

# THE GATEWAY BUILDING

## 2019-2021 Project Request Report

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## **1.0 EXECUTIVE SUMMARY**

#### 1.1 Problem Statement / Type of Project Request

In 1999 the State of Washington collocated Cascadia College and the University of Washington - Bothell (UWB) to meet the area's rapidly growing demand for educational access. Since that time, enrollment at both institutions has outstripped the state's projections – until constrained by physical capacity. The growth pattern at Cascadia has been one of buildings opening, enrollment immediately leaping and then plateauing. This pattern is reflected in the following statistic: in terms of total gross facility area per full time equivalent student, our master plan targets 150 GSF/FTE.<sup>1</sup> While the WACTC 2016 system average is 203 GSF/Type 1 FTE, Cascadia's current ratio is 99 GSF/Type 1 FTE – less than half of the system's average space per FTE. Based on our benchmark, Cascadia's current space shortfall is 106,744 GSF; even following the planned construction of CC4 Cascadia will have a space shortfall of 67,344 GSF in 2026. We are accordingly proposing a growth project to meet our community's educational access needs and the College's need for facilities that support educational excellence.

Without additional capacity, Cascadia's ability to serve its students and fulfill its mission will be compromised in a number of ways:

- As a direct result of overcrowding, many critical student services (testing center, counseling services, transfer and career exploration center, and dedicated facilities for student orientation) have been dispersed across the college *to the detriment of their effectiveness* or are wholly unavailable due to lack of space. Additional space will allow the College to follow the best practices of peer institutions and consolidate its services into a "one-stop" student services center.
- Students in rigorous transfer programs need to collaborate with peers and take advantage of Supplemental Instruction and tutoring resources in non-scheduled and informal learning environments. We have *literally none* of the collaborative learning break-out spaces that are in high demand today. The informal spaces we do have are often inaccessible due to overbooking thereby *disadvantaging our students*.
- As a result of inadequate space and being byproducts of a more formal pedagogy, Cascadia's instructional facilities *do not effectively support* the inquiry-based, integrated education at the heart of Cascadia's mission and *compromise* Cascadia's ability to provide the kind of support our most vulnerable students need to succeed.

In addition to space constraints, Cascadia faces a crisis of identity stemming from our collocation with UWB. Whereas the original campus organizing principle split the campus in two, with UWB occupying the south and Cascadia the north, UWB has grown by acquiring property and facilities to the west and north, isolating Cascadia on an island in the middle of a "sea of purple." While UWB has an imposing southern entry, Cascadia *literally has no front door*.

Until Cascadia obtains facilities to meet student needs, these intractable deficiencies will remain. Due to (a) our growth and (b) system limitations on our ability to renovate existing buildings, any solution inherently requires new construction.

<sup>&</sup>lt;sup>1</sup> Type 1 FTE. GSF excludes housing and parking. See Section 2.2.1 and Appendix 7.3.



#### 1.2 Proposed Solution

Our Center for Science and Technology (CC4) facility entered the SBCTC capital funding pipeline in 2015 and will address our STEM-specific facilities deficiencies. But CC4 solves only part of the institutional problem. Today we propose a similar solution – *The Gateway Building (CC5)* – to our shortage of student services and foundational course capacity. The Gateway Building will allow us to meet growing local demand for access to a college education, expand our onramp course offerings, and allow us to fully implement our integrated education model. Totaling 61,600 GSF, the facility will provide students with multiple opportunities to engage in active learning. The new building will support learning outside formal instructional environments through the inclusion of break-out rooms, collaborative workspaces, faculty offices, and a Learning Commons facilitating remote library access.

Equally important, the Gateway Building will be instrumental in campus placemaking. It's location on campus and its architectural expression will serve as a symbolic entry to Cascadia College and a demarcation between Cascadia and UWB's facilities to the south, west, and north. When incoming and new students begin their studies the prominent location of The Gateway Building will help lead them to the support services they need to succeed.

#### 1.3 Programs Addressed by this Project

The Gateway Building will house the following functions:

- Student Services:
  - Enrollment
  - Financial Aid
  - Advising
  - Adult Basic Education / ABE
  - o Workforce
  - o Career Center / Transfer Center
  - o Dual Enrollment / Running Start
  - o Disability Services
  - Testing Center
  - o Tech Support
- Foundational Courses:
  - College 101
  - English 80-96, 101, 102
  - Math 75, 85, 95
  - o ESL/ABE
- Learning Commons (supported by Library Services)
- Faculty Offices

## 1.4 Probable Cost & Comparison to Benchmark

•	Max. Allowable Construction Cost (MACC)	=	\$23,044,000 (escalated & rounded).
•	Total Project Cost	=	\$32,915,000 (escalated & rounded).
•	Total Infrastructure Cost	=	<b>\$827,000</b> (escalated & rounded).



The total project cost is **less than** the OFM expected cost per square foot for this facility type of \$32,918,595. For C-100 and detailed project cost estimates see Attachment 6.1.

#### 1.5 Project Schedule

Pre-Design for the Gateway Building will commence July 2019, and the Design process will begin in January 2020. Construction will begin in July 2021 and we expect Substantial Completion in January 2023.

#### 1.6 Funding

Cascadia College anticipates 100 percent state funding for design and construction of the Gateway Building (CC5) over two biennia, with Pre-Design and Design funds totaling \$3,528,000 requested for the 2019/2021 biennium and Construction funds totaling \$29,387,000 requested for the 2021/2023 biennium.

## 2.0 PROBLEM STATEMENT, OPPORTUNITY OR PROGRAM REQUIREMENT

#### 2.1 The Project and its Benefits

The Gateway Building will be a 61,600 GSF four-story academic building located north of Cascadia's existing Building CC2 and east of Building CC3. It will be visible from all Cascadia facilities and from the library shared with UWB, and will establish the physical and symbolic point of entry to the institution. It is fully anticipated by the 2017 Campus Master Plan, and will strengthen Cascadia's identity on the shared campus.

The Gateway Building is an onramp-focused facility providing a variety of instructional and support environments, including:

- 12 technology-rich classrooms capable of supporting multiple furnishing layouts, all with associated break-out spaces;
- Student services in a comprehensive support facility, replacing functions now scattered among three campus buildings;
- 1 classroom and 2 computer labs dedicated to student services functions;
- The Learning Commons, a staffed outpost of the library we share with UWB, dedicated to the needs of new students, with small and large breakout spaces for group study;
- Multiple collaborative learning spaces, including open study areas where students can work on the group project assignments that are central to Cascadia's learning model.

The Gateway Building will provide a safe and comprehensive environment focused on the unique needs – instructional, social, and practical – of first-year students. For instance, it will house College 101 as well as ABE, with the goal of developing a stable and confident student population well-equipped for college-level study. The complete program space listing and area calculations are provided in Appendix 7.8.

#### 2.2.1 Relationship to Campus Master Plan

Development at Cascadia and UWB has been controlled by master plan since our inception. We are in the process of transitioning from our 2010 Master Plan (Revised 2011) to a new 2017 Campus Master Plan, jointly developed by UW Bothell and Cascadia College and scheduled to be adopted by the Board of Trustees on January 17, 2018.<sup>2</sup> Both

<sup>&</sup>lt;sup>2</sup> The 2017 Campus Master Plan was approved by the Bothell City Council on Nov. 14, 2017.



existing and new plans explicitly support the Gateway Building in its proposed location. Moreover, the 2017 Campus Master Plan sets clear guidelines for sizing academic facilities based on FTE, using benchmarks from the SBCTC and peer institutions. The Gateway Building is the next step – after the Center for Science & Technology (CC4) currently in the SBCTC pipeline – toward the successful implementation of Cascadia's Strategic Plan and *our number one unmet priority*. For excerpts specific to the Gateway Building from our soon-to-be-adopted master plan and our 2010 Master Plan, as well as links to the full documents, see Appendix 7.3.

Our 2017 Campus Master Plan differs from prior master plans in one crucial way. Until now, the joint campus has been organized around the principal that buildings south of the shared library house UW Bothell, while buildings to the north house Cascadia College. Practically, it has become clear that the growth UWB anticipates cannot be addressed solely to the south, nor do prior plans account for the opportunity presented to UWB to purchase Husky Village, an apartment complex to the west of the campus core now used for student housing. In response, the newest plan introduces development opportunities at Husky Village as well as major new UWB facilities north of Cascadia's buildings. While our new 2017 Campus Master Plan does not impact our vision of a 4,000 FTE campus (10,000 FTE when combined with UWB), it does have the effect of significantly diluting the physical impression of Cascadia as a distinct and independent institution. The Gateway concept – with its promise to create a distinct physical identity for Cascadia College – is in direct response to this planning trend.

#### 2.2.2 Relationship to Strategic Plan

Cascadia College's strategy is driven by our 2016 Strategic Plan (Appendix 7.3 and <u>http://www.cascadia.edu/discover/governance/strategicplan.aspx</u>) which is organized along five themes:

- Access The Gateway Building is *directly* linked to this theme, which commits us to increasing access for high school students in northeast King and southeast Snohomish counties, promoting pluralism and social justice, and streamlining the path to bachelor's degrees. The mechanisms for achieving these goals expanding Running Start and College in the High School, enhancing math and English opportunities, easing transitions from ABE to college-level coursework, streamlining pathways (including co-enrollment) to four-year institutions, and developing new transfer Admission Guarantees are precisely aligned with the Gateway principle of developing a comprehensive physical point-of-entry to the institution.
- 2. Integrated Education We will enhance interdisciplinary programs, grow community-based learning and internships, and develop/implement a model community college internationalization plan. The Gateway Building will support and promote integrated learning for first-year students. Its one-stop student services function will facilitate ties to local and global cultures and support students from a broad range of backgrounds as they seek to integrate into the campus community.
- **3.** *Learning-Centered Environment* We will improve faculty and staff support, extend academic support for students, create physical spaces to support integrated education, and enhance/expand STEM education. Specifically linking institutional goals to physical facilities, this theme demonstrates our understanding of the critical role played by supportive architectural environments. The Gateway Building will not



only follow best practices for successful academic buildings (see also Section 4.18), but its student services component will facilitate best practices in enhancing retention, e.g. intensive advising for high-risk students, mandatory orientation, and year-long registration.

- 4. Assessment of Student Success A student's first year at Cascadia offers the ideal opportunity to develop the necessary tools for future success, e.g. maintaining high levels of engagement, attaining benchmarks, and ensuring follow-through especially in gateway courses. As a single facility dedicated to the success of students entering the institution, the Gateway Building is critical to achievement of this theme.
- 5. Institutional Sustainability This is the second theme specifically linked to physical facilities through its sub-theme of improving infrastructure, in this case (1) creating and configuring spaces to support growth, integrated learning, program development, and employee effectiveness), (2) providing supportive technology, and (3) maintaining a traffic management plan. The Gateway Building will add essential growth capacity as well as technology-rich, highly flexible classrooms, labs, and instructional support spaces. For traffic management, see Sections 4.7 and 4.11.

Without the Gateway Building, Cascadia's ability to achieve its Strategic Plan will be compromised. We will be unable to meet the educational demands of our community, our chronic overcrowding will continue, student services essential to the development of new students and support of existing students will remain dispersed throughout the campus, classrooms/labs will lack the break-out spaces that promote innovation, and informal collaboration/study areas necessary to developing critical thinking will remain wholly lacking.

#### 2.2.3 Relationship to Institutional Goals

Cascadia's institutional goals are set forth in our Strategic Plan, discussed above. The college's ability to meet individual goals aligned with each of the five themes is directly dependent upon two actions, (1) an increase in gross quantity of space available per FTE to achieve the 150 GSF/FTE recommended by our master plan, and (2) the physical expansion and consolidation of our student services. The Gateway Building will strengthen the transition of new students into college programs by:

- improving the access to, and effectiveness of, all student services;
- providing learning spaces which support linked cross-disciplinary first-year classes, with emphasis on integrating STEM and the Humanities;
- creating spaces that support informal modes of learning.

#### 2.3 Relationship to SBCTC System Direction Goals

The Gateway Building directly advances the goals of the State Board for Community and Technical Colleges' *System Direction, Creating Opportunities for Washington's Future.* The *System Direction's* three major categories are Economic Demand, Student Success, and Innovation.

• *Economic Demand* – Cascadia focuses on preparing students for today's knowledge economy in which creativity and collaboration are the key to individual and business success. The Gateway Building will provide students with the opportunity to complete programs that lead to bachelor's degrees and careers in high-demand fields critical to the success of Washington's economy.



- *Student Success* Cascadia excels as a pipeline to bachelor's degrees; over threequarters of Cascadia's students intend to transfer to a university. The Gateway Building will provide instruction and instructional support spaces for foundational courses, and one-stop student services essential for the success of incoming and first-year students, to assure their transfer goals are fulfilled.
- *Innovation* The Gateway Building will be designed to support the type of collaborative, integrated learning experiences which help develop the critical thinking skills and creative capacity of students. The positioning of faculty offices and informal learning spaces adjacent to labs and classrooms will promote ongoing interchange between faculty and students. The technology infrastructure of the Gateway Building will enable the students to connect to any networked resource with any device and enable the sharing of their information with other students and faculty on classroom displays.

#### 2.4 Summary of Program and Related Space

The following space needs were identified by stakeholders in workshops that included analyses of existing program space, current deficiencies, and anticipated program growth and delivery. Please see Appendix 7.8 for a more detailed breakdown of program spaces.

Space Use	Qty.	Ave. SF	ASF	GSF		
Classroom/Instruction						
Flexible Classrooms/Labs	11	1,200	13,200	20,625		
Basic Skills Labs	1	1,200	1,200	1,875		
		Sı	ubtotal GSF	22,500		
Instructional Support						
Learning Commons (Library)	1	2,750	2,750	4,300		
Faculty Office Suite	1	2,700	2,700	4,220		
		Sı	ubtotal GSF	8,520		
Student Services						
Lobby/Computer Kiosks	1	1,200	1,200	1,875		
Administration	LS	1,580	1,580	2,470		
Enrollment	LS	1,000	1,000	1,560		
Financial Aid	LS	840	840	1,310		
Advising	10	120	1,200	1,875		
ABE	LS	390	390	610		
Workforce	LS	790	790	1,235		
Career Center / Transfer	1	400	400	625		
Dual Enrollment / Running Start	1	120	120	190		
Disability Services	LS	630	630	985		
Testing Center	LS	2,175	2,175	3,400		
Classroom	1	1,650	1,650	2,580		
Computer Lab	2	1,400	2,800	4,375		
Student Tech Support Center	1	450	450	700		
Information Center / Concierge	1	150	150	230		
		Subtotal GSF				



Other				
Small Group Collaboration (Informal)	8	300	2,400	3,750
Informal Study	LS	1,800	1,800	2,810
		S	ubtotal GSF	6,560
Total Proposed Building Area			39,425	61,600

This space summary assumes an overall building efficiency of 64 percent, which we consider appropriate and prudent for a modern academic facility.

#### 2.5 Increased FTEs Accommodated by Project

Using our 150 GSF/FTE benchmark, the Gateway Building will provide the capacity for an additional 411 Type 1 FTE. Using the same ratio between Type 1 and 2 FTE found in our CAM report, this equates to 484 Type 2 FTE.

#### 2.6 Buildings Affected by this Project

The Gateway Building is located due north and physically abuts Building CC2. Other than minor reconfigurations needed to establish circulation between the Gateway Building and CC2, there will be no direct impact on existing buildings.

## 3.0 ANALYSIS OF ALTERNATES

#### 3.1 Defining the Capital Problem

The capital problems we seek to resolve in the Gateway Building come from four primary sources – growth, student services, inadequate space type and mix, and institutional identity:

*Growth:* While our enrollment has consistently outstripped CAM projections and building capacity, for the purposes of this PRR we subscribe to the SBCTC's 2026 CAM projection of 2,266 total Type 1 FTEs. Our 2017 Campus Master Plan targets 150 GSF/FTE as the benchmark for total campus space planning, a figure obtained through research of peer institutions and the SBCTC. Our existing campus of 206,456 GSF operates far below this ideal at 99 GSF/FTE.<sup>3</sup> Viewed from the perspective of 2026, using the SBCTC's FTE projection of 2,266 Type 1 FTE and adding CC4 (currently in the SBCTC capital funding pipeline) at 66,100 GSF and the Gateway Building at 61,600 GSF, our area-to-FTE ratio would equal **147 GSF/FTE**, which approaches our benchmark and thus suggests a properly sized capital solution.

The strains of excess growth take many forms. Currently, too many Cascadia students find themselves unable to enroll in required courses that are fully enrolled or forced to take courses out of sequence— either because they cannot take a course when it is offered or they must repeat a course. The scheduling options enabled by building the Gateway Building will allow students to continue to fulfill core program requirements and not have to wait for courses to be offered one quarter or one year later. The planning for our future CC4 / Center for Science & Technology building – currently in the SBCTC capital funding pipeline – proves our ability to solve this issue for courses involving science instruction. Now is the time to address the same for classroom instruction, and in

<sup>&</sup>lt;sup>3</sup> Total area of existing facilities as per our 2015 Facility Condition Survey. This survey takes into account facilities we share with UWB.



particular Humanities, Math, and college onboarding courses for first-year students.

*Student Services:* While our existing Kodiak Corner in Building CC1 (UFI: A03343), contains some of our primary student services functions (enrollment, financial aid, and advising), Cascadia has inadequate space to combine all critical services (testing center, counseling services, transfer and career exploration center, and dedicated space for student orientation) into a one-stop shop center. These services are either dispersed throughout other facilities or unavailable due to lack of space *to the detriment of their effectiveness*. In addition:

- Due to chronic space shortages, our growing Basic Education for Adults programs are located away from other student services and away from the entry point to the college.
- We rely on the University of Washington Bothell (UWB) to provide our students some counseling services through joint agreement. While this has taken pressure off our facilities in the short term, joint agreements are *unreliable* as a long-term strategy especially in light of UWB's own capacity issues. The lack of space has limited our ability to provide consistent counseling services and limits our ability to provide a safe and comfortable environment for Cascadia's students.

The value of co-locating student services into a "one-stop" shop is well known, and has been successfully implemented by SBCTC institutions state-wide. Our dispersed facilities carry several risks:

- Duplication and/or inconsistency of services;
- Long wait-times;
- Inflexibility;
- Wayfinding confusion;
- Insurmountable obstacles for highly vulnerable applicants.

Related to these difficulties, but unique to Cascadia's experience, student services by nature must be easily accessible, and located ideally at the front door to the institution. The anonymous nature of Buildings CC1 and CC2, where most student service functions are found, juxtaposed with the very clearly demarcated entrance to UWB at the south end of campus, creates a high degree of confusion for incoming students. The ways in which we have sought to mitigate this confusion – by temporary signage and by having our staff wear Cascadia t-shirts at the beginning of academic quarters – only highlights the capital problem. Cascadia College needs efficient and effective student services in a one-stop format. Equally important if not more so, we need them located at the symbolic front door to the college.

*Inadequate Space Type and Mix:* Cascadia's reputation and success come from a wellarticulated mission –

#### Transforming lives through integrated education in a learning-centered environment.

A hallmark of integrated education is shared planning and teaching. While this does occur at present, our success is more a matter of passionate faculty than it is of genuinely supportive facilities. Cascadia College's facilities inadequately support student needs. The lack of shared space where faculty can interact and collaborate is a significant barrier to integration. A new facility that allows not just shared instructional space but also shared space for faculty resources and collaboration will enhance Cascadia's ability to



deliver the innovative instruction envisioned by our Strategic Plan.

The same is true of our classrooms and labs, and of current technology integration that does not support group learning. Integrated learning works best when instructional facilities offer a range of space types sized to support small and large group collaboration. While the ability to re-arrange furnishings is a basic requirement, the success of which is a matter of providing sufficient room size, integrated learning benefits from adjacent break-out spaces for spin-off discussions and projects, and supportive technology-rich collaboration spaces outside the instructional environment. Designed in the twilight of a more formal pedagogy, Cascadia lacks the spatial varieties and adjacencies most conducive to integrated learning.

Outside the classroom, our situation is similar; Cascadia has only *limited capacity* to provide students the kind of support that they need. In addition to attending class and studying on their own, students in rigorous transfer programs need to collaborate with peers and take advantage of Supplemental Instruction and tutoring resources in non-scheduled and informal learning environments. They need opportunities to meet faculty in private and/or collaborative settings for office hours. Cascadia's current spaces provide minimal support due to lack of space, are dispersed across the college, and are often inaccessible due to overbooking for regular instruction.

*Institutional Identity:* Cascadia is a transfer-focused institution that the Washington State Legislature envisioned as a superhighway leading to the University of Washington, Bothell, and other universities. Our students are drawn by that vision: While only 40 percent of students in the SBCTC system are transfer-seeking, 76 percent of Cascadia students intend to transfer. As introduced in Section 2.2.1, our 2017 Campus Master Plan acknowledges that UWB's projected growth – aided in great measure by the growth of Cascadia College – cannot easily be accommodated in the south campus as was initially envisioned. In response, the plan envisions major UWB development west and north of Cascadia's facilities. While this growth must be seen as a positive for those seeking access to higher education, and while Cascadia is in a unique opportunity to benefit from UWB's success, we believe it will come at the cost of Cascadia's institutional identity as expressed through its physical plant. While not the central driver of this project, we view the Gateway Building as an opportunity to demarcate and create a unique identity for Cascadia similar in the way Building UW2 creates a dramatic entrance to UWB at the south end of campus.

#### 3.2 Obvious and Critical Needs

Developed from capital problems (Section 3.1), our Gateway Building proposal is driven by three inter-related and critical needs:

- 1. Meeting the demand of our community's students for access to a college education by providing the physical space needed to accommodate enrollment demand and opening access to learning environments that support educational attainment for all students.
- 2. Fulfilling the Strategic Plan's commitment to educational excellence by allowing the college to pursue new initiatives to increase educational options, improve the student learning experience, and support student achievement.
- 3. Establishing a unique identity for Cascadia College on the campus we share with UWB, in furtherance of the unique role community and technical colleges play in Washington



State.

#### **3.2.1 New Space for Enrollment Demand**

The CAM projects that from 2016 to 2026 Cascadia's fall total enrollment will increase from 2,985 FTEs to 3,240 FTEs, an increase of 8.54 percent. Our future utilization calculation (Section 4.13), which demonstrates a real need for additional space well beyond that added by CC4, uses this CAM projection. We believe the CAM projection we are using as the basis for this proposal understates base enrollment demand in Cascadia's service area because it does not account for latent unmet enrollment demand attributable to Cascadia's facilities deficit. Moreover, the CAM assumes a flat participation rate. Cascadia is a relatively new institution, its participation rate is below that of peer institutions and, as illustrated in the chart below, Cascadia's participation rate is continuing to grow, even though the rate of that growth has slowed. The chart below contrasts the CAM model's assumption of a fixed participation rate with a logarithmic model forecasting the participation rate (see Appendix 7.4 for complete analysis).



By artificially holding the participation rate flat, the CAM's base enrollment forecast underestimates enrollment growth. When one takes modeled participation rate changes into account we expect to see total enrollment demand increase from 2,984 to 3,584 (+20.1%) between 2016-2026, with a corresponding increase in Type 1 (Day On-Campus) enrollment from 2,088 to 2,508. The chart below illustrates the difference between the base CAM enrollment forecast and a CAM-based forecast that adjusts for participation rate changes.



*Prior Actions to Accommodate Growth:* Cascadia has already taken several actions to accommodate enrollment growth within our existing facilities. In the last five years we have:

- Consolidated staff into smaller shared office spaces and converted the space that was thereby captured into a classroom;
- Converted the Boardroom into a classroom;
- Converted the only significant storage room in CC3 into a classroom;
- Increased our Pre-Fall class offerings.

While each project has helped boost capacity (at the expense of the previously housed functions), they come nowhere close to meeting need.

Cascadia College is at an enrollment plateau dictated by facility limitations. According to the CAM, in 2026 Cascadia will have a total net space shortfall of 63,963 ASF. This closely aligns with our 150 GSF/FTE benchmark, which yields a shortfall of 67,344 GSF/FTE once CC4 is online. The following chart shows the relationship between facilities capacity and Cascadia's enrollment:



The facilities shortage at Cascadia directly suppresses enrollment levels restricting the number and timing of offerings. Lower-enrollment courses cannot be offered frequently enough to facilitate timely student progression through their programs. Collectively, these factors artificially suppress Cascadia's enrollment. There is precedent to demonstrate this as shown in the chart above: Cascadia's enrollment plateaued at approximately 1,500 FTE for six years until CC3 was opened, the next enrollment plateau of approximately 2,400 FTE was reached within two years of the opening of this facility. The growth in enrollment after 2012 is attributable to the redesign of some two-day-a-week courses so they could be effectively taught on three-day-a-week schedule and the conversion of office suites and our Boardroom into classrooms in 2015.

The graphic *understates* the facilities utilization challenge because it only includes classrooms and laboratories that Cascadia has full control over. Cascadia is currently using two classroom spaces in the UW Library: in Fall 2016 those classrooms accounted for 1,851 contact hours during the 45 capture hours used in our utilization analysis. The Library has informed Cascadia that as UWB grows into the UW-4 building that it plans to open by 2023 it will be asking both Cascadia and UWB to vacate spaces they currently occupy in the Library. Our proposed Learning Commons facility within the Gateway Building is in response to the heavy demand for library services, and the benefit of a library outpost focused on the needs of first-year users.

## 3.3 Alternates Considered

#### 3.3.1 Programmatic and Facility Related

Our planning committee has considered several alternatives to our preferred approach to the Gateway Building. These include:

• *Increasing the number of Distance Education courses* – Cascadia plans to continue to increase hybrid enrollment as total campus enrollment grows. This hybrid



enrollment growth has already been factored into the college's capacity analysis; it does not obviate the need for a new building.

- Offering more courses off campus Cascadia has explored the cost of renting facilities off campus. The high value of real estate in the local market is not consistent with a community college business model. The college cannot remain financially solvent and meet enrollment with student services at a remote location. In addition, housing first year students offsite is contrary to the central concept of integrated these students into campus life.
- **Renovate the current building** Since our facilities are all under 20 years old, largescale renovation is not a reasonable option. Practically, renovation would cause significant operational disruptions during the time period of renovation and reduce overall enrollment capacity. Renovating a facility that is already operating over its design capacity will undermine our ability to engage students in their learning and will have regressive effects on our efforts to develop a holistic learning environment.
- Offer more courses during hours which have low student demand Theoretically, more enrollment capacity can be found within the existing facilities by scheduling more early morning, late evening, and weekend classes; however, Cascadia is not a residential campus. While we have had some limited success in this strategy, these off-hour classes suffer from low enrollment levels and are therefore costly to run. Classes scheduled at such times are often the "last late choice" for students and therefore enroll a disproportionate number of high risk students at times when limited academic support and student success staff are available to provide extra assistance. Student outcomes for sections scheduled during such times are generally poor and student retention suffers as well.
- Developed Alternative None of the above alternatives address the fundamental needs of our community and students, and thus were pursued no further. We did see merit in analyzing the Gateway Building on the other site envisioned in the 2017 Campus Master Plan east of Campus Way NE (Building 25 on the long-term plan). The primary benefit of this location would be that construction would be considerably less disruptive to campus operations, while its primary disadvantage is that soils in this vicinity are notably inferior and will result in considerably higher foundation costs. In addition, the gateway concept is less powerful when located at a peripheral as opposed to central location. It should be noted that the City of Bothell allows taller buildings at this location specifically because of the anticipated high construction costs of development east of Campus Way NE. After analyzing the cost for soils improvements in this case, Geopier soil displacement we concluded there is no compelling benefit that would justify the alternative location.

#### 3.3.2 Consequences of Doing Nothing

Doing nothing is not an option given our commitment to access and educational excellence. It is critical that we simplify access to Cascadia College and our campus at all levels, from genuinely one-stop student services to campus onramp courses to basic visual comprehension of the institution (after all, many students approach learning from a visual bias). We must provide additional instructional space to support the rapid and continuing growth of our programs, and to continue to create new educational pathways. In the event



Cascadia College's proposal is not approved, *every year hundreds of our community's students will be denied access to a college education.* 

#### **3.3.3** Cost Estimate for Each Alternative

Costs for constructing the building on the alternate site may be found in Attachment 6.1.

## 4.0 PROJECT PLANNING OF PREFERRED ALTERNATE

#### 4.1 History of Building and Original Funding Source

While directly abutting existing building CC2, our proposed Gateway Building is an allnew facility and will require no substantive modifications of CC2.

#### 4.2 Useful Life of Proposed Facility

Life expectancy will be beyond 50 years for this proposed facility.

#### 4.3 Sustainability

Cascadia College's Greenhouse Gas Emission Reduction Plan incorporates multiple strategies for reducing the campus's carbon footprint. The Gateway Building will be designed in accordance with this plan's principles, and will incorporate at least eleven (11) of the best practices to reduce greenhouse gas emissions. See Appendix 7.6 for our best practices checklist and the college's Climate Action Plan.

The Gateway Building will be designed to achieve the Leadership in Energy and Environmental Design (LEED) Gold certification level. By designing to the LEED Gold standard the college will reduce lifecycle costs (as required by OFM), thereby increasing both environmental and financial sustainability. The LEED checklist found in Attachment 6.5 identifies readily achievable as well as potentially achievable credits, and demonstrates our commitment to LEED Gold certification.

#### 4.4 Impact to Deferred Maintenance and Repair Backlog

The Gateway Building is a new facility. This section is not applicable to the project.

#### 4.5 Acquisition Needs

The facility will be sited on the current campus; no land needs to be acquired.

#### 4.6 Mitigation and Neighborhood Related Issues

Cascadia College's campus is located in the Campus District in the City of Bothell. All aspects of the proposed structure will meet requirements set forth by the local jurisdiction. As the project is internal to the campus, neighborhood impact is expected to be minimal.

The Gateway Building is the next step in the implementation of the 2017 Campus Master Plan, which has been approved by the City of Bothell. It will be located directly north of, and connected to, CC2 on a site designated in the Campus Master Plan for a new Cascadia College facility. The Gateway Building is isolated from the surrounding neighborhoods and, therefore, requires little mitigation. The location also presents no environmental issues since it sits above the wetlands and on a site of known geotechnical characteristics by virtue of prior development.

The final requirements for offsite improvements have not been determined; however, no known offsite improvement requirements have been identified.



#### 4.7 Parking Expansion Related to the Project

The 2017 Campus Master Plan provides for the construction of new parking facilities, which Cascadia and UW Bothell have agreed to jointly construct and finance. New parking required as a result of the Gateway Building will be developed in the same manner.

#### 4.8 Permit Issues / Variances Required

The City of Bothell also has a Downtown Subarea Plan that is part of its Comprehensive Plan. Within the Subarea Plan there is a defined Campus District in which the Cascadia/UW Bothell campus is located. The Campus District Requirements regulate pedestrian and bicycle access, requirements relating to freeways, setbacks, and architectural/landscaping/ parking requirements. All elements of the Gateway Building will meet Bothell's Comprehensive Plan requirements. As such, the project will follow the city's normal permitting processes; we do not expect to require any variances.

Cascadia College falls within the Bothell Urban Growth Area under the Washington State Growth Management Act (GMA), and the project site is upland (but outside of the buffer zone and critical areas) of North Creek and its associated wetlands. We expect no issues to arise from these statutory circumstances.

The local jurisdiction, Bothell, also requires new development to pay a Traffic Impact Fee at the time of permit issuance. The fee now in effect is \$861/FTE, which for the predicted capacity of 411 FTE will total \$353,871. This cost is included in the cost estimate in Attachment 6.1.

#### 4.9 Utility and Infrastructure Needs

This project will require building-specific infrastructure improvements and the relocation of several existing utilities, including the electrical transformer serving Building CC2. Allowed infrastructure costs are presented in Attachment 6.1.

The proposed sanitary sewer system consists of an 8-inch line connecting to the existing sewer main in Campus Way, directly east of the building. It will require hardscape restoration along the pipe alignment and potential utility relocation.

The proposed water system consists of domestic water and fire protection lines connecting from an existing 12-inch water line located within West Campus Lane to the west side of the building. New fire hydrants at the northeast and northwest corners of the building will provide adequate fire hydrant coverage.

The proposed water system consists of a 3-inch domestic and 6-inch fire protection water lines. The mechanical room is assumed to be located on the west side of the building (uphill side), so the domestic and fire protection lines will run from their connection points on the west side of the building to reach the mechanical room.

Our CC4 / Center for Science & Technology project, currently in the capital funding pipeline and assumed to be online before the Gateway Building is constructed, includes a new 500-ton variable speed drive centrifugal chiller installed at the central plant building. This chiller will provide sufficient capacity to serve the Gateway Building.

#### 4.10 Stormwater and Other Environmental Issues

The Gateway Building will connect to and utilize the existing campus storm drainage system. Runoff from pollution-generating paved areas will be collected by a series of catch basin structures and underground pipes and conveyed to the existing storm drainage



system after it has been treated. Non-pollution generating hardscape areas, landscaped areas and natural areas will utilize a combination of catch basins structures, under-drains, and underground pipes to collect and convey surface flows to the existing storm drainage systems.

Groundwater and building roof runoff (clean water) will bypass the water quality facilities in a closed system separate from the main storm drainage system for surface flows. Building foundation drains surrounding the building will also be connected to the clean water bypass system.

The storm drainage system will include a groundwater interceptor drain on the west (uphill) side of the building, building footing drain surrounding the building, and catch basins and piping to collect runoff from the hardscape areas. A 12-inch diameter storm drain will convey flow east and connect into the existing storm drain system near the north end of the library.

Stormwater quality treatment will be provided by a mechanical treatment facility prior to discharge into the clean water bypass system. Stormwater detention will not be required for the Cascadia/UW Bothell Campus site due to the proximity of the site to North Creek and the Sammamish Slough, which enables direct discharge of stormwater.

Landscape improvements will include native plantings in the vicinity of the new building, tying into the existing adjacent native landscaping. Landscape improvements will comply with City of Bothell code requirements.

As the development site has previously been disturbed and is targeted for development, the existing landscape consists primarily of grass and minor plantings. Demolition includes the removal of such items as existing storm drainage lines and structures.

#### 4.11 Roads and Traffic Signals

The campus is well-served by an existing modern road network, including easy highway access. The Gateway Building will require no roadway or signalization improvements.

The Gateway Building will be connected to the existing campus roads and pedestrian pathways on the west and east side of the building by a network of sidewalks, plaza, and hardscape. Paved vehicular and loading/service access will make use of existing facilities in CC1 and accessed from Campus Way. The existing fire lane along the west side of the building will modified and extended. The existing transit station occupying a portion of the site is slated to be relocated by separate initiative – described in the Campus Master Plan – prior to construction of the Gateway Building.

#### 4.12 Department of Archaeology and Historic Preservation (DAHP) and Tribal Reviews

As required by Executive Order 05-05, we requested review of this project by the Department of Archaeology & Historic Preservation and local tribes. DAHP returned a determination of no cultural resource impacts. For DAHP's letter, and our letters requesting tribal review, see Attachment 6.4.

It should be noted that our campus has received extensive archaeological and historical analysis: A cultural resources assessment of the University of Washington Bothell and Cascadia College Campus was completed in August 1995, prepared by Historical Research Associates Inc. As a result of the archaeological survey, no significant prehistoric or



historic archaeological materials were identified on the site, and it was proposed that no other archaeological resource studies were required.

A companion report written by Warner in 1995 discusses the assessment of the historical buildings and structures at the Truly Farms/Stringtown site. One building, the Dr. Reuben Chase House, was recognized on the National Register of Historic Places. The Chase House is located at the south end of the campus, roughly 600 feet from State Route 522, and is not in the vicinity of the Gateway Building. See Attachment 6.4 for pertinent reports.

#### 4.13 Utilization of Instructional Areas: Fall 2016

Cascadia College calculated Fall 2016 campus utilization based on 2019-21 major project selection criteria by using DataExpress routines provided by SBCTC to extract enrollment data from SMIS and loading the results into SBCTC's Utilization Spreadsheet tool (available from https://www.sbctc.edu/colleges-staff/programs-services/capital-budget-development.aspx). Room capacities were calculated as *higher* of two values: (a) the class limits established in the Collective Bargaining Agreement (CBA) or (b) the maximum number of students enrolled in the classroom during any day. For example, if the CBA specifies a class limit of 24 for a class held in a laboratory space but there is a class scheduled with an enrollment of 26, we set the room capacity to 26; this accounts for the fact that the enrollment exceeded capacity in 18% of the classes (58/326) rather than assigning some rooms a utilization rate over 100%.

The utilization table below is the output of SBCTC's utilization spreadsheet tool. It makes the need for a growth facility clear:

	<b>Contact Hours</b>	Workstations	Utilization	Capture Efficiency			
Classes	23,551.17	784	30.02	98%			
Labs	6,666.58	319	20.93	96%			
Campus	30,217.75	1,103	27.40	98%			

#### Cascadia College Fall 2016 Utilization:

The SBCTC's Capital Analysis Model (CAM) projects that from Fall 2016 to Fall 2026 Cascadia College's Type 1 (Day On-Campus) enrollment will increase from 2,088 to 2,266 (8.52%). The CAM projections are shown below:

	Fall 2016 FTEs			Fall 2026 FTE Projections			FTE Growth (Fall)		
Cascadia	Total	Type 1	Type 2	Total	Type 1	Type 2	Total	Type 1	Type 2
Academic	2,286	1,562	1,885	2,481	1,696	2,046	195	134	161
Vocational	174	110	137	189	119	149	15	9	12
Basic Skills/Dev Ed	524	416	436	569	451	473	45	35	37
Total	2,985	2,088	2,459	3,240	2,266	2,668	254	178	209

To calculate future utilization, we have included the effect of the workstations gained from our Center for Science and Technology / CC4 project, currently in the SBCTC capital project pipeline and presumably operating prior to the Gateway Building. CC4 will allow the UW Library to re-capture space in Building LB1 (see Section 3.2.1) which we are using to address our current classroom space shortfall:



Facility	Classroom	Lab	Total
	Workstations	Workstations	Workstations
CC4	390	168	558
LB1	-60	0	-60
The Gateway Building	231	165	396
Net New Workstations	561	333	894
The Gateway Building	784	319	1,103
Total Workstations	1,345	652	1,997

CAM projections have consistently underestimated enrollment at Cascadia College since the CAM assumes fixed participation rates applied to OFM population projections by age and county of residence, whereas participation rates have continued to increase even in recent years. As noted in Section 3.2.1, Cascadia College believes the CAM projections significantly understate future enrollment demand. Nonetheless, even when one uses the CAM's conservative projections Cascadia College's projected utilization for Fall 2026 requires action to accommodate enrollment growth. Based on our observed 2016 utilization, the CAM projection, and the net new workstation changes we have proposed, the SBCTC scoring tool (Appendix 7.9) projects the following future utilization:

Cascadia College Fall 2026 (Future) Utilization:							
Contact Hours	Workstations	Utilization					

	Contact Hours	Workstations	Utilization	
Classes	25,610.10	1,345	19.04	
Labs	7,888.72	652	12,10	
Campus	33,498.82	1,997	16.77	

## 4.14 New Programs and Changing Mix in Programs

The Gateway Building is dedicated to optimizing the experience of prospective and first year students at the institution. The students it serves will mirror the institutional priorities of the times, but will not trigger new programs *per se*. What the proposed building will do is allow the college to increase the number of entry level courses it offers, thus promoting greater access throughout the day and reducing Cascadia's chronic waitlists. We anticipate in particular this will support Cascadia's transfer mission and community economics needs.

#### 4.15 New Space and Vacated Space

All space associated with the proposed project is new.

As part of relocating student services functions to a one-stop facility in the Gateway Building, ABE will vacate the 100 level of existing Building LBA. This facility, which has myriad functional deficiencies, will be improved and repurposed using minor works funds.

The existing Kodiak Corner on the 100 level of Building CC1, which houses student services functions which will be located in the Gateway Building, will be repurposed as a faculty office suite for both full time and adjunct faculty. The layout of Kodiak Corner is amenable to this new use, and we anticipate any modifications will be modest in scope and achievable with minor works funds.



#### 4.16 Comparison of Existing & New Spaces to the CAM

Our 2016-2026 CAM report depicts an institution with healthy growth. The Gateway Building directly addresses our shortage in Basic Skills labs, library space, and faculty offices.

#### 4.17 Need and Availability of Surge Space

While Cascadia College has – as a rule – no surge space, there is no unique requirement for temporary facilities driven by this project. No current operations will be displaced during construction of the Gateway Building. The only existing function abutting the construction site, a stairwell serving Building CC2, will remain in use with minor temporary controls to assure pedestrian and egress pathway safety.

#### 4.18 Flexibility and Adaptability of Proposed Space

The Gateway Building will be designed for maximum flexibility and adaptability of proposed space; providing open areas with the goal of encouraging collaboration among students, faculty, and staff. Consistent with current best practices for higher facilities, the Gateway Building will reserve 10.6 percent of its assignable space for informal learning.<sup>4</sup>

Faculty and employee offices are shown with an open plan concept to encourage collegial interactions, with shared break-out areas for private conferences adjacent to and within the office suite. Classrooms and labs are grouped around small break-out spaces that will support multiple learning environments during instructional periods, and be accessible from the building circulation for informal peer-to-peer or student-faculty collaboration outside of class hours. The building's furniture shall be movable to allow multiple configurations of teaching and study space so that rooms may be set up for lectures or group learning. Variously sized collaborative study, informal learning, meeting and presentation spaces are provided to meet student and faculty needs.

## 5.0 PROJECT BUDGET ANALYSIS OF PREFERRED ALTERNATE

#### 5.1 Overall Project Cost and Cost Comparisons

We estimate the *escalated* (April, 2022) Maximum Allowable Construction Cost (MACC) for this growth project at **\$23,044,000** and *escalated* total project costs to be **\$32,915,000**. For comparison, the Expected Cost Calculation for a similar facility type is estimated at \$32,918,595.

We estimate the *escalated* MACC for infrastructure improvements at **\$611,000** and total infrastructure project costs to be **\$827,000**. This amounts to 1.92% of the total building cost. The cost-weighted average useful life of the planned infrastructure is **23.9** years. See Attachment 6.1 for C-100 forms and detailed cost estimates, and Appendix 7.5 for our infrastructure cost weighting calculation.

#### 5.2 Cost Comparison to Similar CTC Projects

This estimate is based on construction of a permanent-type multi-story education facility with spread foundations, a steel and concrete structure with exterior materials, and systems suitable for an institution of higher education and consistent with campus standards. Comparisons were drawn from the SBCTC 2018 Capital Request for Major Projects, using

<sup>&</sup>lt;sup>4</sup> <u>https://www.sbctc.edu/resources/documents/colleges-staff/programs-services/capital-budget/BestPracticesforDesignofFlexibleandAdaptableLearningSpaces19Dec13.pdf</u>



projects proposed to receive design funding with the expectation that escalation costs are thus negligible:

Project	Escalated Project Cost	FTE	Cost/FTE
The Gateway Building	\$32,915,000	411	\$80,085
Wells Hall Replacement	\$37,180,000	764	\$48,665
EvCC Learning Resource Center	r \$49,095,000	425	\$115,518
Cascadia Center for Science & T	Tech. \$41,147,000	800	\$51,434
Clark North Clark County	\$54,923,000	1,025	\$53,583
Big Bend Prof-Technical Ed Cen	nter \$43,386,000	178	\$243,742
Edmonds SET Building	\$47,378,000	225	\$210.569

The Gateway Building is reasonable in comparison to similar projects when evaluated on a cost per FTE basis.

#### 5.3 Maintenance and Operations Costs

Cascadia currently contracts with UW Bothell for facility-related services. The operating cost projections shown below for the Gateway Building are based on the assumption that Cascadia will continue to contract with UW Bothell and that UW's cost structure per assignable square foot will remain stable (when adjusted for inflation). Cascadia will reevaluate its contract(s) with UW Bothell to ensure that the current arrangement is cost-effective.

Facilities Expense Category	Annual Expense
UW Bothell Custodial Services	\$93,000
UW Bothell Maintenance Services	\$127,000
Utilities	\$174,000
Facilities Expense Total	\$394,000

Due to its nature, the Gateway Building's administrative cost impacts will be minimal. Additional staff will be needed to maintain the building's technology systems and infrastructure. The table of costs below reflects this:

Operating Expense Category	Annual Expense
Technology Staffing (2 FTE: IT Technicians)	\$148,000
Operating Expenses Total	\$148,000

## 5.4 Anticipated Method of Construction

After careful consideration, we plan to use Design-Bid-Build project delivery. The project is not complex enough, nor is the timeline compressed enough, to warrant the additional costs associated with GC/CM delivery. The large numbers of stakeholders who will need to participate in design decisions, as well as the added layer of coordination necessary with UW Bothell, strongly suggest the contractor-led, time-driven approach of Design/Build project delivery is inappropriate for this institution and project.



# **ATTACHMENT 6.1**

Cost Estimates - C100 Forms (Building & Site, Infrastructure) Detailed Cost Projection (Building, Site & Infrastructure) Cost Estimates - C100 Forms (Alternate Site)

## STATE OF WASHINGTON

## AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency Project Name OFM Project Number Cascadia Community College

CC5 Gateway Building

Contact Information			
Name	Schrieber Starling Whitehead/Robinson		
Phone Number	206 682 8300/206 441 8872		
Email			

Statistics				
Gross Square Feet	61,600	MACC per Square Foot	\$331	
Usable Square Feet	39,425	Escalated MACC per Square Foot	\$374	
Space Efficiency	64.0%	A/E Fee Class	В	
Construction Type	College classroom facilit	A/E Fee Percentage	7.18%	
Remodel	No	Projected Life of Asset (Years)		
	Additiona	al Project Details		
Alternative Public Works Project	No	Art Requirement Applies	Yes	
Inflation Rate	2.80%	Higher Ed Institution	Yes	
Sales Tax Rate %	10.00%	Location Used for Tax Rate	King	
Contingency Rate	5%			
Base Month	November-17			
Project Administered By	DES			

Schedule			
Predesign Start	July-19	Predesign End	December-19
Design Start	January-20	Design End	June-21
Construction Start	July-21	Construction End	January-23
Construction Duration	18 Months		

Project Cost Estimate			
Total Project	\$29,275,515	Total Project Escalated	\$32,915,459
		Rounded Escalated Total	\$32,915,000

## STATE OF WASHINGTON

## AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency Project Name OFM Project Number Cascadia Community College

CC5 Gateway Building

## **Cost Estimate Summary**

Acquisition			
Acquisition Subtotal	\$0	Acquisition Subtotal Escalated	\$0

Consultant Services			
Predesign Services	\$225,000		
A/E Basic Design Services	\$1,061,810		
Extra Services	\$1,042,000		
Other Services	\$742,045		
Design Services Contingency	\$153,543		
Consultant Services Subtotal	\$3,224,398	Consultant Services Subtotal Escalated	\$3,528,305

Construction			
Construction Contingencies	\$1,020,596	Construction Contingencies Escalated	\$1,153,070
Maximum Allowable Construction Cost (MACC)	\$20,411,927	Maximum Allowable Construction Cost (MACC) Escalated	\$23,044,309
Sales Tax	\$2,143,252	Sales Tax Escalated	\$2,419,738
Construction Subtotal	\$23,575,776	Construction Subtotal Escalated	\$26,617,117

Equipment				
Equipment	\$1,509,200			
Sales Tax	\$150,920			
Non-Taxable Items	\$0			
Equipment Subtotal	\$1,660,120	Equipment Subtotal Escalated	\$1,875,605	

Artwork			
Artwork Subtotal	\$115,222	Artwork Subtotal Escalated	\$115,222

Agency Project Administration			
Agency Project Administration Subtotal DES Additional Services Subtotal Other Project Admin Costs	\$0 <u>\$0</u> \$0		
Project Administration Subtotal	\$200,000	Project Administation Subtotal Escalated	\$225,960

Other Costs			
Other Costs Subtotal	\$500,000	Other Costs Subtotal Escalated	\$553,250

Project Cost Estimate			
Total Project	\$29,275,515	Total Project Escalated	\$32,915,459
		Rounded Escalated Total	\$32,915,000

Consultant Services					
ltem	Base Amount	Escalation	Escalated Cost	Notes	
	Buse Amount	Factor	Estulated Cost	10003	
1) Pre-Schematic Design Services					
Programming/Site Analysis	\$25,000				
Environmental Analysis	\$0				
Predesign Study	\$200,000				
Other					
Insert Row Here					
Sub TOTAL	\$225,000	1.0617	\$238,883	Escalated to Design Start	
2) Construction Desuments					
2) Construction Documents	¢1.001.010				
A/E Basic Design Services	\$1,061,810			69% of A/E Basic Services	
Other					
Insert Row Here Sub TOTAL	¢1.0C1.910	1.0826	¢1 140 F1C	Escalated to Mid-Design	
SUBTOTAL	\$1,061,810	1.0820	\$1,149,510	Escalated to Mid-Design	
3) Extra Services					
Civil Design (Above Basic Svcs)	\$65,000				
Geotechnical Investigation	\$50,000				
Commissioning	\$25,000				
Site Survey	\$75,000				
Testing	\$50,000				
LEED Services	\$60,000				
Voice/Data Consultant	\$35,000				
Volce/Data consultant Value Engineering	\$45,000				
Constructability Review					
	\$45,000				
Environmental Mitigation (EIS)	¢60.000				
Landscape Consultant	\$60,000				
ELCCA	\$50,000				
LCCT	\$75,000				
Reimburseables incl Reprographics	\$25,000				
prior to bid					
Advertising	\$2,000				
Traffic analysis	\$25,000				
Envelope Consultant	\$40,000				
Interior Design	\$10,000				
Acoustic Design	\$40,000				
Security Consultant	\$30,000				
Audio Visual Consultant	\$50,000				
Cost and Scheduling	\$55,000				
Value Engineering Participation	\$45,000				
Constructability Review Participation	\$40,000				
Environmental Graphics/Signage	\$5,000				
Lighting Consultant					
Materials/Equip/Lab Consultant					
Door Hardware Consultant	\$10,000				
SEPA/Land Use	\$30,000				
Insert Row Here					
Insert Now Here					

4) Other Services

Bid/Construction/Closeout	\$477,045			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Commissioning and Training	\$100,000			
LEED Reporting and Monitoring	\$65,000			
Reimburseables/Reprographics for bid and construction	\$25,000			
Construction Materials Testing	\$75,000			
Insert Row Here				
Sub TOTAL	\$742,045	1.1298	\$838,363	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	\$153,543			
Other				
Insert Row Here				
Sub TOTAL	\$153,543	1.1298	\$173,473	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	\$3,224,398		\$3,528,305	

Construction Contracts					
ltem	Base Amount	Escalation Factor	Escalated Cost	Notes	
1) Site Work					
G10 - Site Preparation	\$281,029				
G20 - Site Improvements	\$274,970				
G30 - Site Mechanical Utilities	\$0				
G40 - Site Electrical Utilities	\$0				
G60 - Other Site Construction					
General Conditions	\$177,375			see also infrastructure C100	
Insert Row Here					
Sub TOTAL	\$733,375	1.1065	\$811,480		
2) Related Project Costs					
Offsite Improvements					
City Utilities Relocation					
Parking Mitigation					
Stormwater Retention/Detention					
Other					
Insert Row Here		_			
Sub TOTAL	\$0	1.1065	\$0		
3) Facility Construction					
A10 - Foundations	\$459,709				
A20 - Basement Construction	\$389,362				
B10 - Superstructure	\$3,020,066				
B20 - Exterior Closure	\$3,061,339				
B30 - Roofing	\$433,785				
C10 - Interior Construction	\$2,268,763				
C20 - Stairs	\$201,321				
C30 - Interior Finishes	\$1,630,090				
D10 - Conveying	\$224,675				
D20 - Plumbing Systems	\$619,157				
D30 - HVAC Systems	\$3,059,364				
D40 - Fire Protection Systems	\$437,052				
D50 - Electrical Systems	\$2,549,470				
F10 - Special Construction					
F20 - Selective Demolition					
General Conditions	\$1,324,400				
Other					
Insert Row Here					
Sub TOTAL	\$19,678,552	1.1298	\$22,232,829		
4) Maximum Allowable Construction C	Cost				
MACC Sub TOTAL	\$20,411,927		\$23,044,309		

This Section is Intentionally Left Blank 7) Construction Contingency Allowance for Change Orders \$1,020,596 Other Insert Row Here Sub TOTAL \$1,020,596 1.1298 \$1,153,070 8) Non-Taxable Items Other Insert Row Here Sub TOTAL \$0 1.1298 \$0 Sales Tax \$2,419,738 \$2,143,252 Sub TOTAL CONSTRUCTION CONTRACTS TOTAL \$23,575,776 \$26,617,117

	Equipment					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes	
E10 - Equipment	\$462,000					
E20 - Furnishings	\$739,200					
F10 - Special Construction						
IT Equip/computers/printers	\$308,000					
Insert Row Here			_			
Sub TOTAL	\$1,509,200		1.1298	\$1,705,095		
1) Non Taxable Items						
Other						
Insert Row Here						
Sub TOTAL	\$0		1.1298	\$0		
Sales Tax					_	
Sub TOTAL	\$150,920			\$170,510		
EQUIPMENT TOTAL	\$1,660,120			\$1,875,605		
Green cells must be filled in by user						

Artwork					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Project Artwork	\$0				0.5% of Escalated MACC for new construction
Higher Ed Artwork	\$115,222				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	\$115,222		NA	\$115,222	

Project Management					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Agency Project Management	\$0				
Additional Services					
Cascadia Facilities Management	\$200,000				
Insert Row Here			_		
PROJECT MANAGEMENT TOTAL	\$200,000		1.1298	\$225,960	

Other Costs					
Item	Base Amount	Escalation Factor	Escalated Cost	Notes	
Mitigation Costs					
Hazardous Material					
Remediation/Removal					
Historic and Archeological Mitigation					
Permit and Plan Review Fees	\$500,000				
Insert Row Here					
OTHER COSTS TOTAL	\$500,000	1.1065	\$553,250		

## 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

Covers owner provided/purchased furnishings and equipment

Insert Row Here

#### Tab E. Artwork

Insert Row Here

#### Tab F. Project Management

Insert Row Here

#### Tab G. Other Costs

Insert Row Here

## STATE OF WASHINGTON

## AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency Project Name OFM Project Number Cascadia Community College CC5 Gateway Building Infrastructure

Contact Information				
Name	Schreiber Starling Whitehead/Robinson			
Phone Number	206 682 8300 / 206 441 8872			
Email				

Statistics					
Gross Square Feet	61,600	MACC per Square Foot	\$9		
Usable Square Feet	39,425	Escalated MACC per Square Foot	\$10		
Space Efficiency	64.0%	A/E Fee Class	В		
Construction Type	College classroom facilit	A/E Fee Percentage	10.74%		
Remodel	No	Projected Life of Asset (Years)			
Additional Project Details					
Alternative Public Works Project	No	Art Requirement Applies	Yes		
Inflation Rate	2.80%	Higher Ed Institution	Yes		
<u>Sales Tax Rate %</u>	10.00%	Location Used for Tax Rate	King		
Contingency Rate	5%				
Base Month	November-17				
Project Administered By	DES				

Schedule				
Predesign Start	July-19	Predesign End	December-19	
Design Start	January-20	Design End	June-21	
Construction Start	July-21	Construction End	January-23	
Construction Duration	18 Months			

Project Cost Estimate				
Total Project	\$748,644	Total Project Escalated	\$827,346	
		Rounded Escalated Total	\$827,000	

## STATE OF WASHINGTON

## AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency Project Name OFM Project Number Cascadia Community College CC5 Gateway Building Infrastructure

## **Cost Estimate Summary**

Acquisition				
Acquisition Subtotal	\$0	Acquisition Subtotal Escalated	\$0	
	1	-		

Consultant Services			
Predesign Services	\$0		
A/E Basic Design Services	\$42,993		
Extra Services	\$40,000		
Other Services	\$19,315		
Design Services Contingency	\$5,115		
Consultant Services Subtotal	\$107,423	Consultant Services Subtotal Escalated	\$117,451

	Con	struction	
Construction Contingencies	\$27,626	Construction Contingencies Escalated	\$31,213
Construction Contingencies	\$27,020	Construction Contingencies Escalated	\$51,215
Maximum Allowable Construction Cost (MACC)	\$552,523	Maximum Allowable Construction Cost (MACC) Escalated	\$611,367
Sales Tax	\$58,015	Sales Tax Escalated	\$64,258
Construction Subtotal	\$638,164	Construction Subtotal Escalated	\$706,838

Equipment			
Equipment	\$0		
Sales Tax	\$0		
Non-Taxable Items	\$0		
Equipment Subtotal	\$0	Equipment Subtotal Escalated	\$0

Artwork			
Artwork Subtotal	\$3,057	Artwork Subtotal Escalated	\$3,057

Agency Project Administration			
Agency Project Administration Subtotal DES Additional Services Subtotal	\$0 \$0		
Other Project Admin Costs	\$0		
Project Administration Subtotal	\$0	Project Administation Subtotal Escalated	\$0

Other Costs			
Other Costs Subtotal	\$0	Other Costs Subtotal Escalated	\$0

Project Cost Estimate							
Total Project	\$748,644	Total Project Escalated	\$827,346				
		Rounded Escalated Total	\$827,000				
Consultant Services							
--	-------------	------------	----------------	---------------------------	--	--	--
Item	Base Amount	Escalation	Escalated Cost	Notes			
	base Amount	Factor	Estalated Cost	Notes			
1) Pre-Schematic Design Services							
Programming/Site Analysis							
Environmental Analysis							
Predesign Study							
Other							
Insert Row Here			· · · ·				
Sub TOTAL	\$0	1.0617	\$0	Escalated to Design Start			
2) Construction Desuments							
2) Construction Documents	ć 42 002			CON of A/E Desis Comisso			
A/E Basic Design Services	\$42,993			69% of A/E Basic Services			
Other							
Insert Row Here	<i>.</i>	4 0000					
Sub TOTAL	\$42,993	1.0826	\$46,544	Escalated to Mid-Design			
3) Extra Services							
Civil Design (Above Basic Svcs)	\$40,000						
Geotechnical Investigation	Ş+0,000						
Commissioning							
Site Survey							
Testing							
LEED Services							
Voice/Data Consultant							
Volce/Data Consultant Value Engineering							
Constructability Review							
Environmental Mitigation (EIS)							
Landscape Consultant							
Other							
Insert Row Here							
Sub TOTAL	\$40,000	1.0826	\$43 30A	Escalated to Mid-Design			
SubTOTAL	\$40,000	1.0820	Ş43,304	L'Scalateu to Milu-Design			
4) Other Services							
Bid/Construction/Closeout	\$19,315			31% of A/E Basic Services			
HVAC Balancing	<i>\</i>						
Staffing							
Other							
Insert Row Here							
Sub TOTAL	\$19,315	1.1298	\$21.823	Escalated to Mid-Const.			
	<i>~</i>		÷=1,525				
5) Design Services Contingency							
Design Services Contingency	\$5,115						
Other							
Insert Row Here							
Sub TOTAL	\$5,115	1.1298	\$5,780	Escalated to Mid-Const.			
CONSULTANT SERVICES TOTAL	\$107,423		\$117,451				
Green cells must be filled in by user							

	Constru	ction Contracts		
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
1) Site Work				
G10 - Site Preparation	\$38,431			
G20 - Site Improvements	\$29,563			
G30 - Site Mechanical Utilities	\$142,787			
G40 - Site Electrical Utilities	\$341,743			
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	\$552,523	1.1065	\$611,367	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.1065	\$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				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.1298	\$0	
4) Maximum Allowable Construction C	Cost			
MACC Sub TOTAL	\$552,523		\$611,367	

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\$31,213	
\$31,213	
\$31,213	
\$31,213	
\$31,213	
\$31,213	
\$0	
\$64,258	
\$706,838	
	\$64,258

Artwork							
Item	Base Amount		Escalation Factor	Escalated Cost	Notes		
Project Artwork	\$0				0.5% of Escalated MACC for new construction		
Higher Ed Artwork	\$3,057				0.5% of Escalated MACC for new and renewal construction		
Other							
Insert Row Here							
ARTWORK TOTAL	\$3,057		NA	\$3,057			



# CASCADIA COLLEGE CC5 GATEWAY BUILDING PROJECT REQUEST REPORT

# **DECEMBER 20, 2017**

Building	69676 SF	\$282.43	\$ 19,678,552
Site Development	1 LS		\$ 733,374
Site Infrastructure Costs	1 LS		\$ 552,523
Total Construction Cost - Unescalated			\$ 20,964,449

#### **EXCLUSIONS:**

PHOTOVOLTAIC SYSTEM/PANELS WATER RECLAIM SYSTEM STATE SALES TAX TESTING AND INSPECTIONS CONSTRUCTION CONTINGENCY ARCHITECT/ENGINEERING FEES OWNER CONSULTANTS BUILDERS RISK INSURANCE METRO BUS SHELTER RELOCATION BUS DROP OFF RELOCATION CONSTRUCTION MANAGEMENT PERMITS ROW IMPROVEMENTS JURISDICTIONAL/UTILITY CO FEES FURNISHINGS & EQUIPMENT PROJECT CONTINGENCY TOXIC SOILS/MATRIALS REMOVAL UTILITY FEES/CONNECTIONS/CHARGES GC/CM ALTERNATIVE CONTRACTING

Refer to C100 Form for Project Budget and Escalation



PROJECT: LOCATION: BLDG SF: ESTIMATE: EST TYPE:	CASCADIA CC CC5 GATEWAY BLDG - BUILDING BOTHELL, WA 61,600 2017176 PROJECT REQUEST REPORT			
DIVISION	DESCRIPTION		TOTAL	\$/SF
A10	FOUNDATIONS		388,760	6.31
A20	BASEMENT CONSTRUCTION		329,270	5.35
B10	SUPERSTRUCTURE		2,553,967	41.46
B20	EXTERIOR CLOSURE		2,588,870	42.03
B30	ROOFING		366,837	5.96
C10	INTERIOR CONSTRUCTION		1,385,016	22.48
C20	STAIRS		170,250	2.76
C30	INTERIOR FINISHES		1,378,512	22.38
D10	CONVEYING SYSTEMS		190,000	3.08
D20	PLUMBING		523,600	8.50
D30	HVAC		2,587,200	42.00
D40	FIRE PROTECTION		369,600	6.00
D50	ELECTRICAL		2,156,000	35.00
E10	EQUIPMENT		103,600	1.68
E20	FURNISHINGS		430,000	6.98
Z10	GENERAL REQUIREMENTS		1,120,000	18.18
	ESTIMATE SUBTOTAL		16,641,481	270.15
	DESIGN CONTINGENCY @	10.00%	1,664,148	
	SUBTOTAL		18,305,629	
	GENERAL CONTRACTOR'S OH & P @	7.50%	1,372,922	
	SUBTOTAL		19,678,552	
	ESCALATION- SEE C100 FORM TO (/YR) @			
	TOTAL		19,678,552	319.46

EXCLUSIONS:

SEE ESTIMATE SUMMARY

PROJECT:CASCADIA CC CC5 GATEWAY BLDG - BUILDINGLOCATION:BOTHELL, WABLDG SF:61,600ESTIMATE:2017176EST TYPE:PROJECT REQUEST REPORT

ITEM	DESCRIPTION	QUANTITY UNIT	UNIT COST	TOTAL	\$/SF
A10	FOUNDATIONS				
02300	FOUNDATION EXCAVATION/BACKFILL	15,400 SFA	2.05	31,570	
02620	FOOTING DRAINS W/GRAVEL	720 LF	15.00	10,800	
02720	CAPILLARY BREAK/VAPOR BARRIER @ S.O.G	15,400 SF	1.25	19,250	
03110	SLAB COL CLOSURES/DEPRESSIONS/RAMPS	15,400 SFA	0.75	11,550	
03310	4" SLAB ON GRADE-W/WWF	15,400 SF	6.50	100,100	
03310	ELEVATOR PIT	, 1 LS	12,000	12,000	
03310	STANDARD FOUNDATIONS W/STEM WALLS	15,400 SFA	12.50	192,500	
07110	DAMPROOFING STD FOUNDATIONS	15,400 SFA	0.35	5,390	
07210	RIGID INSULATION @ SLAB PERIMETER	2,800 SF	2.00	5,600	
A10	FOUNDATIONS	DIV	ISION TOTAL	388,760	6.31
A20	BASEMENT CONSTRUCTION				
		4 000 05	40.00	000 440	
03310	BELOW GRADE CONC WALLS	4,820 SF	42.00	202,440	
03310	PREM. HILLSIDE DOWNSLOPE DRAINAGE	324 LF 324 LF	55.00	17,820	
03310	PREMIUM STEPPED FOUNDATION/BELOW GRADE WALLS324	-	210	68,040 40.070	
07000	WATERPROOFING/DRAINAGE @ BELOW GRADE WORK	4,820 SF	8.50	40,970	
A20	BASEMENT CONSTRUCTION	DIV	ISION TOTAL	329,270	5.35
B10	SUPERSTRUCTURE				
03300	SLAB ON METAL DECK FLOOR	42,600 SF	5.75	244,950	
03370	MECH.PADS,CURBS-ALLOW	1 LS	10,000	10,000	
03530	CONC TOPPING SLAB AT ROOF DECK	3,600 SF	5.75	20,700	
05120	MISC STEEL CONNECTIONS AT FLOOR	34 TON	5,000	170,000	
05120	MISC STEEL/CONNECTIONS AT ROOF	12 TON	5,000	60,000	
05120	PENTHOUSE FLOOR STRUCTURE W/FIREPROOFING	5,500 SF	46.00	253,000	
05120	STRUCTURAL STEEL @ FLOOR	213 TON	4,500	958,500	
	10 LBS/SF				
05120	STRUCTURAL STEEL @ ROOF 8 LB/SF	47 TON	4,500	211,500	
	BEAMS/OW JOIST MIX				
05120	STRUCTURAL STEEL @ ROOF DECK 10 LB/SF BEAMS/COLUMNS	18 TON	4,500	81,000	
05300	METAL FLOOR DECK	44,996 SF	3.40	152,986	
05300	STEEL DECK - ROOF DECK	3,645 SF	3.40	12,393	
05300	STEEL ROOF DECK 1-1/2" 20G	13,518 SF	3.20	43,258	
05310	CANOPIES-ALLOW	1 LS	40,000	40,000	
07800	FIRESTOPPING @ FLOOR	46,200 SFA	0.15	6,930	
07800	FIRESTOPPING @ ROOF	15,400 SFA	0.15	2,310	
07820	FIREPROOFING STRUC FLOOR STEEL-BEAMS, COLS., DECK	46,200 SFA	4.65	214,830	
07820	FIREPROOFING STRUCTURAL STEEL-BEAMS, COLS., DECK	15,400 SFA	4.65	71,610	
B10	SUPERSTRUCTURE	,	ISION TOTAL	2,553,967	41.46
B20	EXTERIOR CLOSURE				
04000	BRICK VENEER	10,898 SF	30.00	326,940	
0-000		10,030 01	50.00	020,340	

ITEM	DESCRIPTION	QUANTITY UNIT	UNIT COST	TOTAL	\$/SF
05530	SUN SHADES-ALLOW	547 LF	130	71,110	
06110	EXTERIOR WALL AREA - GROSS	36,325 SF	100	11,110	
	INCL PENTHOUSE				
07410	METAL SIDING/TRIM 40%	14,530 SF	24.00	348,720	
07620 08110	MISC FLASHING/CAULKING/SEALING EXT DOORS/FRAMES/HARDWARE	36,325 SF 61,600 SFA	2.20 0.60	79,915 36,960	
08520	EXTERIOR WINDOWS/STOREFRONT/CLERESTORY - ALLOW	7,265 SF	68.00	494,020	
00020	20%	7,200 01	00.00	434,020	
08970	CURTAIN WALL-ALLOW 10%	3,633 SF	110	399,630	
09110	EXT FRAMED WALL SYSTEM	21,795 SF	20.50	446,798	
09110	FRAME AND FINISH INSIDE PARAPET/ROOF DECK WALLS	3,400 SF	33.50	113,900	
09110	FRAMING/DETAILING AT WINDOW OPENINGS	14,530 SF	7.00	101,710	
09110	FURR/INSULATE/GWB BELOW CONC WALLS	4,820 SF	14.35	69,167	
09110	TIE IN TO EXISTING	4 FLR	20,000	80,000	
10720	ALUM LOUVERS-ALLOW	1 LS	20,000	20,000	40.00
B20	EXTERIOR CLOSURE	DIV	ISION TOTAL	2,588,870	42.03
B30	ROOFING				
07500	MEMBRANE ROOFING/INSULATION/COVER BOARD	12,798 SF	14.35	183,651	
07500	INCLUDING CRICKETS	12,750 01	14.55	100,001	
07500	ROOF DECK MEMBRANE//INSULATION/COVER BOARD	3,645 SF	16.35	59,596	
07540	FRAME/FINISH UNDERSIDE STRUCTURE ABOVE	SF	21.50	,	
07620	DECK PAVERS	1,375 SF	18.00	24,750	
	50% ROOF DECK AREA				
07620	FLASHING/SHEET METAL	16,443 SFA	2.25	36,997	
07620	GREEN ROOF - INTERLOCKING TRAYS	2,270 SF	20.00	45,400	
07700	50% ROOF DECK AREA		1.00	10 110	
07700 08600	MISC ROOF ACCESSORIES SKYLIGHTS-EXCLUDED	16,443 SFA SF	1.00 0.00	16,443	
B30	ROOFING			366,837	5.96
				;	
C10	INTERIOR CONSTRUCTION				
08110	INT. DOOR/HM FRAME/HDWRE	61,600 SFA	3.75	231,000	
08510	INTERIOR GLAZING/RELITES	61,600 SFA	3.01	185,416	
	STD GLAZING		_		
09250	FIRESTOPPING/RATED WALLS/ADD GWB LAYER	61,600 SFA	0.75	46,200	
09250	INTERIOR FRAMED PARTITIONS-ALLOW	61,600 SFA	10.50	646,800	
09250 10000	PREM TESTING CENTER INTERIOR CONSTRUCTION MISC SPECIALTIES/FITTINGS	2,000 SFA 61,600 SFA	20.00 3.50	40,000 215,600	
10650	OPERABLE PARTITIONS-ALLOW	1 EA	20,000	20,000	
C10	INTERIOR CONSTRUCTION		ISION TOTAL	1,385,016	22.48
C20	STAIRS				
05260	MAIN STAIR/RAILS	2 FLT	30,000	60,000	
05260	STANDARD STAIR	5 FLT	17,500	87,500	
05720	RAILING AT OPEN TO BELOW-ALLOW	130 LF	175	22,750	0.70
C20	STAIRS	UIV	ISION TOTAL	170,250	2.76
C30	INTERIOR FINISHES				
	MISC. FINISH CARPENTRY/RUNNING TRIM	61,600 SFA	1.25	77,000	

ITEM	DESCRIPTION	QUANTITY UNIT	UNIT COST	TOTAL	\$/SF
09270	SPECIAL CEILINGS/CLOUDS AND PANELS	61,600 SFA	1.75	107,800	
09300	RESTROOM FLOORING	2,692 SF	15.00	40,380	
09500	ACT/GWB CEILINGS/SOFFITS	61,600 SF	6.50	400,400	
09630	SEALED CONCRETE	4,613 SF	1.50	6,920	
09650	FLOORING - CARPET/RESILIENT/POLISHED MIX	54,295 SFA	7.50	407,213	
09700	WALL FINISHES/INTERIOR PAINTING	61,600 SFA	4.50	277,200	
09720	ACOUSTIC/TACKABLE WALL PANELS	61,600 SFA	1.00	61,600	
C30	INTERIOR FINISHES	DIVI	SION TOTAL	1,378,512	22.38
D10	CONVEYING SYSTEMS				
14200	PASSENGER ELEVATOR MRL - 5 STOP	1 LS	190,000	190,000	
	INCLUDES ROOF STOP				
D10	CONVEYING SYSTEMS	DIVI	SION TOTAL	190,000	3.08
D20	PLUMBING				
15000	PLUMBING	61,600 SFA	8.50	523,600	
D20	PLUMBING	DIVI	SION TOTAL	523,600	8.50
D30	HVAC				
15700	HVAC	61,600 SFA	42.00	2,587,200	
D30	HVAC	DIVI	SION TOTAL	2,587,200	42.00
D40	FIRE PROTECTION				
15000	FIRE PROTECTION SYSTEM	61,600 SFA	6.00	369,600	
D40	FIRE PROTECTION	DIVI	SION TOTAL	369,600	6.00
D50	ELECTRICAL				
16000	ELECTRICAL	61,600 SFA	35.00	2,156,000	
D50	ELECTRICAL		SION TOTAL	2,156,000	35.00
E10	EQUIPMENT				
11000	BUILDING EQUIPMENT/APPLIANCES	61,600 SFA	1.00	61,600	
44400	CLASSROOM AV SYSTEMS - ROUGH IN ONLY	15 EA	2,800	42,000	
11130	ALLOWANCE PER A/E				
E10		DIVI	SION TOTAL	103,600	1.68
	ALLOWANCE PER A/E	DIVI	SION TOTAL	103,600	1.68
<b>E10</b> <b>E20</b> 12000	ALLOWANCE PER A/E EQUIPMENT FURNISHINGS CASEWORK ALLOWANCE	61,600 SFA	4.00	246,400	1.68
<b>E10</b> <b>E20</b> 12000 12000	EQUIPMENT         FURNISHINGS         CASEWORK ALLOWANCE         TESTING CENTER CASEWORK	61,600 SFA 1 LS	4.00 45,000	246,400 45,000	1.68
<b>E10</b> <b>E20</b> 12000 12000 12490	ALLOWANCE PER A/E EQUIPMENT FURNISHINGS CASEWORK ALLOWANCE TESTING CENTER CASEWORK WINDOW TREATMENTS-ALLOW	61,600 SFA 1 LS 61,600 SF	4.00 45,000 2.25	246,400 45,000 138,600	
<b>E10</b> <b>E20</b> 12000 12000	EQUIPMENT         FURNISHINGS         CASEWORK ALLOWANCE         TESTING CENTER CASEWORK	61,600 SFA 1 LS 61,600 SF	4.00 45,000	246,400 45,000	
<b>E10</b> <b>E20</b> 12000 12000 12490	ALLOWANCE PER A/E EQUIPMENT FURNISHINGS CASEWORK ALLOWANCE TESTING CENTER CASEWORK WINDOW TREATMENTS-ALLOW FURNISHINGS GENERAL REQUIREMENTS	61,600 SFA 1 LS 61,600 SF DIVI	4.00 45,000 2.25	246,400 45,000 138,600	
E10 E20 12000 12000 12490 E20	ALLOWANCE PER A/E EQUIPMENT FURNISHINGS CASEWORK ALLOWANCE TESTING CENTER CASEWORK WINDOW TREATMENTS-ALLOW FURNISHINGS	61,600 SFA 1 LS 61,600 SF	4.00 45,000 2.25	246,400 45,000 138,600	6.98

CASCADIA CC CC5 GATEWAY BLDG - BUILDING DETAIL

ITEM	DESCRIPTION	QUANTITY UNIT UNIT COST	TOTAL	\$/SF
Z10	GENERAL REQUIREMENTS	DIVISION TOTAL	1,120,000	18.18
		ESTIMATE SUBTOTAL	16,641,481	270.15



PROJECT: LOCATION: BLDG SF:	CASCADIA CC CC5 GATEWAY BLDG - SITE DEVELOPMENT BOTHELL, WA		
ESTIMATE:	2017176		
EST TYPE:	PROJECT REQUEST REPORT		
DIVISION	DESCRIPTION		τοται
			TOTAL
G10	SITE PREPARATION		237,657
G20	SITE IMPROVEMENTS		232,533
G30	SITE CIVIL / MECHANICAL UTILITIES		
Z10	GENERAL REQUIREMENTS		150,000
	ESTIMATE SUBTOTAL		620,190
	DESIGN CONTINGENCY @	10.00%	62,019
	SUBTOTAL		682,209
	GENERAL CONTRACTOR'S OH & P @	7.50%	51,166
	SUBTOTAL		733,374
	ESCALATION - SEE C100 FORM @		
	TOTAL		733,374

#### EXCLUSIONS:

SEE ESTIMATE SUMMARY

\$/SF

PROJECT:CASCADIA CC CC5 GATEWAY BLDG - SITE DEVELOPMENTLOCATION:BOTHELL, WABLDG SF:ESTIMATE:ESTIMATE:2017176EST TYPE:PROJECT REQUEST REPORT

ITEM	DESCRIPTION	QUANTITY UNIT	UNIT COST	TOTAL	\$/SF
G10	SITE PREPARATION				
02200	SITE DEMO/CLEARING/STRIPPING	1 AC	20,000	20,000	
02200	SITE LAYOUT/STAKING	1 LS	10,000	10,000	
02210	DEMO PAVING/SURFACING	6,149 SF	0.75	4,612	
02300	EARTHWORK AND GRADING	38,870 SFA	3.50	136,045	
02315	SITE MOBILIZATION	1 LS	27,000	27,000	
02370	TESC ALLOWANCE	1 LS	40,000	40,000	
G10	SITE PREPARATION	DIV	ISION TOTAL	237,657	
G20	SITE IMPROVEMENTS				
02750	ASPHALT PAVING	5,770 SFA	5.00	28.850	
02750	PEDESTRIAN PAVING	5,770 SFA	8.00	46,160	
02750	SITE STAIRS/RAILS/RAMPS	1 LS	50,000	50,000	
02870	MISC SITE FURNISHINGS-BIKE RACK/TRASH RECEPTACLES	1 LS	25,000	25,000	
02890	TRAFFIC CONTROL/SIGNAGE/STRIPPING	1 LS	7,500	7,500	
02920	LANDSCAPING	11,542 SFA	6.50	75,023	
G20	SITE IMPROVEMENTS	DIV	ISION TOTAL	232,533	
G30	SITE CIVIL / MECHANICAL UTILITIES				
02000	SEE INFRASTRUCTURE ESTIMATE FOR UTILITY COSTS				
G30	SITE CIVIL / MECHANICAL UTILITIES	DIV	ISION TOTAL		
Z10	GENERAL REQUIREMENTS				
01000	GENERAL CONDITIONS	2 MO	75,000	150.000	
Z10	GENERAL REQUIREMENTS		ISION TOTAL	150,000	
		ECTIMAT		650 350	
		ESHMAII	E SUBTOTAL	658,350	



PROJECT: LOCATION: BLDG SF:	CASCADIA CC CC5 GATEWAY BLDG - INFRASTRUCTURE BOTHELL, WA			
ESTIMATE:	2017176			
EST TYPE:	PROJECT REQUEST REPORT			
			TOTAL	<b>*/0</b> 5
DIVISION	DESCRIPTION		TOTAL	\$/SF
G10	SITE PREPARATION		32,500	
G20	SITE IMPROVEMENTS		25,000	
G30	SITE CIVIL / MECHANICAL UTILITIES		120,750	
G40	SITE ELECTRICAL UTILITIES		289,000	
	ESTIMATE SUBTOTAL		467,250	
	DESIGN CONTINGENCY @	10.00%	46,725	
	SUBTOTAL		513,975	
	GENERAL CONTRACTOR'S OH & P @	7.50%	38,548	
	SUBTOTAL		552,523	
	ESCALATION - SEE C100 FORM @			
	TOTAL		552,523	

#### EXCLUSIONS:

SEE ESTIMATE SUMMARY

PROJECT:CASCADIA CC CC5 GATEWAY BLDG - INFRASTRUCTURELOCATION:BOTHELL, WABLDG SF:2017176EST TYPE:PROJECT REQUEST REPORT

ITEM	DESCRIPTION	QUANTITY UNIT	UNIT COST	TOTAL	\$/SF
G10	SITE PREPARATION				
02220	UTILITY DEMO	1 LS	15,000	15,000	
02315	SITE MOBILIZATION	1 LS	12,500	12,500	
02370	EROSION CONTROL	1 LS	5,000	5,000	
G10	SITE PREPARATION	DIV	ISION TOTAL	32,500	
G20	SITE IMPROVEMENTS				
01000	SITE RESTORATION FOR TRANSFORMER RELOCATION	1 LS	25,000	25,000	
G20	SITE IMPROVEMENTS	DIV	ISION TOTAL	25,000	
G30	SITE CIVIL / MECHANICAL UTILITIES				
02510	DETECTOR CHECK IN VAULT	1 LS	25,000	25,000	
02510	FIRE AND DOMESTIC TO BUILDING	150 LF	100	15,000	
02510	NATURAL GAS TO BUILDING	150 LF	85.00	12,750	
02530	SANITARY SEWER LINE AND CONNECTION	80 LF	90.00	7,200	
02630	STORM DRAINAGE PIPING	120 LF	90.00	10,800	
02630	WATER QUALITY TREATMENT	1 LS	50,000	50,000	
G30	SITE CIVIL / MECHANICAL UTILITIES	DIV	ISION TOTAL	120,750	
G40	SITE ELECTRICAL UTILITIES				
02500	FRANCHISE UTILITIES (GAS/POWER/COMM)	1 LS	100,000	100,000	
02500	RELOCATE CC2 TRANSFORMER	1 LS	50,000	50,000	
02500	NEW TRANSFORMER, PAD-MOUNTED	1 LS	45,000	45,000	
02500	DIRECT BURY ELECTRICAL SERVICE - CONC ENCASED	220 LF	200	44,000	
16000	PEDESTRIAN LIGHTING	1 LS	50,000	50,000	
G40	SITE ELECTRICAL UTILITIES	DIVISION TOTAL		289,000	
		ESTIMAT	E SUBTOTAL	467,250	

### STATE OF WASHINGTON

## AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency Project Name OFM Project Number Cascadia Community College

CC5 Gateway Building

Contact Information				
Name	Schrieber Starling Whitehead/Robinson			
Phone Number	206 682 8300/206 441 8872			
Email				

Statistics					
Gross Square Feet	61,600	MACC per Square Foot	\$339		
Usable Square Feet	39,425	Escalated MACC per Square Foot	\$382		
Space Efficiency	64.0%	A/E Fee Class	В		
Construction Type	College classroom facilit	A/E Fee Percentage	7.15%		
Remodel	No	Projected Life of Asset (Years)			
	Additiona	al Project Details			
Alternative Public Works Project	No	Art Requirement Applies	Yes		
Inflation Rate	2.80%	Higher Ed Institution	Yes		
Sales Tax Rate %	10.00%	Location Used for Tax Rate	King		
Contingency Rate	Contingency Rate 5%				
Base Month November-17					
Project Administered By	DES				

Schedule				
Predesign Start	July-19	Predesign End	December-19	
Design Start	January-20	Design End	June-21	
Construction Start	July-21	Construction End	January-23	
Construction Duration	18 Months			

Project Cost Estimate					
Total Project	\$29,885,792	Total Project Escalated	\$33,589,683		
		Rounded Escalated Total	\$33,590,000		

### STATE OF WASHINGTON

# AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency Project Name OFM Project Number Cascadia Community College

CC5 Gateway Building

# **Cost Estimate Summary**

Acquisition					
Acquisition Subtotal	\$0 Acq	uisition Subtotal Escalated	\$0		

Consultant Services				
Predesign Services	\$225,000			
A/E Basic Design Services	\$1,080,969			
Extra Services	\$1,092,000			
Other Services	\$750,653			
Design Services Contingency	\$157,431			
Consultant Services Subtotal	\$3,306,053	Consultant Services Subtotal Escalated	\$3,617,295	

	Cor	struction	
Construction Contingencies	\$1,043,371	Construction Contingencies Escalated	\$1,178,801
Maximum Allowable Construction Cost (MACC)	\$20,867,426	Maximum Allowable Construction Cost (MACC) Escalated	\$23,548,318
Sales Tax	\$2,191,080	Sales Tax Escalated	\$2,472,712
Construction Subtotal	\$24,101,877	Construction Subtotal Escalated	\$27,199,831

Equipment					
Equipment	\$1,509,200				
Sales Tax	\$150,920				
Non-Taxable Items	\$0				
Equipment Subtotal	\$1,660,120	Equipment Subtotal Escalated	\$1,875,605		

Artwork					
Artwork Subtotal	\$117,742	Artwork Subtotal Escalated	\$117,742		

Agency Project Administration					
Agency Project Administration Subtotal DES Additional Services Subtotal Other Project Admin Costs	\$0 <u>\$0</u> \$0				
Project Administration Subtotal	\$200,000	Project Administation Subtotal Escalated	\$225,960		

	Otl	her Costs	
Other Costs Subtotal	\$500,000	Other Costs Subtotal Escalated	\$553,250

Project Cost Estimate				
Total Project	\$29,885,792	Total Project Escalated	\$33,589,683	
		Rounded Escalated Total	\$33,590,000	

	Consult	ant Services		
Item	Base Amount	Escalation	Escalated Cost	Notes
	Dase Amount	Factor	Estalated Cost	Notes
1) Pre-Schematic Design Services				
Programming/Site Analysis	\$25,000			
Environmental Analysis	\$0			
Predesign Study	\$200,000			
Other				
Insert Row Here				
Sub TOTAL	\$225,000	1.0617	\$238,883	Escalated to Design Start
2) Construction Documents	64,000,000			
A/E Basic Design Services	\$1,080,969			69% of A/E Basic Services
Other				
Insert Row Here	ć1 000 0C0	4 0000	64 470 250	Ferelated to Mid Desire
Sub TOTAL	\$1,080,969	1.0826	\$1,170,258	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	\$65,000			
Geotechnical Investigation	\$100,000			
Commissioning	\$25,000			
Site Survey	\$75,000			
Testing	\$50,000			
LEED Services	\$60,000			
Voice/Data Consultant	\$35,000			
Value Engineering	\$45,000			
Constructability Review	\$45,000			
Environmental Mitigation (EIS)	\$45,000			
Landscape Consultant	\$60,000			
ELCCA	\$50,000			
LCCT	\$75,000			
Reimburseables incl Reprographics	\$75,000			
prior to bid	\$25,000			
Advertising	\$2,000			
Traffic analysis	\$2,000			
Envelope Consultant	\$40,000			
Interior Design	\$10,000			
Acoustic Design	\$10,000			
Security Consultant	\$30,000			
Audio Visual Consultant	\$50,000			
Cost and Scheduling	\$55,000			
Value Engineering Participation	\$45,000			
Constructability Review Participation	\$40,000			
Environmental Graphics/Signage	\$5,000			
Lighting Consultant	<i>45,000</i>			
Materials/Equip/Lab Consultant				
Door Hardware Consultant	\$10,000			
SEPA/Land Use	\$10,000			
Insert Row Here	<i>\$30,000</i>			
Sub TOTAL	\$1,092,000	1.0826	\$1 182 200	Escalated to Mid-Design
SubTOTAL	<b>φ</b> ±,092,000	1.0020	<i>φ</i> 1,102,200	

4) Other Services

Bid/Construction/Closeout	\$485,653			31% of A/E Basic Services
HVAC Balancing				
Staffing			_	
Commissioning and Training	\$100,000			
LEED Reporting and Monitoring	\$65,000			
Reimburseables/Reprographics for bid and construction	\$25,000			
Construction Materials Testing	\$75,000			
Insert Row Here				
Sub TOTAL	\$750,653	1.1298	\$848,088	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	\$157,431		_	
Other				
Insert Row Here				
Sub TOTAL	\$157,431	1.1298	\$177,866	Escalated to Mid-Const.
			-	
CONSULTANT SERVICES TOTAL	\$3,306,053		\$3,617,295	

	Construc	tion Contracts		
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
1) Site Work				
G10 - Site Preparation	\$281,029			
G20 - Site Improvements	\$274,970			
G30 - Site Mechanical Utilities	\$0			
G40 - Site Electrical Utilities	\$0			
G60 - Other Site Construction	\$455,499			
General Conditions	\$177,375			see also infrastructure C100
Insert Row Here				
Sub TOTAL	\$1,188,874	1.1065	\$1,315,489	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.1065	\$0	
3) Facility Construction				
A10 - Foundations	\$459,709			
A20 - Basement Construction	\$389,362			
B10 - Superstructure	\$3,020,066			
B20 - Exterior Closure	\$3,061,339			
B30 - Roofing	\$433,785			
C10 - Interior Construction	\$2,268,763			
C20 - Stairs	\$201,321			
C30 - Interior Finishes	\$1,630,090			
D10 - Conveying	\$224,675			
D20 - Plumbing Systems	\$619,157			
D30 - HVAC Systems	\$3,059,364			
D40 - Fire Protection Systems	\$437,052			
D50 - Electrical Systems	\$2,549,470			
F10 - Special Construction				
F20 - Selective Demolition	A			
General Conditions	\$1,324,400			
Other				
Insert Row Here				
Sub TOTAL	\$19,678,552	1.1298	\$22,232,829	
4) Maximum Allowable Construction (		1		I
MACC Sub TOTAL	\$20,867,426		\$23,548,318	

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\$1,043,371			
\$1,043,371	1.1298	\$1,178,801	
\$0	1.1298	\$0	
\$2,191,080		\$2,472,712	
\$24,101,877		\$27,199,831	
	\$1,043,371 \$0 \$2,191,080	\$1,043,371 1.1298 \$0 1.1298 \$2,191,080	\$1,043,371 1.1298 \$1,178,801 \$0 1.1298 \$0 \$2,191,080 \$2,472,712

	Equipment						
Item	Base Amount		Escalation Factor	Escalated Cost	Notes		
E10 - Equipment	\$462,000						
E20 - Furnishings	\$739,200						
F10 - Special Construction							
IT Equip/computers/printers	\$308,000						
Insert Row Here			_				
Sub TOTAL	\$1,509,200		1.1298	\$1,705,095			
1) Non Taxable Items							
Other							
Insert Row Here							
Sub TOTAL	\$0		1.1298	\$0			
Sales Tax					_		
Sub TOTAL	\$150,920			\$170,510			
EQUIPMENT TOTAL	\$1,660,120			\$1,875,605			
Green cells must be filled in by user							

Artwork						
Item	Base Amount		Escalation Factor	Escalated Cost	Notes	
Project Artwork	\$0				0.5% of Escalated MACC for new construction	
Higher Ed Artwork	\$117,742				0.5% of Escalated MACC for new and renewal construction	
Other						
Insert Row Here						
ARTWORK TOTAL	\$117,742		NA	\$117,742		

	Project Management						
Item	Base Amount		Escalation Factor	Escalated Cost	Notes		
Agency Project Management	\$0						
Additional Services							
Cascadia Facilities Management	\$200,000						
Insert Row Here			_				
PROJECT MANAGEMENT TOTAL	\$200,000		1.1298	\$225,960			

Other Costs							
Item	Base Amount	Escalation Factor	Escalated Cost	Notes			
Mitigation Costs							
Hazardous Material							
Remediation/Removal							
Historic and Archeological Mitigation							
Permit and Plan Review Fees	\$500,000						
Insert Row Here							
OTHER COSTS TOTAL	\$500,000	1.1065	\$553,250				

# C-100(2016) Additional Notes

#### Tab A. Acquisition

Insert Row Here

#### Tab B. Consultant Services

We have assumed \$100,000 for geotechnical engineering based on the expectation that the poor soils at the alternative building site will require additional scrutiny.

Insert Row Here

#### Tab C. Construction Contracts

In "G6- - Other Site Construction" we have included costs for soil improvement consisting of geopiers at 6' on center across entire building footprint. We have calculated 428 geopiers are required, and predicted average depth will be 25. Recent cost comparables predict \$900 per geopier, therefore cost is 428 x 900 = \$385,200.

#### Tab D. Equipment

Covers owner provided/purchased furnishings and equipment

Insert Row Here

#### Tab E. Artwork

Insert Row Here

Tab F. Project Management

Insert Row Here

#### Tab G. Other Costs

Insert Row Here





# **Project Parameters**

Type of Space	Square I	Footage	Percent
Renovation of Existing	(S1)	0	
New Space	(S2)	61,600	100%
Exterior Circulation of Existing. See Appendix H.	(S6)	0	
Demolished Area	(S3)	0	
Total Affected Area	(S4)	61,600	100%
Net Area Change = New – Demo – Circulation	(S5)	61,600	

Costs	Dollars	Percent
Acquisition	\$ 0	0%
Consultant Services	\$ 3,645,000	10.8%
Construction Contracts (w/o eligible Infrastructure)	Ca <b>\$ 26,617,000</b>	78.9%
Eligible Infrastructure Contracts (from C100)	Cb <b>\$707,000</b>	2.1%
Equipment	\$ 1,876,000	5.6%
Artwork	\$ 118,000	0.3%
Other Costs	\$ 553,000	1.6%
Project Management	\$ 226,000	0.7%
Total Project Cost (C1)	\$ 33,742,000	

Funding	Dollars	Percent
State Appropriation	\$ 33,742,000	100%
Financed – backed by State Appropriation	\$ 0	
Local Funds – Cash (see list of qualifying funds)	Ma <b>\$ 0</b>	
Financed – backed by Local Funds	Mb <b>\$ 0</b>	
Total Project Funding	(F1) \$33,742,000	
Matching	(Ma+Mb) <b>\$0</b>	(Ma+Mb) / F1 0%
Variance = Cost – Funding	(C1 – F1) <b>\$ 0</b>	

Project Weighting	Equivalent Area	Percent
Matching	(M4 * S4) <b>0</b>	M4 = 2 * (Ma+Mb)/F1
Infrastructure	(I4 * S4) <b>1,218</b>	I4 = min(Cb/(Ca+Cb),(1- M4)) $2\%$
Renovation	(R4 * S4) <b>0</b>	R4 = (S1 * (1-M4-I4))/(S1+S5+min(S2,S3))0%
Replacement	(P4 * S4) <b>0</b>	P4 = (min(S2,S3) * (1-M4-I4))/(S1+S5+min(S2,S3))
New	(N4 * S4) <b>60,900</b>	N4 = ((S5)*(1-M4-I4))/(S1+S5+min(S2,S3))98%
Total	S4 61,600	M4+R4+P4+N4 %100





# 2019-21 Minimum and Overarching Criteria Points

Evaluation Criteria	Scoring Standard	
College Response	Affected buildings are at a single site.	Yes / No
College Response	Project does not include improvements to	Yes / No
	temporary or portable facilities.	
College Response	Project is not a gymnasium or recreational	<mark>Yes</mark> / No
	facility.	
College Response	Project is not an exclusive enterprise function	<mark>Yes</mark> / No
	such as a bookstore, dormitory or contract food	
	service.	
College Response	Project is not dependent on another project in	<mark>Yes</mark> / No
	the current request.	
College Response	Project meets LEED Silver Standard	<mark>Yes</mark> / No
	requirements.	
College Response	College has a Greenhouse Gas Emission	<mark>Yes</mark> / No
	Reduction plan.	
College Response	The facility is state-owned or a condominium	<mark>Yes</mark> / No
	interest is held (state capital funds cannot be	
	spent on leased space).	
College Response	Project will take more than one biennium. And,	<mark>Yes</mark> / No
	project costs at least \$5,000,000 and does not	
	exceed 70,000 gsf without WACTC Capital	
Callere Desarra	Budget Committee approval.	Yes / No N/A
College Response	If project includes renovation or replacement,	res/no n/A
	then affected buildings have been owned by the	
College Response	college for 20 years at the time of the request. If project includes renovation, then the project	Yes / No N/A
Conege Response	extends the useful life of the affected building at	
	least 20 years.	
College Response	If project includes renovation, then the cost does	Yes / No N/A
conege response	not exceed 80% of the current replacement cost.	
Effective use of existing facilities	Fall 2016 space utilization relative to standards	
	and other proposals. Standards are:	Up to 9 points
See Appendix C for guidelines on	Classroom seats used 22 hours per week.	Classroom: 30.04
determining existing utilization.	Laboratory seats used 16 hours per week.	Lab: 20.90 = 7 pts*
Ability to enhance state and	Add up points from each category: (Max 14)	
institution's achievement of goals	Directly tied to facilities master plan	4 <b>Yes = 4</b>
6	Directly tied to objectives in strategic plan	$4 \operatorname{Yes} = 4$
	Include clear and succinct description of the	4 <mark>Yes = 4</mark>
	relationship between the project and its impact	
	on partnerships with K-12, 4 yrs, business, etc.	
	This may be supported by letters from partners	
	describing how the project will benefit the	
	partnership.	
	Project includes at least seven of the best	2 <b>Yes</b> $(10) = 2$
	practices identified in Appendix A to reduce	
	greenhouse gas emissions.	21
	Overarching Subtotal (O1)	21
	Overarching Weighting (O2)	1
	Overarching Weighted Subtotal $(O3 = O1 \times O2)$	21
	Overarching Portion of Project (O4)	1
	<b>Overarching Points (O5 = O3 x O4)</b>	<mark>21</mark>

\*We used the same logic used for future utilization scoring to propose this score (i.e. 18/24 \* 9 = 7 pts)





DAHP Review & Prior Reports Tribal Review Letters



November 8, 2017

Ms. Brenda Hake Misel Schreiber Starling Whitehead 901 Fifth Avenue, Suite 3100 Seattle, Washington 98164

> Re: Cascadia College New Building Project Log No.: 2017-11-08024-OFM

Dear Ms. Hake Misel;

Thank you for contacting our department pursuant to Executive Order 05-05 on behalf of Cascadia College. We have reviewed the materials you provided for the proposed Cascadia College New Building Project at 18345 Campus Way NE, Bothell, King County, Washington.

We concur with your determination of no cultural resource impacts.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive. Please keep us apprised of the results of your consultations.

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribe's cultural staff and cultural committee and this department notified.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with Executive Order 05-05. Should additional information become available, our assessment may be revised, including information regarding historic properties that have not yet been identified.

Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D. State Archaeologist (360) 890-2615 email: *rob.whitlam@dahp.wa.gov* 



Mail or Fax this form to: Department of Archaeology and Historic Preservation 1063 S. Capitol Way, Suite 106 P.O. Box 48343 Olympia, WA 98504-8343 360-586-3067

I am the legal property owner, and I am asking for information about archaeological site(s) on my property only.

I acknowledge that DAHP will provide me with archaeological information that is not for public disclosure in order to prevent looting and destruction of sites (RCW 42.56.300). This information is for my personal use only. I agree to keep this information confidential unless disclosed to a third party as necessary to comply with a permit issued by DAHP. I can inform a purchaser of the property that archaeological site(s) are present but not the location or other details, and I agree to refer any purchaser to DAHP for further information.

I also understand that archaeological sites, Indian Graves, cairns and glyptic records are protected from disturbance by RCW 27.53.060, 27.44 and WAC 25-48. Also, that damaging any abandoned historic cemetery or graves may constitute a Class C Felony under RCW 68.60, and could be subject to fines of up to \$5,000 in addition to site restoration and investigation costs.

, 20/4 Signed this day of Signature



Terence Hsiao Vice President for Administrative Services

18345 Campus Way NE Bothell, Washington 98011-8205 EMAIL: thsiao@cascadia.edu PHONE: 425.352.8196 FAX: 425.352.8267

www.cascadia.edu

#### STATE OF WASHINGTON

# **DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

# Information Request Form

Archaeological Sites

Landowner Name: Mailing Address: City, State: Phone/ FAX: E-Mail: 
 Cascadia Community College

 18345 Campus Way NE, CC3-338

 Bothell, WA
 Zip:

 98011-8205

 425-352-8196/425-352-8267

 thsiao@cascadia.edu

County: King

# PLEASE ATTACH LEGAL DOCUMENTATION OF LAND OWNERSHIP (TAX STATEMENT, COPY OF LAND TITLE, OR OTHER APPROPRIATE DOCUMENTATION)

# PLEASE ATTACH A COPY OF THE RELEVANT PORTION OF A MAP SHOWING YOUR PROPERTY LOCATION AND OUTLINE PROPERTY BOUNDARIES

# Location of Land

Land Address: <u>18345 Campus Way NE</u>	City: Bothell	County: King
Parcel(s):	Township: Range:	Section:

2011 UWB/CCC MASTER PL



NPS Form 10-900 (Rev. 8-86)

United States Department of the Interior National Park Service

## National Register of Historic Places Registration Form

KI 647

FILE COPY

OM8 No. 1024-0018

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See Instructions in <u>Guidelines for</u> <u>Completing National Register Forms</u> (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the Instructions. For additional space use continuation sheets (Form 10-900-a). Type all entries.

26N SE 8

1. Name of Property		
historic name Chase, Dr. Reuben, House	· · · · · · · · · · · · · · · · · · ·	
other names/site number N/A		
2. Location		
street & number 17819 113th Ave. N.E.	not for publication	
city, town Bothell		
state Washington code WA county	King code 033 zip code 98011	
3. Classification Ownership of Property Category of Propert	Number of Resources within Property	
Image: State state state     Image: State state	Contributing Noncontributing	
public-local district	<u>1</u> buildings	
public-State site	sites	
public-Federal structure	structures	
	objects	
and the second	<u>1</u> Total	
Name of related multiple property listing:	Number of contributing resources previously listed in the National Register <u>0</u>	
Historic Resources of Bothell		
4. State/Federal Agency Certification		
properties in the National Register of Historic Places a	bility meets the documentation standards for registering nd meets the procedural and professional requirements set meets does not meet the National Register criteria. Date 1999 Date 1999 Control Office of Archaeology and Historic Preservation	
In my opinion, the property is meets indoes not meet the National Register criteria.		
Signature of commenting or other official	Date	
State or Federal agency and bureau		
5. National Park Service Certification		
I, hereby, certify that this property is:		
entered in the National Register.		
See continuation sheet.		
determined eligible for the National     Register. See continuation sheet.		
determined not eligible for the		
National Register.		
removed from the National Register.		
other, (explain:) Signature	of the Keeper Date of Action	
Signature	er ne respei	

- --

Historic Functions (enter categories from instructions) Domestic: single dwelling	Current Functions ter categories from instructions) Domestic: single dwelling
7. Description Architectural Classification	Materials (enter categories from instructions)
(enter categories from instructions)	foundation <u>concrete &amp; wood: post &amp; beam</u> walls <u>wood: weatherboard</u>
Other: gable front and wing	roof <u>wood: shingles</u> other

Describe present and historic physical appearance.

The Dr. Reuben Chase House is a one-and-one-half story Victorian cottage, built of frame construction and located in Bothell's Stringtown neighborhood, a largely undeveloped area near the Sammamish riverfront southeast of downtown. The cottage, which reflects the characteristic gable-front-and-wing form, is built on a T-plan composed of a front facing gabled unit and a recessed perpendicular side gabled wing. The house sits on a small lawn, about 600 feet from State Route 522, a major east-west highway through the eastside suburbs of Seattle. The house is one of three extant late 19th century homes that were constructed by pioneers to the Bothell area along a route that eventually became the well-travelled Bothell-Redmond highway. Today, Stringtown is one of the few areas of the city that retains a sense of its original character, and, despite some later additions, the Chase house is a well preserved reminder of the area's 19th century heritage.

The Chase house is built of frame construction, rests on a wood post and pier (at the northern wing) and poured concrete foundation (providing a root cellar at the southern wing), and is sided in horizontal drop siding with corner board trim. The gable roof of the main house is covered in wood shingles, while the rear shed is roofed with composition shingles. The eaves of the roof are ornamented with narrow bargeboards, with simple volutes at the ends, and the cornice is outlined with flat moldings. The original brick chimney with corbelled cap rises from the northern gable end of the house, while a chimney that rose through the eastern gable end has been removed.

The southern, front gable wing measures 14 feet by 20 feet and is punctuated on the facade by tall and narrow, two-over-two double hung wood sash windows with simple wood surrounds. Two windows are placed on the main floor and one in the gable end, and a central basement door, with pediment-like surround, allows entry to the root cellar. Similar double hung windows are located on the south and west side walls of the wing and a bay window projects from the south wall. The bay, which may have been added in the late 19th century after original construction, is lighted by double hung sash windows on all three sides. A small gabled dormer (probably added in the early 20th century) projects from south slope of the gable above this wall.

To the north, a side gabled wing is perpendicular to, and recessed from, the front gabled wing. This northern wing, which rises one and one half stories, measures 20 feet by 14 feet and features a shed roof porch which spans the facade, shelters the front entry in the juncture of the L, and wraps around the north side of the building. The porch is supported by simple posts with knee braces. The two front doors at the "L" (one located on the side gable and one in the front gable) are paneled, single leaf doors with glazed upper panels and pediment-like hood moldings. To the north, is an enclosed projecting box bay (enclosed sometime after original construction) lighted by four double hung two-over-two wood sash windows. Above the porch on the slope of the gable is a small gabled dormer window. A similar rear dormer window projects from the west slope of the roof, and a brick chimney rises through the ridge of the roof at the northern end.

A one-story shed roof addition is built onto the rear of house, lighted by double hung windows. The addition, which was probably built in the early 20th century, measures approximately 30 feet by eight feet and is lighted by three windows.-a paired set of double hung windows and a small square window. The shed roof has extended eaves supported by brackets. The first floor interior of the Chase house reflects the original floor plan, with two front parlors, and features simple wood trim around windows and doors. A one story frame garage, with gable roof and wood siding, does not contribute to the historical significance of the property.
8. Statement of Significance		
Certifying official has considered the significance of this prop nationally	perty in relation to other properties atewide X locally	S:
Applicable National Register Criteria	ם	
Criteria Considerations (Exceptions)	D 🗌 E 🔲 F 🔲 G	
Areas of Significance (enter categories from instructions) <u>Architecture</u> <u>Health/Medicine</u>	Period of Significance <u>c. 1885-1895</u>	Significant Dates <u>1889-1895</u> <u>c. 1885</u>
	Cultural Affiliation	
Significant Person Chase, Dr.Reuben	Architect/Builder <u>not known</u>	

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

Built about 1885, the Dr. Reuben Chase house is historically significant for its association with Bothell's first doctor and as an example of pioneer era residential architecture in the city. The house, which is characterized by its simple gable-and-wing form, was the site of the doctor's office and the community's first hospital, established at a time when the area was suffering from a typhoid epidemic. The house is located in Stringtown, the area's first residential neighborhood on the north bank of the Sammamish River and is the best preserved of the houses built in that district. Today, the Chase house is among a handful of significant structures associated with the city's formative years of the 1880s.

<u>Historical Background</u>: Dr. Reuben Chase was a native of Rutland, Vermont, who, after service in the Civil War, studied medicine in Cincinnati, where he earned his medical degree from the Eclectic Medical College in 1877. In 1889, Chase migrated west to the Pacific Northwest searching for a favorable climate in order to relieve recurrent attacks of malaria. Upon his arrival in Seattle that year, the state medical association directed Chase to the small community of Bothell which at the time was without a physician and in the midst of a typhoid epidemic that had totalled 40 cases. In the Bothell area, Chase set up practice in a frame house probably built a few years earlier in the community's first residential area known as Stringtown. The house served both as office, the community's first hospital, and Chase's residence. During his tenancy he expanded the building slightly by adding several bay windows, including a box bay beneath the front porch. Chase was successful in fighting the typhoid epidemic; reputedly, he saved all but one of his patients. In addition to serving as the town doctor, Chase contracted to cut wood to heat the schoolhouse. Chased lived in the house until 1895, when he moved to Edmonds. In 1905, he moved to Snoqualmie to open another practice and died there in 1908. He is buried in the Bothell cemetery.

The Chase house was built about 1885 and is a good example of the pioneer gable-and-wing form common to the period. Like others of the type, the Chase house is characterized by horizontal siding with simple corner and cornice trim, doublehung windows, and a T plan. At some point in the late 19th century, the porch was partially enclosed for a bay window, and a second bay was added to the side elevation. These changes to the house are consistent with the traditional character of the building, and reflect common alterations to houses at the turn of the century. A cultural resource survey identified the house as the best preserved of the three extant houses in Stringtown and among the earliest and best preserved frame houses in the city.

9. Major Bibliographical Reference Evans, Jack. <u>A Little History of Bothell</u>, <u>Washington</u>. Seattle: SCW Publications, 198. Stickney, Amy Eunice, and Lucile McDonald. <u>Squak Slough</u>. Seattle: Evergreen Printing Co., 1977.

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ARCHAEOLOGICAL RESOURCES ASSESSMENT OF THE UNIVERSITY OF WASHINGTON, BOTHELL BRANCH AND CASCADIA COMMUNITY COLLEGE COLLOCATION PROJECT AT THE TRULY FARMS/STRINGTOWN SITE, BOTHELL, WASHINGTON

NADB Document No 1334626

# ARCHAEOLOGICAL RESOURCES ASSESSMENT OF THE UNIVERSITY OF WASHINGTON, BOTHELL BRANCH AND CASCADIA COMMUNITY COLLEGE COLLOCATION PROJECT AT THE TRULY FARMS/STRINGTOWN SITE, BOTHELL, WASHINGTON

Prepared for

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August 18, 1995

HRA# 420CIS

#### **EXECUTIVE SUMMARY**

The Higher Education Coordinating Board proposes to construct a new college campus at the Truly Farms/Stringtown site in Bothell, Washington (Project). The 130-acre campus will house the University of Washington, Bothell Branch and Cascadia Community College.

L. C. Lee & Associates, Inc. contracted with Historical Research Associates, Inc. (HRA) to perform a cultural resources assessment of the Project Area. The purpose of the assessment is to locate any significant prehistoric or historic archaeological sites in the area that might be impacted by construction, to evaluate the historic buildings and structures in terms of their eligibility for listing in the National Register of Historic Places (NRHP), and to recommend measures to mitigate adverse effects on such cultural resources in the Project Area. This document reports the prehistoric, ethnohistoric, and historic archaeological resources assessment. A companion report discusses the assessment of the the historical buildings and structures at the Truly Farms/Stringtown site (Warner 1995).

Before conducting the archaeological survey, HRA personnel examined King County archaeological survey and site records on file at the Washington State Office of Archaeology and Historic Preservation (OAHP) and reviewed pertinent archaeological, ethnohistorical, and historical literature available at the Special Collections Library at the University of Washington, National Archives Puget Sound Region, King County Landmarks Preservation Board, City of Bothell Community Planning Department, Bothell Historical Society, and Bothell Public Library.

HRA staff surveyed the Project Area in July, 1995. The crew inventoried the upland portions of the study area by pedestrian survey using a 30-m transect interval. Where less than 50 percent of the surface was visible, the archaeologists cleared 1-m<sup>2</sup> exposures every 50 meters using a flat-bladed shovel. Within the North Creek floodplain, the crew used 10-cm-diameter manual augers to examine the subsurface for buried cultural deposits.

HRA did not survey an approximately five-acre segment of the Project Area that was cultivated just prior to the field investigation. This segment is located in the northern half of the Project Area, in the western half of the North Creek floodplain, and is bisected by a gravel road easement.

As a result of the archaeological survey, HRA identified no significant prehistoric or historic archaeological materials. HRA recommends no other archaeological resources studies at the proposed University of Washington, Bothell Branch and Cascadia Community College Campus Collocation site.

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#### **1.0 INTRODUCTION**

The Higher Education Coordinating Board proposes to construct a new college campus at the Truly Farms/Stringtown site in Bothell, Washington (Project). The 130-acre campus will house the University of Washington, Bothell Branch and Cascadia Community College. The proposed facilities will include classrooms, administrative space, office space, student services, a library, a theatre, recreation facilities, and parking space.

L. C. Lee & Associates, Inc. contracted with Historical Research Associates, Inc. (HRA) to perform a cultural resources assessment of the Project Area. The purpose of the assessment is to locate any significant prehistoric or historic archaeological sites in the area that might be impacted by construction, to evaluate the historic buildings and structures in terms of their eligibility for listing in the National Register of Historic Places (NRHP), and to recommend measures to mitigate adverse effects on such cultural resources in the Project Area. In this report, prehistoric, ethnohistoric, and historic backgrounds are presented with an emphasis on archaeological resources. A companion report deals with historical buildings and structures on the Truly Farms/Stringtown site (Warner 1995).

The Truly Farms/Stringtown site and adjacent properties lie northwest of the intersection of Interstate 405 and State Route (SR) 522, approximately 0.5 miles east of downtown Bothell, in Township 26 North, Range 5 East, Sections 5, 8, and 9. The Project Area is bounded by Interstate 405 on the east, SR 522 on the south, Beardslee Boulevard and 112th Avenue NE on the north and northwest, and by property- and fencelines on the west (Figure 1-1).

### **1.1 Project Personnel**

Linda Stutzman, Research Archaeologist, supervised the archaeological survey, performed the background research, and prepared the report. Dr. Gail Thompson, Vice President, served as Principal Investigator for the Project and reviewed the report.

## 1.2 Report Organization

This document presents the results of the Truly Farms/Stringtown site archaeological assessment. The report contains six sections, including this introduction. Section 2.0 provides an environmental overview. The prehistoric, ethnohistoric, and historic background<sup>1</sup> of the region are presented in Section 3.0, while Section 4.0 discusses the methods and results of the

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<sup>&</sup>lt;sup>1</sup> Information on the historical background of the Bothell area and the Truly Farm site is included in a separate report: John P. Warner, HRA, Inc., 1995, Historical Resources Assessment of the University of Washington, Bothell Branch and Cascadia Community College Collocation Project at the Truly Farms/Stringtown Site, Bothell, Washington.

background research and field survey. An evaluation of the archaeological resources is provided in Section 5.0. Section 6.0 lists the references cited in the report.

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Location of Project Area Figure 1-1

## 2.0 ENVIRONMENTAL OVERVIEW

## 2.1 Geology, Hydrology, and Climate

#### Geology and Hydrology

The Project Area is located within the Puget Lowland Physiographic Province (Franklin and Dyrness 1973; Rosenfeld 1993:41), a long, narrow depression bounded by the Canadian border on the north, the Olympic Peninsula and the northern portion of the Coast Range on the west, and the Southern Washington and Northern Cascades on the east (Figure 2-1).

The Project Area lies within the Sammamish watershed. The Sammamish River flows out of Lake Sammamish, approximately 9 miles southeast of Bothell, Washington. From its headwaters, the Sammamish flows north-northwest to Woodinville, where it turns due west and empties into Lake Washington near Kenmore. Numerous tributaries drain into the Sammamish including North Creek, which currently roughly bisects the Truly Farms/Stringtown site as it flows through the Project Area.

In overall structure, the Puget Lowland is a tertiary downwarp between the Cascade and Coast Range uplifts. Hills within the lowlands are most frequently composed of Eocene basalts that are relatively resistant to erosion. On the eastern edge of the Puget Lowlands Province, the bedrock consists primarily of nonmarine andesitic and basaltic flows correlated with the Cascades. Sedimentary formations are interbedded with the flows and often contain fossils that are useful for dating and interpretation (McKee 1972).

The present topography of the Puget Lowland Province is primarily a result of glaciation. During the Vashon Stade, which reached its maximum approximately 18,000 years ago (Pielou 1991), the Cordilleran ice sheet split into two lobes at the junction of the Puget Lowland with the Strait of Juan de Fuca. The eastern lobe, known as the Puget Lobe, pushed into the area that is now Puget Sound and extended over the entire Puget basin to a depth of 4,000 feet. As it advanced, the glacier extended to the northeast front of the Olympic Mountains and effectively dammed the entire lowland. By approximately 14,000 years ago the Puget lobe had retreated from its southern terminus just south of Olympia to the vicinity of Seattle. By 13,000 years ago the glacier had thinned sufficiently to allow marine water into the Puget Lowland. The remaining ice floated, resulting in the eventual deposition of glaciomarine drift over an area of approximately 18,000 km<sup>2</sup>. A series of radiocarbon dates derived from shells and wood preserved in the drift indicate that it was deposited from berg ice over the entire region nearly simultaneously, as opposed to transgressively from a retreating, calving ice front (Blunt et al. 1987). Geologists now maintain that the Cordilleran ice sheet readvanced a short distance into the northern Puget Lowland during the Sumas Stade, approximately 11,500 years ago. Radiocarbon dates indicate that the Sumas ice had again retreated by 10,000 years ago.

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There is no doubt that the repeated advance and retreat of glacial ice in the Puget Lowland and the resulting changes in sea level due to isostatic and eustatic processes has major implications for the preservation and visibility of archaeological remains in the region (cf. Campbell 1981; Johnson and Stright 1991; Stright 1990; Whittaker and Stein 1992). The deposition of glaciomarine and other sediments (e.g., till and outwash sands and gravels), as well as erosion and inundation, play a role in determining the nature and age of archaeological remains recoverable in the region. Relict late Wisconsin landforms (e.g., river valleys, bays, lagoons, and rock outcrops) are areas where cultural deposits are most likely to be discovered (Stright 1990:461).

#### Climate

Since it is a commonly held view that humans did not populate the New World until the end of the Pleistocene, many studies of climate change in the archaeological literature concentrate on the last 12,000 years. The standard scenario, supported by palynological studies in the Puget Lowland (e.g., Barnosky 1981, 1985; Barnosky et al. 1987; Hansen 1946; Heusser 1960, 1983, 1985), is that the Northern Hemisphere has experienced broad climatic shifts since the late Pleistocene, summarized as follows: 1) late Pleistocene glacial to periglacial conditions (approximately 20,000 to 14,500 years ago); 2) early Holocene warming with generally cool and moist conditions (14,500 to 9,500 years ago); 3) mid-Holocene warm and dry period, known as the Hypsithermal (approximately 9,500 to 4,500 years ago); and, 4) late Holocene (4,500 years ago to the present) return to cooler, more moist conditions marking the beginning of the Neoglaciation.

A broad area like the Pacific Northwest can experience substantial local climatic variation that is suppressed over larger geographic areas (Campbell 1981:23). Thus, although the scenario of late Pleistocene and Holocene climatic change outlined above appears adequately to reflect broad-scale tendencies, caution must be exercised in applying the scheme to specific regions.

## 2.2 Flora and Fauna

As the glacial ice retreated near the end of the Pleistocene, the exposed land that had been covered by ice was essentially barren. Over the centuries, the glaciated landscapes became colonized with a variety of plants and animals that were previously confined to glacial refugia (Pielou 1991), and processes of plant succession created vegetated landscapes. The distribution and kinds of species have changed dramatically over the millennia following the melting of the glacial ice (Martin and Klein 1984; Pielou 1991).

The distribution of plants across the landscape is commonly classified using a hierarchical system. Provinces are the highest level of the plant hierarchy and are based upon physiognomic and geographic criteria. In Washington, three (Frenkel 1985.60) or four (Franklin and Dyrness 1973:44) provinces are recognized. The three-province scheme divides the state into Forest Province, Shrub-Steppe Province, and Alpine Province. Although there is no one-to-one

relationship between physiographic provinces and vegetation provinces, there is a high correlation. This is simply because plant colonization depends on the same variables that suggest the boundaries for the physiographic province divisions: elevation, geology, and climate.

Zones may be defined as the area in which one plant association is the climax community (Franklin and Dyrness 1973:46). They are the most useful division for this report because they ideally delineate an area of uniform macroclime and extend over broad regions. Although zonal divisions tend to reflect plant responses to strong gradients in temperature and moisture, they are generalizations and must be applied with caution.

The dominant vegetation province in the Puget Lowland is the Forest Province (Franklin and Dyrness 1973; Frenkel 1985). A single zone is dominant in the Puget Lowland: the *Tsuga heterophylla* or Western Hemlock Zone. Douglas-fir (*Pseudotsuga menziesii*) is actually the dominant tree in this zone even though the zone is not named for this tree. Western red cedar (*Thuja plicata*) is the third tree that consistently occurs in the *Tsuga heterophylla* zone. Western white pine (*Pinus monticola*) and lodgepole pine (*Pinus contorta*) are common in the Puget Sound area of this zone, as they grow on glacial drift. Much of the Puget Lowland has been heavily logged. In disturbed areas that are moist, western red cedar is often replaced by red alder (*Alnus rubra*) and bigleaf maple (*Acer macrophyllum*). In disturbed drier areas, western hemlock gives way to Douglas fir and, at higher elevations, Pacific silver fir (*Abies amabilis*).

Terrestrial fauna common to the Puget Lowland include deer (Odocoileus spp.), elk (Cervus canadensis), black bear (Ursus americanus), coyote (Canis latrans), fox (Vulpes fulva), mountain lion (Felis concolor), and bobcat (Lynx rufus). All of these large mammals have fairly extensive ranges and were at one time common in both bottomland and upland areas of the province. Mountain sheep (Ovis canadensis) and mountain goat (Oreamo americanus) once common, still inhabit the higher elevation areas of the region Marshy habitats in the region typically supported a specialized but diverse array of fauna that still includes raccoon (Procyon lotor), mink (Mustela vison), river otter (Lutra canadensis), beaver (Castor canadensis), and muskrat (Ondatra zibethica). In addition, a great variety of migratory waterfowl spend a portion of the year in the marshy areas of the Puget Lowland (Blukis Onat 1987; Campbell 1981; Dalquest 1948; Thompson 1978).

The aquatic environments of the Puget Lowlands are varied and include freshwater lakes, streams, and rivers, and a variety of marine microenvironments. Estuarine tidal flats, characterized by sandy to muddy substrate, support native oyster (*Ostrea lurida*), basket cockle (*Clinocardium nuttalli*) and a number of species of clams. A variety of estuarine fish are common in the region.

Anadromous fish also pass through the riverine microenvironment. These fish, primarily various species of salmon (*Oncorhynchus* spp.), were probably the most important staple for native people living in the Puget Lowland during late prehistoric times. The relative abundance of different species of anadromous fish in the river channels and the timing of their passage is specific to each river drainage. Other fish that are permanent residents of the Puget Lowland

rivers, streams, and lakes include various species of trout (Salmo spp.) and Dolly Varden (Salvelinus malma).

## 3.0 CULTURAL OVERVIEW

The following report sections provide general information regarding the cultural setting of the region. The vicinity of the Project Area may have been used by prehistoric and ethnohistoric inhabitants gathering/processing resources in, or traveling through, the wooded uplands and along the margins of the Sammamish River and North Creek. Archaeological materials associated with these activities could be present in the Project Area. Historic-period activities such as logging, agriculture, and residential use could produce archaeological deposits in the Truly Farms/Stringtown site. The methods used during the archaeological survey to test these expectations are outlined in Section 4 0 of this report.

## 3.1 Prehistory

In the course of 325 archaeological surveys conducted in the Southern Puget Sound Study Unit as of 1987, archaeologists recorded 299 prehistoric sites (Wessen and Stilson 1987). These are categorized into four descriptive types, based on their content and geological context: shell middens, wet sites, lithic sites, and rock shelters (Wessen and Stilson 1987:13-16).

Knowledge of the region's prehistory is built primarily on data recovered from shell middens and lithic scatters. Information is limited regarding other aspects of the cultural adaptation and how they are interrelated. Consequently, there presently exists no comprehensive synthesis of regional chronology, subsistence and trading systems, and cultural dynamics for the region as a whole.

The cultural sequence that has been developed is based on the chronology devised by Kidd (1964 [see Table 3-1]), and is usually divided into three developmental periods. These divisions are arbitrary and should not necessarily be assumed to be correlated with adaptational shifts in the aboriginal settlement and subsistence systems (Campbell 1981). The "current" portion of Table 3-1 reflects an evolution of views over the past three decades.

Kidd's chronology reflects a lack of consideration of geologic processes and the interaction of such forces with the archaeological record. Data about site formation and processes such as sea level change are just recently being integrated into archaeological research to provide a more complete understanding of the record.

For example, early lowland sites that indicate a dependence on marine resources are likely to have been inundated by rising sea levels (Whittaker and Stein 1992; Stright 1990). Consequently, remaining late Pleistocene/Early Holocene sites would be those located in nonlittoral, inland contexts that represent only part of the total subsistence system. Later sites, however, would still be archaeologically visible along the modern shorelines. Thus, the apparent increasing dependence on marine resources over time may only reflect preservation bias,

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Research Issue	Early Period 8000-5000 B.P.	Middle Period 5000-1000 B.P.	Late Period 1000-250 B.P.
Kidd (1964)			
Land Use	generalized marine littoral and major rivers	modern shores, 1slands	ethnographically described: saltwater shores and rivers
Settlement	small seasonal occupation areas	seasonal village, camps	winter villages, seasonal camps
Subsistence	generalized hunting and gathering	increased specialization	specialized seasonal collectors
Technology	large stone tools, lanceolate points	stone grinding, bone and antler tools, small side- notched and triangular points	emphasis on bone and antier tools, decrease in stone tool use, small side- notched and triangular points
Current	•••	• • •	• • • • • • • • • • • • • • • • • • •
Land Use	aquatic/littoral	aquatic/littoral	aquatic/littoral
Settlement	seasonal camps	seasonal village	winter village and seasonal camps
Subsistence	aquatic foragers	increasingly marine/ riverine orientation	specialized seasonal collectors
Technology	stone; some bone and antler; perishable items likely	stone; increase in bone, antler, and perishable items	stone, bone, antler, and perishable items common

Table 3-1	Models of Prehistoric Change in the Southern Puget Sound Region (From Wessen and
	Stilson 1987: Table 6)

changing distributions of resources, geological processes preferentially obscuring shoreline sites, or a combination of these factors.

## 3.2 Ethnohistory

The Project Area and its vicinity was occupied by the Duwamish Indians, a Coast Salishspeaking group (Figure 3-1) (Haeberlin and Gunther 1930; Spier 1936; Swanton 1952). TheDuwamish consisted of a number of bands, including the Sammamish who occupied much of the area along the river that bears their name (Swanton 1952).

The Duwamish bands oriented their settlement-subsistence systems toward the saltwater, riverine, and inland environments in their territories (Haeberlin and Gunther 1930). As with other Coast Salish groups in western Washington, the Duwamish relied on salmon and shellfish as staple resources. They established fishing stations along area streams, from which they



harvested various salmonid runs, including steelhead trout, which were probably available from September through December (Campbell 1981; Haeberlin and Gunther 1930).

The focus of the Duwamish yearly cycle was the permanent winter village, which consisted of one or more cedar plank longhouses in which as many as eight families resided (Haeberlin and Gunther 1930; Smith 1940). At other times of the year, the Duwamish used temporary pole and mat structures that were easily transported. Winter villages may not have been completely abandoned during the warmer months as family groups moved to various environmental zones seasonally to harvest abundant resources, process them for storage, and then transport the supplies to the permanent village. These resources included roots, berries, and other plant products. Hunting land mammals was important to inland groups, with some men specializing in the pursuit of deer, elk, bear, and beaver. The groups also trapped waterfowl in nets and hunted other birds.

Duwamish place names in the vicinity of the Project Area include *sts!ap*, meaning "crooked" or "meandering," located upriver from Bothell at Squawk Slough; *TL!ahwa'dis*, "something growing or sprouting," a village on the north shore of Lake Washington at the mouth of the Sammamish River; and *Cxa'tcugwEs*, "where the lake becomes elongated," referring to the narrow estuary where the Sammamish River enters Lake Washington (Waterman 1922:179, 190). Another village, *Stsapabsh*, was located on the present site of Woodinville (Margeson 1982:C1). The Duwamish called North Creek, which flows through the Project Area, *Ctcel*. A stream entering the Sammamish River from the south, below the town of Bothell, was called *Xa'palbl*, meaning "brush piled up" (Waterman 1920).

## Effects of Contact

The arrival of Euroamericans in the Pacific Northwest altered the economy and technology of the Native Americans. Euroamericans introduced cloth, kettles, pots, guns, beads, and tobacco into the region as trade goods in exchange for beaver, sea otter, fox, and other furs (Silverstein 1990:535). Unfortunately, disease was another import to the Pacific Northwest. At least two waves of smallpox, in 1801 and 1853, and the "fever and ague" malaria epidemic of 1830 decimated the Native American populations of the Northwest Coast (Cook 1955:313; Boyd 1990:139). Pre-Euroamerican contact population figures for the Northwest Coast before the epidemics are as high as 188,344. However, by 1870 Native Americans numbered less than 35,000 (Boyd 1990:147)

#### Treaties

In 1855, Isaac I. Stevens, Governor and *ex officio* Superintendent of Indian Affairs for the Washington Territory, initiated a series of treaty negotiations with the Duwamish, Suquamish, Snoqualmie, Snohomish, Stillaguamish, Swinomish, Skagit, Lummi and other western Washington Tribes. The treaties created small reservations within the Tribes' traditional territory, and protected fishing, hunting, and harvesting rights. During the winter of 1855-1856, several hundred Indian warriors, from several different tribes, staged an uprising and attacked the town of Seattle on two separate occasions. The Indians scored several victories, but failed to dislodge the Euroamericans from the area (Marino 1990).

Although the Governor assigned western Washington Native Americans to reservations, no removal program was instituted for the groups in the northeastern portion of Puget Sound (Marino 1990). The Duwamish, Samish, Snohomish, Snoqualmie, and Steilacoom formed the Small Tribes Organization of Western Washington in the late 1960s to consolidate their efforts to receive a settlement and recognition from the United States for seizure of their tribal lands (Marino 1990).

## 3.3 History

The earliest American settlers in the Puget Sound region came in 1845 (Heritage League 1990:4). By the following year the Americans were able to push the English up to the Fortyninth Parallel. Distractions from Ireland, the demise of the fur trade, and a desire to avoid war with the United States prompted the English to relinquish most of the lands north of the Columbia. In 1853 there were nearly 4,000 non-Indian residents in the lower Puget Sound region -- and that year they convinced Congress to create Washington Territory (Schwantes 1989:95-106; Kavanaugh 1977:7). By 1889 the population was sufficient for Washington to achieve statehood. At this time, the Puget Sound area was well-known for its dairy farms as well as for logging and lumbering<sup>2</sup>.

An especially significant stimulus for settlement was the Donation Land Claim Act of 1850. This law allowed each white male citizen of at least eighteen years of age 320 acres of land. If he was married, his wife was entitled to claim an additional 320 acres. The government required the claimant to reside on the land and cultivate it for four years. The liberal terms of the Donation Land Claim Act helped swell the stream of immigration to the lower Puget Sound Basin (Schwantes 1989:103).

During the 1850s, this influx of settlement resulted in conflicts with Native Americans, who resented encroachment on their lands. The Donation Land Act, which encouraged whites to squat in some areas not yet ceded by the Indians, was a major cause of animosity. In fact, one of the initial tasks of Isaac Stevens -- Washington's first territorial governor -- was to reach agreements with Native Americans for land cessions. The goal was to remove Indians from areas of white settlement to reservations, opening the area for continued settlement. After hasty negotiations, Stevens convinced most Native Americans in Washington Territory to relinquish title to more than sixty-four million acres of land in exchange for annuities, retention of their fishing rights, and title to circumscribed areas of land. Stevens was "heavy handed" in his

<sup>&</sup>lt;sup>2</sup> Information on the historical background of the Bothell area and the Truly Farm site is included in a separate report: John P. Warner, HRA, Inc, 1995, Historical Resources Assessment of the University of Washington, Bothell Branch and Cascadia Community College Collocation Project at the Truly Farms/Stringtown Site, Bothell, Washington.

negotiations -- and many Indians did not understand the terms of the treaties. Consequently, resentment erupted in warfare throughout the Puget Sound area. Frightened whites, some of whom lost their cattle and cabins to the Indians, sought refuge in block houses. The uprising in the Puget Sound area lasted from around 1855 until 1857 (Schwantes 1989:104-106; Johansen and Gates 1967:256-258; Heritage League 1990:22).

The arrival of the railroad was a momentous development in the region's history. Once the lines were complete, the Northern Pacific and the Great Northern Railways embarked on an intensive worldwide campaign to promote the Puget Sound Basin. They issued advertisements and brochures describing opportunities for homesteading, and offered to transport settlers at a reduced rate (Schwantes 1989:153-161; Morgan 1979:76-211). The railroads also commissioned and circulated paintings of the region's spectacular scenery, hoping to lure tourists. Through opening eastern markets to the Puget Sound Basin, they promoted the development of natural resource-based industries, including agriculture, fisheries, and forest products.

## 4.0 METHODS AND RESULTS

## 4.1 Background Research and Consultation

HRA personnel examined King County archaeological survey and site records on file at the Washington State Office of Archaeology and Historic Preservation (OAHP) and reviewed pertinent archaeological, ethnohistorical, and historical literature available at the Special Collections Library at the University of Washington, National Archives Puget Sound Region, King County Landmarks Preservation Board, City of Bothell Community Planning Department, Bothell Historical Society, and Bothell Public Library. Publications used in the preparation of this report are listed in Section 6.0.

Three archaeological assessments have taken place within the immediate vicinity of the Project Area. In the late 1970s, archaeologists surveyed the Sammamish River Trail (Kennedy and Thomas 1977; Thomas 1978). The trail is located along the bank of the Sammamish River, and runs from Blyth and Sammamish River Parks in Bothell, to Redmond's Marymoor Park. Archaeologists examined site 45KI12, which was originally recorded in 1964, and noted thermally altered rock (TAR), debitage (flakes produced during stone tool manufacture), and a cobble tool in the area (Kennedy and Thomas 1977.2). This site lies approximately 0.2 miles south of Project Area. In 1981, archaeologists performed a cultural resources assessment of the Quadrant Corporate Park located northeast of the intersection of Interstate 405 and SR 522. The survey documented an archaeological site (45KI72), approximately 0.2 miles east of the Project Area. Materials observed at 45KI72 include TAR, debitage, a biface (a stone tool exhibiting flaking on both sides along an edge), cobble tool, and a lanceolate projectile point (Chatters 1981).

In 1985, archaeologists investigated portions of the Project Area in conjunction with a proposed retail development. Researchers sampled the Project Area by performing shovel tests in areas that they considered to contain the greatest potential for cultural deposits. These areas included the terraces in the western half of the Project Area, a knoll at the northern boundary, and the floodplain adjacent to the former channel of North Creek. No significant cultural resources were documented in the sampled areas (URS Corporation 1985). The retail development project was eventually dropped and, consequently, no formal report on the survey was filed with OAHP.

## 4.2 Field Survey

#### Methods

Prior to the survey, HRA examined 7.5-minute quadrangle maps and aerial photographs of the Project Area. This research facilitated identification of geomorphic features and areas of potential archaeological and historical sensitivity during the survey.

A crew of two HRA archaeologists surveyed the proposed campus site during July, 1995. The crew inventoried the upland portions of the study area by pedestrian survey using a 30-m transect interval. Portions of the survey area are characterized by very dense vegetation that severely limits ground visibility, making it nearly impossible to identify cultural material during surface inspection. To ease this source of inventory bias, where less than 50 percent of the surface was visible, the archaeologists cleared  $1-m^2$  exposures every 50 meters using a flat-bladed shovel (shovel scrapes). The field crew also inspected soil exposures such as heavy equipment disturbances, creek banks, windthrown trees, and molehills.

Within the North Creek floodplain, the crew used 10-cm-diameter manual augers to examine the subsurface for buried cultural deposits. Figure 4-1 shows the location of pedestrian and subsurface survey. Crewmembers excavated auger tests in 20-cm levels, screened sediment matrix through one-quarter-inch wire mesh, and recorded vegetation and landform information, and archaeological resources identified during the survey in field notebooks.

HRA did not survey an approximately five-acre segment of the Project Area that was cultivated just prior to the field investigation. This segment is located in the northern half of the Project Area, in the western half of the North Creek floodplain, and is bisected by a gravel road easement. The western border of this area is adjacent to the upland terrace (Figure 4-1).

The field crew recorded archaeological resources identified during the field inventory as either sites or isolated artifacts (isolates). Following standards accepted by the Washington OAHP, HRA defines a *site* as a cultural deposit exhibiting a density of ten or more artifacts per  $10-m^2$ . Deposits not meeting this criterion were recorded as *isolates*. The surveyors used copies of the project site map, pacing, and a compass to facilitate plotting the location of isolates, sites, and environmental features encountered during the course of the survey.

#### Results

The upland portions of Project Area are characterized by a thick understory of berry vines, ferns, mosses, and shrubs. Mixed fir and deciduous trees occur on the upland terraces as well as along the banks of North Creek. Vegetation on the floodplain consists of numerous varieties of tall and short grasses. A segment of the northern half of the Project Area contains recently planted crops.

Sediments in the upland areas consist of silt with rounded and subrounded gravel and pebble inclusions. Auger tests in the North Creek floodplain reached an average depth of 106cm. Excavated sediments included silt, generally in the upper 60cm, with increasing clay with depth. Pebble and gravel inclusions were confined to the upper 50cm, and typically occurred in concentrations of less than 10 percent The field crew noted clearly defined lenses of medium sand in three of the auger tests. The sand may indicate former channels of North Creek. A fine, light brownish-gray ashy silt and/or ashy clay layer occurred at an average depth of 73cm, with an average thickness of 36cm. These ashy deposits may be due to volcanic events (tephra), or localized forest fires.

As a result of the field survey, HRA documented three historic-period isolates in the western, upland portion of the Project Area. Two of the isolates consist of bottle glass fragments, the third is a single fragment of green-glazed ceramic. The historic-period glass and ceramic fragments lacked chronologically-diagnostic markers to aid in dating the materials, and in the absence of other historical associations, they do not appear to be significant cultural resources. HRA recommends no further archaeological work at the site.

# 5.0 SUMMARY AND MANAGEMENT RECOMMENDATIONS

As a result of the archaeological survey, HRA identified no significant prehistoric or historic archaeological materials. HRA recommends no other archaeological resources studies at the proposed University of Washington, Bothell Branch campus and Cascadia Community College Campus Collocation site. If archaeological remains are encountered during construction, supervisors should redirect activity away from the area and should contact Dr. Robert Whitlam of the Washington State Office of Archaeology and Historic Preservation (360-753-4405) to arrange for evaluation and treatment of the remains.

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	Cultural Resources Survey Cover Sheet
Author:	Linda Goetz Stutzman
Title:	Archaeological Resources Assessment of the University of Washington, Bothell Branch and Cascadia Community College Collocation Project at the Truly Farms/Stringtown Site, Bothell, Washington
Date:	August 18, 1995
County: King	Section: 5,8,9 Township: 26 North Range: 5E Quad. Bothell
Total Pgs:24	Acres:130
Site No.: Comments:	(For Author's Review)
	This Report:
<u></u>	<u>X</u> Describes the objectives & methods
	<u>X</u> Summarizes the results of the survey
	<u>X</u> Reports where the survey records and data are stored
	Has a Research Design that: X Details survey objectives
······································	X         Details survey objectives           X         Details specific methods
	Details expected results
	X Details area surveyed
	<u>X</u> Details how results will feedback into the planning process
	OAHP Use Only
NADB Document No.:	OAHP Log No.:
My review results in the of the Interior's Standard	e opinion this survey report does does not conform with the Secretary ds for Identification.
Signed:	
	Date:

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The Honorable Michael Evans **Snohomish Tribe** 11014 19<sup>th</sup> Avenue SE, Suite 8 Everett, WA 98208-5121

### Subject: The Gateway Building – A Student Services and Instruction Building Cascadia College

Mr. Evans,

Pursuant to Governor's Executive Order 05-05, and out of respect to our local tribal communities, I am writing to inform you of Cascadia College's intent to construct a new instructional building located on our campus at 18345 Campus Way NE in Bothell. The College is seeking capital funding to begin building design of the building in July of 2019, with the hope of beginning construction as early as the summer of 2021.

We have contacted the Washington State Department of Archaeology and Historic Preservation (DAHP) and have submitted all relevant forms for consideration. We will provide any and all information to DAHP should a further review be required.

In addition, Cascadia College is committed to the immediate stoppage of work if any archaeological resources are discovered during construction.

If you have any comments or concerns regarding this matter, please direct them to me by phone at (425) 352-8196 or by e-mail at <u>thsiao@cascadia.edu</u> by December 1, 2017.

**Terence Hsiao** Vice President of Administrative Services



The Honorable Richard Young **Tulalip Tribes** 6410 23<sup>rd</sup> Avenue NE Tulalip, WA 98271

Subject: The Gateway Building – A Student Services and Instruction Building Cascadia College

Mr. Young,

Pursuant to Governor's Executive Order 05-05, and out of respect to our local tribal communities, I am writing to inform you of Cascadia College's intent to construct a new instructional building located on our campus at 18345 Campus Way NE in Bothell. The College is seeking capital funding to begin building design of the building in July of 2019, with the hope of beginning construction as early as the summer of 2021.

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**Terence Hsiao** Vice President of Administrative Services



The Honorable Steve Mullen-Moses **Snoqualmie Nation** P.O. Box 969 9130 Railroad Avenue, Suite 103 Snoqualmie, WA 98065

#### Subject: The Gateway Building – A Student Services and Instruction Building Cascadia College

Mr. Mullen-Moses,

Pursuant to Governor's Executive Order 05-05, and out of respect to our local tribal communities, I am writing to inform you of Cascadia College's intent to construct a new instructional building located on our campus at 18345 Campus Way NE in Bothell. The College is seeking capital funding to begin building design of the building in July of 2019, with the hope of beginning construction as early as the summer of 2021.

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**Terence Hsiao** Vice President of Administrative Services



The Honorable Kerry Lyste **Stillaguamish Tribe of Indians** P.O. Box 2777 Arlington, WA 98223-0277

Subject: The Gateway Building – A Student Services and Instruction Building Cascadia College

Mr. Lyste,

Pursuant to Governor's Executive Order 05-05, and out of respect to our local tribal communities, I am writing to inform you of Cascadia College's intent to construct a new instructional building located on our campus at 18345 Campus Way NE in Bothell. The College is seeking capital funding to begin building design of the building in July of 2019, with the hope of beginning construction as early as the summer of 2021.

We have contacted the Washington State Department of Archaeology and Historic Preservation (DAHP) and have submitted all relevant forms for consideration. We will provide any and all information to DAHP should a further review be required.

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If you have any comments or concerns regarding this matter, please direct them to me by phone at (425) 352-8196 or by e-mail at <u>thsiao@cascadia.edu</u> by December 1, 2017.

**Terence Hsiao** Vice President of Administrative Services





LEED v4 Checklist



# LEED v4 for BD+C: New Construction and Major Renovation

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l

Integrative Process

Project Name: Cascadia College - Gateway Building Date: 12/20/2017

Y ? N Credit

7	5	4	Locat	tion and Transportation	16	4	7	2	Ma	terials and Resources	13
-	-		Credit	LEED for Neighborhood Development Location	16	Y			Prere		Required
1			Credit	Sensitive Land Protection	1	Y			Prere	Construction and Demolition Waste Management Planning	Required
		2	Credit	High Priority Site	2		3	2	Credit	Building Life-Cycle Impact Reduction	5
3	2		Credit	Surrounding Density and Diverse Uses	5	1	1		Credit	Building Product Disclosure and Optimization - Environmental Product	2
					-	· ·			-	Declarations	
	2		Credit	Access to Quality Transit	5	1	1		Credit		2
1	_		Credit	Bicycle Facilities	1	1	1		Credit	Ballang Freddet Bieleedre and Optimization - Material Ingrediente	2
	_		Credit	Reduced Parking Footprint	1	1	1		Credit	Construction and Demolition Waste Management	2
	1		Credit	Green Vehicles	1						
	4	•	Custa	inchia Citaa	40	12	4	0		oor Environmental Quality	16
	1			ainable Sites	10	Y			Prere		Required
Y			Prereq	Construction Activity Pollution Prevention	Required	Y			Prere	Environmental Tobacco Smoke Control	Required
1			Credit	Site Assessment	1	2			Credit	Enhanced Indoor Air Quality Strategies	2
2			Credit	Site Development - Protect or Restore Habitat	2	3			Credit	Low-Emitting Materials	3
1			Credit	Open Space	1	1			Credit	Construction Indoor Air Quality Management Plan	1
2	1		Credit	Rainwater Management	3	2			Credit	Indoor Air Quality Assessment	2
2			Credit	Heat Island Reduction	2		1		Credit	Thermal Comfort	1
1			Credit	Light Pollution Reduction	1	2			Credit	Interior Lighting	2
						1	2		Credit	, ,	3
6	3	2	Wate	r Efficiency	11		1		Credit	Quality Views	1
Y			Prereq	Outdoor Water Use Reduction	Required	1			Credit	Acoustic Performance	1
Y			Prereq	Indoor Water Use Reduction	Required				_		
Y			Prereq	Building-Level Water Metering	Required	1	0	0	Inn	ovation	6
2			Credit	Outdoor Water Use Reduction	2				Credit	Innovation	5
3	3		Credit	Indoor Water Use Reduction	6	1			Credit	LEED Accredited Professional	1
		2	Credit	Cooling Tower Water Use	2						
1			Credit	Water Metering	1	0	0	0	Re	gional Priority	4
									Credit		1
17	6	10	Energ	gy and Atmosphere	33				Credit	Regional Priority: Specific Credit	1
Y			Prereq	Fundamental Commissioning and Verification	Required				Credit	Regional Priority: Specific Credit	1
Y			Prereq	Minimum Energy Performance	Required				Credit	Regional Priority: Specific Credit	1
Y			Prereq	Building-Level Energy Metering	Required			-	-		
Y			Prereq	Fundamental Refrigerant Management	Required	57	26	18		TALS Possible Poir	
6			Credit	Enhanced Commissioning	6				Cert	ified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 t	o 110
6	3	9	Credit	Optimize Energy Performance	18						
1			Credit	Advanced Energy Metering	1						
1	1		Credit	Demand Response	2						
1	1	1	Credit	Renewable Energy Production	3						
	1		Credit	Enhanced Refrigerant Management	1						
			Credit	Green Power and Carbon Offsets	2						



# **ATTACHMENT 6.6**

Estimating Documents Supporting Special Needs (N/A) Mitigation or Extenuating Circumstances (N/A)











Concept Site Plan Floor Plan Diagrams











5

1/32" = 1'-0"





S)

1/32" = 1'-0"







# ANALYSIS OF TOTAL CAMPUS SPACE PER TYPE 1 FTE

The analysis was performed from CAM and SBCTC data to authenticate benchmark information contained in our master plan. Results indicates Cascadia has the second lowest total campus facilities space per student in the SBCTC system.

	Fall 2016 En		2016 Owr	ned GSF	2016 665 (
					2016 665 1
					2016 GSF/
D' D II		All FTE	Community	Technical	Type 1
Pierce Puyallup	2,510	3,253	243,356		97
Cascadia	2,088	2,985	206,456		99
Whatcom	2,991	3,933	325,676		109
Highline	5,050	7,303	551,173		109
Tacoma	4,031	5,526	561,721		139
Lake Washington	2,410	11,291	1,143,656		474
Spokane Falls	4,795	4,805	752,714		157
Green River	4,987	8,041	817,818		164
Shoreline	3,316	4,787	547,344		165
Edmonds	4,024	6,440	675,537		168
Clark	5,066	7,918	862,683		170
Seattle South	2,785	5,150	501,877		180
Olympic	2,718	5,273	522,491		192
Wenatchee Valley	2,020	3,263	405,769		201
Pierce Fort Steilacoom	2,365	4,661	476,083		201
Lake Washington	2,410	3,116		491,794	204
Centralia	1,650	2,279	337,798		205
Everett	4,002	6,531	820,215		205
Bellingham	1,566	2,249		342,332	219
Columbia Basin	3,300	5,476	728,830		221
Renton	1,963	3,671		445,549	227
Seattle North	2,812	4,597	655,288		233
South Puget Sound	2,536	4,150	592,917		234
Seattle Central	4,506	6,374	1,154,812		256
Lower Columbia	1,886	2,898	503,058		267
Spokane	4,112	8,326	1,139,309		277
Walla Walla	2,002	2,949	604,337		302
Skagit Valley	1,967	3,982	594,796		302
Grays Harbor	1,212	1,746	366,983		303
Clover Park	2,082	3,458		659,982	317
Peninsula	892	1,766	296,186		332
Big Bend	1,432	2,050	482,329		337
Yakima Valley	2,491	4,235	899,842		361
Bates	1,708	3,017		695,936	407
	95,685	157,499	17,771,054	2,635,593	7835

#### **Enrollment and Facility Review**

2016 GSF/Type 1 Average 213

2016 GSF/Type 1 Average (CC Only) 186







Building Name	Building Number	Size (SF)	Previous Score	Updated Score
Bothell Lib Annex (300-4017)	3004017	5,050	None	163
Bothell Library (300-3998)	3003998	18,888	212	210
Bothell Library 2 (300-4054)	3004054	13,162	None	184
Bothell Phys Plant (300-4016)	3004016	3,850	None	204
Cascadia I (300-CC1/CC2)	300CC1/CC2	111,500	210	210
Global Learning And The Arts (300-CC3)	300CC3	54,006	146	146

Grand Total Area (SF) 206,456		
Weighted Avera	ge Score	190
146 To 175 =	Superior	
176 To 275 =	Adequate	
276 To 350 =	Needs Improvement/Additional Ma	intenance
351 To 475 =	Needs Improvement/Renovation	
476 To 730 =	Replace or Renovate	



# APPENDIX 7.3 Excerpts from <u>UW Bothell / Cascadia College 2017 Master Plan</u> Excerpts from <u>Ten Year Strategic Plan</u>

# Campus Growth & Capacity

#### FIGURE 1-1: CAMPUS AREA SUMMARY

#### EXISTING CONDITIONS (FALL 2016 ENROLLMENT)



#### LONG-TERM CAMPUS VISION

#### TOTAL: 1,800,000 GSF (NET TOTAL ADDITIONAL GSF ON CAMPUS: 1,042,368 GSF)



#### DEVELOPMENT ALLOWANCE (GSF CAP)

The Campus Area Summary (Figure 1-1) details both existing conditions and anticipated space needs for UW Bothell and Cascadia College, guiding the establishment of a **Development Allowance (GSF Cap) for campus of 1,800,000 GSF** under this Campus Master Plan. This equates to **1,042,368 Net New GSF** of campus Academic Uses (excludes parking facilities). The resulting net new GSF cap assumes that functions currently housed in off-site leased space would be accommodated on campus in the Long-term Campus Vision buildout.

For the purposes of the CMP, facilities supporting **Academic Uses** are defined as "all facilities which relate to and support instruction and research and the needs of students, faculty, and staff." The Campus Master Plan Development Allowance incorporates the assessed needs for both non-housing related academic space and on-site student housing to accommodate 10,000 oncampus student FTE, consistent with original enrollment targets established by the state legislature.

Academic space needs (excluding housing) were evaluated based on benchmark data comparing total Gross Square Feet (GSF) to on-campus student full-time equivalents (FTE) from peer institutions of both UW Bothell and Cascadia College. This key metric is represented as GSF/FTE. For planning purposes, a target benchmark of 150 GSF/ FTE was established based on peer data research (see Figure 3-3, page 42). The combined UW Bothell and Cascadia College metric of 105 GSF/FTE falls well below the planning benchmark of 150 GSF/FTE suggesting that current facilities are undersized for the existing enrollment, and supporting anecdotal stakeholder input that programs are currently "bursting at the seams" of existing facilities. This also suggests that near-term facility development is needed to 'decompress' the use of existing facilities in order to better serve current programs and enrollment levels. At the same time, bringing off-campus uses back onto campus is desirable to maximize operational efficiencies and pedagogical engagement.

**On-site student housing** needs were determined to accommodate ten to twenty percent (10-20%) of the UW Bothell student population. Assuming a total UW Bothell enrollment of 6,000 FTE, a student housing allowance of 300,000 GSF is established to support between 600-1,200 student residents on campus in a mix of traditional and apartment style housing.

# Statement of Need and GSF/FTE Benchmark



#### **NEAR-TERM DEVELOPMENT PLAN**

The CMP includes a Near-term Development Plan that identifies projects assumed to be completed in the next six to ten years as funding becomes available. The University of Washington Bothell and Cascadia College receive funding for academic buildings from the state legislature. The funding for higher education is difficult to acquire and oversubscribed with substantial needs across the State of Washington. During the past ten years, UW Bothell and Cascadia College received funding for only one academic building each, and it is anticipated that each institution would continue to receive funding at a similar pace in the future. A small number of projects are funded by alternative sources, primarily supporting student life and minor improvements.

#### CAMPUS DESIGN REVIEW PROCESS CAMPUS DISTRICT REGULATIONS

Sections 5 and 6 of the Campus Master Plan outline the processes and regulations that will guide proposed development within the campus boundaries.

Campus Design Review Processes (Section 5) describes internal campus review and approval processes and is included to provide clarity around the alignment of these processes with jurisdictional review and approval processes as described in Section 6.

While Design Principles seek to support the Guiding Principles, Campus District Regulations define conformance with, or departure from the City of Bothell Municipal Code relative to allowed uses, height limits, buffers, setbacks, maximum GSF per Development Area, vegetation, light and glare, noise, odors, parking, wetland restoration, signs and banners, storm water, and telecommunications.

#### FIGURE 1-6: NEAR-TERM DEVELOPMENT PLAN KEY

#### **UW BOTHELL FACILITIES (EXISTING)**

- 1. UW1 (Founders Hall)
- 2. UW2 (Commons Hall)
- 3. UW3 (Discovery Hall)
- 4. Husky Village
- 5. Sarah Simonds Green Conservatory

#### CASCADIA COLLEGE FACILITIES (EXISTING)

- 6. CC1
- 7. CC2
- 8. CC3

#### SHARED FACILITIES (EXISTING)

- 9. Chase House
- 10. Truly Ranch House
- 11. Physical Plant
- 12. Library 1
- 13. Library 2
- 14. Library Annex
- 15. Activity & Recreation Center (ARC)
- 16. North Creek Event Center

#### PROPOSED FACILITIES

- 18. Corporation Yard (shared)
- 19. Residence Hall/Campus Dining (UW Bothell)
- 20. Academic Building (UW4)
- 22. ARC Expansion (shared)

## 24. Academic Building (CC4) In Pipeline

#### UW LEASED FACILITIES (EXISTING)

- L1. Husky Hall
- L2. Beardslee Building
- L3. Beardslee Crossing

#### SHARED STRUCTURED PARKING

- A. South Parking Garage
- B. North Parking Garage



FIGURE 1-7: LONG-TERM CAMPUS VISION RENDERING				
	Existing Buildings			
	New Buildings			
	Pedestrian Pathways			

GRAPHICS ARE FOR ILLUSTRATIVE PURPOSES ONLY





# Facilities Benchmarking



#### FACILITIES BENCHMARKING

A facilities benchmarking study (Figure 3-3) was used to evaluate Academic space needs in total Gross Square Feet (GSF) relative to on-campus student full-time equivalents (FTE), allowing for broad comparisons to peer institutions of similar size and character. Neither housing nor structured parking were included in establishing the metrics in this study. On-campus shared facilities were also allocated proportionately by FTE when looking at metrics for a single institution.

For the purposes of the CMP, facilities supporting Academic Uses are defined as "all facilities which relate to and support instruction and research and the needs of students and faculty."

WSU Vancouver, WSU Tri-Cities, and UW Tacoma provide the most relevant comparisons for UW Bothell; they are all public institutions with relatively small residential student populations and limited but growing academic research needs. Larger institutions like Western Washington University, UW Seattle and Washington State University (all of which have significantly higher GSF/FTE ratios) were not deemed appropriate comparisons.

Similarly, Cascadia College was evaluated based on both the State Board for Community and Technical College's (SBCTC) published benchmark of 150 GSF/ FTE as well as the system-wide average of 153 GSF/FTE.

Clarification of the difference between FTE and head count – the actual number of students registered – is warranted. Since most UW Bothell students are full-time, there is typically little difference between these statistics: 5,420 FTE versus 5,735 headcount in fall 2016.

Cascadia College serves a different demographic and typically sees more part-time students and thus a greater difference between these two statistics: 2,471 on-campus FTE versus 3,551 headcount in fall 2016. FTE is the accepted standard for planning and programming of academic facilities; however, is important to consider this issue globally. Parking demand, for example is generally driven by the number of people on campus during peak times, rather than FTE. As a result, the campus' approach to addressing parking demand relies on regularly updated transportation surveys rather than FTE or headcount.

**Cascadia College**, at 100 GSF/FTE, is well below the established SBCTC benchmark of 150 and the system-wide average of 153 GSF/FTE. Rounding this to a similar 150 GSF/FTE metric, with 4,000 FTE, Cascadia College's nonhousing academic space needs amount to **600,000 GSF, or 353,854 net new GSF**.

# Long-term Campus Vision

The Long-term Campus Vision for UW Bothell and Cascadia College, represented in Figure 4-1, establishes a bold physical framework for the full build-out of campus to accommodate 10,000 student FTE. It represents an understanding that nearterm development will reinforce and expand the campus core, while seeking to grow northward over time, strategically leveraging the development capacity and potential of campus property immediately south of Beardslee Boulevard and west of NE 110th Street to strengthen connections to downtown Bothell and create a new front door to campus.

This northward growth generally follows campus topography, emphasizing equitable access for all campus users in a wide range of pedestrian and transportation modes. While development to the south of the core is permitted under this plan, it was deemed non-desirable at this time to develop on and displace the much needed and expensive-to-replace parking facilities in this area of campus.

The Campus Master Plan reflects the total assumed need for full build-out of 1,042,368 Net New GSF as allowed by the Development Allowance. To ensure development is equitably distributed across campus with a desirable mix of buildings and open space, the campus is divided into six development areas, A-F (as shown in Figure 1-3, page 10). Each area is assigned a maximum net new GSF Development Area Cap (included in Section 5), the sum of which exceeds the CMP Development Allowance GSF. This provides campus-wide flexibility for locating new development relative to building adjacencies and programmatic needs, allowing the campus to be nimble in adapting to current and future opportunities and demands. All Academic Uses are permitted in every Development Area, with the exception of student housing which is not permitted on land owned by UW Bothell/CC within Development Area C. The illustrative Long-term Campus Vision represents current thinking regarding placement of housing clusters as well as UW Bothell and Cascadia College academic facilities.

Guiding principles were created to identify a shared vision for actions and outcomes to meet multiple objectives ensuring that land use and capital investment decisions can support the institutional missions of UW Bothell and Cascadia College. They were developed to guide both the planning process and implementation of the Campus Master Plan and are organized into six categories: Cohesive Campus Character, Durable and Adaptable Facilities, Enriched Campus Community Experience, Enhanced Environmental and Human Health, Integration with City of Bothell, and Mobility, Access, and Safety.

#### > FIGURE 4-1: LONG-TERM CAMPUS VISION PLAN KEY

#### **UW BOTHELL FACILITIES (EXISTING)**

- 1. UW1 (Founders Hall)
- 2. UW2 (Commons Hall)
- 3. UW3 (Discovery Hall)
- 5. Sarah Simonds Green Conservatory

#### CASCADIA COLLEGE FACILITIES (EXISTING)

- 6. CC1
- 7. CC2
- 8. CC3

#### SHARED FACILITIES (EXISTING)

- 9. Chase House
- 10. Truly Ranch House
- 11. Physical Plant
- 12. Library 1
- 13. Library 2
- 14. Library Annex
- 15. Activity & Recreation Center (ARC)
- 16. North Creek Event Center

#### **PROPOSED FACILITIES**

- 18. Corporation Yard (shared)
- 19. Residence Hall/Campus Dining (UW Bothell)
- 20. Academic Building (UW4)
- 21. Library Expansion (shared)
- 22. ARC Expansion (shared)
- 23. Potential Residence Hall (UW Bothell)
- 24. Academic Building (CC4)
- 25. Academic Building Gateway

#### 26. Academic Building

- Academic Building
  Satellite Physical Plant (shared)
- 29. Academic/Housing
- 30. Academic Building
- 31. Academic/Housing

#### SHARED STRUCTURED PARKING (EXISTING)

- A. South Parking Garage
- B. North Parking Garage

#### PROPOSED SHARED STRUCTURED PARKING

- C. South Parking Garage Expansion
- D. West Parking Garage

Building



T



GRAPHICS ARE FOR ILLUSTRATIVE PURPOSES ONLY

NE 185TH ST

VALLEY VIEW RD

Gateway Building shown as long-term Cascadia priority

28

BOTHELL PIONEER CEMETERY

NE 180TH ST

TH AVE

10

D

24

20

BEABOSLEE BLUD

31

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27

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21

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18

9

STATE ROUTE 522

23

2017 CAMPUS MASTER PLAN :: UW BOTHELL | CASCADIA COLLEGE

VORTH CREEK

NE 195TH ST

INTERSTATE 405

御言を読



## DESIGN PRINCIPLES: COMPLEMENTARY MATERIALS

- :: Maintain a consistent and complementary materials palette for future campus development to support a cohesive campus character and strong campus identity.
- :: When selecting exterior building materials, take cues from existing campus buildings in terms of color, materiality and usage of these materials.
- :: Complementary Material Design Principles should not be construed to limit the use of advancements in building envelope technology, but should guide the design teams to consider harmony in color, texture and scale when proposing exterior designs.



### DESIGN PRINCIPLE: ENHANCED PUBLIC REALM

 When planning building expansions, enhance connectivity between buildings by creating shared entry plazas which give a sense of community and promote the crossing of pathways throughout the day.

## DESIGN PRINCIPLES: ACTIVE FAÇADES

- :: Carefully consider the relationship between ground floor building uses and adjacent exterior pathways in all campus development.
- :: Consider interior functions' programmatic ability to 'activate' adjacent exterior environments, and vice versa.





FIGURE 2-13: 2011 MASTER PLAN

#### 2010 MASTER PLAN (REVISED 2011)

The 2010 Master Plan (revised in 2011) was initiated by UW Bothell to establish a site for UW3 Science and Academic Building and confirm the capacity buildout of the campus. Through a thorough analysis of the existing campus, it was determined as part of the planning process that not all the program needs, particularly those associated with UW Bothell, could be met on the current campus land. The assessment illustrated only 34 acres of developable land (20 uplands and 14 lowlands) was available and to ensure future buildings complement the scale of the existing campus buildings while maintaining the feel of a cohesive campus with a strong connection to the natural landscape, program needs such as additional student housing, health resources, and recreational needs, along

with faculty research space and social spaces, would be accommodated offsite, within proximity of campus.

The primary organizing concept for the Plan proposed the orientation and location of future building sites on an east-west axis, providing opportunities for sustainable strategies to maximize natural ventilation and daylighting, strengthening the connections between existing and proposed buildings with open spaces, and providing optimal access up and down the steep terrain through building elevators. In addition, recommendations to create a more pedestrian-friendly campus by pedestrianizing Campus Way, providing an accessible north-south pathway in the uplands, and including a mid-slope connection with a new crescent-shaped path all assist in providing accessible,

walkable connections to future upland buildings and between the north and south of campus.

The 2010 Master Plan was amended in 2011 to reflect significant developments that transpired shortly after the report was finalized. The result was a slight modification to the plan, but in general, the Plan's framework for development remained unchanged. The most significant of these developments was the UW Bothell's acquisition of Husky Village, which converted the proposed student housing village at the west edge of campus to an expanded upland academic zone, and the lease of the Beardslee Professional Building for UW Bothell Science and Technology academic programs, research and centers.



# Strategic Plan: Themes, Sub-Themes and Goals

Theme 1: Access Theme 2: Integrated Education Theme 3: Learning-Centered Environment Theme 4: Assessment of Student Success Theme 5: Institutional Sustainability

Approved by the Board of Trustees on January 20, 2016

# Theme 1: Access

Expanding college access for high school students

- Strengthening opportunities for high school students in math
- Creating new initiatives in English to bridge the gap between high school and college
- Developing an integrated K through 20 system of education in Cascadia's district that focuses on lifelong learning
- Expanding dual enrollment opportunities through Running Start and College in the High School
- Exploring an early college high school academy program in Information Technology

Promoting pluralism and social justice by expanding access to college programs

- Enhancing recruitment and support of underrepresented students
- Improving transitions from Adult Basic Education to college coursework
- Increasing off-campus, online, and time-shifted scheduling to increase options for students

Streamlining access to Bachelor's degree attainment

- Streamlining pathways with UW-Bothell (co-located partner) and other four-year institutions in areas such as Business, Global Studies, Art, Engineering, Computer Science and Science
- Developing new Transfer Admission Guarantees, with other high choice destinations (e.g., Stanford, Arizona State University
- Developing a system of co-enrollment with several universities (e.g., Bastyr, UW, Seattle University, DigiPen)

# Theme 2: Integrated Education

Enhancing interdisciplinary programs

- Implementing the Bachelors of Applied Science in Sustainable Practices
- Expanding integrated learning experiences (e.g., learning communities, linked classes, and opportunities for community-based learning) for new and continuing students
- Exploring ways to further integrate STEM and Humanities programs
- Developing new interdisciplinary Professional Technical programs/certificates in high demand occupations

### Growing community-based learning and internships

- Identifying opportunities in the curriculum for community-based learning and internships
- Developing community partnerships that promote assessment and community- based learning programs
- Recruiting industry partners to engage students in real world applications in Professional Technical Programs

Developing and implementing a model community college internationalization plan

- Developing a comprehensive and integrated internationalization plan including the infusion of global themes into the curriculum and the development of global studies
- Facilitating ties between local and global cultures within Cascadia College and beyond
- Exploring innovative ways to link STEM programs to global partners
# Theme 3: Learning-Centered Environment

Improving faculty and staff support

- Increasing the full-time part-time faculty ratios to 50:50 of credits taught as budget and enrollment allow
- Increasing support for full-time and part-time faculty and staff development
- Supporting use of data in implementing best practices in teaching and learning
- Recruiting and supporting faculty and staff to represent the diversity of the student body, pluralism and social justice

# Extending Academic Support for Students

- Implementing, assessing and refining effective supplemental instruction and/or tutoring models including developing a comprehensive STEM Learning Center 2014-15 ongoing
- Enhancing retention by implementing and improving best practices (e.g., intensive advising for high risk students, mandatory orientation, year-long registration)
- Ensuring the continued adoption and implementation of high impact instructional technology

## Creating physical spaces that support integrated education

- Devising physical spaces to more effectively integrate STEM and the humanities
- Creating spaces that support informal modes of learning
- Developing spaces that increase the connections between and community partners

# Enhancing and Expanding STEM Education

- Enhancing the quality of STEM education through cutting-edge lab curricula, new faculty hires, and ongoing professional development
- Expand the integration of sustainability research and practices in STEM education
- Creating spaces and identifying resources that allows for the development of undergraduate research opportunities

# Theme 4: Assessment of Student Success

Maintaining high levels of student engagement

- Promoting student engagement in "active and collaborative learning"
- Promoting high levels of "student effort"
- Promoting high levels of "academic challenge"
- Promoting high levels of "student-faculty interaction"
- Promoting student use of "support for learning"

# Strengthening students' success

- Increasing student attainment of Student Achievement Initiative credit-accumulation benchmarks (completion of 15, 30, 45 college-level credits)
- Increasing student attainment of Student Achievement Initiative completion benchmark (completion of apprenticeships, certificates, or degrees)
- Increasing student attainment of Student Achievement Initiative benchmarks concerning completing gateway courses (completion of a college-level English or Quantitative Math course)
- Maintaining progression through ELP levels and transition ELP to college level

## Ensuring student learning

- Ensuring students meet college outcomes in distribution areas
- Maintaining high success rates in gatekeeper courses

# THEME 5: Institutional Sustainability

## Improving Infrastructure

- Creating and configuring facilities to support growth of the student body, integrated learning, program development, and employee effectiveness.
- Designing, implementing, and maintaining technology to support the operations of the College
- Developing and implementing a transportation management plan to supports enrollment growth in an environmentally responsible manner

## Managing Risk

- Managing enterprise risks through a systematic process.
- Maintaining a high level of emergency preparedness
- Maintaining a safe and secure campus
- Developing and implementing a financial plan to support the implementation of the Strategic Plan

## Maintaining Relationship with UW-B

• Maximizing synergies with UW-B while maintaining institutional identity and control in a financially sustainable manner.

#### Communicating and Engaging

- Maintaining Shared Governance in organizational decision making.
- Establishing college as community resource for higher education
- Maintaining effective lines of communication with campus community

#### Supporting Employees

- Providing opportunities to participate in personal, professional, and required training and development.
- Maintaining Effective Employee and labor relations





The CAM forecasts enrollment based on a fixed participation rate (from 2016) applying student age and county of residence data to OFM population projections by age and county. As a newer institution, Cascadia College continues to see increases in participation rate, although the rate of increase has begun to level off in recent years. To illustrate this growth, we used data historical 12th-grade enrollment data provided by the WA Office of Superintendent of Public Instruction (OSPI) for the K-12 school districts in our service area (Lake Washington, Northshore, and Riverview school districts). We compared Cascadia College's historical fall FTES enrollment (excluding international enrollment) with the 12th-grade enrollment by calculating participation rate as a ratio of Cascadia College FTES to the 12th-grade enrollment. For example, Cascadia College's fall 2016 enrollment was 2,537 FTES (excluding international enrollment) while 12th-grade enrollment in the service area was 3,896; this gives us a fall 2016 participation rate of 0.65 (2537/3896).

Using a simple logarithmic model, we can statistically predict the Cascadia College participation rate as shown below [ $P = \alpha ln(t-1) + \beta$ ,  $R^2 = 0.79$ , F(1, 15) = 55.97, p < .001,  $\alpha = 0.145$ ,  $\beta = 0.222$ ]. In this chart, the solid black line represents the observed participation rate, the black dashed line represents a fixed participation rate as used by the CAM, and the dashed grey line represents the participation rate will increase from 0.63 to 0.70 (+10.6%).



The CAM projection indicates that from 2016 to 2026 our Type 1 (Day On-Campus) enrollment will increase from 2,088 to 2,266 (8.52%) based on current participation rates by age and county of residence applied to OFM population projections by age and county. But if we account for our forecast of increasing participation, we would see a greater increase in enrollment than the CAM predicts. In the chart below, the solid black line represents the observed total fall FTES, the black dashed line represents the CAM forecast adjusted by the expected increase in participation rate described above.



After adjusting the CAM forecast to account for Cascadia College's increasing participation rate, from 2016 to 2026 we would expect to see total enrollment increase from 2,984 to 3,584 (+20.1%), with a corresponding increase in Type 1 (Day On-Campus) enrollment from 2,088 to 2,508.





Infrastructure Component	Serves	Ave. Useful Life	Est. Cost (2016)	Cost Weighted Life
Potable Water - Piping	GB	25	\$40,000	\$1,000,000
Natural Gas – Piping*	GB	25	\$12,750	\$318,750
Sewer Lines - Concrete	GB	50	\$7,200	\$360,000
Storm Lines - Concrete	GB	40	\$60,800	\$2,432,000
Electrical Service/Distribution - Underground	GB	20	\$44,000	\$880,000
Electrical Transformer - Pad-				
Mounted	GB	5	\$45,000	\$225,000
Electrical - Pedestrian Lighting	GB	20	\$50,000	\$1,000,000
Subtotal:			\$259,750	\$6,215,750
Cost Weighted Average Useful I	Life:			23.9

# **INFRASTRUCTURE WEIGHTING**

Average useful life figures are based on SBCTC 2019-21 Project Development Guidelines with the exception that gas service which for the purposes of this analysis was equated to underground potable water piping.

See Attachment 6.1 for C-100 forms and detailed cost estimates.



# **APPENDIX 7.6** Best Practices to Reduce Green House Gas Emissions

Climate Action Plan

# Appendix 6.6 Best Practices to Reduce Greenhouse Gas Emissions

System / Best Practices	Included in Project?
Mechanical	
Solar water heating	No
Above code HVAC system efficiency	Yes
Use natural gas instead of electricity for heating	Yes
Geothermal heat pump	No
Post occupancy commissioning	Yes
Interconnectivity of room scheduling in 25Live and HVAC controls	Yes
Electrical	
Photovoltaic energy systems	No
Time of day and occupancy programming of lighting	Yes
Efficient lighting	Yes
Envelope	
Minimize building surface area for necessary floor area	No
Roofing materials with high solar reflectance and reliability	Yes
Green roofs to absorb heat and act as insulators for ceilings	Yes
Site	
loads	Yes
Trees and vegetation planted to directly shade building	Yes
Paving materials with hight solar reflectance, enhanced water	
evaporation, or otherwise designed to remain cooler or require less	
ighting than conventional pavements	Yes
Increase transportation choices - drive, walk, bike or public transit	No
Total number of these best practices included in project:	11

# CASCADIA COLLEGE CLIMATE ACTION PLAN



# **2015 REVISION**



# **Cascadia College Climate Action Plan**

#### **Executive Summary**

Cascadia College aspires to be a leader in environmental sustainability; it seeks to reduce its carbon emissions 36 percent below 2005 baseline levels by 2035 and to become carbon neutral by 2099. This plan provides important background information on Cascadia's longstanding interest in and commitment to environmental stewardship.

The plan outlines the strategies Cascadia will use to meet its greenhouse gas emission goals and commits the College to monitoring progress on the path to carbon neutrality. The plan is a living document and will be updated periodically to reassess strategies and document actions taken to implement the commitments embodied in the plan and the results of those actions.

Cascadia has the good fortune of having a modern physical plant that is relatively energy efficient. The College is also planning to grow from its current enrollment level of 1,600 FTE to 4,000 FTE. Cascadia will achieve carbon neutrality by: stepping up efficiency, conservation, and waste-minimization efforts; exploring alternative energy vehicles to reduce fleet emissions; promoting online meetings and better-coordinated travel; discouraging SOV travel; incentivizing alternative transportation; establishing LEED Gold as a new construction standard; and purchasing renewable energy credits and carbon offsets to close the gap between our emissions and carbon neutrality.

The plan also seeks to further build upon the strengths of the academic program to educate Cascadia students, faculty, staff, and visitors about leading sustainable lives and the critical role they can play in reducing Cascadia's environmental impact.

#### 1. Introduction

One of the primary goals of a college education is to prepare individuals to become leaders and innovators in making the world a better place. Cascadia recognizes that global climate change, pollution, environmental degradation, and loss of biological and ecosystem diversity are key challenges of our times. Environmental sustainability is among the ten core values of the College, which shape Cascadia's vision for the future. Cascadia seeks to lead by example to foster morally responsible environmental stewardship through education, conservation, and conscientious policies and procedures. Environmentally safe practices inform and guide campus strategic planning, decision-making, and daily operations.

We urge community members to recognize personal and institutional responsibility for reducing their impact on the local and global environment.

In keeping with these values Cascadia became a charter signatory of the American College and University President's Climate Commitment on February 10, 2007 and committed itself to achieving carbon neutrality by 2099.

Cascadia offers its students many avenues to learn about the environment and environmental sustainability through its curriculum and co-curricular activities. Cascadia's wetlands and facilities are used as living laboratories by faculty and students.

#### 2. Goals for Carbon Neutrality and Environmental Sustainability

The following goals guide Cascadia's climate actions:

- Reduce carbon emissions 15 percent below 2005 levels by 2020, 36 percent below 2005 levels by 2035 through improvements in campus operations, energy conservation and alternative transportation strategies.
- Reduce carbon emissions by 57.5 percent below 2005 levels by 2050 and achieve carbon neutrality by 2099 through the actions described above and the purchase of carbon offsets.
- Maximize efficient use of existing campus facilities, minimize new campus development consistent with enrollment growth, and operate facilities as efficiently and sustainably as possible.
- Design necessary new facilities to achieve, at a minimum, Leadership in Energy and Environmental Design (LEED) "Gold" standard and apply LEED principles in major renovations of existing facilities.
- Maintain and enhance College operations in addition to facilities to reduce environmental impact (e.g., local purchasing, waste minimization, recycling).
- Develop education and outreach programs to raise environmental awareness and increase personal responsibility for sustainable living among students, faculty, and staff. Provide administrative and financial resources to support sustainability programs.
- Enhance environmental educational opportunities that further integrate sustainability in the curriculum and use the campus as a living laboratory for faculty and students.

#### 3. Greenhouse Gas Emissions Inventory

2005 serves as the baseline year for assessing Cascadia's progress towards carbon neutrality. Cascadia generated 1,705 metric tons of emissions (excluding student commuting) in 2005.



#### 4. Greenhouse Gas Reduction Strategies

#### **Green Policies and Practices**

Green policies and practices set standards and establish guidelines by which all members of the campus community, faculty, staff, and students should operate. Green policies raise consciousness about energy and resource conservation, help streamline decision-making about purchasing and daily operations, and hopefully influence individual lifestyle choices with the ultimate goal of reaching zero greenhouse gas emissions.

#### Facilities, Grounds, and Campus Development

- Cascadia's facilities are relatively new, the first buildings having been constructed in 2000. In the future Cascadia will design and build all new buildings to a minimum of the LEED Gold standard.
- For renovations, design and construction will follow the LEED template and incorporate as many principles as possible. For all applicable projects, the College will apply for LEED certification through the U.S. Green Building Council.
- Cascadia shall have LEED-accredited professionals on staff.

- Cascadia will strive to minimize new sources of emissions by controlling the physical growth of the campus and utilizing technology to provide distance learning options for students. Whenever possible the College will reuse or renovate existing space to meet emerging needs. Design of physical space will be done with an emphasis on function and efficiency, and will be done according to LEED standards.
- Cascadia will continue to be a Pesticide-free campus -- outside contractors must follow the same ban; replaced by worm compost, organic fertilizers and organic herbicides.
- Cascadia will continue to require custodial use of Green Cleaning Products (green-seal-certified) by the UW Bothell facilities staff which maintain the College's facilities.
- Cascadia will prioritize the selection of recycled materials for bike lockers, outdoor tables/benches, wetlands boardwalk, etc.
- Cascadia will continue to collect and compost pre- and post-consumer food waste, foodservice paper and unbleached napkins, and leaves, grass clippings, and appropriate landscape debris.
- Cascadia will maintain and encourage participation in the campus recycling program, including battery and electronic media recycling.

#### Energy

- Cascadia will continue to maintain heating and cooling standards that balance the goal of minimizing energy use with the comfort and productivity of building occupants in the Winter academic spaces will be heated to 68 to 72 degrees Fahrenheit and in the summer months buildings will be cooled to between 72 and 78 degrees.
- Cascadia will continue to purchase *Energy Star* certified new appliances and electrical equipment when available. *Energy Star* products are classified by the EPA as having superior energy efficiency.
- Cascadia will include the purchase of renewable energy in its energy mix.
- Cascadia will continue to pursue the development of solar power as a supplemental source for campus energy generation by implementing pilot projects to evaluate their effectiveness in the College's total energy mix and to provide educational opportunities for our students as part of classroom instruction and research projects.

#### Information Technology

- Cascadia will continue to purchase green computers.
- Cascadia will continue its practice of discouraging the use of vampire devices such as personal printers by not budgeting for the replacement of such devices.

#### **New Sustainability Initiatives**

Having analyzed the various sources and their magnitudes of greenhouse gas emissions on campus, Cascadia has identified several major actions that can be taken to reduce emissions and enhance the College's level of environmental sustainability. New initiatives focus on the sources with the most significant emissions and where the greatest emissions reductions can be made.

#### **Renovations & Upgrades**

While new, Cascadia's existing facilities can become more energy efficient. Strategies such as HVAC adjustments, the replacement of existing lighting fixtures with newer, more energy efficient fixtures and the development of solar power will be pursued by the College. Whenever possible Cascadia will collaborate with UW Bothell to pursue energy efficiency grants and develop ESCO projects.

#### **Information Technology**

Cascadia's information technology infrastructure is a major consumer of electricity and generator of carbon emissions. Cascadia will reduce information technology related energy consumption by using energy management software, virtualizing servers and desktops and using cloud computing.

#### Fleet Vehicles, Travel, and Commuting

Cascadia will continue to purchase hybrid or electrical vehicles for its fleet with whenever feasible and will provide electrical vehicle charging stations. Cascadia will continue to subsidize bus passes for students and staff.

Faculty and staff commuters comprise approximately 10% percent of the College's emissions. Some reductions may be possible through efforts such as online and hybrid classes, telecommuting, web conferencing, enhancement of carpooling and Zipcar type programs. However, enrollment growth will make it virtually impossible to reduce emissions associated with student commuting until such time as combustion engines are replaced by electric or fuel cell vehicles.

#### Sequestration

Cascadia's wetlands may provide an opportunity to reduce net carbon emissions through carbon sequestration. Preliminary research indicates that the Wetlands could provide a carbon offset that could be included in Cascadia's emissions inventory.

#### **Conservation/Behavior**

While infrastructure projects, facility renovations, and equipment upgrades are essential in campus greenhouse gas reduction, the College needs to take additional actions to reduce emissions. In order to reach carbon neutrality, it is vitally important that everyone on campus becomes actively involved in efforts to reduce the campus carbon footprint. Getting students, faculty, and staff, individually and collectively involved, to conserve resources and embrace the goal of a sustainable campus is fundamental not only to our goal of carbon neutrality, but also our mission as an educational institution.

Cascadia will work to advance programs that encourage conservation and environmental awareness. The College will seek to partner with UW Bothell to hire a Sustainability Coordinator when financial circumstances permit to coordinate improvements in campus operations, promote conservation and environmental awareness and increase communication regarding sustainability efforts.

#### Offsets

Renewable energy purchases, efficient operations, and enhanced sustainability processes will not result in a zero-emission Cascadia, nor (because of anticipated enrollment growth and associated facilities) will they suffice to reduce emissions 36 percent below 2005 levels by 2035. This plan envisions the College purchasing renewable energy credits and carbon offsets to close the gap to attain those objectives. The long-term objective is to continue to reduce campus carbon emissions and decrease the reliance on offsets to attain carbon neutrality.

#### 5. Environmental Education, Research, and Community Engagement

Environmental sustainability is one of Cascadia's founding values. Cascadia intends to develop specialized programs focusing on environmental sustainability and will encourage development of environmental sustainability content in the curriculum across all disciplines by promoting and supporting faculty and student opportunities to examine environmental sustainability by using the Wetlands and Cascadia's facilities as living laboratories.

The College's Sustainability Committee serves as a forum for addressing environmental sustainability issues.

#### 6. Financing

The College will use a variety of financial strategies to pursue initiatives supporting the reduction of carbon emissions. These strategies include obtaining grants, ESCO financing, strategic planning for incorporating the cost of renewal energy and carbon offsets in operating budgets and putting a price on carbon, i.e. increasing parking fees.

#### 7. Tracking Progress

Cascadia will track its progress towards carbon neutrality through bi-annual inventories of emissions. Biannual emissions inventories will serve as a tool to inform the College about the effectiveness of new infrastructure improvements and conservation efforts and will inform the College's planning efforts, particularly with regard to the purchasing of offsets.

Environmental education initiatives will be assessed through curricular review by the appropriate academic bodies.

#### CLIMATE PLAN UPDATES [Updated October 2015]

Cascadia has undertaken the following actions in pursuit of fulfilling its climate commitments; these actions have resulting in a 21% reduction in carbon emissions since 2005, thereby making substantial progress towards the 2020 carbon emission goal for the College:

#### 2010

- Opened CC-3, qualified for LEED Gold classification, but deferred Gold certification to pursue LEED Platinum certification. CC-3 uses rainwater for flushing.
- Piloted purchase of renewable energy.
- Approved \$2.3 million ESCO 1 project involving CC1-2 and buildings shared with UW Bothell.
- Promoted alternative transportation and commuting behavior changes by increasing parking daily rates by \$1 and reducing quarterly UPASS rates by \$27.
- Graduated first students from the Environmental and Sustainable Technologies program
- Virtualized multiple servers.

#### 2011

- Began implementation of \$2.3 million ESCO 1 project involving CC1-2 and buildings shared with UW Bothell. Energy saving measures included:
  - Modification of chiller control system
  - o Installation of window film
  - o Replacement of lighting fixtures
  - o Installation of lighting controls
  - o Modification of fume hood ventilation system
  - o Installation of vending misers
  - o Downsizing of water meters
  - o Installation of capacitors to increase building power factor
  - Recommissioned Metasys building management system controls, sensors and components
  - o Installation of wells for non-potable water use
  - Installed 2 electric vehicle charging stations and PV arrays to power them on the North Garage and 4 electric vehicle charging stations and PV arrays on the South Garage.
- Promoted alternative transportation and commuting behavior changes by increasing parking rates by \$1 and not increasing UPASS rates.

#### 2012

- Completed implementation of ESCO 1 project involving CC1-2 and buildings shared with UW Bothell. Project closeout activities included:
  - Installation of computer energy management software
  - Creation of utility dashboard to display real time energy consumption
- Approved \$1.7 million ESCO 2 Project to recommission CC1-2 and install photovoltaic array on CC3.
- Recommissioned CC1-2 as part of ESCO 2 project
- Promoted alternative transportation and commuting behavior changes by increasing daily parking rates by \$1 and not increasing UPASS rates.

• Facilitated carpooling by subscribing to the Zimride service

#### 2013

- Completed ESCO 2 project, installed photovoltaic array on CC-3.
- Received LEED Platinum Certification for CC-3 after the installation of a PV array on the building.
- Proposed Bachelor of Science in Sustainable Practices to State Board and received preliminary approval.
- Established a policy of budgeting to pay for carbon offsets to neutralize carbon emissions associated with international recruiting activities.

#### **Carbon Emission Changes**

The table below tracks carbon emissions and carbon emissions per FTE since 2005, *excluding* carbon generated as a result of student commuting. By achieving this 21% reduction in CO2 emissions the College has made good progress towards its 2020 carbon emission goal.

	2005	2009	2012	2014		2005	2009	2012	2014
Metric Tons CO2*	1,705	2,240	1,557	1,351	MT CO2/Student FTE	1.09	1.07	0.64	0.5004
Change from 2005		31%	-9%	-21%	Change from 2005		-2%	-41%	-54%





# **T** UNIVERSITY *of* WASHINGTON | BOTHELL

OFFICE OF THE CHANCELLOR

December 12, 2017

RE: Cascadia College Gateway Building Project

To whom it may concern;

UW Bothell is delighted to support the Cascadia College Gateway Building project. Cascadia College and UW Bothell, co-located on a 132-acre campus northwest of the I-405/SR 522 interchange, recently completed the 2017 Campus Master Plan. The collaborative process developed a comprehensive approach to campus growth which evaluated enrollment projections, facility needs, traffic and environmental impacts and a comprehensive guide for the next 20 years of future development. The Gateway Building project was identified within the campus master plan.

The demand for higher education in northeast King County and southwest Snohomish County is very high. Cascadia College has fully embraced the state's vision of meeting student and employer demands for this region and is ready to do even more. Cascadia's classroom utilization has exceeded its capacity. The same is true for student support services and faculty offices. Cascadia produces highly talented graduates who are ready for the workforce or transfer to four year institutions. UW Bothell welcomes many of the Cascadia transfer students.

It's clear there is a deep need for state investment to support the Cascadia College Gateway Building project so Cascadia can continue expanding educational opportunities for the students and the employers who need these graduates in the workforce.

Sincerely,

Bjong Wolf Yeigh, Ph.D., F.ASME Chancellor and Professor of Engineering

Box 358520 18115 Campus Way NE Bothell, WA 98011-8246 office 425.352.5220 fax 425.352.5223 www.uwb.edu



# BASTYRUNIVERSITY

OFFICE OF THE PRESIDENT

November 9, 2017

Dr. Eric Murray President Cascadia College 18345 Campus Way, NE Bothell, Washington 98011

Dear Dr. Murray,

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

As the President of Bastyr University and a member of the community in Cascadia's service area, I recognize the many ways in which Cascadia adds value to our community. It fills a critical role by educating our high school graduates, accelerated high school Running Start students, adults looking to re-enter the workforce or gain skills for a promotion, individuals who are pursuing high school completion, and people who are learning English as a second Language. Skills learned to prepare them for transfer to a four-year university or for jobs in our businesses.

Cascadia is critical to our economic engine. Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community.

I know that many local institutions are struggling to accommodate our area's rapid growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing the Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely,

Harlan Patterson President Bastyr University

C: David Rule, Provost, Vice President for Academic Affairs

File: Ltr. Cascadia College\_letter of Support 11.9.17



December 4<sup>th</sup> 2017

Dr. Eric Murray Cascadia College 18345 Campus Way NE Bothell, WA 98011

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

As a member of the community in Cascadia's service area, I recognize the many ways in which Cascadia adds value to our community. It fills a critical role by educating our high school graduates, accelerated high school Running Start students, adults who are looking to re-enter the workforce or gain skills for a promotion, individuals who are pursuing high school completion, and people who are learning English as a Second Language, and prepares all of them for transfer to a four-year university or for jobs in our businesses.

Cascadia is critical to our economic engine. Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community.

I know that many local institutions are struggling to accommodate our rapid growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely,

(Prabhu Jayaraman)

Principal Software Engineering Lead Microsoft One Microsoft Way, Redmond, WA 98052



December 5, 2017

Attention President Murray:

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell, Washington campus.

As a long-standing consultant in the community representing several businesses and non-profit organizations in Cascadia's service area, I recognize the numerous ways in which Cascadia adds value to our community. On behalf of the 21 Acres Center, and other agricultural education entities in the Sammamish Valley, Cascadia is critical to our economic engine. Cascadia students and employees live in our neighborhoods, shop in our markets, and volunteer in our community.

Cascadia has done an outstanding job playing a prominent role in bringing issues evolving around sustainability and environmental impact to higher prominence in the community. Their consistent presence, engagement efforts and endeavors have had direct impact with the businesses and organizations I represent and in the surrounding area. Demand for these educational programs will only increase in years to come. Whether providing educational opportunities for high school Running Start students or to adults who are re-entering the workforce, Cascadia fills this critical role in accomplishing an educational goal or providing accessibility to pursue new careers leading to jobs in our businesses and organizations.

I understand that many local institutions are struggling to accommodate our rapid growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely,

Brenda Vanderloop, President, Vanderloop Communications Public Relations and Communications Manager, 21 Acres Center Executive Director, Sammamish Valley Alliance



December 13, 2017

Dr. Eric Murray President Cascadia College 18345 Campus Way NE Bothell, WA 98011

#### RE: PROPOSED CASCADIA GATEWAY BUILDING (CC5)

Dear Dr. Murray,

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

As an educator and member of a local business in Cascadia's service area, I recognize the many ways in which Cascadia adds value to our community. It fills a critical role by educating our high school graduates, accelerated high school Running Start students, adults who are looking to re-enter the workforce or gain skills for a promotion, individuals who are pursuing high school completion, and people who are learning English as a Second Language, and prepares all of them for transfer to a fouryear university or for jobs in our businesses.

Cascadia is critical to our economic engine. Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community.

I know that many local institutions are struggling to accommodate our rapid growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our residents can take advantage of this resource.

Sincerely,

Mark Miem

Mark Nieman, P.E., CEM Energy Engineering Manager McKinstry



Dr. Traci Pierce - Superintendent

Board of Directors Chris Carlson - President Siri Bliesner - Vice President Nancy Bernard - Director Eric Laliberte - Director Mark Stuart - Director

L.E. Scarr Resource Center Mail: P.O. Box 97039 Redmond, WA 98073-9739

> 16250 N.E. 74th Street Redmond, WA 98052

> Office: (425) 936-1257 Fax: (425) 861-7765

November 7, 2017

Dear Dr. Murray,

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

As Superintendent, Lake Washington School District, I recognize the many ways in which Cascadia adds value to our community. Lake Washington is in Cascadia's service area and we value the critical role it fills by educating our high school graduates, providing acceleration for high school students through Running Start, and serving adults who are looking to re-enter the workforce or to gain skills for a promotion. In addition, Cascadia supports individuals who are pursuing high school completion and those who are learning English as a Second Language. Cascadia's programs prepare all learners for transfer to a four-year university or for jobs in our local community.

Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community. Many former Lake Washington students benefit from Cascadia's programs, and Cascadia's programs benefit our entire community.

I know that many local institutions are struggling to accommodate our rapid community growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely,

Dr. Traci Pierce Superintendent



Office of the Superintendent

Michelle Reid, Ed.D. Superintendent

Administrative Center 3330 Monte Villa Parkway Bothell, WA 98021-8972 Phone: (425) 408-7701 Fax: (425) 408-7702 www.nsd.org

November 27, 2017

Dr. Eric Murray Cascadia College 18345 Campus Way NE Bothell, WA 98011

Dear Dr. Murray,

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

As a member of the education community in Cascadia's service area, I recognize the many ways in which Cascadia adds value to our community. It fills a critical role by educating our high school graduates, accelerated high school Running Start students, adults who are looking to re-enter the workforce or gain skills for a promotion, individuals who are pursuing high school completion, and people who are learning English as a Second Language, and prepares all of them for transfer to a four-year university or for jobs in our businesses.

Cascadia is critical to our economic engine. Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community. As a school district, we certainly value our postsecondary partners as they support a strong capstone experience for our graduates.

I know that many local institutions are struggling to accommodate our rapid growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely

Michelle C. Reid, Ed.D. Superintendent, NSD



Department of Natural Resources and Parks Wastewater Treatment Division King Street Center, KSC-NR-0500 201 South Jackson Street Seattle, WA 98104-3855

November 20, 2017

Dr. Murray,

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

King County is a near neighbor of Cascadia College; I recognize the many ways in which Cascadia adds value to our community. It fills a critical role by educating our high school graduates, accelerated high school Running Start students, adults who are looking to re-enter the workforce or gain skills for a promotion, individuals who are pursuing high school completion, and people who are learning English as a Second Language.

Cascadia is critical to a healthy and sustainable region. The College prepares students for transfer to a four-year university or for real world jobs in local utilities such as King County.

I know that many local institutions are struggling to accommodate the rapid growth of our region. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our communities are able to take advantage of this resource.

Sincerely,

Sysan Tallarico Brightwater Center Director King County Wastewater Treatment Division Susan, Tallarico@kingcounty.gov



GREATER BOTHELL CHAMBER of COMMERCE Connecting business and community

November 14, 2017

Dear Dr. Murray,

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

As an active member of the community, representing 350 local businesses in Cascadia's service area, I recognize the many ways in which Cascadia adds value to our community. It fills a critical role by educating our high school graduates, accelerated high school Running Start students, adults who are looking to re-enter the workforce or gain skills for a promotion, individuals who are pursuing high school completion, and people who are learning English as a Second Language, and prepares all of them for transfer to a four-year university or for jobs in our businesses.

Cascadia is critical to our economic engine. Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community.

I know that many local institutions are struggling to accommodate our rapid growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely,

Bottom E alluli

Brittany Caldwell Executive Director

Greater Bothell Chamber of Commerce Brittany@bothellchamber.com | 425.485.4353



**Executive Committee** 

Jim Stanton President Microsoft

Tom Martin Vice President EvergreenHealth

Dan Angellar Treasurer Redmond Marriott Town Center

Tom Markl Secretary Nelson Legacy Group

Dr. Eric Scroggins Immediate Past President Banner Bank

Mayor John Marchione At-Large City of Redmond

**Board of Directors** 

Ryan Baumgartner Cashman Consulting

Bill Biggs Group Health

Dr. Eric Murray Cascadia Community College

Councilman Hank Margeson City of Redmond

Larry Martin Davis Wright Tremaine, LLP

Dr. Amy Morrison Goings Lake Washington Institute of Technology

Robert Pantley Natural & Built Environments

John T. Duncan III, Esq. Physio-Control

**Committee Chairs** 

Tom Martin Business Development EvergreenHealth

Dr. Eric Murray Communications Cascadia Community College

Dan Angellar Finance Redmond Marriott Town Center

Tom Markl Government Affairs Nelson Legacy Group

Nicole Yurchak Investor Relations Swedish Medical Group

Ryan Wade Small Business Investors Management 11/9/17

Dear Dr. Murray,

OneRedmond fully supports Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

OneRedmond is a public-private partnership whose mission is to support the growth of Redmond's existing and future businesses. We represent over 65 of Redmond's leading firms and the City of Redmond.

Access to talent is the number one concern of our existing businesses. Supporting the continued growth of Cascadia College and other higher education institutions in our region is a priority of our organization.

OneRedmond recognizes the many ways in which Cascadia adds value to our community. It fills a critical role by educating our high school graduates, accelerated high school Running Start students, adults who are looking to re-enter the workforce or gain skills for a promotion, individuals who are pursuing high school completion, and people who are learning English as a Second Language, and prepares all of them for transfer to a four-year university or for jobs in our businesses.

Cascadia is critical to our economic engine. Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community.

OneRedmond knows that many local institutions are struggling to accommodate our rapid growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely,

Bart Phillips, CEO



November 15, 2017

Dr. Eric Murray President Cascadia College 18345 Campus Way NE Bothell, WA 98011

Dear Dr. Murray,

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

As Mayor of a neighboring city to Cascadia College, I recognize the numerous ways in which Cascadia adds value to our community. It fills a critical role by educating our high school graduates, teaching accelerated high school Running Start students, helping adults who are looking to re-enter the workforce or gain skills for a promotion, encouraging individuals who are pursuing high school completion, and assisting people who are learning English as a second language. Cascadia prepares all of its students for transfer to a four-year university or for jobs in our area.

Many local institutions are struggling to accommodate rapid growth in our region, and Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone absorb the additional enrollment growth expected. To fully support its students, Cascadia needs appropriate facilities.

As part of the college's service area, Redmond is proud to have Cascadia College nearby to offer opportunities for continuing education, as well as personal growth and development. Cascadia is also critical to our economic engine, as students and employees live in our neighborhoods, shop in our stores, and volunteer in our community. The City of Redmond values the important role of Cascadia College in our community and wants it to be successful.

I strongly support the college's efforts to better meet the needs of the educational community and prepare for the future. I look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this valuable resource.

Sincerely,

John Marchione Mayor November 21, 2017



Dr. Eric W. Murray President Cascadia College 18345 Campus Way NE Bothell, WA 98011

#### RE: Support for the Cascadia Gateway Building (CC5)

Dear Dr. Murray,

The Kirkland City Council enthusiastically supports Cascadia College's plans to construct the Cascadia Gateway Building (CC5) on its Bothell campus.

As elected representatives of one of the most livable cities in the Puget Sound region and with a population of more than 82,000 residents within Cascadia's service area, the Kirkland City Council recognizes the many ways in which Cascadia adds value to our community. Cascadia College fills a critical role by educating our high school graduates, accelerated high school Running Start students, adults who are looking to re-enter the workforce or gain skills for a promotion, individuals who are pursuing high school completion, and people who are learning English as a Second Language, preparing all of them for transfer to a four-year university or for jobs in our businesses.

Cascadia is critical to Kirkland's economic vitality and to the economic engine of the dynamic sub-region within its services area. Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community. While Kirkland is home to both large and small corporations, cities thrive depending upon their pool of talent, the critical human capital needed to fuel its workforce. Cascadia College's service and success in this region is cultivating local talent so that Kirkland's residents have better access to opportunities.

We know that many local institutions are struggling to accommodate our rapid growth and adequately serve the needs of our current student population, let alone absorb the additional enrollment growth expected. Therefore, we look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely,

KIRKLAND CITY COUNCIL

ywake

Amy Walen, Mayor City of Kirkland

November 14, 2017



# City of Bothell

Dr. Eric Murray, President Cascadia College 18345 Campus Way NE Bothell, WA 98011

Dear Dr. Murray:

I am writing in support of Cascadia College's plans to construct The Cascadia Gateway Building (CC5) on its Bothell campus.

As the City Manager for the City of Bothell, I recognize the many ways in which Cascadia adds value to our community. It fills a critical role by educating:

- Our high school graduates,
- Accelerated high school Running Start students,
- Adults who are looking to re-enter the workforce or gain skills for a promotion,
- Individuals who are pursuing high school completion,
- People who are learning English as a Second Language, and
- Prepares all of them for transfer to a four-year university or for jobs in our businesses.

Cascadia is critical to our economic engine. Cascadia students and employees live in our neighborhoods, shop in our stores, and volunteer in our community.

I know that many local institutions are struggling to accommodate our rapid growth. Cascadia College's facilities are inadequate to serve the needs of its current student population, let alone able to absorb the additional enrollment growth expected.

I look forward to seeing The Cascadia Gateway Building completed so that more of our residents are able to take advantage of this resource.

Sincerely,

Jennifer Phillips **City Manager** 

Office of the City Manager 18415 - 101st Avenue NE Bothell, WA 98011 425.806.6140 www.bothellwa.gov







December 20, 2017

CC3 - Gateway Building				Classrm		· · · · · ·
Space Name	Proposed ASF	Quantity	Total ASF	work- stations	Lab work- stations	Comments
Classrooms						
College 101	1,200	2	2,400		66	
English 80-96	1,200	1	1,200		33	
English 101	1,200	4	4,800	132		12 computers
English 102	1,200	3	3,600	99		
Math 75, 85, 95	1,200	1	1,200		33	
ESL/ABE (Basic Skills Lab)	1,200	1	1,200		33	
		subtotal	14,400	231	165	
Faculty Offices/Staff Rooms						-
Learning Commons	2,750	1	2,750			
Faculty Office Suite	,		· · ·			
Open Workstations	2,000	1	2,000			
Conference Room	400	1	400			
Faculty Workroom	300	1	300			
		subtotal	5,450	-	-	
Student Services					1	_
Lobby	1,200	1	1,200			Welcome desk/seating for 20/10-15 self-serve kiosks
Administration	,		,===			
Dean of Student Services Office	160	1	160			
Administrative Assistant Office	120	1	120			
Conference Room	400	1	400			
Shared Storage	600	1	600			(6) individual cages
Shared Workroom	300	1	300			
Enrollment Services - counter/work area	400	1	400			Service counter w/ 6 stations and 6 private work areas
Enrollment Services offices	120	5	600			· ·
Financial Aid offices	120	6	720			
Financial Aid - Student file storage	120	1	120			
Advising	120	10	1,200			
ABE - offices	120	2	240			Included w/ Enrollment Services
ABE - open workstations	150	1	150			
Workforce Lounge	300	1	300			Small hang-out space for 6-8 w/ reception desk
	500		500			Service counter shared w/ Enrollment Services; computer
Workforce office	120	2	240			terminal located w/Career Center services
Workforce conference room	250	1	250			
Career Center / Transfer Center alcove	400	1	400			(6) workstations shared w/ Workforce, UW Counseling
Dual Enrollment / Runnning Start office	120	1	120			Lobby space shared w/ Enrollment Services
Disability Services office	120	1	120			
Disability Services testing room (large)	350	1	350			
Disability Services testing room (small)	80	2	160			
Testing Center						
Waiting Area	300	1	300			Waiting for 20 students w/ locker alcove
Student Lockers	5	45	225			
Computer Testing Room	1,000	1	1,000			40 student capacity - proctored
Small Testing Room	250	1	250			4-5 students
Medium Testing Room	400	1	400			8-10 students
Testing Counter			-			
Flexible Classroom	1,650	1	1,650			Divisible w/ operable partition
Flexible Computer Lab	1,400	2	2,800			For LRC Library Tools instruction and Open Lab use
Student Tech Support / Tech Storage	450	1	450			Supports tech-rich classrooms and/or BYOD
Information Center/Concierge	150	1	150			
		subtotal	15,375			
Other						-
Small Group Collaboration (4-6)	300	8	2,400			
Informal Study	1,800	LS	1,800			
	· · ·	subtotal	4,200			
TOTAL NSF	:		39,425	I	•	-
Circulation, Walls & Support @			<b>39,425</b> 22,175			Includes coffee cart
					I	
TOTAL GSF	1		61,600	l		





#### Gross Square Footage

-	0% Renovation of Existing
61,600	100% New Space
-	0% Exterior Circulation Allowance (included in New Space above)
-	0% Demolished Area
61,600	100% Total Affected Area
61,600	100% Net Area Change = New - Demo - Circulation

## Escalated Building Costs

	0
	0% Acquisition
3,528,000	11% Consultant Services
26,617,000	81% Construction Contracts
1,876,000	6% Equipment
115,000	0% Artwork
553,000	2% Other Costs
226,000	1% Project Management
32,915,000	100% Total Building Cost

#### Escalated Infrastructure Costs

Escalated IIIIIa	
	0% Acquisition
117,000	0% Consultant Services
707,000	2% Construction Contracts
	0% Equipment
3,000	0% Artwork
	0% Other Costs
	0% Project Management
827,000	2.51% Total Infrastructure Cost

#### **Project Funding**

, ,	
33,742,000	100% State Appropriation
	0% Financed - backed by State Appropriation
	0% Local Funds - Cash
	0% Financed - backed by Local Funds
33,742,000	100% Total Project Funding
-	0% Matching = Local / Appropriated
-	0% Variance = Cost - Funding

#### Project Weighting

-	0% Matching = 2* (Local / Appropriated) / Total Project Funding
1,510	2% Infrastructure = (Infrastructure / Total Project Cost) - Matching
-	0% Renovation
-	0% Replacement
60,090	98% New
61,600	100% Total

#### My Project

Fall 2016 Utilization - used in Overarching Criteria for all projects. See Appendix C.

		Work-	
	<b>Contact Hours</b>	stations F	all 2016 Utilization
Classes	23,551.17	784	30.04
Labs	6,666.58	319	20.90
Campus	30,217.75	1,103	27.40

Campus

Future Utilization - use for projects with net New Area. See Appendix D.

State Board enrollment projections are available here -

33,498.82

http://www.sbctc.edu/colleges-staff/programs-services/capital-budget/capital-budget-development.aspx

16.77

1,997

	2 000	Fall 2016 Ty					
	2,000	Fail 2010 Ty	PETLIC				
	2,266						
	178	Net New Typ	be 1 FTE				
	561	This project	net new Cla	Classroom workstations			
	333	This project	net new La	aboratory workstations			
	894 Net new workstations in project						
		Work-					
	<b>Contact Hours</b>	stations	Future Util	tilization			
Classes	25,610.10	1,345	19.04				
Labs	7,888.72	652	12.10				

#### **Expected Cost Calculations**

Construction Mid-point: Expected Cost Multiplier: Project GSF:

# Start (Bid)End (SC)4/1/20227/1/20211/1/20231.39from Appendix B61,600S4 from Project Parameters

	Expected Cost /	Expected Cost /				Point		
Facility Type	GSF in 2008\$	GSF	GSF by Type	E	pected Cost	Thresholds	ſ	Ny Project
Classrooms	\$420	\$582	42,490	\$	24,734,279			
Communications buildings	\$378	\$524	-	\$	-			
Science labs (teaching)	\$437	\$606	-	\$	-			
Research facilities	\$623	\$863	-	\$	-			
Administrative buildings	\$309	\$428	19,110	\$	8,184,316			
Day care facilities	\$283	\$392	-	\$	-			
CTC Libraries	\$361	\$500	-	\$	-			
			61,600	\$	32,918,595	100%	\$	32,915,000
			-	\$	36,539,640	111%		
				\$	45,098,475	137%		
						<137%		

The following data is based on the December 2016 Global Insight forecast for state and local government spending and is to be used for adjusting the expected costs from July 1, 2008, to the mid-construction date for comparison to project estimates.

Mid-construction Date	Expected Cost
	Multiplier
7/1/2008	1.000
5/16/2016	1.184
8/15/2016	1.187
11/15/2016	1.195
2/14/2017	1.204
5/16/2017	1.214
8/15/2017	1.224
11/15/2017	1.233
2/14/2018	1.242
5/16/2018	1.251
8/15/2018	1.260
11/15/2018	1.269
2/14/2019	1.278
5/16/2019	1.287
8/15/2019	1.297
11/15/2019	1.306
2/15/2020	1.315
5/16/2020	1.324
8/15/2020	1.332
11/15/2020	1.341
2/14/2021	1.350
5/16/2021	1.359
8/15/2021	1.368
11/15/2021	1.377
2/14/2022	1.386
5/16/2022	1.395

#### Consolidated Score Sheet

Category	Criteria	Standard	Possible	Yes/No	Points	
Overarching	Goals	Max 23				Τ
		Effective use of existing facilities based on current utilization	9	variable	7	
		Directly tied to facilities master plan	4	Yes	4	
		Directly tied to objectives in strategic plan	4	Yes	4	
		Includes partnerships with K-12, 4yrs, business, etc.	4	Yes	4	
		Project includes at least 7 of the best practices identified to reduce gi	2	Yes	2	
			Overarc	hing Subtotal	21	out of 23 possible.
			Catego	ory Weighting	1.00	
		Cate	egory Weigl	nted Subtotal	21.00	out of 23 possible.

Project Weighting 1.00

Overarching Category Total 21.00

Category	Criteria	Standard	Possible	Yes/No	Points
Infrastructure	Program Need				
		Infrastructure serves new building area constructed in	20	Yes	20
		this proposal. Or, serves 100% of the existing college.			
		Serves 80% or more, and less than 100% of the existing	15		0
		college.			
		Serves between 40% and 80% of college of the existing	10		0
		college.			
		Serves 40% or less of the existing college.	0		0
nfrastructure	Reasonablness of Cost				
		Infrastructure costs less than 5% of the total project.	30	Yes	30
		Or, infrastructure cost divided by previous average			
		annual costs is twenty, or less.			
		Infrastructure costs 5%, or more, and less than 10% of	15		0
		the total project. Or, infrastructure cost divided by			
		previous average annual costs is greater than twenty			
		and less than fifty.			
		Infrastructure costs 10%, or more, and less than 15%	5		0
		of the total project. Or, infrastructure cost divided by			
		previous average annual costs is fifty, or more, and			
		less than one hundred.			
		Infrastructure costs 15% or more of the total project.	0		0
		Or, infrastructure cost divided by previous average			
		annual costs is one hundred, or more.			
nfrastructure	Risk Mitigation				
		Infrastructure serves new area building constructed in	12	Yes	12
		this proposal. Or, infrastructure age is at least 200% of			
		the average life.			
		Infrastructure is 100% to 200% of average life.	6		0
		Infrastructure is less than 100% of average life.	0		0
nfrastructure	Suitability for Long Term	1 Financing			
		Average life of new infrastructure is more than 30	15		0
		years.			
		Average life of new infrastructure is more than 25	10		0
		years and less than 30 years.			
		Average life or new infrastructure is 20 through 25	5	Yes	5
		years.	5		-
		Average life of new infrastructure is less than 20 years.	0		0
	Infractructure Category		Infractructure Cate		67

Infrastructure Category Subtotal

 Infrastructure Category Subtotal
 67
 out of 77 possible.

 Category Weighting
 1.00
 0
 out of 77 possible.

 Category Weighted Subtotal
 67.00
 out of 77 possible.
 0

Project Weighting 0.02 Infrastructure Category Total 1.64

4 out of 1.89 possible.

Category	Criteria	Standard		Possible	Yes/No	Points
New		Calculated based on Project data				
	Efficient use of space – f	uture utilitzation				
		If either Lab utilization will be more than 17 or Class		18	No	0
		utilization will be more than 23				
		If Lab utilization will be at least 15 but less than 17 and		24	No	0
		Class utilization was at least 21 but less than 23				
		If Lab utilization was at least 12 but less than 15 and		12	Yes	12
		Class utilization was at least 19 but less than 21				
		If either Lab utilization will be less than 12 or Class		0	No	0
		utilization will be less than 19				
New	Improvements	Max 12 based on facility programming			Percent of	
			ASF		total ASF	
		Classroom, labs	23,050	12	58%	7.02
		Student Services	10,925	12	28%	3.33
		Library	2,750	12	7%	0.84
		Childcare	-	9	0%	0.00
		Faculty offices	2,700	7	7%	0.48
		Administration	-	5	0%	0.00
		Maintenance/Central Stores/Student Center	-	2	0%	0.00
New	Planning	Max 24				
		Space improves program delivery and student support		10	Variable	10
		Programs and student support space are identified by		5	Variable	5
		usage and square footage				
		Location of project is identified by site		2	Yes	2
		Special initiatives beyond participation rates		2	Yes	2
		Reasonable cost estimate and building efficiency		3	Yes	3
		Expected building life - 50 years or greater		2	Yes	2
New	Cost	Max 17				
		Total project cost is less than or equal to the expected		17	Yes	17
		cost per square foot for the facility type, escalated to				
		the construction mid-point.				
		Project cost is between 100% and 111% of expected		12	No	0
		cost.				
		Project cost is between 111% and 137% of expected		5	No	0
		cost.				
		Project cost is more than 137% of expected cost.		0	No	0
	New Category Subtotal			New Cate	gory Subtotal	65
				<b>C</b>	on Woighting	1 00

77 possible. Category Weighting 1.00 Category Weighted Subtotal 64.66 out of 77 possible.

Project Weighting 0.98 New Category Total 63.07 out of 75.11 possible.

Category Score Subtotal:64.71Overarching Score Subtotal:21.00Project Score:85.71

# Paramters based on My Project inputs.

#### Parameters

	Square Footage	
S1	-	0% Renovation of Existing
S2	61,600	100% New Space
S3	-	0% Exterior Circulation Allowance (included in New Space above)
S4	-	0% Demolished Area
S5	61,600	100% Total Affected Area
S6	61,600	100% Net Area Change = New - Demo - Circulation

	Costs	
Ca	32,915,000	
Cb	827,000	
C1	33,742,000	100% Total Project Cost

	Funding		
	33,742,000	100% State Appropriation	
	-	0% Financed - backed by State Appropriation	
M1	-	0% Local Funds - Cash	
M2	-	0% Financed - backed by Local Funds	
F1	33,742,000	100% Total Project Funding	
	-	0% Matching	
	-	0% Variance = Cost - Funding	

	Project Weighting	
M4	-	0% Matching = 2* (Local / Appropriated) / Total Project Funding
14	1,510	2% Infrastructure = (Infrastructure / Total Project Cost) - Matching
R4	-	0% Renovation
P4	-	0% Replacement
N4	60,090	98% New
	61,600	100% Total