# Engineering Precinct Expansion Engagement Summary 2 May 2020



Campus Planning & Sustainability



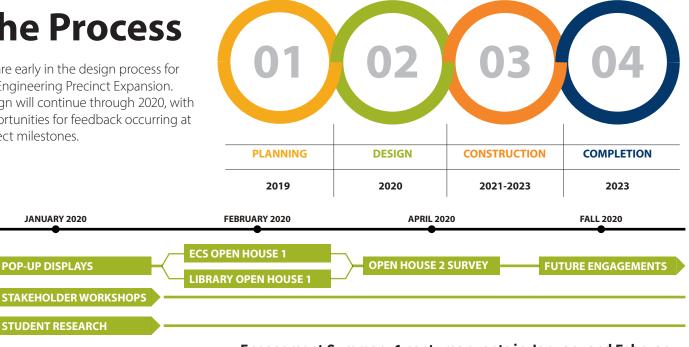
# Introduction Why We Engage

This project involves large amounts of complex technical information, a condensed design timeline and a desire to inspire the creativity and engagement of the UVic community. UVic's Community Engagement Framework ensures the campus and neighbouring communities are informed throughout the project process and have opportunities to meaningfully share their input to inform the buildings' designs.

### The Process

We are early in the design process for the Engineering Precinct Expansion. Design will continue through 2020, with opportunities for feedback occurring at project milestones.

As the future users of the Engineering Precinct Expansion, the students, faculty and staff within the Faculty of Engineering and Computer Science are key stakeholders in this project. Beyond the project engagement model outlined in the Community Engagement Framework, these stakeholders will participate in informing design decisions through coursework, academic research and collaborative workshops.



**Engagement Summary 1 captures events in January and February.** It can be viewed online at uvic.ca/expansion.

**PROJECT VISION** 

The Engineering Precinct Expansion will be a beacon of innovation, collaboration and learning for an adaptive and sustainable future.



Figure 1. Project Site Plan

### About The Project

The University of Victoria is planning an expansion of the Engineering Computer Science (ECS) Building and a new High Bay Research and Structures Lab to meet the current student demand and expected growth of the Engineering and Computer Science Faculty. Located in the Engineering precinct the project will provide additional design studio and lab space along with office and research facilities. UVic's Engineering precinct includes the Engineering Office Wing (EOW), Engineering Lab Wing (ELW) and the ECS building. Existing space limitations have resulted in the faculty creating temporary lab and design studios across campus. By expanding the precinct, UVic will be able to consolidate these temporary facilities into new, purpose-built facilities and continue to provide a dynamic learning environment. The project supports the faculty's goal to construct facilities at the forefront of green building design.

# How We Engaged

### Spreading the Word

The engagement activities were promoted across campus to raise broad awareness of the project and encourage participation. Promotion included:

- Posts online through the project webpage and across UVic, Faculty of Engineering and the Office of Campus Planning and Sustainability social media channels (Facebook, Twitter, Instagram, LinkedIn, Reddit);
- Notices on the UVic events webpage and in the Campus Checklist, a newsletter to all staff and faculty;
- Email invitations to Engineering Students' Society and Engineering student clubs and groups;
- Email invitations to all UVic student society clubs;

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Email invitations to Community Association Liaison Committee to share amongst their networks.

### Student Research

30+

Students from the Faculty of Engineering and Computer Science are participating in two capstone projects and two courses to complete sustainability analyses that will support the design development of the ECS expansion and High Bay Research and Structures Lab. Graduate study research projects will continue through the summer and the design team will explore continued opportunities for student learning throughout the design development phase.



### Online Open House



In response to Provincial Government regulations restricting in-person gatherings to prevent the spread of COVID-19, the spring open house was modified into an online survey that was open for participation from April 5th-14th.

The purpose of the survey was to consult participants about the preliminary design directions of the ECS Expansion and High Bay Research and Structures Lab (HBRSL), sustainability strategies being explored as part of the design, and the project's transportation strategy.

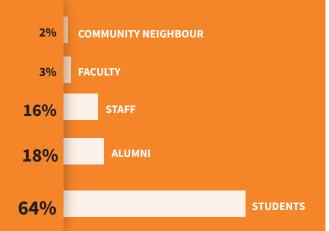
Of those surveyed, 64% identified as students, 16% as staff, 3% as faculty, 18% as alumni, 2% as community neighbours, and 3% chose not to identify how they were related to UVic. As this project is located in UVic's Engineering Precinct, it is no surprise that 57% of respondents indicated that they were from the Faculty of Engineering and Computer Science. Over 75% of the respondents indicated that they had not attended either of the first open houses. This indicates that the online survey format may have been able to broaden the engagement participation.

The project visualizations shared in the survey can be viewed in the Appendix

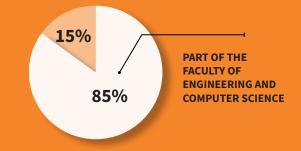
#### SPRING ENGAGEMENT PARTICIPANTS

436

#### **RELATIONSHIP TO UVIC**



#### RELATIONSHIP TO THE FACULTY OF ENGINEERING AND COMPUTER SCIENCE



Of the 290 current students and faculty who responded to this question, 85% were part of the Faculty of Engineering and Computer Science.

#### **PREVIOUS OPEN HOUSE ATTENDANCE**

The majority of survey respondents had not participated in the Winter Open House. This may indicate that this survey reached a new and broader audience.



# What We Heard

### Over 400 individuals responded to the open house survey.

The survey included 15 questions, of which 5 prompted written responses. The open-ended question were optional whereas the ranking and multiple choice questions were required.

The multiple-choice questions were used to understand priority and preferences, whereas the open-ended questions presented opportunities for participants to share recommendations for the project's design team.

### **Site Principles**

The project's site-wide design principles ranked in order of preference is as following (number of responses in brackets):

- 1. Create visual interest to evoke a sense of arrival to the engineering precinct (155)
- 2. Design new paths to enhance and connect pedestrian and cycling routes (126)
- 3. Replace each tree removed with three new trees on campus (114)
- 4. Orient primary frontages along Ring Road to create an engaged pedestrian realm (102)

The open-ended responses were analyzed to identify themes. Note that responses could include multiple themes. Where there was a significant sample and variance in themes, the responses were compared by user group. The demographic groups included:

- UVic Community: staff, students, faculty (including members of the ECS Community), and alumni
- ECS Community: ECS students and faculty
- UVic Students: ECS students, and non-ECS students
- 5. Maximize potential to restore natural landscapes with Indigenous plantings (90)
- 6. Visually unite the precinct with signage, landscape features and plantings (84)
- 7. Setback the buildings from Ring Road to implement the Campus Cycling Plan's pathway improvements (79)

82% of respondents agreed that these site principles captured their priorities.

### **Sustainability Priorities**

Participants were asked to rank their top 3 sustainability features from a list of 9 options. The sustainability priorities are ranked in the following order (number of responses are in brackets):

- Energy Efficiency (121)
- Active Transportation (82)
- Regenerative Design (73)

- Restoration of Natural Ecosystems (61)
- Mass Timber Construction (52)
- LEED Gold V4 (45)
- Bird Friendly Design (44)
- Compact Growth (41)
- Stormwater Management (38)

### **Transportation**

We heard comments beyond the scope of this project, including a significant desire for more space for clubs and design teams, and concerns about recent tree removal associated with other projects on campus.

Representative

**Comments** 

### Q. Share your feedback on the project's approach to transportation

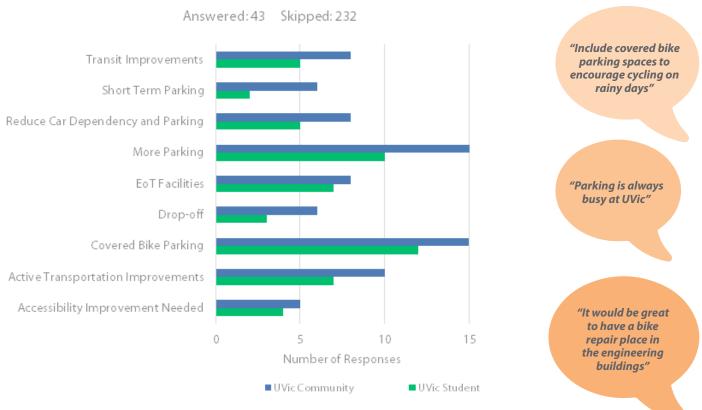


Figure 2. Themes compared between responses from the UVic community (including students, faculty, staff, and alumni) and only UVic current students. Community neighbours did not answer this question.

The project will support transportation demand management measures through covered bike parking, end of trip (EoT) facilities like lockers and showers, and supporting the Campus Cycling Plan.

The university has engaged a transportation engineer to conduct a comprehensive review of the university's current parking supply as well as future parking demand.

The transportation engineer's review determined that the project requires four new parking stalls: 2 accessible parking stalls and 2 short-term parking stalls to meet projected demand. This is less than required by the District of Oak Bay. As such, the university requires a parking variance approval from the District of Oak Bay.

Survey participants were asked to share their feedback on the project's approach to transportation.

As visualized in Figure 2, many expressed a desire for more parking generally, and specifically for short-term parking. The majority indicated a support for ways to provide more sustainable transportation options. This was voiced strongly by UVic students.

### **ECS Architectural Design**

## Q. The ECS expansion architectural design is in an early stage. What would you like the design team to consider as they refine the concept?

#### Representative Comments

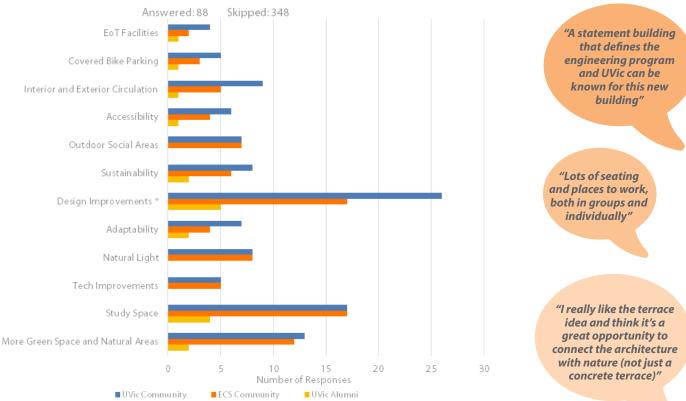


Figure 3. Themes compared between responses from the UVic community (including current students, faculty, staff, and alumni), the ECS Community (including faculty and students), and Alumni. Community neighbours did not answer this question.

By rating a list of 7 design highlights from 1 to 7, survey participants shared their favourite ECS architectural design highlights. Cumulatively, the design highlights were rated in the following order (weighted score in brackets):

- 1. Active roofs provide a possibility for green roofs and accessible patios (5.63)
- 2. Active roofs provide a possibility for photovoltaics (4.44)
- 3. Larger lab spaces on the ground floor and smaller upper floors for research and office spaces (4.34)
- 4. Design relates to the height and orientation of the ECS and ELW buildings (4.29)
- 5. Enhances the existing ECS atrium (4.20)
- 6. The terraced roofs create a human-scale design along ring road (4.07)
- 7. Connects to ELW on the 2nd floor (1.86)

Participants were asked to share further considerations for the ECS' architectural design. Overall, the priorities among alumni, the ECS community, and the broader UVic community, were similar. The full summary of the themes is shown Figure 3, above.

The majority of responses suggested **design improvements\***. Consistently, respondents asked for the **architecture to be bold, and a demonstration of sustainability** which inspires the ECS and UVic community while respecting the existing character of the campus and natural context of the site.

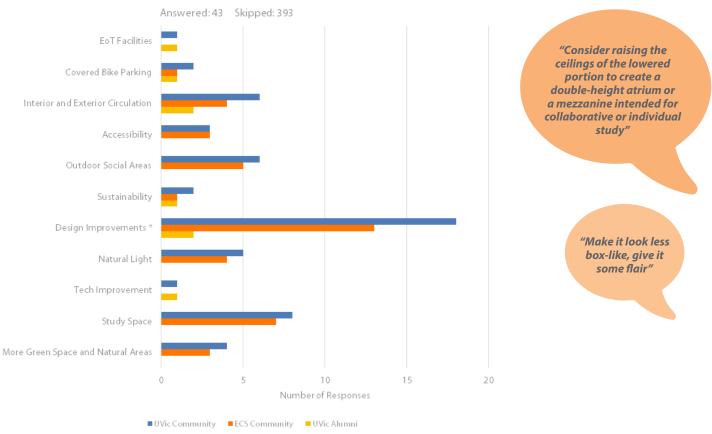
Respondents also identified a need for a **diversity of study spaces** for group work, lab work, and individual work.

In addition, better **access to green space** by integrated greenery including indoors, outdoors, and on top of the building emerged as a priority.

### **HBRSL Architectural Design**

## Q. The High Bay Research and Structures Lab architectural design is in an early stage. What would you like the design team to consider as they refine the concept?

#### Representative Comments



**Figure 4.** Themes compared between responses from the UVic community (including current students, faculty, staff, and alumni), the ECS Community (including faculty and students), and Alumni. Community neighbours did not answer this question.

Participants were asked the same questions about the HBRSL that they were asked about the ECS design.

Cumulatively, the 6 design highlights were rated in the following order (weighted score in brackets):

- 1. Large windows to see structural research activities (4.60)
- 2. Potential for an accessible roof deck (4.43)
- Improved seating and plantings in the ELW entry plaza (4.00)
- 4. Building fronts Ring Road at a 'human-scale' (3.70)
- 5. High Bay frames the ELW entry plaza (3.25)
- 6. Locates loading and storage to East side of the building(3.00)

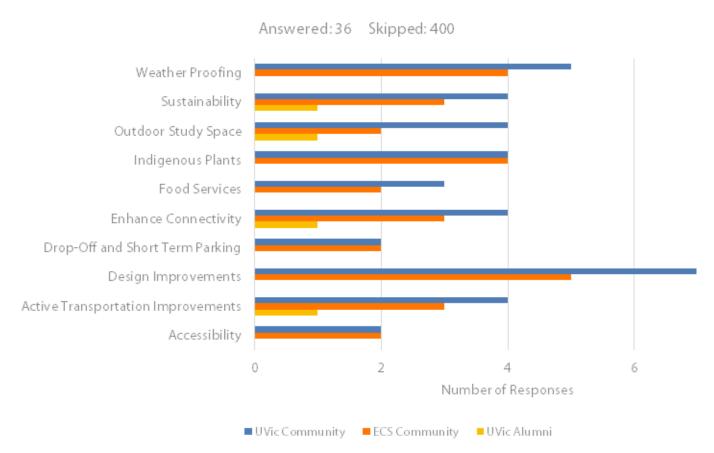
In the long form question, participants shared further considerations. Overall, the groups represented in Figure 4 (UVic community, ECS community, and UVic Alumni), had similar priorities.

Similar to the feedback received for the ECS architectural design concepts, respondents expressed the need for **design improvements \* for the HBSRL building to fit within the existing UVic natural and built context** while also being a statement building.

There was also an emphasis on considering **study spaces for both group and individual work**.

The **efficiency and accessibility of the circulation** between the buildings and around the building was another priority of respondents.

### Landscape Design



### Q12 The landscape design is in an early stage. What would you like the design team to consider as they refine the concept?

**Figure 5.** Themes compared between responses from the UVic community (including current students, faculty, staff, and alumni), the ECS Community (including faculty and students), and Alumni. Community neighbours did not answer this question.

Participants shared their favourite landscape features for each building (ECS expansion and HBRSL), and the feedback they thought should be considered as the landscape design is refined.

When asked how the project's landscape design could be refined the three groups represented in Figure 5 (UVic community, ECS community, and UVic Alumni) had similar priorities.

Design improvements that described a desire for a **consistent aesthetic** while making the landscape design visually interesting was a common theme. It was also

mentioned that **outdoor spaces should maximize functionality** to accommodate various uses (studying, welcome-back events, etc).

From weather proofing outdoor spaces for rainy months, to choosing greenery that would thrive in a wet environment, many had comments related to the landscape design being **climate appropriate.** 

### **ECS Landscape Design Features**

Participants rated a list of 9 landscape features of the ECS design The accessible rooftop patio space and green roof or photovoltaics were the highest rated features. Below are the rated features with their weighted score in brackets:

- 1. Rooftop accessible patio spaces (6.35)
- 2. Potential for green roof or photovoltaics (6.24)
- 3. Maximize opportunities for tree retention (5.99)
- 4. Pedestrian connections (5.71)
- 5. New outdoor seating and plaza space (5.47)
- 6. Improved pedestrian and cycling pathways (4.44)
- 7. Stormwater feature fed by rooftop run-off (4.35)
- 8. Easily accessible short term parking (3.93)
- 9. Learners Walk a pedestrian route with interpretive signage (2.53)

#### **HBRSL Landscape Design Features**

For the HBRSL, landscape features about new pedestrian connections between existing building and pathways, and new outdoor seating were rated the highest in a list of 6. The 6 design highlights rated in the following order (weighted score in brackets):

- 1. New pedestrian connections between existing buildings and pathways (4.46)
- 2. New outdoor seating (3.76)
- 3. Maximize opportunities for tree retention (3.73)
- 4. Demonstration and laboratory green roof (3.44)
- 5. Improved pedestrian and cycling pathways (2.89)
- 6. New indigenous plantings (2.72)

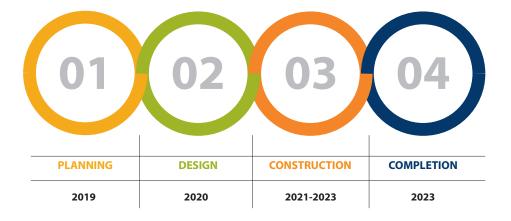
#### Representative Comments

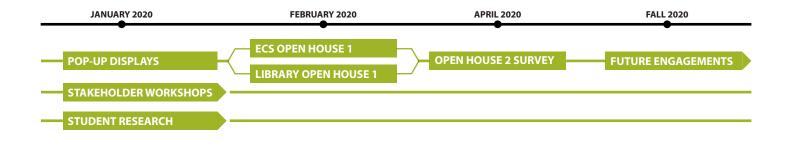


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# Next Steps

Feedback has been used to refine the design concepts for the ECS Expansion and High Bay Research and Structures Lab. Design development will continue throughout 2020, with further opportunities to engage in the Fall.







### Spring Online Open House Materials

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We acknowledge with respect the Lekwungen peoples on whose traditional territory the university stands and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day.

# WELCOME!

THIS IS THE SECOND OPEN HOUSE FOR THE ENGINEERING PRECINCT EXPANSION!

TODAY WE ARE SEEKING YOUR INPUT ON BUILDING DESIGN CONCEPTS THROUGH ONLINE SURVEY QUESTIONS.

#### WHY IS THE PRECINCT EXPANDING?

UVic's engineering precinct includes the Engineering Office Wing, Engineering Lab Wing and Engineering Computer Science building. Existing space limitations have resulted in the faculty creating temporary lab spaces in buildings, trailers and Sea-Can containers across campus.

The project will create necessary space for students, faculty and staff, enhancing the extraordinary academic environment.

#### WHAT'S INCLUDED IN THE EXPANSION?

The project includes the 6-storey addition to the ECS building and a new High Bay Research and Structures lab.

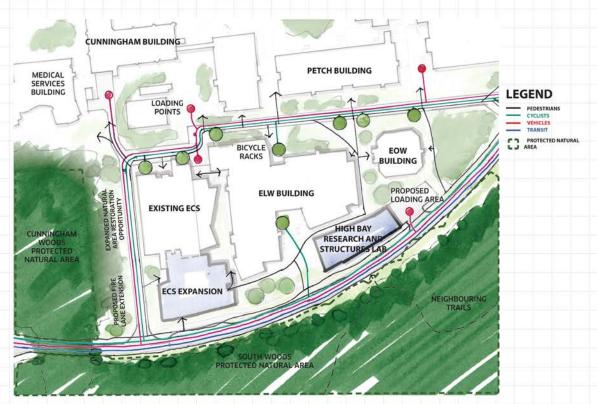
The facilities will balance the need for flexibility and purpose-built spaces required by researchers. The buildings will be designed with some generic space modules that can be used by a variety of researchers while also providing purpose-built lab space with specialized equipment and infrastructure.

#### **THE PROJECT WILL:**

- Provide additional design studios, laboratory, office and research facilities including a laboratory space for the testing of steel and concrete structures.
- Support the faculty's vision to construct facilities at the forefront of new green building design
- Consolidate temporary facilities into new purpose-built facilities
- Continue to provide a dynamic learning environment
- Facilitate greater student and faculty interactions and support interdisciplinary activities

### WHAT'S INCLUDED

#### WHERE THE PROJECT WILL BE LOCATED



#### WHAT'S INCLUDED **HIGH BAY RESEARCH AND ECS EXPANSION STRUCTURES LAB** COMPUTATIONAL RESEARCH WELDING BAY LABS MATERIALS LAB UNDERGRADUATE **GEOTECHNICAL LABS DESIGN STUDIO** ACTIVE LEARNING LABS WOOD SHOP **GRADUATE STUDENT** COMPUTER LABS and in This WORKSTATIONS T. Dit TE! FACULTY COLLABORATION ENVIRONMENTAL AND SPACE HYDRAULICS LABS **CIVIL ENGINEERING BIOMEDICAL ENGINEERING BUILDING SCIENCE LABS** DEPARTMENT OFFICE SPACE SHAKE TABLE LABS MACHINE SHOP

### **ABOUT THE PROCESS**

#### ENGAGEMENT

The engagement process follows the university's **Community Engagement Framework** as well as the engagement direction set by the **Campus Plan**, both developed through extensive engagement with students, faculty, staff and neighbouring residents.

#### **CAMPUS PLAN**

COMMUNITY ENGAGEMENT FRAMEWORK



#### **THE PROCESS**

We are at the early stages of the design process. Design will continue throughout 2020, with opportunities for feedback occurring through the year.

#### GET INVOLVED!

We want to hear from students, faculty, community members and stakeholders to help shape the plans for the engineering precinct expansion.





APPROVALS ONGOING

Development Approvals from District of Oak Bay



#### **FIND OUT MORE!**

uvic.ca/engineeringexpansion

### WHAT WE'VE HEARD FROM YOU SO FAR

### **300+ ENGAGED!**

Over 300 people participated in our engagement events whether through the pop-up displays, first open house, student research, community presentations or stakeholder workshops.



### BRINGING THE CAMPUS PLAN TO LIFE

#### **SPIRIT OF PLACE**

The project will recognize Spirit of Place through incorporating environmental strategies, featuring local solutions and partnerships and demonstrating the use of local innovative wood-based solutions.

#### THE CAMPUS PLAN BIG MOVES

The Campus Plan Big Moves are design strategies that bring the university's vision, goals and principles to life. This project supports:



#### **COMPACT CAMPUS**

Focus new development within and near Ring Road to promote synergies between the expansion and existing buildings



#### CONNECTING TO NATURE

 Conserve and enhance natural areas to minimize impacts from building developments



#### **CENTRES OF ANIMATION**

 Create new activity hubs to support diverse activities and animate building frontages



#### A RENEWED COMMITMENT TO WALKABILITY

- Make campus an even better campus for walking
- Link proposed walkways with existing pedestrian network and activity hubs

#### **RING ROAD AS A PEOPLE PLACE**

- Make Ring Road an animated place for walking, cycling, socializing and more
- Orient buildings' active spaces and entrances to Ring Road

#### ENHANCE CYCLING AND TRANSIT

- Make cycling and transit use enjoyable by enhancing safety and convenience
- Prioritize active modes of transportation

#### **CAMPUS CYCLING PLAN, 2019**

The expansion will support improvements to the campus' cycling network including allowing for the 3.0 m separated bi-directional cycling path along Ring Road and providing safe and secure end-of-trip facilities.

### **PROJECT APPROACH**

#### **PROJECT VISION**

A project vision is a tool for values-based decisions throughout the design process. The project vision is that:

The Engineering Precinct Expansion will be a beacon of innovation, collaboration and learning for an adaptive and sustainable future.

### OBJECTIVES

VISION

PRINCIPLES

TARGETS

#### SITE-WIDE PRINCIPLES





Orient primary frontages along Ring Road to s create an engaged pedestrian realm

Visually unite the precinct with signage, landscape features and plantings



Create visual interest to evoke a sense of arrival to the engineering precinct



Design new paths to enhance and connect pedestrian and cycling routes



Maximize potential to restore natural landscapes with Indigenous plantings



Replace each tree removed with three new trees on campus



Setback the buildings from Ring Road to implement the Campus Cycling Plan's pathway improvements

#### **INDIGENOUS DESIGN**

The project will recognize Spirit of Place through the approach to public art and landscape design.

Respect of the natural environment is a fundamental value of Indigenous cultures throughout Canada. This project seeks to incorporate Indigenous values through the approach to landscape design. Further opportunities include incorporating Indigenous art and interpretive signage.

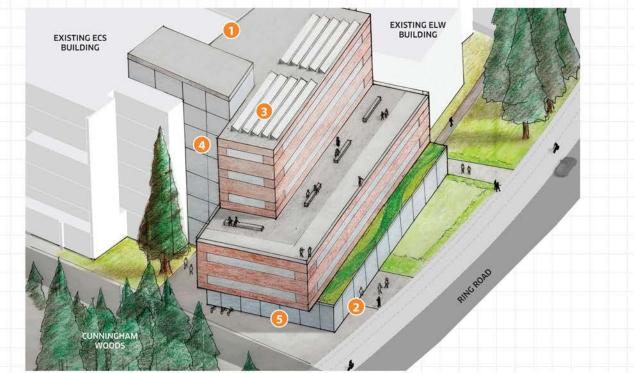
### **ARCHITECTURAL DESIGN**



#### ECS EXPANSION DESIGN

The ECS Expansion architectural design concept interconnects at all floors with the existing ECS building as well as with the existing Engineering Lab Wing building.

#### **ARCHITECTURAL DESIGN HIGHLIGHTS**



#### RELATES TO CAMPUS CONTEXT

The design relates in height and orientation to the ECS and ELW buildings.

#### REMAINING "HUMAN -SCALE"

Because the building roofs are terraced, the building feels "human-scale" along Ring Road.

#### ACTIVE ROOFS

The "stepped" roofs give the possibility for green roofs, accessible patios and photovoltaics.

#### **IMPROVING THE EXISTING ECS**

Enhances the existing ECS atrium by extending it into the new expansion, bringing in light through the roof and becoming the hub of social spaces for both existing and the new ECS.

#### **GROUND LEVEL ACTIVATION**

The massing follows the program requirements of having larger lab spaces near the ground floor, and smaller upper floors for research and office spaces.

### **ARCHITECTURAL DESIGN**



#### **HIGH BAY LAB DESIGN**

The design concept has a full basement and full ground level. The areas that are not part of the required 12 meter clearance High Bay program, are lowered to create a separate roof.

#### **ARCHITECTURAL DESIGN HIGHLIGHTS**



#### 1) "HUMAN-SCALE" DESIGN

The building fronts Ring Road at a "human-scale".

#### HIGHLIGHTING ENGINEERING PROGRAMS Large windows provide opportunities for passersby

to see structural research activities taking place in the lab.

#### OUTDOOR SOCIAL SPACES

There is potential for an accessible roof deck and improvements to the ELW entry plaza.

#### RELATING TO CAMPUS CONTEXT

The new building frames the ELW entry plaza to support its animation and creates intuitive navigation from the ELW and ECS buildings.

#### LOADING AND STORAGE

Locates loading and storage to the East side of the building, which directly serves the main High Bay lab area through an overhead door.

### LANDSCAPE DESIGN

#### LANDSCAPE DESIGN HIGHLIGHTS: ECS EXPANSION

The terraced form of the building creates multiple rooftop zones for sustainability features like stormwater capture and green roofs, and rooftop patios. On the ground level, the design is focused on upgrading the existing streetscape and firelane, and the addition of new social plazas. There is potential to connect to the ELW with a feature called "learner's walk" where experiential learning opportunities are connected to the landscape.



### LANDSCAPE DESIGN

#### LANDSCAPE DESIGN HIGHLIGHTS: HIGH BAY LAB

The High Bay Research and Structures Lab landscape design will focus on creating a more 'light-industrial' character, complementing the indoor research spaces.



### **SUSTAINABILITY**

#### SUSTAINABILITY APPROACH

The project is informed by the university's Sustainability Action Plan and best practices for environmental stewardship and management. In addition, student research is currently underway to inform the sustainability features of the buildings. While specific strategies have not yet been confirmed, each design option will explore the following approaches:



RETA

RELOCATE

REPLACE

REUSE

This strategy is employed to maximize the opportunity to reuse and replace any trees that are removed as required by this project. We commit to:

- Replace a removed tree with three new trees on campus
- Where possible, relocate removed trees or reuse the wood in the building and/or gift the wood to local Indigenous communities
- · Work directly with local Indigenous communities to ensure cultural and ceremonial processes are followed prior to any tree removal

### TRANSPORTATION

#### **VEHICLE PARKING**

The university has engaged a transportation engineer to conduct a comprehensive review of the university's current parking supply as well as future parking demand.

#### HOW ARE WE ADDRESSING SHORT TERM PARKING?

The project requires four new parking stalls: 2 accessible parking stalls and 2 short-term parking stalls.

#### HOW ARE WE ADDRESSING LOADING AND DELIVERIES?

Loading and deliveries to the ECS Expansion will addressed through the existing ECS' loading point.

Loading for the High Bay Research and Structures Lab will take place to the east of the new building. An overhead door will give access to the building from the loading area.

#### HOW ARE WE ADDRESSING INCREASED DEMAND?

Through transportation analysis, we expect this project to increase parking demand on the UVic campus by 20 stalls.

However, the estimated parking demand reduction of 74 vehicles from the Student Housing and Dining project outweighs the forecasted demand increases from the project.

Although the new Student Housing and Dining project will meet the needs of the forecasted parking demand increase, the Oak Bay Parking Facilities Bylaw requires 63 new parking stalls. Because this project is within the District of Oak Bay, it will require a parking variance approval.

#### SUSTAINABLE TRANSPORTATION

Over 60% of all trips to and from campus are made by transit, cycling, walking, or carpooling. To support members of the campus community who don't drive, and support the University's sustainability goals, UVic provides a number of alternative travel programs, initiatives, and support systems.



#### BICYCLE UPCYCLING AND LOAN PROGRAM

SPOKES provides low-cost, long or short term bike rentals.



#### CAMPUS BIKE CENTRE

The Centre provides covered bike parking, equipment lockers, benches and a space for the SPOKES bicycle program.



#### PUBLIC TRANSIT

U-Pass provides students with unlimited access to Victoria region public transit.



#### UVIC EMPLOYEE BUS PASS PROGRAM

The program offers more than 50% off the regular price of taking transit.









## **THANK YOU!**

YOUR FEEDBACK WILL BE USED TO INFORM THE CONTINUED DESIGN OF THE ENGINEERING PRECINCT EXPANSION.

WE WILL COMPILE YOUR FEEDBACK INTO AN ENGAGEMENT SUMMARY IN APRIL.

**SEE YOU IN THE FALL!** 

