

STANTEC ARCHITECTURE PROJECT REVIEW 2011

DESIGN FORUM 2011

The 2011 Design Forum held particular significance with Burt,Hill and Anshen + Allen becoming part of Stantec.

Held in the Toronto studio April 7th and 8th, the session focused on a dialogue around Design Excellence and the search for the common ground that would serve as the “go forward” position for a unified new entity.

Each organization brought to the table, an articulated approach that served to provide a path to achieving excellence in the work they do. Stantec articulated a commitment to ‘clarity of idea’ and the poetry that this clarity brings to rational resolution. Burt,Hill had developed the 10 metrics of excellence with a focus on ‘measurability’ while Anshen + Allen spoke of ‘contextual modernism’ and ‘clarity of plan’. The two day session was attended by Michael Moxam (Practice Leader Design, Stantec Architecture), Anton Germishuisen (Design Director, Burt,Hill) and Jeff Logan & David Martin (Design Leads, Anshen + Allen). The session benefited from the input from a number of design associates from the Toronto office and a number of engineering representatives from both Stantec and Burt,Hill.

The two day session was invigorating and productive. The resulting ‘Five Parameters of Excellence’ have become a unifying mantra that has truly integrated three organizations into one.

Providing a rich back drop to the discussions, and the focus of this publication, was the ‘Best of Stantec Architecture’ project review. The first annual exhibit was the result of a practice wide call for the best project from each architectural office. 28 offices each submitted one project of their choice representing the best of their work to date.

We were very impressed with the effort put into the submissions. The projects were reviewed independently by Michael, Anton, Jeff and David utilizing the Five Parameters as evaluation criteria. Of the 28 projects, 3 citations were identified as having achieved a level of excellence we believe all of our projects should achieve; an ambitious and highly achievable goal.

We look forward to Project Review 2012.

Michael A. Moxam
Practice Lead, Design

FIVE PARAMETER OF EXCELLENCE

Vision

Every project should be driven by a Clear Idea. Vision captures the essential diagram, concept and approach to the design and defines the architectural and systems response.

Reinforcing the vision is the story or project narrative. It can be literal, metaphoric, a theme, or highly pragmatic. It should be connected to the client and drive meaning into the project.

Responsive Design

Projects must be responsive at multiple levels including site, physical context and unbounded site obligations, public realm, future conditions, environmental and cultural. Projects must have a humanist response tied to project type and typology.

Innovation

Innovation is demonstrated by driving outcomes that are unique, unexpected and unconventional. Innovation calls for challenging conventional design and delivery approaches and avoiding preconceptions. It requires and in-depth knowledge of content as well as rigorous research and exploration to develop truly innovative outcomes.

Performance

Performance determines how well the project meets the needs of our client's and their clients. Design criteria include efficiency, functional, configuration, workflow, energy and environmental response, practice and client financial goals and profit. Performance a highly measurable metric and serves as a barometer of efficiency in the design process.

Craft

Craft addresses the expression and technical response.

Elements of craft include:

Language (the What) – The composition of mass, form, space, color and texture.

Expression (the How) – The application of balance, proportion, rhythm, technical detailing and material.

Judgment – The ability to combine the numerous complex aspects of design into a holistic and pleasing whole.



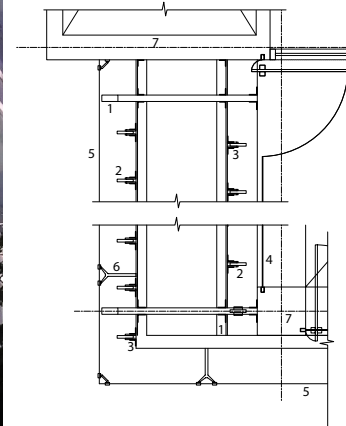
PROJECT: **XCELRIIS BOUTIQUE R&D LAB**
CATEGORY: **GLASS**

CLIENT: **XCELRIIS LABS LTD.**
COMPLETION: **2010/03**

Detail Legend

1. Steel Structure
2. Laminated Frosted Glass Fin
3. Stainless Steel Bracket
4. Tempered High Performance Inner Glazing
5. Laminated Clear Outer Glazing
6. Stainless Steel Spider Fitting & Support
7. Concrete / Masonry Structure
8. Linear Vent w/ Filter
9. Thermostat Activated Ventilation Fan

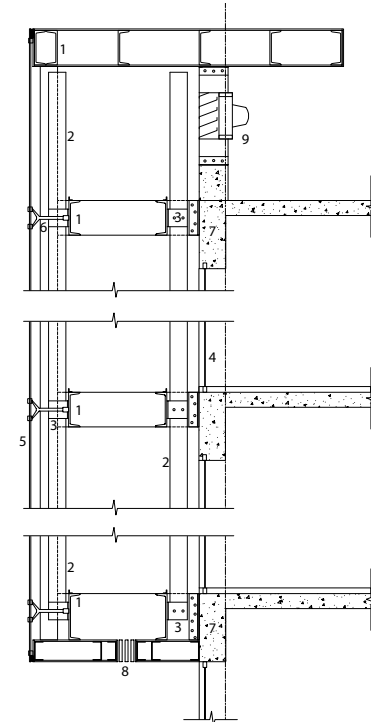
Detail Scale & Orientation



South Facade Plan Detail

The Xcelris Labs project consists of approximately 55,000 SF divided over 5 Floors (G+4) plus basement. The siting for the building is in a primarily medium density residential neighborhood with a south facing entrance. The building houses a first floor with reception and training areas, 3 floors of labs used in pharmaceutical testing and production as well as international standard clean rooms, and a fourth floor for executive and managerial offices.

The client expressed desire for an open and well lit environment, posing the first design challenge. Given the fact that the various types of labs often required separation for regulatory and process related reasons, the interior spaces would have to be substantially divided. Furthermore,



South Facade Section Detail

with the density of the residential buildings surrounding the building, confidentiality of the activities happening within the building became a concern. The solution was developing a transparent floor plan, with full glass partitions used throughout the lab spaces to increase the visual transparency as well as to allow the natural light to penetrate to the interior of the building. Visual privacy from the plots neighboring residential highrises was achieved through clerestory-type windows along both sides of the building allowing significant amounts of natural light into the workspaces while minimizing sightlines. The side window configuration also allowed maximization of utilizable wall space for the laboratories within.

The main, south façade posed another challenge. The city's climate is hot nine months out of the year and liberal use of glazing is often accompanied by uncomfortable and inefficient buildings. The main façade of the Xcelris Labs building was designed to accomplish six tasks: ensure maximum daylight, reduce heat gain, allow outward views from within, restrict full inward views from the exterior, minimize the maintenance that is prevalent in the city's dusty climate, and make an aesthetic statement worthy of a 'boutique' research organization. As such, the façade was developed as a ventilated double skin façade, providing the depth necessary to shade during the summer months and the insulative properties to minimize ambient and radiant heat transfer. Within the cavity are two offset rows of 6" wide laminated frosted glass fins which run from the first floor to the roof and are mounted to the steel structure with brushed stainless steel brackets. These fins were designed with the notion of a moiré effect as one moves across the outdoor plaza and throughout the interior. The fins functionally act as vertical light shelves, where even in the most direct sunlight, the direct light is diffused and reflected before entering the interior. Additionally, the façade provides notions and glimpses of the activity happening within without revealing all.

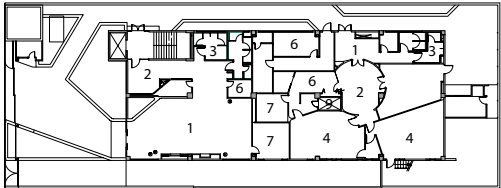
The facades interior glazing is a coated tinted glass to provide some reflective properties without sacrificing visibility from the exterior to the interior and vice versa. The outler layer of glass is a laminated clear glass selected to maximize visibility to the inside of the cavity through to

the buildings interior, mounted on brushed stainless steel brackets and spiders. The cavity itself has a linear vent with filter at the base and a thermostat activated ducting system at the top to ensure that the cavity is ventilated when the interior temperature rises above a specified range.

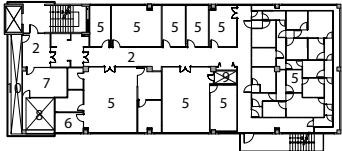
Buildings in this city are also subjected to significant maintenance challenges. Dust and pigeons invariably settle on every surface remotely close to horizontal, and the nine month long dry season ensure that the dust will remain. By enclosing the shading system within the glass box, the visual appearance of the façade remains pristine, requiring minimal maintenance.

The final accomplishment of the façade lies in its constructability. The design of the components had to be such that it could be assembled without a crane, due to the relative unavailability and additional expense of such heavy equipments. The glass and steel components were designed so that it was feasible for manpower to transport and assemble the façade at the various levels of the building.

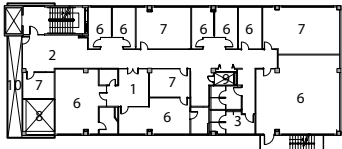
The use of glass throughout the building allowed the design to accomplish all of the goals set forth by the client and design team, and the building currently stands as a clean and modern statement reflecting Xcelris Labs image as a 'boutique' research organization.



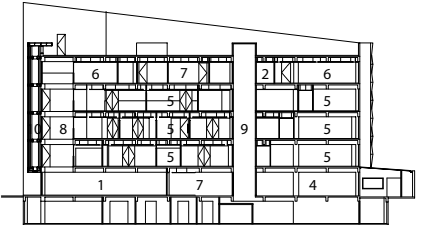
Ground Floor Plan



Typical Laboratory Floor Plan



Executive Floor Plan



Building Section



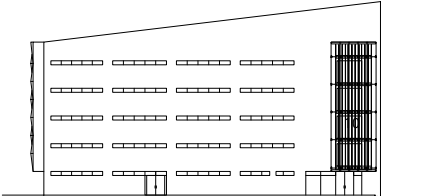
Plan, Section & Elevation Legend

1. Reception
2. Circulation
3. Restroom
4. Classroom
5. Laboratory
6. Office
7. Meeting Room
8. Atrium
9. Service Shaft
10. Double Glazed Facade System

Plan, Section & Elevation Scale & Orientation

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West Elevation