2017-2019 CLASSROOM & LAB UPGRADES

Capital Project Proposal 2017-2019

Active Minds Changing Lives

WESTERN
WASHINGTON UNIVERSITY

Institution
Western Washington University
Project Title
2017-19 Classroom & Lab Upgrades
Project Location (City)
Bellingham

1. Problem Statement (short description of the project – the needs and the benefits)

Western's overall classroom and Lab utilization rates are at or above State utilization targets, however, there continues to be a growing disparity of utilization where a significant but smaller inventory of instructional spaces operate at much higher rates of use than the rest of the inventory. The situation exists because many rooms are not technically capable to accommodate current programmatic needs, especially within the sciences, and because some, but not all rooms are able to accommodate contemporary pedagogies such as student-centered learning.

The lack of adequate classroom and lab space at Western has been felt campus-wide and has made it particularly difficult for the University to respond to the significant demand for STEM and other high-demand degrees. In fact, in the 2015-16 academic year, Western capped all but one major within the University's College of Science and Engineering in part due to insufficient classroom and lab space. Furthermore, the shortage of suitable instructional space, coupled with a surge in STEM majors over the last decade, has limited the University's ability to offer a sufficient number of course sections to meet student demand, thus prolonging the time it takes Western students to complete their degrees.

The 2017-19 Classroom and Lab Upgrades program will address significant and growing inconsistencies in the quality, capacity and utilization of college and department learning spaces at Western Washington University. The project would renovate and/or repurpose twenty-seven individual classrooms and labs in seven buildings, extending the useful life of these spaces by at least 25 years. Increasing existing classroom and lab performance is a fundamental component of Western's ability to respond to student course demand while still enabling students to realize their undergraduate degrees in four years. The continued enhancement of instructional spaces will assist Western's efforts to ensure students experience a high level of technologically relevant education through the most current learning modalities while simultaneously reducing students' time to degree – resulting in both operating cost efficiencies and savings to students and their families.

2. History of the project or facility

This is the fourth biennial request for Western to increase the utilization of low-performing classrooms and labs. Western Washington University has previously implemented classroom and lab upgrade projects in 2011-13, 2013-15 and 2015-17. These very successful programs have markedly improved the utilization of instructional space by making these rooms relevant to current methods of teaching and learning. Many of the rooms that were previously renovated saw two and threefold utilization increases. Some of the labs that we have renovated now see utilization in excess of 30 contact hours per week per seat.

Prior to the 2011-13 biennium, the University maintained a continuous improvement project covering General University (GU) Classrooms in various academic facilities campus-wide. The General University Classroom and Lab upgrades had led to a greatly improved educational environment in these upgraded classrooms and labs however, this created a disparity between GU and departmental space because departmental spaces were managed separate of the larger GU

inventory. In 2011-13 the Institution began to assess all GU and non-GU space. The approach has enabled the Institution to realize far greater efficiencies in all instructional space utilization as well as greatly improved quality of the teaching and learning experience. It has also allowed the Institution a device for repurposing low performing space to serve the larger needs of the University.

3. University programs addressed or encompassed by the project

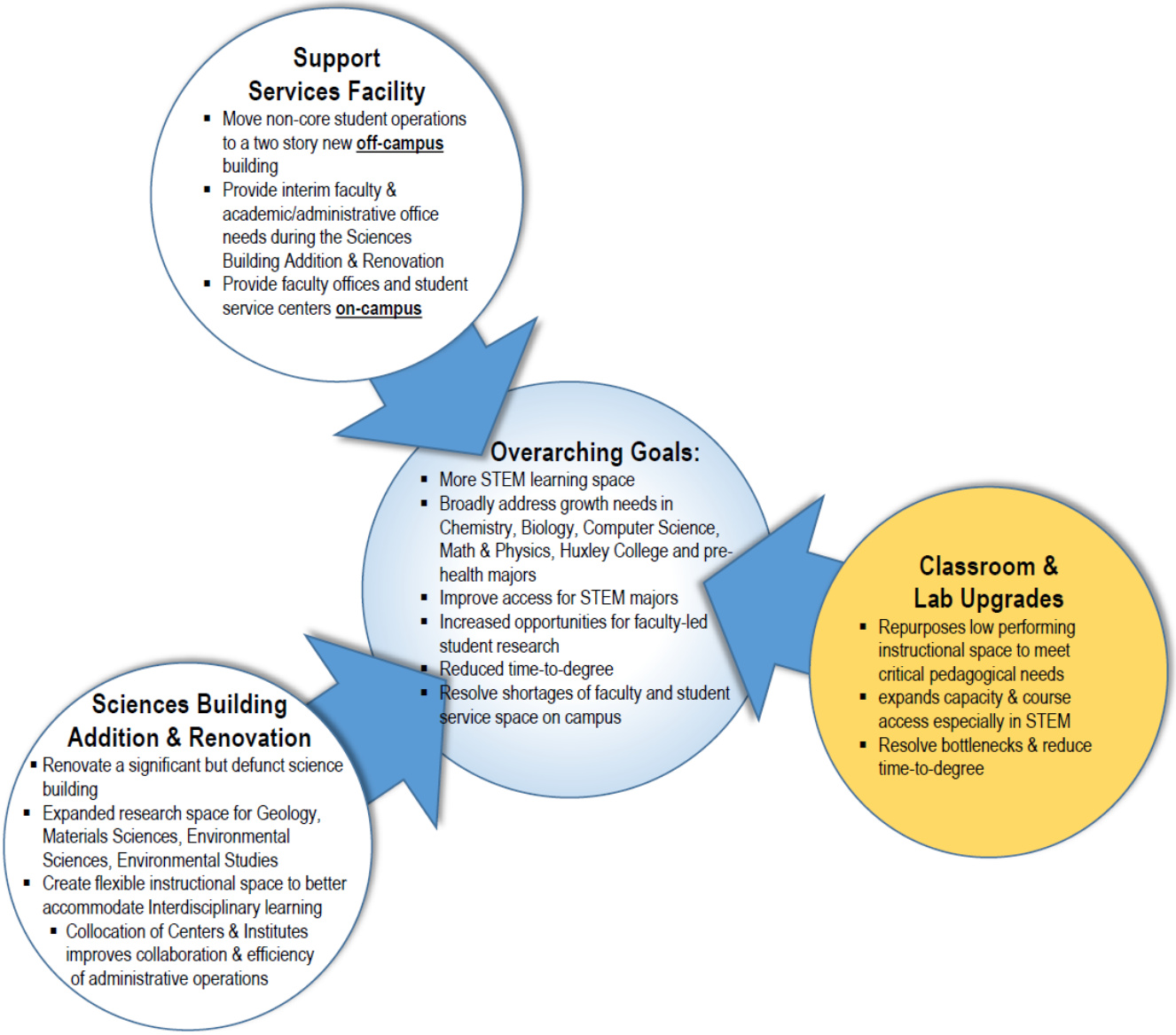
The 2017-19 Classroom & Lab Upgrades will impact academic programs across the university. The project will increase the utilization of non-general use classrooms and labs, provide broader institutional efficiencies through centralized control and monitoring of non-specialized learning areas, and expand institutional capacity by increasing the overall performance of these physical assets.

Linkages to other Capital Projects: The Classroom & Lab Upgrades project is critically interlinked with two other capital requests also proposed by Western in 2017-19. These interrelationships exist in an effort to scale these project requests responsibly to the funded abilities of the State and because of the facilities-intensive nature of science instructional space; we don't have swing-lab space and our better outfitted class labs are already heavily used[1]. Compounding this situation is that Western is presently increasing its hiring of tenure track faculty without the additional office space to house them in. This on a campus with 2000 FTE faculty and staff and over 15,000 students. The relationship of these interlinked capital projects is described in brief below:

[1] **During the 2015 academic year at Western, 16 science labs with a combined student capacity of 395 seats operated at over 20 student contact hours per week per seat:**
- **4 science labs operated in excess of 30 student contact hours per week per seat**
- **2 science labs operated in excess of 40 student contact hours per week per seat**
- **WWU's highest weekly utilization in a science lab in 2016 was 47 contact hours per week per seat**

A. The **Support Services Facility** will assist to resolve Western's shortage of faculty and administrative office space by constructing a two story office building of approximately 25,000 gross square feet. The Support Services Facility would be located south of the main campus on land owned by the Institution that has already been rezoned for this purpose. University operations that will be housed in the new building will be administrative in nature and not have a student learning or student services component. In turn, a significant amount of office space within the core of campus will become available for faculty offices and front-line student services. The **Classroom & Lab Upgrades** project will benefit indirectly from the Support Services Facility because it (the Support Services Facility) enables faculty to be in close proximity to classrooms, labs and most importantly, students.

B. The pre-design of **the Sciences Building Addition & Renovation** was completed in the spring of 2016. The subsequent design and construction of this building component will temporarily displace the entire faculty and academic administrative offices of the departments of Geology, Environmental Sciences, Advanced Materials & Sciences Engineering and Scientific & Technical Services. The first phase (the Addition) of the planned two-stage project will initially provide much of the student instructional and research space that will be displaced during the subsequent renovation phase. The **Classroom & Lab Upgrades** project will provide the balance of the instructional space that is needed to ensure that student time-to-graduate is not impacted during the project's second phase.



4. Integral to Achieving Statewide Policy Goals:

a. Indicate the number of bachelor's degrees awarded at the close of the 2014-15 academic year.

- **3,239** bachelor degrees were awarded at the close of the 2014-15 academic year.

b. Indicate the number of bachelor's degrees awarded in high-demand fields at the close of the 2014-15 academic year.

- **850** bachelor degrees were awarded in high-demand fields at the close of the 2014-15 academic year

c. Indicate the number of advanced degrees awarded at the close of the 2014-15 academic year.

- **241** advanced degrees were awarded at the close of the 2014-15 academic year

The Classroom & Lab Upgrades project promotes improvement on 2014-15 degree production totals in the OFM four-year public dashboard by addressing the instructional space issues that are impacting course access, time-to-degree and the effects of a steady and persistent transition of majors into STEM disciplines from non-STEM disciplines.

5. Integral to Campus/Facilities Master Plan:

a. Western's *Institutional Master Plan* (IMP) approved by the Board of Trustees in October 2001 and adopted as an amendment to the *Western Washington University Neighborhood Plan* by the Bellingham City Council in September 2001, will guide development of the University's main campus until it reaches a capacity of 4,000,000 overall gross square feet of building space. The University is currently at just less than 3,300,000 gross square feet.

b. The *Institutional Master Plan*[2] (IMP) begins with the Institutions heart and mission with the development of the academic core. Established as Western's highest intensity use, this area is a conceptual 10-minute walk-zone situated deep within the campus. It is strongly pedestrian focused; imbued with a sense of sanctuary; and protected from off-campus influences. While the IMP will increase the overall existing built density, the academic core absorbs much of that planned growth by in-fill and modernization to accommodate all of the University's main campus academic needs. It does this while retaining the desirable characteristics that define Western as it is today. Those characteristics include; the continuity of pedestrian flow, the strong connections of the built and natural environment, the sense of a "community of learners," the visual portals to the mountains, water, and adjacent neighborhoods, and the breakdown of scale. The Classroom & Lab Upgrades project will be located within the academic core of campus. The proposed classrooms & labs are located in facilities in IMP Districts 7, 9, 11, and 14 with land use classifications of Academic, Administrative/Support, Student Activities, and Open Space. See Appendix B.

[2] The Western Washington University Institutional Master Plan provides for capacity of growth but leaves project sequencing to the academic plan.

6. Integral to institution's Academic Programs Plan:

Describe the proposed project's relationship and relative importance to the institution's most recent Academic Programs Plan. Must the project be initiated soon in order to:

a. Meet academic certification requirements?

There are no specific certification requirements relating to this project however, there are lab safety concerns that would be addressed with this project. Of specific concern is the extent to which chemistry labs are operating at levels exceeding that of our most heavily used lecture halls and the safety risk that goes with the potential of over-use of specialized lab space especially where hazardous materials and volatile compounds are present.

b. **Permit enrollment growth and/or specific quality improvements in current programs?**

The project enables the Institution to grow enrollment in high demand and STEM disciplines and assists us to resume growth in disciplines that have been capped, usually for a combination of instructional space and faculty resource. Consider the instances listed below:

- For the 2015 and 2016 academic years the Computer Science department had to turn away highly qualified transfer students because of a lack of both instructional staff and physical space. This project will increase the amount of instructional space in the department by repurposing a GU classroom and upgrading two older teaching labs. This coupled with new faculty hires in the department (fall 2017) will allow the department to meet student demand and intake, and increase degree production.
- For the 2015 and 2016 academic years, entry into the Chemistry major has been capped for a lack of space and faculty. This project will renovate two teaching labs to allow for their higher utilization.
- For the 2014-15 and 2016 academic years, entry into Kinesiology and Pre-Med majors have been capped for a lack of human anatomy lab space within Biology, which is the principal means to intake into pre-med & kinesiology majors. This project will create new lab space to allow growth in these majors and increase degree production.

c. **Permit initiation of new programs?**
Nine engineering labs are included within the scope of work for this project. This is a vital development to support Western's new Engineering Program, as we transition away from Engineering Technology.

7. Age of Building Since Last Major Remodel:

There are 27 rooms in 7 buildings associated with this project totaling approximately 27,274 square feet overall. The weighted average building age for these rooms is 29.4 years. See Appendix C.

8. Condition of Building:

Classrooms and Labs proposed for upgrade are in various buildings throughout Western's campus. The average 2016 OFM Comparable Building Condition score base on the parent buildings is 3.1 – Fair. The specific deficiencies corrected in each teaching space includes but is not limited to upgrading inadequate lighting, improving HVAC delivery, replacing worn finishes, and correcting acoustical problems See Appendix C.

The project addresses interior classrooms and labs which are not individually listed in the Washington Heritage Register.

9. Significant Health, Safety, and Code Issues:

Health & Life Safety: The classroom and labs have a weighted average age of 29.4 years. The proposed renovation will include replacement finishes with low volatile organic compounds (VOC) and low greenhouse gas (GHG) impact materials. Worn carpets will be replaced which will eliminate existing trip hazards from wrinkles and ripped seams. Asbestos containing flooring and insulation materials will be removed wherever practical or be encapsulated if not cost effective to remove. The acoustic environment will be improved with noise absorptive panels to improve audibility. Mechanical source noise will be mitigated to eliminate distracting vibrations.

Seismic: Suspended ceiling systems where replaced, will include seismic bracing per current International Building Code (IBC). Lighting fixtures and other room equipment will be upgraded with secondary restraints and lateral bracing per current code.

ADA: Classrooms where fixed seating or tables are replaced will have ADA compliant stations installed per IBC chapter 11. All classroom teaching technology upgrades include assisted listening devices for the hearing impaired.

Energy Code: The lighting upgrades included in the project will bring each classroom in compliance with the Washington State Energy code. These include: low watts per square feet overall energy budget; occupancy sensors to turn lights off automatically when unoccupied; daylight zone automatic dimming; task lighting on writing surfaces to concentrate lumens where needed most; and multifactor computers and monitors. All reductions in electrical consumption translate to reduced mechanical cooling requirements.

10. Reasonableness of Cost:

As shown below the Classroom & Lab Upgrade Project is within the expected cost range:

- 2008 Expected Project Cost Range

  Classrooms $297/GSF x 1.237 (escalation to 2018) = **$367/GSF** construction cost
  $420/GSF x 1.237 (escalation to 2018 = **$520/GSF** total project cost. See Appendix C.

- 2017-19 Classrooms & Labs Upgrade Project Estimated Costs

$4,104,855/27,274 SF = **$151/SF** estimated construction cost (41% of expected cost)
$6,650,000/27,274 SF = **$244/SF** total project cost (47% of expected cost)

11. Availability of Space/Utilization on Campus:

Utilization of classrooms and class-labs remains high at Western. (Appendix D). Of concern is the extent to which class lab utilization, particularly in STEM disciplines, are very high. To better illustrate the situation, of the 126 class labs at Western in the Fall of 2015, twenty-seven class labs operated at greater than 16 Student Credit Hours (SCH) per week per seat; fifteen class labs operated at greater than 20 SCH per week per seat; six class-labs operated at greater than 30 SCH per week per seat and two (Chemistry) labs operated in excess of 40 SCH per week per seat with the highest utilization for a class-lab being 47 SCH. The situation presents access and safety issues and drives our request to expand the availability of STEM instructional space by repurposing low performing instructional space. **In the fall of 2015, the classrooms and labs that will be impacted by this project had an average utilization of only 9 contact hours per week per seat.**

The selection of classrooms and labs was determined on the basis of the following criteria:

a. Measurable outcomes – the upgrades will increase the capacity and room usage and this can be supported with usage data.
b. Banner Data – The structured, academic use of the renovated room must be recorded in Banner (Western's financial management system).
c. Performance Thresholds – the renovated rooms will operate a minimum levels of usage per academic year as applied to the room categories:
    i. General Use Classrooms – 22 contact hours per week per seat.
    ii. Labs (includes General Use Labs) – 16 contact hours per week per seat.

The goal of the project is to ensure that the Institution has adequate access to high performance learning space; this requires that we maintain and upgrade our high performing learning spaces and evaluate and repurpose our low and non-performing learning spaces. Renovated or newly constructed space that cannot be utilized at a minimum level of performance will be reassigned to best serve the evolving needs of the institution. This performance criteria will be applied to all learning space constructed or renovated on campus. An ongoing process of evaluation should result in more transitioning of space between the Colleges and Space Administration. This process has enabled the Institution to more accurately direct capital investments and to respond more quickly to evolving curriculum and pedagogy.

12. Efficiency of Space Allocation:

The project is consistent with the Facility Evaluation and Planning Guide (FEPG) guidelines, which Western uses exclusively.

Classroom/Lab Type	# of Rooms	# of Stations	Proposed ASF/Station	FEPG Standard	Meets Standard
Auditorium/Lecture	2	540	13	14-15	YES
Small Classroom w MTC	7	200	20.0	16-26	YES
Physical Sciences	7	130	60.9	80	YES
Computer Lab	2	40	35.8	60	YES
Engineering Lab	9	254	37.4	120	YES

13. Adequacy of Space:

This project is fundamentally rooted in meeting modern educational standards and during a protracted period of restraint, has been our principal means of adapting space to meet and support the evolving needs of the State. Renovating existing instructional space in response is the most cost and time effective method of resolving our pressing physical capacity and space related pedagogical issues. See Appendix E.

2017-19 Classroom & Lab Upgrades

Appendix Contents

Appendix A

OFM

380 - Western Washington University
Capital Project Request

2017-19 Biennium

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Version: WV Working Version 2017-19 Budget Req

Report Number: CBS002
Date Run: 7/29/2016 5:22PM

Project Number: **30000769**
Project Title: **2017-19 Classroom & Lab Upgrades**

Description

Starting Fiscal Year: 2018
Project Class: Program
Agency Priority: 3

Project Summary

As in previous biennia, the 2017-19 Classroom & Lab Upgrades will continue to repurpose and upgrade existing instructional space within the departments. The goal of the project is to ensure that the Institution has adequate access to high performance learning space that operates at the State's target utilization of student contact hours per week per lab/classroom seat. For 2017-19, much of the scope of work is focused on classrooms and labs that will support the Sciences Building Addition & Renovation project.

Project Description

Western's overall classroom and Lab utilization rates are at or above State utilization targets, however, there continues to be a growing disparity of utilization where a significant but smaller inventory of instructional spaces operate at much higher rates of use than the rest of the inventory. The situation exists because many rooms are not technically capable to accommodate current programmatic needs, especially within the sciences, and because few rooms are able to accommodate contemporary pedagogies such as student-centered learning.

The lack of adequate classroom and lab space at Western has been felt campus-wide and has made it particularly difficult for the University to respond to the significant demand for STEM and other high-demand degrees. In fact, in the 2015-16 academic year, Western capped all but one major within the University's College of Science and Engineering in part due to insufficient classroom and lab space. Furthermore, the shortage of suitable instructional space, coupled with a surge in STEM majors over the last decade, has limited the University's ability to offer a sufficient number of course sections to meet student demand, thus prolonging the time it takes Western students to complete their degrees.

The 2017-19 Classroom and Lab Upgrades program will address significant and growing inconsistencies in the quality, capacity and utilization of college and department learning spaces at Western Washington University. The project would renovate and/or repurpose 27 individual classrooms and labs in 7 buildings, extending the useful life of these spaces by at least 25 years. Increasing existing classroom and lab performance is a fundamental component of Western's ability to respond to student course demand while still enabling students to realize their undergraduate degrees in four years. The continued enhancement of instructional spaces will assist Western's efforts to ensure students experience a high level of technologically relevant education through the most current learning modalities while simultaneously reducing students' time to degree – resulting in both operating cost efficiencies and savings to students and their families.

This is the fourth biennial request for Western to increase the use and utilization of low-performing classrooms and labs. Western Washington University has previously implemented classroom and lab upgrade projects in 2011-13, 2013-15 and 2015-17. These very successful programs have markedly improved the utilization of instructional space by making these rooms relevant to current methods of teaching and learning. Many of the rooms that were previously renovated saw two and threefold utilization increases. Some of the labs that we have renovated now see utilization in excess of 30 contact hours per week per seat.

The Classroom & Lab Upgrade*s* project is critically interlinked with two other capital requests also proposed by Western in 2017-19, Sciences Building Addition & Renovation and Support Services Facility Phase1. All three projects depend on each other for Western to be able to design and construction the first phase of the Sciences Building Addition & Renovation. Upgraded science classrooms and labs are needed for classes and labs displaced by the Sciences Building Addition & Renovation and the Support Services Facility Phase 1 will help resolve Western's shortage of faculty and administrative space during that period and after.

The Classroom & Lab Upgrades *project* promotes improvement on 2014-15 degree production totals in the OFM four-year public dashboard by addressing the instructional space issues that are impacting course access, time-to-degree and the effects of a steady and persistent transition of majors into STEM disciplines from non-STEM disciplines.

This project enables the Institution to grow enrollment in high demand and STEM disciplines and assists us to resume growth in

Version: WV Working Version 2017-19 Budget Req

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Project Number: 30000769
Project Title: 2017-19 Classroom & Lab Upgrades

Description

disciplines that have been capped, usually for a combination of instructional space and faculty resource. For example:

-- For the 2015 and 2016 academic years, The Computer Science department had to turn away highly qualified transfer students because of a lack of both instructional staff and physical space. This project will increase the amount of instructional space in the department by repurposing a General Use classroom and upgrading two older teaching labs. Coupled with new faculty hires in fall 2017, the department will be able to meet student demand and increase degree production.

-- For the 2015 and 2016 academic years, entry into the Chemistry major has been capped for a lack of space and faculty. This project will renovate two teaching labs to allow for their higher utilization.

-- For the 2014-15 and 2016 academic years, entry into Kinesiology and Pre-Med majors was capped for a lack of human anatomy lab space within Biology, which is the principal means to intake into pre-med & kinesiology majors. This project will create new lab space to allow growth in these majors and increase degree production.

Project Schedule:
Design Start - September 2017
Construction End - September 2019

Gross Square Ft (GSF) = 27,274
Usable Square Ft (USF) = 27,274
Building Efficiency = 100%

Location
City: Bellingham **County:** Whatcom **Legislative District:** 040

Project Type
Remodel/Renovate/Modernize (Major Projects)

Growth Management impacts
none

New Facility: No

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2017-19 Fiscal Period Reapprops	2017-19 Fiscal Period New Approps
057-1	State Bldg Constr-State	6,180,000				6,180,000
065-1	WWU Capital Projects-State	470,000				470,000
	Total	**6,650,000**	**0**	**0**	**0**	**6,650,000**

Acct Code	Account Title	Future Fiscal Periods 2019-21	2021-23	2023-25	2025-27
057-1	State Bldg Constr-State				
065-1	WWU Capital Projects-State				
	Total	**0**	**0**	**0**	**0**

380 - Western Washington University
Capital Project Request
2017-19 Biennium

*

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Project Title: **2017-19 Classroom & Lab Upgrades**

Operating Impacts

No Operating Impact

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Western Washington University
Project Name	2017-19 Classroom & Lab Upgrades
OFM Project Number	30000769

Contact Information	
Name	Rick Benner, FAIA
Phone Number	(360) 650-3550
Email	Rick.Benner@wwu.edu

Statistics			
Gross Square Feet	27,274	MACC per Square Foot	$140
Usable Square Feet	27,274	Escalated MACC per Square Foot	$151
Space Efficiency	100.0%	A/E Fee Class	B
Construction Type	Science labs (teaching)	A/E Fee Percentage	11.97%
Remodel	Yes	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	Yes
Inflation Rate	2.80%	Higher Ed Institution	Yes
Sales Tax Rate %	8.70%	Location Used for Tax Rate	
Contingency Rate	10%		
Base Month	July-16		
Project Administered By	Agency		

Schedule			
Predesign Start		Predesign End	
Design Start	September-17	Design End	May-18
Construction Start	June-18	Construction End	September-19
Construction Duration	15 Months		

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Project Cost Estimate

Total Project	**$6,217,039**	Total Project Escalated	**$6,649,590**
		Rounded Escalated Total	**$6,650,000**

STATE OF WASHINGTON		
AGENCY / INSTITUTION PROJECT COST SUMMARY		
Agency	Western Washington University	
Project Name	2017-19 Classroom & Lab Upgrades	
OFM Project Number	30000769	

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
A/E Basic Design Services	$347,628		
Extra Services	$223,500		
Other Services	$216,181		
Design Services Contingency	$78,731		
Consultant Services Subtotal	**$866,040**	**Consultant Services Subtotal Escalated**	**$911,670**

Construction			
Construction Contingencies	$382,630	Construction Contingencies Escalated	$410,486
Maximum Allowable Construction Cost (MACC)	$3,826,300	Maximum Allowable Construction Cost (MACC) Escalated	$4,104,855
Sales Tax	$366,177	Sales Tax Escalated	$392,835
Construction Subtotal	**$4,575,107**	**Construction Subtotal Escalated**	**$4,908,176**

Equipment			
Equipment	$403,000		
Sales Tax	$35,061		
Non-Taxable Items	$0		
Equipment Subtotal	**$438,061**	**Equipment Subtotal Escalated**	**$469,953**

Artwork			
Artwork Subtotal	**$20,524**	**Artwork Subtotal Escalated**	**$20,524**

Agency Project Administration			
Agency Project Administration Subtotal	$255,307		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$255,307**	**Project Administation Subtotal Escalated**	**$273,894**

Other Costs			
Other Costs Subtotal	**$62,000**	**Other Costs Subtotal Escalated**	**$65,373**

Project Cost Estimate			
Total Project	**$6,217,039**	Total Project Escalated	**$6,649,590**
		Rounded Escalated Total	**$6,650,000**

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0328**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$347,628			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$347,628**	**1.0423**	**$362,333**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning				
Site Survey				
Testing	$20,000			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Acoustical Consultant	$20,000			
Travel & Per Diem	$5,000			
Document Reproduction	$5,000			
Advertising	$3,500			
AV Consultant	$50,000			
Interior Design Consultant	$20,000			
Hazmat Consultant	$50,000			
Lab Consultant	$50,000			
Insert Row Here				
Sub TOTAL	**$223,500**	**1.0423**	**$232,955**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$156,181			31% of A/E Basic Services
HVAC Balancing	$20,000			
Staffing				
On-Site Rep.	$40,000			
Insert Row Here				
Sub TOTAL	**$216,181**	**1.0728**	**$231,919**	Escalated to Mid-Const.

5) Design Services Contingency				
Design Services Contingency	$78,731			
Other				
Insert Row Here				
Sub TOTAL	**$78,731**	**1.0728**	**$84,463**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$866,040**		**$911,670**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation				
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities				
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0544**	**$0**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0544**	**$0**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
MACC	$3,826,300			
Insert Row Here				
Sub TOTAL	**$3,826,300**	**1.0728**	**$4,104,855**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$3,826,300**		**$4,104,855**	

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7) Construction Contingency				
Allowance for Change Orders	$382,630			
Other				
Insert Row Here				
Sub TOTAL	**$382,630**	**1.0728**	**$410,486**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0728**	**$0**	
Sales Tax				
Sub TOTAL	**$366,177**		**$392,835**	
CONSTRUCTION CONTRACTS TOTAL	**$4,575,107**		**$4,908,176**	

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Cost Estimate Details

Equipment				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment				
E20 - Furnishings	$403,000			
F10 - Special Construction				
Other				
Insert Row Here				
Sub TOTAL	**$403,000**	**1.0728**	**$432,339**	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0728**	**$0**	
Sales Tax				
Sub TOTAL	**$35,061**		**$37,614**	
EQUIPMENT TOTAL	**$438,061**		**$469,953**	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0				0.5% of Escalated MACC for new construction
Higher Ed Artwork	$20,524				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$20,524**		**NA**	**$20,524**	

Green cells must be filled in by user

Cost Estimate Details

Project Management				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$255,307			
Additional Services				
Other				
Insert Row Here				
PROJECT MANAGEMENT TOTAL	**$255,307**	**1.0728**	**$273,894**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs				
Hazardous Material Remediation/Removal				
Historic and Archeological Mitigation				
Plan Review	$40,000			
M & O Assist	$22,000			
OTHER COSTS TOTAL	**$62,000**	**1.0544**	**$65,373**	

Green cells must be filled in by user

C-100(2016)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

Appendix B

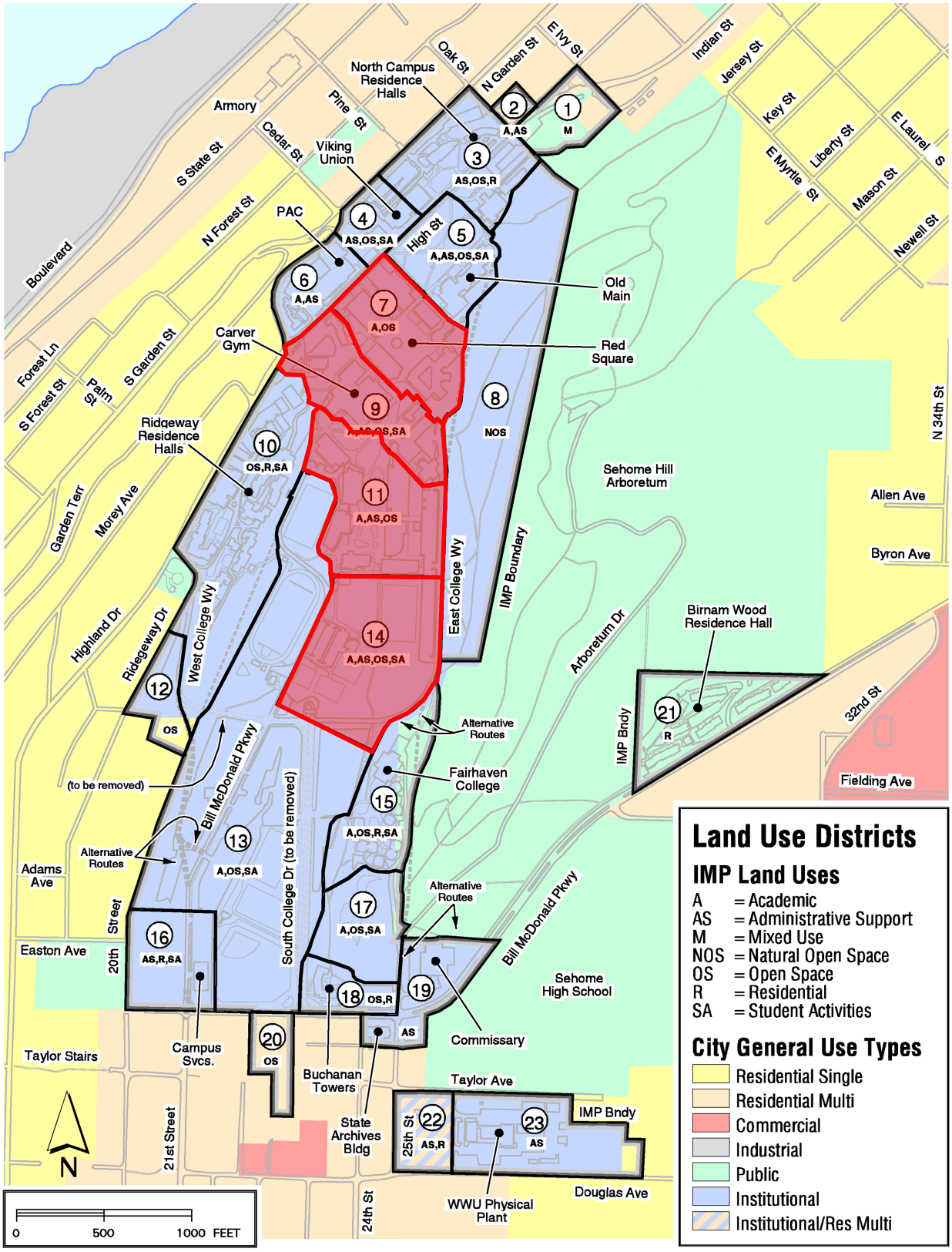
Western Washington University
Institutional Master Plan

An Addendum to the Western Washington University Neighborhood Plan

Adopted by the City of Bellingham, September 24, 2001
Ordinance #2001-09-068

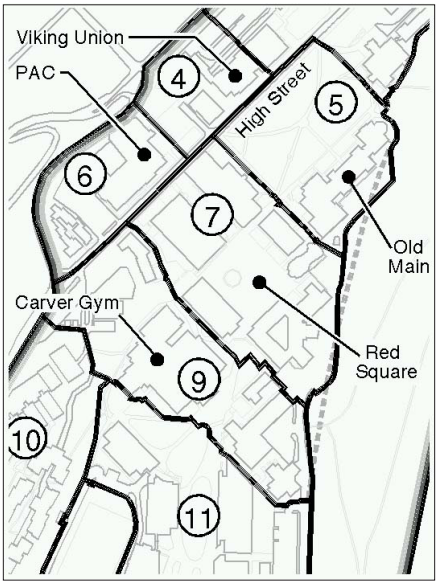
Approved by WWU Board of Trustees, October 5, 2001

WESTERN
WASHINGTON UNIVERSITY


North Campus Residence Halls
Armory
Viking Union
PAC
Old Main
Carver Gym
Red Square
Ridgeway Residence Halls
Sehome Hill Arboretum
Birnam Wood Residence Hall
Fairhaven College
Alternative Routes
(to be removed)
Bill McDonald Pkwy
South College Dr (to be removed)
Adams Ave
Easton Ave
Taylor Stairs
Campus Svcs.
Buchanan Towers
State Archives Bldg
Commissary
Sehome High School
WWU Physical Plant
Douglas Ave
Taylor Ave
Allen Ave
Byron Ave
Fielding Ave
IMP Boundary
IMP Bndy
East College Wy
West College Wy
Arboretum Dr
N Garden St
Oak St
E Ivy St
Indian St
Jersey St
Key St
Liberty St
E Laurel St
E Myrtle St
Mason St
Newell St
N 34th St
32nd St
High St
Pine St
Cedar St
S State St
N Forest St
Boulevard
Forest Ln
S Forest St
Palm St
S Garden St
Garden Terr
Morey Ave
Highland Dr
Ridgeway Dr
20th Street
21st Street
24th St
25th St
1 M
2 A,AS
3 AS,OS,R
4 AS,OS,SA
5 A,AS,OS,SA
6 A,AS
7 A,OS
8 NOS
9 A,AS,OS,SA
10 OS,R,SA
11 A,AS,OS
12 OS
13 A,OS,SA
14 A,AS,OS,SA
15 A,OS,R,SA
16 AS,R,SA
17 A,OS,SA
18 OS,R
19 AS
20 OS
21 R
22 AS,R
23 AS
N
0 500 1000 FEET
Land Use Districts
IMP Land Uses
A = Academic
AS = Administrative Support
M = Mixed Use
NOS = Natural Open Space
OS = Open Space
R = Residential
SA = Student Activities
City General Use Types
Residential Single
Residential Multi
Commercial
Industrial
Public
Institutional
Institutional/Res Multi

District 7

Location: Red Square and Adjacent Buildings (Bond Hall, Fraser Hall, Humanities, Miller Hall, and Wilson Library/Haggard Hall)



Adjacent City Zoning:
None

2001 Primary Land Uses:

- Open space, recreation, gathering spot, assembly, and multiple sculpture sites (Red Square)
- Academic (Bond Hall, Fraser Hall, Humanities, Miller Hall, and Wilson Library/Haggard Hall)
- Parking

City Land Use Designation:

- Institutional (Area 1, WWU Neighborhood Plan)

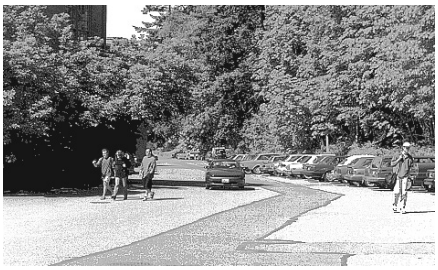
Institutional Master Plan Land Use Classifications:

- Academic
- Open space

Character Goals and Development

Fisher Fountain in Red Square

Use of brick in Red Square



East College Way behind Miller Hall

East College Way behind Miller Hall

Recommendations:

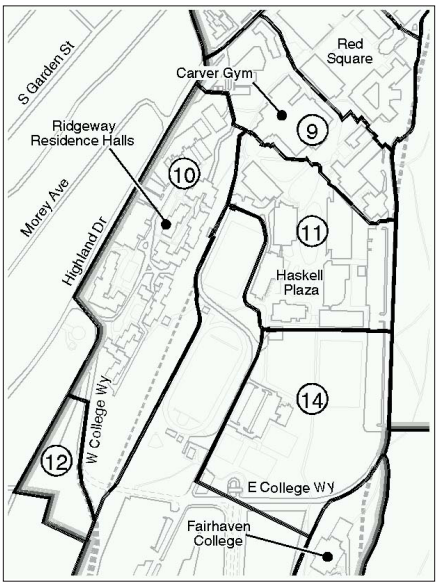
- Preserve views of Bellingham Bay from Wilson Library/Haggard Hall.
- Maintain use of Red Square as major gathering spot and open space on campus.

Rationale:

- Maintains contiguous academic core and falls within the 10-minute walk radius.
- Preservation of existing open space.
- District is fully developed for academic use.

District 9

Location: Parking Area South of College Hall, Art Annex, Carver Gym, College Hall, Fine Arts, and Steam Plant



Adjacent City Zoning: Residential-Single (South Hill Neighborhood)

2001 Primary Land Uses:

- Academic (Art Annex, Carver Gym, College Hall, Fine Arts)
- Student activities (Carver Gym)
- Administrative/support (Steam Plant)
- Parking

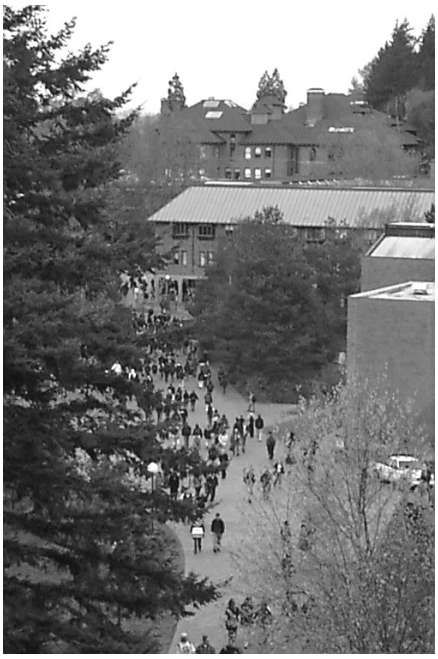
City Land Use Designation:

- Institutional (Area 1, WWU Neighborhood Plan)

Institutional Master Plan Land Use Classifications:

- Academic
- Student activities
- Administrative/support
- Open space

College Hall



Major intersection between east/west and south/north pedestrian routes

Parking area behind Fine Arts

Character Goals and Development Recommendations:

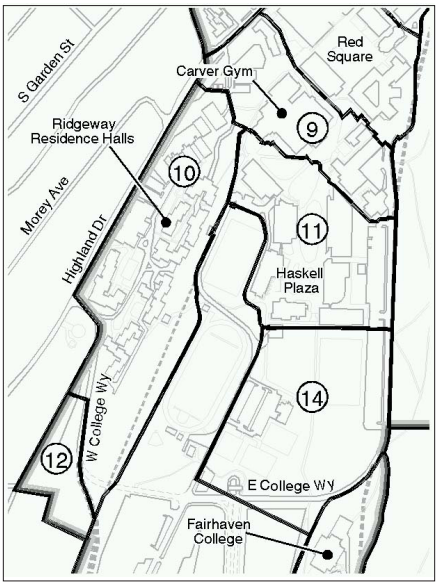
- Add academic use to the south side of Carver Gym.
- Stronger enforcement of Dismount Zone.
- Increase district area to the south of College Hall to include potential site for additional academic infill.
- Increase academic space.
- Develop parking facility south of College Hall/ north of Highland Hall.
- Limit vehicular traffic along East College Way by designating it as a “limited access” road.

Rationale:

- Increases academic capacity without adversely affecting existing character of district.
- Maintains contiguous academic zone and falls within the 10-minute walk zone.
- Stricter enforcement of Dismount Zone would help mitigate conflicts between pedestrians, bicyclists, and vehicles.
- Steam Plant serves infrastructure needs; function cannot change.
- Maintains parking on the periphery of campus and provides parking facilities to serve north and central campus destinations.

District 11

Location: Haskell Plaza (Science, Mathematics and Technology Education, Chemistry, Biology, Parks Hall, Ross Engineering Technology, Arntzen Hall, Environmental Studies)



Adjacent City Zoning: None

2001 Primary Land Uses:

- Academic (Arntzen Hall and Greenhouse; Biology; Chemistry; Environmental Studies; Parks Hall; Science, Mathematics and Technology Education; and Ross Engineering Technology)
- Open space, sculpture sites, circulation (Haskell Plaza and Science, Mathematics and Technology Education lawn area)
- Parking

City Land Use Designation:

- Institutional (Area 1, WWU Neighborhood Plan)

Institutional Master Plan Land Use Classifications:

- Academic
- Administrative/support
- Open space

Character Goals and Development

Haskell Plaza

Hamrol's "Log Ramps"

Parking lots behind Ross Engineering Technology

Parking lots along East College Way

Recommendations:

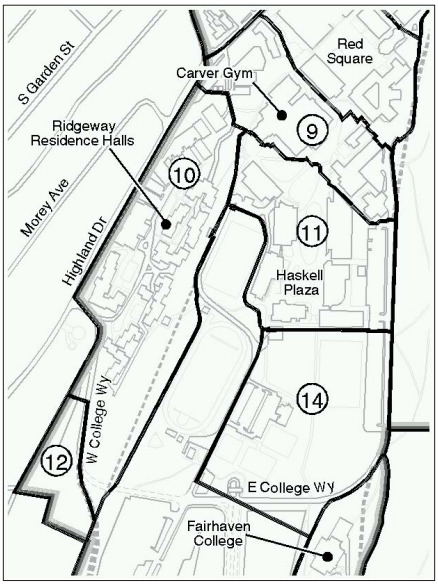
- Maintain Haskell Plaza as open space.
- Add fourth floor to Ross Engineering Technology Building as it was originally designed.
- Improve views to the west along East College Drive.
- Limit vehicular traffic along East College Drive by designating it as a "limited access road."

Rationale:

- Follows linear progression of campus core and provides appropriately scaled open space.
- Increases academic density without adversely affecting district character.
- Maintains contiguous academic core and falls within the 10-minute walk radius.

District 14

Location: Proposed Academic Quad South of Environmental Studies and Parks Hall



Adjacent City Zoning:
Public (Sehome Arboretum to the east)

2001 Primary Land Uses:

- General recreation (playfields)
- Administrative/support (Public Safety/Mailroom and Visitor Information Center)
- Multiple sculpture sites
- Circulation and parking

City Land Use Designation:

- Institutional (Area 1, WWU Neighborhood Plan)

Institutional Master Plan Land Use Classifications:

- Academic
- Administrative/support
- Open space
- Student activities

Character Goals and Development

Proposed academic quad area

Nauman's "Stadium Piece", tennis courts, Public Safety

Recommendations:

- Develop new south academic quad.
- Extend progression of academic plazas to the south with construction of new south plaza.
- Develop views of valley.
- Maintain scale similar to Haskell Plaza and Red Square.
- Maintain and accommodate sculpture collection.
- Restrict building height to minimize impact to Ridgeway residential district to the west.

Rationale:

- Expansion of current academic space is required to serve growth in student enrollment.
- Location of new south quad falls within the 10-minute walk radius and maintains contiguous academic campus core.
- Clustering of academic buildings encourages optimal functional, technical and social relationships among users.
- Location of new quad follows linear progression of campus core and geographical constraints.

Appendix C

Classroom and Lab
Building Condition and Cost

Building	Room	Age	Condition Index	Area	Age Weighted Average	Average Condition Index
CV	Lab #1	1	1	1450	0.05	0.05
CV	Lab #2	1	1	1450	0.05	0.05
AH	04	42	4	1248	1.92	0.18
AH	12	42	4	452	0.70	0.07
AH	18	42	4	639	0.98	0.09
AH	100	42	4	4215	6.49	0.62
AH	412/414	42	4	800	1.23	0.12
BH	14/16	11	3	1400	0.56	0.15
ET	308	29	3	1008	1.07	0.11
ET	262	29	3	1008	1.07	0.11
ET	338/340	29	3	2413	2.57	0.27
ET	347/348/349/350	29	3	3258	3.46	0.36
ET	106	29	3	1612	1.71	0.18
CB	252	23	3	638	0.54	0.07
CB	410	23	3	1040	0.88	0.11
CB	470	23	3	1594	1.34	0.18
CH	231	69	4	495	1.25	0.07
CH	135	69	4	536	1.36	0.08
CH	137	69	4	588	1.49	0.09
CF	418	12	2	714	0.31	0.05
CF	414	12	2	716	0.32	0.05
				27274	29.37	3.06

Resonableness of Cost

	2008	2018 Factor		
Classroom	297	1.237	367.389	Construction Cost/sf
	420	1.237	519.54	Project Cost/sf

2017-19 Classrom & Lab Request
Jul-16

Appendix D

AVAILABILITY OF SPACE

Project Name: **Classroom & Lab Upgrades**
Campus Location: **516 High Street, Bellingham, WA**

REQUIRED FOR ALL CATEGORIES EXCEPT ACQUISITION AND INFRASTRUCTURE.

Identify the average number of hours per week each (a) classroom seat and (b) classroom lab is expected to be utilized in Fall 2014 on the proposed project's campus. Please fill in the blue shaded cells for the campus where the project is located.

(a) General University Classroom Utilization		**(b) General University Lab Utilization**	
Fall 2015 Weekly Contact Hours	168,519	Fall 2015 Weekly Contact Hours	35,786
Multiply by % FTE Increase Budgeted	0.03%	Multiply by % FTE Increase Budgeted	0.03%
Expected Fall 2016 Contact Hours	168,570	Expected Fall 2016 Contact Hours	35,797
Expected Fall 2016 Classroom Seats	7,643	Expected Fall 2016 Class Lab Seats	1,946
Expected Hours per Week Utilization	**22.05**	**Expected Hours per Week Utilization**	**18.39**
HECB GUC Utilization Standard	22	HECB GUL Utilization Standard	16
Difference in Utilization Standard	0.22%	Difference in Utilization Standard	14.93%

If the campus does not meet the 22 hours per classroom seat and/or the 16 hours per class lab HECB utilization standards, describe any institutional plans for achieving that level of utilization.

Appendix E

Program-related Space Allocation
Assignable Square Feet Template

Input the assignable square feet for the proposed project under the appropriate space type below:

Type of Space	Points	Assignable Square Feet	Percentage of total	Score [Points x Percentage]
Instructional Space (Classroom, Lab, Library)	6	27,274	100.0	6.0
Student Advising/Counseling	4		0.0	0.0
Childcare	1		0.0	0.0
Faculty Offices	4		0.0	0.0
Administrative	3		0.0	0.0
Maintenance/Central Stores/Student Center	4		0.0	0.0
Total		**27,274**	**100.0**	**6.0**