

Tara McCashin

DESIGN PORTFOLIO

ARTIST STUDIO DESIGN BUILD FREE LAB

PARADE OF LIGHTS

COM-FORT DOWNTOWN

BIG BROTHERS BIG SISTERS SUMMER CAMP

LOWER WATER STREET DANCE THEATRE

NATURAL PLAYGROUND DESIGN

REFUGE DESIGN BUILD FREELAB

NEWBRIDGE PRIVATE SCHOOL

ARTIST STUDIO DESIGN/BUILD FREE LAB

Near Advocate Harbour Nova Scotia, Dalhousie Professor Roger Mullin is leading an experimental project to design and build an outdoor theatre and artist studio. The two weeks that I attended, the main projects were:

1. Design and build two main doors for the artist studio, allowing for flexibility of space, to create a blur between inside and outside.
2. To apply a (tin) roof on the existing structure, requiring the design of a complex scupper detail. The design was a frame work with a skylight in the top. A dramatic protrusion on the back of the building spouts excess water:



Another student and I designed and fabricated the rolling doors



DESIGN BUILD FREE LAB
Dalhousie, Halifax, NS
Supervisor: Roger Mullin
Involved: 7 students including myself

PARADE OF LIGHTS

Volunteer Dalhousie architecture students collaborated with a electrical and structural engineering students to design a Christmas float as lanterns which were loosely and creatively built as over-sized Christmas ornaments. They were built with recycled wood/wood veneer and fabric. The project was promoting sustainable powered transport, as such the entire set of floats was pulled by a number of bicycles. We won first place in the parade!



COMMUNITY ENGAGEMENT
Volunteer design/build/parade
Dalhousie, Halifax, NS
Supervisor: Clayton Blackman

COMFORT DOWNTOWN

All of us were fearlessly creative architects as kids in our living rooms, building and creating spaces with whatever we could find. This is a project to re-inspire Edmontonian citizens' in trusting their intuition of how a space should feel. How can our growing city create environments with this intriguing and charming allure that children so effortlessly produce.

Inspired by a Kagayama lecture about the importance of citizen action in creating a lovable city, friend Safira Lakhani and I initiated a fort building installation on the chilly streets of Edmonton. It was a great success, attracting hundreds of people at most locations, creating more interaction and positive conversation than we could have hoped for.

Media coverage: Edmonton Journal, CBC Radio, Construction Canada, CKUA radio, Metro News, M.A.D.E., I<3YEGDT (Edmonton Development Organization)

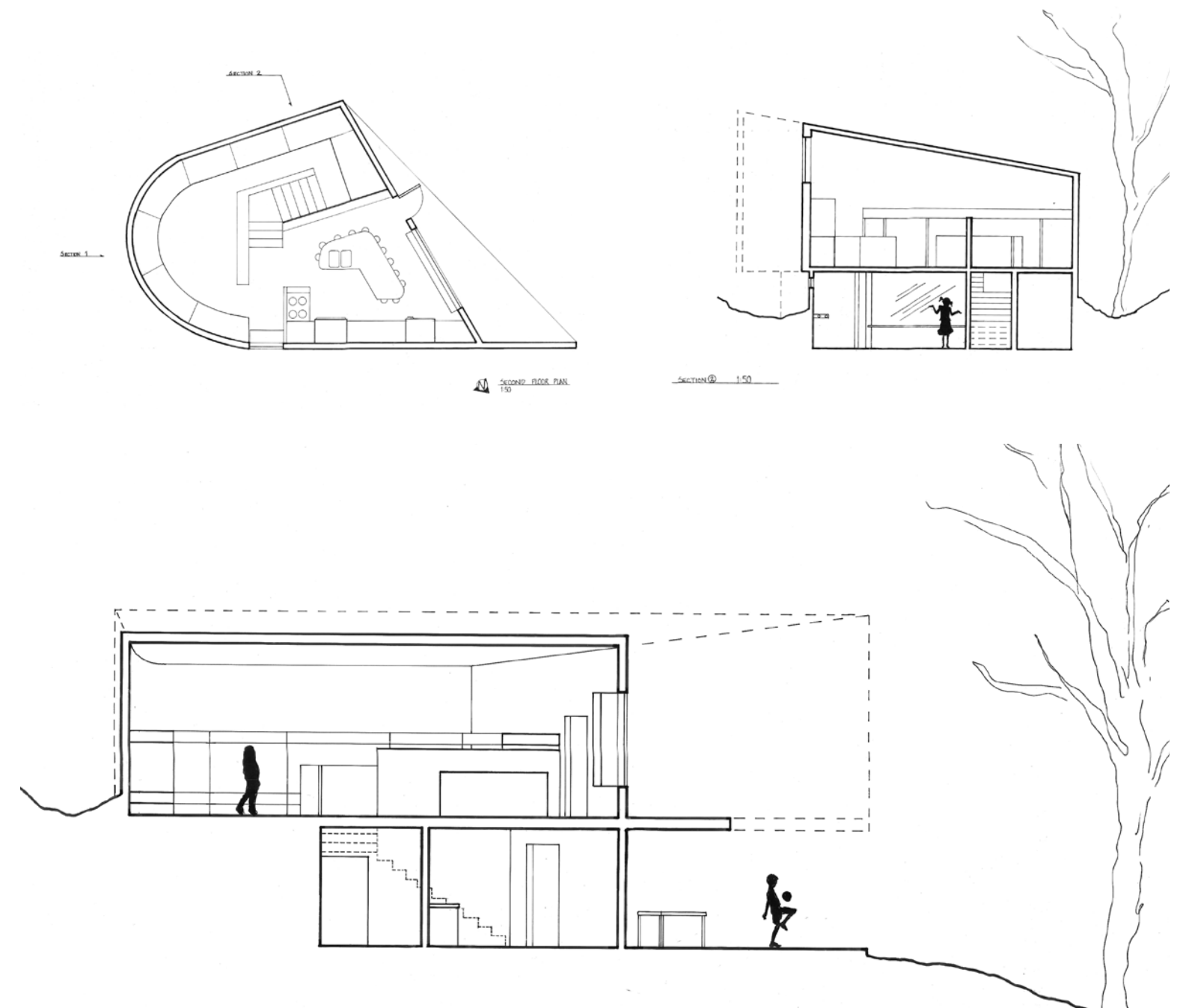
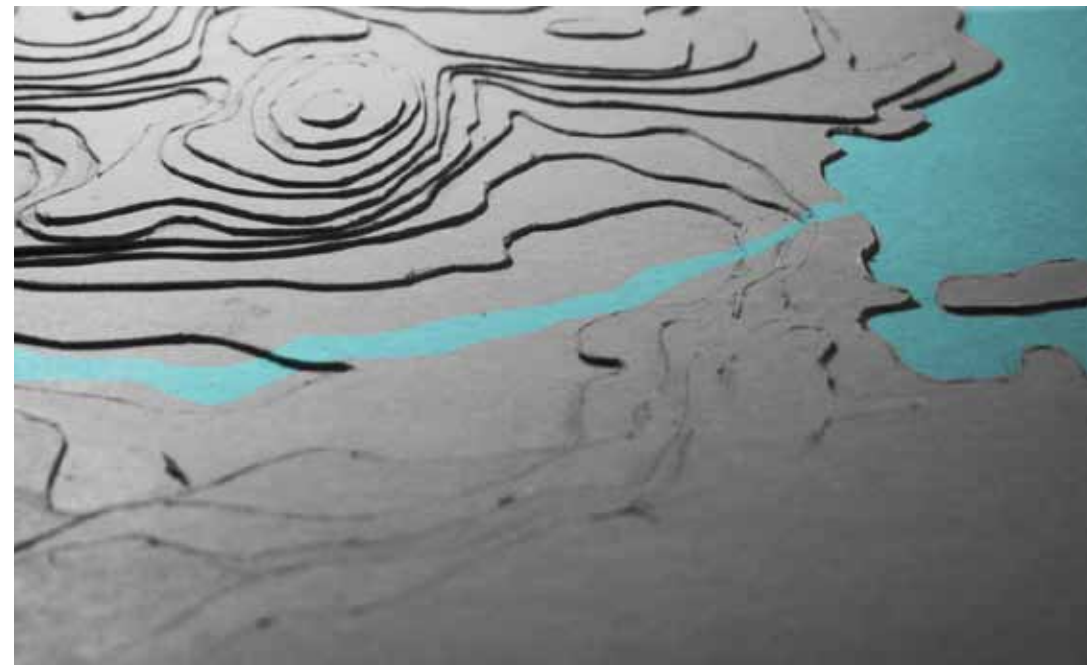


COMMUNITY ENGAGEMENT
Co-Creator with Safira Lakhani
Downtown Edmonton, AB
Involved: Jonny Leger, Michael Zabinski

BIG BROTHERS BIG SISTERS OF GREATER HALIFAX: SUMMER CAMP

An understanding of community through relation to other buildings. A kids summer camp for Big Brothers Big Sisters of greater Halifax. Site: Williams Lake off Purcells Cove Road.

Inspired by the flow of water around rocks in a creek. A feeling of community created simply through pockets of gathering places in a gradation of public and private space.



ACADEMIC
Year 3, BEDS
Dalhousie, Halifax, NS
Supervisor: Omar Gandhi

LOWER WATER STREET DANCE THEATRE

Fouettes have a motion of rotation, broken up by pause, extension and a pull upwards. The rotation is the traffic, the public plaza is pause, extension is the multiple entrances and views. The procession and anticipation to the top of the building; the theatre, is the pull upwards.

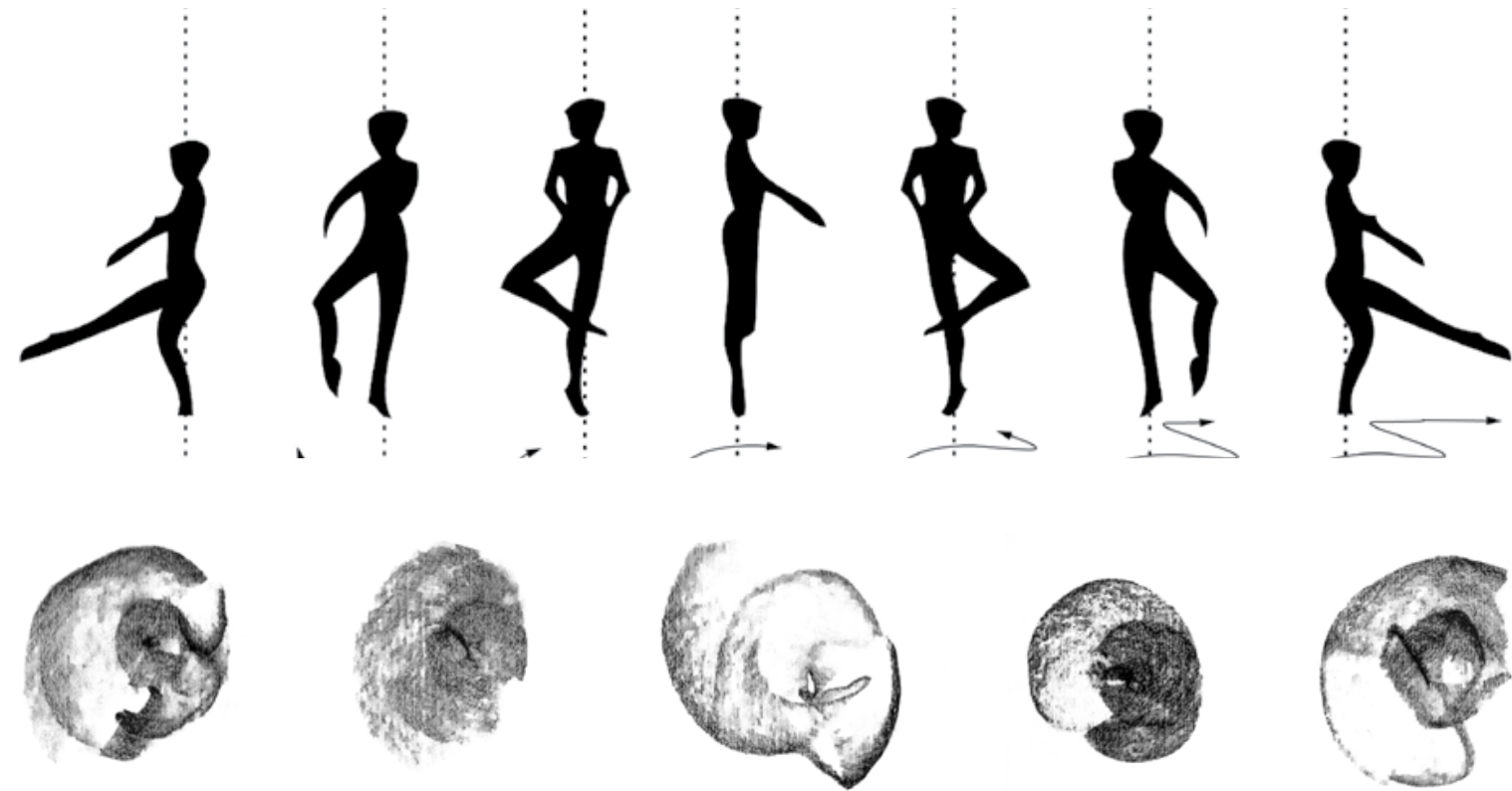
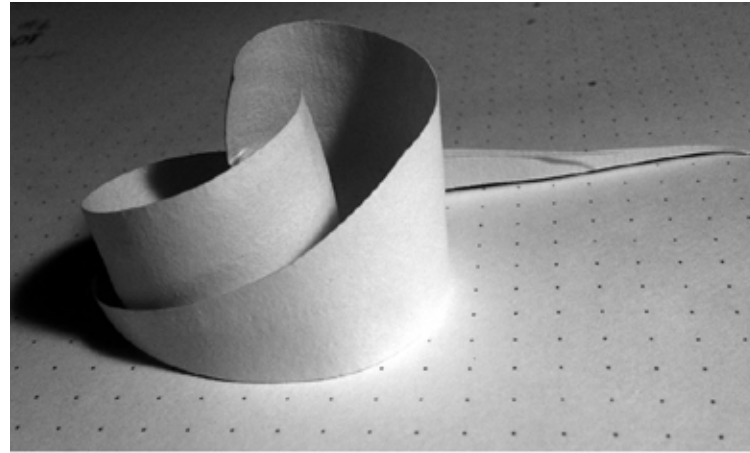
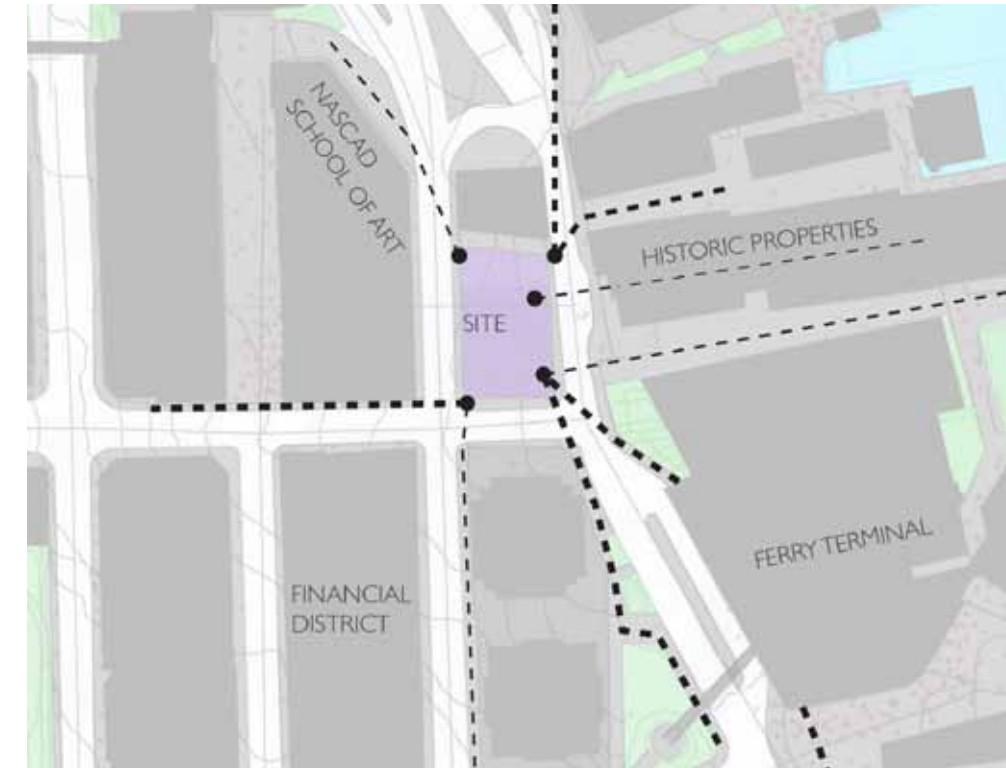
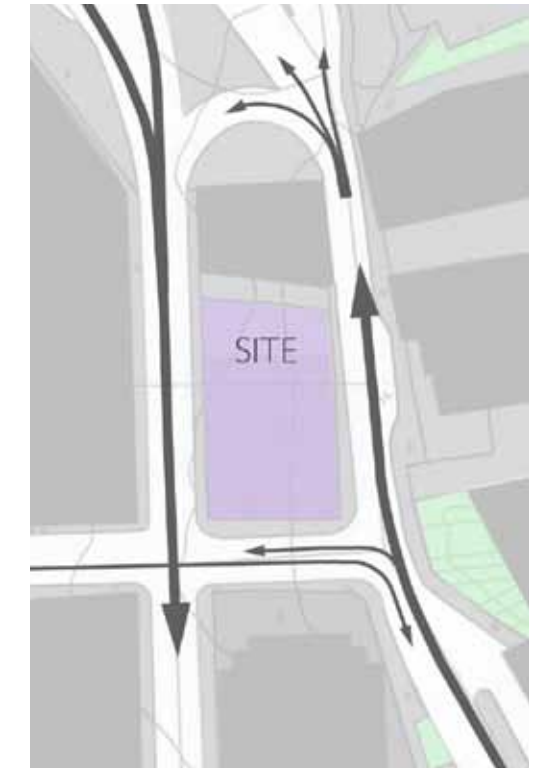


Diagram of the motion of a fouette.
Understanding the motion of the right foot through mimicking it with charcoal.
Concept models created from an understanding of extension, torque and a central axis



Entrances into the Site

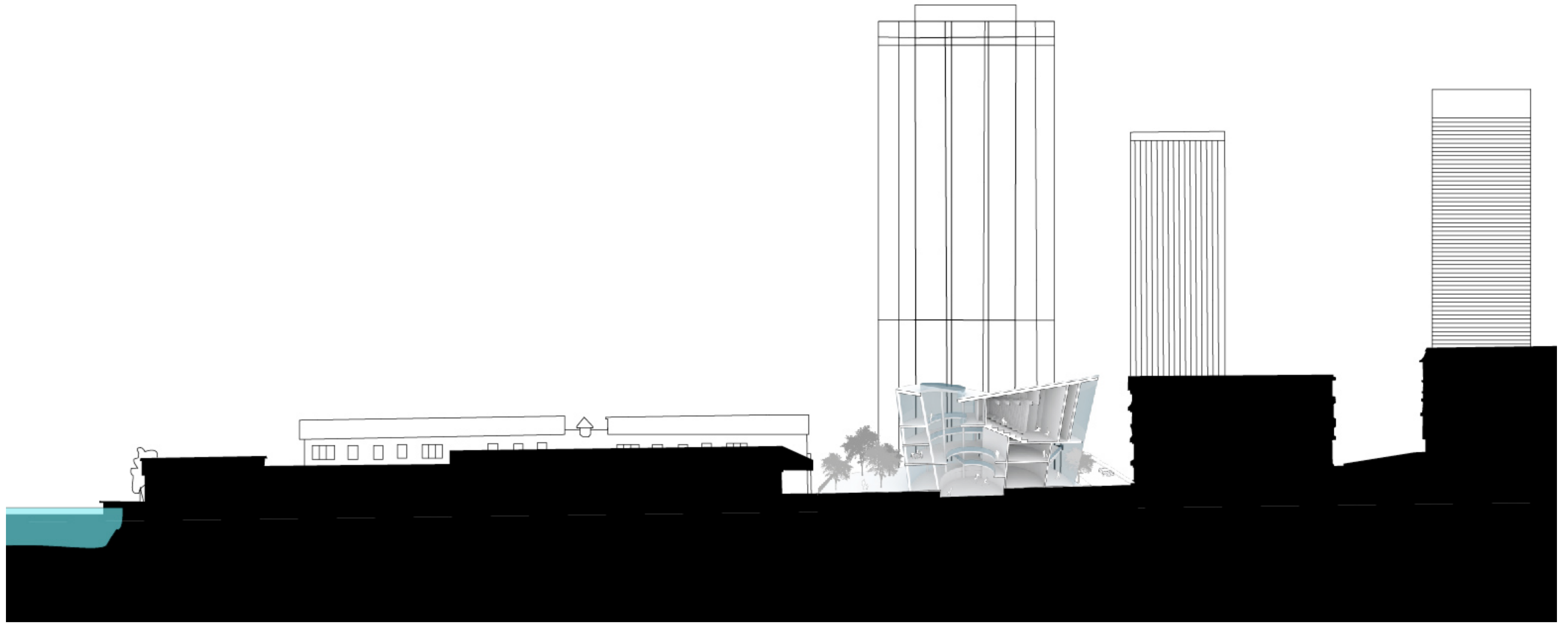


Traffic Flow



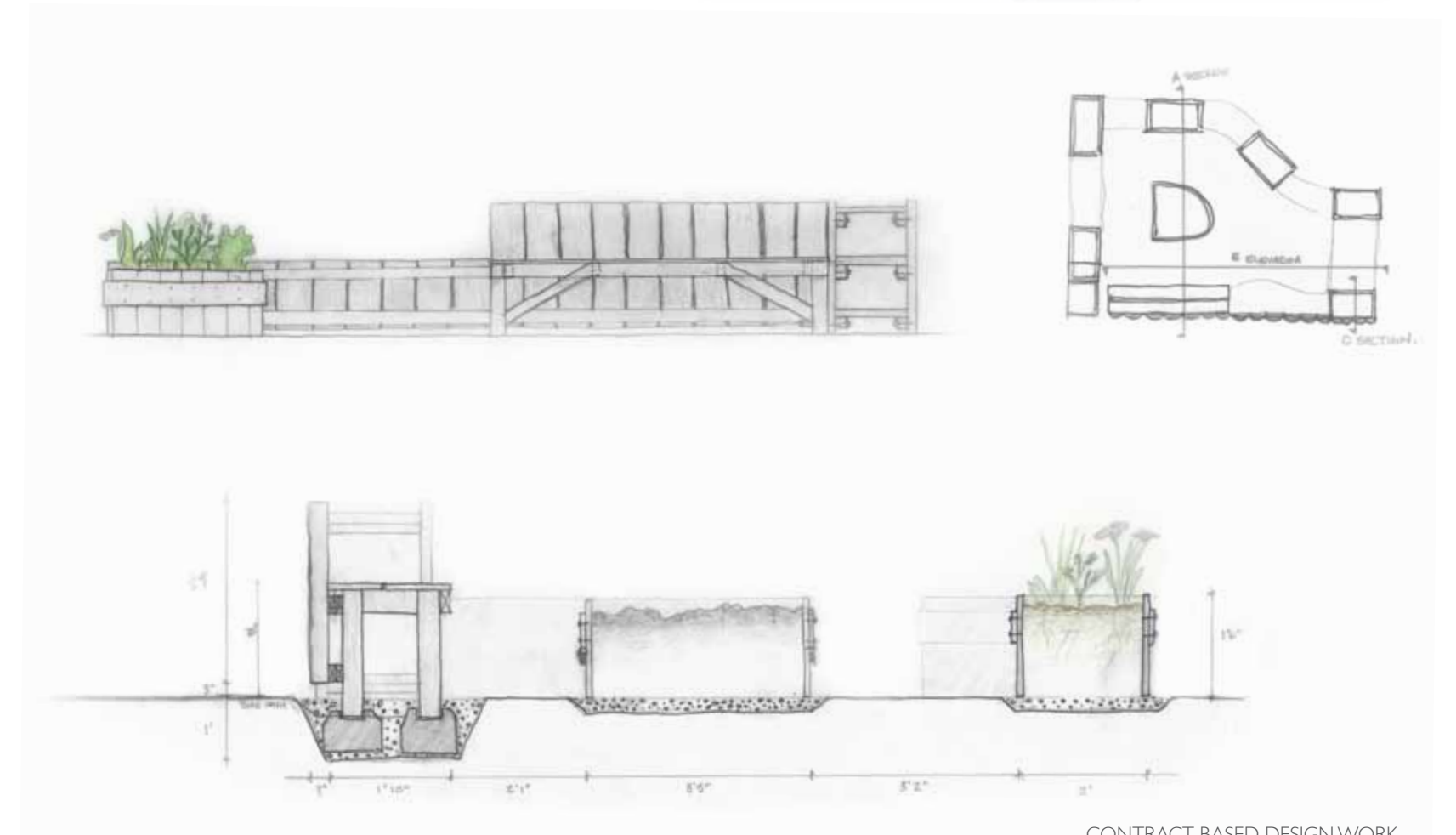
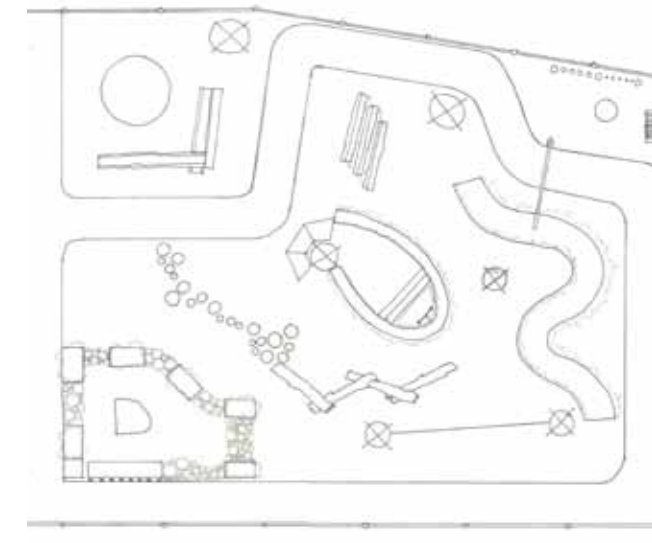
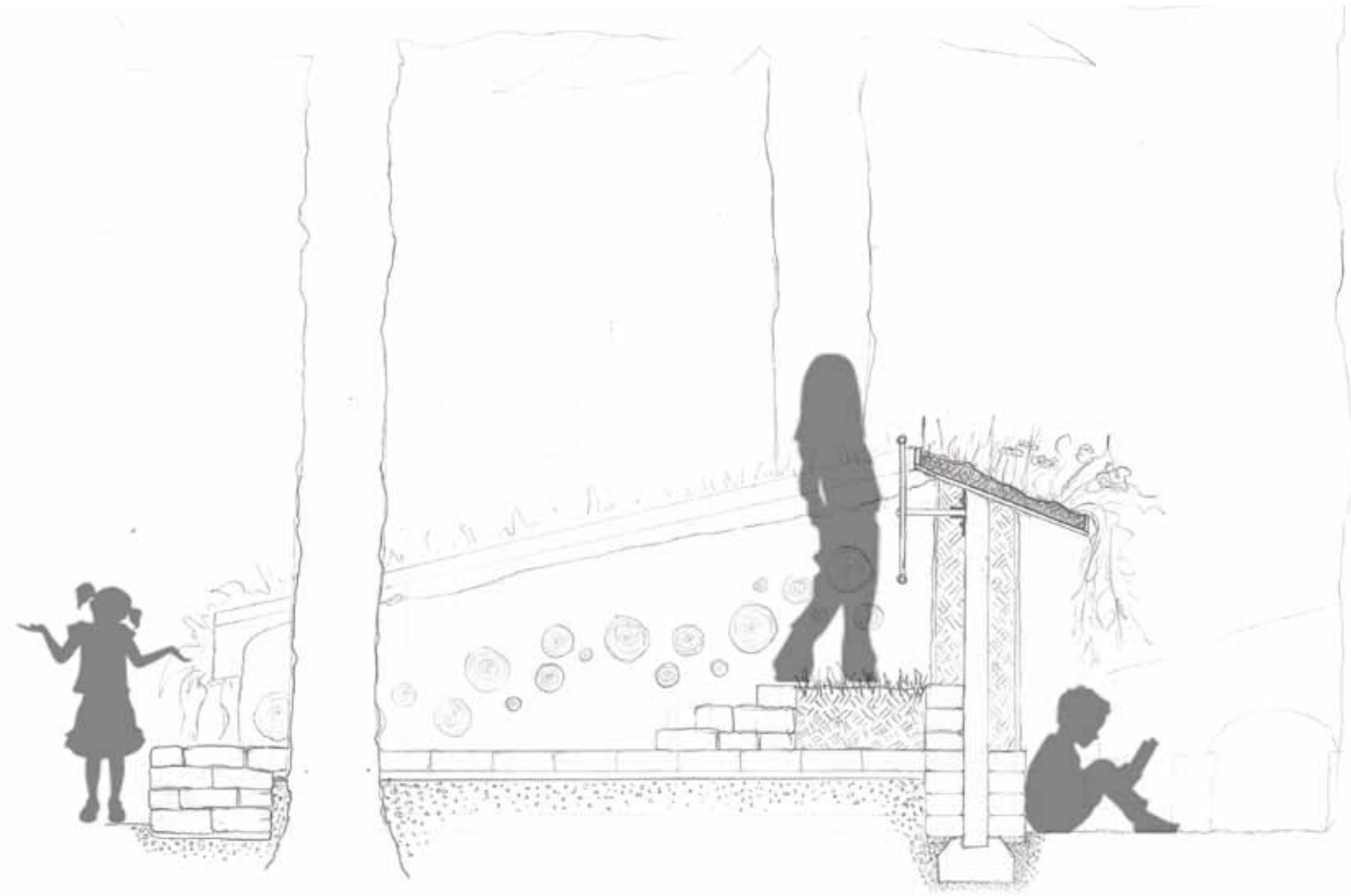
Building Cross Section Facing North

ACADEMIC
Year 3. BEDS
Dalhousie, Halifax, NS
Supervisor: Maria Elisa Navarro Morales



NATURAL PLAYGROUND DESIGN

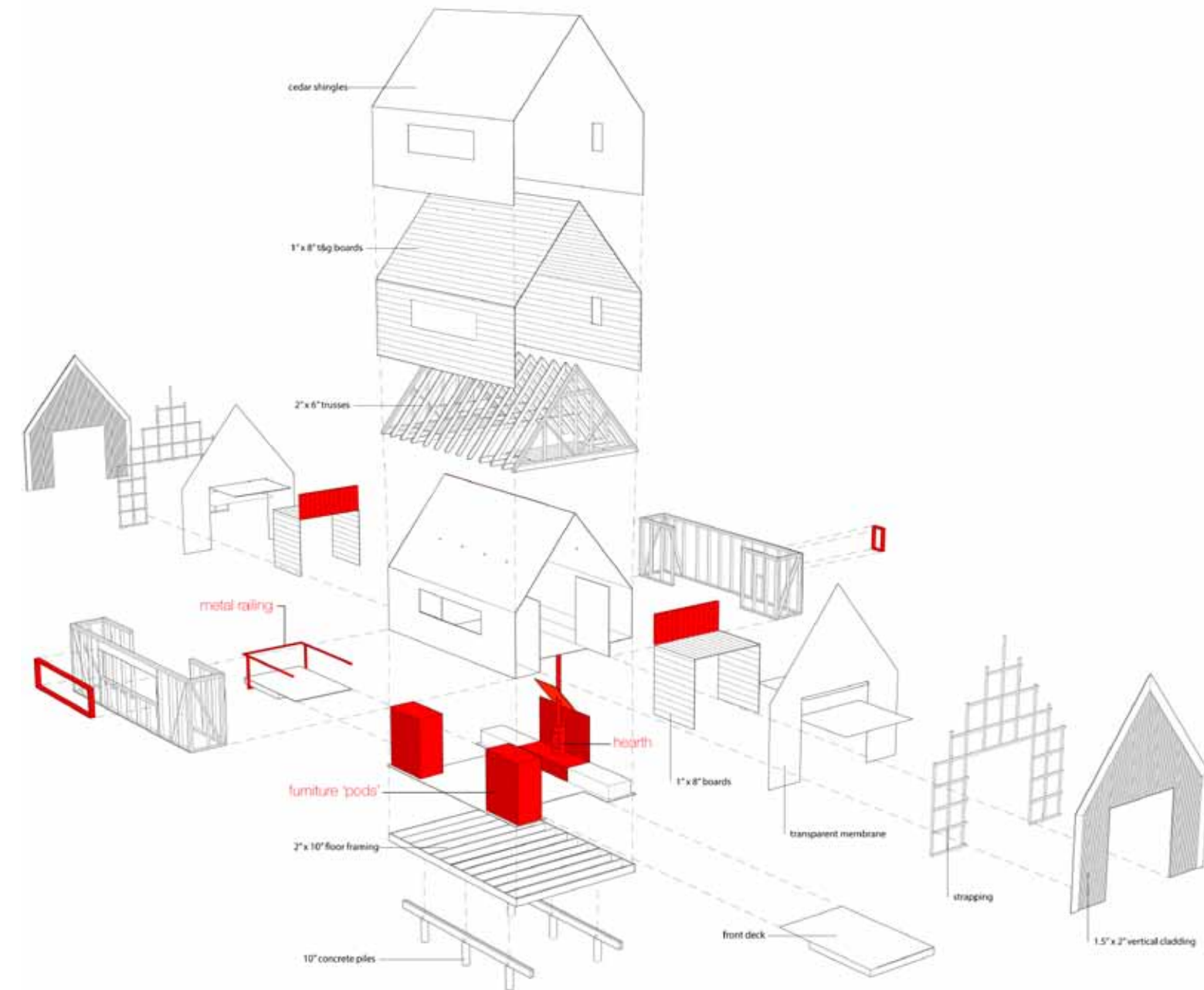
Commissioned by South Arm Community Centre commissioned to re-design an existing playground using natural elements following the Reggio Philosophy of learning. The playground will be built with natural materials such as wood, round lumber and cob.



CONTRACT BASED DESIGN WORK
Designer and Project Coordinator
Richmond, BC

REFUGE DESIGN BUILD FREE LAB

In 10 days 8 students built all of the interior finishes on an almost complete cabin. My partner and I designed a system to make the door airtight built the cabinets and sleep lofts, and laid down the flooring.

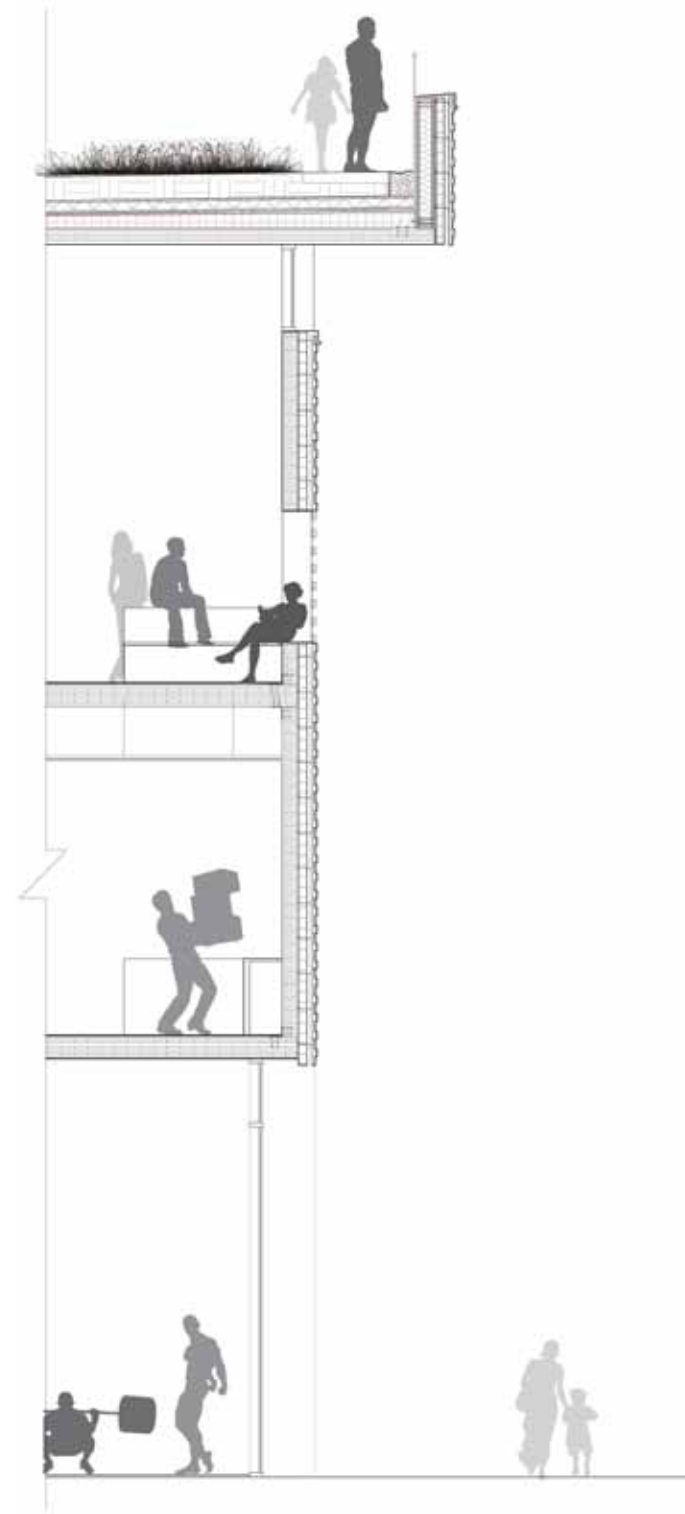
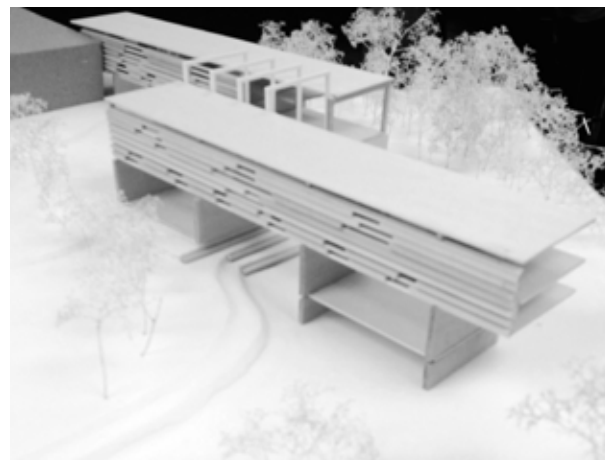
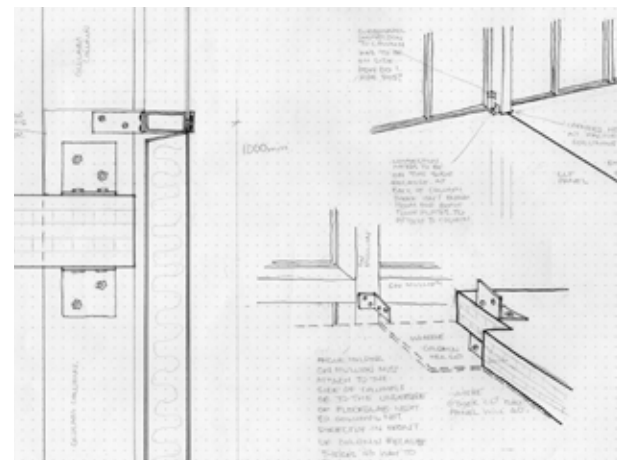
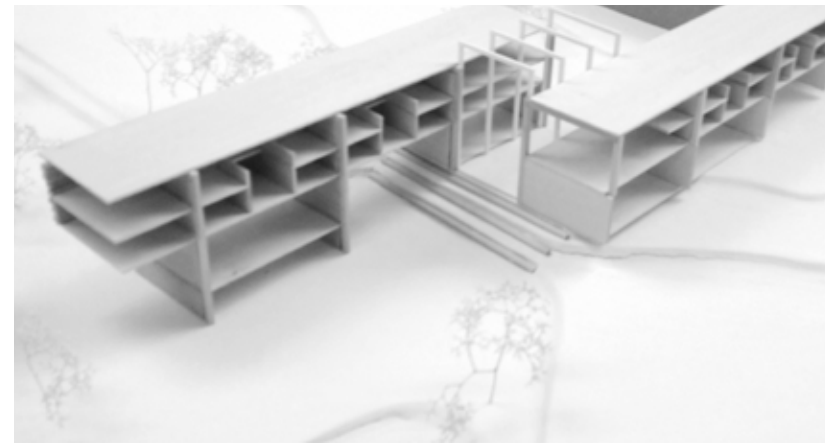
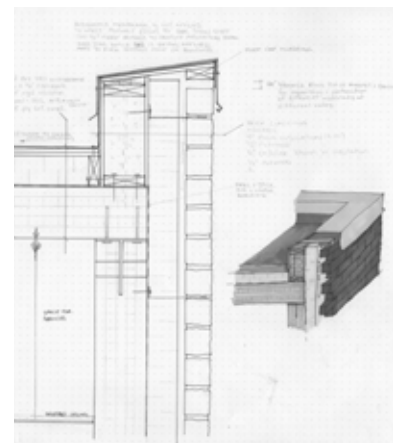


DESIGN BUILD FREE LAB
Bay of Fundy near Wolfville, NS
Supervisor: Talbot Sweetapple (MLSA Architects)

NEWBRIDGE PRIVATE SCHOOL

Studying interconnected green building systems as well as CLT and Glulam building systems. How these systems could shape a design.
We met with a real client; the Newbridge headmaster and students in workshops to understand their needs and vision.

My design was structured around public community fitness facilities on the bottom floor to help fund the private school, create a community surrounding the school as well as give it exposure as a quality learning facility. The top two floors where the classrooms are has circulation running perpendicular to the ground floor to provide privacy and security.



ACADEMIC
Newbridge school: real client studio
Supervisor: Talbot Sweetapple (MLSA architects)

HUMAN GENERATED ELECTRICITY

FITNESS EQUIPMENT GENERATES ELECTRICITY TO POWER ITSELF. EXCESS ELECTRICITY STORED FOR LESS BUSY GYM HOURS

NATURAL LIGHT

NON-DIRECT NORTH-FACING CURTAINWALL FOR ALL CLASSROOMS REDUCES USE OF ARTIFICIAL LIGHTING

GREEN ROOF

REDUCES STORM WATER RUNOFF. COOLING LOAD IN THE SUMMER IS REDUCED THROUGH TRANSPIRATION. ACOUSTIC INSULATION, FIRE PROTECTION. + EXTENDED LIFE OF ROOF MEMBRANE.

STACK EFFECT

PASSIVE COOLING ACHIEVED THROUGH HOT AIR RISING TO HIGHEST POINT IN ATRIUM, WHERE EXPELLED THROUGH OPERABLE WINDOWS

GLULAM + CLT

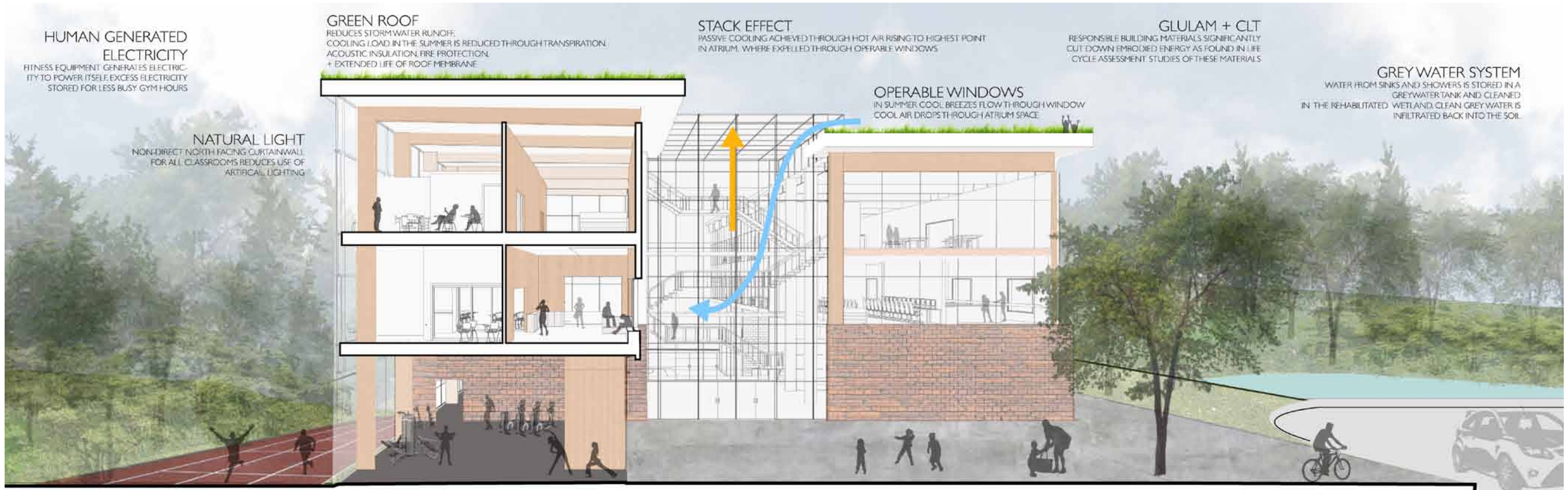
RESPONSIBLE BUILDING MATERIALS SIGNIFICANTLY CUT DOWN EMBODIED ENERGY AS FOUND IN LIFE CYCLE ASSESSMENT STUDIES OF THESE MATERIALS

OPERABLE WINDOWS

IN SUMMER COOL BREEZES FLOW THROUGH WINDOW. COOL AIR DROPS THROUGH ATRIUM SPACE

GREY WATER SYSTEM

WATER FROM SINKS AND SHOWERS IS STORED IN A GREYWATER TANK AND CLEANED IN THE REHABILITATED WETLAND. CLEAN GREY WATER IS INFILTRATED BACK INTO THE SOIL



Thank you!

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