### **OSU-Cascades Innovation District**

**Opportunities for Co-Location and Growing the Community** 



## Adam Krynicki

**Executive Director, Innovation Co-Lab** 



## The world needs innovators.

#### OSU-Cascades is committed to growing innovators.

OSU-Cascades supports innovation through education, research, and service to the community. We have a variety of initiatives to support our campus and the community:









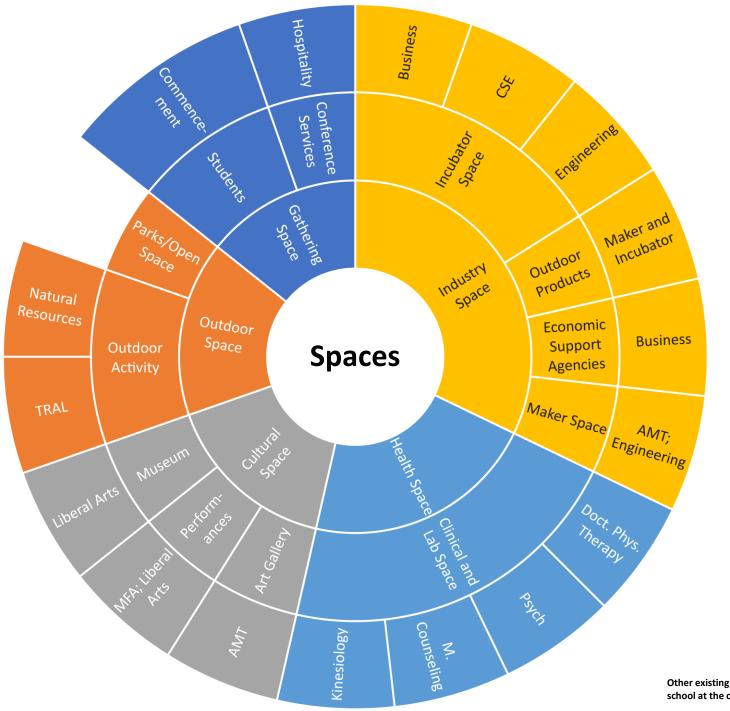
Innovation Hub

Innovation District

## Business DPT Aerospace. Energy Engineering Renewable Energy **Needs** Engineering Biology Software and Hardware Hospitality Mgmt. Outdoor Products Comp.Science school at the other end of site

# Academic Programs Built to Align with Community Needs

Other existing Programs for comprehensive 4 -ear university: Psychology, American Studies; Education – shows up in K-12 school at the other and of site



## A Campus Built for Community

Spaces for on and off campus communities create bigger opportunities.

Other existing Programs for comprehensive 4 -ear university: Psychology, American Studies; Education – shows up in K-12 school at the other end of the site.

# To support innovators across our community, we are building an

innovation district.

#### What is an Innovation District?

The Brookings Institution defines innovation districts as "geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators and accelerators. They are also physically compact, transit-accessible, and technically-wired, and offer mixed-use housing, office and retail."

www.brookings.edu/wp-content/uploads/2016/07/InnovationDistricts1.pdf

Innovation Districts	Name	State	City
MIT	Kendall Square	Mass	Boston
Georgia Tech	Technology Square	Georgia	Atlanta
Drexel Univ	Univ City	Penn	Philadelphia
UC Davis	Aggie Square	California	Davis
University of Washington	South Lake Union	Washington	Seattle
Clark College	Boschma ID	Washington	Ridgefield
Cornell	Tech Campus	New York	New York
University of Washington	Portage Bay Crossing	Washington	Seattle
Univ Illinois Urbana Champaign	Research Park	Illinois	Champaign
Virginia Tech	Creativity and Innovation District	Virginia	Blacksburg
Purdue	Discovery Park	Indiana	West Lafayette
Texas Tech	Research Park	Texas	Lubbock
Univ Texas – Austin	Texas Innovation Center	Texas	Austin

#### What are the impacts of Innovation Districts?

Innovation districts collectively span at least 47,000 acres and employ more than 300,000 people across North America.

(Association of University Research Parks (AURP) and the Technology Partnership Practice (TPP))

Each job in an innovation district produces roughly 2.57 industry jobs.

This means that the figure of 300,000 translates to more than 750,000 industry positions.

https://www.hersheyresearch.com/the-benefits-of-innovation-districts



Kendall Square, Boston, MA

#### What are additional impacts?

- Integrate and embed industry, government agencies and non-profits
- Catalyze faculty research, intellectual property development, and technology development,
- Create **student** educational opportunities by supporting undergraduate research, job shadowing, internships and capstone projects,
- Provide the community with the resources to ideate, prototype, and commercialize, and
- Support existing companies while supporting new startups.

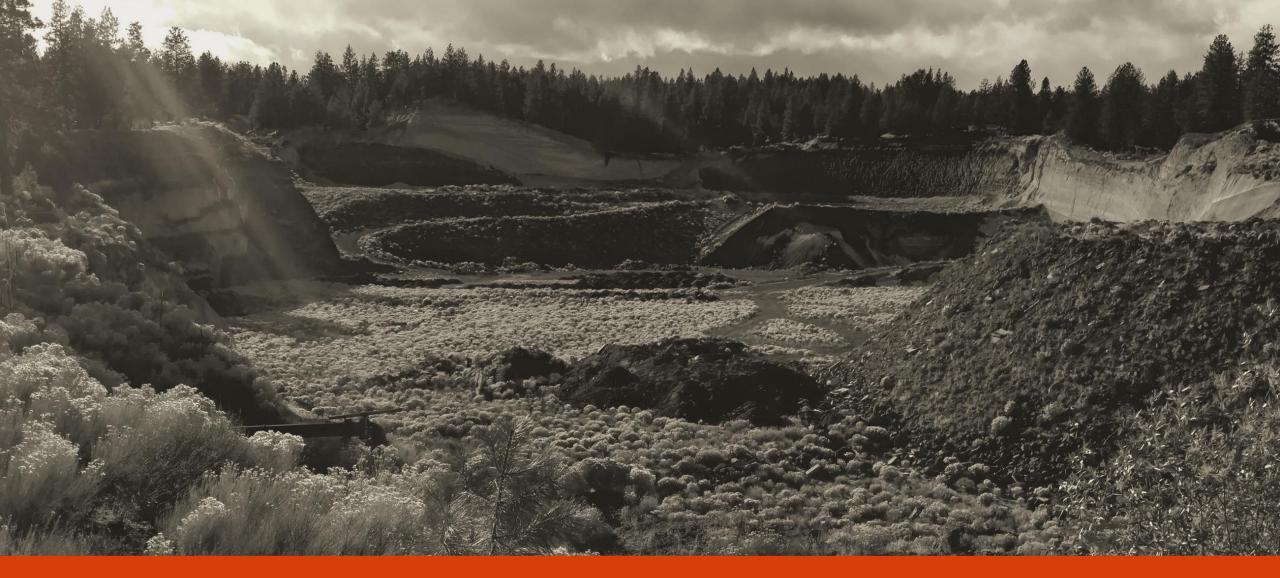
### Jarrod Pentilla

**Construction Project Manager** 





## **OSU Cascades Campus Development**



We are turning a demolition landfill and pumice mine into..



...a thriving campus.

#### To create a thriving campus, we've:

- Conducted a number of planning studies;
- Engaged the community, received feedback, and amended our plans;
- Received approval for the master plan;
- Completed construction on 4 buildings on the OSU-Cascades campus;





#### **Master Plan**

- The central campus buildings are organized around a bowl-shaped civic open space.
- Higher density located along eastern section and central core and organized around green spaces.
- Over 10 miles of connecting pathways between the buildings and across campus.
- Large wooded area to west end of campus
- Green open space buffers along the Mt. Washington and Simpson edges.
- The campus will be permeable and connected to the community.

#### **Site Section East-West**

- Buildings frame key open spaces
- Buildings help to step down slopes and provide accessible routes





#### **ECOLOGICAL** REHABILITATION

- · Remediation and reclamation of the landscape
- Harvesting native soils
- Establishing native plant communities

**AFFORDABLE** 

· Promote economic and social

• 300 units of workforce housing

Affordable student housing for

40% of student headcount

HID AR A

resilience for community

HOUSING

and university



#### LIVING **LABORATORY**

- Research opportunities in the landscape
- · Interactive and educational components to campus infrastructure
- Interpretive signage for environmental features and an art walk

#### **HABITAT** RESTORATION

N & Annual S

- Regenerative native woodlands and meadow landscapes
- · Key link in wildlife corridors for pollinators and birds
- · Goal to be the first designated bat friendly campus

#### **WATER RESILIENCE**

- · Water treatment gardens produce graywater for re-use
- · Efficient plumbing and low-water landscape
- · Net zero water balance goal for full build-out

#### **ENERGY RESILIENCE**

- · Geo-exchange coils regulate most heat and cooling for buildings
- 370,000-495,000 SF of photovoltaic panels and potential for biomass to power campus
- Net zero energy goal for full build-out

#### SHARED COMMUNITY **FACILITIES**

- Support regional social and cultural resilience
- · Partner and co-locate with community organizations
- · Public access to recreation, cultural, educational, and wellness resources and facilities



Central

Plant

Water freatment

Landscape

**Electrical Energy** 

Thermal Energy

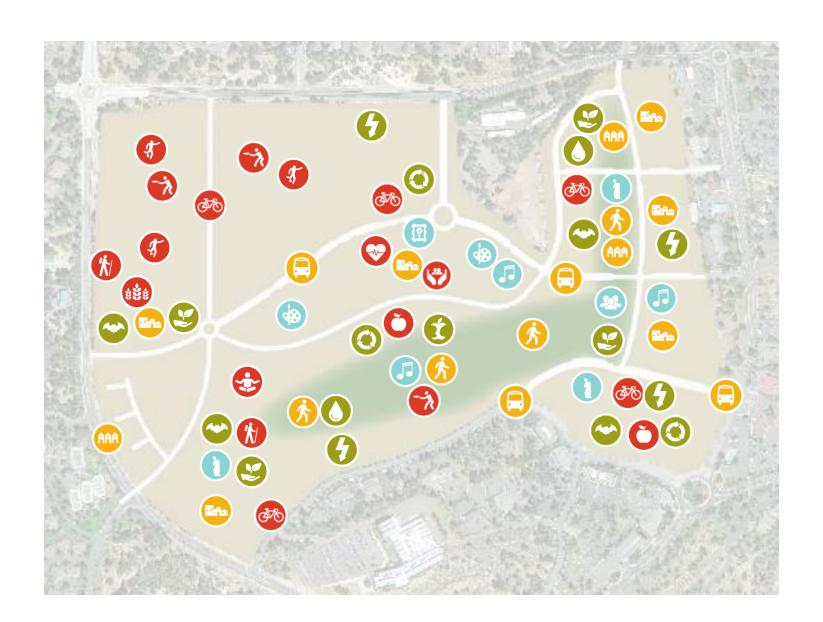
Partially Treated Effluent

AND HERMANDERPARA

Recycled Water Utility

GEO. EXCHANGE

#### **Long Range Development Plan Themes**





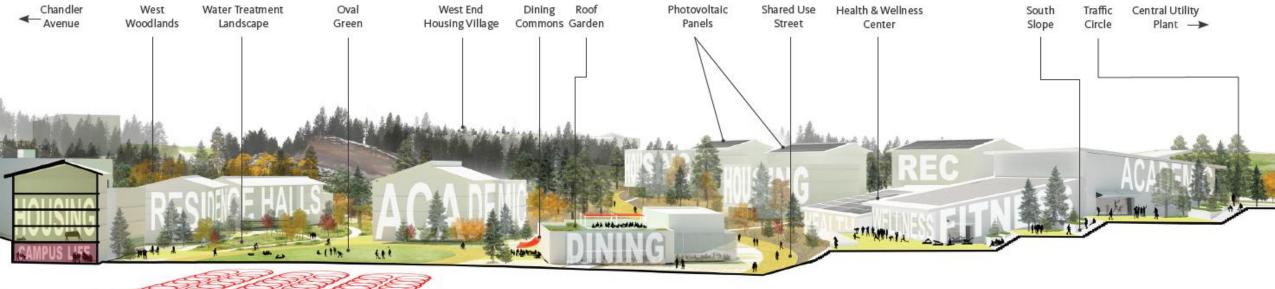
#### **Site Section North-South**

Buildings frame key open spaces

GEO. EXCHANGE

Buildings help to step down slopes and provide accessible routes





### **Design Guidelines**

#### Landscape











#### **Architecture**









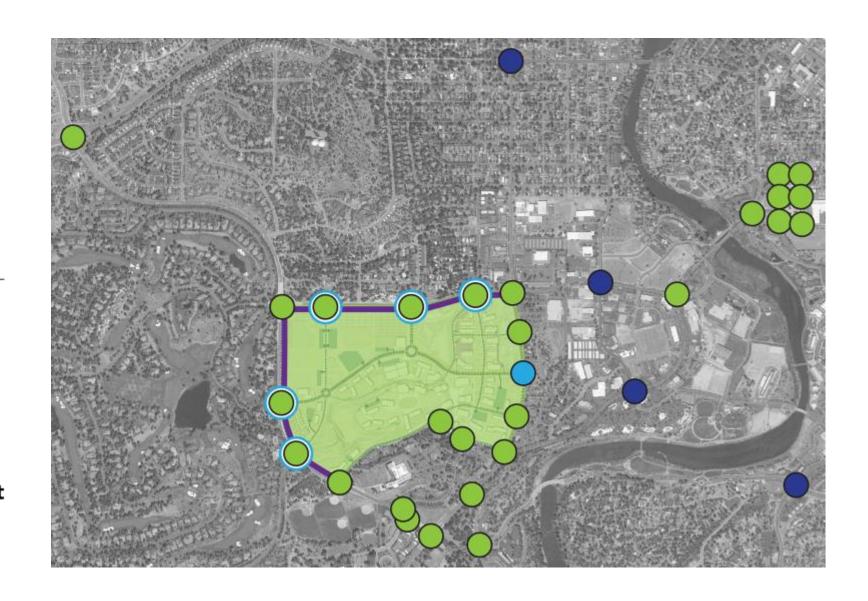


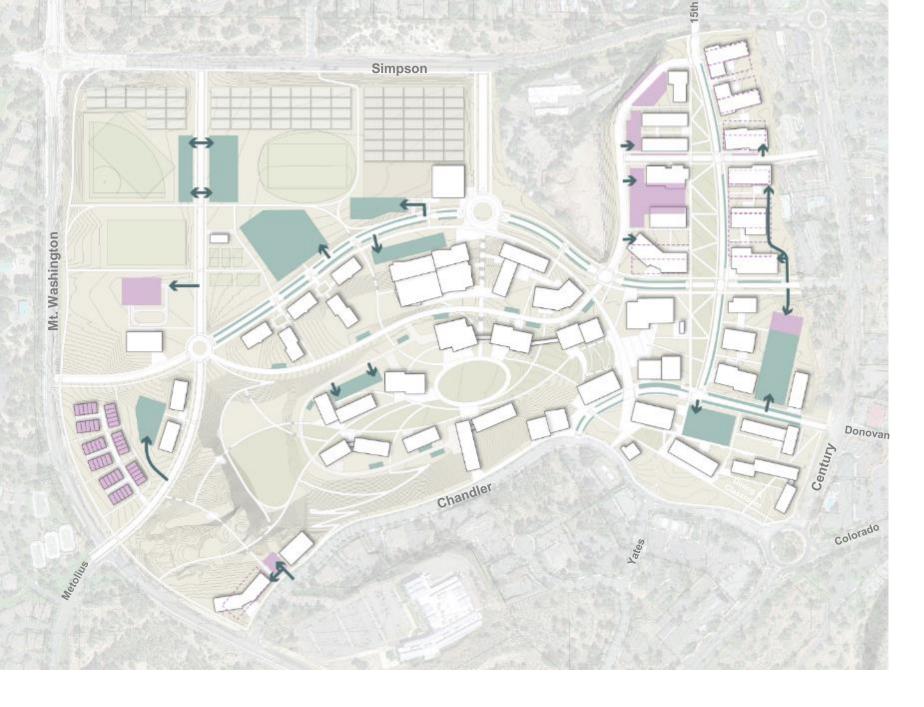
### Findings:

27 of 32 intersections satisfy standards with full Master Plan development

#### AT BUILD-OUT

- Meets Standards
- Exceeds Standards without OSU-C
- Exceeds Standards with OSU-C
- Left Turn Lane and Pedestrian Improvement
- Frontage Improvement



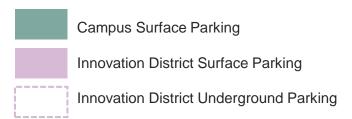


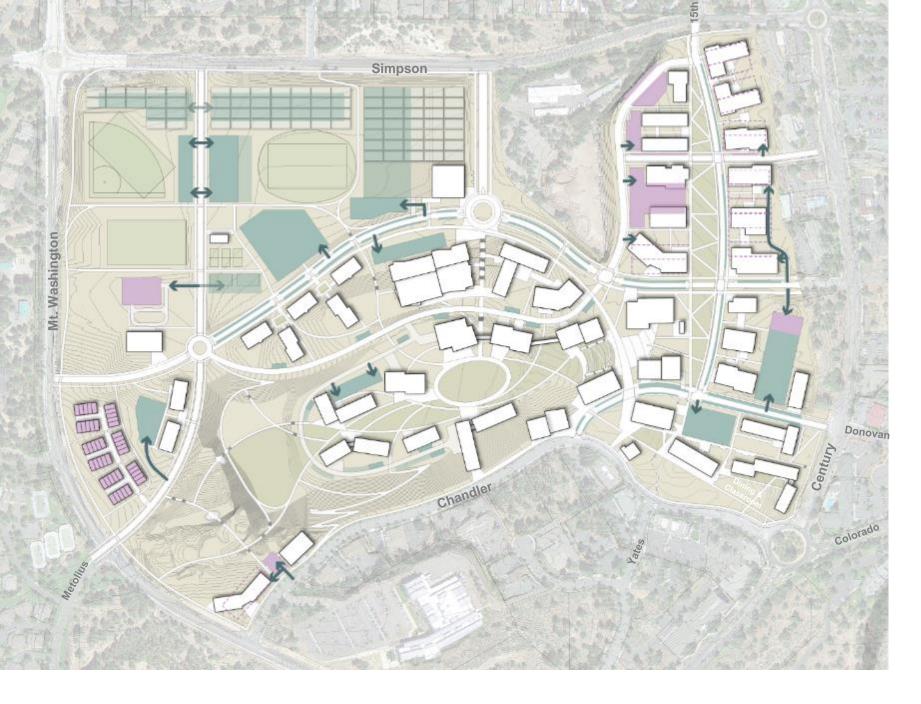
## Parking Parking per City Requirements with TDM reductions

Based on:

**City of Bend Development Code:** 

**1,766 spaces** 





## Additional Parking Capacity

#### Approximately 514 more spaces could be constructed if needed

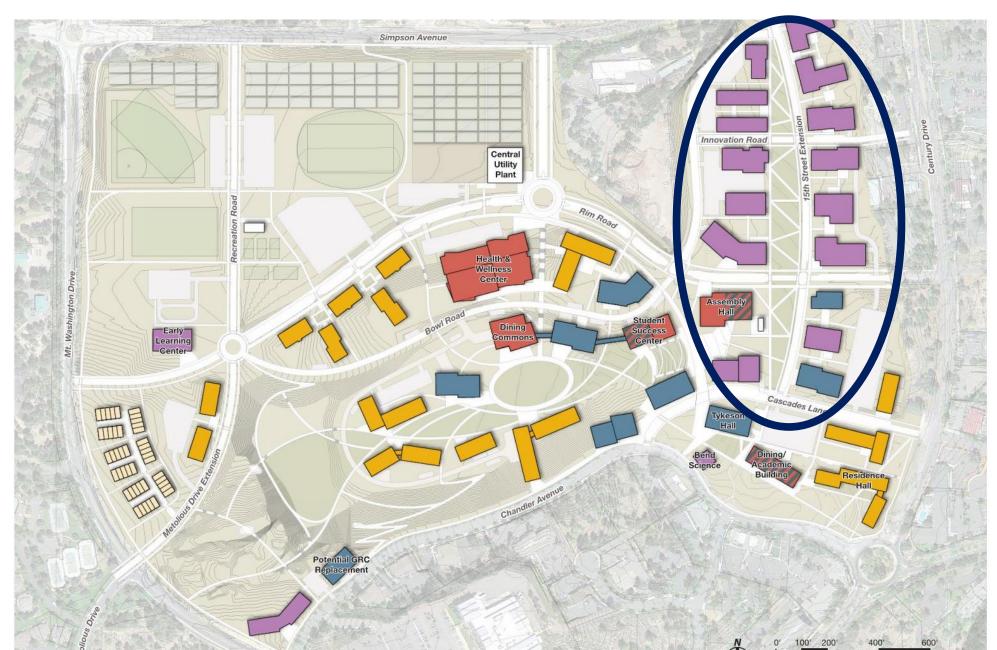
Note that shared parking is anticipated but no reduction in total spaces assumed

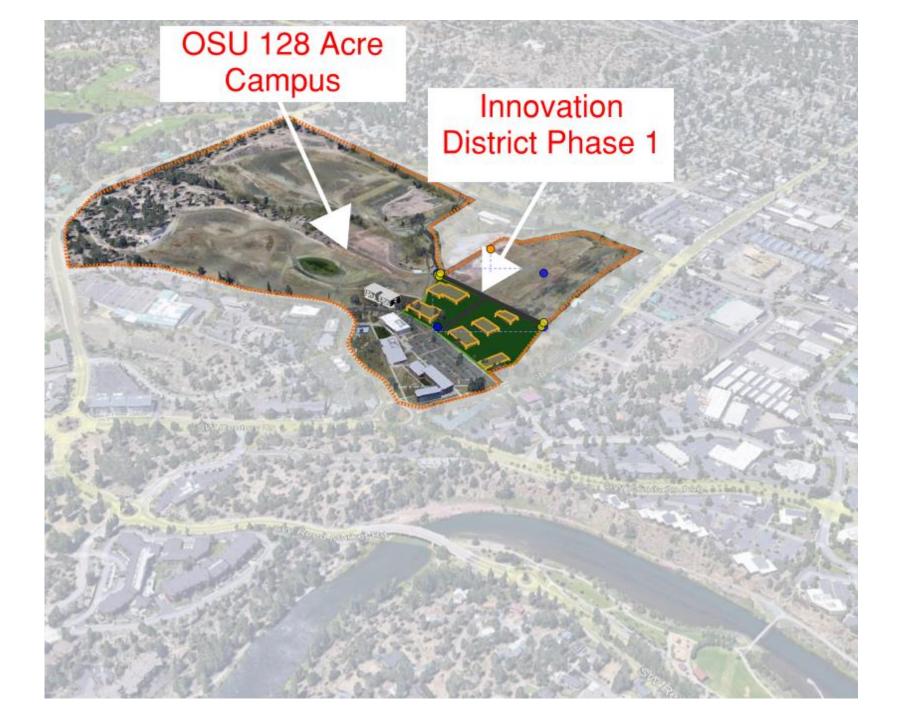




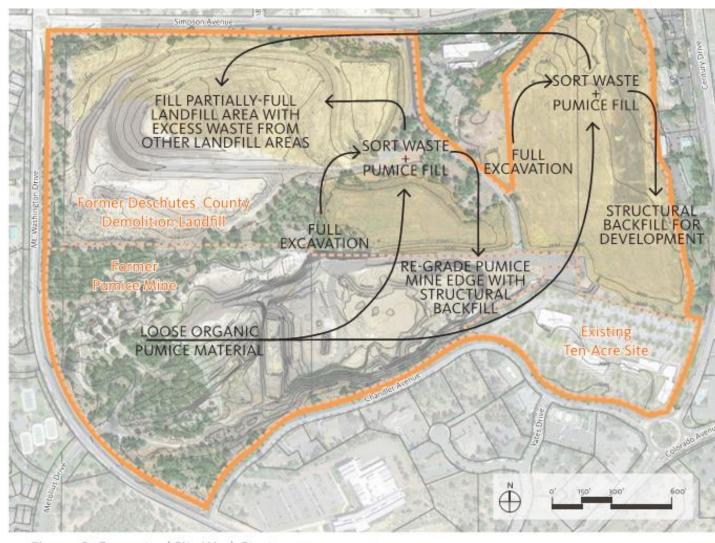
Next, we are building an Innovation District.

#### Where will the innovation district be located?

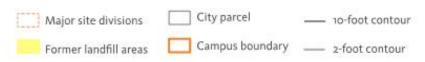




#### **Landfill Remediation**



^ Figure 18: Conceptual Site Work Strategy



Remediation of the site will continue to be managed under DEQ:

- Prospective Purchaser
   Agreement
- Health and Safety Plan
- Remedial Action Plan
- Subsurface Soil Management and Monitoring Plan

The OSU-Cascades master plan envisions a variety of spaces in the Innovation District, including tech, flex, office space, commercial, experiential retail, workforce housing, and assembly space.

Buildings will support research, technology commercialization, incubation, and economic development organizations. The district will offer proximity to OSU-Cascades students, faculty, facilities and other amenities.



Phase 1	All Phases
8 acres	24 acres
6 buildings	18 buildings
255,500 sq. ft.	855,400 sq. ft.

#### Scope of work:

This project will invest \$34M to create build-ready land for the Innovation District. Work includes remediating 8 acres of landfill and installing infrastructure, including water, sewer, electric, conduit for future broadband, roads and a new access to Century Drive.

## OSU Cascades Innovation District Land Development – Phase 1

#### **Oregon State University-Cascades**

#### **Innovation District Background**

**Building 1**— 45,000 SF Middle Market Housing

**Building 2**— 33,000 SF Class A Office and Ground Floor Retail

**Building 3**— 54,000 SF Class A Office

Building 4— 45,000 SF Class A Office

**Building 5**— 55,000 SF Class A Office and Light Industrial

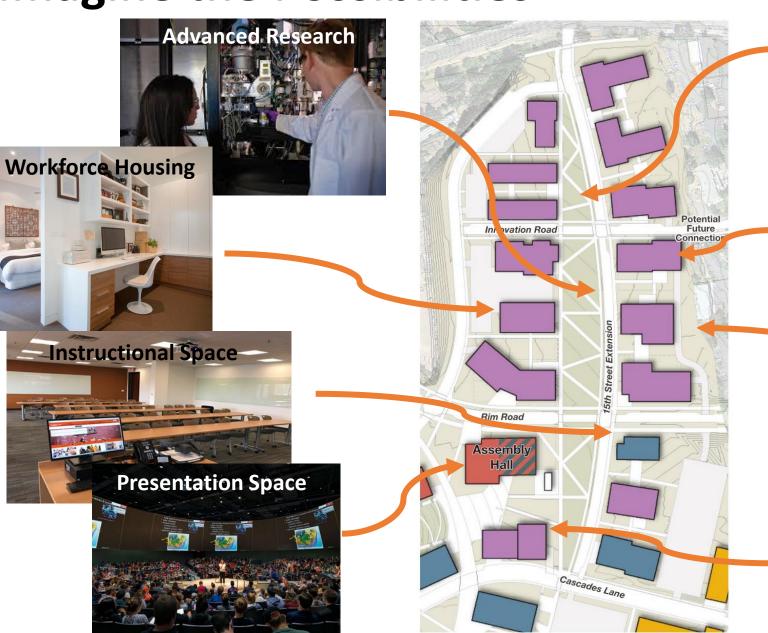
**Building 6**— 40,000 SF Conference and/or Performing Arts





## **OSU Cascades Innovation District**

#### **Imagine the Possibilities**







## 43,000 Innovation Road Connection 5th Street Extension 54,000 Rim Road 55,000

#### **Building 1: Housing**

Imagine the integration of 300 beds of affordable and/or middle market housing serving student, faculty, staff, and the community. A childcare (early learning) center could be co-located on the main floor.

## 48,000 43,000 Innovation Road Future Connection 50,400 5th Street Extension 54,000 Rim Road Assembly 40,000 33,000 55,000

#### **Building 2: Partner Building**

Imagine the possibility of a Hi-Tech partnership including software development firm(s), prototyping lab, and OSU-Cascades computer science experiential teaching space.

# 43,000 Innovation Road Future Connection 5th Street Extension 54,000 Rim Road Assembly 40,00 55,000 Cascades Lane

#### **Building 3: Partner Building**

Imagine the possibility of an Outdoor Economy partnership, co-location of outdoor products companies, product design and testing lab, and an experiential retail space.

# 43,000 Innovation Road 5th Street Extension 54,000 Rim Road 55,000 Cascades Lane

#### **Building 4: Partner Building**

Imagine the possibility of an Innovation Hub with the co-location of the Co-Lab and innovation cultivators, shared retail amenities such retail banking, printing and mailing, business or IP legal services, an Innovation Café, and a virtual reality workforce training center.

## 48,000 43,000 Innovation Road Future Connection 50,400 5th Street Extension 54,000 Rim Road 33,00 55,000 Cascades Lane

#### **Building 5: Partner Building**

Imagine the possibility of a Bio-Sciences partnership with a bio-tech firm(s) offices and flex space, OSU research labs and faculty offices, and shared equipment.

# 43,000 Innovation Road Rim Road

#### **Building 6: Conference/Performing Arts**

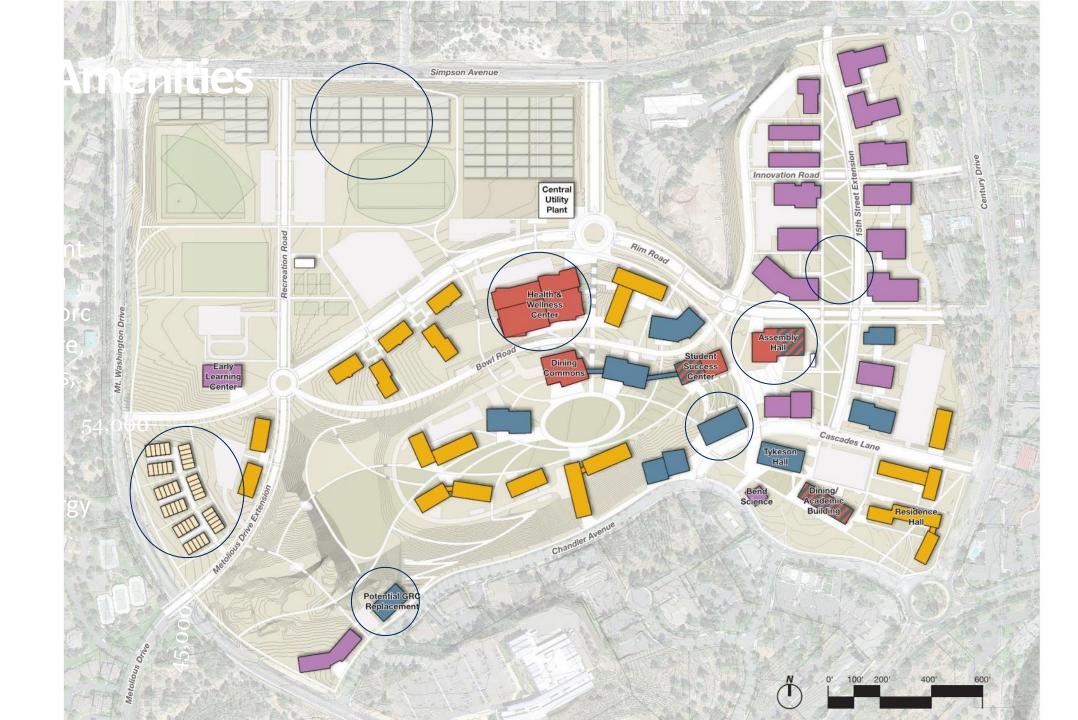
Imagine the possibility of a large assembly space serving performing arts, student engagement and/or conference services, a children's interactive science museum, and an OSU-Cascades hospitality management program run restaurant lab for food and hospitality innovation.

#### **Innovation District Development Partner Targets**

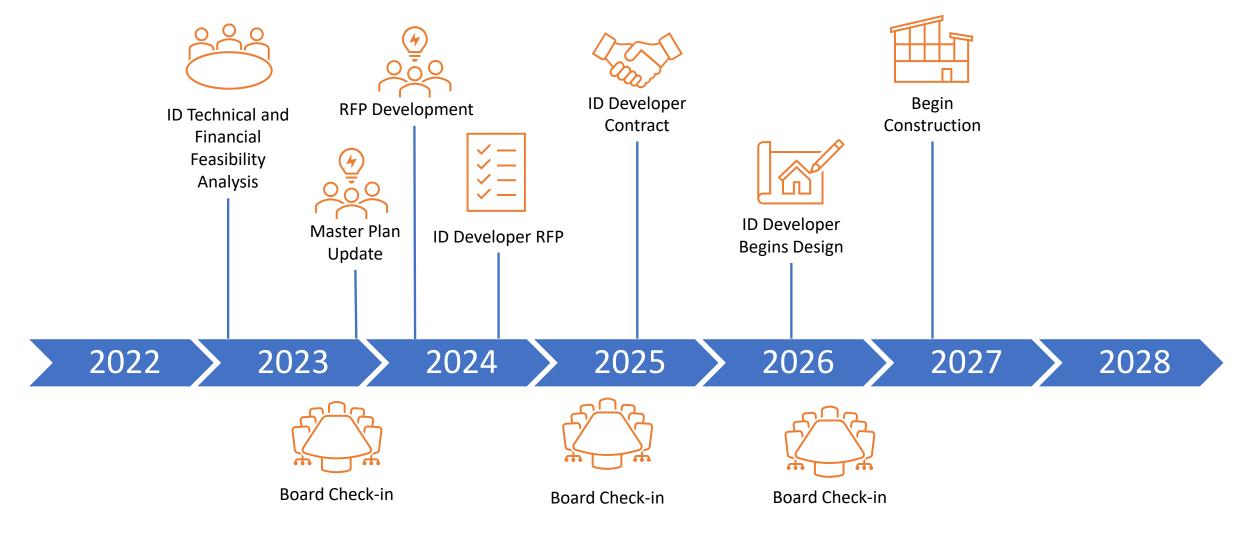
At a conceptual level, OSU-Cascades will prioritize District space use based on the key traded sector clusters, employers, and manufacturing in the region aligned to OSU-Cascades academic core competencies.

- High technology (software and hardware)
- Biotechnology (pharma and medical device)
- Healthcare
- Recreational/outdoor equipment and apparel
- Brewing and distilling
- Aerospace
- Tourism/hospitality
- Renewable Energy





#### **Development Timeline**



#### **The Opportunity**

Interested in getting involved in innovation, entrepreneurship, and mentorship initiatives? Contact <a href="mailto:adam.Krynicki@osucascades.edu">adam.Krynicki@osucascades.edu</a>

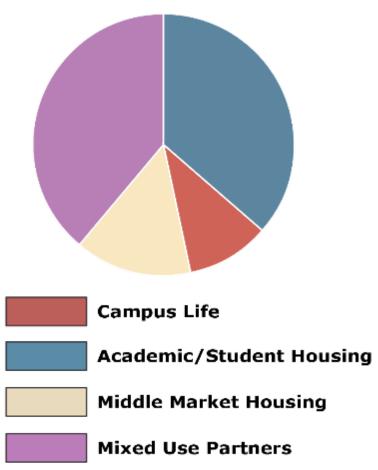
Interested in potentially leasing space in the Innovation District? Contact <a href="mailto:jarrod.penttila@osucascades.edu">jarrod.penttila@osucascades.edu</a>

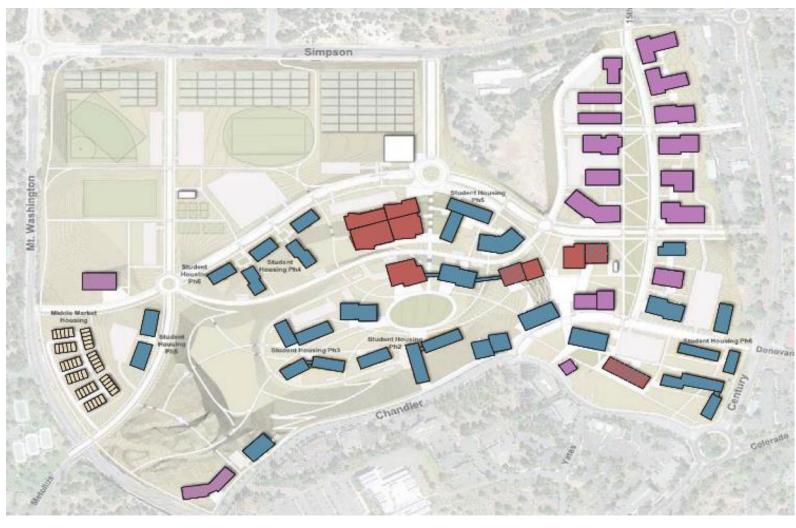
Please let us know if you'd like to learn more or if you have any questions.

# Appendix

#### Assumptions and Analysis Approach

#### **Generators of Trips**





#### Conservative Study Assumptions

- No trip reduction for TDM measures
  - OSU committed to Transportation & Parking Demand Management Plan (TPDM)
  - City Code allows 25% reduction based on TPDM Plan elements
    - Eligible to reduce more than 350 PM Peak trips
- TIA assumed more aggressive building development plan by phase
  - "Front-loaded" approach
    - More academic buildings assumed earlier than in Master Plan
    - TIA recommends mitigation measures earlier than trips will be realized per Master Plan
- TIA study intersections exceed Code requirements