long term from such a short period of occupancy but the early signs suggest that the new building is inspiring students and motivating them to study, interact and learn in new and interesting ways.



Miscellaneous Construction Photos

Results of the Process and Project

The project supports the educational goals of Stratford Hall specifically and the IB generally through the marriage of building layout to educational objectives. In the MYP building, traditional notions of separate classrooms have been eliminated in favour of small learning communities where students learn in a variety of ways. Our Learning Studios are both physically open to reconfiguration and recombination and visually open to the rest of the school community. Clustered in groups of two (Ground Floor) and three (Upper Floor), the Learning Studios can be combined into larger spaces or separated to suit a particular educational need. The U-shaped spaces can be configured in a variety of ways using flexible partitions which fold away to allow the space to be fully opened up. Sliding glazed partitions separate the Learning Studios from the remainder of the school and can be opened or closed depending on the desired degree of acoustic separation. In careful consultation with the school administration and

a lengthy process of design development involving many stakeholders from the school community, we have created a building which supports the unique academic requirements of the IB program and Stratford Hall.

As an independent school with a very large catchment, the local community is not specifically vested in Stratford Hall. However, the school is a welcome and accepted neighbour in this part of Vancouver. The project does fulfill broader community objectives related to "eco-density" (an initiative of the City of Vancouver) which supports intensifying land use through non-traditional development models. A very urban school with its gym below grade and its roof for recreation, is a very explicit example of taking a traditional building form and re-imagining it for the 21st century as an urban building with all of the amenities that one would typically expect in building suited for educational purposes.



Boardroom



Fireplace Nook on the Second Floor



Completed Building (Southeast Corner)

Educational Specifications or Program of Requirements Document

As an independent school Stratford Hall didn't have to comply with British Columbia Ministry of Education guidelines, which meant that there weren't any written specifications or needs for the school/educational program.