



**UBC BOOKSTORE
EXPANSION + RENOVATION**
Development Permit

1st October 2012

DESIGN RATIONALE

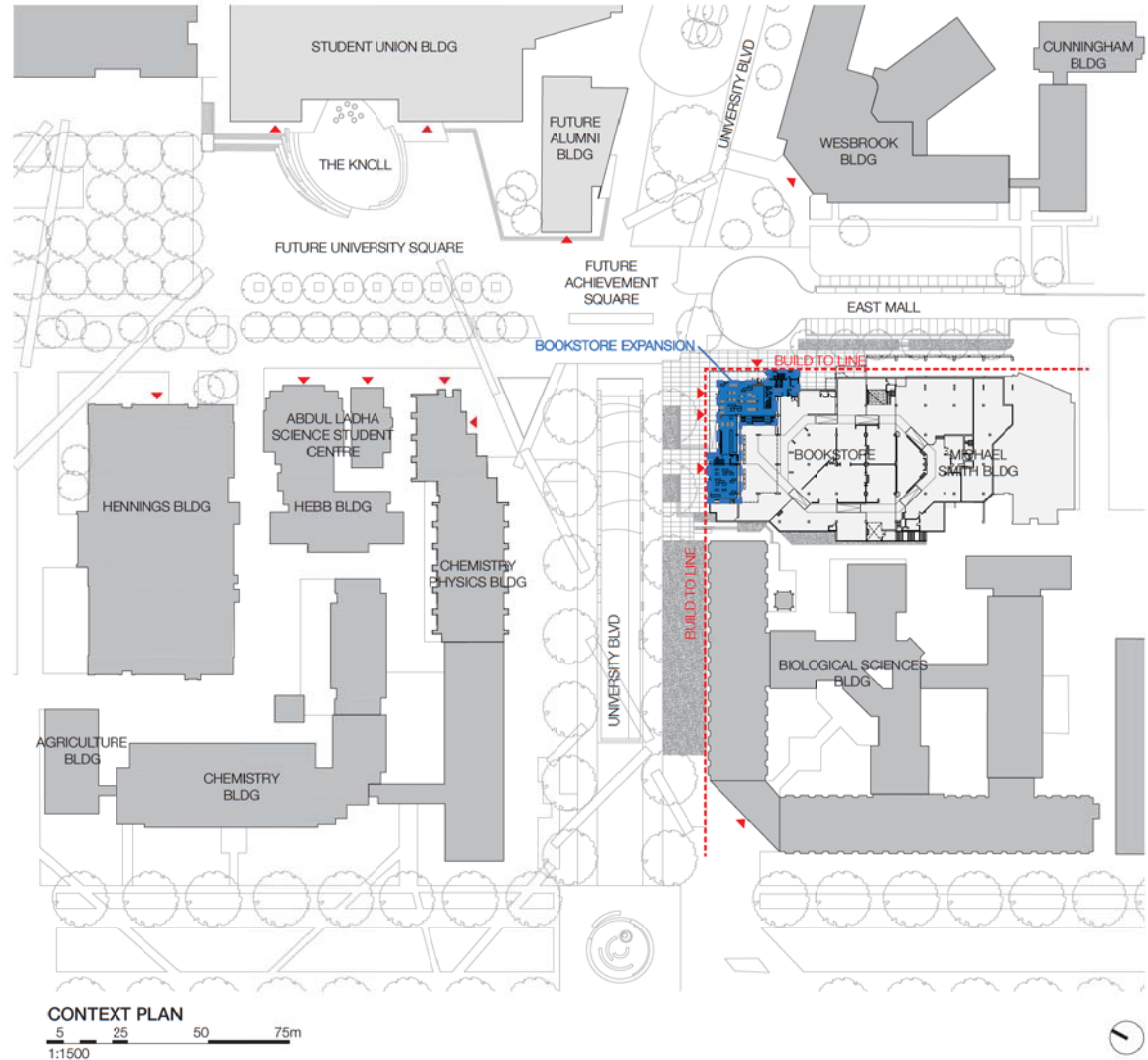
The new UBC Bookstore Expansion and Renovation project builds on the commercial success of the existing store with the introduction of several new program areas. The expanded store will provide for enriched customer experiences through new retail space, a larger café, a new area dedicated to convenience items, and a variety of spaces that encourage gathering and informal exchange. The expansion project is being complemented by a re-evaluation of the Bookstore's identity in order to refresh its image and emphasize its importance within the University campus.

The expansion creates the opportunity to redefine the role of the Bookstore within the 'Campus Heart' while bringing greater cohesion to its context. Equally important, the expansion helps to reinstate the relevance of the Bookstore through a lighter, brighter and more welcoming presence that contrasts the tough solidity of the existing building.

The expansion eliminates the below-grade aspects of the existing entry sequence of stairs and ramps. This is replaced with several new entries that are level with the grade of the adjacent streets, therefore 'normalizing' the retail frontage. A generous volume at the corner of East Mall and University Boulevard reinforces the Bookstore's presence at this important intersection, creates visual prominence and provides covered entries to both streets. A series of well-defined outdoor terraces complement the interior spaces and contribute to the place-making ambitions of the project.

The major program elements are arranged to help activate the edges of the public realm and contribute to the vibrancy of the Campus Heart. The primary retail space is given prominence on the corner and serves as the main entrance on the north and west side. The café is located adjacent, to the south, optimized for people watching along University Boulevard and Achievement Square. Further south is the convenience store strategically positioned to facilitate immediate level access from the Boulevard as well as from within the Bookstore. The preponderantly glazed facades are designed to reveal the animated activities within the building; students purchasing new textbooks, browsing merchandise, visitors relaxing with a coffee, and the bustle of other events throughout the year.

A new mezzanine, overlooking University Boulevard and East Mall, further enhances the concept of 'active edge' and will contribute to the vibrancy and dynamism of the Bookstore. The space will provide organized seating for the café, as well as informal learning areas where students can relax with a coffee, hold impromptu discussions, study independently, or organize small gatherings and displays. The elevated position above the streets below will create optimal people-watching opportunities and help to attract a broad range of visitors to the store therefore enhancing revenue potential.



DESIGN POLICY COMPLIANCE

CAMPUS-WIDE GUIDELINES

Positioning, Massing and Setbacks: The new Bookstore expansion aligns with the Biosciences building on University Boulevard and the Face of the staircase of the Michael Smith Building on East Mall. The massing of the building respects the existing bookstore and neighbouring buildings by sitting below the sill height of the adjacent NCE building. The new expansion has strong indoor-outdoor connections with new entries and extensive glazing at the ground plane. The massing and orientation of the new store contributes to campus legibility by strengthening the streetscape of East Mall and University Boulevard and supporting the evolution of Achievement Square as a 'place'.

Architectural Expression: The design and expression of the new addition brings a lighter, brighter and more welcoming presence that contrasts the tough solidity of the existing building. The horizontal, elongated form of the addition makes reference to the original 1980s design by Zoltan Kiss and the elevations of the addition pay close attention to the overall composition of the neighbouring buildings. The new addition and adjacent public realm on University Boulevard is conceived and designed as cohesive landscape and building composition with program elements arranged to fully animate the ground plane and surrounding public realm. The material palette of the addition is consistent with the 'Campus Core' District requirements, with extensive use of glazing, white brick and the use of wood at an institutional scale.

Animate and Bring Vitality to the Campus: The considerable transparency and openness of the addition connects the Bookstore to the adjacent public realm and provides a prospect for students, staff, faculty and visitors. Locating the social program, the new café, adjacent to the new public realm on University Boulevard will transform the exterior of the Bookstore into a vibrant social space that could be used to host events, such as the Blueberry Festival, or equally as a social hub for students, staff, faculty and visitors. The overall transparency and lightness of the addition will visually express the image of a 'university' and traditional 'Bookstore', as well the evolving concept of '21st century campus store'. Brightly coloured interior furniture at the ground level and on the mezzanine will further animate the building's exterior both during the day and at night.

Ground Floor Elevation: The ground plane surrounding the Bookstore is 'normalized' by bringing the Bookstore expansion up to grade and creating a series of terraces following the natural grade of University Boulevard. The finished floor level of the bookstore expansion is flush with the adjacent grade at the intersection of University Boulevard and East Mall. The finished floor of the convenience store will be raised to be flush with the adjacent grade of University Boulevard as it rises to the South.

Height: The new addition is a single storey with a mezzanine with an overall height of 7.05m.

Entries: Two entries to the bookstore will be maintained at both University Boulevard and East Mall. The glazed entries will be highly visible from the adjacent streets and public realm. Additional separate entries will also be provided for the café and convenience store from University Boulevard to accommodate additional operating hours beyond the regular Bookstore hours.

Rain Protection: The design incorporates a 3m deep canopy which protects the north and west facades including both bookstore entries and the café entrances. The canopies are formed by the overhang of the mezzanine and therefore are fully integrated into the building's architecture. A smaller, discreet canopy protects the convenience store entry.

Stairs: Two public stairs connect the new mezzanine space to the Bookstore expansion. Both stairs are on principle paths of travel and have ample natural light. The stairs form key experiences in the building. The principal interior stair is an open, expressive stair off the main entry of the store, the secondary stair provides convenient access from the café to the mezzanine. A third stair provides an additional exit from the mezzanine to the exterior.

Sustainability: The approach to sustainability will be inline with the University's requirements while acknowledging the context of the existing building complex that the addition is part of. Please refer to our Sustainability page for further information.

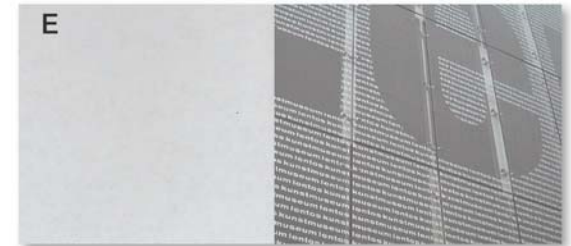
EXTERIOR MATERIALS

'CAMPUS CORE' DISTRICT

Campus core Architecture: The new Bookstore expansion respects the architecture of the original 1980s Zoltan Kiss building by acknowledging the original concrete structure but seeking to differentiate the addition from the original by the introduction of a lighter and more transparent material palette. The massing of the addition reinforces the horizontality of the existing store with its simple rectilinear massing. The building refers to the International Style tradition of the campus with its light coloured cladding, highly penetrable ground plan and the strong relationship of the building with the surrounding landscape.

Primary Materials: The use of white brick on the two 'bookends' of the building is a reference to the international style buildings on campus.

Secondary 'Accent' Materials: Extensive 'fritted' glass on the primary facades, wood soffit and ceiling, clear anodized aluminum mullions.



A Douglas Fir Roof Deck

B Existing Concrete

C White Brick

D Clear Anodized Aluminum Window Framing

E Fritted Glass

SUSTAINABILITY

The new Bookstore expansion is targeting a goal of LEED Gold equivalency as achieving LEED gold certification would be challenging for this project due to the scope of the renovation. The building design aims to achieve a high level of energy performance to meet a target of 42% below MNECB as required by the University.

The design of the Bookstore will achieve this by incorporating a high performance envelope, radiant in-slab heating and cooling, dedicated outdoor air displacement ventilation, daylighting, energy efficient light fixtures, and low-flow plumbing fixtures as the primary sustainable features. Minimizing heat transfer to the exterior through a high performance envelope is the first feature that should be considered in a sustainable design. High performance glazing, increased wall and roof insulation, slab insulation, and details intended to minimize thermal bridging will all be incorporated into the envelope design. Radiant heating and cooling will also be included as part of the sustainable design strategy. A radiant heating and cooling system, coupled with a dedicated outdoor air ventilation system, offers significant savings in fan power compared to a conventional system. Use of a displacement ventilation system will further decrease fan power by offering superior ventilation effectiveness. Lighting loads are typically very high in retail spaces. Carefully considered daylighting and energy efficient lighting design are often seen as the most cost effective means of reducing electricity usage and cooling loads. Low flow fixtures will be used to decrease water consumption and domestic water heating requirements.

Project Totals (pre-certification estimates)

Yes	?	No	Denotes priority sustainability goals	
52	42	14	Project Totals (pre-certification estimates)	110 Possible Points
Certified 40-49 points Silver 50-59 points Gold 60-79 points Platinum 80 points and above				
Yes	?	No	Sustainable Sites	26 Points
1			Prereq 1 Construction Activity Pollution Prevention	Required
5			Credit 1 Site Selection	1
		1	Credit 2 Development Density and Community Connectivity	3,5
			Credit 3 Brownfield Redevelopment	1
6			Credit 4.1 Alternative Transportation: Public Transportation Access	3,6
1			Credit 4.2 Alternative Transportation: Bicycle Storage & Changing Rooms	1
3			Credit 4.3 Alternative Transportation: Low-Emitting & Fuel-Efficient Vehicles	3
2			Credit 4.4 Alternative Transportation: Parking Capacity	2
1			Credit 5.1 Site Development: Protect and Restore habitat	1
	1		Credit 5.2 Site Development: Maximize Open Space	1
1			Credit 6.1 Stormwater Design: Quantity Control	1
1			Credit 6.2 Stormwater Design: Quality Control	1
1			Credit 7.1 Heat Island Effect: Non-Roof	1
1			Credit 7.2 Heat Island Effect: Roof	1
1			Credit 8 Light Pollution Reduction	1
Yes	?	No	Water Efficiency	10 Points
4	7	4	Prereq 1 Water Use Reduction	Required
	4		Credit 1 Water Efficient Landscaping	2,4
2			Credit 2 Innovative Wastewater Technologies	2
2	3	4	Credit 3 Water Use Reduction	2-4
Yes	?	No	Energy & Atmosphere	35 Points
11			Prereq 1 Fundamental Commissioning of Building Energy Systems	Required
			Prereq 2 Minimum Energy Performance	Required
			Prereq 3 Fundamental Refrigerant Management	Required
	2	5	Credit 1 Optimize Energy Performance	1-19
	2		Credit 2 On-Site Renewable Energy	1-7
2			Credit 3 Enhanced Commissioning	2
2			Credit 4 Enhanced Refrigerant Management	2
4			Credit 5 Measurement and Verification	3
2			Credit 6 Green Power	2

8	5	1	Materials & Resources	14 Points
2	1		Prereq 1 Storage and Collection of Recyclables	Required
1			Credit 1.1 Building Reuse: Maintain Existing Walls, Floors, and Roof	1-3
			Credit 1.2 Building Reuse: Maintain Interior Non-Structural Elements	1
2			Credit 2 Construction Waste Management	1-2
1	1		Credit 3 Materials Reuse	1-2
2			Credit 4 Recycled Content	1-2
1			Credit 5 Regional Materials	1-2
1			Credit 6 Rapidly Renewable Materials	1
			Credit 7 Certified Wood	1
8	5	2	Indoor Environmental Quality	15 Points
1	0		Prereq 1 Minimum Indoor Air Quality Performance	Required
			Prereq 2 Environmental Tobacco Smoke (ETS) Control	Required
1			Credit 1 Outdoor Air Delivery Monitoring	1
	1		Credit 2 Increased Ventilation	1
1			Credit 3.1 Construction IAQ Management Plan: During Construction	1
	1		Credit 3.2 Construction IAQ Management Plan: Before Occupancy	1
1			Credit 4.1 Low-Emitting Materials: Adhesives and Sealants	1
1			Credit 4.2 Low-Emitting Materials: Paints and Coatings	1
1			Credit 4.3 Low-Emitting Materials: Flooring Systems	1
1			Credit 4.4 Low-Emitting Materials: Composite Wood and AgriFibre Products	1
1			Credit 5 Indoor Chemical and Pollutant Source Control	1
	1		Credit 6.1 Controllability of System: Lighting	1
	1		Credit 6.2 Controllability of System: Thermal Comfort	1
1			Credit 7.1 Thermal Comfort: Design	1
	1		Credit 7.2 Thermal Comfort: Verification	1
	1		Credit 8.1 Daylight and Views: Daylight	1
1			Credit 8.2 Daylight and Views: Views	1
2	4	0	Innovation in Design	6 Points
1			Credit 1.1 Innovation in Design - Green Cleaning	1
1			Credit 1.2 Innovation in Design - Exemplary Performance Water Use Reduction	1
1			Credit 1.3 Innovation in Design - Exemplary Performance Regional Materials	1
1			Credit 1.4 Innovation in Design - Exemplary Performance Recycled Content	1
1			Credit 1.5 Innovation in Design	1
1			Credit 2 LEED® Accredited Professional	1
2	2	0	Regional Priority	4 Points
1			Credit 1 Durable Building	1
1			Credit 2.1 Regional Priority Credit	1
1			Credit 2.2 Regional Priority Credit	1
1			Credit 2.3 Regional Priority Credit	1