



<b>SUBJECT</b>	<b>CAPITAL PLANNING &amp; PRIORITIZATION PROCESS</b>
<b>REPORT TO</b>	PROPERTY COMMITTEE
<b>MEETING DATE</b>	FEBRUARY 14, 2020
<b>MATTER TYPE</b>	BOARD DISCUSSION <b>NOT</b> REQUIRED
<b>ACTION REQUESTED</b>	FOR INFORMATION
<b>REPORT DATE</b>	January 15, 2020
<b>EXECUTIVE PROPONENT</b>	Peter Smailes, Vice-President Finance & Operations
<b>PRESENTED BY</b>	John Metras, Associate Vice-President Facilities
<b>SUPPORTED BY</b>	Andrew Szeri, Provost and Vice-President Academic, UBC Vancouver Deborah Buszard, Deputy Vice-Chancellor & Principal, UBC Okanagan Ananya Mukherjee Reed, Provost and Vice-President Academic, UBC Okanagan Robin Ciceri, Vice-President External Relations Pam Ratner, Vice-Provost and Associate Vice-President Enrolment & Academic Facilities Michael White, Associate Vice-President Campus & Community Planning Jennifer Sanguinetti, Managing Director, Infrastructure Development Yale Loh, Treasurer

## PRIOR SUBMISSIONS

The subject matter of this Report has been considered previously by the Property Committee on the following occasions:

1. [June 5, 2019](#) – UBC Five Year Capital Plan - 2020-2021 to 2024-2025

The following executive summary assumes familiarity with the prior submissions and provides an overview of the capital planning and prioritization process.

## EXECUTIVE SUMMARY

The UBC Executive undertakes an annual prioritization of major capital facilities projects with assistance from the Capital Planning Working Group and input from campus stakeholders. This process, which follows the UBC Capital Planning Principles set out in Supplemental Materials 1, generates an updated Five-Year Capital Plan that, with Board of Governors approval, is submitted each year to the Provincial government. The latest Five-Year Capital Plan (2020-2021 – 2024-2025) was approved by the Board of Governors in June 2019. Supplemental Materials 2 shows the projects in the latest UBC Five-Year Capital Plan.

Proposed major capital facilities projects (>\$5 million) are evaluated and prioritized annually 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 2018-2028 strategic plan (<https://strategicplan.ubc.ca/>), the prioritization criteria used in the 2019 round of capital planning are as follows:

## 1) University Strategic Priorities (100%)

- People & Places – 15% (*changed from 25% in 2018*)
- Research Excellence – 35% (*changed from 25% in 2018*)
- Transformative Learning – 35% (*changed from 25% in 2018*)
- Local & Global Engagement – 15% (*changed from 25% in 2018*)

## 2) Operational Performance and Risk Mitigation (100%)

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

The criteria weightings under the Strategic Priorities areas were changed in 2019, reflecting feedback from the UBC community through the course of consultation. Greater weighting has been assigned to research excellence and transformative learning. These changes were presented as part of the Five-Year Capital Plan approval submission at the June 2019 Board meeting. **Proposed changes for 2020 include an additional criterion for the degree to which a project supports Academic Renewal under the University Strategic Priorities dimension.**

Individual capital projects are evaluated against the prioritization criteria using a scoring key that is directly aligned with the UBC Strategic Plan. The scoring key, shown in Supplemental Materials 3, is used to assess how well each project contributes to meeting the specific strategies within the core areas of the Strategic Plan and addressing key operational performance and risk issues.

Each project receives a strategic score and an operational score (Supplemental Materials 4) which are plotted on two axes of a prioritization matrix (Supplemental Materials 5). The matrix provides a visual representation of relative project position after this initial prioritization. The project scoring is undertaken by the Capital Planning Working Group (Attachment 6). It is important to note that the prioritization scoring model is “needs-based” and therefore funding potential is not a criterion.

The prioritization scoring and matrix are used as an advisory tool by the UBC Executive, who make the final selection of projects for inclusion in the proposed Five-Year Capital Plan factoring in additional considerations for each project such as: alignment with government priorities, funding potential, current state of project planning, campus stakeholder input, project impact on global rankings, and expected impact/return per dollar invested.

Prior to the final Executive decision, input on the capital planning process and capital priorities is sought from the following campus stakeholder 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**

Seismic risk considerations are factored into the capital prioritization process through the Operational Performance & Risk Mitigation criteria. While some projects selected for the Five-Year Capital Plan address seismic risk, the University is treating the Seismic Resilience Plan separately from the Five-Year Plan.

The seismic resilience plan for the Vancouver campus was updated in 2019. 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, were presented to the Board in February 2019. A notional plan and timeline for priority seismic upgrades is provided in Supplemental Materials 7. Arup is currently developing a set of seismic design standards for use in new building projects and major renovations moving forward.

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## **SUPPLEMENTAL MATERIALS**

1. UBC Capital Planning Principles
2. Five-Year Capital Plan Projects (2020-2021 – 2024-2025)
3. Capital Prioritization Evaluation Criteria & Scoring Key
4. Capital Prioritization Model
5. Capital Prioritization Matrix
6. Capital Planning Working Group
7. Seismic Resilience Plan – Notional Timeline

## Supplemental Material 1 – UBC Capital Planning Principles

UBC capital priorities are developed in accordance with the following Capital Planning Principles, which were adopted by the Board of Governors in 2014:

1. **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.
2. **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%	18%	24%
Current projects in design or construction	73%	26%	1%
Five-Year Capital Plan projects	94%	6%	0%
Future priorities	82%	15%	3%
<b>Total of all projects above</b>	<b>80%</b>	<b>15%</b>	<b>5%</b>

3. **Operational Overlay** - Building Operations, Energy & Water Services and Safety & Risk 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.

## Supplemental Material 2 – Five-Year Capital Plan Projects (2020/21 – 2024/25)

UBC Campus	Project	Delivery <sup>1</sup>	Cost in \$Ms <sup>2</sup>	Funding	Request to AEST in \$Ms	Reduced Deferred Maintenance in \$Ms
Vancouver	School of Biomedical Engineering Building	Sep-23	\$138	Government \$38M UBC \$100M	\$38	NA
Vancouver	Nursing & Kinesiology Building	Sep-24	\$190	Government \$67M UBC \$123M	\$67	\$46
Vancouver	Chemistry Laboratory Complex	Sep-24	\$224	Government \$112M UBC \$112M	\$112	\$39
Okanagan	Interdisciplinary Collaboration & Innovation Building	Sep-24	\$130	Government \$90M UBC \$40M	\$90	NA
Vancouver	Mathematics Building	Sep-24	\$118	Government \$59M UBC \$59M	\$59	\$38
	<b>Total</b>		<b>\$800</b>		<b>\$366</b>	<b>\$123</b>

1 – These target completion dates assume project funding approval by March 31, 2020.

2 – Project capital costs reflect latest estimates as of January 2020.

### Supplemental Materials 3 – Capital Prioritization Evaluation Criteria & Scoring Key

#### A: University Strategic Plan – What is the relative importance & return on investment provided in these areas?

##### People & Places (Core Area & Strategies)

Contribution to creating vibrant, sustainable environments that enhance wellbeing and excellence for people in their places at UBC and beyond. Examples: AMS Nest, Orchard Commons, UBCO Fitness & Wellness Centre.

People & Places Criteria	Score
1) Great People - Will attract, engage and retain a diverse global community of outstanding students, faculty and staff.	0 - None is true 2 - One is true
2) Inspiring Spaces - Creates welcoming physical and virtual spaces to advance collaboration, innovation and community development.	4 - Two are true 6 - Three are true
3) Thriving Communities - Supports the on-going development of sustainable, healthy and connected campuses and communities, consistent with the 20-Year Sustainability Strategy and the developing Wellbeing Strategy.	8 - Four are true 10 - All are true
4) Inclusive Excellence - Cultivates an institutional and individual capacity for inclusive discourse.	
5) Systems Renewal - Transforms University-level systems and processes to facilitate collaboration, innovation and agility.	

##### Research Excellence (Core Area & Strategies)

Contribution to creating and mobilizing knowledge for meaningful impact. Examples: Centre for Drug Research & Development, Djavad Mowafaghian Centre for Brain Health, Sequencing & Bioinformatics Consortium.

Research Excellence Criteria	Score
1) Collaborative Clusters - Enables interdisciplinary clusters of research excellence in pursuit of societal impact.	0 - None is true 2 - One is true
2) Research Support - Strengthens shared infrastructure and resources to support research excellence.	4 - Two are true 6 - Three are true
3) Student Research - Broadens student access to, and enhances, student research experiences.	8 - Four are true 10 - All are true
4) Knowledge Exchange - Improves ecosystem that supports translation of research into action.	
5) Research Culture - Fosters a strong and diverse research culture that embraces the highest standards of integrity, collegiality and service.	

##### Transformative Learning (Core Area & Strategies)

Contribution to enabling learning through evidence-based teaching, mentorship and enriched experiences. Examples: Arts One, Faculty of Education flip classrooms in Ponderosa Commons, Learning Exchange.

Transformative Learning Criteria	Score
1) Education Renewal – Facilitates sustained program renewal and improvements in teaching effectiveness.	0 - None is true 2 - One is true
2) Program Redesign - Reframes undergraduate academic program design in terms of learning outcomes and competencies.	4 - Two are true 6 - Three are true
3) Practical Learning - Expand experiential, work-integrated and extended learning opportunities for students, faculty, staff and alumni.	8 - Four are true 10 - All are true
4) Interdisciplinary Education - Facilitates the development of interdisciplinary, problem-focused learning.	
5) Student Experience - Strengthens undergraduate and graduate student communities and experience.	

### Local & Global Engagement (Core Area & Strategies)

Contribution to engaging ethically to advance a stronger and more equitable society, learn about the world and empower people to be good stewards and change makers. Examples: Alumni Centre, Go Global, Public Scholars Initiative.

Community Engagement Criteria	Score
1) Public Relevance - Deepens the relevance, impact and public appreciation of UBC research and education.	0 - None is true 2 - One is true
2) Indigenous Engagement - Supports the objectives and actions of the 2018 Indigenous Strategic Plan, currently under development.	4 - Two are true 6 - Three are true
3) Alumni Engagement - Reaches, inspires and engages alumni through lifelong enrichment, consistent with the alumni UBC strategic plan, Connecting Forward.	8 - Four are true 10 - All are true
4) Global Networks - Builds and sustains strategic global networks, notably around the Pacific Rim, that enhance impact.	
5) Coordinated Engagement - Co-creates with communities the principles and effective practices of engagement, and establishes supporting infrastructure.	

### Academic Renewal (POTENTIAL NEW CRITERIA FOR 2020)

Contribution to accommodating recruitment of new research faculty to meet Academic Renewal allocation targets. Examples: Gateway Building.

Academic Renewal Criteria	Score
1) New Research Faculty Offices and Labs - Will provide office and lab space for new research faculty hired to meet Academic Renewal allocation targets.	0 - None is true 2 - One is true
2) Grad Student, Post-Doc and Admin Space - Will provide space for graduate students, post-doctoral fellows and administrative staff associated with new Academic Renewal faculty.	4 - Two are true 6 - Three are true
3) Shared Research Infrastructure - Will provide facilities for shared research infrastructure and services (e.g. imaging equipment, computing, animal care) to support Academic Renewal.	8 - Four are true 10 - All are true
4) Interdisciplinary Space – Will allow expansion of new research faculty in multiple disciplines across multiple Faculties to enhance both interdisciplinary research and space use efficiency.	
5) Additional Support Facilities – Will provide space for child care and other services necessary to support new faculty.	

### B: Operational Performance and Risk Mitigation – What is the relative importance & return on investment provided in these areas?

#### Health & Safety

Contribution to mitigating health and safety risks to UBC students, faculty, staff and community members. Examples: seismic upgrades to campus buildings, exterior lighting improvements, Blue Phone installation.

Health & Safety Criteria	Score
1) Improves seismic safety and resilience	0 - None is true
2) Improves workplace health & safety for faculty, staff and student workers	3 - One is true
3) Improves personal health & safety for students, faculty, staff, community and visitors	6 - Two are true 10 - All are true

#### Performance & Reliability

Contribution to improving reducing deferred maintenance or replacing aging systems to improve facility condition and system performance and reliability. Examples: building system renewals, major software system upgrades or replacements, energy retrofits.

Performance & Reliability Criteria	Score
1) Significantly improves condition and performance of facility or system	0 - None is true

2) Prevents major disruption including loss of function, power or data	3 - One is true
3) Improves sustainability and/or resiliency performance	6 - Two are true
4) Improves accessibility for individuals with disabilities	8 - Three are true
	10 - All are true

**Legal/Regulatory/Reputation**

Contribution to meeting legislated requirements or addressing issues that may have an impact on University reputation. Examples: software upgrades to address personal information security, infrastructure upgrades to meet building code requirements or sustainability performance targets, accessibility upgrades to improve campus access for individuals with disabilities.

Legal / Regulatory / Reputation Criteria	Score
1) Will the University be adversely affected if the project is <u>not</u> undertaken?	0 – No adverse effect 3 – Minimal adverse effect 6 – Some adverse effect 10 – Major adverse effect (i.e. legal/regulatory compliance)

**Business Case**

Contribution to increasing revenue opportunities, reducing operating costs and/or improving services and operations. Examples: infrastructure required to expand international student enrolment, energy retrofits to reduce utility costs.

Business Case Criteria	Score
1) Generates financial payback through net new revenue or cost savings	0 - None is true
2) Affects core or foundational programs or services or strategic initiatives	3 - One is true
3) Other programs or services depend on it	6 - Two are true
4) Will contribute to administrative or operational excellence	8 - Three are true
	10 - All are true

**C: Other Factors (considered separately by the UBC Executive)**

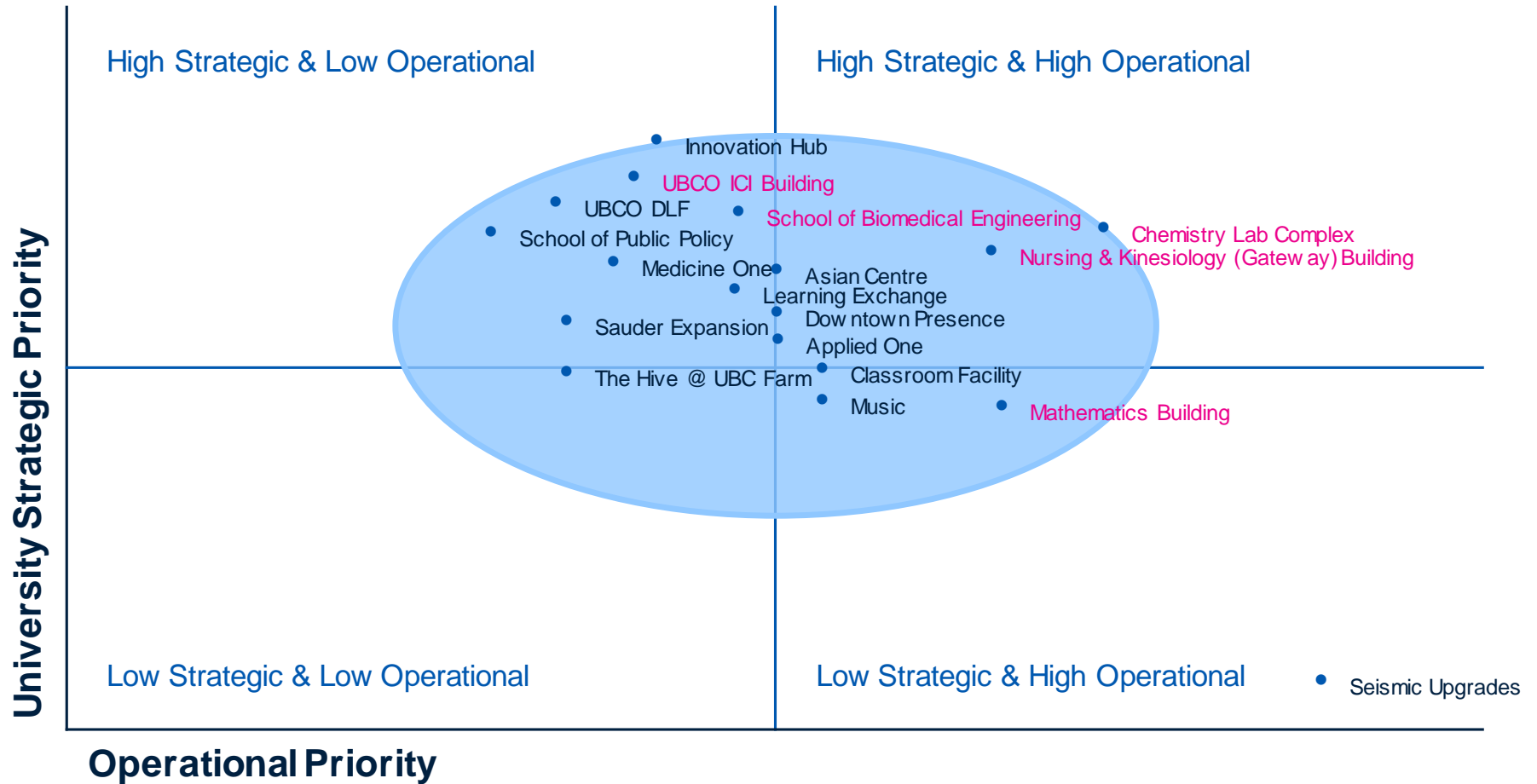
Examples: alignment with government priorities, funding opportunities, impact on global rankings, biggest return per dollar invested.



## Supplemental Materials 4 – Capital Prioritization Model

Project Name	Faculty / Dept	Contribution to University Strategic Plan (Themes, Core Areas, Strategies) - Relative importance and return on investment (ROI)?				Total Weighted Strategic Score (out of 10)	Contribution to Operational Risk Mitigation and Performance - Relative importance and ROI?				Total Weighted Operational Score (out of 10)
		People & Places	Research Excellence	Transformative Learning	Local & Global Engagement		Health & Safety (e.g. seismic)	Operation Performance/Reliability e.g. facility condition	Legal/Regulatory/Reputation	Business Case (on-going revenue/savings opportunity)	
Weighting		15%	35%	35%	15%		25%	25%	25%	25%	
Capital Project/Investment (listed alphabetically)		Raw Score (out of 10)	Raw Score (out of 10)	Raw Score (out of 10)	Raw Score (out of 10)	Total (out of 10)	Raw Score (out of 10)	Raw Score (out of 10)	Raw Score (out of 10)	Raw Score (out of 10)	Total (out of 10)
<b>Academic Projects</b>											
Academic Building Expansion - UBCO	UBCO Multi-Faculty	6	6	6	6	6.00	0	3	0	3	1.50
Applied One	Applied Science	6	6	5	4	5.35	6	8	3	3	5.00
Asian Centre	Arts/Library	8	6	6	5	6.15	6	8	3	3	5.00
Belkin Expansion	Arts	4	3	1	3	2.45	0	0	0	3	0.75
Biodiversity Expansion	Science	4	8	6	3	5.95	0	0	0	3	0.75
Bridging Projects - UBCO	UBCO Multi-Faculty	6	6	4	0	4.40	0	3	3	6	3.00
Centre for Interactive Research on Children's Learning Environments (CIRCLE)	Medicine/Applied Science	6	8	2	4	5.00	0	0	0	6	1.50
<b>Chemistry Lab Complex</b>	Science	6	8	8	2	6.80	10	10	4	7	7.75
Classroom Facility	Provost	10	0	10	0	5.00	3	6	6	6	5.25
<b>Nursing &amp; Kinesiology Building (Gateway Building)</b>	Kin?Nursing/UBC Health	8	8	6	4	6.70	6	8	6	6	6.50
Computer Science Expansion	Science	4	8	6	3	5.95	0	0	0	6	1.50
Digital Learning Factory - UBCO	UBCO/Applied Science	4	10	8	4	7.50	0	3	0	3	1.50
Downtown Presence	VP External	8	5	5	6	5.60	3	8	3	6	5.00
Forestry Expansion	Forestry	4	4	4	4	4.00	0	0	0	3	0.75
Future Academic Building - UBCO	UBCO Multi-Faculty	6	6	6	6	6.00	0	3	0	3	1.50
Geography Building	Arta	5	6	6	2	5.25	10	8	0	0	4.50
Hotel + Academic Conference Centre	SHHS/St' John's College	4	2	0	2	1.60	0	0	0	6	1.50
Innovation Hub	VP Research	8	10	8	6	8.40	0	0	0	10	2.50
<b>Interdisciplinary Collaboration &amp; Innovation Bldg - UBCO</b>	UBCO Multi-Faculty	8	8	8	6	7.70	0	3	0	6	2.25
JB MacDonald Building Expansion (Dentistry)	Dentistry	4	6	6	2	5.10	6	8	3	3	5.00
Learning Exchange	VP External	8	4	6	8	5.90	6	8	0	3	4.25
<b>Mathematics Building</b>	Science	5	6	6	2	5.25	10	8	3	6	6.75
Medicine One	Medicine	5	9	6	4	6.60	0	6	0	6	3.00
Music Replacement + Expansion	Arts	6	3	6	4	4.65	10	8	3	0	5.25
Sauder Graduate School Expansion	Sauder	6	6	6	4	5.70	0	0	0	6	1.50
<b>School of Biomedical Engineering</b>	Applied Science/Medicine	4	8	9	4	7.15	5	6	0	6	4.25
School of Public Policy & Global Affairs	Arts	6	9	6	6	7.05	0	0	0	3	0.75
Seismic Upgrade Projects <sup>5</sup>	Campus-wide	6	0	0	0	0.90	10	10	10	6	9.00
The Hive @ UBC Farm	Land + Food Systems	6	4	5	6	4.95	0	5	2	0	1.75

Supplemental Materials 5 – Capital Prioritization Matrix



Projects highlighted in pink in included in current UBC Five-Year Capital Plan.

## **Supplemental Materials 6 – Capital Planning Working Group**

- Jennifer Burns, Chief Information Officer
- Helen Burt, Associate Vice-President, Research
- Michael Coughtrie, Dean, Pharmaceutical Sciences
- Adriaan De Jager, Executive Director, Government & Corporate Relations
- Rob Einarson, Associate Vice-President, Finance & Operations, UBCO
- Hillary Gosselin, Associate Vice-President, Development
- Karamjeet Heer, Comptroller (new member for 2020; was Stuart MacKenzie, Acting Comptroller, in 2019)
- Michael Isaacson, Chair, Senate Academic Building Needs Committee
- Yale Loh, Treasurer (new member for 2020)
- John Metras, Associate Vice-President, Facilities
- Jennifer Sanguinetti, Managing Director, Infrastructure Development
- Suzanne Poohkay, Director, Capital Planning, Infrastructure Development
- Pam Ratner, Vice Provost and AVP, Enrolment and Academic Facilities
- David Shorthouse, Director, Academic Initiatives, Provost's Office
- Peter Smailes, VP Finance & Operations
- Kavie Toor, Facilities & Business Development, Athletics & Recreation
- Paul van Donkelaar, Professor, Health & Exercise Sciences, UBCO
- Michael White, AVP, Campus & Community Planning

Supplemental Materials 7 – Seismic Resilience Plan – Notional Timeline

UBC Seismic Planning: Notional Implementation Timeline for Mitigation of Priority Buildings (Dependent on funding, logistics and consultation)

Bldg #	Area [m2]	Age [Year]	Hazard Tier [2018 Detailed Analysis]	Probability of Collapse % - 975 yr Return [2018 Detailed Analysis]	Strategy 2 Rank [2018 Analysis]	2019-2025	2025-2030	2030-2035	2035-2040
<b>Priority buildings:</b>									
Woodward Biomedical Library	536	7,777	1964	V	70%+	1	\$51		
Museum of Anthropology	570	11,487	1975	IV	30-70%	2	\$24		
Anthropology & Sociology	48	3,282	1974	V	70%+	3		\$31	
Medical Science Block C	523-3	4,017	1961	V	70%+	4	\$10	\$49	
Robert F. Osborne Center Unit 2	431	4,589	1971	V	70%+	5	\$10		\$61
Music	575	6,919	1967	V	70%+	6		\$81	
Civil & Mechanical Eng	306	9,619	1974	V	70%+	7	\$15		\$123
Lower Mall Research Station	22	6,629	1957	V	70%+	8	\$10		\$77
H. R. MacMillan	386	13,846	1967	V	70%+	9		\$20	\$184
Frank Forward	562	7,937	1966	V	70%+	10		\$78	
MacLeod	312	7,345	1962	IV	30-70%	11	\$48		
Chemistry Block A - Chemistry / Physics	447	7,805	1989	V	70%+	12		\$89	
Douglas Kenny	732	9,613	1981	V	70%+	13		\$32	\$123
Chemistry B Block	148	5,373	1958	V	70%+	14	\$10	\$62	
Leonard S. Klinck	308	10,723	1946	IV	30-70%	15		\$20	\$141
Robert F. Osborne Center Unit 1	430	5,098	1969	III	11-30%	16			\$51
Jack Bell - School of Social Work	750	2,868	1994	III	11-30%	17		\$20	
J. B. MacDonald	198	7,341	1967	III	11-30%	18		\$70	

Swing Space:					
1 - UBC Life - Level 2	790	6,593			
2 - Wesbrook/Cunningham					
3 - Pond Annexes					
4 - Chem A					

MacLeod	Woodward	ANSO	Macmillan South	
	Forward			
	Kenny	Jack Bell		Klinck
		JBM		

est. Capital spend by Period: [\$M]

\$72	\$35	\$10	\$171	\$0	\$114	\$101	\$228	\$0	\$123	\$77	\$184	\$123	\$0	\$141	\$112	\$0	\$0	\$0	\$0
					\$288				\$566					\$525					\$112

est. Overall Capital expenditure [\$M]  
\$1,491

Legend:

\$80	Replacement
\$60	Full Renewal
\$50	Targetted retrofit
\$20	Mitigation measures
bldg	Swing Space

- Notes:
- Order of magnitude costs from Table 1: Summary of high priority buildings are shown for indicative planning purposes.
  - Costs shown in implementation timeline include provision for annual escalation over 2018\$ amounts. 6% p.a. annualized assumed.
  - Costs assume like-like for like replacement / renewal, do not include provision for space additions expansion or program adaptation.
  - Near term mitigation measures are indicative costs and require detailed investigation.