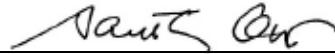


<b>SUBJECT</b>	<b>CAPITAL PROJECTS UPDATE</b>
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<b>MEETING DATE</b>	<b>JUNE 5, 2019</b>
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Forwarded on the Recommendation of the President

**APPROVED FOR  
SUBMISSION**



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Santa J. Ono, President and Vice-Chancellor

**FOR INFORMATION**

<b>Report Date</b>	<b>May 14, 2019</b>
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**Presented By** Peter Smalles, Vice-President Finance & Operations  
 Andrew Szeri, Provost (UBC Vancouver) and Vice-President Academic  
 Deborah Buszard, Deputy Vice-Chancellor & Principal, UBC Okanagan  
 Robin Ciceri, Vice-President External Relations  
 Ananya Mukherjee-Reed, Provost and Vice-President, Academic, UBC Okanagan  
 Pam Ratner, Vice-Provost & Associate Vice-President Enrolment & Academic Facilities  
 John Metras, Associate Vice-President, Facilities  
 Jennifer Sanguinetti, Managing Director, Infrastructure Development  
 Jennifer Burns, Associate Vice-President Information Technology & Chief Information Officer  
 Michael White, Associate Vice-President, Campus & Community Planning  
 Aubrey Kelly, President & CEO, UBC Properties Trust

**EXECUTIVE SUMMARY**

At each meeting, the Board receives a status update on current capital projects and capital priorities in planning. This includes details on major capital building projects (>\$5 million) as well as a summary of routine capital renewal and renovation projects (<=\$5 million). Information on Infrastructure Impact Charge (IIC) projects and Information Technology (IT) projects is also included.

**Major Building Projects**

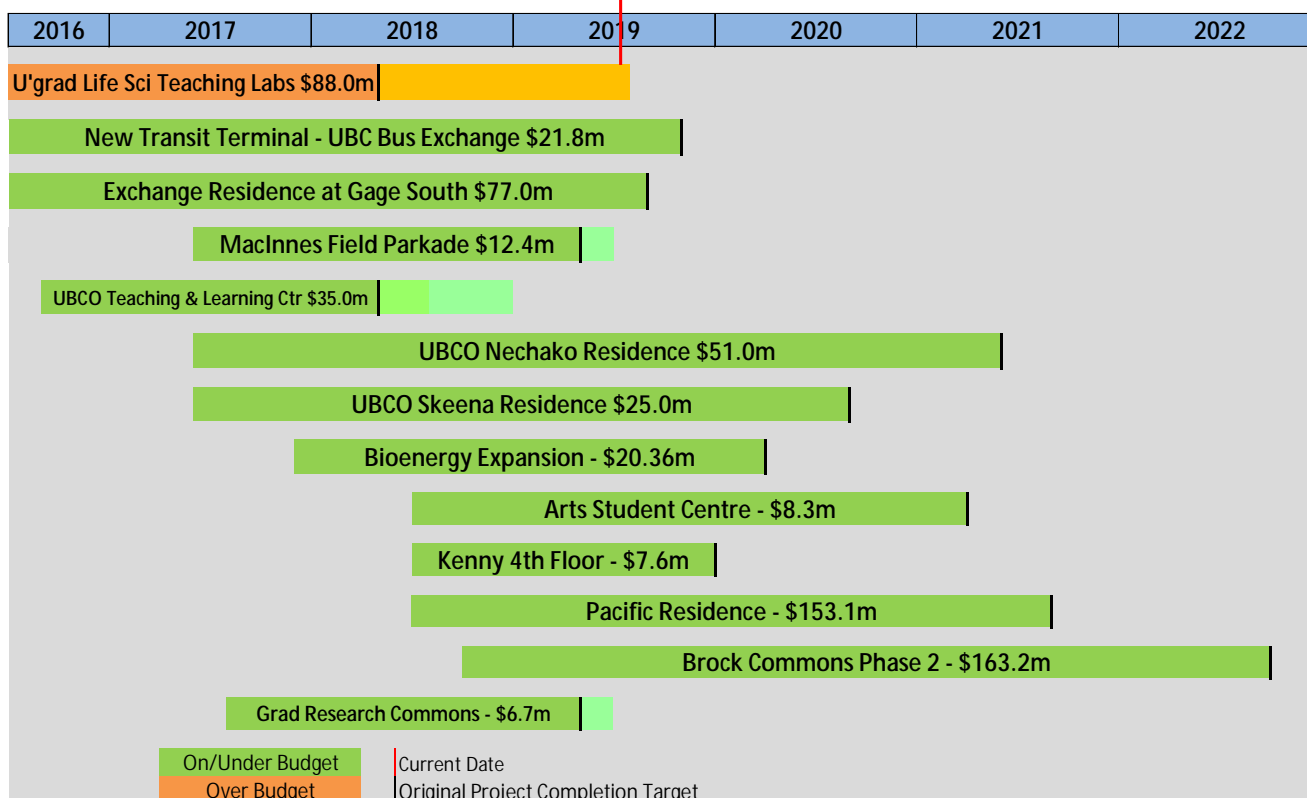
There are currently twelve major building projects in construction or design, with a total value of \$641 million. Ten projects are on the Vancouver campus, including the new UBC Exchange Bus Terminal and Exchange Student Residence. Two projects are on the Okanagan campus, the Nechako Residence & Commons Block and the Skeena Residence. A summary and detailed information on the capital project portfolio are provided in Attachments 1 and 2. Building projects completed since January 1, 2010 are included in Attachment 5 for reference.

The highly active construction markets in Vancouver and Kelowna are currently resulting in reduced trade contractor availability, low bid coverage on tenders and escalating costs. These challenges have impacted recent and current UBC projects and are resulting in the need for budget adjustments and in some case the use of the Retained Risk Fund to address unanticipated cost overages.

- Undergraduate Life Sciences Teaching Labs – Due to construction market conditions, site-specific issues and operational decisions the project budget has been increased from \$80 million to \$88 million. This was approved by the Board in February 2018. Recent contractor delay claims are putting additional pressure on the project budget. The project team is working to resolve these claims.

- Graduate Research Commons/Koerner Interrelated Projects – In late 2018, the budget was increased from \$4.30m, originally set in 2014, to \$6.71m due to market escalation and scope changes. The project with updated budget was given Board 1, 2 + 3 consent via an out-of-cycle approval on October 31, 2018.
- UBCO Nechako & Skeena Residences – Significant construction cost escalation in Kelowna contributed to increased budgets for these projects both of which were granted Board 3 approval in February 2019. The budget for Skeena has increased by \$2.17m (9.5%) from Board 2 due to requirements for PassiveHouse certification, added mechanical system redundancy and construction cost escalation. Note that the PassiveHouse premium will be partially offset by life-cycle savings. Nechako increased by \$2.76m (5.7%) due to complex mixed-use design requirements as well as cost escalation.
- MacInnes Field Parkade – Increased concrete and excavation costs were managed through a cost sharing plan with the MacInnes Field public realm project. There is still a small cost risk due to a 2 month extension to the project schedule.
- Retained Risk Fund – The Retained Risk Fund (UBC Policy #125) provides internal “self-insurance” for major capital projects to address cost overages resulting from unanticipated construction issues that cannot be managed with standard project contingencies. The Retained Risk Fund had a total balance of \$7.24 million on May 3, 2019. This includes \$6.36m for the Vancouver campus and \$0.88m for the Okanagan campus. These balances are in compliance with the target level for the Retained Risk Fund of 1% of the value of active projects. Since the inception of the Retained Risk funds in 2009, a total of \$7.89 million has been paid out for projects on both campuses. This represents 0.6% of the total value of projects undertaken during that time.

Major Building Project Status



## Major IT Projects

Major information technology projects currently in planning or implementation include the Integrated Renewal Program (IRP - Student, HR, Finance), Recruitment - Customer Relationship Management (CRM) System (in early sustainment mode), IRP Application Ecosystem Program, and Learning Technology Ecosystem Renewal. A listing of major IT projects is provided in Attachment 3.

## Upcoming Board Approval Requests

Project Name	Jun 2019	Sep 2019	Dec 2019	Feb 2020
Arts Student Centre	Board 2	Board 3		
Pacific Residence		Board 3		
The Hive @ UBC Farm		Board 1		
Brock Commons Phase 2 Mixed-Use Student Housing		Board 2		Board 3

## Routine Capital Projects

Routine capital includes cyclical maintenance, rehabilitation, upgrade and renovation projects associated with campus buildings and infrastructure. These projects are generally valued less than \$5m and are funded from a variety of internal sources - Building Operations, Energy & Water Services, Faculties/Departments, Student Housing & Hospitality Services, Athletics, and Parking – as well as with a contribution from the Ministry of Advanced Education, Skills & Training (AEST) for capital maintenance of core academic facilities.

AEST has increased Routine Capital funding to UBC to address much needed capital maintenance in campus buildings. The amounts are as follows:

- 2018/19: \$39.50m (received)
- 2019/20: \$39.50m (planned)
- 2020/21: \$39.50m (planned)
- 2021/22: \$39.50m (planned)

AEST has specified that these funds be directed toward reduction of deferred maintenance in core academic facilities and that the overall package of projects in each year must be cost-shared between AEST and UBC on a 75%/25% basis. A small portion of the funding (\$1.66m) is allocated toward Carbon Neutral Capital Program projects.

The UBC Facilities team (Infrastructure Development, Building Operations, and Energy & Water Services) develop the specific projects for the AEST-funded routine capital program based on facility condition assessment and input from department administrators regarding building user priorities. Synergies are sought with other infrastructure renewal and modernization requirements such as learning space upgrades, accessibility upgrades and seismic upgrades. Most projects are less than \$5.0 million and consist of core building system renewals such as roof and envelope repairs, elevator retrofits, electrical infrastructure projects, fire and life safety system retrofits, minor interior refit projects (such as flooring replacements and washroom refurbishments), and utilities infrastructure improvements. Example projects in this category for 2019/20 include:

- Koerner Library replacement of failed glazing units - \$420k
- Michael Smith Labs chiller - \$700k
- Biomedical Research Centre, Old Admin Building fire alarm renewal - \$300k
- Scarfe Office Block elevator renewal - \$450k
- Chemistry Physics Building envelope sealing - \$1.10m

Some whole building renewal projects are also undertaken as part of the AEST-funded program to address a full range of deferred maintenance items, seismic upgrade requirements and facility modernization. These projects are larger in scope and fall above the \$5m Board-approval threshold. Given the necessity to plan and execute these projects in very tight timelines, it was previously agreed that they would be approved by the Board as part of the annual Operating Budget approval process. This agreement is documented in Policy 126 (Capital Projects, Capital Purchases & Internal Loans), section 5.6. Examples of these projects include:

- Old SUB renewal and swing space (UBC Life Building) - \$33m (2016/17, 2017/18). This project is complete.
- Hebb Tower renewal - \$34.40m (2017/18, 2018/19, 2019/20). This project is in construction and will be completed in late 2019. Hebb teaching spaces have moved to Old SUB for the duration of construction.
- Museum of Anthropology roofing, envelope and seismic upgrade - \$22m (2018/19, 2019/20, 2020/21). Design nearing completion. Construction to start in September 2019.
- MacLeod Building renewal and seismic upgrade - \$48m (2019/20, 2020/21, 2021/22). Design to commence in 2019/20.

An overview of the routine capital program is provided in the 2019/20 Operating Budget.

Significant current routine capital projects outside the AEST-funded program include:

- 1) Museum of Anthropology (MOA) Education Centre - \$4.56 million
  - Provides new theatre gallery for public education programming. Funded by Canadian Heritage, donor funding, MOA reserves and operating budget, and Faculty of Arts operating budget. The scope and budget of this project is currently being reviewed. There has been a partial donor commitment but it is not enough for the full project envisioned so a review of options is underway.
- 2) 3T MRI Imaging Lab (Centre for Brain Health) - \$3.24m
  - Provides the facility for a new 3T whole body MRI for research use. Funded through Canada Foundation for Innovation (CFI)/BC Knowledge Development Fund (BCKDF), Faculty of Medicine, Vancouver Coastal Health Research Institute and Central operating budget. Imaging equipment procurement is separate.
- 3) PET MRI Imaging Lab (Centre for Brain Health) - \$4.61m
  - Provides facility for new PET MRI for research use. Funded through CFI/BCKDF. Imaging equipment procurement is separate.
- 4) Wellington MRI Lab Addition at Centre for Comparative Medicine - \$3.21m
  - Magnetic resonance imaging (MRI) suite for innovative research on traumatic brain injury. Funded through CFI/BCKDF, vendor in-kind contribution, department funding and donor funding. Imaging equipment procurement is separate.

- 5) Faculty of Medicine Dean's Office, Djavad Mowafaghian Centre for Brain Health - \$3.30m
  - Provides office space that will house the Faculty of Medicine Dean's Office, bringing several staff groups together that are now housed separately and allowing for future growth.
- 6) Integrated Health Services Short Term Solutions - \$3.69m
  - Provides space to meet the demand for student health services between 2019 and 2022, after which the services will be housed in Brock Commons Phase 2. The scope includes the provision of a modular building adjacent to Brock Hall and the renovation of space in the lower level of Orchard Commons.
- 7) Geological Field School (Faculty of Science) - \$2.75m
  - Donor-funded project near Oliver, BC. Scope includes updating and expanding this historic facility including residences, dining facilities and a lecture hall.

### Infrastructure Impact Charge (IIC) Program

The IIC program includes utility, roads and public realm projects required to meet the needs of campus growth. Funding is provided through Infrastructure Impact Charges on neighbourhood and ancillary development projects. A separate information report on the IIC program is provided annually to the Board.

### Capital Priorities in Planning

Attachment 4 shows proposed major capital building projects currently in planning that have not yet been brought forward for Board approval. The UBC Executive undertakes an annual prioritization of major capital projects with assistance from the Capital Planning Working Group and input from campus stakeholders. This process generates an updated Five-Year Capital Plan that is submitted each year to the Provincial government. **The latest Five-Year Capital Plan (2020/21 – 2024/25) is being presented separately for approval at this Board of Governors meeting in preparation for submission to the Province in June 2019. The projects in Attachment 4 will be updated (for the September Board meeting) following this approval.**

Proposed capital projects are evaluated and prioritized using an assessment model that considers how each project contributes to the University's strategic objectives and operational performance & risk mitigation objectives. Consistent with *Shaping UBC's Next Century* the 2018-28 strategic plan, the prioritization criteria that were used in the 2018 round of capital planning are as follows **(Note that these criteria and weightings are under consideration for slight changes as part of the 2019 capital planning process. This will be presented as part of the Five-Year Capital Plan approval submission at the June Board meeting):**

#### 1) University Strategic Priorities

- Collaboration, Inclusion, Innovation – 20% weighting
- People & Places – 20%
- Research Excellence – 20%
- Transformative Learning – 20%
- Local & Global Engagement – 20%

#### 2) Operational Performance and Risk Mitigation

- Health & Safety (e.g. seismic risk) – 25%
- Performance & Reliability (e.g. deferred maintenance) – 25%
- Legal / Regulatory / Reputation – 25%
- Business Case – 25%

Initial prioritization is “needs-based” therefore funding potential is not a criterion. Political and funding realities are considered separately when decisions are made on projects to be included in the Five-Year Capital Plan or approved for internal funding allocation.

Input on the capital planning process and capital priorities is sought from the following groups:

- Committee of Deans
- Property & Planning Advisory Committee
- Senate Academic Building Needs Committee, UBC Okanagan Space Management Committee
- Vancouver Subcommittee of the Council of Senates Budget Committee
- UBC Okanagan Senate Building and Resource Committee
- Information Technology Advisory Committee
- Alma Mater Society, UBC Students’ Union Okanagan
- Graduate Student Society
- Alumni Association
- Building Operations and Energy & Water Services, UBC Okanagan Campus Operations
- UBC Properties Trust (for information)

### Seismic Mitigation Plan

The seismic resilience plan for the Vancouver campus has been updated. A seismic hazard assessment and screening-level building vulnerability assessments were completed by our consultant (Arup). The hazard assessment quantifies the seismic hazard facing the campus and reflects current knowledge of earthquake types, intensities, return periods and probabilities. These assessments led to a recommended list of priority buildings for which detailed structural engineering analysis using advanced 3D modelling coupled with physical testing was completed to determine specific structural vulnerabilities, retrofit strategies and costs. Arup additionally provided a set of operational recommendations to improve campus resilience in the event of an earthquake. The draft seismic resilience plan, incorporating the results of the detailed engineering analysis as well as updates on the completed operational and utility improvements, was presented to the Board in February 2019.

### Attachments

1. Capital Projects Update – Summary by Project Type and Board Approval Level
2. Major Capital Building Projects – Detailed Information
3. Information Technology (IT) Projects – Detailed Information
4. Capital Plan + Future Priorities
5. Capital Projects Completed since January 1, 2010

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### STRATEGIC CORE AREAS SUPPORTED

[a People and Places](#)    
 [a Research Excellence](#)    
 [a Transformative Learning](#)    
 [a Local / Global Engagement](#)

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**DESCRIPTION & RATIONALE** The Capital Projects Update provides summary information on major capital building projects (>\$5 million), routine capital renewals and renovations, Infrastructure Impact Charge (IIC) projects and Information Technology (IT) projects.

Details provided on major building projects include schedule, budget, costs to date, confirmed funding sources, outstanding unfunded amounts, and debt financing requirements for each project. Also included is an estimate of the impact that each project has toward reducing the University's deferred maintenance backlog, either due to demolition of old facilities to make way for new construction or as the result of major building renewal.

A separate section on Capital Priorities is included to show proposed projects currently in planning that have not yet been brought forward for Board 1 approval. These Capital Priorities have been determined through consultation with academic and operational stakeholders on both the Vancouver and Okanagan campuses. Final decisions on capital priorities are made by the UBC Executive and the Board.

Information on major building projects completed since 2010 is also provided.

**BENEFITS** On-going capital investment in physical infrastructure and information technology provides direct support and significant benefit to UBC's core strategy areas – People & Places, Research Excellence, Transformative Learning, Local & Global Engagement.

Learning, Research,  
Financial,  
Sustainability &  
Reputational

**RISKS** Capital projects are subject to cost, schedule and funding risks. These risks are managed through careful planning, on-going monitoring and use of contingency allowances in project budgets. UBC also has in place a Retained Risk Fund (RRF) for building projects >\$2.5 million. The RRF acts as an internal self-insurance fund to address unforeseen cost impacts that cannot otherwise be addressed through standard project contingencies. Each major capital project pays into the RRF and is eligible for support with approval from the Provost and Vice-President, Finance & Operations as per the terms of Policy #125 – Retained Risk Fund for Major Capital Projects.

Financial,  
Operational &  
Reputational

In addition, the project management teams at both UBC Properties Trust and Project Services (Infrastructure Development) have re-examined their risk and contingency practices in light of the rapidly escalating construction market as well as other current issues faced by project teams including increasing quantities of hazardous materials being discovered in building renewal or demolition projects. While every project has always created a risk register, an updated format with increased focus on quantifying the cost impact of risk has been added. In addition, higher, standardized contingencies have been set for projects moving forward.

Construction escalation has continued to pressure project budgets of all sizes. The Bioenergy Facility Expansion and UBCO Nechako and Skeena Residence projects all required budget increases due in part to these market influences. As has been noted in previous updates, escalation is still present in the both the Kelowna and Vancouver markets so estimates are still carrying a 6% cost escalation contingency.

**COSTS** Cost details on current projects are provided in the Attachments.  
Capital & Lifecycle  
Operating

**FINANCIAL** Funding and financing details on current projects are provided in the Attachments.  
Funding Sources,  
Impact on Liquidity

**SCHEDULE** Schedule details on current projects are provided in the Attachments.  
Implementation  
Timeline

**CONSULTATION** Major building projects at UBC are developed in consultation with campus stakeholders and are subject to Executive and Board approval processes as well as a review and approval process by Campus & Community Planning (C&CP) for issuance of a development permit (DP). The DP process involves review of the project schematic design by the Advisory Urban Design Panel (AUDP) and the Development Review Committee (DRC). A public open house is held for each DP application in order to engage with the campus community and solicit input on the proposed project.  
Relevant Units,  
Internal & External  
Constituencies

UBC Capital Priorities are developed in accordance with the University's established **Capital Planning Principles**, as follows:

- Academic Consultation** - Capital infrastructure needs and priorities are identified through on-going consultation with academic stakeholders including Deans, Provost's Office, Deputy Vice Chancellor Office (Okanagan campus), VP Students Office, VP Research Office and unit heads.
- Funding Allocation** - UBC capital funding (exclusive of government funding, self-funding projects such as student housing, and donor funding) should be allocated among infrastructure categories according to the following target ratio: 70% academic, 20% student experience, 10% campus community. This is the best current estimate of the allocation to support learning and research priorities, meet student needs and provide necessary community infrastructure. The allocation model is regularly reviewed. Allocation of UBC capital funding for recent, current and planned projects is as follows:

	Academic	Student Experience	Campus Community
<i>Target allocation</i>	70%	20%	10%
Projects completed since January 1, 2010	58%	17%	25%
Current projects in design or construction	80%	20%	0%
Five-Year Capital Plan projects	78%	16%	6%
Future priorities	78%	21%	1%
<b>Total of all projects above</b>	<b>70%</b>	<b>18%</b>	<b>12%</b>

- Operational Overlay** - Building Operations, Energy & Water Services and Risk Management Services are consulted to determine deferred maintenance, seismic and other operational priorities and opportunities for synergies.



4. **Fundraising and Financing Assessment** - The Development Office prepares donor fundraising assessments for specific projects and establishes fundraising goals with reasonable (though not guaranteed) probabilities of success based on known donor prospects. Treasury determines the available financing capacity for specific projects based on current and projected internal liquidity.
5. **Efficiency** - Stated infrastructure needs are assessed against accepted standards. The proposed Capital projects are those that provide the most effective and efficient use of land, building space and capital. Opportunities are sought to optimize and re-use existing infrastructure first before replacing or expanding. Academic priorities are synergized with infrastructure renewal/seismic priorities wherever possible.
6. **Flexibility** - Flexibility is allowed in the Capital Plan in order to respond to emerging priorities and funding opportunities. Funding opportunities and financing capacity are key factors in determining project timing.
7. **Integration** - The Capital Plan is developed through integration of academic needs, strategic priorities, infrastructure renewal and risk management requirements, target UBC funding allocation and alignment with government priorities. The Provost (Vancouver campus) and Deputy Vice Chancellor (Okanagan campus) make the final recommendations on capital priorities to be presented for Executive and Board approval.
8. **Approval** - Capital priorities are reviewed and approved by the Executive, and then the Board of Governors, at least once per year. Mandatory approval is required in advance of submission of the UBC Five-Year Capital Plan to the Province in June each year.
9. **On-going Review** - Minor adjustments to the capital priorities can take place throughout the year in response to emerging issues. The Board receives an up to date list of capital priorities at every Board meeting.

<b>Previous Report Date</b>	April 18, 2019
<b>Decision</b>	For Information
<b>Action / Follow Up</b>	

**Capital Projects Update - Summary by Project Type and Board Approval Level**

As of March 31, 2019

Dollar figures are all in \$000's

Project Type/ Approval Level	GBA (s.f.) <sup>1</sup>	Project Budget (\$000's)	Projected Final	Costs to Date	Confirmed Funding Sources								Unfunded	% Unfunded	Reduction to Deferred Maintenance <sup>2</sup>	Financing			
					Prov Gov	Fed Gov	UBCV Central	UBCO Central	Land Dvpt Costs or Taxes	Self-Funded	Faculty or Unit Funded	Fundraising				UBC Central Debt	Self-Funded Debt	Faculty / Unit Debt	Total Debt
<b>Infrastructure Projects</b>																			
<i>Major Capital Buildings</i>																			
Board 1 - In design	369,800	\$171,477	\$172,477	\$563	\$0	\$0	\$37,079	\$0	\$500	\$109,284	\$17,564	\$5,315	\$2,735	1.59%	\$0	\$37,079	\$113,490	\$15,064	\$165,633
Board 2 - In design	360,000	\$160,138	\$160,138	\$1,493	\$0	\$0	\$0	\$0	\$0	\$160,138	\$0	\$0	\$0	0.00%	\$0	\$0	\$160,138	\$0	\$160,138
Board 3 - In construction	778,411	\$312,197	\$312,197	\$182,875	\$26,259	\$40,128	\$49,844	\$1,957	\$17,329	\$161,615	\$12,168	\$2,559	\$339	0.11%	\$79,094	\$49,444	\$161,615	\$0	\$211,059
Complete - Board 4 pending	1,087,270	\$560,657	\$568,458	\$559,940	\$54,792	\$46,658	\$133,732	\$720	\$42,150	\$162,194	\$15,014	\$112,983	\$215	0.04%	\$2,827	\$53,600	\$225,865	\$41,432	\$320,897
<b>Major Capital Building Projects</b>	<b>2,595,481</b>	<b>\$1,204,469</b>	<b>\$1,213,271</b>	<b>\$744,871</b>	<b>\$81,051</b>	<b>\$86,786</b>	<b>\$220,654</b>	<b>\$2,677</b>	<b>\$59,979</b>	<b>\$593,231</b>	<b>\$44,746</b>	<b>\$120,857</b>	<b>\$3,290</b>	<b>0.27%</b>	<b>\$81,921</b>	<b>\$140,123</b>	<b>\$661,108</b>	<b>\$56,496</b>	<b>\$857,727</b>
<i>Routine Capital Projects</i>																			
Building Operations		\$108,319	\$105,775	\$70,413	\$81,239	\$0	\$27,080	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$108,319	\$0	\$0	\$0	\$0
Energy & Water Services		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NA	\$0	\$0	\$0	\$0	\$0
Faculties/Departments		\$97,097	\$104,660	\$59,103	\$14,846	\$15,604	\$0	\$0	\$0	\$0	\$66,648	\$0	\$0	\$0	\$97,097	\$0	\$0	\$0	\$0
Student Housing & Hospitality		\$20,482	\$22,135	\$22,135	\$0	\$0	\$0	\$0	\$0	\$0	\$22,135	\$0	\$1,654	\$0	\$20,482	\$0	\$0	\$0	\$0
Parking Services		\$2,149	\$1,824	\$1,110	\$0	\$0	\$0	\$0	\$0	\$2,149	\$0	\$0	\$0	\$0	\$2,149	\$0	\$0	\$0	\$0
Athletics		\$668	\$485	\$485	\$0	\$0	\$0	\$0	\$0	\$0	\$668	\$0	\$0	\$0	\$668	\$0	\$0	\$0	\$0
UBC Okanagan		\$19,523	\$19,483	\$13,708	\$1,347	\$1,505	\$0	\$9,943	\$0	\$0	\$5,688	\$1,000	-\$39	\$0	\$19,523	\$0	\$0	\$0	\$0
<b>Routine Capital Building Projects<sup>3</sup></b>		<b>\$248,237.88</b>	<b>\$254,363.34</b>	<b>\$166,954.85</b>	<b>\$97,432.56</b>	<b>\$17,108.76</b>	<b>\$27,079.79</b>	<b>\$9,943.22</b>	<b>\$0.00</b>	<b>\$2,149.46</b>	<b>\$95,138.53</b>	<b>\$1,000.00</b>	<b>\$1,614.44</b>	<b>\$0.01</b>	<b>\$248,237.88</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Infrastructure Impact Charge (IIC) Projects<sup>4</sup></b>		<b>\$10,606.00</b>	<b>\$57,136.00</b>	<b>\$8,443.21</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$57,136.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$57,136.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$57,136.00</b>
<b>Subtotal - Infrastructure Projects</b>		<b>\$1,463,313.26</b>	<b>\$1,524,769.96</b>	<b>\$920,269.35</b>	<b>\$178,483.46</b>	<b>\$103,894.51</b>	<b>\$247,733.93</b>	<b>\$12,620.22</b>	<b>\$117,115.00</b>	<b>\$595,380.36</b>	<b>\$139,884.38</b>	<b>\$121,857.40</b>	<b>\$4,904.12</b>	<b>\$0.00</b>	<b>\$330,158.88</b>	<b>\$197,259.00</b>	<b>\$661,107.90</b>	<b>\$56,496.00</b>	<b>\$914,862.90</b>
<b>Information Technology Projects</b>																			
Major IT Projects		\$380,260	\$378,591	\$64,823	\$0	\$0	\$376,991	\$0	\$0	\$0	\$1,600	\$0	-\$1,669	-0.44%	\$0	\$358,491	\$0	\$0	\$0
Routine IT Projects		\$40,885	\$39,595	\$28,315	\$2,688	\$0	\$19,363	\$1,089	\$0	\$150	\$14,271	\$0	\$2,610	6.38%	\$0	\$0	\$0	\$0	\$0
<b>Subtotal - IT Projects<sup>5</sup></b>		<b>\$421,145</b>	<b>\$418,186</b>	<b>\$93,138</b>	<b>\$2,688</b>	<b>\$0</b>	<b>\$396,354</b>	<b>\$1,089</b>	<b>\$0</b>	<b>\$150</b>	<b>\$15,871</b>	<b>\$0</b>	<b>\$941</b>	<b>0.23%</b>	<b>\$0</b>	<b>\$358,491</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Grand Total</b>	<b>\$ 2,595,481</b>	<b>\$1,884,459</b>	<b>\$1,942,956</b>	<b>\$1,013,407</b>	<b>\$181,171</b>	<b>\$103,895</b>	<b>\$644,088</b>	<b>\$13,709</b>	<b>\$117,115</b>	<b>\$595,530</b>	<b>\$155,755</b>	<b>\$121,857</b>	<b>\$5,845</b>	<b>0.30%</b>	<b>\$330,159</b>	<b>\$555,750</b>	<b>\$661,108</b>	<b>\$56,496</b>	<b>\$914,863</b>

1 - Gross building area is the total floor area including the unrentable area in square feet.

2 - Current total deferred maintenance for Vancouver campus is \$1.28 billion per AVED facility condition database for core academic buildings (not including student housing, athletics facilities and parkades).

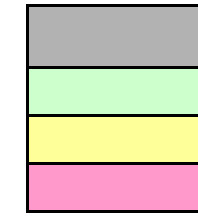
3 - Cyclical maintenance, rehabilitation, upgrade and renovation projects >\$50,000 and <=\$5 million underway or completed in current fiscal year. Includes projects funded by AVED, Building Operations, Energy & Water Services, Faculties/Departments, Student Housing & Hospitality Services (SHHS), Athletics and Parking.

4 - IIC funded utility, roads and public realm projects underway or completed in current fiscal year. A separate report on the overall IIC Plan is also provided annually to the Board.

5 - IT projects, major (>\$5 million) and routine (>\$50,000 and <=\$5 million), currently in planning/design or completed in the fiscal year.

Major Capital Building Projects - Detailed Information

As of March 31, 2019  
Dollar figures are all in \$000's



Grey = Complete, Board 4 Pending  
Green = Board 3  
Yellow = Board 2  
Pink = Board 1

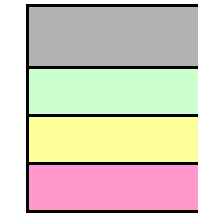
Attachment 2

Dollar figures are all in \$000's

Project Name	Schedule				Gross Building Area (SF) Final Approved	Capital Cost			Current Status/ Issues + Variances	Funding								Reduction to Deferred Maintenance	Financing				Funding/Financing Comments			
	Target Compl. at Board 3	Target Completion Final Approved <sup>1</sup>	% Compl.	Actual Completion (Occupancy)		Budget Final Approved	Projected Final Cost	Costs to Date		Confirmed Funding Sources									Unfunded	% Unfunded	UBC Central Debt	Self-Funded		Faculty/ Unit Debt	Total Debt	
										Prov Gov	Fed Gov	UBCV Central	UBCO Central	Land Dvpt Cost or Taxes	Self-Funded	Faculty or Unit Funded	Fundraising									
<b>UBC-Vancouver</b>																										
Djavad Mowafaghian Centre for Brain Health	OCT-13	OCT-13	100%	NOV-13	152,558	\$69,757	\$71,801	\$69,188	Completed and occupied. Basement fit-out underway for Preclinical Discovery Centre (PDC). Additional PDC cost covered by internal sources.	\$24,565	\$19,716	\$1,348			\$900	\$25,271	\$0	0.00%					\$0			Included in the Faculty fundraising amount is approx \$3.4M investment income earned from provincial and federal funding received.
Robert H Lee Alumni Centre	APR-15	APR-15	100%	APR-15	41,700	\$19,515	\$19,515	\$19,145	Completed and occupied.			\$1,272				\$18,243	\$0	0.00%		\$1,000		\$11,117	\$12,117		Any additional cost will be filled from Alumni fundraising if needed.	
Student Union Building	SEP-14	NOV-14 to JUN-15	100%	MAY-15	253,750	\$106,760	\$107,746	\$107,746	Completed and occupied.			\$25,000			\$82,621	\$125	\$0	0.00%		\$25,000	\$65,957		\$90,957		Debt financing will be required for the project. AMS Loan will be funded by future AMS student levy, and \$25.0M will be funded from future UBC operating budget.	
Baseball Training Facility	DEC-15	DEC-15	100%	SEP-15	20,000	\$3,500	\$3,885	\$3,885	Completed and occupied. Costs include \$416K in client-requested scope additions which have been recovered from client.						\$269	\$3,616	\$0	0.00%					\$0		Project has gone over the budget due to client-requested scope additions. Unfunded amount amount to be covered by Athletics.	
Iona Building Acquisition- Vancouver School of Economics	DEC-15	DEC-15	100%	DEC-15	99,663	\$33,500	\$34,000	\$33,995	Completed and occupied. Arts funded \$500k for additional 100-seat lecture theatre.			\$15,000			\$2,300	\$5,600	\$11,100	\$0	0.00%		\$15,000		\$18,500	\$33,500	Arts added \$0.5M for 100 seat lecture theatre.	
UBC Vancouver District Energy System	DEC-15 Old Steam Plant Demo DEC-16	DEC-15 Old Steam Plant Demo DEC-16	97%	JUN-16 Old Steam Plant Demo TBD	N/A	\$88,300	\$88,300	\$85,587	System completed and in-use. Allowance remaining for demolition of old Powerhouse.	\$6,955		\$71,345		\$10,000			\$0	0.00%			\$71,345		\$71,345		Received 6.95M from AVED. Max of \$78.3M internal financing to be repaid from Energy & Water Services budget using cost savings generated by the project.	
Aquatic Centre	MAR-16	NOV-16	100%	DEC-16	74,448	\$39,900	\$39,900	\$39,910	Complete and occupied.					\$28,500		\$11,410	-\$10	-0.03%			\$11,290		\$11,290		Unfunded amount to be filled from fundraising or Athletics operating budget. Internal loan of 6.29M has already been set up.	
Henry Angus Tower - Seismic Upgrades	SEP-16	SEP-16	96%	JAN-17		\$4,162	\$4,592	\$4,430	Completed and occupied. Additional costs related to utility system damage to be recovered from contractor insurance.			\$4,592					\$0	0.00%					\$0			
Quantum Matter Institute / Advanced Materials & Process Engineering Laboratory	AUG-16	OCT-16	100%	APR-17	51,667	\$30,269	\$32,156	\$32,015	AMPEL renovation complete		\$3,345	\$13,475			\$7,336	\$8,000	\$0	0.00%		\$12,600		\$3,323	\$15,923			
National Soccer Development Centre - Field House Training Facility & Practice Fields (Vancouver Whitecaps - UBC Athletics Partnership)	Fields JUN-15 Fieldhouse DEC-16	Fields OCT-15 Fieldhouse DEC-16	100%	JUN-17	37,980	\$27,244	\$27,244	\$26,321	Completed and occupied. UBCPT cost to date doesn't include the Doug Mitchell change room reno cost (\$1,042,024) which was part of approved budget.	\$11,006		\$1,400		\$3,650		\$11,188	\$0	0.00%					\$0		UBCPT contributing total of 3.3M (825K for Core project + 2.475M for relocation cost to consolidate uses within Thunderbird Park) to the project.	
Museum of Anthropology - Northwest Coast Masterworks Gallery	MAR-17	MAR-17	91%	JUN-17	2,700	\$4,100	\$4,100	\$3,715	Completed and occupied. Some remaining deficiency work to address.		\$1,500					\$2,600	\$0	0.00%	\$0				\$0			
Indian Residential School History & Dialogue Centre	JUL-17	JUL-17	100%	JUN-17	6,523	\$5,500	\$5,800	\$5,451	Completed and occupied. AV exhibit is on-going and is being completed by client. The value of AV is approx. 1.3M. The additional \$300K is a funded increase.			\$300				\$5,500	\$0	0.00%	\$0				\$0		Undesignated donor funding has been allocated to cover the full project cost.	
Brock Commons Phase 1 - Tall Wood Student Residence	SEP-17	SEP-17	100%	JUL-17	162,750	\$51,525	\$51,525	\$50,828	Completed and occupied. Project anticipated to be under budget	\$1,650	\$2,802				\$47,073		\$0	0.00%	\$0		\$47,073		\$47,073		\$47.1M internal loan to be repaid with future rental revenue.	
Totem Park Residence In-Fill (Phase 2)	AUG-17	AUG-17	98%	JUL-17	99,951	\$30,200	\$30,200	\$30,200	Completed and occupied. Sports Court costs (\$1.3m) funded by SHHS as an extra/scope add to the project.						\$30,200		\$0	0.00%	\$0		\$30,200		\$30,200		\$30.2M internal loan to be repaid with future rental revenue.	
Sports Medicine Centre - Chan Gunn Pavilion	SEP-17	SEP-17	100%	OCT-17	21,173	\$11,425	\$11,640	\$11,625	Final occupancy received. \$215K overage projected that is to be covered by Sports Medicine & Kinesiology.		\$4,731				\$909	\$5,936	\$64	0.55%	\$2,827			\$716	\$716		Funding shortage due to share donation realized at lower than original expected amount.	
IIC Public Realm Projects	To be completed in phases over a 15 year period.	To be completed in phases over a 15 year period.			N/A	Please refer to IIC Plan	Please refer to IIC Plan	Please refer to IIC Plan	Please refer to IIC Plan										Please refer to IIC Plan	Please refer to IIC Plan			\$0		Public Realm projects are funded by Infrastructure Impact Charges.	
Geological Field School		TBC	14%		10,824	\$2,400	\$2,400	\$331	Funding commitment received by Donor (Oct 2018) Project remobilising. Detailed design underway and DP application anticipated in January 2019.						\$2,061	\$339	14.13%					\$0		Unfunded amount is expected to be filled from fundraising.		
Undergraduate Life Sciences Teaching Labs Renew		JAN-19	81%		176,625	\$88,000	\$88,000	\$73,683	Construction underway. \$8m budget revision was approved to address construction market conditions and site conditions. Delays due to weather and hazardous materials discovered during demolition. Occupancy is scheduled for Mar-July 2019.	\$11,838	\$32,528	\$43,635				\$0	0.00%	\$39,547	\$43,235			\$43,235		43.2M loan will be paid from Central operating budget.		
UBC Exchange (New Bus Transit Terminal)		AUG-19	95%		N/A	\$21,750	\$21,750	\$20,225	Project ahead of schedule - target is end of May. Still on budget	\$9,421			\$12,329			\$0	0.00%	\$0					\$0		TransLink to provide up to \$8.84 M plus an allowance for cost escalation.	
Exchange Residence (at Gage South)		AUG-19	95%		290,000	\$76,973	\$76,973	\$69,345	Project ahead of schedule - target is end of May. Still on budget						\$76,973		\$0	0.00%	\$0		\$76,973		\$76,973		Project currently proposed to be financed through an internal loan.	
MacInnes Field Underground Parkade	DEC-18	SEP-20	79%		64,966	\$12,435	\$12,435	\$9,776	UBC has implemented a change to the exterior finish of the canopy structure above the parking lot from painted to galvanized and painted. Budget and schedule impacts are currently being reviewed.					\$12,435		\$0	0.00%			\$12,435		\$12,435				
Graduate Research Commons/Koerner Library Interrelated Projects		JAN-19	65%		19,041	\$6,707	\$6,707	\$3,513	Four out of five project phases are complete. Final phase scheduled for completion in June 2019.			\$6,209			\$498	\$0	0.00%	\$39,547	\$6,209			\$6,209		6,209 internal loan services from central operating budget with 398 from donor funding and 100 from Copyright Services		
Bioenergy Facility Expansion Project		SEP-20	4%			\$20,361	\$20,361	\$714		\$5,000	\$7,600		\$5,000	\$2,761		\$0	0.00%			\$2,761		\$2,761		\$2.761M loan will be paid by Energy & Water Services from savings achieved compared to a business as usual (BAU) situation. Short-term bridge financing may be required to address multi-year timing of IIC and CNCP Funding.		
Arts Student Centre		MAR-21	3%		9,800	\$8,315	\$9,315	\$248	AUDP presentation on May 2, 2019. Board 2 on target for June 2019. Targeting Sep 2019 for Board 3. Increased project budget to be funded by AUS and Faculty of Arts.					\$500	\$2,500	\$5,315	\$1,000	10.74%			\$4,206		\$4,206		AMS will take out a loan and repaid using future student fees collect.	
Douglas T. Kenny Building 4th Floor Renovation		DEC-19	6%		15,650	\$7,640	\$7,640	\$600	Project now has Board 3 approval						\$7,640		\$0	0.00%					\$0		Faculty of Arts & Dept of Psychology will fund this project from reserves.	
Pacific Residence		JUL-21	1%		360,000	\$160,138	\$160,138	\$1,493	Project now has AUDP and Board 2 approval. Escalation on both the parkade and residence portions have resulted in overall budget increase of \$7 million from B1. Late massing changes have put additional pressure on the schedule - sequenced delivery (before and after July 2021) will be necessary.					\$160,138		\$0	0.00%			\$160,138		\$160,138		\$160,138		153.1M loan will be repaid with future rental revenue.
Brock Commons Phase 2 Mixed-Use Housing Development		Sep-22	0%		360,000	\$163,162	\$163,162	\$315	Project anticipating Pre-App to AUDP in June. Project massing has undergone major changes in response to C+CP feedback and commentary from AUDP workshop. Academic program continues to evolve.			\$37,079			\$109,284	\$15,064	\$1,735	1.06%		\$37,079	\$109,284	\$15,064	\$161,427		Discussions are underway with Peter A. Allard School of Law to confirm its funding for the legal clinic space.	
<b>SUBTOTAL (UBC-V)</b>					<b>2,331,769</b>	<b>\$1,093,538</b>	<b>\$1,101,284</b>	<b>\$704,284</b>		<b>\$70,435</b>	<b>\$72,222</b>	<b>\$220,654</b>	<b>\$0</b>	<b>\$59,979</b>	<b>\$523,785</b>	<b>\$40,218</b>	<b>\$110,863</b>	<b>\$3,128</b>	<b>0.28%</b>	<b>\$81,921</b>	<b>\$140,123</b>	<b>\$591,662</b>	<b>\$48,720</b>	<b>\$780,505</b>		
<b>UBC-Okanagan</b>																										
Teaching & Learning Centre (The Commons)		APR-18	100%	DEC-18	62,407	\$35,000	\$6,055	\$35,899	Final occupancy achieved (Dec 21, 2018). Resolving minor deficiencies	\$10,616	\$14,564	\$720				\$9,994	\$161	0.45%			\$7,776		\$7,776		Unfunded amount due to cost overrun and most likely will be cover by Student Levy.	

Major Capital Building Projects - Detailed Information

As of March 31, 2019  
Dollar figures are all in \$000's



Grey = Complete, Board 4 Pending  
Green = Board 3  
Yellow = Board 2  
Pink = Board 1

Dollar figures are all in \$000's

Project Name	Schedule				Gross Building Area (SF) Final Approved	Capital Cost			Current Status/ Issues + Variances	Confirmed Funding Sources							Reduction to Deferred Maintenance	Financing				Funding/Financing Comments						
	Target Compl. at Board 3	Target Completion Final Approved <sup>1</sup>	% Compl.	Actual Completion (Occupancy)		Budget Final Approved	Projected Final Cost	Costs to Date		Confirmed Funding Sources								UBC Central Debt	Self-Funded	Faculty/ Unit Debt	Total Debt							
										Prov Gov	Fed Gov	UBCV Central	UBCO Central	Land Dvpt Cost or Taxes	Self-Funded	Faculty or Unit Funded							Fundraising	Unfunded	% Unfunded			
Nechako Residence		JAN-21	6%		128,654	\$50,950	50,950	\$2,935	Board 3 completed. Tender on budget. Construction starting.				\$1,957		\$46,634	\$2,359		\$0	0.00%			\$46,634		\$46,634	Loan will be paid from future student housing rental and meal plan revenue.			
Skeena Residence		AUG-20	7%		72,651	\$24,981	24,981	\$1,753	Board 3 completed. Tender on budget. Construction starting.						\$22,812	\$2,169		\$0	0.00%			\$22,812		\$22,812	Capital cost to be internally financed with debt service paid from systemwide student housing rental and meal plan revenue.			
<b>SUBTOTAL (UBC-O)</b>					263,712	110,931	111,986	40,587					\$2,677	\$0	\$69,446	\$4,528	\$9,994	\$161	0.14%	\$0	\$0	\$69,446	\$7,776	\$77,222				
<b>GRAND TOTAL</b>					2,595,481	\$1,204,469	\$1,213,271	\$744,871					\$81,051	\$86,786	\$220,654	\$2,677	\$59,979	\$593,231	\$44,746	\$120,857	\$3,290	0.27%	\$81,921	\$140,123	\$661,108	\$56,496	\$857,727	



Current 2018/19 priorities identified through budget development process and stakeholder consultation. The capital priorities list is regularly updated to reflect latest approvals and any budget, funding and schedule changes.

Rank	PROPOSED TOP 15 PROJECTS (FOR UBC AND/OR PROVINCIAL FUNDING)	Faculty / Dept	Capital Cost (\$000s)
1	School of Biomedical Engineering	Applied Science/Medicine	\$70,000
2	Chemistry Lab Complex	Science	\$196,000
3	Gateway Project (Community Health Sciences + Recreation Facility + War Memorial Gym Renewal)	Kinesiology/ Nursing/A&R	\$210,000
4	Math Building + Klinck Building	Science	\$106,000
5	UBC Life Building (Phase 2) / Integrated Student Health Centre	VP Students	\$23,000
6	Seismic Upgrade Projects	Central Administration	\$500,000
7	Innovation Hub (integrated with student housing at Copp site)	VP Research	\$45,000
8	Learning Exchange	VP External	\$5,000
9	Robson Square / Downtown Presence	VP External	\$20,000
10	Policy School	Arts	\$30,000
11	Student Services + Academic Uses at Brock Commons Phase 2	VP Students/Provost/Arts	\$37,200
12	SALA Building + Lasserre Upgrade	Applied Science	\$50,000
13	UBC Farm Centre	Land + Food Systems	\$33,000
14	UBC Okanagan Digital Learning Factory	UBCO/Applied Science	\$105,000
15	Asian Centre	Arts/Library	\$30,000
	<b>Total Top 15</b>		<b>\$1,460,200</b>

Five-Year Capital Plan projects for 2018/19 shown in red.

**FUTURE PRIORITIES**

Future priority projects are listed in alphabetical order, except housing projects which are listed in order of target completion date.

Projects noted as "New" have been recently identified through 2018/19 budget process and specific planning sessions with Faculties/Departments.

Future Academic Projects	Faculty /Dept	Preliminary Capital Cost (\$000s)
Belkin Expansion	Arts	\$8,000
New Biodiversity Expansion	Science	TBD
Centre for Interactive Research on Children's Learning Environments (CIRCLE)	Medicine/Applied Science	\$10,000
New Computer Science Expansion	Science	\$40,000
Forestry Expansion	Forestry	\$30,000
Geography Building	Arts	\$50,000
JB MacDonald Building Expansion (Dentistry)	Dentistry	\$65,000
New Medicine One	Medicine	TBD
Music Renewal + Expansion	Arts	\$50,000
Sauder Graduate School Expansion	Sauder	\$65,000
UBCO Industrial Scale Engineering Lab	Applied Science	\$10,000
<b>Total Future Academic Projects</b>		<b>\$328,000</b>

Seismic Plan Projects (includes high risk buildings not addressed elsewhere in the Capital Plan + Future Priorities)	Faculty /Dept	Preliminary Capital Cost (\$000s) <sup>1</sup>
New Anthropology & Sociology Building	Arts	TBD
New Bookstore	VP Students	TBD
New Cecil Green Park House	Central Administration	TBD
New Civil & Mechanical Engineering (CEME) Building	Applied Science	TBD
Douglas Kenny Building (Psychology)	Arts	TBD
Frank Forward Building	Applied Science	TBD
H.R. MacMillan Building Renewal	Land + Food Systems	TBD
New Jack Bell Building (Social Work)	Arts	TBD
Lower Mall Research Station (LMRS)	Science/ApSci/Kin	TBD
MacLeod Building	Applied Science	TBD
Medical Block C	Science/Medicine	TBD
MOA Great Hall	Arts	TBD
Old Administration	Central Administration	TBD
Robert Osborne Centre - Units 1 & 2	Kinesiology	TBD
Woodward Library	Library	TBD
1 - Total cost is a placeholder. Individual project costs TBD based on detailed seismic analysis currently underway.		
<b>Total Seismic Plan Projects</b>		<b>\$500,000</b>

Student Housing Projects (ordered by target delivery date)	Faculty /Dept	Preliminary Capital Cost (\$000s)
Student Housing at Copp Site (with Innovation Hub) (500 beds, 2022)	SHHS/VPRI	\$76,000
Armoury Commons (1,000 beds, 2023)	SHHS/Arts	\$120,000
Totem Park East / Totem Field (700 beds, 2024/25)	SHHS	\$119,000
Orchard Commons In-Fill (200 beds, TBD)	SHHS	\$30,000
New St. John's College Graduate Residence Expansion (100-150 beds) + Conference Centre (TBD)	St. John's College/SHHS	TBD
<b>Total Housing &amp; Faculty/Staff Rental Housing Projects</b>		<b>\$345,000</b>

Athletics & Recreation Projects	Faculty /Dept	Preliminary Capital Cost (\$000s)
Baseball Stadium	Athletics & Recreation	\$5,000
Thunderbird Stadium Redevelopment	Athletics & Recreation	\$35,000
UBCO Gymnasium Expansion	UBCO Athletics	\$30,000
<b>Total Athletics &amp; Recreation Projects</b>		<b>\$70,000</b>

Central Administration + Campus Operations Projects	Faculty /Dept	Preliminary Capital Cost (\$000s)
New Administration Consolidation / Repatriation of TEF Buildings for Research	Finance/HR/External Relations	TBD
New Water Pump Station Replacement (Seismic Resilience Project)	Energy & Water Services	\$15,000
New Diesel Fuel Storage Facility (Seismic Resilience Project)	Energy & Water Services	\$5,000
Cogeneration Plant	Energy & Water Services	\$56,000
<b>Total Campus Operations Projects</b>		<b>\$76,000</b>

<b>Total Future Priorities</b>		<b>\$1,319,000</b>
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<b>Total Top 15 + Future Priorities</b>		<b>\$2,779,200</b>
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