



SUBJECT	UNIVERSITY BOULEVARD PLANNING PROCESS
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MEETING DATE	JUNE 9, 2015
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Forwarded to the Board of Governors on the Recommendation of the President

APPROVED FOR
SUBMISSION

Arvind Gupta, President and Vice-Chancellor

DECISION REQUESTED	<p>IT IS HEREBY REQUESTED that <i>the UBC Board of Governors:</i></p> <ul style="list-style-type: none">• <i>Approve the updated University Boulevard Design Guidelines dated June 2015;</i>• <i>Approve the amendments to the University Neighbourhood Plan dated June 2015;</i>• <i>Approve in principle the design and program concepts for the D.H. Copp site as referenced in the University Boulevard Design Guidelines, with project approval to follow in accordance with the standard Board capital approval process and program approval to follow in accordance with UBC's Behavioural Research Ethics Board review process for the Campus as a Living Lab research components;</i>• <i>Approve in principle the design concept for the North and South GSAB sites, as referenced in the University Boulevard Design Guidelines, and direct staff to report back on the future planning process for this sub-area including War Memorial Gym, and further exploration of cost neutral development options for GSAB South that create a bold architectural expression at the campus gateway;</i>• <i>Direct staff to review the Land Use Plan definitions of permitted academic uses associated with Campus as a Living Lab projects during the next comprehensive Land Use Plan Review, as raised by the AMS and GSS through this planning process; and,</i>• <i>Receive for information the overall design concept for Wesbrook Mall from Student Union Boulevard to Thunderbird Boulevard, and direct staff to move into the schematic design phase subject to Board approval of future capital allocations contained in the IIC Plan.</i>
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Report Date	May 8, 2015
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Presented By Angela Redish, Acting Provost and Vice-President Academic
 John Hepburn, Vice-President Research & International
 Lisa Castle, Vice-President Human Resources (Acting VP, Resources & Operations)
 Michael White, Associate Vice-President, Campus + Community Planning
 John Metras, Managing Director, Infrastructure Development

If this item was previously presented to the Board, please provide a brief description of any major changes since that time.

In December 2014, the Board requested staff to bring concepts of the area to the Board of Governors for discussion, specifically the intended land use and development programs for the GSAB and D.H. Copp sites ahead of the Undergraduate Life Sciences Teaching Labs Board 3 approval request expected in June 2015.

EXECUTIVE SUMMARY

This report provides the outcomes of the University Boulevard planning process, including a confirmation of the area vision as well as the planning and design concepts for key sites and public areas, as reflected in the updated University Boulevard Neighbourhood Plan and associated Design Guidelines. This is a result of extensive public and stakeholder consultation integrated with the technical planning and design processes for specific sites and the broader area. The report also frames an approach and sequencing of development on the GSAB and D.H. Copp sites, more specifically, to address questions related to faculty and staff housing on academic land.

[Click here for Phase 1 and Phase 2 Consultation Reports](#)

INSTITUTIONAL STRATEGIC PRIORITIES SUPPORTED

✓ Learning

✓ Research

✓ Innovation

✓ Engagement
(Internal / External)

☐ International

or ✓ Operational

DESCRIPTION & RATIONALE

The University Boulevard precinct has been the subject of planning programs for decades. Resultant policies include: relevant sections of the Land Use Plan, University Boulevard Neighbourhood Plan, Vancouver Campus Plan, University Boulevard Design Guidelines and Board decisions for individual sites such as Gage South. The precinct was also the subject of an international design competition in 2004.

UBC is now updating plans for the University Boulevard precinct to respond to changes in the area and to guide new opportunities for how the sites of GSAB, D.H. Copp, UBC Bus Exchange, War Memorial Gym and Wesbrook Mall could be developed and programmed (See Appendix A for plan of the precinct). The planning process seeks the best ways to use these sites to achieve the precinct vision of:

1. Serving as a welcoming, academic gateway
2. Creating a vibrant academic and social hub
3. Contributing to UBC's complete community as a mixed-use core

To realize this vision, a number of preliminary ideas and strategies were put forward through a two phase consultation and testing process (January 2015-present), which

included conversations with various faculty, staff, and student committees, the UNA and UEL, two public open houses, online consultation, and several workshops with senior administrative staff, external design experts, students, faculty and community members.

The outcomes of this process are:

- updated Design Guidelines and Neighbourhood Plan (Appendices B and C),
- input into the Board 1 for Gage South Student Housing (and revised Board 1 for the UBC Bus Exchange),
- overall design concepts for D.H. Copp and GSAB development sites, as referenced in the University Boulevard Design Guidelines,
- input into the future planning of the D.H. Copp site, as a mixed use Campus as a Living Lab research project,
- input into the future planning process for North and South GSAB sites and War Memorial Gym,
- an urban design concept for the redesign of Wesbrook Mall,
- Phase 1 and Phase 2 consultation summary reports (Appendix D) and overview in the Consultation section of this report.

The precinct vision, as articulated in the Design Guidelines:

1) Creating a Welcoming Academic Gateway and 2) Vibrant Academic and Social Hub

The precinct is the premiere gateway to the central academic campus. A strong expression for this gateway will reinforce that UBC is a place of learning and research, diversity, multiculturalism, sustainability, achievement and history.

At the same time, as the vibrant academic and social heart of the campus, the precinct will draw people together for learning, dialogue, celebration, innovation, recreation, study and fun. Public spaces (streets, plazas, transit areas and other gathering places) will be designed to enhance the vibrancy of the area and support a range of academic, student service, recreational activities, and events.

The updated precinct Design Guidelines include the following objectives for strengthening this important gateway and supporting academic and social vibrancy:

Reinforcing the Scale and Architectural Character of UBC's Academic Campus Core

The building massing and expression of new projects in the precinct will be designed to work together harmoniously while maintaining their individual identity.

Traditional campuses achieve this balance through related mid-rise massing, strong streetwall and open space configurations, common use of materials, and expression of the academic and research culture within. Recent additions to the UBC campus

such as the Djavad Mowafaghian Centre for Brain Health, Beaty Biodiversity Centre and UBC Bookstore demonstrate how these principles can be applied with contemporary architecture.

Legibility and Transparency

One of the objectives is to animate the precinct by developing a high level of transparency into active public uses within buildings. This transparency needs to be balanced by the requirement to design the buildings in a highly sustainable way to reduce energy consumption, amongst other green objectives. Transparency of the upper levels should integrate with active uses at grade to create a lively and animated public realm that promotes social interaction and a true sense of public place.

Animating programming and special public open space features

The goal of intensifying student and academic vibrancy is achieved by providing enhanced campus amenities, ground oriented programming and providing opportunities for student / academic expression within public spaces. New buildings and open spaces in the precinct will be designed to announce and celebrate innovation by introducing opportunities to display and communicate achievement as well as demonstrate ideas through intimate interaction. The use of bold elements – light, graphics, wayfinding, and architecture – will also be used to enhance the experience of the precinct as a welcoming and special place.

3) Contributing to UBC's Complete Community as a Mixed-use Core

One of the prominent questions throughout the consultation process has been the rationale for introducing housing (other than student housing) in the precinct and more specifically, locating housing on the GSAB and D.H. Copp sites. In answering this question, one of the fundamental principles of the University Boulevard vision has required examination and validation through this process: the creation of a complete and vibrant community at a key gateway to the university, which includes a mix of uses and a range of housing choices.

As a complete community that contributes to vibrancy and sustainability, the area is anticipated to have a diverse mix of uses and services, including a range of housing options. More specifically, this approach to a diverse mix of uses in the heart of the UBC campus:

- is best practice for sustainable community design by bringing learning, jobs, housing, recreation and transit closer together, improving safety with more “eyes on the street”, reducing carbon emissions and improving health by encouraging walking and transit, and making for a more socially diverse and vibrant community;
- adds to and complements the growing supply of housing dedicated to students across campus;
- contributes to the implementation of the Housing Action Plan (including units prioritized for faculty and staff);

- supports the renewal of the Undergraduate Life Sciences Teaching Labs (BioSciences North & Centre Renew) project. Incremental market pre-paid lease revenue from new market housing in South Campus, where the faculty and staff rental housing was originally targeted, provides a \$57.3m additional Endowment contribution. The annual 3.5% Endowment expenditure on this contribution goes to the University Operating Budget and then in turn is used to service debt for the Undergraduate Life Sciences Teaching Labs project;
- complements the growth of housing choices in Neighbourhood Areas with smaller more urban units;
- pursues best practice for city design that creates environments conducive to interactions, sharing of ideas and creativity through mixing of uses, diverse choice of housing and jobs, and interesting places to socialize and built upon proximity to higher education, research and learning.

The implementation of this mixed use approach also recognizes the displacement of potential housing on the sites now home to the new SUB and Alumni Centre, along with the rehabilitation of the Bookstore. This change has resulted in the western part of the precinct now emphasizing student and alumni services and support. It also recognizes the decision in 2012 to replace planned faculty and staff housing in Gage South with student housing to expand the student housing footprint in the northern part of the precinct necessitating the delivery of faculty and staff housing elsewhere on campus.

As the results of the consultation show, there continues to be strong support for this principle of a complete mixed use community, citing many of the benefits above. However, there remains a debate, particularly from the student members of the community, with regard to accommodating housing other than purpose built student housing on the GSAB and D.H. Copp sites. Some question the compatibility of faculty and staff housing in an area mixed with students, but the most common concern is the accommodation of housing on land designated Academic, that is not purpose built student housing – as discussed below.

D.H. Copp Site

The vision for the D.H. Copp site is as an innovative, sustainability project that combines research and practice focused on advancing the design and construction of sustainable buildings and communities with non-market rental housing, prioritized for faculty and staff. A key goal is to use the site as a Campus as a Living Lab research project. This will involve a range of interdisciplinary researchers, building systems experts, and eventually building occupants. The goal is to have a series of potential research projects related to issues such as: sustainable building design and materials; monitoring environmental performance and human wellbeing; and the role of building design and operations in fostering human health and happiness.

The proposed concept is a six storey mixed use building with approximately 215,000 sq.ft. of non-market housing prioritized for faculty and staff above retail and/or academic programming at street level. The research brief is currently being developed by a joint academic-operations steering committee with the involvement of various researchers (see Appendix E for draft research brief). Research projects being contemplated include:

- New approaches to monitoring environmental performance and human wellbeing;
- Optimal integration of design modeling, quantitative environmental performance and building operations systems monitoring, and quantitative and qualitative assessments of the effect of the building on its inhabitants and the neighbourhood;
- The absolute and relative contribution of behaviour and technology to sustainability performance (e.g. automated controls relative to human operations);
- The development, testing, and refinement of metrics to evaluate the human performance of the building and landscape, such as those related to health, comfort, and subjective wellbeing;
- The interaction between project design, infrastructure, community engagement, and social capital;
- The contribution of controls technology to improving the behavioural interface;
- The role of building and landscape design and operations in fostering human health, productivity, safety, and happiness;
- The implications of the use of sustainable building materials, including wood;
- The absolute and relative values of a building's private and public spaces to its inhabitants;
- Moving from an integrated design process (IDP) to integrated project delivery (IPD) over the building lifecycle;
- Incorporating environmentally, socially, and financially sustainable building design and research into the design process;
- Growing regenerative neighborhoods and fulfilling the promise of sustainable and innovative buildings and communities of the future.

The refinement of the design and research briefs would continue through to a Board 1 consideration in Summer of 2016. This would include further articulation of the research program, including refined scope, budget, and operational aspects for tenant participation in the research projects. All research done as part of the Campus as a Living Lab research project will have to obtain ethics approval from the Behavioural Research Ethics Board at UBC. This means that all research will obtain informed consent from any residents before the research can be undertaken, with full opt-out provisions built into the agreement.

Comments were expressed throughout the consultation process about consistency between the programming for D.H. Copp and approvable uses in the Land Use Plan (LUP). Both the D.H. Copp and GSAB sites straddle the Academic and Village Centre Academic Land Use designations in the LUP. Residential is a clearly permitted use within Village Centre Academic but only residential associated with academic programs is permitted under academic land use. With Campus as a Living Lab as an approvable academic land use, the D.H. Copp redevelopment could proceed vis-a-vis the LUP designations. Consistency between the proposed uses for GSAB and the LUP designations is described below.

GSAB Site

Urban design analysis, based on current plans, guidelines and development economics, is showing the potential to split the site in two (GSAB North and South). Feedback from the consultation process emphasized two interrelated needs. First, that a bolder architectural expression is needed at the corner of University Boulevard and Wesbrook Mall than options that have been presented to date. Second, development and density on the GSAB site needs to be optimized given premium costs associated with a bolder gateway expression.

GSAB North

This would include at least 85,000 sq.ft. of faculty and staff housing in wood frame construction. This creates a feasible proforma (i.e. no equity needed) and achieves a density meeting or exceeding 3.5 FSR, the upper end of density achieved per site in the UBC residential neighbourhoods (and wood frame development in the Lower Mainland, in general). The upper 5 storeys would be wood frame construction over a one storey concrete ground floor that houses a mixture of uses potentially including: shops and services to support transit users, academic uses to support athletics or the “Yard” outdoor space, and live-work faculty and staff studios.

GSAB South

This site has the potential for two buildings with shared underground parking. This would provide for a bold academic gateway building at the corner of University Boulevard and Wesbrook Mall, constructed in concrete with institutional quality architecture. The preliminary program includes the potential for at least 30,000 sq.ft. of floorspace for Kinesiology research and instruction facilities. The overall site density would meet or exceed 3.5 FSR to optimize development given the proximity to transit. Three scenarios for GSAB South are being explored:

Scenario 1 - Academic uses across the site. Maximum height of a six storey building fronting University Boulevard and an eight storey building fronting Wesbrook Mall.

Scenario 2 - Mixed use, with a six storey academic building fronting University Boulevard and up to an eight storey building with university rental housing or market rental housing fronting Wesbrook Mall.

Scenario 3 - Same as Scenario 2, but allowing the rental housing building to increase in height up to twelve storeys.

*In all three scenarios, provision would be made for some commercial space at grade to activate the street frontages.

The above planning concepts for GSAB North and South are based on preliminary urban design and economic analysis conducted by staff aimed at balancing the need to achieve a bold architectural expression at the corner of University Boulevard and Wesbrook Mall with the need for financial viability. Key constraints and findings that led to the proposed planning concepts include:

- Concrete (steel or mass timber) construction is necessary for the GSAB South site to achieve a bold architectural expression at the gateway corner. Concrete allows for a more dynamic building massing, higher floor to ceiling heights, double storey spaces, greater building height and large areas of glazing than with wood frame construction.
- Institutional quality architecture detailing (glazing, finishes, material, graphics, etc.) are necessary for creating the dignified, inspiring gateway expression sought.
- Academic, market rental housing and university rental housing all generate sufficient revenue to pay the premium cost for concrete construction and institutional quality detailing. Faculty and staff housing, which generates lower revenues, would result in a premium cost of \$8 to \$12 M, if it were constructed in concrete instead of wood frame.
- The GSAB South site is a significant, prominent site and therefore well suited for pursuing donor funding. Further, donors typically only gift for the naming of an academic building and not for naming faculty and staff Housing.
- Tower development (i.e. Scenario 3) on the GSAB site needs to be approached with caution, as the prevailing height of this area is mid-rise institutional building and tower developments, typically read as “residential” or “office”, will likely be felt as incompatible with the academic appearance desired for the gateway.

Additional guidance in the Design Guidelines for achieving a bold academic gateway expression on the GSAB South site include:

- Create an architectural anchor and ‘lantern’ through a highly transparent lower floors and uses that are inviting, welcoming, and public.
- Contribute to campus and precinct coherence and a “university” through a predominately mid-rise institutional massing.

- Convey the University's commitment to excellence through a contemporary architectural expression and high quality materials and detailing.
- Contribute to campus cohesion through harmonious scale and relationship with neighbouring buildings.
- Employ academic architectural features (e.g. high ground floor, two storey spaces, generous externally expressed staircases).

GSAB Planning Process

To develop a detailed program and massing for the GSAB sites, the next step would be the creation of a sub area plan, which should also include the future of War Memorial Gym. Integrating the planning of War Memorial Gym is strongly advised given the adjacency of the sites, potential for program integration and efficiency of construction staging.

With the potential for rental housing options on the GSAB sites, the process would likely necessitate an associated Land Use Plan amendment. This would be dovetailed with the development of the sub area plan and reflect the public and technical elements associated with a Land Use Plan amendment, as per provincial requirements. Staff would report back to the Board with a fully detailed planning process encompassing all of these elements in early 2016.

War Memorial Gym

Staff are in the initial stages of exploring how the War Memorial Gym site can contribute to the athletic and recreational needs and experience of the precinct going forward. The future of the site will be determined in coming years. A recent review concluded that the building needs code upgrades and replacement of other building systems. In addition, its athletic facilities do not fully meet the needs of current sports programs.

Staff will be assessing whether to renew or replace this building and potentially in conjunction with the planning of the northern portion of the GSAB site. As part of this exploration, UBC will also be looking at how this site can better accommodate student and community athletic needs along with health-related academic uses. UBC Athletics is currently undergoing a visioning process to determine its future programming needs and academic stakeholders from health related departments will be involved in helping define potential programs for this site.

War Memorial Gym is also identified as a heritage resource in the Vancouver Campus Plan for its role in community building and as a landmark of the campus' early modernist buildings. Given its historic value, it is anticipated that UBC alumni would have a keen interest in the future use of the site and will need to be consulted through the planning process. The process will include the analysis of various options including retention versus replacement and compare the costs, functionality, campus fit and heritage value.

UBC Bus Exchange/Student Housing

The design of the UBC Bus Exchange is under review due to escalating costs associated with the initial concept of an underground bus storage facility. The new proposed concept supported by TransLink includes centralized and safe passenger drop-off and pick-up areas that connect to pedestrian pathways, and a bus storage facility integrated into the ground level of the future Gage South student housing building. The Gage South development will provide 600-650 beds of year-round student housing for upper year undergraduate and graduate students and will include a range of amenities, such as proximity to transit, an elevated central courtyard, plus gathering and informal study spaces.

The design team is finalizing the location and design of bus pick up, drop off and storage to balance transit efficiency with the safety and comfort of pedestrians. Access to the housing above was flagged as a key issue for resolution, given that most residents will be coming to and from points west of the development. This has been addressed by having the buses access the facility off of Wesbrook Mall directly, thereby keeping the Student Union Boulevard frontage free of bus access. They are also exploring enhancements to mitigate noise, vibration and emissions from buses, noting there is a wealth of best practice for integrating motor vehicles beneath residential and commercial development across North America and globally.

The Bus Exchange is designed to meet current and future capacity, including future rapid transit. Analysis shows that extending rapid transit to UBC is expected to have only minor impacts on capacity requirements for bus storage, as demand for buses will continue even with rapid transit. Further analysis of potential impacts is subject to more detailed bus integration planning in Phase 3 of the Broadway Rapid Transit Project, currently being led by TransLink.

Wesbrook Mall Redesign

This process included the drafting and consultation on a conceptual redesign of Wesbrook Mall (between Student Union Boulevard and Thunderbird Boulevard) to address the failing infrastructure and to improve safety and traffic flow for all road users, especially pedestrians and cyclists. The concept includes:

- Narrowing the street, generally accommodating one traffic lane in each direction, turn lanes where necessary and transit priority lanes between Agronomy Road and Thunderbird Boulevard.
- A 3.0m wide planted median will run the length of the road except at turn lanes.
- Continuous separated 2.0m wide bike lanes along both sides of the street, buffered by a 1.0 metre pavement treatment to distinguish it from parking lane or travel lane.
- Generous, universally accessible sidewalks at 3.5 metres in width on the west side of the street with features such as lighting, banner arms, street trees, planting, and seating.
- Metered parking along the west side of the street, including dedicated car share parking spaces.

- Well-defined and safe crosswalks at all intersections and at pedestrian desire lines (e.g. at UBC Health Precinct)
- Special hardscape treatment to define the crosswalks and to express gateway at the intersection of University Boulevard.
- Consideration of a pedestrian-only scramble style signal phase at the intersection of Wesbrook Mall and University Boulevard to facilitate pedestrian movements.
- Improved intersection at Student Union Boulevard to increase legibility, remove all channelized turns, decrease crossing distance and improve overall safety of the intersection.
- Consideration of green infrastructure to manage stormwater in the landscape and divert from conventional stormwater infrastructure.

BENEFITS
Learning, Research,
Financial,
Sustainability &
Reputational

Benefits from completing and implementing the University Boulevard vision include:

Learning and Research:

- Academic uses such as the proposed 30,000 sq.ft. Kinesiology research and instruction facilities as part of the southern GSAB site,
- Integration of Campus as a Living Lab research on the approximately 215,000 sq.ft. of floorspace on the D.H. Copp site,
- Storefront academic uses along University Boulevard being explored include: continuing education learning spaces, a “maker’s centre”, gathering and collaboration places and satellite student services.

Financial:

- Delivery of 300,000 sq.ft. of faculty and staff housing on the GSAB and D.H. Copp sites supports the renewal of the Undergraduate Life Sciences Teaching Labs (BioSciences North & Centre Renew) project. Incremental market pre-paid lease revenue from new market housing in South Campus, where the faculty and staff rental housing was originally targeted, provides a \$57.3m additional Endowment contribution. The annual 3.5% Endowment expenditure on this contribution goes to the University Operating Budget and then in turn is used to service debt for the Undergraduate Life Sciences Teaching Labs.
- The development of university housing on Sites B and D will contribute rental revenue from approximately 150 residential and approximately 10 commercial units towards the Properties Trust Rental Housing Dividend.
- The development of the Gage South student housing/transit facility leverages an \$8.84 million contribution from Translink for the transit infrastructure integrated at the base of the building.

Sustainability: Creating a mixed use complete community in this area is best practice for sustainable community design by bringing learning, jobs, housing, recreation and transit closer together, improving safety with more “eyes on the street”, reducing carbon emissions and improving health by encouraging walking and transit, and making for a more socially diverse and vibrant community.

Reputational: Having a strong academic gateway and vibrant hub at the entrance of campus contributes to the health and stature of a leading global research institution.

RISKS Financial, Operational & Reputational	GSAB Residential Floorspace
	The risk in deferring approximately 85,000 sq.ft. of residential floorspace on the GSAB site until future planning of the site concludes is confirming the replacement of that amount of floorspace from South Campus as part of the funding arrangement for the rehabilitation of the Undergraduate Life Sciences Teaching Labs project. The potential for a Land Use Plan amendment as part of the future planning process means that an additional 1-2 years may be required based on previous experience with Land Use Plan amendments and provincial approval timelines. However, this risk is mitigated by the fact that the Undergraduate Life Sciences Teaching Lab's project funding is dependent on endowed revenue from the sale of the market housing sites in South Campus which was always expected to take up to ten years to realize.

D.H. Copp Campus as a Living Lab

In addition to helping shape a complete and vibrant community at this gateway, integration of the project with Campus as a Living research responds to a demand from UBC researchers to study the sustainable design and performance of a medium density residential development based on a typical development budget and that is ultimately replicable. It also accommodates over 200,000 sq.ft. of faculty and staff housing that is associated with the Endowment funding of the Undergraduate Life Sciences Teaching Labs project as described in the report.

The risks in proceeding with this as a Campus as a Living Lab project include:

- consent of residents to participate in a residential research project;
- assurance of privacy throughout phases of research;
- compliance with the Academic provisions of the Land Use Plan should the Campus as a Living Lab project cease, given that residential is approvable only if tied to academic programming.

The first two risks would be addressed through the Behavioural Research Ethics Board ethics approval process that requires all research taking place as part of this Campus as a Living Lab project to obtain informed consent from any residents before the research can be undertaken, with full opt-out provisions built into the agreement. There will also be clear and transparent language in the wording associated the rental contracts administered through Village Gate Homes (the Properties Trust subsidiary that manages the rental units).

For the latter risk of Land Use Plan compliance, should a Land Use Plan amendment be pursued for the future for the GSAB site, it would provide an opportunity for a housekeeping change that recognizes the role of housing on the Copp site. This would not effect the development process or timing for the Copp redevelopment as a Campus as a Living Lab project, but would provide greater clarity in interpreting the role of housing in the area.

Throughout the consultation process, the AMS and GSS also expressed the need to further clarify the interpretation of the Land Use Plan that would enable faculty and staff housing being located on academic land as part of a Campus as Living Lab project. Staff are recommending a review of the definitions of permitted academic uses in the Land Use Plan during the next comprehensive Land Use Plan Review (to be scheduled).

Ground Floor Institutional Programming

A mix of retail and institutional programming is being contemplated for the ground floor uses along University Boulevard in order to deliver on the principle of a vibrant and welcoming academic and social hub at the gateway to campus. There are established funding mechanisms in place for the development of the mixed use opportunity sites along the Boulevard (i.e. Sites B, D, Copp and GSAB) as part of the Properties Trust rental housing portfolio. However, the proformas for all of the sites are dependent upon rental revenue from the ground floor commercial/institutional units. The funding and financing of the institutional uses being contemplated remains to be confirmed and will require additional due diligence as part of the plan implementation.

COSTS Capital & Lifecycle Operating

Capital and operating costs for specific projects will be presented to the Board as part of the approval submissions for those projects.

FINANCIAL Funding Sources, Impact on Liquidity

Financing for university rental housing projects and associated ground-level retail components will be secured externally by UBC Properties Trust with debt service funded through rental revenue. UBCPT will own and operate these mixed use rental housing developments (Site B, Site D, D.H. Copp site, GSAB site). Financing for student housing projects in the precinct (Gage South) will be through the Student Housing Financing Endowment (SHFE) with debt service funded through student housing rental revenue.

Funding for the academic components of the above projects will be determined on a project by project basis and presented to the Board as part of the individual project approval submissions.

Funding for the UBC Bus Exchange is cost shared between TransLink and UBC. The total cost for the transit facility is \$21 million; TransLink is contributing \$8.84 million and UBC is covering the remaining \$12.16 million. UBC's portion is funded by land development cost of sales, as a community amenity expense.

The majority of funding for the Wesbrook Mall reconstruction is from allocations in the 10 Year Infrastructure Impact Charges Plan (IICs):

- University Boulevard and Wesbrook Mall intersection traffic signal upgrade (2016/17); and
- Full depth road reconstruction in two phases – from University Boulevard, north to Student Union Boulevard and from University Boulevard south to Thunderbird Boulevard (2017/18 and 2018/19, respectively).

Additional Funding Sources for Wesbrook Mall:

Partnership Funding: Initial discussions with the UEL and UBC PT indicate potential cost sharing opportunities. Details will be discussed after a Class 'C' cost estimate for the conceptual design has been completed.

Cycling Infrastructure. Two funding opportunities for cycling exist with the Ministry of Transportation and Infrastructure: Partnerships Program and the Gateway

Program – Cycling. These funding sources will be pursued at the schematic and detailed design stages of the project.

SCHEDULE
Implementation
Timeline

Each project will have a different timeline, and completion dates will depend on final Board approvals. Preliminary targeted dates are:

June 2015:

- Updates to University Boulevard Design Guidelines and Neighbourhood Plan (Board Approval)
- Design concepts for GSAB and D.H. Copp (Board Approval)
- UBC Bus Exchange (Revised Board 1) and Gage South Student Housing concept (Board 1)
- Wesbrook Mall Redesign Concept (For information)

September 2015:

- Undergraduate Life Science Teaching Labs (Board 3)

June 2016:

- D.H. Copp Redevelopment (Board 1)
- Future planning program for GSAB and War Memorial Gym
- Bus Exchange and Gage South Student Housing (Board 2)

December 2016:

- Bus Exchange and Gage South Student Housing (Board 3)

February 2017

- D.H. Copp Redevelopment (Board 2)

December 2017

- D.H. Copp Redevelopment (Board 3)

2018-19

- GSAB Site (Board 1)
- Bus Exchange and Gage South Student Housing (Completion)
- Wesbrook Mall Reconstruction (Completion)

2020

- D.H. Copp Redevelopment (Completion)

CONSULTATION
Relevant Units,
Internal & External
Constituencies

Overall, there was a broad level of support for the proposed planning and design concepts. Feedback received from both public and stakeholder largely focused on:

- Concern about bringing rental housing to the precinct; preferring the area serve only academic and social purposes.
 - Concern that accommodating faculty and staff housing on land zoned Academic serves as a precedent that could be applied to other academic areas of campus, particularly by applying the permitted academic land use of Campus as a Living Lab to the D.H. Copp site.
 - Assurance that events in the area will not be compromised by noise complaints from future residents on University Boulevard.
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- The need to mitigate environmental impacts (noise, vibrations and emissions), particularly as part of the design of the Gage South student residences but also for the adjacent residents in the UEL.
- The need for generous amounts of green spaces, gathering places and adequate weather protection along with high amenity public realm including street furniture, trees, wayfinding, public art, etc.
- The importance of having small-retail in the area, informal study/social spaces and more academic uses in the area
- The importance of a high level of pedestrian and cycling connectivity and comfort throughout the precinct
- The need for strong and cohesive architecture, particularly at the “gateway” corner of University Boulevard and Wesbrook Mall.
- Clarification on how future resident interests would be represented.

Many of the recurring themes from the consultation have been addressed in the updates to the design guidelines and Neighbourhood Plan, including:

- provisions for mitigating noise, emissions and vibration impacts before Gage South student residences are built
- designing outdoor spaces in the precinct to include generous amounts of green spaces and gathering places along with public realm design guidelines for weather protection, lighting, street furniture, wayfinding, public art, etc.
- recommendations to include small-scale retail and informal study/social spaces
- providing designated bikes route throughout the precinct, including a buffered bike lane on Wesbrook Mall (with the possibility of complete separation), as well as improvements to the bike facilities on University Boulevard and Student Union Boulevard.
- clarification that the future residents living in developments along University Boulevard will be represented by the University Neighbourhoods Association. This was arrived at through consultation with key stakeholders and the UNA Board of Directors has indicated support for this in principle. A formal UNA Board motion of support is under development.

The one outstanding concern is with regard to the Land Use Plan compliance around the redevelopment of the GSAB and D.H. Copp sites. Student government (both AMS and GSS) questioned the justification for and validity of having faculty and staff housing on academic land, and identified the risk that this could be repeated on future academic lands, such as Acadia Park. They are strongly in support of amending the boundaries of Village Centre Academic in the Land Use Plan to include these sites.

The University acknowledges the concern raised by the AMS and GSS that these projects are setting precedence, particularly in how definitions in the LUP of permitted academic uses associated with Campus as a Living Lab projects are being interpreted. It is recommended that this point be revisited during the next comprehensive Land Use Plan Review.

Stakeholder and public consultation on the University Boulevard precinct began in January 2015, and included:

- A **workshop with academic leadership and faculty** on the academic uses

and programming opportunities in the precinct

- **Presentations** to and **discussions** with Deans, student government, UNA and UEL CAC, along with various campus committees.
- **Phase 1 Public Consultation** was held in February 2015 to hear the needs, interests and ideas for how to complete the precinct vision. This phase included an open house, public workshop and online consultation. Over 100 people attended the open house, 30 participants at the workshop, 32 feedback forms submitted by students, faculty, staff, alumni and neighbours along with 4 stakeholder submissions. Over 475 ideas and comments were submitted through the public consultation on ways to complete the precinct vision
- A **design charrette** with campus stakeholders was held in March 2015, to explore key outstanding design questions and challenges, including a discussion on delivering academic programming in the precinct.
- **Phase 2 Public Consultation** was held in April 2015 to present the proposed planning and design concepts for feedback. Consultation events included an open house and online consultation. Over 165 people attended the open house, 38 feedback forms were submitted by students, faculty, staff, alumni and neighbours along with 2 stakeholder submissions.

Summary reports for both Phase 1 and 2 of the public consultation are included in Appendix D.

UBCPT COMMENTS Complete for all reports that include a property component	Date of Review: May x, 2015 xxxxx	Signed off by: Al Poettcker
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Previous Report Date	April 14, 2015
Decision	Information to Board – University Boulevard Planning Update which included an update of the emerging planning and design concepts for the precinct.
Action / Follow Up	
Previous Report Date	December 2, 2014
Decision	Board 2 Approval – Undergraduate Life Science Teaching Labs Renewal Project which included a proposal to locate faculty and staff rental housing on GSAB and D.H. Copp sites.
Action / Follow Up	

Previous Report Date	April 14, 2014
Decision	Board 1 Approval – Undergraduate Life Science Teaching Labs Renewal Project which included a proposal to locate faculty and staff rental housing on GSAB and D.H. Copp sites.
Action / Follow Up	
Previous Report Date	October 10, 2012
Decision	Board 1 Approval UBC Bus Exchange with underground layover: New transit terminal project in Gage South (This was an off-cycle consent approval by email).
Action / Follow Up	
Previous Report Date	September 20, 2012
Decision	Board Approval Housing Action Plan: Adopt the University Community on Campus – UBC’s Housing Action Plan
Action / Follow Up	Staff to report back to the Board of Governors as appropriate on the implementation program; and UBC Properties Trust to work with UBC Administration to ensure the success of the University Community on Campus – Housing Action Plan.
Previous Report Date	April 3, 2012
Decision	Board Approval Gage South Area Under Review + Environs: Approve the layout for academic and transit facilities, including the passenger drop off, pick and bus layover concept, as well as MacInnes Field and Aquatic Centre relocations. Approve the use of the northern part of the Gage South area for 12-month student housing, with a priority for graduate students and post-doctoral fellows, to support vibrancy and mixed-use objectives for this part of campus as set out in the Land Use Plan and the Vancouver Campus Plan.
Action / Follow Up	Refer to public hearing the proposed amendment of the Land Use Plan to change the designation of Gage South from ‘Area Under Review’ to ‘Academic’.

Previous Report Date	April 8, 2010
Decision	Information to Board: University Boulevard Design Guidelines that include design guidelines for siting, massing and character of buildings and open spaces in the University Boulevard Precinct.
Action / Follow Up	
Previous Report Date	January 29, 2004
Decision	Board Approval University Neighbourhood Plan: Neighbourhood Plan includes rental housing, commercial and academic uses.
Action / Follow Up	



a place of mind

UNIVERSITY BOULEVARD DESIGN GUIDELINES

UPDATED JUNE 2015



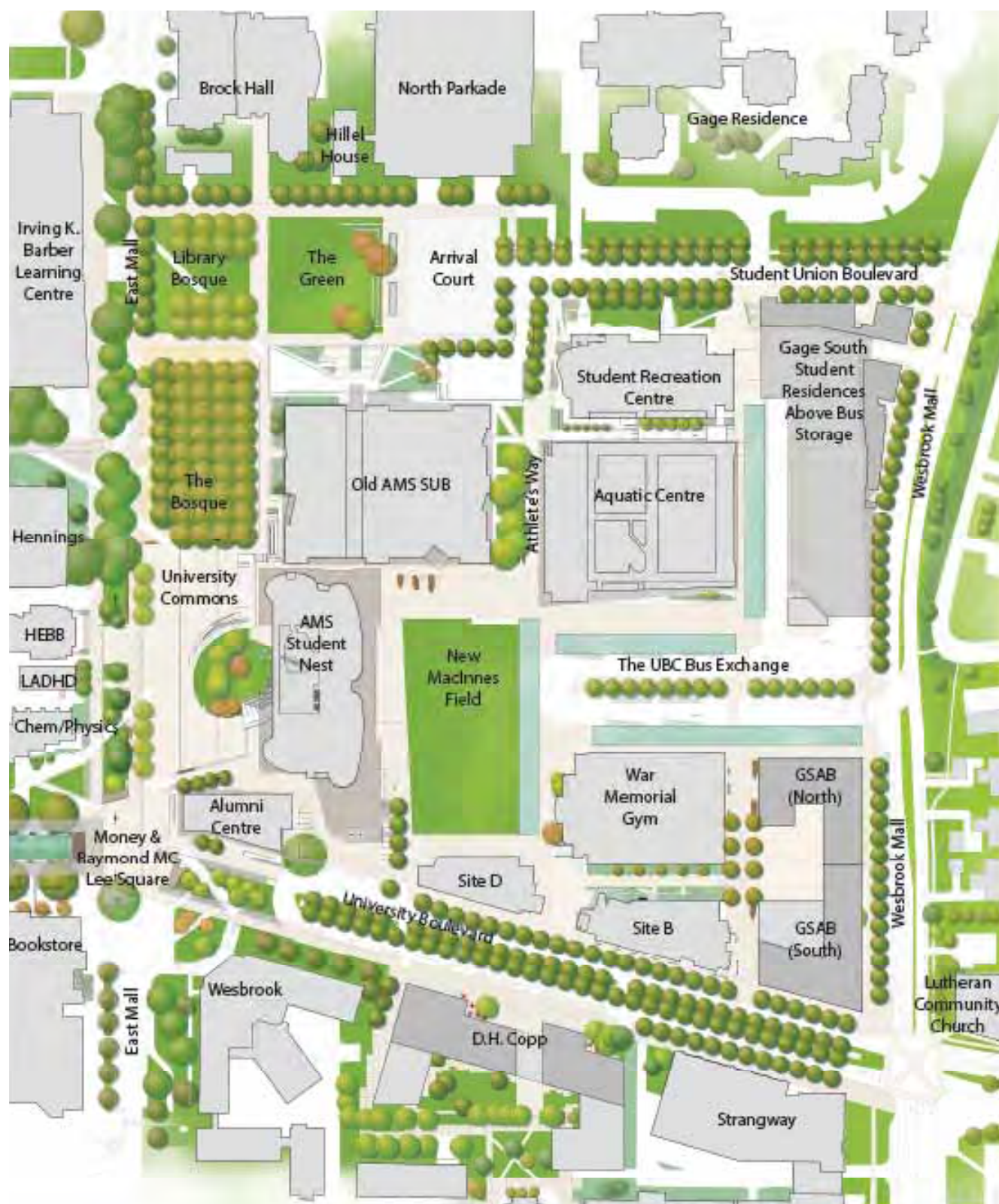
Acknowledged:

These updated Guidelines were produced by PFS Studio and Public: Architecture + Communication under the direction of UBC Campus + Community Planning. This work is based on the 2010 University Boulevard Neighbourhood Guidelines developed by Kuwabara Payne McKenna Blumberg Architects, Hughes Condon Marler Architects, and PFS Studio.

UNIVERSITY BOULEVARD DESIGN GUIDELINES

TABLE OF CONTENTS

1.0	INTRODUCTION	03
1.1	Intent of Guidelines	03
1.2	Consultation Process	04
1.3	Policy Context	05
2.0	CAMPUS FRAMEWORKS	06
3.0	URBAN DESIGN FRAMEWORK	08
3.1	The Study Area	08
3.2	The Vision	09
3.3	Layered Academic Expression	09
3.4	Building Siting and Massing	10
3.5	Gateways	15
3.6	The Crescent- Three Public Spaces	17
3.7	The Core	24
3.8	Wesbrook Mall	32
3.9	Axes/Views	34
3.10	Pedestrian & Bike Circulation	35
3.11	Vehicular Circulation & Parking	36
4.0	PUBLIC REALM DESIGN GUIDELINES	37
4.1	Introduction	37
4.2	Universal Accessibility	37
4.3	Weather Protection	38
4.4	Paving	40
4.5	Lighting	42
4.6	Site Furnishing	44
4.7	Signage	45
4.8	Soft Landscape	46
5.0	BUILDING DESIGN GUIDELINES	47
5.1	Siting	47
5.2	Massing	48
5.3	Architectural Expression	49
5.4	D.H. COPP Building Site	54
5.5	GSAB South	56
5.6	GSAB North	57
5.7	Gage South Student Residences	58
5.8	University Boulevard Site B	59
5.9	University Boulevard Site D	60
6.0	SUSTAINABILITY	61
7.0	STREET FRONT USES	62
8.0	TRANSIT	63
9.0	BUILDING ENTRIES	64
10.0	INFRASTRUCTURE AND SERVICING	65



UNIVERSITY BOULEVARD PRECINCT PLAN

Note: Building footprints for GSAB (North and South), D.H. Copp, and Site D are conceptual and for illustrative purposes only

1.0 INTRODUCTION

1.1 INTENT OF THE GUIDELINES

The University Boulevard Precinct has been the subject of planning for decades that focused on transforming the area into a mixed-use arrival precinct to the academic campus. The vision has been shaped by multiple planning processes and Board of Governor-approved policies, plans, and Board decisions for individual sites. The Precinct was also the subject of an international design competition in 2004–05.

These guidelines serve as an update to the University Boulevard Design Guidelines, presented to the Board of Governors in March 2010. These updated guidelines provide direction for campus public open space and proposed building siting, massing and design in the area.

Specifically, the guidelines:

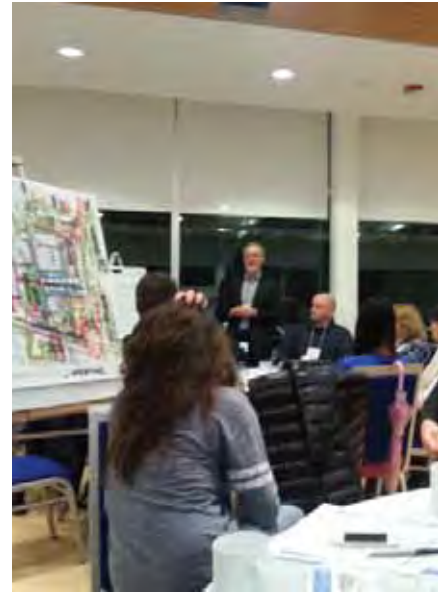
- Reflect the development projects that have been implemented since 2010, primarily in the western portion of the Precinct.
- Provide direction for how proposed new projects and spaces will be planned, designed and developed to support the vision for the area as a complete community that acts as the vibrant academic and social heart of the campus and welcoming entrance to the university.
- Provide direction on:
 - Mix of uses and programming of spaces
 - Height, shape, size, character and materials of buildings
 - Character and quality of landscapes and open spaces around buildings and along streets
 - Pedestrian and cyclist circulation and universal accessibility
 - Other features such as public art or monuments
- Provide guidance on how the planning and design of precinct projects can help signify “university” in a way that expresses UBC’s identity, values and standing as a globally significant university.

1.2 CONSULTATION PROCESS

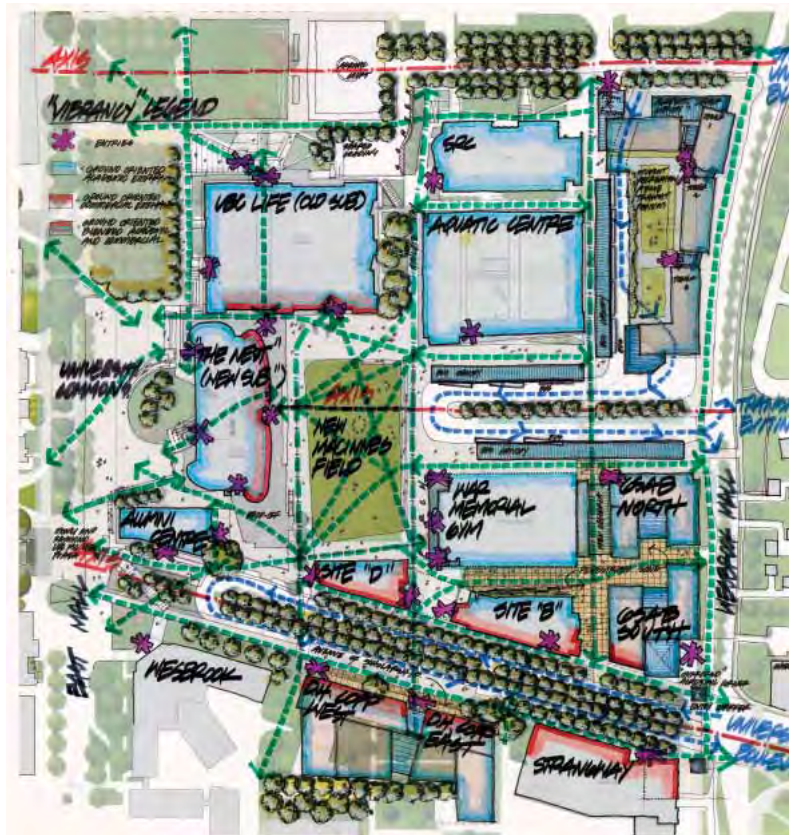
The development of the updated Design Guidelines evolved through extensive engagement and consultation with campus stakeholders, academic leadership, staff and technical experts.

Stakeholder and public consultation on the University Boulevard Precinct began in January 2015, and included:

- A **workshop with academic leadership and faculty** on the academic uses and programming opportunities in the Precinct
- **Presentations** to and **discussions** with Deans, student government, UNA and UEL CAC, along with various campus committees
- **Phase 1 Public Consultation** was held in February 2015 to hear the needs, interests and ideas for how to complete the Precinct vision. This phase included an open house, public workshop and online consultation. Over 100 people attended the open house, 30 participants at the workshop, 32 feedback forms submitted by students, faculty, staff, alumni and neighbours along with 4 stakeholder submissions. Over 475 ideas and comments were submitted through the public consultation on ways to complete the Precinct vision.
- A **design charrette** with campus stakeholders was held in March 2015, to explore key outstanding design questions and challenges, including a discussion on delivering academic programming in the Precinct.
- **Phase 2 Public Consultation** was held in April 2015 to present the proposed planning and design concepts for feedback. Consultation events included an open house and online consultation. Over 165 people attended the open house, 38 feedback forms were submitted by students, faculty, staff, alumni and neighbours along with 2 stakeholder submissions.



PUBLIC WORKSHOP FEBRUARY, 2015



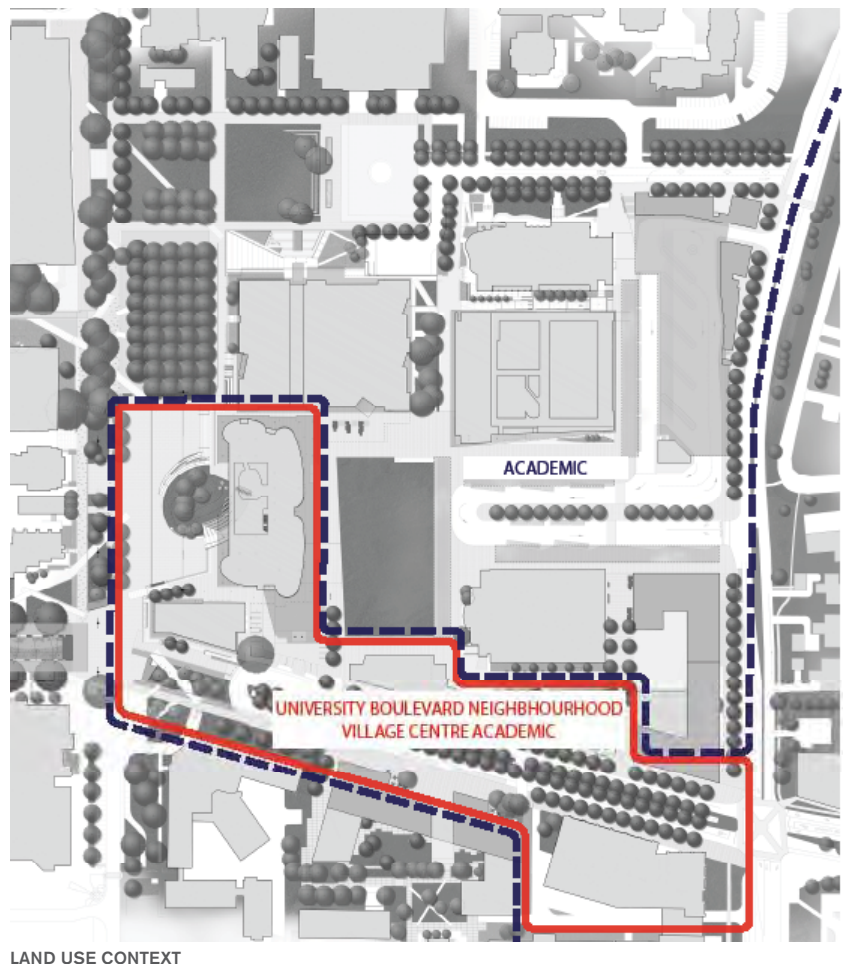
CONCEPTUAL PLAN OF PRECINCT FROM MARCH 2015 DESIGN CHARETTE

1.3 POLICY CONTEXT

The University Boulevard Design Guidelines supplement three key land use policy documents: the UBC Land Use Plan; the UBC Vancouver Campus Plan; and the University Boulevard Neighbourhood Plan.

The University Boulevard Precinct includes both Academic and Village Centre Academic uses. Per the UBC Land Use Plan, areas immediately adjacent to University Boulevard are within the University Boulevard Neighbourhood area and classified as Village Centre Academic land use, while all other areas outside this boundary are classified Academic land use.

In using these guidelines, areas within the University Boulevard Neighbourhood shall comply with the provisions of the University Boulevard Neighbourhood Plan as well as the UBC Land Use Plan. Areas outside the boundary of the University Boulevard Neighbourhood shall comply with the Vancouver Campus Plan and UBC Land Use Plan. Where there is a discrepancy between the guidelines and the University Boulevard Neighbourhood Plan, the Vancouver Campus Plan and / or the UBC Land Use Plan, the Land Use Plan shall take precedence.



2.0 CAMPUS FRAMEWORKS

The Design Guidelines for University Boulevard have been developed in the context of the campus public realm frameworks that inform the overall draft Vancouver Campus Plan.




ARRIVAL ROUTES

At UBC Vancouver, each of the routes for arrival by vehicle, transit, bicycle, and on foot share a common experience that, taken as a sequence, defines the gateways to UBC. 10th Avenue / University Boulevard is characterized as a major arrival routes that moves through a stretch of forest as they leave the built-up parts of the City of Vancouver and then emerge into developed areas of the campus or the University Endowment Lands. Before arriving at the campus, one passes through a residential/commercial district that creates confusion before arriving at the campus threshold at Wesbrook Mall. Strengthening and marking this arrival point at Wesbrook Mall is a key objective of these guidelines.

CAMPUS TYPOLOGIES

Three typologies together create the 'genus loci' or special spirit of place for the Vancouver campus: forest, historic core, and contemporary.

The subject precinct is within the character area defined as the contemporary campus. It is also the primary gateway to and attaches itself to the historic core along East Mall. The formal geometry of this grid is reinforced by symmetrical streetscapes, rows of mature trees and axial sightlines to key buildings such as Koerner Library, I.K.. Barber Learning Centre and Brock Hall. The Design Guidelines seek to reinforce and strengthen axial symmetry in the core and to create a major public square as a link between the University Boulevard Precinct and the historic core.

-  Formal Beaux-Arts Inspired Landscapes
-  Informal / Garden / Modernist Landscapes
-  Forest








CORRIDOR STRUCTURE

A unifying structure of the UBC Vancouver campus is the grid of malls and roads established by the 1914 Sharp and Thompson Plan. This grid has a clear hierarchy in which Main Mall and University Boulevard are the primary corridors.



Main Mall and University Boulevard demonstrate their primacy with wide cross sections, generous open space, and grand, street trees. The design and materials for University Boulevard are intended to reinforce its place in the hierarchy and be readily recognizable as one of the most important places on campus.

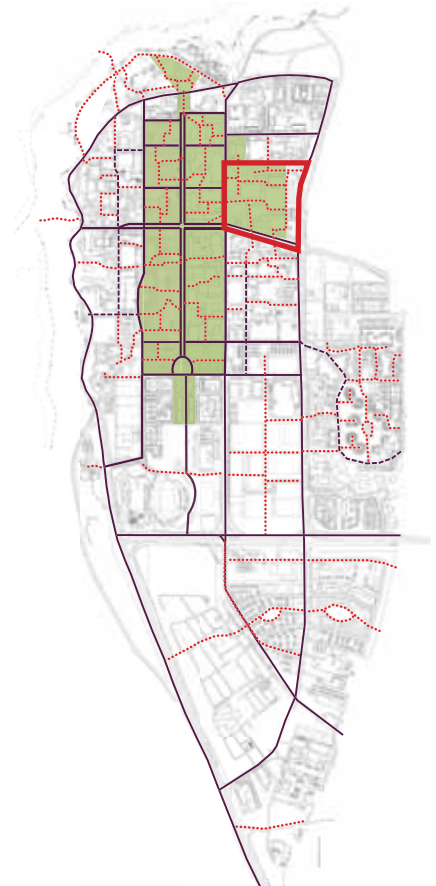
East Mall is an important secondary corridor of the 1914 plan and as such the guidelines call for its legibility to be preserved.

-  Pedestrian Realm
-  Primary Corridor (Main Mall and University Boulevard)
-  Secondary Corridors (East Mall, West Mall, Agronomy etc.)
-  Tertiary Corridors
-  Pathways

COMMONS FRAMEWORK

The public realm is defined by commons as well as corridors. Large commons, the open spaces that are programmed to address the needs of the entire university community, are focused around the primary corridors of Main Mall and University Boulevard. The area between University Boulevard and Student Union Boulevard along East Mall is the location for a new major commons. This is envisioned as a social centre with an urban character and food services program. MacInnes Field is a new large commons that acts as a central gathering place within the Precinct and as a green welcome mat for those arriving by transit. The focus of the commons is a the new AMS Student Nest, Alumni Centre and the UBC Bus Exchange.

-  Large Commons
-  Local Commons / Learning Landscapes



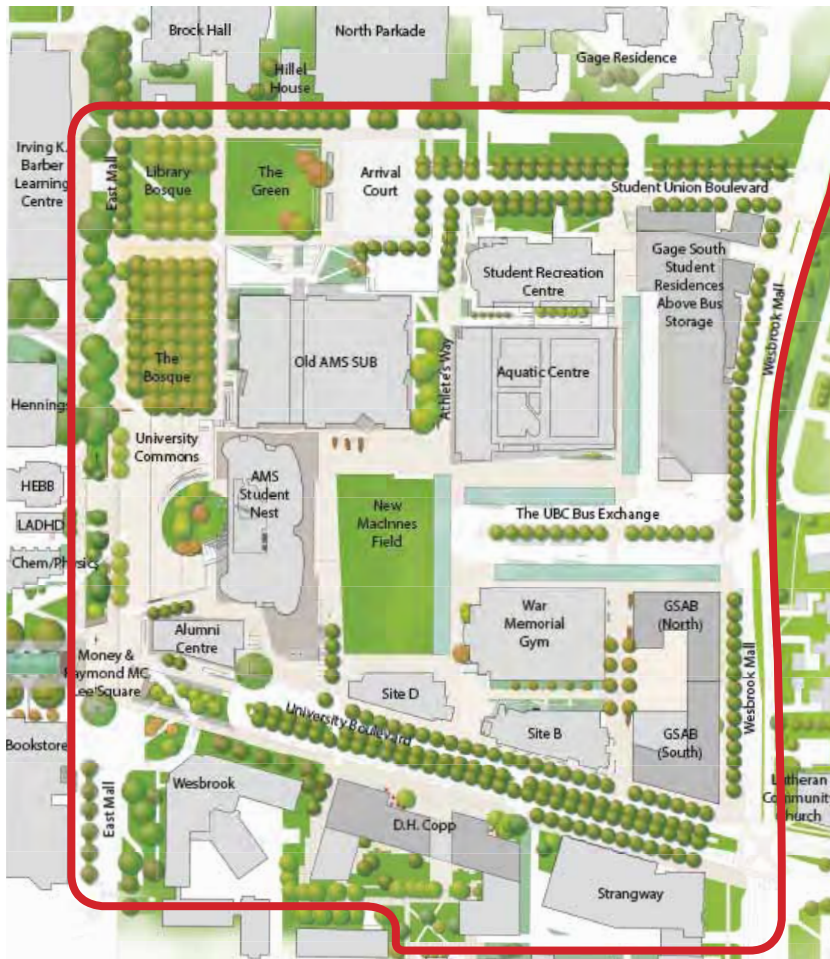
3.0 URBAN DESIGN FRAMEWORK

3.1 THE STUDY AREA

University Boulevard Precinct plays a distinct role within the campus as a key gateway and social hub. With a collection of some of the most public buildings on campus and fully integrated with transit, the Precinct is the primary arrival point and symbolic gateway to campus.

The study area is defined by and includes four primary campus roads: Student Union Boulevard and University Boulevard to the north and south, respectively, and East Mall and Westbrook Mall to the east and west, respectively. The study area extends south of University Boulevard to include the building sites flanking the south side of University Boulevard, including the Strangway Building and the D.H. Copp Building site; a key redevelopment area within the Precinct.

The Precinct accommodates a daily influx of approximately 35,000 people arriving to campus by all modes, while also supporting academic, research, commercial, recreational and residential uses. These guidelines will help to integrate these uses with the special features of the public realm to create a coherent and connected framework for the Precinct.



3.2 THE VISION

The University Boulevard Precinct will support the academic experience by creating a vibrant academic and social hub, contributing to UBC's complete community as a mixed-use core and serving as a welcoming 'front door' for the university. The vision for the Precinct has three primary objectives:

Vibrant Academic and Social Hub

- The precinct will become the vibrant academic and social heart of the campus, a hub that draws people together for dialogue, celebration, innovation, recreation, study, fun, and learning.

Complete Community

- The area will have diverse uses and services – including year-round non-market rental housing, student housing, student services, academic and recreation facilities, shops, restaurants, and open spaces – with great pedestrian and cyclist corridors and access to transit.

University Gateway

- As a key gateway and symbolic entrance to the campus, the precinct plays a significant role in expressing the identity and values of the university.

3.3 LAYERED ACADEMIC EXPRESSION

The integration of academic expression throughout the Precinct is one of the key objectives of these Design Guidelines. The consultation process helped identify student life and activity as the most important expression of "University". Built form, public spaces, and program should help foster, support, and highlight the dynamic nature of campus life through the following recommended strategies:

Architectural expression

- Cohesive architecture
- Academic building scale and forms
- Transparency
- Showcase academic and research: i.e. Campus as a Living Lab projects

Street level academic uses

- Student support services
- Collegia
- Informal study spaces
- Collaborative spaces
- Innovation and partnership centre
- Visitors services
- Galleries and exhibition spaces
- Living Lab

Public realm

- Outdoor 'classrooms'
- Diverse seating opportunities including study tables
- Spaces to encourage dialogue and exchange



COLLABORATIVE ACADEMIC SPACES



VIBRANT STREETSCAPES



BOLD ARCHITECTURAL EXPRESSION



ENGAGING PUBLIC REALM

3.4 BUILDING SITING AND MASSING

Since the March 2010 University Boulevard Design Guidelines, several projects have been completed or are already underway. These projects are shaping the Precinct and are dramatically enhancing the student experience. This update to the March 2010 Design Guidelines responds to changes in the Precinct and helps guide new opportunities for how remaining building sites can be developed and programmed to create a vibrant academic and social hub.

3.4.1 BUILDING SITE APPROVALS AND STATUS

UBC Bookstore Expansion and Renovation (2014)

Located at the intersection of East Mall and University Boulevard, the UBC Bookstore Expansion and Renovation project brings a more contemporary expression to the building while improving its relationship to the public realm through the removal of the original below-grade entry sequence. The main entry and associated outdoor plaza are now at-grade and contribute life and vitality to the adjacent Money and Raymond MC Lee Plaza. The bookstore plaza provides diverse seating and social opportunities through movable furnishings and integrated benches. The plaza also allows for programmable events such as outdoor book fairs and small markets.

Alumni Centre (2015)

The Alumni Centre sits in a prime location at the heart of University Commons and in close proximity to The UBC Bus Exchange, the bookstore and the AMS Student Nest. The building is perched on The Porch, an elevated terrace that wraps the building. The terrace will provide prospect to University Square and Money and Raymond MC Lee Plaza and will support the commercial/retail activities of the building through outdoor café seating and social spaces.

The AMS Student Nest (New SUB) (2015)

Located between two primary social spaces – MacInnes Field and University Square – and along a key arrival route from transit, The AMS Student Nest is a focal point of the University Boulevard Precinct and will house the Alma Mater Society (AMS) and its services. The activities of the building will spill out into the public realm on both the west and east sides adding life and vitality to the Precinct. The Porch extends along the west edge of the building providing opportunities for outdoor café seating adjacent to interior services. The existing Knoll is fully integrated into the building design offering seamless indoor/outdoor seating through terraced seating steps, as well as a grassy refuge within an otherwise urban context.

Old AMS Student Union Building (SUB) Rehabilitation (tbd)

The proposed project includes exterior and interior renovations to the existing Student Union Building (SUB) and its rehabilitation. The renovated building would be a home to student support and development services currently dispersed throughout campus, as well as integrated wellness and recreation services. The Porch would provide an exterior connection and social space between the AMS Student Nest and the west entry of the Old AMS SUB. The new north entry would be fully renovated to serve as a legible and welcoming main entry from the Old Student Union Boulevard while providing clear pedestrian connections to both the upper and lower entries.



UBC BOOKSTORE EXPANSION AND RENOVATION



ALUMNI CENTRE



THE AMS STUDENT NEST (NEW SUB)



UBC LIFE (OLD SUB REHABILITATION)

New Aquatic Centre (2016)

The new Aquatic Centre will provide student athletes with a state-of-the-art training facility, and the larger campus community (students, faculty, staff and residents) with an on-campus recreational facility. Located adjacent to the UBC Bus Exchange, the Aquatic Centre will provide light, animation, and social opportunities to passenger pick up areas through glazing and an exterior viewing platform with seating steps.



NEW AQUATIC CENTRE

University Boulevard Site B (non-market rental housing + retail)

Site B is a mixed-use project providing university housing at market rates for people who work or study on campus. Ground level retail oriented along University Boulevard will help create an animated and engaging streetscape.



UNIVERSITY BOULEVARD SITE B

University Square and Money & Raymond MC Lee Plaza (2015)

Together, these two key public spaces create an outdoor social heart of campus. The simplicity of the spaces ensures that functional and program objectives can be met while still providing highly animated and vibrant social spaces. The plazas are defined on the edges through diverse integrated seating elements, including The Porch along the east edge, which allows for various ways to occupy the space. Movable furnishings that will fill the space for everyday use, can be moved aside to allow for larger organized events and festivals to occur. Informal recreation amenities such as a basketball court and ping pong tables will provide an additional layer of program, use and animation.

Strangway Building

Completed in 2009, the Strangway Building accommodates a mix of academic and at-grade commercial uses. The building's form and massing seek to ground the corner with a noble expression, reinforced by the generous use of granite and masonry. It's gateway expression is further emphasized by an orientation to the orthogonal grid of the campus at its eastern end, which gives way to a massing aligned with the diagonal of University Boulevard, further along its west façade.



UNIVERSITY SQUARE AND
MONEY & RAYMOND MC LEE PLAZA

3.4.2 BUILDING SITES

Gage South Student Housing

Located at the intersection of Student Union Boulevard and Wesbrook Mall, Gage South Student Residences will provide 600-650 units of year-round student housing to the Precinct for upper year undergraduates. The residences will include a range of amenities, such as proximity to transit, an elevated central courtyard, plus gathering and informal study spaces.

UBC Bus Exchange

Over 25,000 people will move through the UBC Bus Exchange daily. The vision is for a lively and safe transit facility that is welcoming, expresses UBC identity, and provides clear connections to the greater campus. The concept includes centralized and safe passenger drop-off and pick-up areas that connect to pedestrian pathways, and a bus storage facility integrated underneath the future Gage South Student Residences. The concept puts transit riders close to residences and major destinations, demonstrating best practices in the design of transit-oriented development and contributing to UBC as a complete community. The project will integrate the needs of commuters, future student residents, TransLink and the University.

GSAB (South site)

The planning concept for the GSAB South site is to locate an academic building fronting the corner of University Boulevard and Wesbrook to enable a bold academic gateway building to be constructed in concrete with institutional quality architectural detailing and the ability to leverage this high profile location for potential donor funding. The remaining northern part of GSAB South site could be developed with housing, unless at the time of site development, sufficient additional academic programming and funding is identified to occupy all of GSAB South.

GSAB (North site)

The planning concept for the GSAB (North) site combines housing over a ground floor of a mixture of potential uses. The mixture of uses could include: athletics research, training and programming link to War Memorial Gym; and shops and services to support transit users activities in the “Yard” outdoor space.

D.H. Copp site

The vision for the D.H. Copp site is for an innovative, sustainability project that combines research and practice focused on advancing the programming, design and construction of sustainable buildings and communities with housing. A Campus as a Living Lab component is a key goal of the project. This will involve a range of interdisciplinary researchers, building systems experts, and eventually building occupants. The goal is to have a series of potential research projects related to issues such as: sustainable building design and materials; monitoring environmental performance and human wellbeing; and the role of building design and operations in fostering human health and happiness.

War Memorial Gym

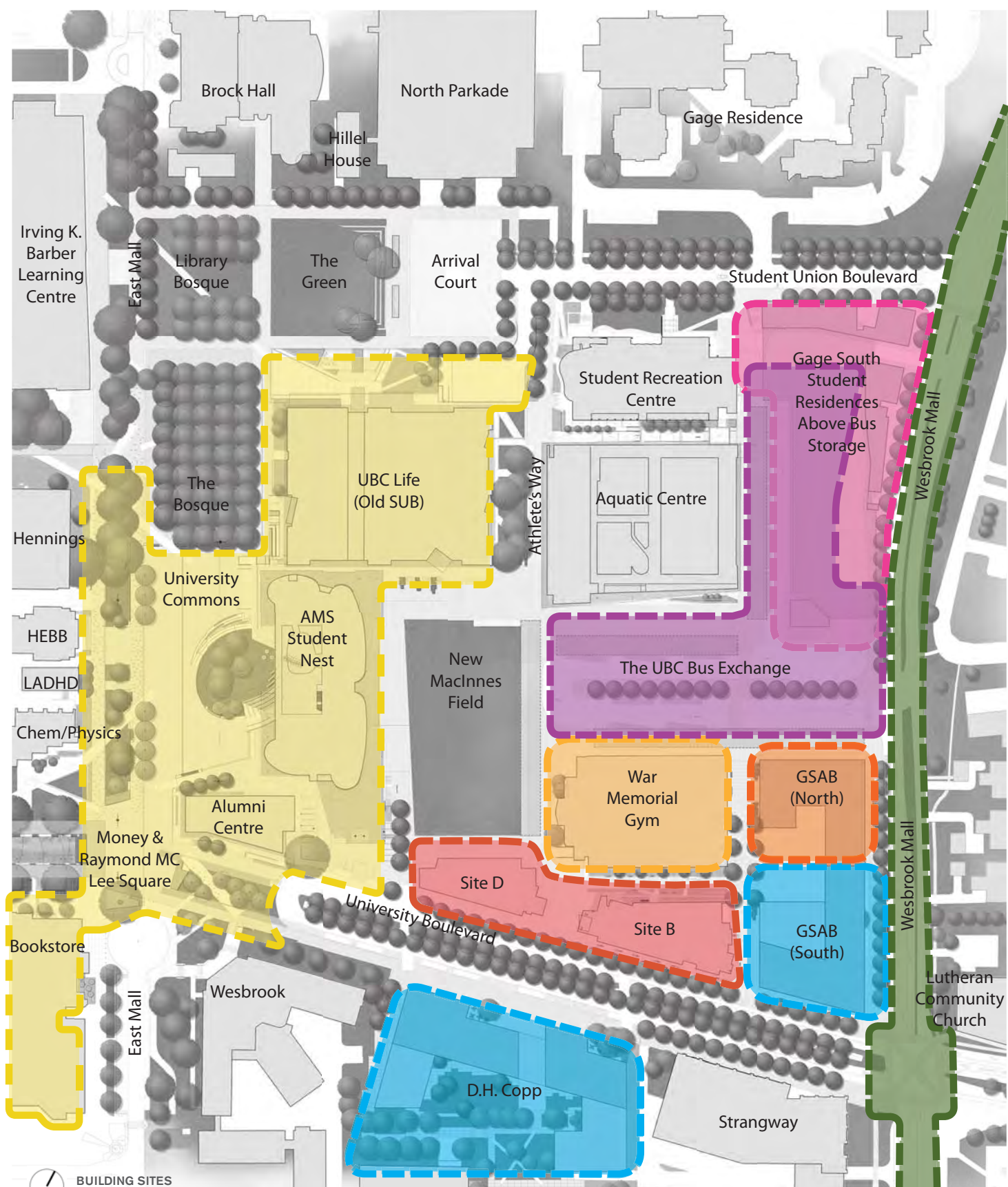
War Memorial Gym is home to the UBC Thunderbirds basketball and volleyball teams, as well as the central offices for the Athletics and Human Kinetics departments. Currently the building requires seismic upgrades and replacement of other building systems. Additionally, its athletic facilities do not fully meet the needs of current sports programs. The university will be assessing whether to renew or replace this building while also exploring the potential of expanding the site to extend into the ground floor of GSAB (North) site.

Wesbrook Mall

A main corridor of the campus (between Student Union Boulevard and Thunderbird Boulevard) will be redesigned to improve safety and traffic flow for all road users, especially pedestrians and cyclists.

University Boulevard Site D

Site D is a proposed mixed use project similar to Site B with ground level retail and university residential housing above. Ground level retail should be considered around the full perimeter of the building to provide animation and services along University Boulevard, MacInnes Field, and Athlete's Way.



 BUILDING SITES

Note: Building footprints for GSAB (North and South), D.H. Copp, and Site D are conceptual and for illustrative purposes only

 completed / underway

3.4.3 THE PRECINCT PLAN CONCEPT

The Crescent

The Crescent is formed by Student Union Boulevard, the Commons, and Student Union Boulevard. This large scale public space system is an organizing principle of the Precinct.

The Core

The Core is formed by The UBC Bus Exchange, MacInnes Field, Athlete's Way, and The Yard. These key campus spaces and corridors complement the spaces of The Crescent and will complete the holistic development of the Precinct.

Wesbrook Mall

Wesbrook Mall is an important gateway street that defines the east edge of the precinct and serves as one of the most important 'people movers' for campus. Wesbrook Mall will serve as a multi-modal corridor and will embody the identity and character of the Precinct and campus.

BUILDING SITES

DH Copp and General Services Administration Building (GSAB)

The D.H. Copp and GSAB sites will both be redeveloped with the potential for academic and residential uses. Each site will contribute to their respective street fronts through streetwall definition and programming. The setbacks for each building site will take cues from adjacent existing buildings and landscape features.

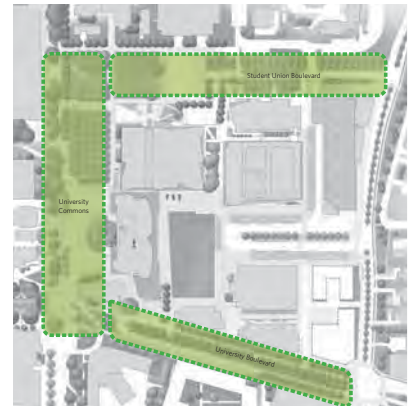
Because of its size and location, the GSAB site will likely be developed as two separate phases, on the north and south portions of the site. The GSAB South site is in a prominent location at the northwest corner of the University Boulevard and Wesbrook Mall intersection and will contribute to the academic gateway expression at this important arrival point to campus.

Gage South Student Residences and UBC Bus Exchange

Situated on Wesbrook Mall at the southwest corner of Student Union Boulevard, the Gage South Student Residences will help define the streetwall along Wesbrook Mall and Student Union Boulevard while also serving as a key arrival point to campus for those traveling by transit. The student residences are fully integrated into the UBC Bus Exchange, with passenger pick up and drop off located immediately adjacent to the building, and the bus layover located directly below the first floor podium of the building. The design of the building will require special considerations for mitigating any potential acoustic, light and air quality conflicts between residential and transit uses and functions.

University Boulevard Sites B and D

Sites B and D will help define a continuous streetwall along University Boulevard with ground level uses that are prioritized for retail/commercial. These uses will provide a concentration of services for the campus community and contribute to the vibrancy and animation of this important campus street.



THE CRESCENT



THE CORE



WESBROOK MALL



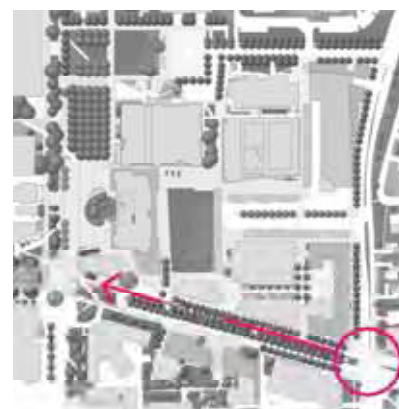
PROPOSED BUILDING SITES

3.5 GATEWAYS

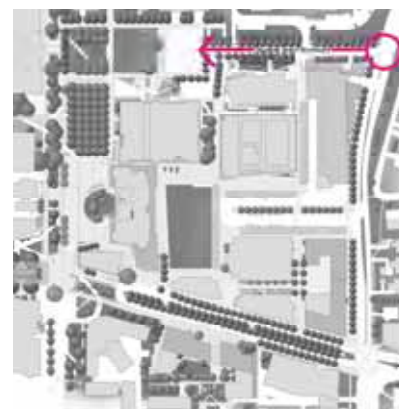
University Boulevard Precinct serves as a key gateway to campus with three distinct arrival points: University Boulevard, Student Union Boulevard, and arrival into the UBC Bus Exchange. University Boulevard is considered the primary gateway as it is the historic arrival route to the Point Grey campus. The sense of gateway is created through a combination of architectural definition, streetscape treatment, signage and wayfinding. Each gateway experience should have its own identity while being legible, welcoming, and expressing UBC identity. Recommendations for each gateway are as follows:

University Boulevard

- Define the intersection of University Boulevard and Wesbrook Mall through architectural massing, programming, and public realm treatment to create a sense of threshold and a pronouncement of arrival to UBC.
- Mark the gateway into campus through architectural massing and expression at northwest corner of the University Boulevard and Wesbrook Mall intersection (GSAB south site). The building at this corner should be treated as a 'book end' to the Alumni Centre at the intersection of East Mall and University Boulevard, stand as a 'lantern' and gateway building and increase the Precinct's ambient scale.
- New development fronting onto University Boulevard should contribute to a cohesive streetwall along the north and south sides of the street to create an engaging and animated experience into campus while reinforcing its axial alignment.
- The University Boulevard streetwall should be articulated by strategic breaks and openings to preserve views to War Memorial Gym, retain important landscape features in front of the D.H. Copp site, and create visual and physical north-south connections across the precinct (i.e., at Athlete's Way).
- Contribute to campus animation and vibrancy along this important campus street through street level programming and academic and retail/commercial uses.
- Provide generous and comfortable pedestrian corridors with integrated weather protection and diverse seating opportunities.
- Define distinct, comfortable, and legible cycle routes.
- Maintain the continuous formal row of street trees flanking both sides of the street and in the median.
- Continue the cohesive public realm treatment of the Precinct including paving, furnishings, and lighting.
- All frontages for new and existing buildings should be publicly engaging.



UNIVERSITY BOULEVARD



STUDENT UNION BOULEVARD

Student Union Boulevard

- The street alignment should be reinforced by the Gage South Student Residences and its axis aligned with the front door of the I.K. Barber Learning Centre to enhance processional formality and legibility of this important arrival route.
- The siting and architecture of the Gage South Student Residences should mark the southwest corner of Student Union Boulevard and Wesbrook Mall as a prominent corner contributing to gateway definition.
- Provide a formal arrangement of flowering trees along both sides of the street.
- Ensure that pedestrian and cycle routes are generous, direct, and legible.
- Provide a formal arrival plaza for drop-off and pick-up at the street end.
- Continue the cohesive public realm treatment of the Precinct including paving, furnishings, landscape and lighting.

The UBC Bus Exchange

- Siting and massing of buildings on the GSAB north site and the Gage South Student Residences should align with the War Memorial Gym and new Aquatic Centre respectively and provide a well-defined and visually engaging frontage in the creation of a large outdoor arrival "room" for the UBC Bus Exchange to strengthen the legibility of this arrival room, while also providing intimacy and visual comfort to the pedestrian experience through detailing and materials.
- Design and locate transit shelters according to applicable TransLink design guidelines and to define and enhance The UBC Bus Exchange as a place of arrival. Bus shelter design (form and expression) should visually contribute to the legibility of the outdoor arrival room and complement the Precinct's overall wayfinding and weather protection systems.
- Coordinate with TransLink to establish clear wayfinding strategies that are in keeping with UBC's established wayfinding UBC Sign Standards and Guidelines, and help create a sense of place.
- Maximize opportunities in the public realm for the expression of student life near departure shelters.



UBC BUS EXCHANGE



TRANSLINK "T"

3.6 THE CRESCENT- THREE PUBLIC SPACES

The Crescent is the organizing framework in the 2010 University Boulevard Precinct Design Guidelines and is formed by three public spaces—Student Union Boulevard, University Boulevard and the Campus Commons. These spaces compose an open space system of arrival routes, connections and special places for the Precinct. As the Precinct continues to evolve, the final development sites will help contribute to achieving and fulfilling the design intent for these spaces.



THE CRESCENT KEY PLAN



CAMPUS COMMONS EXISTING CONDITION



UNIVERSITY BOULEVARD PRECEDENT



STUDENT UNION BOULEVARD PRECEDENT

3.6.1 STUDENT UNION BOULEVARD

Student Union Boulevard is considered an important gateway street that should express a formal campus expression while supporting vehicular circulation, parking, bikes, and pedestrians. The street terminates at Student Union Plaza, a drop-off and pick up court that also provides access to and from the North Parkade. A campus green and existing tree bosque extends the formality of the street west to the I.K. Barber Learning Centre. The following recommendations should inform the design of Student Union Boulevard:

- Reinforce the axial formality of campus through a centerline street alignment to the front doors of I.K. Barber Learning Centre.
- Minimize the width of the existing centre boulevard to provide increased public realm along edges.
- Provide a formal arrangement of flowering trees along sidewalks to reinforce the street alignment, enhance legibility, and express UBC's identity.
- Normalize the intersection at Wesbrook Mall to increase circulation, legibility and clarity of movement.
- Incorporate generous multi use paths on both sides of the street to accommodate pedestrians and cyclists. Pedestrian and cyclist movements and volumes will be monitored on these paths and if warranted, measures to separate modes through paint markings and signage will be considered.
- Provide on-street parallel parking along both sides to serve the Student Recreation Centre and Aquatic Centre.
- Design Student Union Plaza to reflect the rectilinear geometry of the historic grid and provide weather protection, seating, and seating for comfort and safety
- Continue the rectilinear geometry through the form of The Green and Library Bosque.
- Look for opportunities for green infrastructure to manage stormwater in the landscape and divert from conventional stormwater infrastructure.



GATEWAY STREET



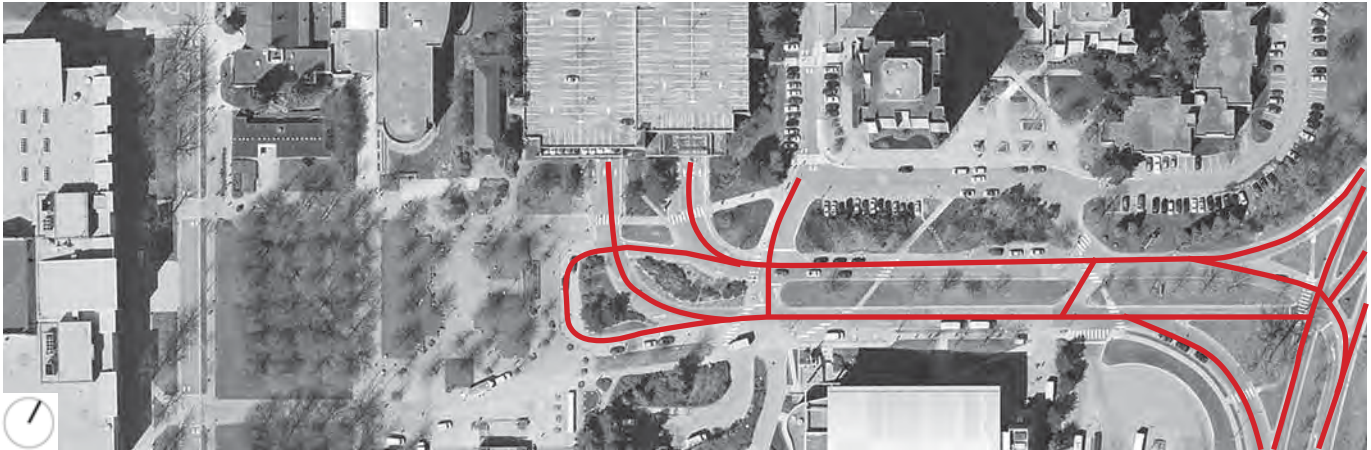
FORMAL ARRIVAL SQUARE



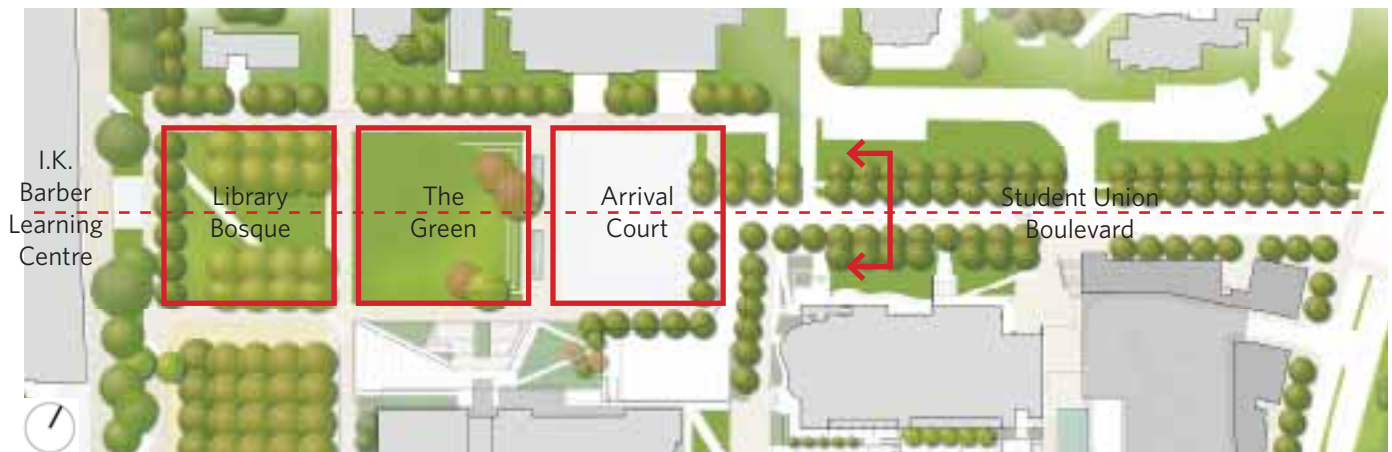
INFORMAL GREEN SPACE



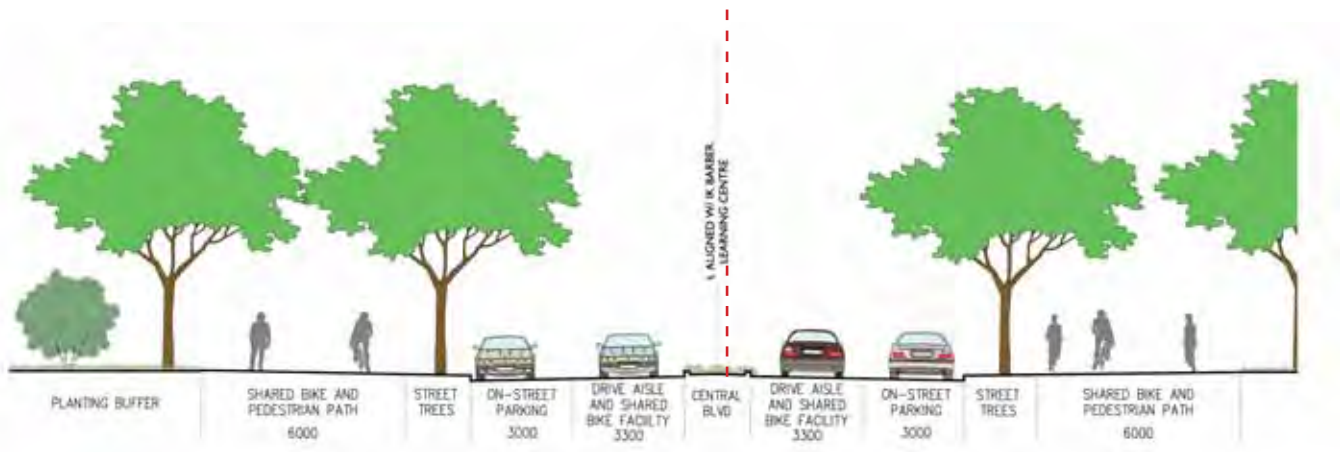
MAIN MALL - MULTI USE PATH



STUDENT UNION BOULEVARD - EXISTING DESIGN



STUDENT UNION BOULEVARD - PROPOSED DESIGN



STUDENT UNION BOULEVARD - TYPICAL STREET SECTION - PROPOSED DESIGN

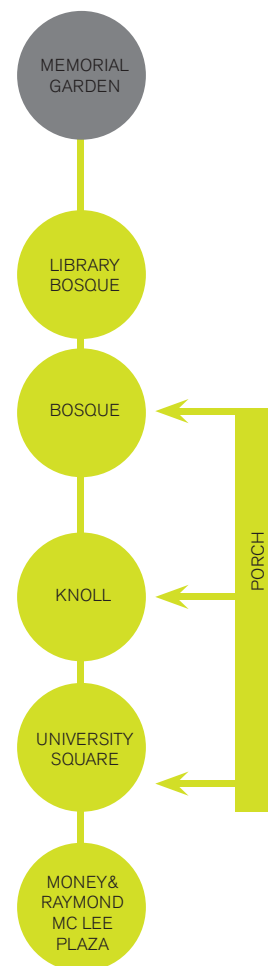
3.6.2 THE COMMONS

The Campus Commons is comprised of a series of distinct places with complementary programs: University Square, the Knoll, the Bosque, and the Porch. Since the 2010 University Boulevard Precinct Design Guidelines, Money and Raymond MC Lee Plaza has been identified as an additional key public space within The Commons.

The majority of The Commons will be completed by Fall 2015. New open spaces within The Core will complement these spaces and help complete the open space network in the Precinct.



THE COMMONS KEY PLAN



THE CAMPUS COMMONS –
A SERIES OF PUBLIC SPACES

Money and Raymond MC Lee Plaza

The new Money and Raymond MC Lee Plaza is located at the intersection of East Mall and University Boulevard, a key campus crossroads. The design establishes a flexible and programmable space defined by a collection of seating platforms on all four sides. Large event lights located within the space will provide an opportunity to accommodate banners as well as programmed digital projections. The plaza must accommodate a high flow of pedestrians and cyclists as well as service and fire vehicles. In addition to and supporting high levels of circulation, the plaza will also accommodate temporary art exhibits and other types of student and smaller campus events.

University Square

University Square is positioned as the forecourt to The AMS Student Nest and the Alumni Centre and is envisioned as the outdoor social centre for the entire campus. Designed as a large, level plaza space, University Square will be transformed through informal and formal uses and activities. Campus wide events that may take place in the Square include Storm the Wall, a variety of markets and fairs, outdoor barbecues and food fairs, the start and finish of runs and marathons, concerts, and demonstrations. Where feasible, infrastructure has been integrated into the design to support these uses.

On a daily basis, the plaza will be a focal point for informal socializing and gathering with a variety of integrated seating (i.e. seating steps, seat walls, and a community table) as well as movable furnishings. In addition to a wide range of ways to occupy the space, amenities to support ongoing animation include an informal basketball and outdoor ping pong tables. University Square is an urban and hardscaped counterpart to the new MacInnes Field located to the east of the AMS Student Nest and Old AMS SUB.



BIRD'S EYE VIEW NORTHEAST OVER MONEY AND RAYMOND MC LEE PLAZA AND UNIVERSITY SQUARE



EXISTING SEATING PLATFORM - UNIVERSITY BLVD



UNIVERSITY SQUARE EVENT - STORM THE WALL



PROGRAMMING - OUTDOOR MOVIES/THEATER



PROGRAMMING - TRANSFORMATION OF SPACE

The Knoll

Considered a 'sacred' space on campus, the design of University Square and The AMS Student Nest fully embraces the significance of this feature. By fully integrating into the architectural design, the Knoll seamlessly sits between The AMS Student Nest and University Square providing a green place of prospect in an otherwise urban environment. Edges have been modified to accommodate seating terraces and an accessible walkway up to the Porch and existing trees preserved.

The Bosque

The Bosque of pin oaks is a large-scale landscape feature that conceptually functions as the main treed park on campus. The space has been preserved throughout the design and development of University Square and is envisioned as a programmable space that may accommodate art installations or other activation type amenities in addition to significant pedestrian movements. Recommendations that still need to be considered include the following:

- Provide well defined, paved pathways along key desire lines.
- Explore an improved surface treatment (i.e. granular, shade tolerant ground cover with improved drainage).
- Provide edge definition to control and direct pedestrian movements to pathways (i.e. low walls, benches)
- Consider the provision of a special moment in the interior of the Bosque (i.e. seating/gathering place, small pavilion).
- Explore options to reduce the amount of tree canopy to increase the Bosque's social utility.

The Porch

The Porch is a key architectural feature that defines the west edges of The AMS Student Nest and the Alumni Centre. Conceived of as an elevated terrace, the Porch will support interior commercial/retail uses through outdoor seating areas that provide prospect to the adjacent University Square. The porch is intended to continue north to connect The AMS Student Nest terrace to the west entry of UBC Life. Recommendations for the north section of the Porch is as follows:

- Extend porch north to west entry of Old AMS SUB at the same elevation as currently established.
- Continue public realm language as currently established including paving pattern, guardrails and handrails
- Provide a generous width to accommodate pedestrian circulation and café tables.
- Ensure that final portion of Porch is fully integrated into the west entrance of the Old AMS SUB.
- Consider weather protection from The AMS Student Nest to west entry of Old AMS SUB.

Memorial Garden

The 2010 Guidelines had identified an area informally known as Memorial Garden as a key open space that would mark the north terminus of The Commons. Since then, the site has been prioritized as a potential building site for the Arts Undergraduate Society rather than an open space.



AMS STUDENT NEST - INTEGRATED KNOLL CONCEPT



WELL DEFINED, PAVED PATHWAYS

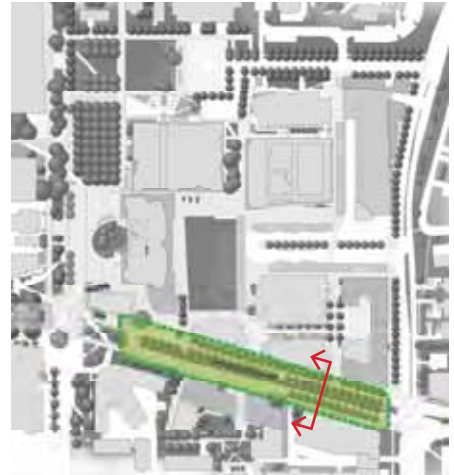


PORCH EXTENTS

3.6.3 UNIVERSITY BOULEVARD

University Boulevard is a primary gateway to campus. It is a key arrival route envisioned as a 'Main Street' serving the campus community through a variety of street level uses, services and programs. The streetscape must support trolley buses, vehicular traffic, bikes, and pedestrians. To fulfill the design intent for this important campus street, the following recommendations should be considered in coordination with the final development sites identified along this route:

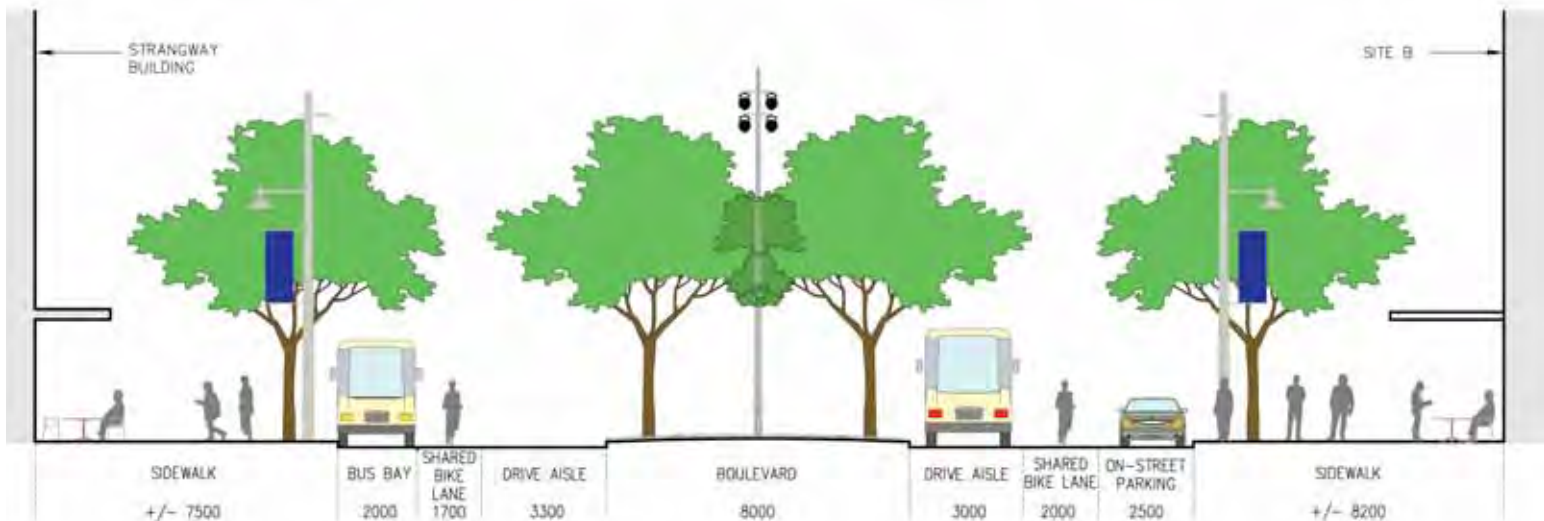
- Use architectural massing and expression at the northwest corner of the University Boulevard and Wesbrook Mall intersection to define gateway.
- Ensure a continuous streetwall along both sides of the street through consistent setbacks and pedestrian scaled weather protection, while making special accommodation for significant existing trees on the south side of the street.
- Provide a concentration of street level retail/commercial uses oriented towards University Boulevard for animation and vibrancy.
- Provide a pocket park in relation to trees identified for preservation at the D.H. Copp site.
- Maintain the existing formal street trees along both sides of the sidewalk.
- Maintain existing on-street parking on north side of the street.
- Sidewalks to be generous in size to allow for both pedestrian movements and outdoor uses (i.e. café tables, outdoor exhibitions).
- Continue the cohesive public realm treatment of the Precinct including paving, furnishings, and lighting but allow for special design opportunities to define special places (i.e. D.H. Copp site pocket park).



UNIVERSITY BOULEVARD KEY PLAN



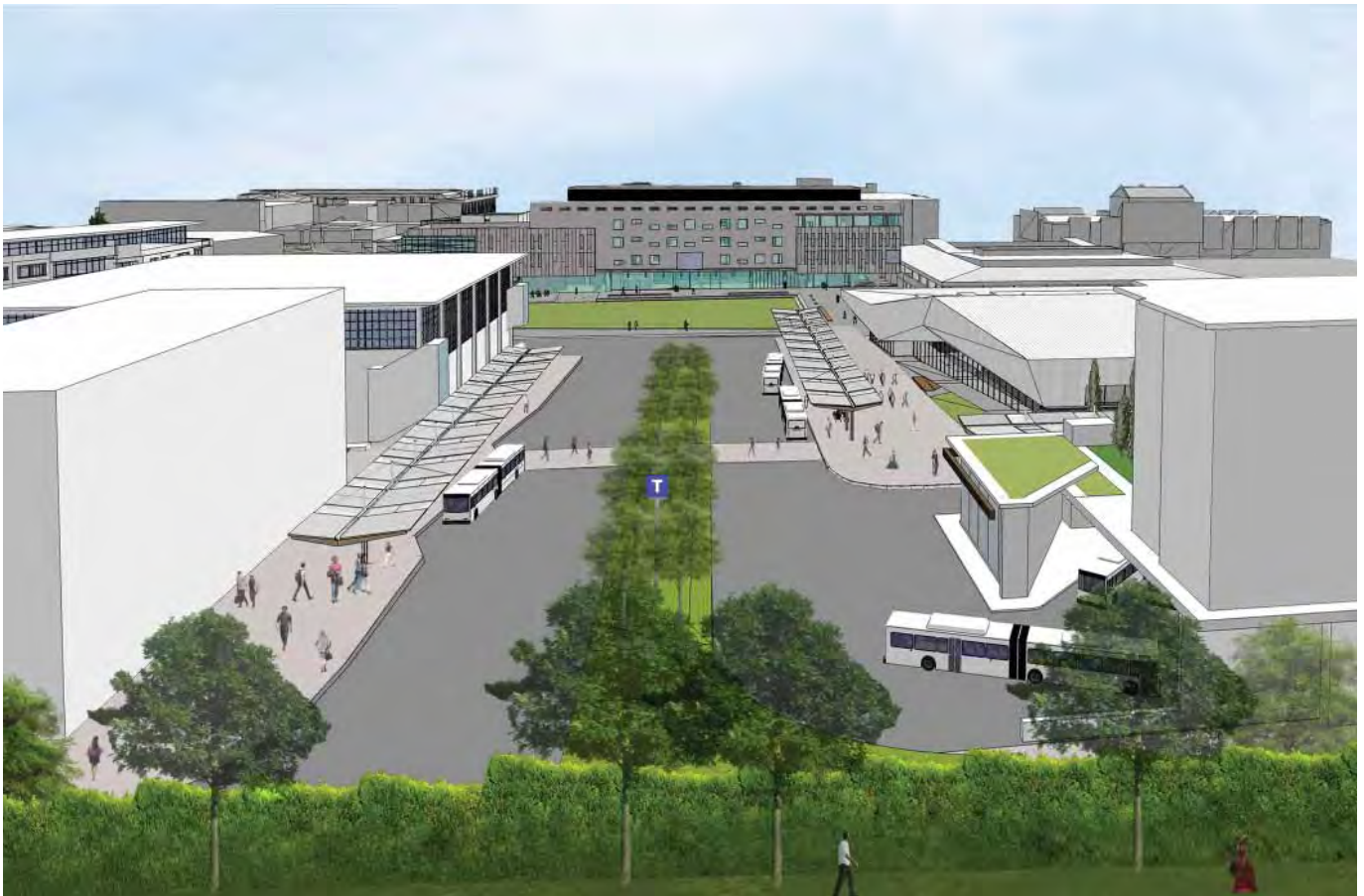
EXISTING GATEWAY SIGNAGE AT UNIVERSITY BOULEVARD AND WESBROOK MALL



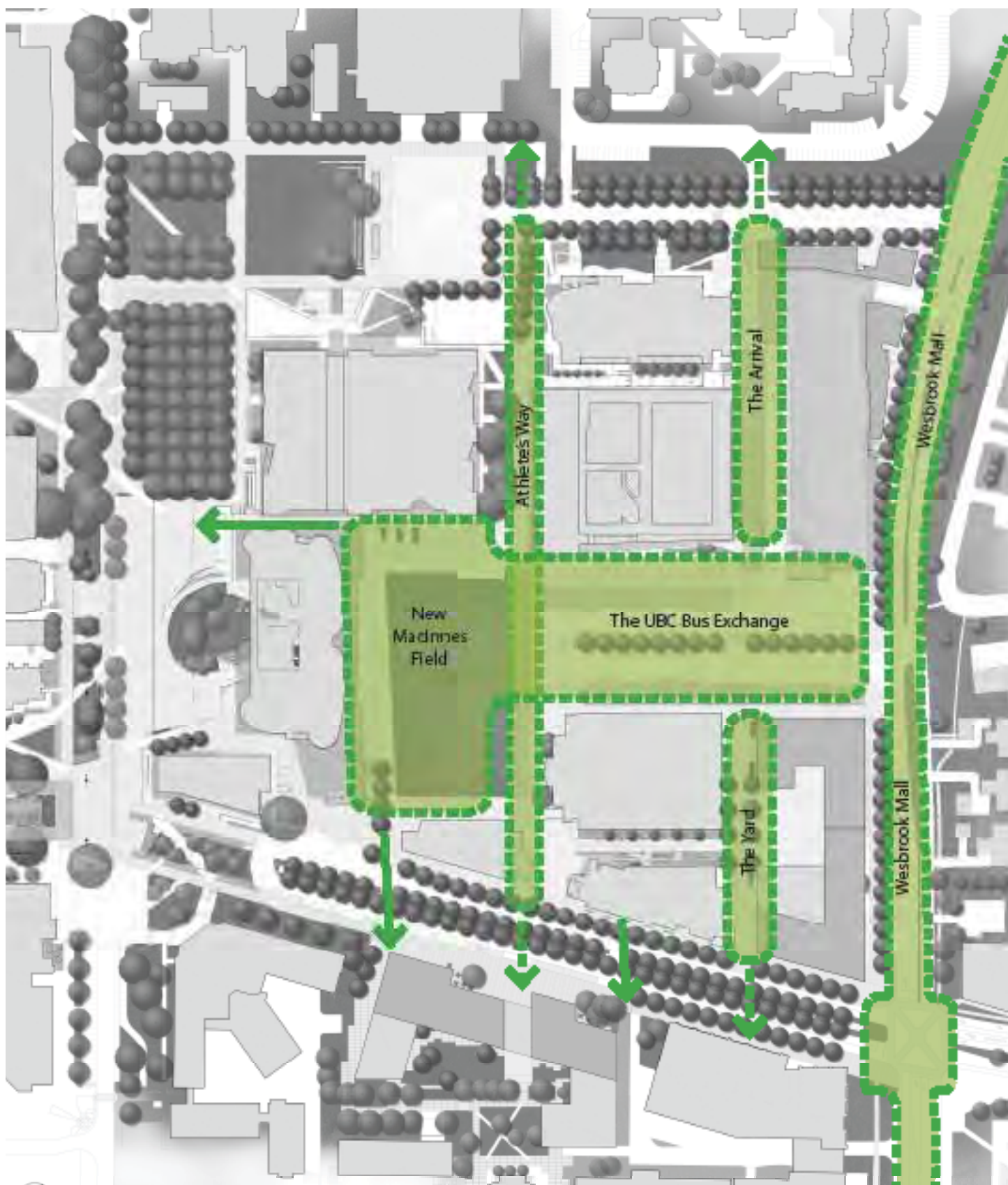
TYPICAL STREET SECTION - UNIVERSITY BOULEVARD LOOKING WEST

3.7 THE CORE

The Core will complete the precinct through the final development sites and associated public realm. Key features of The Core include The UBC Bus Exchange and the New MacInnes Field. These spaces will be connected through several new pedestrian and bike corridors including Athlete's Way, The Yard, and Wesbrook Mall.



VIEW WEST OVER THE UBC BUS EXCHANGE TOWARDS THE AMS STUDENT NEST



THE CORE

Note: Building footprints for GSAB (North and South), D.H. Copp, and Site D are conceptual and for illustrative purposes only

3.7.1 THE UBC BUS EXCHANGE

Situated on Wesbrook Mall and centered between Student Union and University Boulevards, the UBC Bus Exchange will act as a campus gateway. Aligned axially to the AMS Student Nest, The UBC Bus Exchange extends into the social heart of campus, providing convenient access to students traveling to and from various areas of the campus. The Bus Exchange must be an efficiently functioning transit facility, convey a welcoming first impression, and express UBC's identity. The associated public realm will help further define The UBC Bus Exchange and identify it as uniquely UBC. The following recommendations should be considered to achieve the functional and experiential qualities intended for this key campus arrival and departure point:

Circulation and Orientation

- Establish legible, safe, universally accessible and direct pedestrian connections to the greater campus and minimize conflicts between pedestrian movements and bus circulation.
- Ensure clear orientation and wayfinding—Coordinate with TransLink to develop a wayfinding plan.
- Consider opportunities for bold graphics along the east edge of the Aquatic Centre at the bus arrival corridor to aid in wayfinding and orientation, and enhance the arrival experience.
- Improve ease of access and legibility along the south frontage of the Student Recreation Centre.
- Provide bike racks, preferably in a covered location, within easy access to the UBC Bus Exchange without compromising pedestrian circulation and flow.

Sense of Place

- Build a cohesive and defining identity through architectural structures designed for weather protection, lighting, spatial and edge definition, and wayfinding.
- Express UBC identity through:
 - Materiality and colour (e.g. wood, Resysta, and UBC's street infrastructure colour palette)
 - Public art opportunities
 - Architectural expression
- Utilize the centre median as a placemaking opportunity and visual focal point through the incorporation of super graphics, landscape, and/or public art.
- Continue the cohesive public realm treatment currently established in the Precinct throughout the UBC Bus Exchange, including paving, furnishings, lighting, and colour.

Experience

- Provide services that support transit users (i.e. small scale retail, bike storage) along the south edge of the departure area (War Memorial, GSAB North site).
- Animate building edges (War Memorial Gym, Aquatic Centre, GSAB North site) adjacent to the UBC Bus Exchange with street level services and visible program.
- Ensure that the facility design incorporates, where viable, noise and air pollution mitigation measures.
- Create a safe and enhanced night experience through high quality lighting design.
- Incorporate continuous weather protection for arrival and departure areas to optimize the comfort and experience of passengers.



WAYFINDING AND ORIENTATION



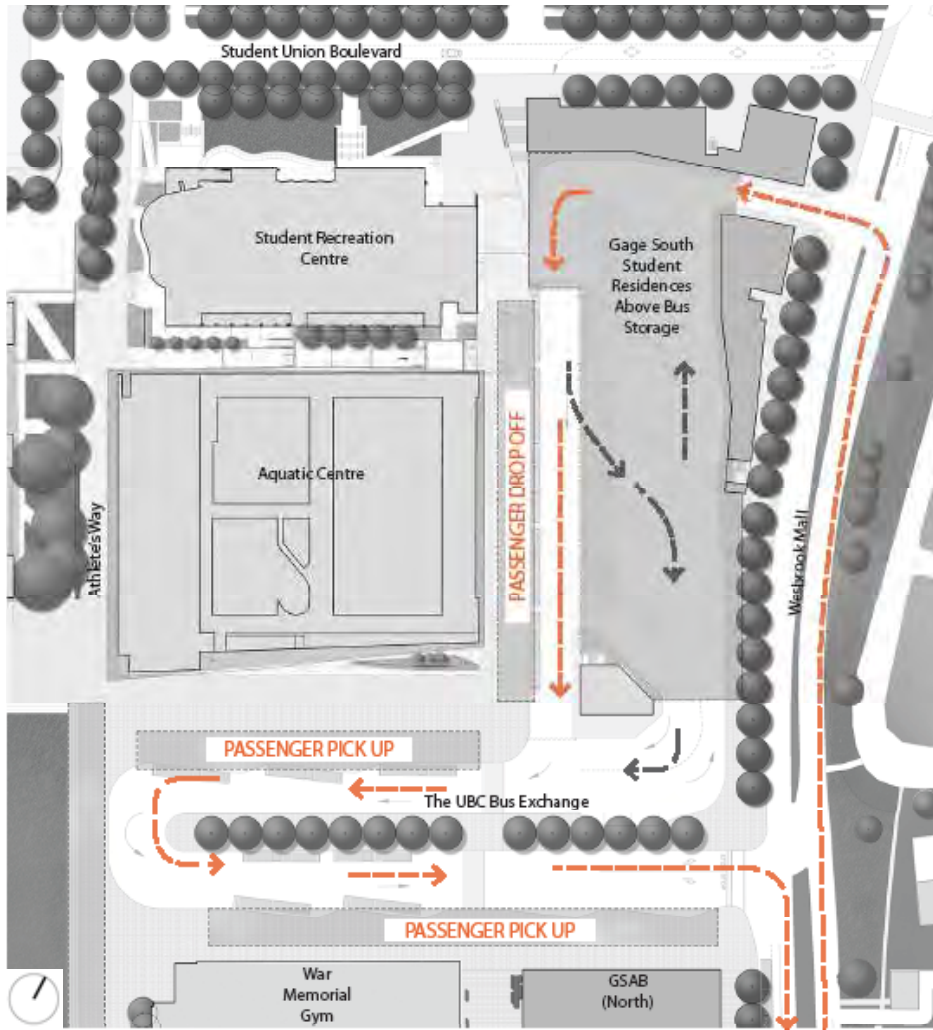
TRANSIT PUBLIC ART



WOOD AND GLASS BUS SHELTER



BUS SHELTER WITH INTEGRATED SIGNAGE



UBC BUS EXCHANGE CIRCULATION DIAGRAM

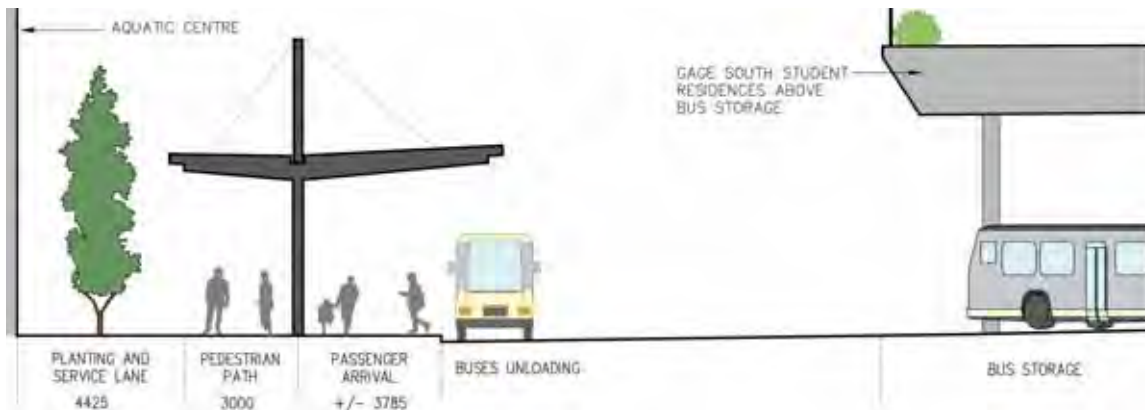
← passenger drop-off and pick-up ← bus layover



PROPOSED CONCEPT FOR PASSENGER ARRIVAL AREA, LOOKING NORTHEAST, TOWARDS RESIDENCES



PROPOSED CONCEPT FOR PASSENGER PICK-UP, NORTH SIDE, VIEW EAST



PROPOSED CONCEPT FOR PASSENGER DROP OFF - LOOKING NORTH - TYPICAL SECTION

3.7.2 ATHLETE'S WAY

Athlete's Way is a key north-south campus corridor that connects from Student Union Boulevard to University Boulevard. Athlete's Way will build upon the existing axial formality of the campus and connect the athletic, recreation and social elements of the area. This link will serve as the key pedestrian route for Aquatic Centre patrons arriving from Student Union Boulevard and, on a wider scale, will connect campus users from areas north and south of the Precinct. The design of Athlete's Way should consider the following recommendations to provide an engaging and legible corridor for high pedestrian flow:

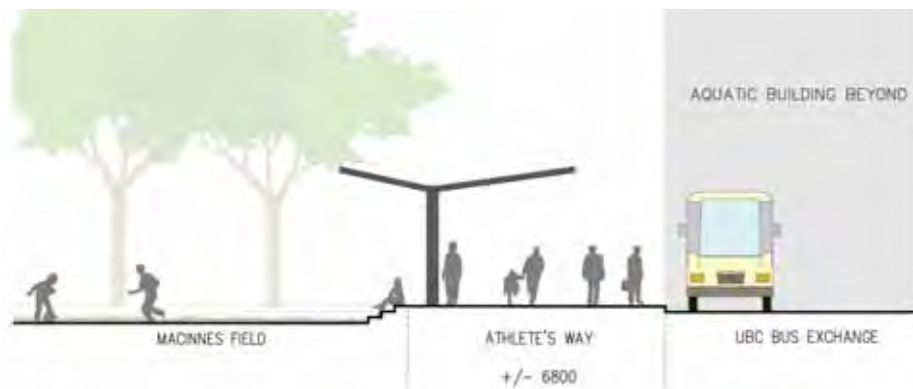
- Provide clear connectivity and direct alignment from Student Union Boulevard to University Boulevard with a visual connection to and through the D.H. Copp site and towards the interior courtyard.
- Explore strategies for incorporating UBC Athletic's identity through programming (i.e. outdoor fitness area adjacent to War Memorial Gym) and design, such as vertical markers, banners, and special accent or interpretive features.
- Incorporate wayfinding and orientation features per UBC's suite of wayfinding.
- Maximize opportunities for social interaction along the corridor through seating, viewing and activity areas.
- Ensure appropriate path width is maintained (3m minimum to 6m maximum) where fire access, service vehicles, and event set up is required.
- Preserve mature trees adjacent to east side of the existing Student Union Building.
- Provide continuous weather protection adjacent to MacInnes Field along eastern edge adjacent to the UBC Bus Exchange.
- Recognize the programmatic role in support of new MacInnes Field activities day and night.
- Look for opportunities for green infrastructure to manage stormwater in the landscape and divert from conventional stormwater infrastructure.



ATHLETE'S WAY KEY PLAN



VERTICAL MARKER PRECEDENT



TYPICAL SECTION BETWEEN ATHLETE'S WAY AND UBC BUS EXCHANGE



OUTDOOR FITNESS PRECEDENT

3.7.3 THE YARD

The Yard is a mid-block public open space and connection between the UBC Bus Exchange and University Boulevard defined by the GSAB site, War Memorial Gym, and University Boulevard Site B. The corridor is envisioned as an animated 'back alley' where academic building program is highly visible and spills out into the space. The Yard will need to accommodate vehicle and fire truck access from Wesbrook Mall to service the associated buildings along the corridor. The design of the corridor should be informed by the following recommendations:

- New buildings should frame and contribute to the animation and activation of the Yard's spaces especially through ground level programming and uses reflective of innovation, achievement and student life.
- Academic street level uses should be prioritized along the corridor with retail at the north and south building corners oriented towards The UBC Bus Exchange and University Boulevard.
- Consider small-scale 'incubator spaces' such as maker spaces, studios, clubs, exhibition spaces, and small shops.
- Consider providing large overhead glazed service doors along the lane to facilitate flexible ground floor use along the Yard.
- Provide opportunities for interaction such as seating, community tables, and street level exhibition spaces.
- Continue the cohesive public realm treatment of the Precinct including paving, furnishings, and lighting but allow for special design opportunities to define this as a unique space within the Precinct.
- Allow for ongoing student and faculty involvement and contributions to shaping and defining the character of this space.



THE YARD KEY PLAN



RAILSPUR LANE - GRANVILLE ISLAND



INTERACTIVE LANEWAY

3.7.4 MACINNES FIELD

The new MacInnes Field is a key public space within the University Boulevard Precinct open space network. Located on the east side of The AMS Student Nest, and at the west terminus of The UBC Bus Exchange, the field is poised as an active 'front yard' to the Precinct that will complement the urban character of University Square located to the west. Envisioned as an informal 'green' open space, the field will provide relief from the surrounding built environment and support three key uses – everyday informal social and recreational uses, after hour intramural sports, and annual campus wide events. The field should be simple and clear in form to help define circulation corridors around all sides and to allow for programmed uses and events to transform the space as required. Special consideration should be given to the east edge of the field to help mitigate any potential conflicts between field uses and transit. When considering the field as a social and recreational space, the following recommendations should be considered:

Surfacing

- Artificial turf is recommended for durability and year-round use.
- Turf should appear as natural and green as possible to mimic lawn.
- No formal cross paths are intended for this space.

Edge Treatment

- Maximize openness and accessibility and minimize restricted access.
- Provide opportunities along east and west edges to accommodate temporary goal nets for intramural sports.
- Strategies to control and deter circulation across field:
 - Change in grade at perimeter
 - Seating
 - Architectural structure
- Clear circulation routes around field
- East edge of field should include the following:
 - Weather protection
 - Integrated seating along east edge to capture east sun
 - Architectural structure to define the east edge and create enclosure
 - Structure wall with various levels of permeability providing prospect refuge, ball conflict control, weather protection
- Strategies to control potential conflicts with transit (balls, Frisbees):
 - Change in grade
 - Extension of architectural structure
 - Strategic fencing (permanent or temporary)
- Frame the field with integrated pedestrian level lighting.



MACINNES FIELD KEY PLAN



HUNTER'S POINT - SYNTHETIC TURF



STEPPED EDGE CONDITION



EDGE STRUCTURE

Program

- Daytime program will prioritize informal social and recreational uses where the field reads as an extension of the interior activities of The AMS Student Nest.
- After hours program will prioritize intramural sports and the design should incorporate accommodations for intramural sport set-up (i.e. temporary goal nets).
- Design should incorporate accommodations for large scale event set up such as:
 - Infrastructure (i.e. power, water, gas)
 - Adequate hardscape space for stage set up and front and back of house
 - Adequate perimeter circulation for stage delivery, food trucks, fire and other service vehicles
 - Ability to fence temporarily for paid events
- Maximized green open space
- As part of future upgrades to War Memorial Gym, consider incorporation of a small retail component at the northwest end of to serve sports needs of the Precinct and people waiting for bus departures and a more engaging "porch" with active edges and overlook opportunities.
- Ensure the design of Site D provides an active and engaging edge to the field.



EVERYDAY INFORMAL GATHERING



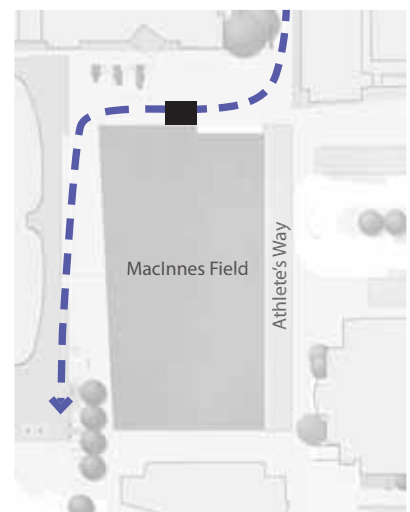
ANNUAL CAMPUS WIDE EVENTS



INTRAMURAL SPORTS



MAJOR EVENT LAYOUT SCHEMATIC



STAGE DELIVERY AND DROP-OFF ROUTE
JUNE 2015

3.8 WESBROOK MALL

Wesbrook Mall is an important gateway street that is one of UBC's most important transportation routes. It is a primary access street to the campus. Its design will embody the identity of the campus, express its character and help celebrate the gateway and arrival experience. It is envisioned as a beautiful, green, pedestrian – and bicycle-friendly street. As part of the re-design, the street will be narrowed, generally accommodating one traffic lane in each direction, turn lanes where necessary and transit priority lanes between Agronomy Road and Thunderbird Boulevard. A 3.0m wide planted median will run the length of the road except at turn lanes. Improvements to the layout and design will be informed by the directions below:

- Provide continuous separate 2.0m wide bike lanes along both sides of the street, buffered by a 1.0 metre pavement treatment to distinguish it from parking lane or travel lane.
- Generous, universally accessible sidewalks at 3.5 metres in width on the west side of the street with features such as lighting, banner arms, street trees, planting, and seating
- Allow for metered parking along the west side of the street, including dedicated car share parking spaces.
- Provide well defined and safe crosswalks at all intersections and at pedestrian desire lines (e.g. at UBC Health Precinct).
- Consider special hardscape treatment to define the crosswalks and to express gateway at the intersection of University Boulevard.
- Consider a pedestrian-only scramble style signal phase at the intersection of Wesbrook Mall and University Boulevard to facilitate pedestrian movements.
- Normalize the intersection at Student Union Boulevard to increase legibility, remove all channelized turns, decrease crossing distance and improve overall safety of the intersection.



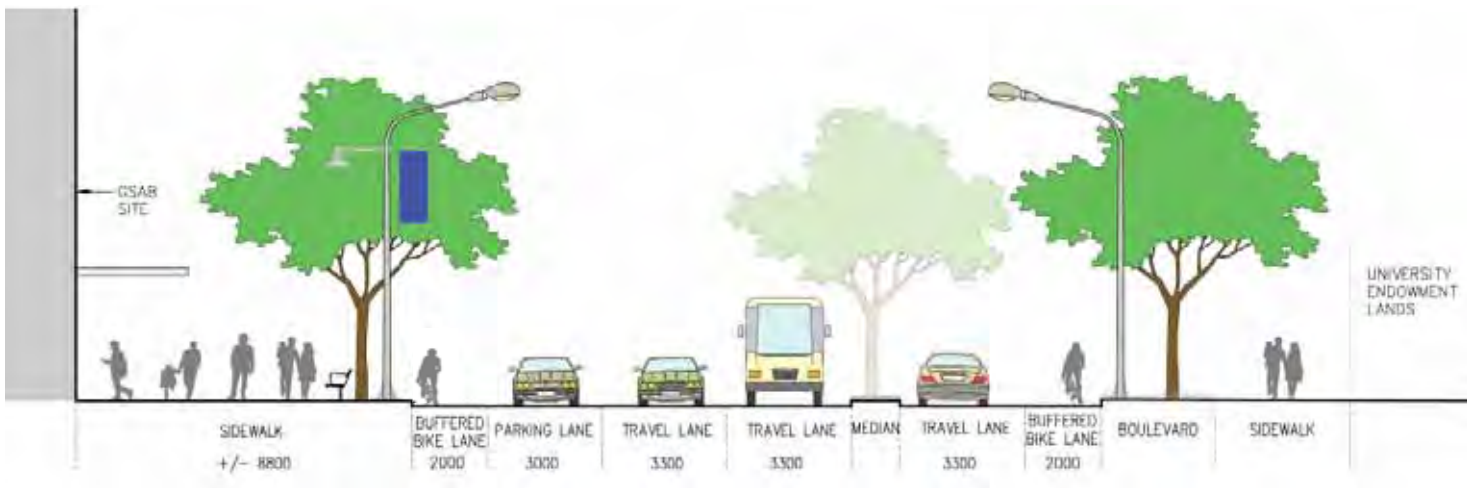
WESBROOK MALL KEY PLAN



SEPARATED BIKE LANE



WESBROOK MALL CONCEPT PLAN



TYPICAL WESTBROOK MALL SECTION AT UNIVERSITY BOULEVARD LOOKING NORTH



3.9 AXES/VIEWS

The axial formality of the precinct is reinforced by pedestrian and vehicular routes aligned to key buildings. The 2010 University Boulevard Design Guidelines identified key axes. With new development, these are expanded further to express the axial organization of the Precinct.

East/west axes

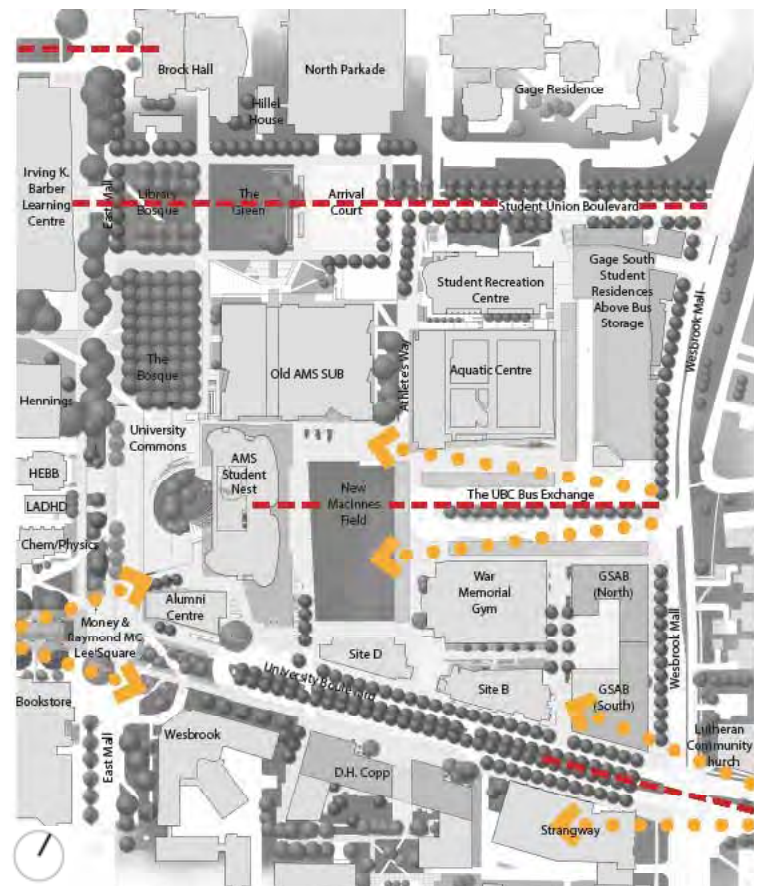
- Student Union Boulevard is aligned to the main door of the I.K. Barber Learning Centre.
- The UBC Bus Exchange is aligned to the centre of The AMS Student Nest and framed by the new buildings of Gage South Student Residences and the GSAB North site.
- University Boulevard (East of East Mall) is aligned to the Money and Raymond MC Lee Plaza.
- University Boulevard (West of East Mall) is aligned to the new Alumni Centre.

North/south axes

- The Alumni Centre is aligned to Brock Hall entry as framed by the porch edges of The AMS Student Nest, the Old AMS SUB, and the Bosque.
- Athlete's Way is aligned to a visual connection through new building on the D.H. Copp site.
- The Yard aligns to the UBC Bus Exchange and to University Boulevard.



I.K. BARBER LEARNING CENTRE MAIN DOOR



AXES/VIEWS



axis

3.10 PEDESTRIAN & BIKE CIRCULATION

The Precinct will be designed to ensure easy, convenient and comfortable pedestrian and bicycle access. The 2010 Design Guidelines identified key pedestrian connections to primary facilities in the Precinct. With the development of The Core, new pedestrian and bike connections have been identified and further refined to respond to new movement corridors and desire lines. The following primary movement corridors should be provided:

Pedestrian Routes North/south

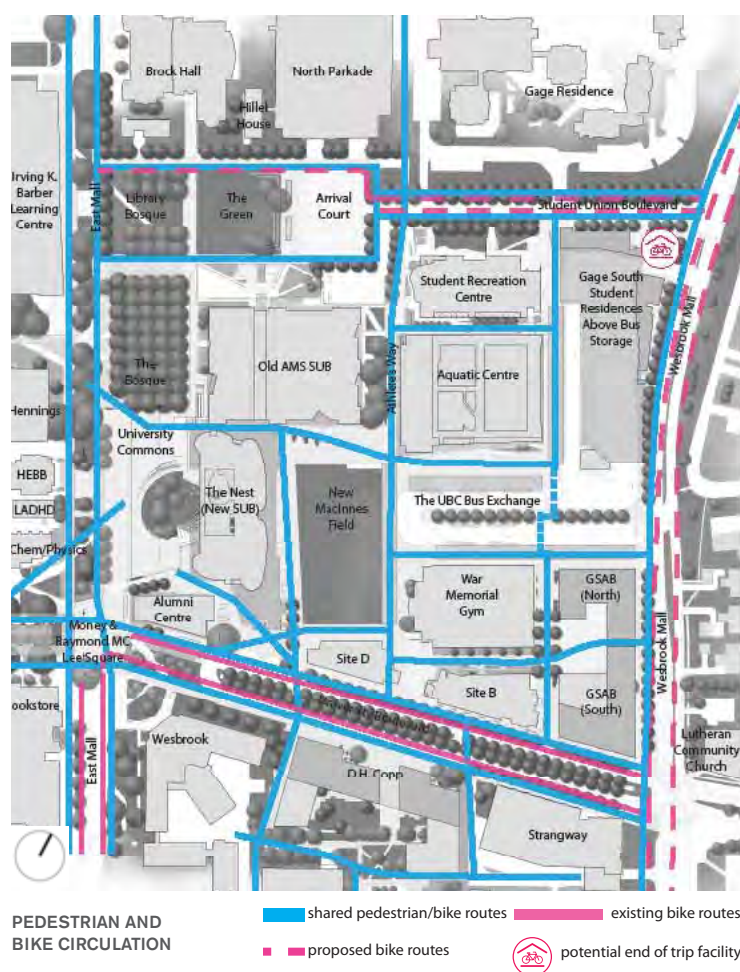
- Wesbrook Mall
- The Yard
- Athlete's Way
- MacInnes Field West
- The Porch
- East Mall

Pedestrian Routes East/west

- Student Union Boulevard
- UBC Bus Exchange (north) to University Commons
- UBC Bus Exchange (south) to Money and Raymond MC Lee Plaza
- University Boulevard
- Aquatics Centre North Terraces

Bike Routes

- Major pedestrian and bike routes are designated as "slow" cycling routes, reflecting their functions as shared spaces.
- Wesbrook Mall will have a buffered lane along the corridor. If budget allows, complete separation will be implemented.
- Student Union Boulevard will feature a 5 metre multi-use pathway on either side as well as shared lanes on the roadway that will be marked with bike symbols and chevrons.
- Improvements on University Boulevard will include better signage and route definition for cyclists along the corridor and at the entrance to East Mall. Once Wesbrook Mall and East Mall are complete this cyclist corridor will be monitored to determine if additional measures and changes are required.
- Bike racks will be provided throughout the Precinct in quantities and locations suited to use and demand. A location for secure bike storage will be explored as part of Gage South Student Housing.



3.11 VEHICULAR CIRCULATION & PARKING

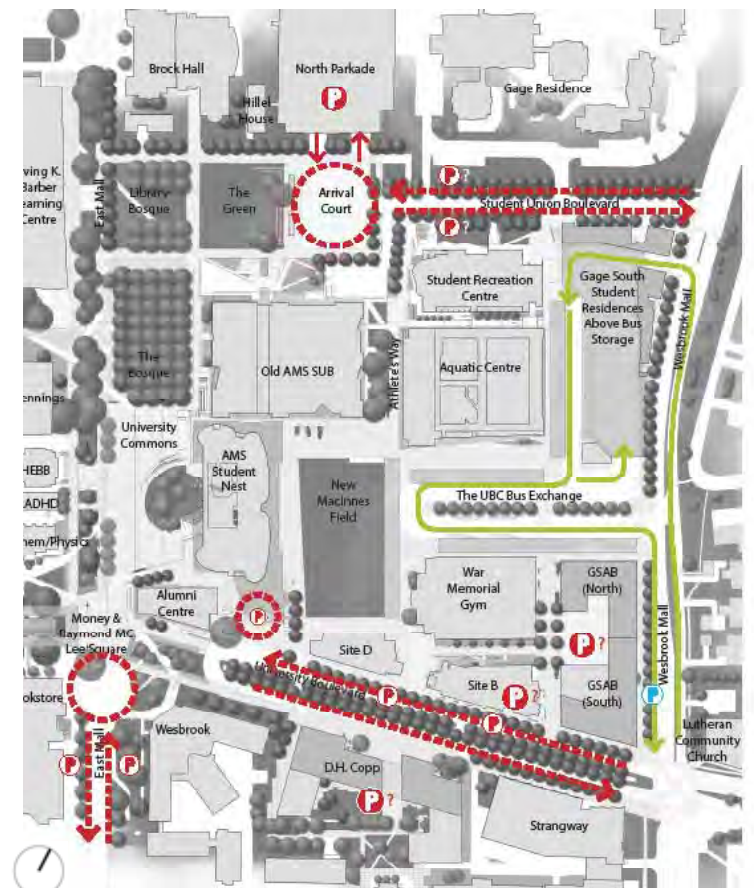
Per campus policy, large parking surfaces are prohibited. General precinct parking needs shall be met in the North Parkade while a limited amount of short-term on-street parking will be provided to support ground-level retail and accessibility needs. Parking for residential uses will be provided in below grade parkades.

Student Union Boulevard

- Vehicular access terminates in the Student Union Plaza which serves as a key drop-off/public space.
- Vehicular access to the North Parkade
- Service access to the Old AMS SUB, The AMS Student Nest, Student Recreation Centre, Aquatic Centre, and Gage South Student Residences
- Parking should be provided along both sides of the street to support Student Recreation Centre and Aquatic Centre drop-off, accessible and short term parking needs.
- Special event access will be provided to MacInnes Field along Athlete's Way.

University Boulevard

- Vehicular access terminates at the Alumni Centre and The AMS Student Nest auto court with drop-off, pick up and a small area for short term and accessible parking.
- Metered street parking is provided, primarily on the north side to support retail needs with Trolley bus stops serving the majority of the south side of the street.
- Temporary service and underground parking access to Site B is provided at The Yard until the GSAB South site is completed, when access may be relocated off Westbrook Mall.
- Special event access will be provided to MacInnes Field along Athlete's Way.
- Emergency and service access will continue west of the Alumni Centre and along Athlete's Way.
- Parking to the D.H. Copp site will be accessed from Westbrook Mall in the existing lane servicing the Strangway Building.



VEHICULAR CIRCULATION
& PARKING

— vehicular routes — diesel bus route
P parking structure P surface parking P car share

4.0 PUBLIC REALM DESIGN GUIDELINES

4.1 INTRODUCTION

The design of the public realm for the University Boulevard Precinct is intended to provide a unified and cohesive sense of place on campus. The precinct will have a collection of public spaces and landscapes with a variety of programs and activities. It is intended that the individual parts will read as part of the collective place. This will be achieved through the use of coordinated design elements to create a common identity, including:

- Weather Protection
- Paving
- Lighting
- Site Furnishings
- Bike racks
- Signage
- Soft Landscape
- Public Art
- Sustainability Initiatives
- Comprehensive Wayfinding System



UBC MAIN MALL PUBLIC REALM

4.2 UNIVERSAL ACCESSIBILITY

The University is committed over time to providing dignified, welcoming, and effective access to people of all ability levels, to all parts of the campus and buildings where people are expected to engage in university life. In addition to meeting the accessibility provisions in the BC Building Code, all new project designs must seek to achieve the universal accessibility policies outlined in Section 2.2 of the Vancouver Campus Plan.



UNIVERSAL DESIGN

4.3 WEATHER PROTECTION

Weather protection for pedestrian comfort is an important feature for creating a pedestrian-priority campus. Where new buildings define the public realm, weather protected pedestrian routes should be provided as follows:

D.H. Copp site

- Weather protection should be provided in relation to any street level building uses proposed along University Boulevard for year round use and animation of these spaces.

Sites B and D

- Buildings on sites B and D should incorporate weather protection oriented towards University Boulevard to create a weather protected route from Wesbrook Mall to East Mall at the Alumni Centre.
- Weather protection should be considered around all sides of Site D due to the associated circulation corridors surrounding this site as well as the proposed ground level program.
- Location, height and depth of weather protection should also consider provision for covered bike racks, pedestrian movement, and seating areas.

GSAB North and South Sites

- Weather protection should be prioritized at building edges associated with the primary circulation routes along Wesbrook Mall, University Boulevard, and The Yard.
- Along the north edge of GSAB North, special consideration should be given to any proposed weather protection along this edge and its relationship to the transit structures in this area.

Gage South Student Residences

- Provide canopies or integrated weather protection at key access points to the building.
- Additional weather protection should be considered throughout the design process.

The UBC Bus Exchange

- The UBC Bus Exchange bus arrival and departure areas should have generous weather protection located to ensure ease of passenger circulation, access and comfort and designed to block or minimize impact of prevailing winds.
- Linear canopies over arrival and departure platforms will provide weather protection, act as placemaking devices and lend to intuitive wayfinding to and from the transit facility.
- Routes from transit to the campus core should, where possible, provide weather protection through the use of individual building canopies and/or interior public routes.

MacInnes Field

- Along the eastern edge of MacInnes Field, consider a generous weather protection canopy along Athlete's Way as part of an architectural defining edge to the field and a terminus to the UBC Bus Exchange.



UNIVERSITY BOULEVARD BUS SHELTER



EARTH SCIENCES BUILDING

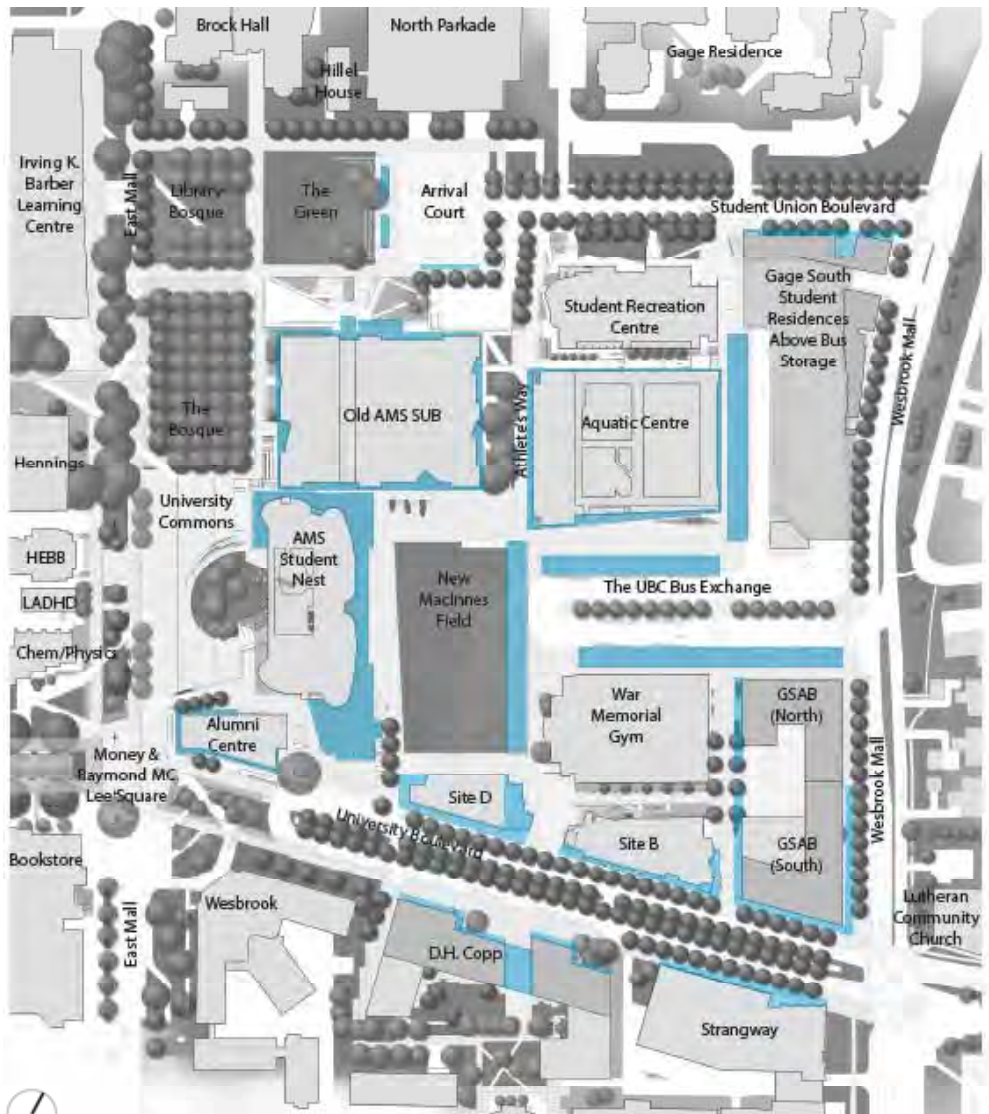


BRAIN HEALTH BUILDING

Student Union Boulevard Plaza

- Where vehicular drop-off and pick-up area is located, a weather protection canopy should be provided on the western and southern edge to accommodate drop off and pick up and to help define the space.

Reference: Vancouver Campus Plan Part 3 Design Guidelines, Section 2.3.9 Rain Protection



PRIORITY WEATHER PROTECTION ZONES

4.4 PAVING

A coherent approach to paving design should be used throughout the Precinct. Variations will identify special places and distinct routes across plazas and greens. As a place of social interaction, campus events and ceremonies, the paving should express vibrancy, dynamism and youthfulness. It is recommended that:

- University Boulevard Precinct (Type 3) paving should be provided along University Boulevard between Money and Raymond MC Lee Plaza and Wesbrook Mall.
- Design development should be undertaken to define the interface between Type 1 and Type 2 paving through the open space network of the Precinct and to consider variations of these patterns in order to define special places and routes and to allow for more cost effective paving in certain areas.

Reference Vancouver Campus Plan Part 3 Design Guidelines Section 2.5.1



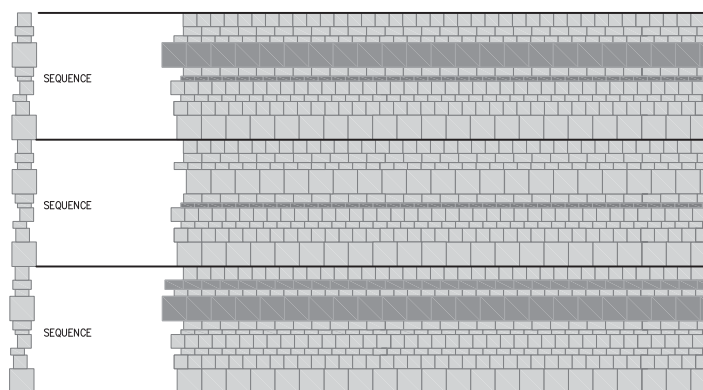
TYPE 3 PAVING - UNIVERSITY BOULEVARD



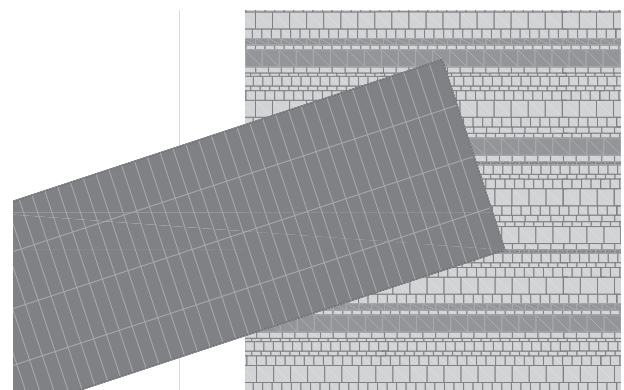
MAIN MALL PAVING



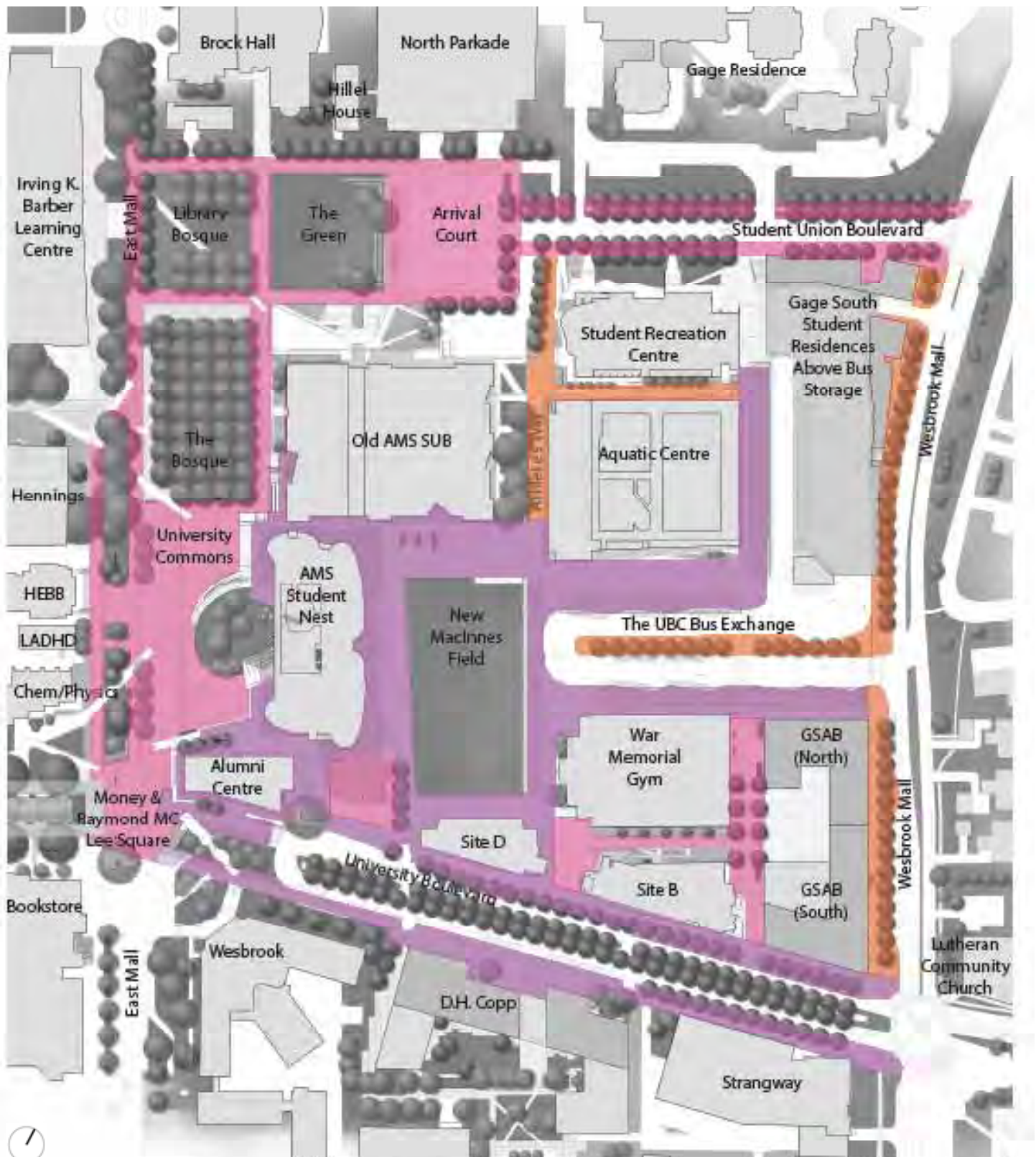
SIMPLIFIED VARIATION - UNIVERSITY SQUARE AND MONEY & RAYMOND MC LEE PLAZA



TYPE 3 PAVING - PRECAST PAVERS WITH MIXED SIZE AND COLOURS



DIAGONAL MOVEMENT CORRIDORS - PAVERS OR CONCRETE



PAVING TYPES DIAGRAM

type 3 paving

type 3 variation

type 6 - concrete

4.5 LIGHTING

Lighting is important to achieve a number of key objectives. As a place for major social activities and events on campus, the major transit hub and key public destinations, lighting needs to achieve of the following key objectives :

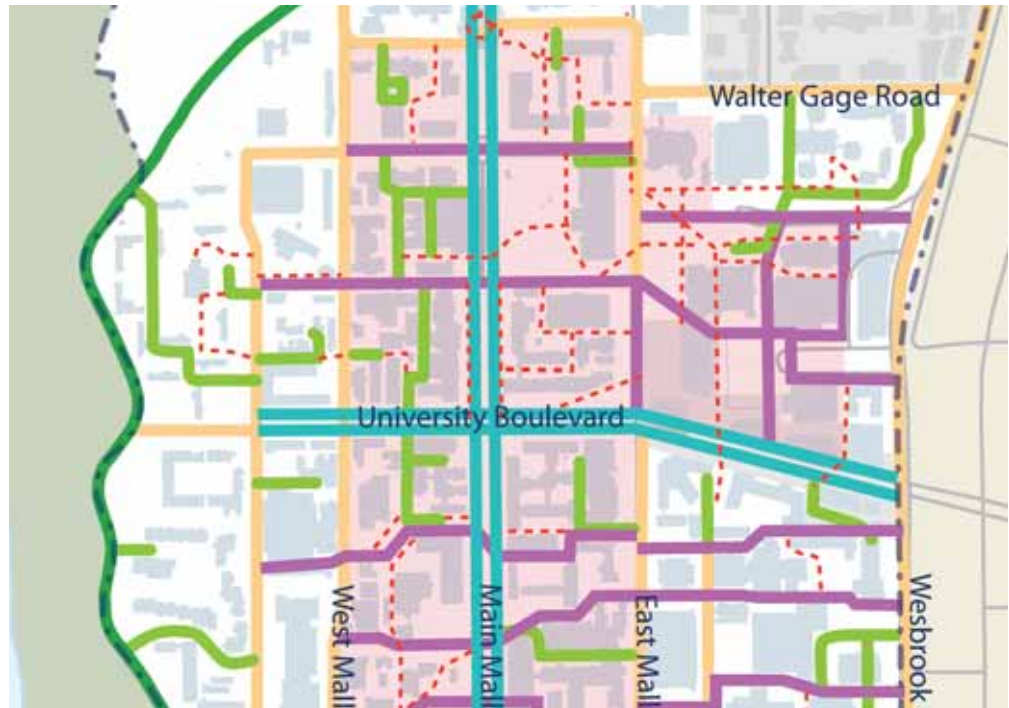
- Enhance safety, perceived safety and security.
- Contribute to a comfortable night environment.
- Create a unified character.
- Mark routes and corridors.
- Highlight the Precinct as a lively, dynamic, active place.
- Provide opportunities for special events and ceremonies to occur without the need for temporary lighting.
- Emphasize special places and features.
- Create inviting entrances to buildings and passages.

It is recommended that:

- A detailed comprehensive lighting scheme should be prepared which meets the objectives and standards of Section 2.5.2 of the Vancouver Campus Plan Design Guidelines, and establishes locations, light levels, lighting type and fixtures, special places, event and ceremonial lighting.
- Lighting along the three corridors (East Mall, University Boulevard, Student Union Boulevard) are an exception and shall use light standards established for University Boulevard.
- Exterior building lighting should showcase interior and exterior activities to help animate the public realm and bring depth and interest to the buildings. At the same time building lighting levels (interior and exterior) should be designed to eliminate glare or produce light spillage that impacts lighting levels established for the public realm.

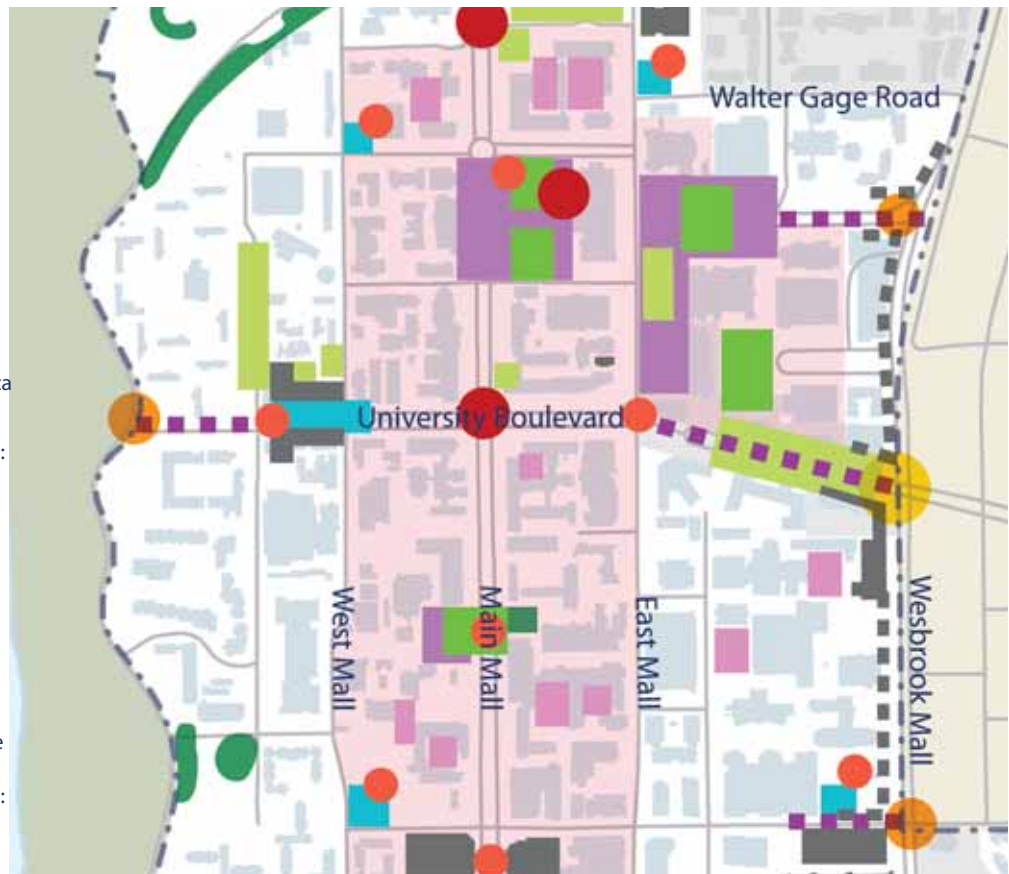
Reference Vancouver Campus Plan Part 3 Design Guidelines Section 2.5.2

- Primary Ceremonial Route: 25 Lux
- Secondary Pedestrian Route: 15 Lux
- - - Tertiary Pedestrian Route: 5 Lux
- Campus Roads with Sidewalks: 6 Lux
- Shared Pedestrian + Service Lanes: 4 Lux
- Public Road at Site Edge: 4 Lux
- Pedestrian Priority Zone



VANCOUVER CAMPUS PLAN PART 3 - MAPS 3-11 LIGHTING CIRCULATION

- Primary Gateway: 50-100 Lux
- Secondary Gateway: 50-100 Lux
- Entrance: 50-100 Lux
- Primary Icons: 50-100 Lux
Clock Tower
Main Mall Ornamental Pool
Flag Pole Plaza
- Icon: 50-100 Lux
- Hub Commons: 30-50 Lux
- Large Academic Commons - Plaza Surface: 10-30 Lux
- Small Academic Commons Plaza: < 10 Lux
- Large Academic Commons - Green Surface: < 10 Lux
- Accented Forest: < 10 Lux
- Decorative Bosque: 10-30 Lux
- Pedestrian Priority Zone
- Placemaker Building or Structure
Facade Icons + Hubs: 110 Lux
Campus Core + Modern Campus: 55 Lux
Forest Campus: 35 Lux



VANCOUVER CAMPUS PLAN PART 3 - MAPS 3-12 LIGHTING NODES

4.6 SITE FURNISHINGS

Site furnishings include seating, tables, notice boards, kiosks and bollards. These elements are important in order to convey a unified precinct character and encourage use and engagement of the public realm. As such it is recommended that:

- Site furnishings to be consistent with the Vancouver Campus Plan Design Guidelines.
- Extensive and varied seating opportunities are provided to encourage use by individuals and groups.
- Seating should be arranged to support, social mixing and interaction. Seating should include movable tables and chairs (ideally adjacent to indoor social places such as food services) table height surfaces for eating and study. Stairs, low walls and stepped edges to facilitate changes in grade, should be designed to facilitate casual seating.
- Provide fixed-in-place benches with and without backs, clusters of seating (i.e. booths, nooks, circles) to support social interaction. MacInnes Field should be enhanced to include seating at its edges for use in all seasons. Seating design should incorporate skateboard deterrents and be fabricated of durable materials
- A range of messaging opportunities including electronic transit scheduling, notice boards, kiosks that incorporate electronic boards for posting and messaging by individuals, groups and event notices by the university, with specific attention given to the UBC Bus Exchange and providing a high level of customer information and wayfinding at this important arrival destination.
- Garbage and recycling receptacles and bike racks should be selected based on the VCP Design Guidelines.
- Provide drinking fountains in proximity to MacInnes Field.



SITE FURNISHING PRECEDENTS

4.7 SIGNAGE

The University Boulevard Precinct will be a collection of key public destinations and activities on campus. Many will require exterior building signage and public realm signage for identification, orientation and wayfinding. With the exception of the retail signage along University Boulevard, signage within the Precinct should be planned as a single system that provides effective and efficient wayfinding and notification of services.

All wayfinding and building signs are to be consistent with the UBC Signage Standards and Guidelines. Signs are subject to review and approval by Campus and Community Planning. Appropriate use of the UBC logo, font, colours and other graphic elements are specified in the UBC Visual Identity Guidelines. Coordination with TransLink is required for signage and wayfinding within in the UBC Bus Exchange.

The vision of University Boulevard is as a vibrant 'main street' with 'mom and pop' style shops and services within an overall academic architectural expression. The retail signage plays an important in providing visual animation and vitality to the street. Retail signage should express the 'personality' of the retail entity in creative and whimsical ways and yet not be visually dominant over the neighbouring retailers nor the academic stature of the area. Retail chain branding signage is generally not supported.

Special consideration should be given to the following areas:

- Aquatics Centre East facade – Consider the use of this wall as a large scale signage opportunity for welcoming, orientation and wayfinding. Use of super graphics, colour and large scale maps should be explored.
- War Memorial Gym North facade – Consider incorporating digital event signage along this edge.
- UBC Bus Exchange – Digital schedule and information signage should be incorporated into the transit shelters throughout the Bus Exchange.

For special events signage the following is recommended:

- One location for banner signage that is front and centre and constantly changing; this could be within the exterior of the architecture or as a separate feature of the public realm (i.e. back drop to an outdoor stage). An example of the banner approach would be similar to the Vancouver Art Gallery banner system to announce events that are located on the north side of the gallery on Georgia Street integrated within the architecture.

Reference Vancouver Campus Plan Part 3 Design Guidelines Section 2.6.6 UBC Sign Standards and Guidelines



UBC SIGNAGE PYLON



BUS SHELTER WITH DIGITAL SIGNAGE



LARGE SCALE SIGNAGE AND WAYFINDING



SPECIAL EVENT BANNER SIGNAGE

4.8 SOFT LANDSCAPE

The landscape vision for the Precinct is to strengthen and enhance the existing landscape aesthetic of open plazas and lawn areas.

Additional trees may be added to the Precinct to strengthen the edges of open spaces and corridors. Shrub areas will be added to strengthen and formally define the edges of places such as the west side of East Mall and the approach along Student Union Boulevard. Broad multi-purpose lawn areas and formal arrangements of shade trees will continue to characterize the Precinct. As such, it is recommended that:

- In general, protect existing precinct trees in order to maintain connection with the past (i.e. existing Sycamore trees on east side of Old AMS SUB, East Mall boulevard trees, oak tree bosque).
- The Bosque of oak trees is to be revitalized. New pathway interventions should be designed and installed to minimize impacts on tree health such as surfacing with granular fines or pea gravel. New pathways should facilitate movement and occupation of the Bosque. Several trees may be removed to achieve objectives including incorporation of a pavilion and the creation of an axial view featuring I.K. Barber at its terminus. In consultation with the University Arborist, the feasibility of selectively thinning trees in the Bosque should be explored to enhance tree health, increase penetration of the sun, and optimize the social use of the space. Drainage should be improved.
- The large elm tree located along the north side of University Boulevard is a remnant of the historic landscape and has been preserved as part of the Alumni Centre development.
- A realigned Student Union Boulevard should be flanked with double rows of flowering cherry trees. These trees should be set in wide landscape boulevards of mass spring plantings intended to celebrate the arrival of spring, to recognize the end of the winter term and to create a more formalized experience of gateway into the campus.
- The street trees along East Mall should be preserved within the form of the original historic boulevard.
- Shrub beds are to be mass planted in simple formal arrangements using a limited palette of only a few species. Plants selected should consist of at least 70 percent broad-leaved evergreens. Plants should be selected primarily for the interest they exhibit during the fall, winter and spring through leaf and blossom colour, branching pattern, fragrance and form.



EXISTING ELM TREE

Refer to Vancouver Campus Plan Part 3 Design Guidelines Section 2.4 and 3.3.3

5.0 BUILDING DESIGN GUIDELINES

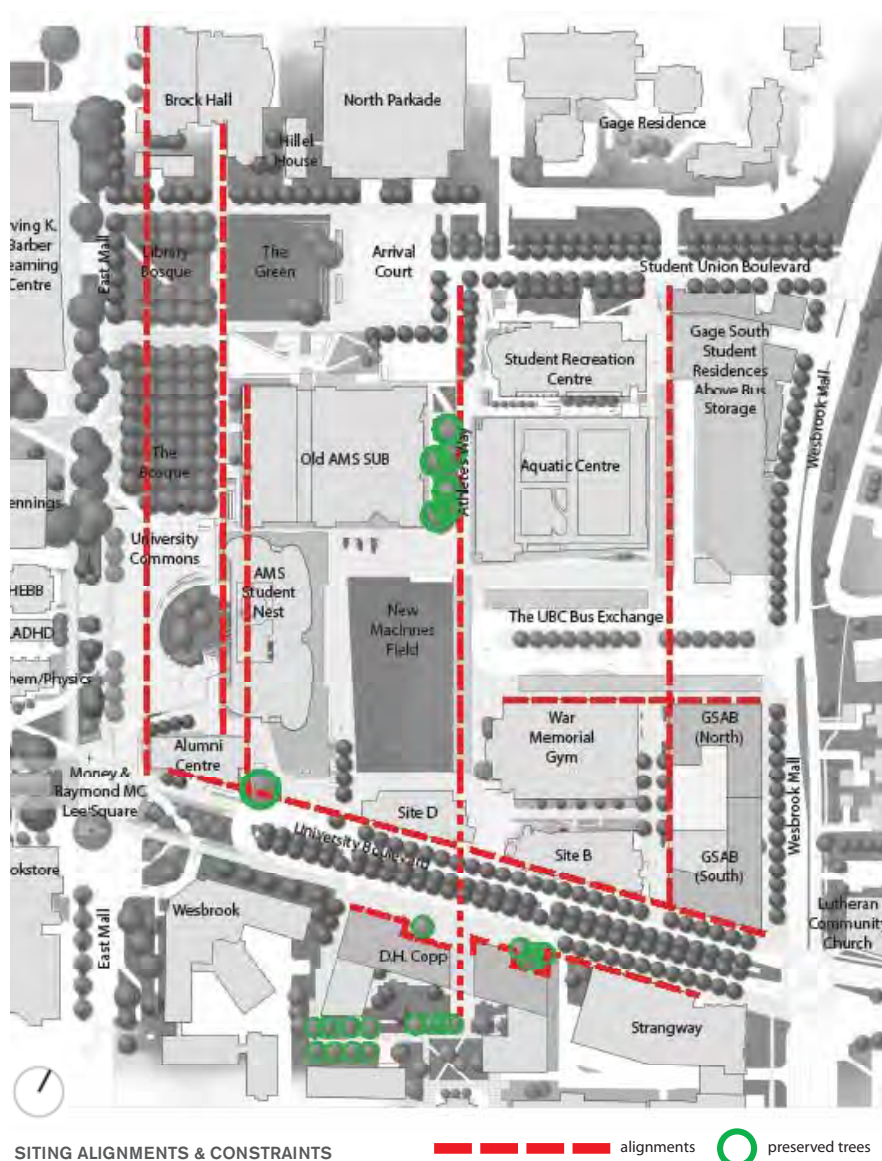
5.1 SITING

Section 3.0 generally describes the Precinct Plan framework for the redevelopment of the remaining key building sites in the precinct that were not identified in the 2010 University Boulevard Precinct Design Guidelines.

General Constraints

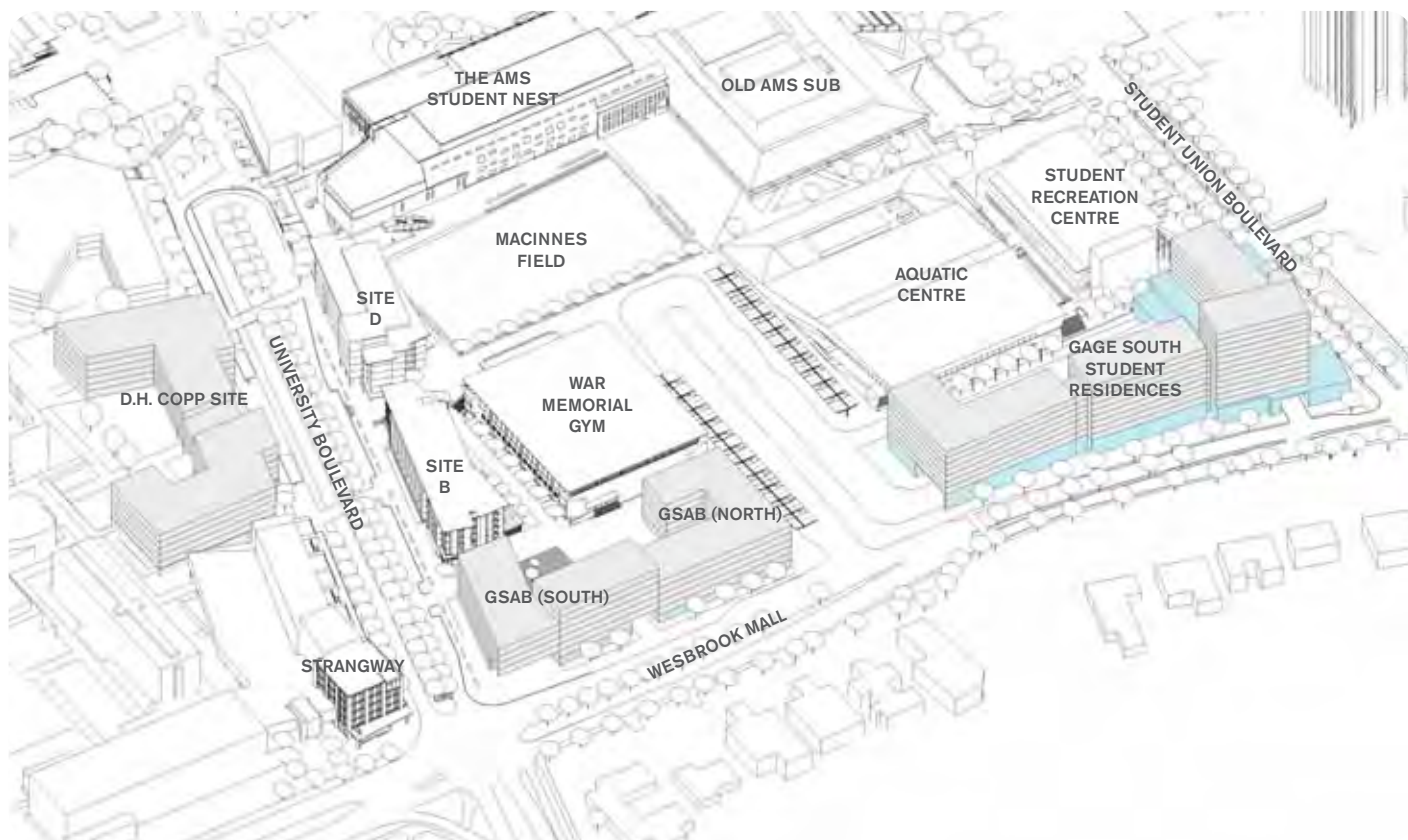
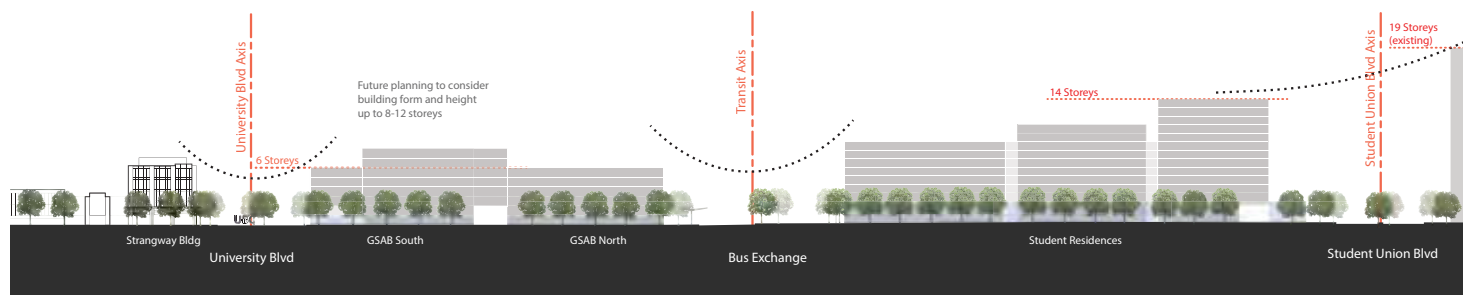
Siting constraints that define site limitations for each of the buildings follow the requirements of the Vancouver Campus Plan, and include but are not limited to:

- Sustainability
- Universal Accessibility
- Architecture
 - Positioning, Massing Setbacks
 - Signature Building Sites
 - View Corridors
- Building Heights
- Architectural Expression
- Ground Floor Elevation
- Building Entry Location
- Stairs
- Rain Protection
- Sustainability Best Practice in Building Design
- Open Space
- Pedestrian and vehicular access (including servicing access)
- Existing road alignments
- Existing landscape features



5.2 MASSING

The massing along University Boulevard should be a maximum height of six storeys except at the northwest corner of the University Boulevard and Wesbrook Mall intersection where the massing increases up to eight storeys to help create a strong corner and gateway statement. From GSAB North heading north along Wesbrook Mall, the massing is intended to step up from 8 storeys to 14 stories at the northern edge of the Gage South Student Residences site.



UNIVERSITY BOULEVARD PRECINCT GENERAL MASSING

5.3 ARCHITECTURAL EXPRESSION

The guidelines for architectural expression are based on the following principles:

- Academic Gateway
- Collective and Individual Identity
- Continuity of Campus Fabric
- Legibility and Transparency
- Campus as a Living Lab

5.3.1 ACADEMIC GATEWAY

The intersection of University Boulevard and Westbrook Mall is the premiere gateway to the whole academic core and is emblematic of UBC's collective identity and cultural heart. To strengthen this important crossroads between "University and City" the following objectives are to be followed for building sites on University Boulevard and Westbrook Mall:

- Create a strong corner expression at major street intersections.
- Building heights and architectural character should create a unified roof or parapet expression except where a gateway expression is desired.
- Use bold elements – through light, graphics, architecture
- Create a consistent street wall by aligning key architectural datums, such as setbacks, canopies, floor levels, façade orders and other building articulations.
- Buildings should be transparent, inviting, welcoming, and public.
- Express academic architectural features (e.g. high ground floor, two storey spaces, externally expressed staircases).

See Section 5.5 GSAB South site for more detailed guidance for this prominent gateway site.



BOLD ACADEMIC EXPRESSION



ENGAGING AND PUBLIC CORNER



TRANSPARENT AND INVITING CORNER



CONCEPTUAL SKETCH OF GATEWAY AT UNIVERSITY BOULEVARD AND WESBROOK MALL, FOR ILLUSTRATIVE PURPOSES ONLY

5.3.2 COLLECTIVE AND INDIVIDUAL IDENTITY

The new building sites described in this section will help complete University Boulevard Precinct. In terms of building massing and expression, new projects should be designed to work together harmoniously while maintaining their individual identity. As illustrated in the precedent photographs, traditional campuses achieved this balance between collective and individual identity through related massing, strong streetwall and open space configurations, common use of materials, and expression of the academic and research culture within. Recent additions to the campus such as the Djavad Mowafaghian Centre for Brain Health, Beaty Biodiversity Centre and UBC Bookstore demonstrate how these principles can be applied with contemporary architecture.



COLLECTIVE IDENTITY - UNIVERSITY OF WASHINGTON



CONSISTENT MASSING OF 6-STOREYS WILL FRAME UNIVERSITY BOULEVARD

5.3.3 CONTINUITY OF CAMPUS FABRIC

Three key components make up the unique character of the UBC Vancouver Campus:

- Heritage buildings constructed in local grey granite
- Modernist buildings constructed in white glazed brick and concrete frame
- Well-developed system of mature landscape

Materials and colour guidelines for new buildings in the University Boulevard Precinct are based on characteristics of buildings that have achieved a successful fit into the campus fabric.

- Architectural expression should be light and transparent, in contrast to the heavier, more severe appearance of some of the existing buildings.
- 'Hi-tech' / contemporary modernist design is encouraged as being demonstrative of innovation, research and sustainability.
- The colour and material palette is derived from that for the Historic Core, but with more freedom for primary 'field' materials. Primary 'field' exterior cladding should be selected from: lighter coloured prefinished metal panel, glass, terra cotta material, porcelain enamel, stone, and brick.
- Clear or lightly tinted vision glazing should be used. No highly reflective or deeply tinted vision glazing is permitted.
- Accent materials should be similar to those noted in the Historic Core guidelines.



HISTORIC BEAUX ART CAMPUS FABRIC



MODERNIST CAMPUS FABRIC



TRANSPARENT, INVITING, WELCOMING AND PUBLIC ARCHITECTURE



UNIFIED ARCHITECTURE



LANDSCAPE CAMPUS FABRIC

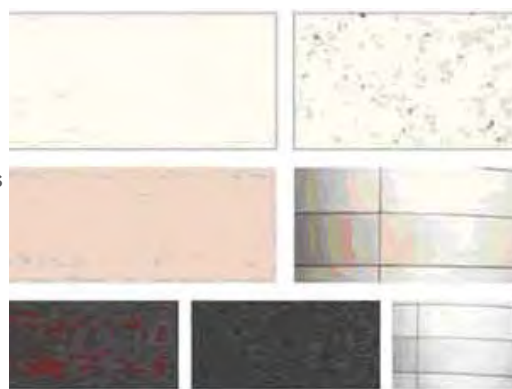
RECOMMENDED MATERIALS



PRIMARY MATERIALS / COLOURS

SECONDARY MATERIALS / COLOURS

ACCENT MATERIALS / COLOURS



5.3.4 LEGIBILITY AND TRANSPARENCY

One of the objectives is to animate the Precinct by developing a high level of transparency into active public uses within buildings. This transparency needs to be balanced by the requirement to design the buildings in a highly sustainable way to reduce energy consumption, amongst other green objectives. Any west or south facing façades will require special design attention in achieving both objectives.

In addition to the transparency of the lower levels, active uses must be located at grade to create a lively and animated public realm that promotes social interaction and a true sense of public place. Recommendations to achieve these objectives include:

- Locate the active and highest populated areas on the ground level with easy access to the second level and basement areas, as applicable.
- Maximize public open space and circulation on the ground floor. Enhance these spaces by locating them adjacent to other public functions that can open onto common spaces, creating a greater sense of openness.
- Buildings in the Precinct will provide weather protection as set out in Section 4.3 Weather Protection.
- Locate and visually express vertical circulation systems (stairs and elevators) to reveal student life to assist with Precinct legibility, improve ambient light and enhance CPTED performance.



SHOWCASE VIBRANCY AND MOVEMENT INSIDE THE BUILDING

5.3.5 CAMPUS AS A LIVING LAB

“As a living laboratory, UBC faculty, staff, students and partners use the University’s buildings and infrastructure, combined with UBC’s education and research capabilities, to test, study, teach, apply and share lessons learned, technologies created and policies developed. We study our own behaviours and discoveries to advance sustainability scholarship inside and outside UBC.”

In an effort to create a vibrant and complete sustainable community, the future development of the Precinct should strive to embody the goals and objectives of the Campus as a Living Lab initiative. The goals of the CLL program is to develop joint operational research projects that:

- Integrate the core learning and research mission of UBC with campus operations.
- Involve sound financial use of UBC infrastructure for demonstration of and research on leading edge solutions (technical and social).
- Engage researchers, students, faculty instructors, operations staff and external partners.
- Have potential for knowledge transfer within and beyond UBC, and where possible, involve partnerships between UBC and public, private and NGO organizations.

Where possible, these goals should be addressed by building interdisciplinary research in from the pre-design stage in order to build research capability and infrastructure into the project at a deep level.



UBC CENTRE FOR INTERACTIVE RESEARCH ON SUSTAINABILITY

5.4 D.H. COPP BUILDING SITE

The proposed intention for the future building on the DH Copp site is that it accommodate a mix of academic, commercial and residential uses with “Campus as a Living Lab (CLL)” as an integral component of the project.

The 6-storey building form is envisioned as a continuous streetwall along University Boulevard with a portal into a south-facing courtyard. Prospective ground floor academic and/or commercial spaces should be oriented to University Boulevard and contribute to the animated quality of this important campus corridor. The orthogonal planning grid of the main campus is encouraged to be incorporated into the south side of the D.H. Copp site future building footprint. A number of heritage trees on the site have been identified and should be incorporated into the site plan.

Recommendations for the redevelopment of the D.H. Copp site are as follows:

- The goals and objectives of the Campus as a Living Program must be fully integrated and considered throughout the planning, programming and design process for this site.
- Building siting should contribute to a continuous street wall along University Boulevard.
- The ground floor setback should be pulled south of the Strangway building frontage to create an expanded public realm along University Boulevard for street level programming while ensuring adequate circulation and waiting space is maintained for at and around trolley bus shelters.
- An additional top storey(s) setback or break in the massing should be considered to improve solar access on to University Boulevard to enhance the quality of the pedestrian environment.
- The building footprint should be articulated to preserve existing conifers along the north side and existing alley of mature London Plane trees on the south side.
- Building siting and massing should incorporate a green pocket park along University Boulevard in relation to preserved conifers.
- The building footprint should form a partially enclosed south facing courtyard.
- An open passage-way through the building should align with Athlete's Way and on the orthogonal planning grid of the north side of University Boulevard.



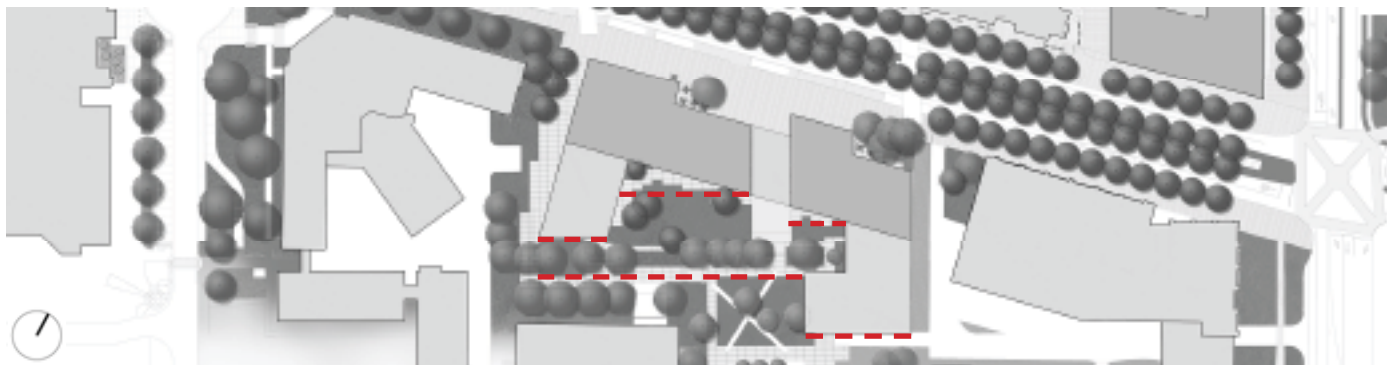
DH COPP KEY PLAN



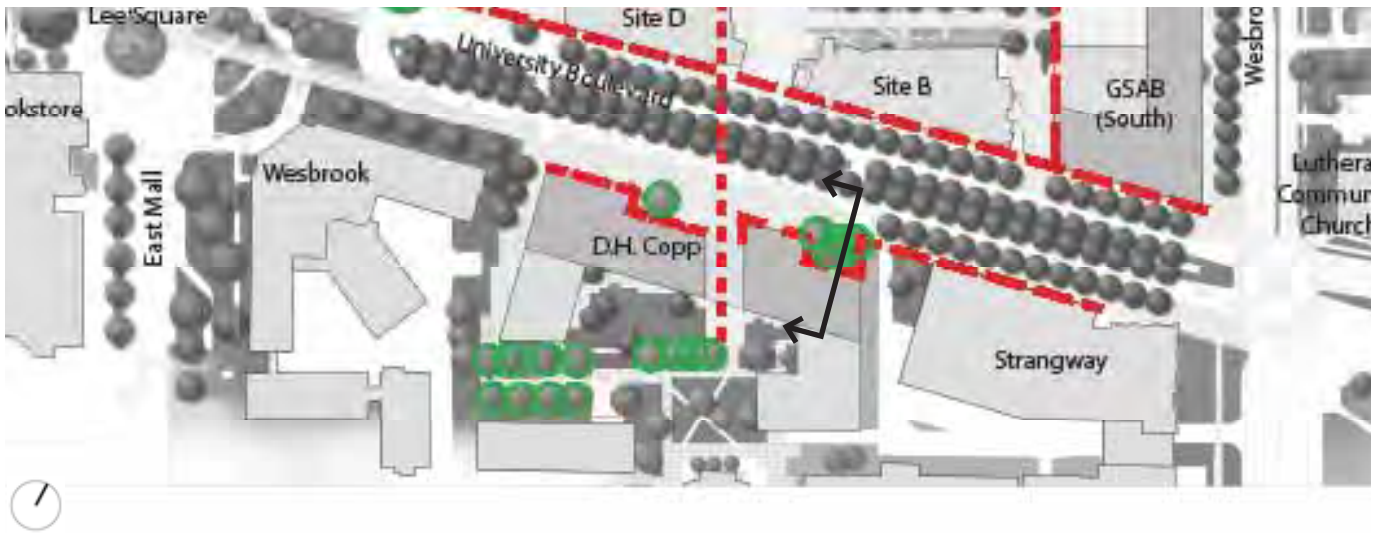
POCKET PARK



BEATY BIODIVERSITY PASSAGEWAY/PORTAL



DH COPP SITE PLAN - ORTHOGONAL PLANNING GRID EXPRESSED ALONG SOUTH SIDE OF FUTURE BUILDING FOOTPRINT AND COURTYARD



DH COPP SITE PLAN - VARIED SETBACK FOR TREE PRESERVATION AND EXPANDED PUBLIC REALM



DH COPP SITE SECTION AT POCKET PARK

Note: Future planning includes review of bicycle facility design

5.5 GSAB SOUTH

The GSAB site will likely be redeveloped into two separate buildings. The proposal for the south portion of the site includes a potential mix of academic, commercial and residential uses. The building form will contribute to a continuous streetwall along Wesbrook Mall and University Boulevard while also strengthening the axis of The Yard: the laneway between War Memorial Gym and the GSAB site. The Wesbrook Mall and University Boulevard corner of the future building offers a key opportunity to help announce an academic gateway experience and to express UBC's identity and values. Ground floor academic and retail uses will contribute to an animated and vibrant public realm along all edges. Recommendations for the redevelopment of the GSAB South site are as follows (*See also Section 5.3.1 for Academic Gateway guidelines and imagery*):

A confident academic architectural expression

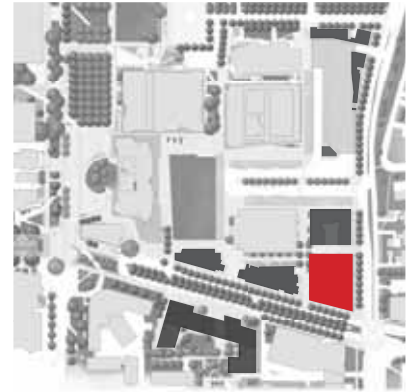
- Create strong corners expressive of academic boldness at University Boulevard and Wesbrook Mall intersections.
- Convey a commitment to academic strength through an authentic and substantive expression as well as high quality materials and detailing that communicate optimism and innovation.
- Create an architectural anchor and 'lantern' through a highly transparent lowers floors and uses that are inviting, welcoming, and public.
- Contribute to a coherent identity that emphasizes UBC's academic research strength through a predominantly mid-rise institutional massing.
- Contribute to a cogent ambient scale through building heights and architectural character.
- Employ academic architectural features (e.g. high ground floor, two storey spaces, generous externally expressed staircases).

Bold massing that contributes to campus cohesion

- Mediate between the monumental and academic scale.
- Visually frame the precinct's entry into University Boulevard through massing that references the Strangway Building massing to provoke the idea of "gateway sentries".
- Contribute to campus cohesion through harmonious scale and relationship with neighbouring buildings and their architectural character.
- Make legible and accentuate through massing the campus structural transitions that occur at this junction: shift in the campus grid orientation, change in setback from Wesbrook Mall and the stepping up of height from the 4-5 storey academic mid-rise to the 18 storey student resident towers to the north.
- Create a consistent street wall by aligning key architectural datums, such as setbacks, canopies, floor levels, façade orders and other building articulations.

Animating programing and special features

- Intensify student vibrancy through public realm amenity, ground oriented programming and tenancy and opportunities for community expression.
- Announce and celebrate *Innovation* by introducing opportunities to display and communicate achievement as well as demonstrate ideas through intimate interaction.
- Use bold elements – through light, graphics, architecture.
- Facilitate *Cultural Celebration and Exchange* through year round programming, celebratory pageant and multi-sensory experience.



GSAB (SOUTH) KEY PLAN



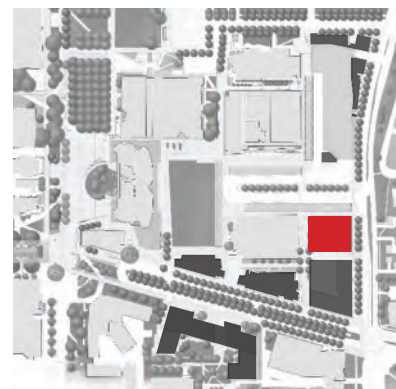
GSAB (SOUTH) CONCEPT, FOR ILLUSTRATIVE PURPOSES ONLY

5.6 GSAB NORTH

The form of development for the north portion of the GSAB site has the potential for 5 storeys of housing over a ground floor of a mixture of potential uses. The potential uses could include: athletics research, training and a programming link to War Memorial Gym; and shops and services to support transit users activities in The Yard outdoor space. At the lower and mid-levels, the building will help contribute to a continuous streetwall along Wesbrook Mall, The Yard, and the south side of The UBC Bus Exchange. Active street level uses should be provided along The Yard and The UBC Bus Exchange to contribute to the animation and vibrancy intended for these areas. Development of the site will need to coordinate with the programming and any rehabilitation or development plans for War Memorial Gym.

Recommendations for the GSAB North project are as follows:

- Align the north edge of GSAB North to War Memorial Gym to create a continuous streetwall for the UBC Bus Exchange.
- Consider potential integration of GSAB North and War Memorial Gym through programming ground floor relationships.
- Enhance the transit departure experience through ground level retail/commercial and academic uses.
- Active ground floor academic uses should be prioritized along The Yard to help achieve the objectives of this link.
- Allow for a service lane access point from Wesbrook Mall to service the GSAB site, War Memorial Gym and University Boulevard Site B.



GSAB (NORTH) KEY PLAN



ACTIVE GROUND FLOOR PROGRAMMING ADJACENT TO THE YARD



5.7 GAGE SOUTH STUDENT RESIDENCES

The Gage South Student Residences and bus layover is proposed for the southwest corner of Student Union Boulevard and Wesbrook Mall. At grade programming includes street oriented residential and academic uses along both street frontages. Student housing and an open courtyard is located above at the podium level, while the bus layover is located and enclosed below the podium level. The residential building massing is articulated along the curve of Wesbrook Mall, and steps up in height as it progress north. The southernmost portion aligns with the massing of GSAB North, while the tallest portion in the north marks an important campus gateway at Wesbrook Mall and Student Union Boulevard.

Recommendations for the Gage South Student Residence and Bus Layover are as follows:

- Provide continuous animated streetfront along Wesbrook Mall and Student Union Boulevard with a combination of active academic or student uses, residential uses and entries, vertical landscape features and public art.
- Provide active street level uses at the north-east corner of the site (multi-purpose Collegium or similar).
- Create a partially enclosed courtyard at podium level for residential use open to the west to optimize daylight exposure to provide visual connection to the campus and to buffer noise from the UEL residences.
- Connect the podium courtyard to Student Union Boulevard with a generous exterior stair that reads like an extension of the public realm landscaping.
- Locate bus access to the Bus Exchange on Wesbrook Mall and design adjacent street level uses to mitigate significant impacts from bus traffic, noise and pollution.
- Locate service access to residential service rooms on Student Union Boulevard .
- Align the east face of the building mass to the curved Wesbrook Mall axis and step or rotate the upper floor building masses to provide a consistent setback from Wesbrook Mall.
- Transition building heights along Wesbrook from 8-storeys in the southeast corner to 12-14 storeys in the northeast corner.
- Setback or change the architectural expression above the eighth storey along Wesbrook to provide a stronger street wall expression with the buildings south of the transit site and to provide visual interest; consider a light penthouse expression for upper storeys.
- Provide visual breaks in the continuous Wesbrook Mall streetwall to reduce the apparent scale of the building from Wesbrook Mall.
- To strengthen the experience of the UBC Bus Exchange as a large public room, create a positioning and massing relationship between Gage South and the Aquatic Centre south facades.



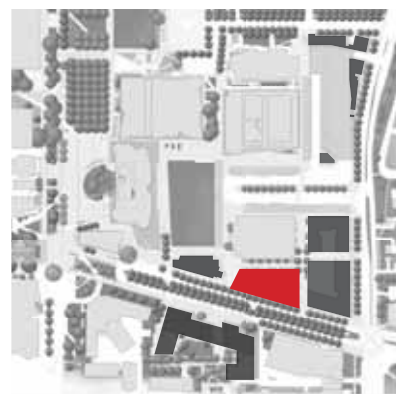
GAGE SOUTH RESIDENCES KEY PLAN

5.8 UNIVERSITY BOULEVARD SITE B

Site B is a 6-storey mixed use residential and retail building located on the north side University Boulevard. Ground level retail uses should be oriented towards University Boulevard and contribute to The Yard and Athlete's Way. Site B will help establish the setback along the north side of University Boulevard with Site D responding accordingly. Adequate access to parking, building services and MacInnes Field will be provided off University Boulevard until longer term access can be provided off Wesbrook Mall.

Recommendations for Site B are as follows:

- Orient retail/commercial uses towards University Boulevard and consider wrapping the east and west corners to respond to Athlete's Way and The Yard.
- Setback the building from University Boulevard to align with Alumni Centre.
- Align ground floor street front with University Boulevard, Athlete's Way and The Yard.
- Provide a generous public realm condition that can accommodate street trees, outdoor program (i.e. café tables), furnishings, and adequate pedestrian circulation space.
- Locate active uses or vertical circulation on the corners of the building to enhance academic expression with visible student movement and activities.
- Align building parapet, roof projection or architectural feature with the Alumni Centre to the north.
- Enhance the academic character of the precinct by providing a strong street wall along University Boulevard by providing no balconies, no slab extensions, strong vertical architectural elements, and unified and consistent materials that related to the campus core.



SITE B KEY PLAN



PROPOSED CONCEPT FOR SITE B - VIEW NORTH EAST

5.9 UNIVERSITY BOULEVARD SITE D

The concept for Site D includes street-level commercial uses with residential housing above. Site D is uniquely located in that it interfaces with the public realm on all sides and as such, street level commercial uses should be considered around the entire building. The east edge of the building should respond to the alignment of Athlete's Way and ensure a visual connection south across University Boulevard to the D.H. Copp sites. Adequate service circulation and access to MacInnes Field for event set up and function must be considered in the siting of the building and the treatment of the public realm.

- Setback the building from University Boulevard to align with Alumni Centre.
- Provide street level commercial/retail uses around all sides of the building.
- Locate active uses or vertical circulation on the corners of the building to enhance academic expression with visible student movement and activities.
- Vertically align the building parapet, roof projection or architectural feature with the Alumni Centre to the north.
- Ensure adequate circulation for servicing and access to MacInnes Field including the ability for the Block Party stage truck to exit MacInnes Field west of Site D.
- Consider internal service area to avoid conflicts with public realm and pedestrians.
- Provide a generous public realm surrounding the building that can accommodate street trees, outdoor program (i.e. café tables), furnishings, and adequate pedestrian circulation space.



SITE D KEY PLAN



SITE D TYPICAL SECTION ALONG UNIVERSITY BOULEVARD

Note: Future planning includes review of bicycle facility design



ANIMATED STREETSCAPE VISION

6.0 SUSTAINABILITY

UBC commits all aspects of the University—its infrastructure, research, teaching and learning elements—to exploring and exemplifying social, economic and environmental sustainability. As such, the University Boulevard Precinct will embody and express this commitment through architectural and public realm design and programming.

As the Precinct includes two land-use areas, guidelines for each are as follows:

Academic Lands

All buildings and landscape within the Academic Lands area are to adhere to Section 2.1. Sustainability of the Vancouver Campus Plan Part 3.

University Boulevard Neighbourhood

Also known as the Village Centre Academic area, all buildings and landscapes within this designated area to adhere to Section 2.6 Sustainable Community Strategies of the University Boulevard Neighborhood Plan.



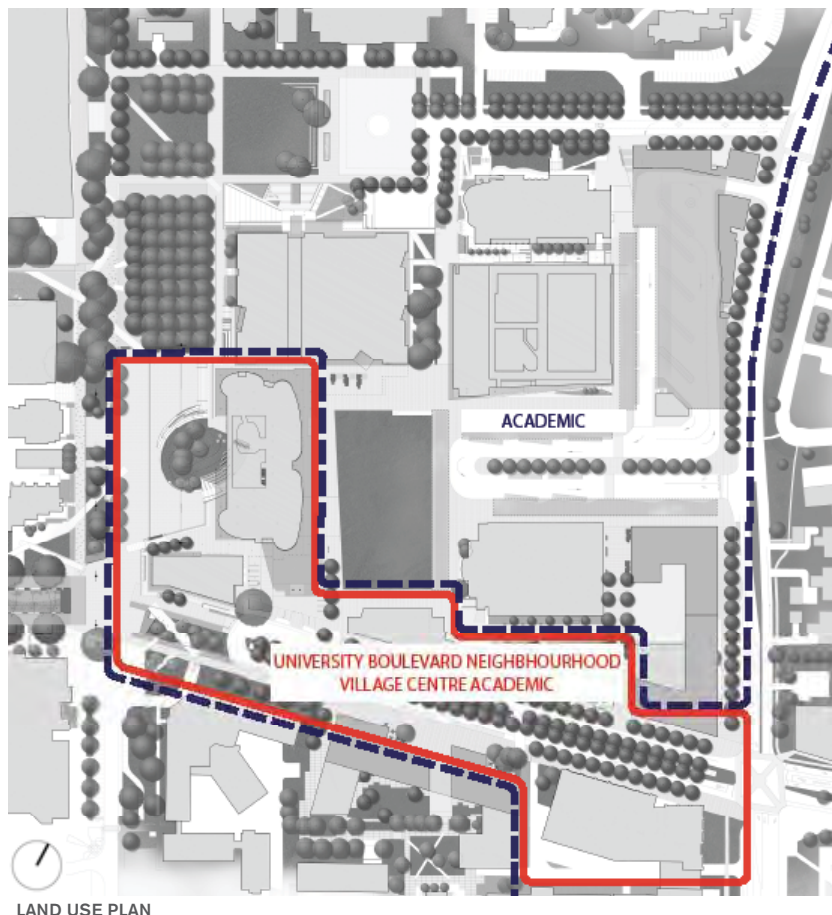
UNIVERSITY BOULEVARD STORMWATER TERRACES



UBC CENTRE FOR INTERACTIVE RESEARCH ON SUSTAINABILITY



UBC SUSTAINABILITY STREET



LAND USE PLAN

7.0 STREET FRONT USES

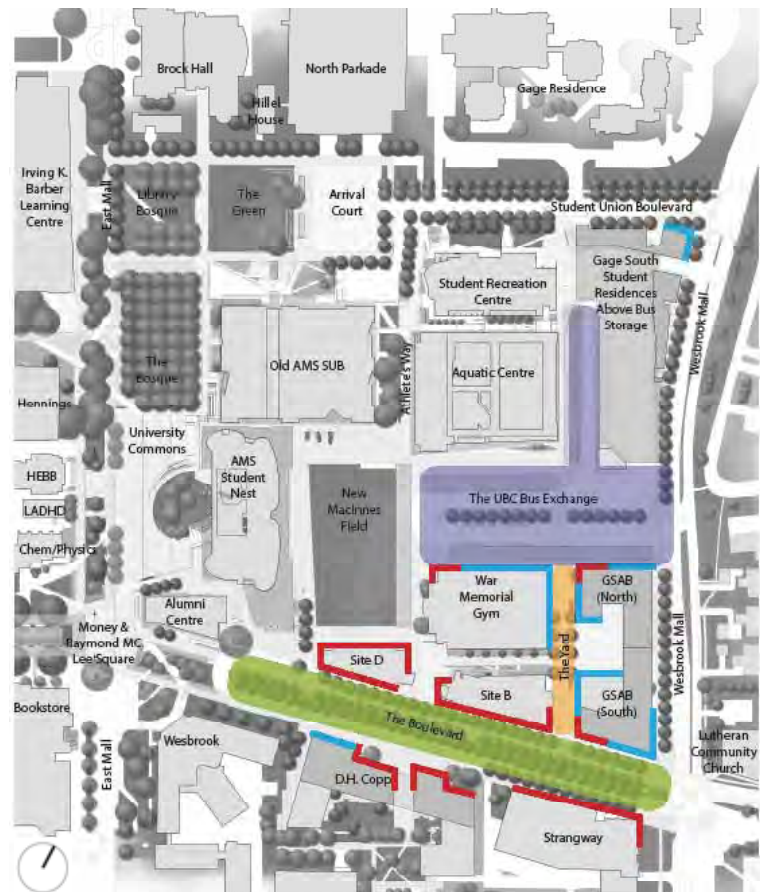
The Precinct will be designed to promote gathering, socializing and interaction through active street-level uses. Street-level uses will include retail/commercial and academic in areas identified in the street front uses diagram below. In general, streetfront uses should be concentrated where a majority of activity is expected (i.e. University Boulevard, the UBC Bus Exchange). Programming of these uses should be informed by the following recommendations:

Academic

- Explore street-level academic uses such as student support services, collegia, informal study spaces, collaborative spaces, innovation and partnership centre, visitors centre and galleries.
- Design ground floor buildings for flexibility to accommodate academic uses.

Retail/Commercial

- Concentrate retail and commercial uses along University Boulevard.
- Provide retail/commercial uses along the north sides of GSAB North and War Memorial Gym to serve the UBC Bus Exchange departure area.
- Consider retail/commercial uses along all sides of Site D to interface with and animate University Boulevard, MacInnes Field, and Athlete's Way.
- Provide small scale retail to serve daily needs such as a small grocer, food market, and cafes.
- Ensure a generous streetscape to allow for adequate circulation as well as outdoor uses such as café patios.

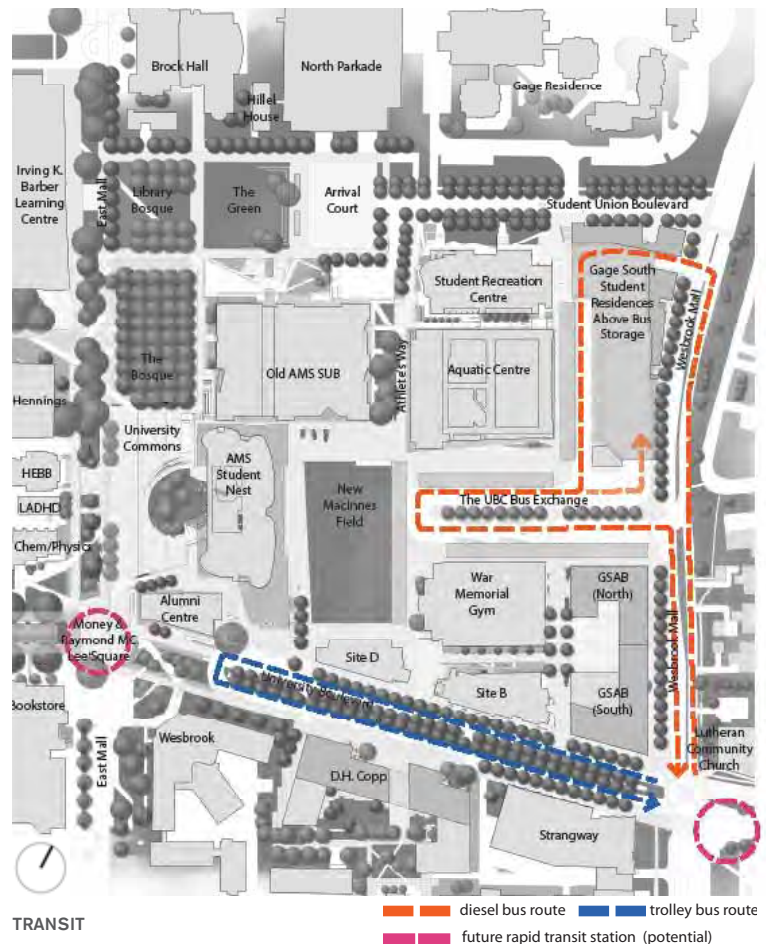


STREET FRONT USES

academic retail

8.0 TRANSIT

Transit connections are an important aspect of being a complete community. The Precinct is envisioned as a transit hub and will include the UBC Bus Exchange as well as the trolley bus route along University Boulevard. Additionally, long term planning for a rapid transit connection to UBC anticipates that the line would enter campus along University Boulevard. Depending on the technology, the line could run underground or at street level. Both scenarios will be considered and incorporated into plans for the precinct, including space reservations for a potential future tunnel, stations and access.



9.0 BUILDING ENTRIES

The location of all new building entries should follow the guidelines as set forth in Section 2.3.7 Building Entry Location of the Vancouver Campus Plan Part 3 Design Guidelines. The following are general guidelines for the location of building entries for the remaining building sites in the Precinct:

DH Copp site

- Orient primary entry towards University Boulevard.

GSAB South

- Orient primary entry at the corner of Wesbrook Mall and University Boulevard.
- Provide secondary entries along The Yard.

GSAB North

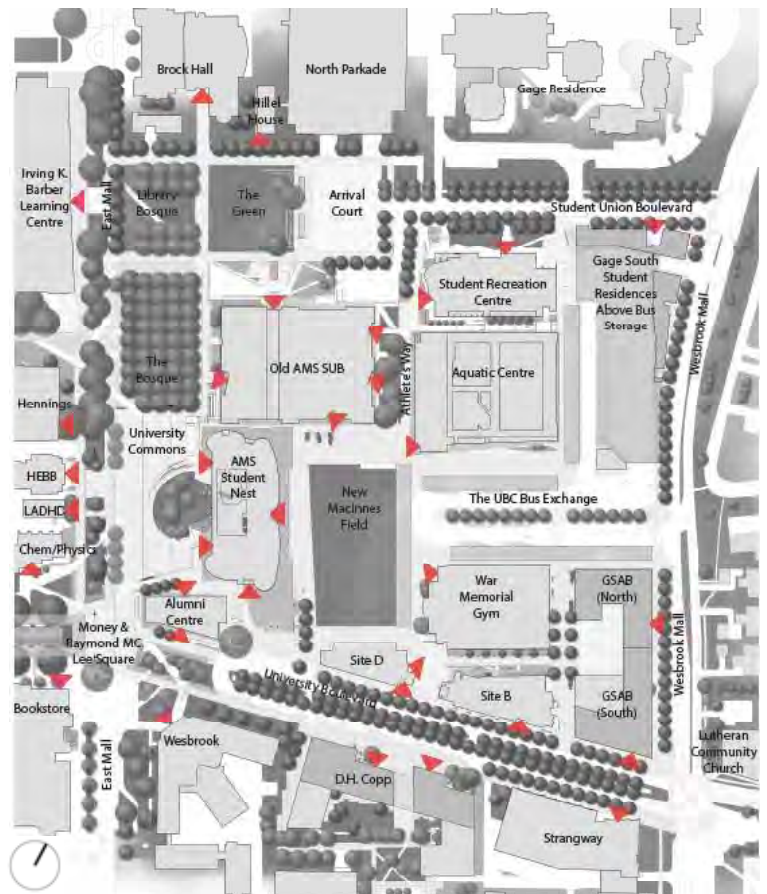
- Orient primary entry along Wesbrook Mall.
- Provide secondary entries along The Yard and adjacent to the UBC Bus Exchange where appropriate.

Gage South Student Residences

- Orient residential entries along Wesbrook Mall and Student Union Boulevard.

Sites B and D

- Orient primary entries towards University Boulevard with consideration for entries addressing adjacent corridors (i.e. The Yard and Athlete's Way).



BUILDING ENTRIES

10.0 INFRASTRUCTURE AND SERVICING

All services for the University Boulevard Precinct are being designed in accordance with a campus-wide Master Servicing Plan (MSP), prepared in conjunction with UBC Energy and Water Services. The goal of the servicing plan is not only to service newly developing areas, but to rectify deficiencies and limitations of the current systems. Where appropriate, innovative infrastructure and servicing strategies will be considered to reduce the external utility needs of the University.

Stormwater Management

The existing storm sewer system is part of the North Campus catchment area and conveys stormwater to the GVRD spiral drain on Cecil Green Park road.

Localized improvements to the system were undertaken as part of the reconstruction of the University Boulevard roadway. The proposed development in the University Boulevard Precinct is not anticipated to trigger off-site upgrades.

Sanitary Sewer

A comprehensive strategy for upgrading of sanitary sewer mains was prepared by consultants in conjunction with UBC Energy and Water Services, and is included in the MSP. Sanitary sewers within the neighbourhood were replaced during the reconstruction of the University Boulevard roadway. The proposed development within the neighbourhood is not anticipated to trigger any off-site upgrade requirements to the GVRD sewer along North West Marine Drive or within the City of Vancouver.

Water

The water distribution system for University Boulevard is being designed within the context of a campus-wide strategy for water distribution, included in the MSP. Water demands for all uses on the campus have been projected and a computer model analysis performed. A comprehensive program of water network improvements is being implemented, but no particular upgrading is triggered by development of the University Boulevard Precinct. A new water line has been built as part of the reconstruction of the University Boulevard roadway.

District Energy

Buildings shall be designed for connection to district energy in order to reduce Greenhouse Gas emissions associated with space heating. A connection to the Academic District Energy System shall be made when available.

Infrastructure Maintenance

A maintenance jurisdiction plan is being developed to define operational and funding responsibility for maintenance of infrastructure elements including roads, sidewalks, landscape areas, trees, street furniture, lighting, signage and related services.

UNIVERSITY BOULEVARD NEIGHBOURHOOD PLAN

University of British Columbia

Adopted January 2004
Amended June 2015

Table of Contents

1. INTRODUCTION

- 1.1 Overview
- 1.2 Relationship of Neighbourhood Plan to Land Use Plan
 - 1.2.1 Purpose of the Neighbourhood Plan
 - 1.2.2 Planning Issues Arising from Land Use Plan
- 1.3 Process Followed in Preparing the Neighbourhood Plan
- 1.4 Relationship to Other Plans and Guidelines

2. DESCRIPTION OF THE PLAN

- 2.1 Interpretation
- 2.2 Precinct Vision
- 2.3 Approach
 - 2.3.1 Planning Objectives
 - 2.3.2 Existing Physical Environment and Context
 - 2.3.3 Planning Response
- 2.3 Land Uses and Densities
 - 2.3.1 Overview
 - 2.3.2 Commercial and Mixed Use
 - 2.3.3 Residential Use
 - 2.3.4 Institutional Use
- 2.4 Parks and Open Space
 - 2.4.1 Open Space
 - 2.4.2 Greenways
- 2.5 Circulation and Transportation
 - 2.5.1 Transportation Objectives
 - 2.5.3 Description of Road Network
 - 2.5.4 Pedestrian and Cyclists
 - 2.5.5 Transit
- 2.6 Sustainable Community Strategies
 - 2.6.1 Diversity

- 2.6.2 Universal Accessibility
- 2.6.3 Compact and Complete Community
- 2.6.4 Transportation Choice
- 2.6.5 Landscape

3. DESIGN GUIDELINES

- 3.1 Supporting UBC Planning Principles
- 3.2 Design Guidelines for Streets
 - 3.2.1 General Character and Intent
 - 3.2.2 University Entry
 - 3.2.3 Roadway and On-Street Parking
 - 3.2.4 Sidewalks and Pedestrian Crossings
 - 3.2.5 Street Landscape
 - 3.2.6 Street Lighting and Signage
 - 3.2.7 Street Furniture
 - 3.2.8 Greenways
- 3.3 Design Guidelines for Plazas and Open Spaces
 - 3.3.1 General Character and Intent
 - 3.3.2 Sense of Place
 - 3.3.3 Succession of Spaces
- 3.4 Design Guidelines for Buildings
 - 3.4.1 General Character and Intent
 - 3.4.2 Siting and Orientation
 - 3.4.3 Massing
 - 3.4.4 Building Style and Architecture
 - 3.4.5 Materials
 - 3.4.6 Parking Access
 - 3.4.7 Recycling and Garbage Facilities
 - 3.4.8 Building Signage
 - 3.4.9 On-Site Landscape
 - 3.4.10 Animation of the Street
 - 3.4.11 Lighting
 - 3.4.12 Safety and Security
 - 3.4.13 Green Building Guidelines
 - 3.4.14 Green Building Rating System

4. DEVELOPMENT CONTROLS

- 4.1 Overview

4.2 Development Handbook

4.3 Building Envelopes

4.4 Height

4.5 Setbacks

4.6 Site Coverage

4.7 Vehicular Parking

4.8 Bicycle Facilities

5. INFRASTRUCTURE AND SERVICING

5.1 Overview

5.2 Stormwater Management

5.3 Sanitary Sewer

5.4 Water

5.5 District Energy

5.6 Electrical Infrastructure

5.7 Infrastructure Maintenance

6. COMMUNITY FACILITIES

6.1 Community Facilities

6.2 University Neighbourhoods Association

6.3 Community Services

6.3.1 Health, Safety and Education

6.3.2 Social Services

7. LIST OF PLANS

8. LIST OF ILLUSTRATIONS AND DIAGRAMS

1 INTRODUCTION

1.1 Overview

In July 1997, the Greater Vancouver Regional District adopted an Official Community Plan (OCP) for Part of Electoral Area ‘A’, Bylaw No. 840-1996 that covers the University of British Columbia Point Grey campus.

In June 2010, ministerial orders pursuant to the Municipalities Enabling and Validating Act No. 3 (Part 10-2010) transferred the OCP from the GVRD to the responsibility of the University with oversight from the Minister of Community, Sport and Cultural Development and re-named the document the UBC Land Use Plan. The Land Use Plan was subsequently amended in January 2011 to incorporate consequential changes from the Vancouver Campus Plan (VCP) and housekeeping changes to reflect the terminology of the Land Use Plan.

1.2 Relationship of Neighbourhood Plan to the UBC Land Use Plan

This neighbourhood plan is in accordance with the policies and principles of the UBC Land Use Plan. It is the most detailed land use document to guide overall development of the University Boulevard neighbourhood. The UBC Land Use Plan applies to the entire Point Grey campus and is intended to guide the long-term evolution of the campus into a complete community – a place for people to live, work, study and recreate – that balances regional growth management objectives with the University’s academic mission.

The Land Use Plan sets objectives and targets for land use, housing, transportation, green space, and community services, with a particular focus on “non-institutional development.” Most non-institutional development is expected to occur within seven neighbourhood plan areas and one special plan area identified in the Land Use Plan, surrounding the academic core. The University Boulevard Neighbourhood is identified as a Special Plan Area in Schedule C of the Land Use Plan. This coincides with the text designation of the University Boulevard Neighbourhood as Village Centre Academic (Section 4.1.4 of the Land Use Plan).

1.2.1 Purpose of the Neighbourhood Plan

The Land Use Plan for UBC provides a vision and goals for future campus development, broad land use designations, and the objectives for more detailed planning. The purpose of a neighbourhood plan is to interpret and apply the Land Use Plan’s policies and development requirements to the plan area it identifies.

Each neighbourhood plan contains a detailed plan of land uses, transportation strategies (Section 2.5), design guidelines (Section 3), development controls (Section 4), and servicing

strategies (Section 5) consistent with the Land Use Plan. When taken together, the neighbourhood plans fulfill the area planning requirements in the Land Use Plan.

The neighbourhood plan also documents the goals and objectives of the community for the neighbourhood. It conveys the shared vision for the place. The neighbourhood plan guides development to help achieve this vision.

1.2.2 Planning Issues Arising from the Land Use Plan

Neighbourhoods will be developed over time, and full “build out” of the University Boulevard Neighbourhood may take five years or more.

The Land Use Plan envisions this neighbourhood as an area that emphasizes transit, pedestrians and cyclists as part of the greenway and is home to the trolley bus transit facilities. While the primary transit hub for diesel buses has been moved to the Gage South area, the need for future rapid transit should be addressed as part of neighbourhood planning.

Additional uses and density may be suggested over time for this high density, mixed-use corridor, which may require a future review of the Land Use Plan in order to be permitted.

1.3 Process Followed in Preparing the Neighbourhood Plan

The preparation of each neighbourhood plan follows a process for Neighbourhood Planning as established by UBC. Technical input is provided through a Technical Advisory Committee. Public participation is assured through an Advisory Planning Committee as well as through a number of stakeholder meetings, public open houses and public meetings.

Consultation started in 2001 and the Plan was adopted in 2004. Subsequent to its adoption, there has been a range of engagement in area; most recently there was extensive public and stakeholder consultation from January to June 2015 to update the Neighbourhood Plan, as part of larger University Boulevard precinct planning process.

Adoption of amendments to the neighbourhood plan consists of approval by the UBC Board of Governors. Subject to Provincial statute, the Neighbourhood Plan must not be inconsistent with the Land Use Plan.

1.4 Relationship to Other Plans and Guidelines

This neighbourhood plan is consistent with and provides additional detail to support other transportation related documents including the Land Use Plan, the Transportation Plan, and the Vancouver Campus Plan as detailed below.

- (a) The Land Use Plan contains a variety of provisions relating to transportation demand management (TDM), illustrates an overall access plan for UBC and provides details of road classifications and potential transit routings. This neighbourhood plan maintains the road classifications, reinforces the transit routing described in the Land Use Plan, and contains provisions such as increased transit capacity, to support TDM targets in the Land Use Plan.
- (b) The Land Use Plan establishes targets and actions to build on Transportation Demand Management success to date, in pursuit of the goal of reducing single occupant vehicle travel from 1996 levels by 20% and increasing transit ridership. This neighbourhood plan will support the Land Use Plan objectives.
- (c) The UBC Transportation Plan lays out a comprehensive and integrated transportation demand management strategy. Policies in the Transportation Plan include reduction of 24-hour single occupant vehicle commuter traffic volumes to and from UBC. The University Boulevard Neighbourhood Plan complies with and reinforces this strategy by emphasizing transit, cycling and pedestrian access, and by providing both commercial services and housing on campus. This will decrease automobile travel required for campus users and residents seeking services.
- (d) Policy 16 from the Vancouver Campus Plan states “The University Boulevard Neighbourhood will continue to be developed as the heart of UBC’s Vancouver campus, with a focus on the community of scholars.”
- (e) The University Boulevard Design Guidelines, a companion document to the Neighbourhood Plan, were presented to the Board of Governors at the time the Campus Plan was adopted in 2010 and amended in June 2015.

2 DESCRIPTION OF THE PLAN

2.1 Interpretation

In this neighbourhood plan, terms shall have the same meaning as in the UBC Land Use Plan. If any provisions of this neighbourhood plan are found to be at variance with the Land Use Plan, the Land Use Plan shall prevail.

2.2 Precinct Vision

The University Boulevard Neighbourhood is situated within the University Boulevard precinct (refer to figure P-6 for the Precinct Plan). The vision for the Precinct has three primary objectives:

- **University Gateway:** As a key gateway and symbolic entrance to the campus, the precinct plays a significant role in expressing the identity and values of the university.

- **Vibrant Academic and Social Hub:** The precinct will become the vibrant academic and social heart of the campus, a hub that draws people together for dialogue, celebration, innovation, recreation, study, fun, and learning.
- **Complete Community:** The area will have diverse uses and services – including year-round non-market rental housing, student housing, student services, academic and recreation facilities, shops, restaurants, and open spaces – with great pedestrian and cyclist corridors and access to transit.

2.3 Approach

As outlined in section 1.2, this plan has been prepared in compliance with the UBC Land Use Plan. The following objectives reinforce the framework of the Land Use Plan:

2.3.1 Planning Objectives

- (a) Support and further the objectives of the Land Use Plan, in creating a more complete community on UBC campus, with a strong emphasis on safe pedestrian and bicycle travel, good access to transit, and a reduced need for commuting.
- (b) Support the principle of creating places that inspire and enrich the lives of those who learn, work, live and visit here.
- (c) University Boulevard is the principal point of arrival onto campus. It must convey a strong sense of place, a feeling of having entered the nucleus of a unique, distinct, exciting multi-modal hub of campus life.
- (d) The neighbourhood will be a key corridor for interaction, between the University and the broader community, between social and academic pursuits, between various modes of transportation, and between multiple land uses distributed along the length of the street.
- (e) This neighbourhood forms the interface between several sectors of campus - the academic core to the west, the medical precinct to the south, and the social and recreation facilities to the north. The development pattern must complement these adjacent areas and provide a focal point. This will be the centre of the “University Town”.
- (f) As the principal arrival point for the campus, University Boulevard will continue to have a strong transportation function.
- (g) Transit is an existing key feature of this area. The area will be designed to accommodate trolley bus service, community shuttles, and allow for future rapid transit.

- (h) Pedestrian use of this area is high. Emphasis on pedestrian movement, safety and comfort will be paramount.
- (i) This is the primary cycling route onto campus, and must accommodate cyclists safely within the roadway.
- (j) The Land Use Plan designates the area as Village Centre Academic, which will have a mix of uses that will combine to create a vibrant part of campus that is lively day and night, on weekends and year round. This mixed-use centre, supported by year-round rental housing, will have a wide range of opportunities for meeting people, relaxing and enjoying university campus life, thus encouraging people from all groups on campus to come to this area.
- (k) The Land Use Plan permits a building height of six storeys along University Boulevard, with flexibility to exceed that number of storeys for design or program reasons, to a maximum of eight storeys.
- (l) University Boulevard is designated as a “greenway” in the Land Use Plan. It ties in with Main Mall and other greenway routes. The greenway is a central element in the public realm, and the design of the street and adjacent spaces must reflect this. Between Wesbrook Mall and East Mall the greenway will have a distinctly urban form, and will provide a strong pedestrian orientation with a substantial landscaping component and design features.
- (m) A true neighbourhood is a home for people, so residences must be accommodated in the plan. Residents will contribute to a broad mix of activities, and will bring life to the street at times when the campus is otherwise quiet. This all-day year-round activity is critical to the success of the neighbourhood.

2.3.2 Existing Physical Environment and Context

- (a) This area is the “front door” of the University, and is the most important entry to the campus.
- (b) The University’s Welcome Centre will be located here in the Alumni Centre.
- (c) University Boulevard Neighbourhood includes both sides of University Boulevard between Wesbrook Mall and East Mall.
- (d) The neighbourhood adjoins some existing academic buildings including the J.B. MacDonald Building, Friedman Building, War Memorial Gym, and the Wesbrook Building. The General Services Administration Building (GSAB), the Aquatic Centre

and the D.H. Copp building will be demolished due to seismic risks and/or because they are at the end of their useful lives.

- (e) The existing development pattern is characterized by large setbacks from the street with buildings that do not address the street.
- (f) New buildings and public spaces implemented or approved since 2003 in support of the Neighbourhood Plan include the AMS Student Nest, Alumni Centre, University Square, the Strangway Building, and Site B, a mixed-use building providing non-market rental housing on University Boulevard just south of War Memorial Gym. Site D, adjacent to Site B, is currently under planning and is expected to have a program similar to Site B. The buildings and spaces are shown on figure P-6.
- (g) University Boulevard was realigned to create a narrower roadway, with reduced traffic speeds. Provisions were made to create a strong pedestrian and bicycle orientation in keeping with the street's greenway designation.

2.3.3 Planning Response

- (a) Enhance the arrival experience by creating a new neighbourhood, where the university welcomes its community and visitors, where arrival is a sequence of distinctive spaces, functions and forms.
- (b) Require that new buildings possess architectural qualities that reflect a distinctive university character and will result in a superior built environment.
- (c) Retain trolley bus transit facilities as a key function within this area and encourage increased use of transit through future rapid transit planning.
- (d) Promote interaction in a multitude of ways: by providing social spaces and venues; by including many activities; by including many forms of transportation; by creating a human-scaled streetscape and buildings; by promoting linkages to surrounding areas; by creating places of distinction.
- (e) Ensure that new buildings along the street contribute to the vitality of the neighbourhood with retail establishments and other service and institutional uses that relate well to the public realm.
- (f) Provide limited or no setbacks for buildings fronting University Boulevard, to create an interesting retail experience for pedestrians and customers. Provide narrow frontages for business to create a varied streetscape.
- (g) Provide some time-limited parallel parking along the street for retail customers, with

additional parking below grade. All parking for residential uses should be primarily below grade. Ensure that street parking is designed to minimize conflicts with cyclists on the street.

- (h) Create an urban plaza, (“University Square”) adjacent to the AMS Student Nest and the Alumni Centre. University Square will be one of the primary social spaces on campus. Provide a high quality landscape with opportunities for public art, casual seating areas, sidewalk cafes and gathering spaces.
- (i) Design the buildings and spaces within this neighbourhood to integrate with the broader University Boulevard Precinct and Main Mall Greenway. Plan P-6 illustrates the broader precinct surrounding this neighbourhood.

2.4 Land Uses and Densities

2.4.1 Overview

Although the University Boulevard Neighbourhood is relatively small when compared with some other neighbourhoods, the uses permitted under the Land Use Plan will ensure that it is a vibrant and lively place with a variety of activities; the hub of a series of interconnecting spaces and functions.

2.4.2 Commercial and Mixed Use

All sites within the University Boulevard Neighbourhood permit commercial uses on the first two floors, aimed at serving the University population. As stated in the Land Use Plan, the cumulative total of commercial floor space within the Village Centre Academic Area will not exceed 4,500 m².

Commercial uses are intended to be directed towards the daytime and evening population of the University. Retail uses are outlined in the Land Use Plan as including but not limited to: food services (bakery, delicatessen, eating establishments, etc.); personal services (cleaners, financial institutions, hair salons, etc.); and other retail outlets oriented to the population of the residential area (clothing, books, art, bicycles, clothing or music). To support a village character, individual businesses are intended to be small scale.

2.4.3 Residential Use

Rental dwelling units intended for university users are permitted on the upper floors of the buildings. This housing will add to the vitality of the area by ensuring activity in the area throughout the day, on weekends and throughout the year. Safety and security of the area will be enhanced by the presence of residents, as many of the units will overlook the street and other public areas.

The Board of Governors adopted residential floor space allocations for all neighbourhoods on campus in April 2011.¹ The residential floor area allocation for University Boulevard Neighbourhood is 30,379.3 m² (327,000 SF).

2.4.4 Institutional Uses

Institutional uses are permitted on all sites within the neighbourhood.

2.5 Parks and Open Space

2.5.1 Open Space

Landscape within this neighbourhood will reflect the urban character of the area. The plan indicates a number of open spaces aimed at enhancing the pedestrian environment, including green areas, plazas and courtyards. Existing trees will be retained wherever feasible.

The primary outdoor space within the neighbourhood will be the new University Square. University Square will be a central gathering place, integrated with the new AMS Student Nest and Robert H. Lee Alumni Centre. It will also be a focal element for critical pedestrian and landscape connections to the AMS Student Nest, the old SUB building, and the Irving K. Barber Learning Centre.

Open spaces adjacent to the neighbourhood include MacInnes Field, at the centre of the broader precinct. Uses around MacInnes Field include the relocated Aquatic Centre, the Gage South Student Residences, the UBC Bus Exchange, the Student Recreation Centre, the AMS Student Nest, Robert H. Lee Alumni Centre and the old SUB building.

2.5.2 Greenways

A greenway is designated in the Land Use Plan along University Boulevard. The greenway will provide an enhanced pedestrian and cycling experience. This is primarily an urban street, but will have significant elements of landscape, including street trees within the sidewalks and greenspace along much of the south side of University Boulevard. Plazas, pedestrian connections, improved street crossings and links to other open spaces are also provided to enhance the greenway experience.

2.6 Circulation and Transportation

2.6.1 Transportation Objectives

¹ See Land Use Plan Next Steps: Neighbourhood Distribution Report, April 2011.

- (a) Support the Land Use Plan objectives of reducing single occupant vehicle commuting, increasing the use of transit, and creating a fine grained pattern of development and circulation that will encourage pedestrian and bicycle travel.
- (b) Continue to emphasize the important multi-mode transportation function that characterizes University Boulevard.
- (c) Ensure that trolley buses are accommodated in a manner that provides convenient access for transit users, efficient operation for buses, safety for all users and opportunities to accommodate changing transit needs in the future.
- (d) Encourage cycling by providing marked bike travel lanes to safely accommodate cyclists.
- (e) In order to support a vibrant street environment, allow cars and other vehicles to travel and park through this segment of University Boulevard.
- (f) Highlight the pedestrian emphasis of the neighbourhood. Provide pedestrian connections through the area, both between buildings and into other adjacent campus areas.
- (g) Provide mechanisms for traffic calming in order to ensure safety for pedestrians and cyclists. While pedestrians may be inclined to cross the street at any point, pedestrian safety and priority should be emphasized at pedestrian crossings through the use of curb extensions and textured paving.
- (h) Improve the intersection at University Boulevard and Wesbrook Mall to provide enhanced pedestrian and cycling safety and better traffic flow.
- (i) Restrict vehicular movements at the intersection of University Boulevard and East Mall to recognize the high level of pedestrian activity in this area.

2.6.2 Description of Road Network

The UBC Land Use Plan, Transportation Plan and Vancouver Campus Plan designate University Boulevard and East Mall as collector roads. Wesbrook Mall is designated as an arterial road. These roads will continue to function in these capacities. (See Plan P-3).

2.6.3 Pedestrian and Cyclists

Pedestrian and cyclist routes and pathways are provided throughout the neighbourhood to provide access to buildings and open spaces. Plan P-5 illustrates the pedestrian and cycling routes and pathways designed to provide access to and from the buildings within the

neighbourhood as well as adjacent areas of campus.

Provision for cyclists on the realigned University Boulevard is by way of shared bike travel lanes. Bike parking and storage will be provided in key areas.

Road markings for bikes and vehicles should ensure that pedestrian priority of the area is understood.

2.6.4 Transit

University Boulevard and Wesbrook Mall are designated transit routes. Trolley routes use University Boulevard. Diesel bus routes terminate at the UBC Bus Exchange. This facility will be expanded and located in the Gage South area to meet the requirements of increased transit service to campus.

Consideration should be given to the integration of future rapid transit into the neighbourhood, including space reservations for a future station and access.

Plan P-4 illustrates the transit and shuttle routes as per the Land Use Plan and Vancouver Campus Plan.

2.7 Sustainable Community Strategies

2.7.1 Diversity

This neighbourhood will be an inter-generational and multi-cultural community, where the presence of adjacent academic, cultural and recreational facilities will be seen as a benefit for residents who wish to have a strong affiliation with the University.

2.7.2 Universal Accessibility

The University is committed over time to providing dignified, welcoming, and effective access to people of all ability levels, to all parts of the campus and buildings where people are expected to engage in university life. In addition to meeting the accessibility provisions in the BC Building Code, all new project designs must seek to achieve the universal accessibility policies outlined in Section 2.2 of the Vancouver Campus Plan.

2.7.3 Compact and Complete Community

A fundamental aspect of a sustainable community is to use land efficiently and to create an urban form that encourages residents to walk, cycle and use transit. As a neighbourhood within the campus, University Boulevard will be part of a complete community, where recreation, education, culture, services, shopping, transit and even work are within easy

walking distance.

The multiple family housing densities within this neighbourhood will promote efficient use of land. In addition, multi-family housing is also more energy-efficient, as there are fewer exterior walls. Smaller units, as proposed, also use less energy.

2.7.4 Transportation Choice

The urban fabric of the neighbourhood will encourage alternate transport modes to the automobile. A well-connected pedestrian and cycling network is integral to the plan, as is easy access to transit.

Housing for those who work or attend classes on campus will significantly reduce the need for commuting. Those campus residents who commute to jobs off campus will have easy access to transit, in one of the best-served areas of the region.

2.7.5 Landscape

The landscape of the public realm areas within the neighbourhood will focus on creating spaces and places that foster a sense of community and social interaction. The surrounding landscape offers abundant recreation opportunities, which will encourage people to walk or bike rather than using cars to access recreation. In addition to UBC's parks and open spaces, the forests and beaches of Pacific Spirit Park are within easy walking distance.

Stormwater management will be based on techniques which best support the objectives for groundwater. In areas where groundwater recharge is beneficial, and where the ground conditions allow, pervious surfaces will be encouraged. In areas where ground conditions are impermeable or where reduction of groundwater may be desirable, runoff will be conveyed via swales to catch basins and underground pipes rather than encouraging infiltration. The results of a detailed aquifer analysis and ongoing groundwater monitoring will ensure that sustainable strategies for stormwater management are implemented.

3 DESIGN GUIDELINES

3.1 Supporting UBC Planning Principles

All new development shall support the vision and principles established for the university in the strategic plan, Place and Promise: The UBC Plan.

The following design guidelines shall be used in conjunction with the University Boulevard Design Guidelines.

3.2 Design Guidelines for Streets

3.2.1 General Character and Intent

University Boulevard, within the University Boulevard Neighbourhood, will serve as the “front door” to the University. The design of the street is to provide pedestrian priority and comfort while accommodating transit, cyclists and automobiles. Cross-section diagrams of the roadway is illustrated on Illustration ID-1.

In addition to its transportation and gateway functions, University Boulevard shall be a retail hub for the campus, as well as part of the University’s “greenway” system.

3.2.2 University Entry

The primary point of entry to the campus is where University Boulevard crosses Wesbrook Mall. The roadway and adjacent landscape at this location must celebrate this important entry. Design Guidelines for buildings on adjacent sites must also reflect the importance of the entry.

3.2.3 Roadway and On-Street Parking

Road width along University Boulevard shall be consistent with collector standards, allowing for a single moving lane in each direction. Vehicle travel lanes and dedicated cycle lanes are to be provided. Illustrations of cross-sections of the street at several points are shown on Diagram ID-1.

Some street parallel parking may be provided, time-limited through the use of meters, intended for short-term use by retail patrons. Landscaped curb extensions shall be provided at driveways and pedestrian points.

Drop-off and pick-up zones for carpools and community shuttles shall be provided along the street. A turn-around adjacent to the Alumni Centre bookstore will mark the end of the street for vehicular traffic.

In order to diminish the perceived width of the roadway, parking areas shall be paved with a different material than driving aisles. Materials shall be selected with the same attention to quality, durability and appearance as those used for the buildings themselves.

3.2.4 Sidewalk and Pedestrian Crossings

A sidewalk of sufficient width (suggested 5.0 metres) shall be provided along University Boulevard on both sides of the street. This sidewalk shall include street trees planted in grates. The sidewalk treatment shall use UBC sidewalk standards incorporating feature banding. Where buildings are designed to accommodate outdoor seating on the sidewalk (e.g.

restaurant seating), the sidewalk width may need to be increased. This can be done with greater setback distances.

Mid-block pedestrian crossings of University Boulevard shall be identified by curb extensions without street parking to ensure maximum visibility of pedestrians crossing University Boulevard. Distinctive paving shall highlight the crossings to further reinforce the pedestrian priority.

3.2.5 Street Landscape

Street trees planted in grates shall be provided in the sidewalk along both sides of University Boulevard. The existing Elm tree located on the north side of University Boulevard, adjacent to the Alumni Centre, will be retained.

Additional significant trees along University Boulevard in front of the D.H Copp building, and along Wesbrook Mall shall be retained where possible and incorporated into the streetscape and adjacent plazas and green spaces.

3.2.6 Street Lighting and Signage

Combined street and pedestrian lighting shall be provided along University Boulevard, in accordance with UBC light standards. Street and wayfinding signs will also be an important part of the public realm, and will be provided in accordance with UBC standards. Signage to direct vehicles to parking lots will be provided, in order to discourage unnecessary traffic along the street.

3.2.7 Street Furniture

Street furniture within the sidewalks and curb extensions areas will be an important part of the pedestrian experience. Features such as benches/seating, information kiosks, pedestrian-scale lighting, waste containers and bicycle storage shall be provided.

3.2.8 Greenways

University Boulevard is designated as a “greenway” in the Land Use Plan. While the greenway designation applies to the full length of the street, there will be a number of components to the greenway that will vary at different points on the street. Towards the western end of the Neighbourhood, the landscape between University Boulevard and the existing Wesbrook and D.H. Copp buildings shall be enhanced to provide a passive greenspace for the enjoyment of the campus community. This green edge will reinforce University Boulevard as a distinctive urban street within a University context. This space will also ensure a sunny exposure to the roadway and the uses on the north side, while reinforcing the notion of University Boulevard as a greenway. The greenway in this section shall provide

opportunities for entry to the Wesbrook and D.H. Copp Buildings, in order to increase their presence and relationship to the street.

Towards the eastern portion of the Neighbourhood, where buildings front both sides of the street, the greenway component shall consist of wide landscaped sidewalks where paving patterns, street furniture, trees and other landscape features are the predominant greenway elements.

3.3 Design Guidelines for Plazas and Open Spaces

3.3.1 General Character and Intent

Plazas and open spaces shall be designed to accommodate the high levels of pedestrian movements within this area as well as gathering and resting places.

3.3.2 Sense of Place

Each plaza and open space shall be designed to have a strong sense of place in its own right, with an appropriate proportion and scale.

3.3.3 Succession of Spaces

Designs for each plaza and open space shall ensure that there is clear visual and physical succession from one space to the next. Succession shall be achieved by building location and landscape treatment. The visibility from one space to the next, along with the message that they are different spaces, will help create interesting and varied places.

Plazas, outdoor seating areas and green spaces shall contribute to the notion of a linear greenway along University Boulevard.

3.4 Design Guidelines for Buildings

3.4.1 General Character and Intent

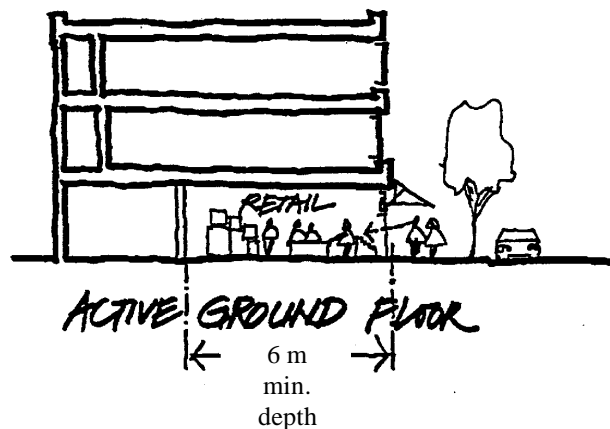
- (a) New buildings in this neighbourhood, regardless of use, shall be designed and built to reflect a “University” character, exhibiting elements of permanence, durability, animation, timelessness, dignity, welcoming and sustainability. In addition, buildings should relate to the diverse architectural context of UBC.

- (b) The University Boulevard Neighbourhood is a key element in achieving a complete community as envisioned in the Land Use Plan and other planning documents. It is vital that this area become the centre of the University and be perceived as the social ‘heart’ of the campus for students, faculty, staff, residents and visitors alike.
- (c) New developments should be designed to create both formal and informal open space while augmenting and enhancing existing pedestrian movement throughout the University.

3.4.2 Siting and Orientation

- (a) Buildings shall be sited so as to define a built edge to University Boulevard. Limited or no setbacks from University Boulevard will aid in the creation of a consistent retail use at grade along as much of the street as possible. Where buildings are designed to accommodate uses with outdoor seating on the sidewalk (e.g. restaurants), increased setbacks are appropriate in order to maintain sufficient room for pedestrians on the adjacent sidewalk.
- (b) A Public Oriented Ground Floor

Ground floor spaces in all new buildings should be oriented to uses open and inviting to the university community and the public.



A minimum of 6 metre (20 foot) depth of commercial retail floor space is suggested for shops fronting University Boulevard and the adjacent pedestrian corridors. A more typical depth would be 15 metres (50 feet).

Through building orientation and design, maximize sun exposure to the storefronts, gathering spaces and pedestrian areas along the north side of the street.

(c) Continuous Character of Ground Floor

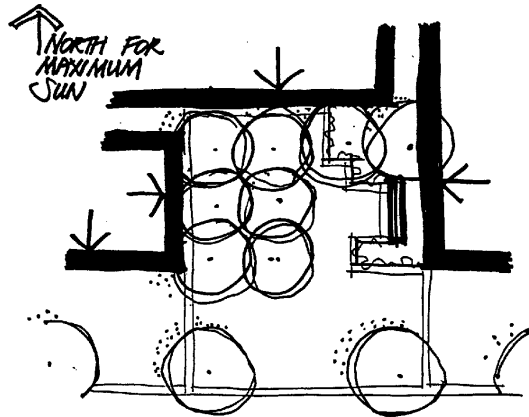
A continuous and interesting storefront character is appropriate for new developments.

- A high degree of visibility into the storefront through the use of large glassed areas should be achieved from the sidewalk to augment passer-by interest in the pedestrian precinct. A high standard of storefront display and illumination is envisaged.
- To further promote pedestrian interest, buildings shall generally be comprised of a number of shops of limited frontage. Large scale commercial businesses with wide frontages are not appropriate along University Boulevard. Blank façade segments on buildings should also be avoided.
- Ground floor façades should be composed primarily of clear glass windows and doorway entrances into shops. Entrances to underground parking facing University Boulevard should be minimized so as not to interrupt the storefront character.
- Where appropriate, pedestrian entrances may open onto a walkway leading from interior atria or parking areas behind buildings on the street.
- Entry plazas to residential developments along streets should be small and carefully designed, to maximize the continuous storefront character of the street.

d) Definition of Street Space

A street wall is required for all buildings with frontage on University Boulevard.

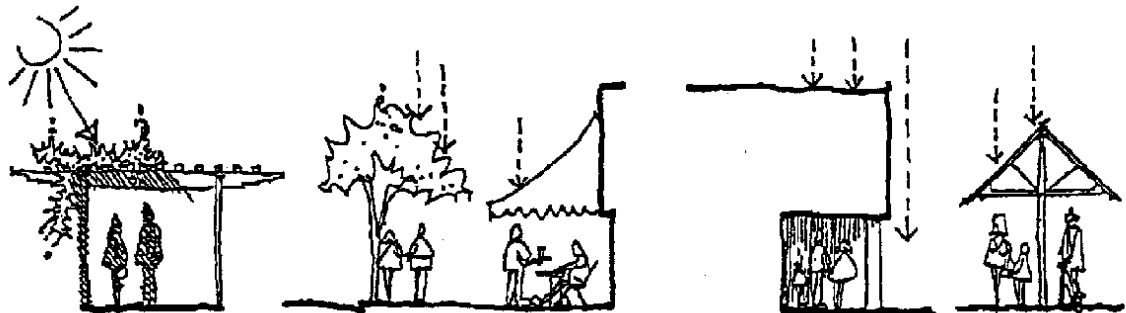
- The street is defined where the sidewalk meets the building façade. The relationship of the sidewalk and building façade “edge” establishes the limits of public activity, and much of the character of the pedestrian environment.
- In some cases, it may be appropriate to set the building line back from the right-of-way or dedication line to create colonnades or outdoor activity and seating areas. If such areas of pedestrian amenity are provided, the set back of the street wall may be increased.



- An appropriate scale of street wall for University Boulevard is five to six storeys in height measured from the sidewalk grade. Storeys above this height could be set back from the building line in order to maintain the appropriate scale of the street wall along the street.

e) Continuous Weather Protection

- To enhance pedestrian use on the street in inclement weather, and to help provide for year-round activity, weather protection to the grade level frontages of buildings should be provided.



- Devices such as awnings, covered arcades, colonnades and built overhangs not only provide weather protection, but also lend an appropriate pedestrian scale to the continuous street façade.
- Where appropriate, provide covered bike parking integrated into building structures, and / or in locations that do not obstruct pedestrian corridors.

3.4.3 Massing

- (a) Maximum building height along University Boulevard is six storeys, with flexibility to exceed that number of storeys for design or program reasons, to a maximum of eight storeys. Massing of buildings within this height limit must consider “street wall” provisions in Section 3.4.2 (d).
- (b) Portions of the building that do not front University Boulevard may utilize a terraced or stepped building form.



- (c) New buildings with frontages on Wesbrook Mall shall respect the existing setback as established by the Strangway Building.
- (d) A view corridor from University Boulevard to the southwest corner of the War Memorial Gym shall be maintained. Plaza areas and open spaces to the southwest of this corner ensure that this view will be maintained to an important architectural and historical building. This will be accomplished with plaza areas and smaller scale buildings with a height limitation within the view corridor.
- (e) The form of new buildings at the intersection of University Boulevard and Wesbrook Mall shall contribute to the “gateway to UBC” character of this section of University Boulevard.

3.4.4 Building Style and Architecture

- (a) The University Boulevard Neighbourhood should incorporate a distinctive architectural character that celebrates and sustains the core academic mission of the university, while accommodating a mix of uses. The design of buildings shall be both dignified and welcoming, and reflect a distinctive “university” architecture.

- (b) Building design shall maximize sun exposure to the storefronts, gathering spaces and pedestrian areas along the street, open spaces and upper terraces. The shadow effect of buildings on adjacent sites and spaces shall be considered, with the goal of minimizing overshadowing. Solar orientation for residential units shall be considered.
- (c) Portions of buildings that front new or existing open spaces shall be responsive to their settings.
- (d) Connections between new and existing buildings shall be carefully considered to ensure an appropriate architectural fit.
- (e) Large glass areas are encouraged to let light in and reveal outward views.

3.4.5 Materials

- (a) Materials and colours considered suitable in this context are based on characteristics of buildings that have achieved a successful fit into the campus fabric. Recommended materials and colours include: lighter coloured prefinished metal panel, glass, terra cotta, porcelain enamel, stone and brick. Wood, can form a 'warm' counterpoint to visually 'soften' hard materials. Clear or lightly tinted vision glazing should be used. No highly reflective or deeply tinted vision glazing is permitted. Accent materials should be similar to those noted in the Historic Core guidelines.
- (b) Buildings materials with low environmental impacts should be considered if economically feasible. This could include re-used materials, locally sourced products, materials with recycled content and materials with low embodied energy (i.e. materials with low requirements for energy use in their manufacture and transport). Section 3.4.12 provides further guidelines for sustainable buildings.

3.4.6 Parking Access

- (a) All parking garage access ramps should preferably be incorporated within the profile of the building and their impact on the street or adjacent open spaces softened through the use of screening, landscaping, trellises and planters.
- (b) Locate garage access ramps away from intersections and areas of high pedestrian use.

3.4.7 Recycling and Garbage Facilities

Recycling and garbage holding must be provided within the building envelope of new buildings with sufficient access for standard commercial waste collection vehicles.

3.4.8 Building Signage

- (a) Retail signage shall contribute to the active character of University Boulevard and be oriented primarily to pedestrians rather than automobiles.
- (b) Signage shall be incorporated as an integral design element of buildings. Acceptable signage types include: signs on awning drops; projecting or suspended signs at right angle to the street; fascia signs (where it is evident that they are compatible with the overall architecture of the building); door and window signs.
- (c) Ground-based signage should not block or obliterate design details of the building upon which they are placed. Such signage may be located on entry awnings, directly above business entrances, and hanging signs located adjacent entrances.

3.4.9 On-Site Landscape

- (a) Retain existing healthy tree specimens, where possible.
- (b) The landscape character of new developments shall respect and be responsive to existing adjacent landscape.
- (c) Landscape design shall consider view management. Low level planting adjacent to public pedestrian areas in conjunction with proper lighting shall be provided to enhance a comfortable, and safe public environment. (See also Section 3.4.12)
- (d) Design of hard landscape elements shall relate to the style, materials and colours of adjacent architecture and built areas.
- (e) Landscape features shall mark entry points and special places.
- (f) Sustainable landscape is encouraged and shall be designed for low requirements for watering, energy used for maintenance purposes, and herbicide and pesticide use.
- (g) Landscape irrigation shall include centralized controls and moisture sensors to ensure efficient water use.

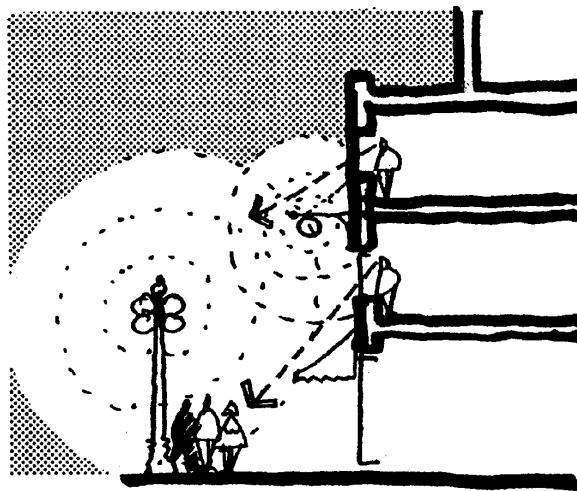
3.4.10 Animation of the Street

- (a) Street vending/commercial kiosks/cafés/street performances and small-scale commercial operations in temporary locations shall be encouraged, particularly for special occasions, (e.g. University and/or student sponsored events) to add to the quality of the street.

- (b) Provision shall be made in the design of streets, plazas and squares for servicing the needs of these special events and activities with electrical power and water connections.

3.4.11 Lighting

- (a) A comprehensive lighting strategy is key to encouraging the life of the street by night and ensuring pedestrian safety. Bright store windows, inviting entrances, soft façade lighting and distinctive street lights are required.
- (b) The use of wall mounted lamps on the ground level of buildings is encouraged. This form of lighting is appropriate along pedestrian ways and to highlight the materials of the base of University Boulevard buildings.



3.4.12 Safety and Security

The design of each development should use Crime Prevention Through Environmental Design (CPTED) principles when designing buildings and landscapes:

- residential buildings shall be designed to overlook the streets, parks, walkways and private open spaces;
- lobbies and entries shall be visible as they are approached;
- indoor common areas should preferably be placed adjacent to outside common areas or overlooking the street to improve overall surveillance;

- fences and walls adjacent to the sidewalk shall be designed to ensure some view of the building from the sidewalk, without sacrificing unit privacy, to promote casual neighbourhood surveillance;
- landscaping shall be designed and located to enhance security; and
- to guard against bike theft, bike racks shall be located in highly visible areas.

3.4.13 Green Building Guidelines

As green building design evolves, new technologies and materials are continuously introduced. The foundation of a sustainable community provides unique opportunities for green building initiatives:

- (a) The University location fosters research and innovation. Academic and industry research conducted on campus has long been a source of new technology. Technological innovation will continue to promote the use of sustainable building practices in the development industry.
- (b) Housing built by the University will demonstrate economically feasible new technologies and help promote market acceptance through pilot projects. Longer term monitoring of energy use, costs and consumer acceptance is possible in housing owned by UBC.
- (c) The overall marketing strategy for campus neighbourhoods will emphasize the sustainable benefits of campus living, and foster awareness and a desire for homes that are designed and built to be “green.”
- (d) Residents moving to campus neighbourhoods will likely have a greater propensity to demand buildings with enhanced sustainability. Builders and developers will be encouraged to meet this demand, since buildings that accommodate consumer preferences have a natural market advantage.
- (e) Mixed-use residential buildings will be subject to the UBC Residential Environmental Assessment Program (REAP) rating system. Institutional buildings will be subject to the Leadership in Energy and Environmental Design (LEED®) rating system. (See Section 3.4.14)

3.4.14 Green Building Rating System

The UBC Residential Environmental Assessment Program (REAP) will be applied to all new

residential buildings within this neighbourhood. REAP provides a framework to encourage and measure sustainable building practices for residential developments at UBC. The objective is to increase the use and acceptance of sustainable design features over and above the “standard practices” used within the BC Lower Mainland.

Mixed-use residential buildings must be designed to achieve a rating of REAP Gold or better. Institutional buildings will be designed to be certified at a minimum LEED Gold, but preferably Platinum, in the green building rating system or equivalent. Building designs should incorporate heating systems that can be converted to a district energy heating system to be installed in the future.

4 DEVELOPMENT CONTROLS

4.1 Overview

The Neighbourhood Plan establishes a land use plan for the University Boulevard Neighbourhood and contains criteria for evaluating development proposals. The development controls described in this section provide an overall view of the general controls determined for this neighbourhood.

4.2 Development Handbook

The UBC Development Handbook contains general regulations that apply to development within this neighbourhood. The provisions in the sections 4.3 through 4.8 are based on definitions as contained in the UBC Development Handbook.

4.3 Building Envelopes

Buildings can be situated within the neighbourhood based on the provisions of this neighbourhood plan. Actual building siting will be determined at the Development Permit stage.

4.4 Height

The height limit for buildings is six storeys along University Boulevard, with flexibility to exceed that number of storeys for design or program reasons, to a maximum of eight storeys.

4.5 Setbacks

The Neighbourhood Plan does not determine property lines and there are therefore no predetermined setbacks. If property lines are created in the future, setback requirements may be specified at the Development Permit stage.

4.6 Site Coverage

Site coverage limits are not specified in this neighbourhood plan. However, to ensure that appropriate open space areas are provided, site coverage will be examined for each project within the context of the wider precinct at the Development Permit stage.

4.7 Vehicular Parking

Vehicular parking standards will comply with the Land Use Plan and the Transportation Plan, and shall not exceed the maximum standards in those documents.

Since all residential development within this neighbourhood will be targeted to those affiliated with the University, the parking standard is lower than other neighbourhoods.

a) Residential:

Maximum of 1.0 stall per unit

Visitors – 0.1 stalls per unit (maximum)

Disabled parking – 0.1 stalls per unit (minimum)

Shared vehicles- minimum 1 parking stall per 50 units for shared vehicle parking stall

Alternate Fuel Vehicles - Neighbourhood Electric Vehicle (NEV) recharging outlets at each building

All parking for residential use will be provided underground.

b) Commercial:

Short-term (patrons, couriers, vendors, visitors & service vehicles):

Loading: Heavy truck loading zone if needed

Drop off/pick up: Reserved courier/service stall if needed

Metered hourly parking on street

Hourly parking under buildings

Long term - none

c) Institutional

Parking for institutional uses is typically provided offsite in centralized parking structures. Institutional uses within this neighbourhood may have a high degree of interaction with the public, and therefore may require onsite parking.

4.8 Bicycle Facilities

Parking requirements for bicycles are contained in Section 7.6 of the UBC Development Handbook.

5 INFRASTRUCTURE AND SERVICING

5.1 Overview

All services for the University Boulevard Neighbourhood are being designed in accordance with a campus-wide Master Servicing Plan (MSP), prepared in conjunction with UBC Energy and Water Services. The goal of the servicing plan is not only to service newly developing areas, but to rectify deficiencies and limitations of the current systems. Where appropriate, innovative infrastructure and servicing strategies will be considered to reduce the external utility needs of the University.

5.2 Stormwater Management

The existing storm sewer system is part of the North Campus catchment area and conveys stormwater to the GVRD spiral drain on Cecil Green Park road.

Localized improvements to the system were undertaken as part of the reconstruction of the University Boulevard roadway. The proposed development in the University Boulevard Neighbourhood is not anticipated to trigger off-site upgrades.

5.3 Sanitary Sewer

A comprehensive strategy for upgrading of sanitary sewer mains was prepared by consultants in conjunction with UBC Energy and Water Services, and is included in the MSP. Sanitary sewers within the neighbourhood were replaced during the reconstruction of the University Boulevard roadway. Development of the GSAB site will trigger upgrade requirements to the sanitary sewer that carries UBC sewage from Chancellor Boulevard to the GVRD trunk sewer on Northwest Marine Drive.

5.4 Water

The water distribution system for University Boulevard is being designed within the context of a campus-wide strategy for water distribution, included in the MSP. Water demands for all uses on the campus have been projected and a computer model analysis performed. A comprehensive program of water network improvements is being implemented, but no particular upgrading is triggered by development of the University Boulevard Neighbourhood. A new water line has been built as part of the reconstruction of the University Boulevard roadway.

5.5 District Energy

Buildings shall be designed for connection to district energy in order to reduce Greenhouse

Gas emissions associated with space heating. A connection to the Academic District Energy System shall be made when available.

5.6 Electrical Infrastructure

Sites B and D and the GSAB and D.H. Copp sites shall be serviced directly by BC Hydro as per the agreement between UBC and BC Hydro for all of the neighbourhoods on the Point Grey campus.

5.7 Infrastructure Maintenance

A maintenance jurisdiction plan is being developed to define operational and funding responsibility for maintenance of infrastructure elements including roads, sidewalks, landscape areas, trees, street furniture, lighting, signage and related services.

6 COMMUNITY FACILITIES

6.1 Community Facilities

The neighbourhood is centrally located surrounded by a number of community facilities. War Memorial Gym offers live sporting events and other cultural events. The Student Recreation Centre, the Aquatic Centre and MacInnes Field provide active recreation opportunities. The AMS Student Nest and Robert H. Lee Alumni Centre are centres of social activity for the university community.

As the centre of the University “town”, this neighbourhood will include services for the university population and visitors, including storefronts for educational services, a visitor centre and other such community services.

6.2 University Neighbourhoods Association

The University Neighbourhoods Association (UNA) was created as a governance mechanism for UBC’s campus neighbourhood residents.

For the University Boulevard Neighbourhood, UBC and the UNA will collaborate on an arrangement to address the UNA's role representing residents in this area, including service delivery, UNA membership eligibility, services levy revenue, and regulation.

6.3 Community Services

6.3.1 Health, Safety and Education

The UBC campus is currently served by a variety of services related to health, safety and security, fire protection, education, and other essential services. These are generally provided by other parties (e.g. R.C.M.P., Vancouver School Board, etc.) UBC will work with the providers of these services, and new services as required, to ensure that additional capacity is provided at appropriate times to match increases in the campus population.

6.3.2 Social Services

Some social services such as day care are provided on campus by the University. Other services are provided by volunteer associations and other service providers. UBC will continue to work with the various parties to ensure that appropriate additional social services are provided, in order to meet residents needs as growth occurs.

LIST OF PLANS

Cover	Oblique Aerial Photo UBC Campus – University Boulevard Neighbourhood Location
P-1	UBC Campus Plan showing seven local areas for neighbourhood planning
P-2	University Boulevard Neighbourhood – Aerial Photo of Campus Context
P-3	Roads Context for University Boulevard Neighbourhood
P-4	Transit Context for University Boulevard Neighbourhood
P-5	Pedestrians and Cyclists Context for University Boulevard Neighbourhood
P-6	Illustrative Plan

LIST OF ILLUSTRATIONS AND DIAGRAMS

ID-1	Cross-Sections through University Boulevard
ID-2	Perspective Renderings

TABLE A
OVERALL LAND USE, DENSITY CALCULATIONS
AND TYPE OF UNITS

FOR THE UNIVERSITY BOULEVARD NEIGHBOURHOOD LOCAL AREA

Ground Floor Retail / Service Commercial Gross Buildable Area (sq.m.) ¹	Residential Gross Buildable Area (sq.m.)
4,500	30,379

NOTES FOR TABLE A:

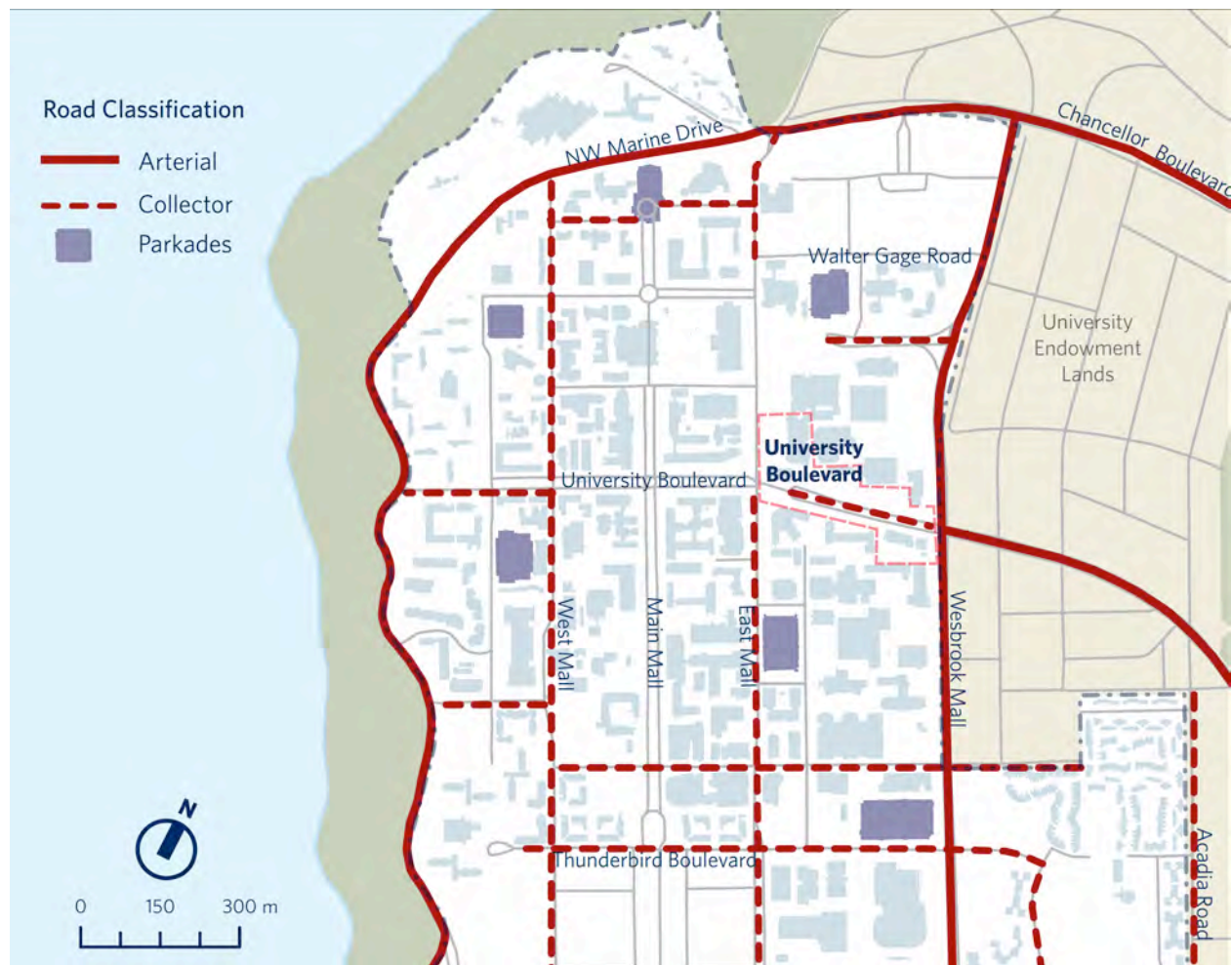
1. Additional below grade and second storey commercial is permitted in the LUP, with no defined space limitations.
2. Institutional space is permitted within the neighbourhood with no defined space limitations.

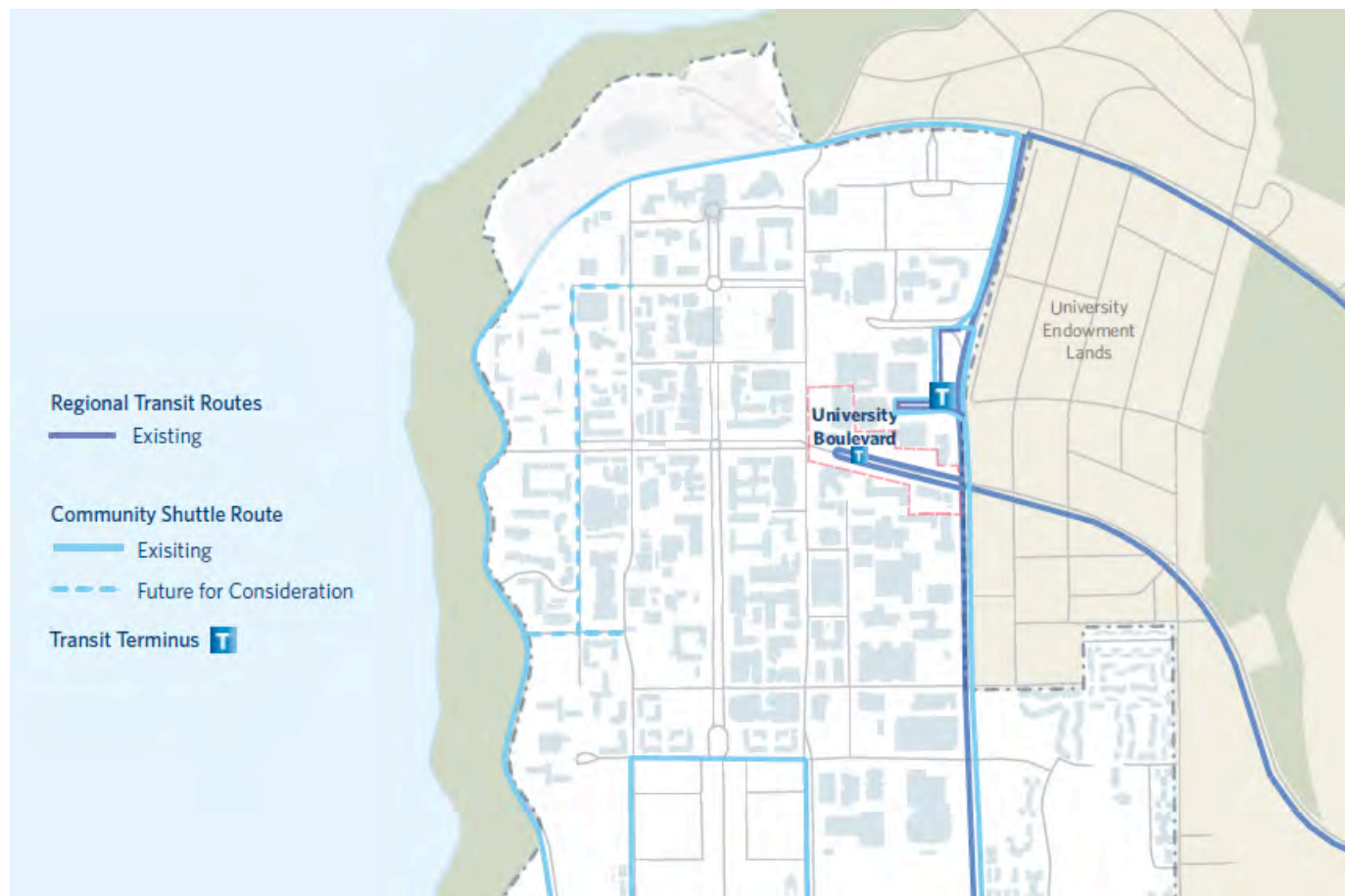


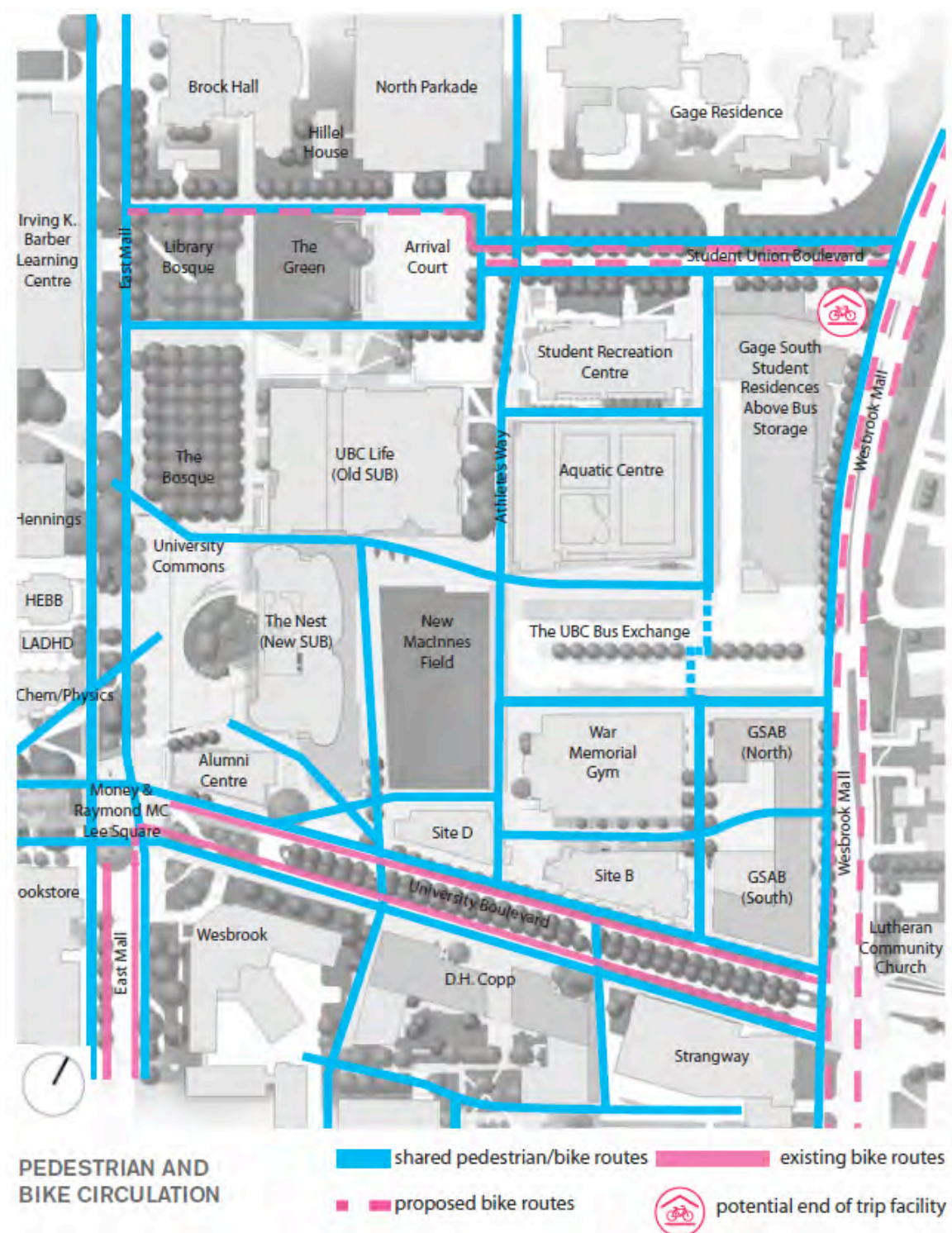
Campus Land Use Plan Showing Neighbourhood Plan Areas

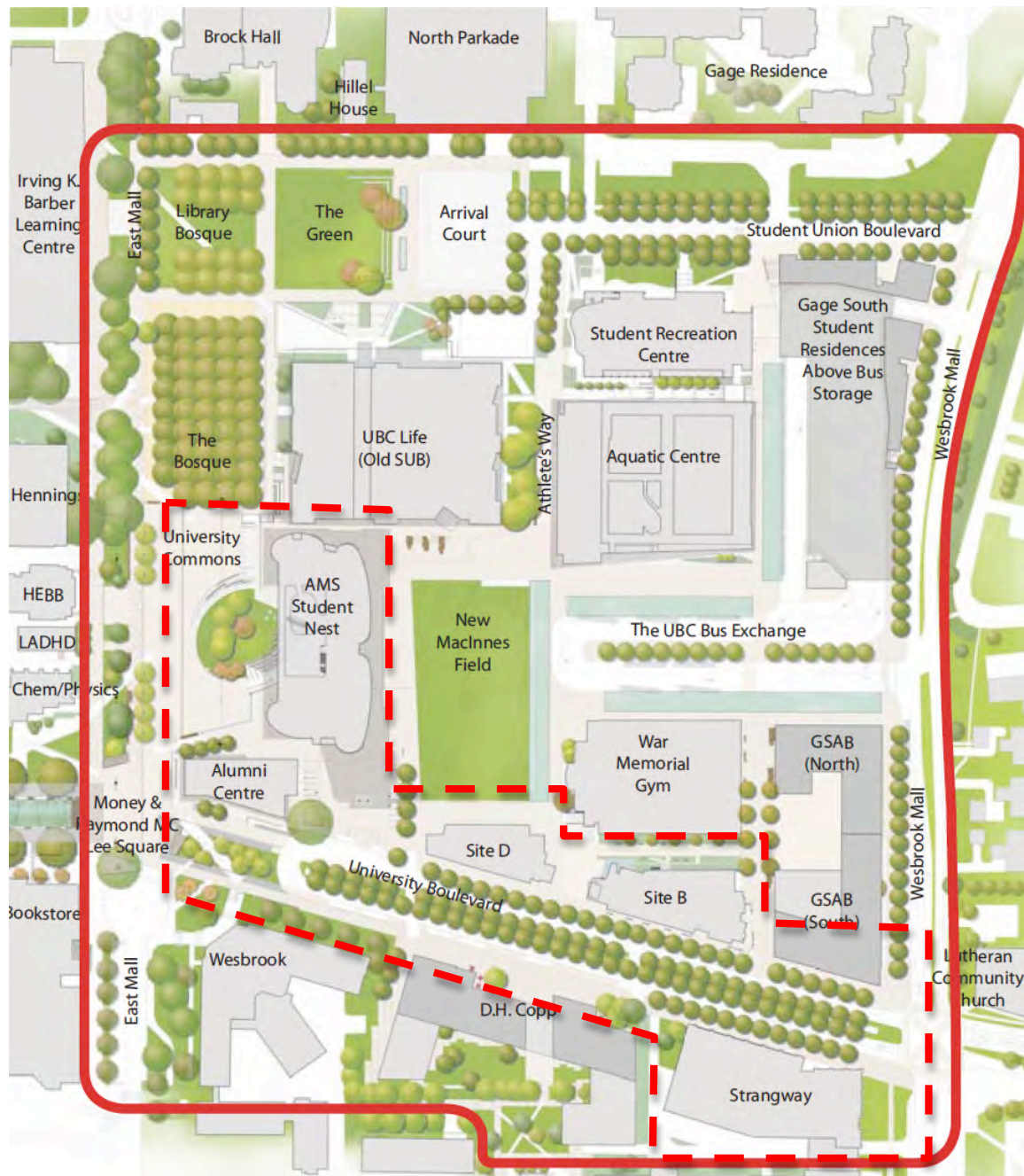


University Boulevard Neighbourhood - Aerial Photo



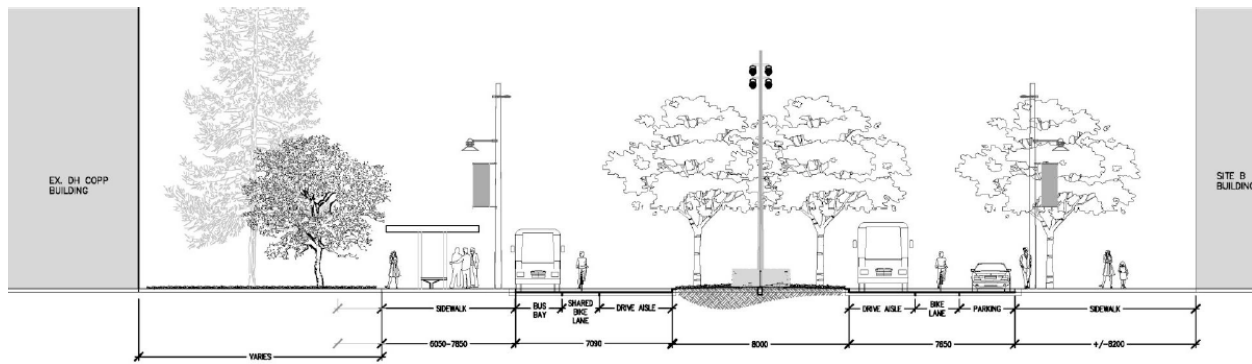
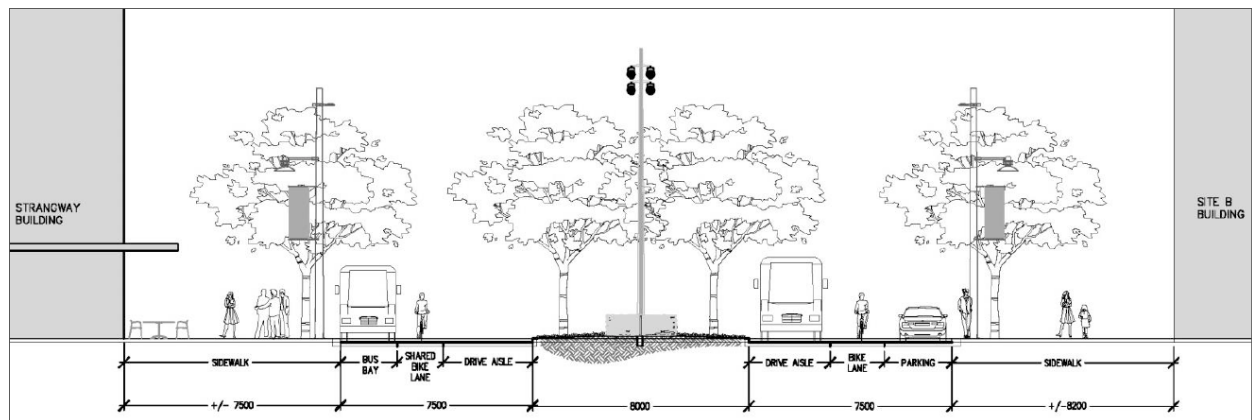
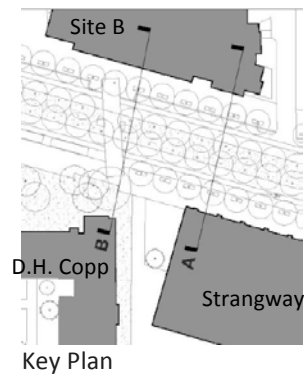






UNIVERSITY BOULEVARD PRECINCT
UNIVERSITY BOULEVARD NEIGHBOURHOOD

NOTE: Building footprints for Site D, D.H. Copp, and GSAB sites are indicative, for illustrative purposes only.



Cross Sections across University Boulevard

ID-1



Street level view of Site B and southwest corner of War Memorial Gym



Street level view of Alumni Centre

Draft Research Brief - Copp Redevelopment Living Lab Concept

May 11, 2015

UBC is planning to redevelop the site currently occupied by the Copp Building, to accommodate faculty and staff rental housing (transferred from the Wesbrook Neighbourhood), and commercial space (see Appendix A for a preliminary description of the project). The goal is to have campus as living lab as a key driver of this project, exemplifying UBC's goal of integrating the academic mandate of the university with other university uses. The purpose of this briefing note is to describe some preliminary ideas about the living lab component.

The Campus as Living Lab (CLL) program at UBC has been running since 2010 under the direction of a Steering Committee, composed of staff, faculty and student representatives, which provides overall direction. There is also a CLL Working Group responsible for project development and evaluation. Both groups meet regularly.

The goal of the CLL program is to develop joint operational/research projects that:

1. Integrate the core learning and research mission of UBC with campus operations
2. Involve sound financial use of UBC infrastructure for demonstration of and research on leading edge solutions (technical and social)
3. Engage researchers, students, faculty instructors, operations staff and external partners
4. Have potential for knowledge transfer within and beyond UBC, and
5. Where possible, Involve partnerships between UBC and public, private and NGO organizations

What is particularly exciting about the Copp redevelopment project from a living lab point of view is that it offers the opportunity to address these five goals by building interdisciplinary research in from the pre-design stage, when choices are nearly all still to come, instead of simply coming to a project that is already built, or late in the design process. This means it is possible to build research capability and infrastructure into the project at a deep level. For example, this gives time to apply for academic funding to add monitoring and controls technologies to the building program that would enable research on environmental performance and human wellbeing that is impossible to undertake in a conventional building context, or to create and implement behavioral surveys and obtain useful baseline data for social science experiments.

In addition, UBC can consider designing components of the building and surrounding landscape in ways that embody the best current understanding of performance and wellbeing. This will allow researchers to explore and study how people interact with the building and surrounding landscape, and to feed those data back into the literature. The CLL component can study the process of planning, designing, constructing, commissioning, operating, and inhabiting the building and landscape from the outset, exploring and learning from the building lifecycle in ways that will be of interest for other UBC buildings, and beyond. And it will be possible to continue studying the project once it is built and in operation, with the prospect of ongoing research into building operations, and the comfort, health, well-being, satisfaction, and engagement of occupants. These remarkable academic opportunities will be integrated into a process of continuous optimization and publication over the project's lifetime.

Some possible research projects that could be undertaken:

- Incorporating environmentally, socially, and financially sustainable building design and research into the design process
- Growing Regenerative Neighborhoods and fulfilling the promise of sustainable and innovative buildings and communities of the future
- The role of building and landscape design and operations in fostering human health, productivity, safety, and happiness
- The implications of the use of sustainable building materials, including wood
- The absolute and relative values of a building's private and public spaces to its inhabitants
- Moving from an integrated design process (IDP) to integrated project delivery (IPD) over the building lifecycle
- New approaches to monitoring environmental performance and human wellbeing
- The contribution of controls technology to improving the behavioural interface
- Optimal integration of design modeling, quantitative environmental performance and building operations systems monitoring, and quantitative and qualitative assessments of the effect of the building on its inhabitants and the neighbourhood
- The absolute and relative contributions of behaviour and technology to sustainability performance (e.g. automated controls relative to human operations)
- The development, testing, and refinement of metrics to evaluate the human performance of the building and landscape, such as those related to health, comfort, and subjective wellbeing
- The interaction between project design, infrastructure, community engagement, and social capital

This list is preliminary and will be refined and amplified based on discussions with collaborating researchers, partners, and the project design team.

Process and Governance

It is proposed that the existing CLL Steering Committee would serve as the overall decision-making body for this project. However, a Copp Redevelopment CLL Working Group would be formed, reporting to the CLL Steering Committee, with representatives from that Steering Committee, UBC-PT, C&CP, Infrastructure Development, Energy and Water Services, Faculty Staff Housing & Relocation Services, and faculty representatives (see Appendix C for an initial list of already-interested researchers), in order to start the process of considering how CLL objectives can be built into the project design and implementation process. An initial step will be to ask CIRS (Alberto Cayuela and Ray Cole) to lead a process of holding a design brief charrette, to brainstorm CLL design goals for the project.

The Copp Redevelopment Working Group (CRWG) will discuss how best to involve researchers throughout the project, led by a sub committee of researchers – the Research Management Group. One possibility is to specify a set of general research goals and solicit proposals. Another is to actively recruit researchers who could contribute to accomplishing those goals. A key objective of the Working Group will be to identify possible academic funding sources, and potential external partners, recognizing the lead times involved in obtaining such funding and partnerships.

All research done as part of the Copp Redevelopment Living Lab will have to obtain ethics approval from the [Behavioural Research Ethics Board](#) at UBC. This means that all research will have to obtain informed consent from any residents before the research can be undertaken, with full opt-out provisions built into the agreement.

Appendix A. Draft Copp Redevelopment (Site E) Summary

Project Objective: Redevelop the site as a Living Lab project that accommodates faculty and staff housing and commercial space.

- The overall project will explore and pursue innovation and excellence in improving both environmental and human well-being (Regenerative Sustainability). It will uniquely enable the study of the process of planning, designing, constructing, commissioning, operating, and inhabiting the building and landscape from the outset, exploring and learning from the building lifecycle in ways that will be of interest for other UBC buildings, and beyond.
- The residential component will allow more UBC faculty and staff to live close to their work.
- The commercial component will contribute to animating the University Boulevard area while providing the UBC community and others with more shops and services.
- The Campus as a Living Lab (CLL) component will contribute to UBC's initiative to integrate the academic mandate with other university uses.

Location:

- This site is located on the south side of University Boulevard west of Wesbrook Mall.
- The Strangway building (commercial & institutional) is located to the east and the Wesbrook Building (institutional) is located to the west. Pedestrian and service corridors separate these buildings from the Copp site.
- Across University Boulevard, to the north, will be two new developments (sites B & D) which will be mixed use buildings with commercial on the ground floor and residential rental housing for University Users on the upper floors.
- There are trolley bus stops on the south side of University Boulevard along the frontage of this site.
- The Medical Science Block C and Friedman building are located to the south. These are both institutional buildings.

Redevelopment Description:

- Six storey mixed-use commercial and faculty/staff (non-market) rental building with one level of underground parking. The ground floor will likely be concrete construction and the upper floors will likely be wood frame construction.
- The new project will include a Living Lab component. Environmental sustainability will be measured through UBC's REAP (Residential Environmental Assessment Program), with a minimum target of REAP Gold and aspirational target of REAP Platinum. Social and financial sustainability will be measured through metrics TBD by CLL researchers.
- The building will be developed by UBC Properties Trust (UBCPT) and managed by Village Gate Homes (property management division of UBCPT).

Building Program (areas approximate):

Total Building Size: 174,000 – 230,000 square feet (final area to be confirmed)

- Underground Level
 - Residential, commercial and bike parking along with service and storage areas.

- Ground Floor (Level 1)
 - Commercial Area (concrete construction): 15,000 square feet; 5-7 commercial tenants/units; fronting University Boulevard (north). Commercial tenants will be a mix of food and beverage establishments, retail services and shops.
 - Residential Area (concrete construction): 19,000 square feet; 15-20 suites; facing the south courtyard and pedestrian pathways to the east and west.
- Upper Floors (Levels 2-6)
 - Residential and Common Areas (wood frame construction): $\geq 140,000$ square feet; 130 – >156 suites, likely 2 common areas per floor.
 - Top floor to be considered for split residential/common and commercial food and beverage establishment.
- Landscape
 - The surrounding site and landscape area is being verified.
 - The landscape and site program should positively contribute to enhance the overall building program and project goals (health and wellbeing, liveability, productive and learning landscapes, ecological services, regenerative design)

Funding

- Construction & Long Term Financing
 - Both the construction and long term financing of this project will be through a third party commercial lender (major financial institution).
 - UBCPT, the developer, will need to meet all covenant, income, debt service and legal requirements of this/these lender(s).
 - This project is funded as a typical mixed use development project. It is anticipated that some research features could be incorporated at no net increase to the typical budget through innovative design and future operating efficiencies, but others may require additional funding and would need to be addressed through research grants and in-kind contributions from faculty partners.
 - Total project costs will need to be consistent with UBCPT's other faculty and staff projects to meet lender requirements.

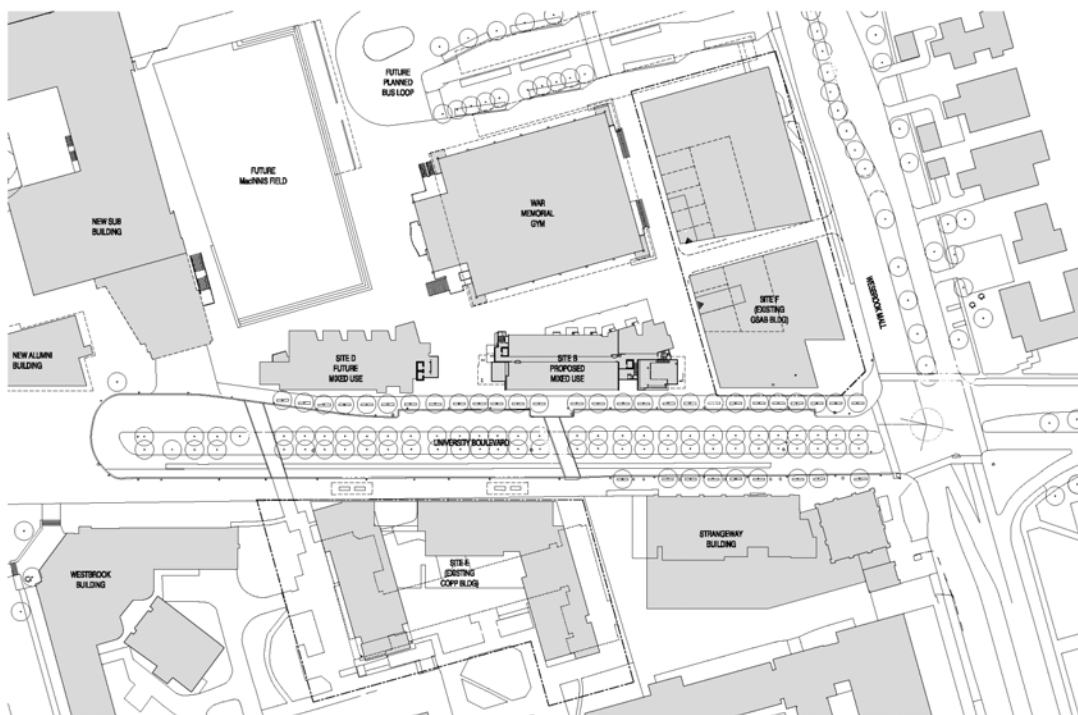
Planning & Approval

- This project is located in the Academic core of campus and therefore will go through the UBC Board of Governors major capital project approval process.
- Apply the new "Sustainability Process for Major Capital Projects" to help guide the integration and synergies of sustainable design from pre-design development through construction and operation.
- Project development will be overseen by a Steering Committee comprised of senior University stakeholders. This Steering Committee will be officially formed at the Board 1 approval stage and will evolve from the Copp Redevelopment CLL Working Group, which is responsible for project planning. UBC Properties will manage the design and construction of the project with input and guidance from a Working Committee chaired by UBCPT and comprised of the project architect, facility users, CLL researchers, and planning/operational units (i.e. C&CP, Infrastructure Development).

Preliminary Schedule

Project Planning	Feb – Dec 2015
Executive 1 + 2 Approval	Jun 2015
Design Brief Workshop	Sep 2015
Executive 3 Approval	Mar 2016
Architect Shortlisting Process	Apr – May 2016
Board 1 Approval (Project in Principle)	Jun 2016
Final Architect and Design Team Selection	Jun – Jul 2016
Schematic Design	Aug 2016 – May 2017
Board 2 Approval (Issue Development Permit)	Jun 2017
Design Development, Working Drawing and Tender Documents	Jun 2017 – May 2018
Board 3 Approval (Award Construction Contracts)	Jun 2018
Construction Start	Jun 2018
Completion & Occupancy	Aug 2020

Site Plan



Appendix B: Purposes served by this building for UBC

The following are the emerging goals for the project which will help guide research opportunities:

- (1) Better-reflecting UBC's commitment to faculty and staff by creating additional and different types of affordable and attractive housing for them and their families.
- (2) Providing a stronger reflection in UBC's residential options of our commitment to environmental, social, and financial sustainability.
- (3) Having the living lab include experiments from more UBC disciplines, and across disciplines.
- (4) Integrating the academic and residential spheres of campus by having scholars and residents collaborating in a deep and permanent way.
- (5) Producing residential mixed-use options on campus that are vibrant and attractive to the community and achieve an architectural standard that matches the best of what we have done on the academic campus.
- (6) Modelling a desirable way to develop midrise apartment buildings on campus which help achieve UBC's 50% work:live occupancy mandate.
- (7) Providing justifiable comfort to UNA residents concerned that UBC is indifferent to the erosion of social sustainability that will come with the continuing densification of campus.
- (8) Being an exemplary University community, in recognition of our commitment to >50% work-live.
- (9) Creating a significant legacy, a shining star for Campus as a Living Lab, as >half the world's population is living in urban environments and they are losing their connection to place, community, and self, with terrible personal and societal effects -- figuring out how to reverse this uprootedness is one of the most critical issues of our lifetime, for academicians, planners, and builders.
- (10) Demonstrating cost effective sustainable design that can be replicated in other UBC developments and beyond.

Appendix C. Expressions of Interest from UBC faculty

Center for Interactive Research on Sustainability = Alberto Cayuela (Director of Operations and Business Development), Ray Cole (Academic Director), John Robinson (Associate Provost, Sustainability)

Electrical and Computer Engineering = Panos Nasiopoulos (Director, Institute for Computing, Information and Cognitive Systems)

Medicine = Bob Woollard (Professor, Family Practice)

Psychology = Alan Kingstone (Professor, Psychology)

Public Health = Erica Frank (Canada Research Chair in Preventive Medicine and Population Health)

Architecture and Landscape Architecture = Leslie van Duser (Director, SALA) and Cornelia Oberlander

Art = Shelley Rosenblum (Curator of Academic Programs, Belkin Gallery)

Appendix F

Bold Academic Expression - Appendix F provides imagery of the design potential for the GSAB site. These images, consistent with the updated **University Boulevard Design Guidelines**, emphasize the important role of GSAB South in conveying academic stature, facilitating student life and vibrancy while also conveying a certain boldness about the future of UBC. Additional design considerations for the GSAB site, and other building sites within the University Boulevard Precinct, are provided in the Design Guidelines.



BOLD ACADEMIC EXPRESSION



ENGAGING AND PUBLIC CORNER



SHOWCASE STUDENT VIBRANCY AND ACADEMIC IDENTITY



REVEAL VITALITY AND MOVEMENT
INSIDE THE BUILDING



TRANSPARENT AND INVITING CORNER



RENDERING OF DEVELOPMENT POTENTIAL FOR GSAB SITE FOR ILLUSTRATIVE PURPOSES ONLY –
VIEW LOOKING NORTHWEST FROM UNIVERSITY BOULEVARD AND WESBROOK MALL