WASHINGTON STATE UNIVERSITY

Spokane-Biomedical and Health Sciences Building, PhII

2019 – 21 Request:	$500,000	Project Type:	Growth
		Project Phase:	Predesign
Institutional Priority:	# 2	Gross Square Ft:	85,000

Washington State University requests $500,000 for the predesign of a biomedical and health sciences building on the university's growing health sciences campus in Spokane where the colleges of medicine, nursing and pharmacy are headquartered.

The co-location of these colleges has created unique educational and research synergy. Already the largest producer of nurses in Washington, the College of Nursing is operating at full capacity even as the demand for nurses soars. New educational space is needed to expand enrollment.

The College of Pharmacy and Pharmaceutical Sciences is equally stretched, having launched a successful off-campus expansion in Yakima to help meet the state's needs. The College of Medicine has just enrolled its second class of 60 Washington students selected from an applicant pool of almost 1,200.

In addition to housing existing programs, the campus aspires to create six, two-year bachelor's degree-completion programs in the College of Pharmacy and Pharmaceutical Sciences producing as many as 180 new graduates per year at full maturity.

Economy-driving and discovery-inspiring research activity is also blossoming. Annual research activity at the campus almost tripled between 2010 and 2017, approaching $30 million with major funders including the National Institutes of Health. Pillars of strength in addiction, brain health and sleep as well as other research pursuits have brought new researchers to campus. Direct and indirect economic activity brought by the addition of the College of Medicine already has been partially credited for notable wage growth in Spokane County in 2017 (link below): http://www.spokesman.com/stories/2018/jun/26/average-wage-in-spokane-county-rose-nearly-4-perce/

This momentum has taxed campus facilities and forced existing spaces to be repurposed. WSU has moved non-health sciences programs off campus and is leasing 20,000 net square feet in off campus research and simulation space.

New basic, clinical and translational research space for the colleges will continue to attract faculty who will perform translational research that refines basic science findings into sustainable applications across the variety of research that occurs on the campus. This research has a broad span, from addictions, autism and cancer, to drug discovery and development, to rare genetic disorders and sleep and performance. Space for additional research will continue to stimulate a growing state economy.

This new building will facilitate further growth in research and health sciences academic programming on the growing campus and capitalize on its surging momentum.

Institution
Washington State University
Project Title
SPOKANE-BIOMEDICAL & HEALTH SCIENCES BUILDING Ph II
Project Location (City)
Spokane, WA

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

The U.S. healthcare system is vulnerable because not enough doctors and nurses are being educated to meet the growing demands, especially in rural areas. WSU is requesting additional educational and research space on its health sciences campus in Spokane to fulfill its mission of educating doctors, nurses, pharmacists and other allied health professionals. The WSU colleges of Medicine, Nursing, and Pharmacy and Pharmaceutical Sciences headquartered on the Spokane campus serve high-demand fields and would share the new Biomedical and Health Sciences Building Phase II.

Research activity at WSU Spokane has almost tripled since 2010 and is approaching $30 million annually. The university has worked to meet the growing needs of the health sciences colleges through remodeling existing buildings, but owned space has now been fully utilized, forcing WSU to lease nearly 20,000 net square feet for office space and critical simulation labs. (See WSU Leases in **Appendix A.**) In fact, a large program that had historically been on the campus—WSU Extension—was recently moved off-campus to leased space to make room for the expansion of the programs which are directly related to health sciences.

In addition to the current space shortage and planned growth in existing programs, the campus plans to create six, two-year bachelor's degree-completion programs. (See Section 3. below.) These new programs would add a total potential of 360 undergraduates to campus per year for a total of 32% student enrollment growth.

2. History of the project or facility:

The proposed Biomedical and Health Sciences Building has been a priority in WSU Spokane's master planning since the 2009 Spokane Riverpoint Campus Academic & Master Plan Overview (see excerpts from the 2009 Plan in **Appendix B**) and follows completion of construction of the Pharmaceutical and Biomedical Sciences (PBS) building in 2013. The PBS building was the initial phase in achieving WSU Spokane's vision for robust research, simulation and interdisciplinary health sciences education. A second PBS building is referenced in the 2014-2024 Master Plan Update on page 20[1] where it's identified as the future "New Research Building (PBS2)". The WSU Spokane campus document states: "The top priority for state-funded capital projects is the planned expansion of the Pharmaceutical & Biomedical Sciences Building (PBS)."

Following is the history about the Spokane campus and the colleges that will be housed in the new building.

The Elson S. Floyd College of Medicine had not been launched when PBS was constructed. While it is primarily occupied by the College of Pharmacy and Pharmaceutical Sciences, PBS provides a critical, state-of-the-art anatomy lab for the medical students at WSU and the UW/Gonzaga program. The building's lab, which uses human cadavers, along with an animal vivarium and three, large, open floors of wet labs, contributed significantly to the College of Medicine's ability to attract the highest level of students and faculty with applications for faculty positions skyrocketing.

In the fall of 2017, ESFCOM accepted 60 students into its first medical school class and will welcome another 60 in the fall of 2018. Given the ongoing, high demand for physicians, the college plans to increase its entering class

[1] https://spokane.wsu.edu/about/campus-facts/master-plan/

by 33%--to 80 students per year by fall of 2019. This would result in 160 first- and second-year medical students and 30 third- and fourth-year medical students on campus (the remaining third- and fourth-year student cohorts will be distributed across other WSU campuses) in 2020.

Other growing programs within ESFCOM are Speech and Hearing Sciences and Nutrition and Exercise Physiology. The latter will offer new degree programs in the fall of 2018 and expects to grow its BS program from 46 to 80 students and its MS program from 35 to 80 students.

The College of Nursing will need access to additional educational space in order to expand its student numbers. The U.S. Department of Health and Human Services projects Washington will have one of the worst nursing shortages in the nation by 2025 when the need for nurses is expected to have increased ten-fold. This is in part due to a movement toward community-based health, care to reduce health disparities and access to care, especially in rural areas in Washington.

The university is prepared programmatically to meet the growing demand, but additional space is needed to reach our goal of increasing the number of newly admitted nursing students from 165 to 218, or by 30%, between fall 2018 and 2023. A particular need is for nursing simulation labs, as existing simulation spaces have over 9,000 student visits per semester, taxing the space. It is in those simulation labs where student nurses learn how to care for patients with complicated health care needs in a safe, supervised environment.

The College of Pharmacy and Pharmaceutical Sciences has seen dramatic growth in the last five years. The college moved its headquarters from WSU Pullman to the WSU Spokane Pharmaceutical and Biomedical Sciences (PBS) building (referenced above) in 2013 and brought with it 575 faculty, staff, and students. Since then, the number of pharmacy students has grown from 375 to over 520 and grant funding for research has increased as the college's rankings in the last five years have improved from 56th to 28th in National Institutes of Health (NIH) funding and 44th to 33rd in funding from all sources.

Recruitment of researchers from upper-tier universities and the eventual hiring of over 100 principal researchers, postdoctoral researchers and research graduate students in pharmacy has accelerated Spokane's growth in biomedical research. As a result of the College of Pharmacy and Pharmaceutical Sciences growth, the College of Medicine has had to partially relocate some of its shared classrooms, research labs and office space from PBS to a variety of other buildings, as noted in the problem statement above.

The College of Pharmacy and Pharmaceutical Sciences has proposed six new joint bachelor of sciences degrees. These new programs would add a total potential of 360 undergraduates to campus per year for a total of 32% student enrollment growth.

The WSU Spokane Health Sciences campus has been in existence since 1989 when it was one of three branch campuses established across the state. The mission of the branch campuses was to serve place-bound students and promote economic development, among other priorities. In 2013 WSU Spokane was the focus of a study conducted by the national consulting firm Tripp Umbach[2] following completion of the PBS building. The study found that the campus had total annual regional economic impact in 2013 of $350 million. The report projected the campus to be on pace for economic impact of $1.7 billion annually by 2030. This kind of impact is a hallmark of land grant universities like WSU.

In fact, due to the investment in modernized laboratory, teaching and research space in the PBS building, WSU Spokane's grant and contract awards have grown to over $27.5 million per year, almost triple the amount in 2010 when the campus was designated as WSU's health sciences campus. National Institutes of Health awards represent more than two-thirds of the grant and contract awards for the Spokane campus ($18.4 million out of

2 www.spokaneudistrict.org/uploads/publication/files/object/FINAL_2013_Economic_Impact_Study_Update__by_Tripp_Umbach_for_Riverpoint_Campus_8_9_13.pdf

$27.5 million in fiscal year 2017). According to United for Medical Research, a coalition of research institutions, patient and health advocates, the economic activity created by NIH funding awarded in the state of Washington in 2016 equaled $2.3 billion and every $1 million from NIH created 12 jobs[3].

As the growing research portfolio on the WSU Spokane campus has increased the campus' impact on the state's economy, it is also increasing the need for more space. It will permit the kind of quality improvements in programming and initiation of new programs that has served the state so well with expansion of the College of Pharmacy in the PBS building and the creation of the College of Medicine. It is the next natural step in the evolution of the campus.

3. University programs addressed or encompassed by the project:

As Spokane evolves into a major clinical education and research center in Eastern Washington, the new Biomedical and Health Sciences Building would allow expansion of the health science programs associated with the colleges of Nursing, Pharmacy and Medicine. Those colleges currently offer programs and degrees in the following: Medicine-M.D.; Nursing-B.S., R.N. to B.S.N., M.N., D.N.P., and Ph.D.; Nutrition and Exercise Physiology-B.S. and M.S. (Ph.D. to start in fall of 2018); Pharmacy-Pharm.D. and Ph.D.; Speech and Hearing Sciences-B.A. and M.S.

New basic, clinical and translational research space for the colleges would continue to attract faculty who can produce translational research that refines basic science findings into sustainable applications for the variety of research that occurs on the campus. This research has a broad span, from addictions, autism and cancer, to drug discovery and development, to rare genetic disorders and sleep and performance. Space for additional research will continue to contribute to a growing state economy.

As referenced in #1 (Problem Statement), six +2 BS degree programs would be added if a new building is constructed. These programs would add (at steady-state) a total of 360 undergraduates to the campus. The first two years of the new programs would be completed in Pullman, at a community college, or online, while the junior and senior years would eventually serve 30 WSU Spokane students per matriculating cohorts per degree track. Specifically, the College of Pharmacy and Pharmaceutical Sciences would offer BS programs in:

- Pharmaceutical Sciences (this would be a feeder into the PharmD, PhD, and MD programs, as well as prepare students for research-oriented careers in the biotech and pharma sectors--areas of economic growth that are high priority for Spokane)
- Pharmacology and Drug Development (this would have a rationale similar to above)
- Pharmacy (this would prepare students to become pharmacy technicians, as well as to enter areas of pharmacy such as pharmaceutical sales)

In collaboration with other WSU colleges, the College of Pharmacy and Pharmaceutical Sciences would also offer BS programs in:

- Health Services (this would be a feeder for the MD or PharmD programs and prepare students to enter various areas of the health services sector)
- Genomics Sciences (this would be a feeder into the PharmD, PhD, and MD programs, as well as prepare students for research-oriented careers in the biotech and pharma sectors)
- Pharmaceutical and Bio-Engineering (same profile as above)

4. Integral to Achieving Statewide Policy Goals:

Provide degree targets and describe how the project promotes improvement on 2015-16 degree production totals in the OFM four-year public dashboard.

[3] http://www.unitedformedicalresearch.com/wp-content/uploads/2017/03/NIH-Role-in-the-Economy-FY2016.pdf

The Biomedical and Health Sciences Building will enable the campus to award an **additional 200** plus bachelor's degrees in high demand fields, as well as an **additional 50** plus advanced degrees in high demand fields. See Degrees Table in **Appendix C (includes dashboard figures and institutional targets).**

a. Indicate the number of bachelor's degrees awarded at the close of the 2015-16 academic year.

The number of bachelor's degrees awarded at the close of the 2015-16 academic year was **5,517** with 289 from the WSU Spokane campus. With this project, an increase of over 200 new bachelor's degrees on the Spokane campus is expected.

b. Indicate the number of bachelor's degrees awarded in high-demand fields at the close of the 2015-16 academic year.

The number of bachelor's degrees in high-demand fields at the close of the 2015-16 academic year was **1,976,** with 262 from the WSU Spokane campus, meaning that of the 289 degrees awarded from WSU Spokane, 262, or 91%, were in high-demand fields. The anticipated increase of over 200 degrees from the WSU Spokane campus referenced above will all be in high-demand degree programs.

c. Indicate the number of advanced degrees awarded at the close of the 2015-16 academic year.

The number of advanced degrees awarded in 2016 was **1,480,** of which, **805** were in high demand fields. On the WSU Spokane campus, there were 224 advanced degrees, of which 194 were in high demand fields. With the project, over 50 additional advanced degrees are anticipated to be awarded, all of which will be in high demand areas.

Quality instruction and training facilities are vital for providing high-demand degree programs in the health sciences. The Pharmaceutical and Biomedical Sciences (PBS) Building is a case in point. The tremendous growth in the College of Pharmacy began the same years as PBS began housing the program. Three hundred seventy-five pharmacy students were enrolled at the time (2013); now, in 2018, 521 are enrolled on the WSU Spokane campus.

5. If a predesign for a Growth project, describe how the project promotes access for underserved regions and place-bound adults through distance learning and/or university centers:

a. Is distance learning or a university center a large and significant component of the total project scope? If yes, to what degree of percentage?

Yes. Distance learning is particularly important to health science research and instruction given the high demand for graduates in those fields, and the fact that programs based on the WSU Health Sciences Spokane campus radiate to serve place-bound students statewide. Using videoconferencing and modern learning-management technologies, faculty in Spokane currently provide distance learning to place-bound students around the state, and the campus expects to increase those offerings in response to demand.

In Spring 2018 semester the College of Nursing, the largest college on the WSU Spokane campus, offered 66% of their courses via videoconferencing. Nursing offers a range of distance-learning options and is working with other WSU units to extend those offerings to new locations. Students in classrooms in Yakima, Vancouver, the Tri-Cities, Walla Walla and Puyallup participate in classes taught by nursing professors at the WSU Health Sciences campus. Graduate nursing students around the state and nationally participate in classes via videoconferencing technology and complete lessons online to earn their master's and doctoral degrees while working full-time. And new continuing-education programs will offer working RNs the ability to obtain required continuing education credits through WSU Extension and other WSU sites around the state via these distance-learning technologies.

As medical students from the new WSU Elson S. Floyd College of Medicine transition to their distributed campuses in Vancouver, Everett, and the Tri-Cities for their third and fourth years of instruction, these distance-learning technologies will enable professors on the WSU Health Sciences campus to engage and collaborate with students in their clinical settings, which often will be located in rural and medically underserved areas.

We anticipate that the Biomedical and Health Sciences Building will allow us to continue to innovate and grow distance-learning options for place-bound students in these high-demand fields. We also expect to develop and deploy technologies to serve patients and health-care providers in rural and underserved locations throughout the state.

b. Is the project likely to enroll a significant number of students who are place-bound or residents of underserved regions?

Yes, the proposed building will result in a significant number of additional students from underserved regions being educated on this campus as exemplified by current statistics. Of the 1,616 students enrolled in the WSU Spokane campus in fall 2017, 80% were from the state of Washington; 40% were from medically underserved counties; and 36 of the 39 state counties were represented. As well, 31% were first-generation students and 71% female. WSU Spokane's minority population is significantly higher than Spokane County but exact numbers are unavailable because 23% of students did not report race. However, it is known that while 89.5% of the county's population is white, only 68% of the WSU Spokane student population is. Of the 67% of students who did report, 3.2% identified as Black/African American; 6% Hispanic/Latino; and 9% Asian.

49% of WSU Spokane students have an EFC (expected family contribution) under $1,200, the amount used in estimating a student's financial need when applying for financial aid using the FAFSA, or Free Application for Federal Student Aid; therefore, they qualify for need-based aid. (89% of students filled out a FAFSA.)

The ESFCOM, which only enrolled students strongly affiliated with Washington in the fall of 2017 for their first-year class, reported 17% of students spent their childhood in a rural Washington county and 97% in a medically underserved county; students were from 15 of Washington's counties; and 33% were from low socioeconomic communities. The college has done extensive outreach to K-12 students and expects to improve upon this trajectory. Many of these future physicians are expected to practice in rural and underserved areas, which represent the majority of counties in Washington.

The WSU Health Sciences campus has also hosted a Native American Health Sciences Institute for high school students for more than 20 years, with many of those students going on to enroll in health sciences programs. The campus also supports organizations such as the Mathematics, Engineering, Science Achievement (MESA) program that encourages students in middle and high school to be involved with and excited about science. These outreach endeavors particularly focus on attracting underrepresented minorities into STEM disciplines in college.

6. Integral to Campus/Facilities Master Plan:

a. Describe the proposed project's relationship and relative importance to the institution's most recent Campus/Facilities Master Plan or other applicable strategic plan.

As far back as 2009, a Riverpoint Campus Master Plan Update concluded that significant space was needed to accommodate the growth and development of health sciences research and education programs expected and needed in the state. Significant space was also identified in the most recent master plan update—the WSU Spokane 2014-2024 Master Plan Update, page 20.3 It called for 150,000-160,000 additional square feet. In 2017, the campus was able to remodel and reconfigure existing and leased space to accommodate 35,000 of that.

A reassessment of needs occurred in a May 2017 Program Master Plan by FLAD Architecture for facility needs. It describes the three colleges' desire to increase simulation and immersive learning; small group work areas for active learning opportunities; and wet and dry labs, vivarium space, and innovation spaces. The plan found that nearly 174,848 square feet were urgently needed by 2021 for academic, office, research and innovation space. See FLAD Contents Page and Summary of Space Needs in **Appendix D**. In 2017, we leased and remodeled 24,264 net square feet, leaving the eventual need for approximately 150,100 net square feet.

b. Does the project follow the sequencing laid out in the Master Plan (if applicable)? If not, explain why it is being requested now.

Yes, the project follows the sequencing of the 2009 Riverpoint Campus Master Plan and the 2014-2024 Master Plan Update[4] and is informed by the 2017 program master plan by FLAD Architecture. It is included in the WSU Development Plan.[5]

7. Integral to institution's Academic Programs Plan:
Describe the proposed project's relationship and relative importance to the institution's most recent Academic Programs Plan:

This facility supports the goals of the WSU strategic plan[6] that were developed to achieve significant progress toward WSU's aspiration of becoming one of the nation's leading land-grant universities, preeminent in research and discovery, teaching, and engagement. The plan emphasizes the institution's unique role as an accessible, approachable research institution that provides opportunities to an especially broad array of students while serving the state of Washington broad portfolio of social and economic needs. The strategic plan also reaffirms WSU's land-grant mission by focusing greater attention system-wide on increasing access to educational opportunity, responding to the needs of the State of Washington through research, instruction, and outreach, and contributing to economic development and public policy.

Two central foci of the strategic plan include offering a truly transformative educational experience to undergraduate and graduate students and accelerating the development of a preeminent research portfolio. This new building is critical to achieving these goals. Specifically, to develop a preeminent research portfolio (referred to in WSU's stated Grand Challenges[7]), this facility will provide modern space needed for WSU's growing and strong health sciences program. This program plan is directly related to the "Sustaining Health" grand challenge[8]

Twelve metrics related to providing a transformative student experience will measure WSU's success in achieving our strategic plan goals. They include enhancing the quality and relevance of the learning experience, providing more personalized student services, expanding learning opportunities outside the classroom, and developing a more cohesive student community.

Must the project be initiated soon in order to:

a. Meet academic certification requirements?

Yes, the accrediting body for the Elson S. Floyd College of Medicine (ESFCOM), the newest college on campus, is the Liaison Committee on Medical Education (LCME). Per Standard 5 of the LCME's accreditation requirements, ESFCOM must have sufficient buildings, equipment, study space, lounge space and storage space to be accredited and remain in compliance with the standards. Small group study space and lounge space are opportunities for improvement. ESFCOM is still in preliminary accreditation and must

[4] https://spokane.wsu.edu/about/campus-facts/master-plan/
[5] http://couggis.wsu.edu/DevelopmentProgram/Biennium/Spokane19-21.aspx
[6] https://strategicplan.wsu.edu/
[7] https://research.wsu.edu/research-initiatives/grand-challenges/
[8] https://research.wsu.edu/research-initiatives/sustaining-health/

undergo two more rounds of review within the next few years before it is awarded full accreditation. Thus, space is critical to achieving full accreditation.

Additionally, WSU is accredited as an institution across all campuses through the Northwest Commission on Colleges and Universities (NWCCU). Not meeting accreditation standards on the Spokane campus will affect the accreditation of WSU as a whole because degree requirements are expected to be equivalent statewide. Limited access to teaching wet-labs negatively impacts this academic imperative. The need for more simulation labs in nursing became even more critical when they became a required part of the curriculum in 2017.

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

Yes. A new Biomedical and Health Sciences building will help grow the Nutrition and Exercise Physiology program by 70% (BS) and over 100% (master's), as well as the College of Nursing's undergraduate programs by over 30%--all by 2023 and all in high demand fields.

c. Permit initiation of new programs?

Yes, the space would allow for the 360 undergraduates that would result from the new joint bachelor's of science programs, also called the +2 BS degree programs explained above. Without the new building, the new programs could not be initiated.

8. Suitability of Existing Space:
Identify space upgrades needed and/or lack of suitable space needed to address existing and/or future program standards and needs.

Construction of this facility is necessary to meet existing programs needs as well as for future program needs.

With regard to existing program standards, most of the existing educational and research labs on the WSU Spokane campus were designed and built prior to the campus being designated specifically for health sciences. Of the 18 educational labs on campus, less than 50% are located in PBS, the only building constructed since the commissioning of the health sciences campus. These labs are occupied by the colleges of Pharmacy and Medicine, and all existing wet lab feasible spaces have been built out as of early 2018.

Nearly half of the educational lab space on campus is housed in two of the oldest buildings, one of which has program-specific dry lab space that is not suitable (and cost prohibitive) for conversion to wet lab space. The Health Sciences Building (HSB), has three class labs which are currently being used by the College of Pharmacy. HSB is also a shared facility with Eastern Washington University (EWU), and is not a candidate for needed lab expansion. EWU utilizes approximately a quarter of the entire campus square footage and schedules nearly 100% of academic classroom space in the evening.

The remaining available educational lab space is located in the nursing building and is used by the College of Pharmacy. This building is operating at full capacity for the College of Nursing's priority functions, and it is not a reasonable candidate for lab or academic expansion that would jeopardize the success of well-established programs within the college.

In addition to educational lab space, classroom space on campus has become challenging as cohort sizes grow across all programs of study. Active learning spaces for large groups, as well as break-out, study spaces for smaller groups, are both in high demand. With limited space inventory properly fitting these needs, we are often required to schedule groups in less-than-ideal spaces. Steps have been taken to re-envision and remodel existing space, but with a long-term goal of expanding undergraduate programs on campus, as well as cohabitating with EWU, it does not make sense to deplete the supply of traditional, lecture-style accommodations.

With regard to future program needs, to accommodate the planned 2+ B.S. degree programs referenced in the sections above, additional lab and academic space will be necessary to not only meet student needs while they are

enrolled in their chosen track of study, but also to retain students as they consider pursuing a higher degree of education after completing their coursework.

9. Availability of Space/Utilization on Campus:

Describe the institution's plan for improving space utilization and how the project will impact the following:

a. The utilization of classroom space

b. The utilization of class laboratory space

Appendix E lists the raw numbers in the HECB standard formula format. Currently, the Spokane campus offers predominately upper division, graduate and professional degree programs in health science fields. Coursework does not involve traditional hours in classroom and teaching labs as expected at a campus focused on regular four-year degree programs. The standard assumes space use follows a traditional campus model that is not wholly applicable in the case of the Spokane campus programs. This project will include more research laboratories, active learning spaces and offices than it will new traditional teaching classrooms. However, as the Spokane campus matures forecasted enrollment in programs grow, classroom and teaching laboratory use will improve.

The professional degree programs (Pharmacy, Nursing, Medicine, etc.) require students to spend much of their time in clinical settings, often off campus. Also, WSU Spokane shares campus teaching space with Eastern Washington University (EWU). EWU use of WSU space is not captured in the Availability of Space table, however, they utilize approximately a quarter of the entire campus square footage and schedule nearly 100% of academic classroom space in the evening.

Because the majority of the WSU Spokane campus degree programs do not line up with the traditional four-year degree program counting of classroom/lab time and fullness, the calculated use figures do not fit into the current HECB formula. The HECB formulas were established years ago and do not currently have an allowance for various types of advanced and professional degrees or differing institutional missions.

Appendix E1 elaborates on the scheduling anomalies associated with the health science degree programs. As an example, **Appendix E2** illustrates a semester's schedule for one College of Medicine course and its complexities. Campus schedulers keep elaborate spreadsheets to be sure the spaces are fully used but no automated process is available yet to capture the data in the format the HECB form prescribes.

10. Condition of Building:

Provide the facility's condition score (1 superior – 5 marginal functionality) from the 2016 Comparable Framework study, and summarize the major structural and systems conditions that resulted in that score. (Provide selected supporting documentation in appendices, and reference them in the body of the proposal.)

This predesign request is for construction of a new facility, not renovation of an existing building. However, of the 10 buildings located on the WSU Spokane campus, four house functions similar in nature to the new space that is needed: Pharmaceutical and Biomedical Sciences (PBS), Nursing (NRS), Health Sciences Building (HSB), and Health Education and Research Building (HERB).

A relatively young campus when compared with Pullman, Spokane's growth has been in response to the addition of programs and colleges since the mid-1990's. Due to this reactive nature, the facilities listed above were built or remodeled (i.e. HERB) to accommodate specific programmatic needs.

Per the last state Comparable Framework refresh in 2016, two of the four buildings with similar functions had a Comparable Framework Study score of 2– HERB, built in 1994, and HSB, built in 2000. A more recent (2017) Facility Condition Assessment conducted by WSU Facilities Operations personnel, reflected a similar findings and a sustained Comparable Framework Study score of 2 (Adequate). This score is primarily due to failing or outdated mechanical and electrical systems within each building that need to be (or are in the process of being) replaced.

These existing facilities are integral to the campus, serving current occupants whose needs they best fit, such as Health Policy Administration, Nutrition and Exercise Physiology, and Speech and Hearing Sciences. (It should be noted that EWU occupies 50% of HSB full time, with specialized spaces to accommodate its program needs.) The remaining two buildings, PBS (2014) and NRS (2008), have a Comparable Framework Study score of 1 (Superior), as reported in both the 2016 state refresh and 2017 WSU Facilities Operations assessments, and are two of the most densely occupied and highly utilized buildings on campus.

The construction of a new facility would allow the programs (Pharmacy and Nursing), currently at capacity in PBS and NRS, the space to grow.

APPENDIX A

WSU SPOKANE LEASED SPACE (as of 2018)

BUILDING NAME	BUILDING ADDRESS	WSU DEPT./PROGRAM	TOTAL LEASED SF	NSF	LEASE TERM
Riverfront Office Park	534 E Spokane Falls Blvd - SUITE 200	ESFCOM	7231	5777	exp. 06/2025
Riverfront Office Park	534 E Spokane Falls Blvd - SUITE 201	ESFCOM	1463	1198	exp. 06/2025
Riverfront Office Park	534 E Spokane Falls Blvd - SUITE 300	ESFCOM	7245	5780	exp. 05/2025
Riverpoint One	501 N. Riverpoint Blvd - SUITE 235	Criminal Justice	1061	866	exp. 03/2026
Gateway 5	140 S. Arthur - SUITE 500	Extension (multiple programs)	3651	2912	exp. 09/2024
Gateway 6	901 E. 2nd Ave. - SUITE 210	Small Business Development Center	3634	2989	exp. 08/2023
		TOTALS	24,285	**19,522**	

APPENDIX B

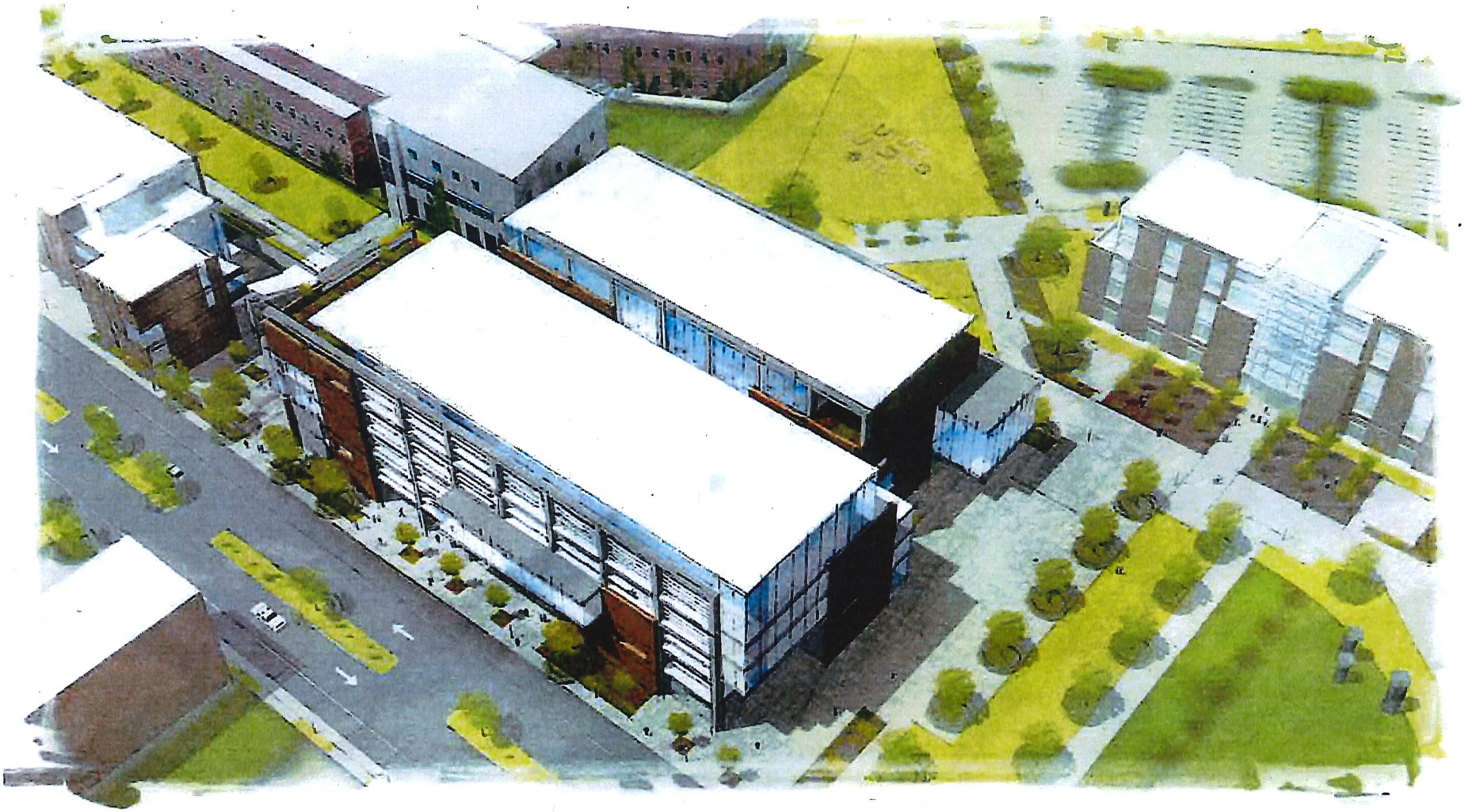
Biomedical and Health Sciences Building Phase I, Phase II, Phase III

Future campus buildings should be developed with an urban flavor yet retain the human scale at street level.

2009 2010 2011 2012 **2013** 2014 2015 2017 FUTURE

Biomedical and Health Sciences Building Phase 1

2009 2010 2011 2012 2013 2014 **2015** 2017 FUTURE



Biomedical and Health Sciences Building Phase 2

2009 2010 2011 2012 2013 2014 2015 **2017** FUTURE

Biomedical and Health Sciences Building Phase 3

APPENDIX C

Spokane-Biomedical and Health Sc Ph2	Anticipated Growth in Bachelor's Degrees	Anticipated Growth in High Demand Bachelor's Degrees	Anticipated Growth in Advanced Degrees	Anticipated Growth in High Demand Advanced Degrees
2015-16 Actual	5,517	1,976	1,480	805
Additional Degrees Generated by Project	200	200	50	50
Projected Degrees with Building Project	5,717	2,176	1,530	855
Projected Growth Above 2015-16 Actual Degrees	3.6%	10.1%	3.4%	6.2%
Current 2018-19 Target	5,946	2,203	1,481	895
Percent of 2015-16 Actual over 2018-19 Target	92.8%	89.7%	99.9%	89.9%
Projected Degrees as a % of 2018-19 Target	96.1%	98.8%	103.3%	95.5%

Comments: An increase of 200 new bachelor's degrees is expected and of those 200 will be in high demand degree programs. An additional 50 advanced degrees will be awarded and 50 of those wll be in high demand areas. Refer to project proposal Section 4. for more details.

APPENDIX D

Space Study Excerpt

01

EXECUTIVE SUMMARY

Vision
Problem Statements
Campus & College Goals
Measures of Success
Findings & Conclusions

02

NEEDS & METRICS

Projected Campus Population
Summarized Space Needs
Existing & Future Space Needs
Analysis of Efficacy & Capacity
Planned Growth Packages

03

PROGRAM FRAMEWORK

Alternative Concepts
Concepts Evaluations
Recommended Path Forward

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WSU Spokane Summary of Space Needs

Program	2016 Existing NSF	2017 NSF Growth	2019 NSF Growth	2021 NSF Growth	Total Growth
College of Medicine Total	41,470	11,810	27,482	13,010	52,302
College of Nursing Total	31,362	(520)	720	760	960
College of Pharmacy Total	60,981	6,164	6,040	4,980	17,184
Shared Academic Total	91,087	0	50,354	0	50,354
Campus Wide Admin/Office Total	97,615	4,320	20,000	25,130	49,450
Shared Vivarium	10,998	2,490	0	2,108	4,598
Grand Total	333,513	24,264	104,596	45,988	174,848

APPENDIX E

AVAILABILITY OF SPACE

Project Name: Spokane-Biomedical and Health Sci Ph2

Campus location: WSU Spokane

REQUIRED FOR ALL CATEOGRIES EXCEPT ACQUISITION AND INFRASTRUCTURE

Identify the average number of hours per week each (a) classroom seat and (b) classroom lab is expected to be utilized in Fall 2018 on the proposed project's campus. Please fill in the gold shaded cells for the **campus** where the project is located.

(a) General University Classroom Utilization	
Fall 2017 Weekly Contact Hours	16,044
Multiply by % FTE Increase Budgeted	0%
Expected Fall 2018 Contact Hours	16,044
Expected Fall 2018 Contact Seats	1,821
Expected Hours per week Utilization	**8.8**
HECB GUC Utilization Standard	22.00
Difference in Utilization Standard	-60%

(b) General University Lab Utilization	
Fall 2017 Weekly Contact Hours	3,447
Multiply by % FTE Increase Budgeted	0%
Expected Fall 2018 Contact Hours	3,447
Expected Fall 2018 Class Lab Seats	447
Expected Hours per Week Utilization	7.7
HECB GUL Utilization Standard	16.00
Difference in Utilization Standard	-52%

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

The WSU Spokane campus predominately offers upper division, graduate and professional degree programs in health science fields. Coursework does not involve traditional hours in classroom and teaching labs as expected at a campus offering regular four year degree programs. The standard assumes use follows a traditional campus model which does not apply in the case of the Spokane campus. The professional degree programs (Pharmacy, Nursing, Medicine, etc.) require students to spend much of their time in clinical settings, often off campus. WSU Spokane also shares teaching space with Eastern Washingyon University (EWU). EWU use of WSU space is not captured in this table but utilize approximately 1/4 of the entire campus square footage and schedules nearly 100% of academic classroom space in the evening. (See attached, Appendix E1 and E2, for more information related to graduate and professional degree program scheduling which does not fit the normalized HECB formula assumptions.)

This project will include more research laboratories, active learning spaces and offices than it will new traditional teaching classrooms. However, as the Spokane campus matures forecasted enrollment in programs grow, classroom and teaching laboratory utilization will improve.

APPENDIX E1

ADDITIONAL NOTES RELATED TO WSU SPOKANE TEACHING SPACE UTILIZATION

The WSU Spokane campus predominantly offers upper division and graduate and professional degree programs in health science fields. There are three colleges headquartered on the WSU Spokane campus: Elson S. Floyd College of Medicine, College of Nursing, College of Pharmacy and Pharmaceutical Sciences. The HECB utilization formula was based on a traditional four-year degree model with students spending time in classrooms for lectures and hands-on teaching laboratories. If the WSU Spokane was charged with educating lower division students (freshman and sophomores), then one would expect higher classroom and teaching laboratory utilization figures, but in fact, the campus programs and associated curricula encompass a different model. The HECB formula also does not take into consideration teaching space that is shared with other higher education institutions.

Non-Traditional Meeting Times: The meeting times for the WSU Spokane program curricula are not the same as traditional four-year degree programs. Capturing true space use statistics is more difficult than the almost 20-year-old HECB space formula prescribes. Often, courses are held first with the whole cohort of students, and then in breakouts, with the cohort broken into third or fourths. At times these cohorts are assigned to multiple rooms, and at times they meet in random, irregular patterns both on and off campus. Because of system limitations, WSU is incapable of capturing this sporadic data, and the system does not accurately capture classroom and lab usage. Campus schedulers keep elaborate detailed spreadsheets to track the activity and space use, in the absence of an automated scheduling system that could capture the complicated space use patterns. Appendix B2 shows the sporadic meeting patterns for just one course whose pattern is typical in the health science field programs.

Clinical Rotations and Practicums: Another space use anomaly relates to clinical rotations and practicums held "off-campus." The single largest program on campus, nursing, sends junior and senior students into the community for clinical rotations and practicums which have a major impact on classroom utilization statistics. The hospitals and clinics serve as their classrooms and labs on those days. The upper-division undergraduate nursing students don't follow space use patterns assumed in the HECB standards.

The state HECB formula assumes that educational programs across all higher education agencies are alike related to facility space utilization patterns. In fact, the use of classrooms and class labs are not alike because of the differing types of programs offered and the missions of each type of institution. By not having separate standards for the different types of institutions, in particular, graduate and professional degree programs, the statistics can be misleading and misinterpreted.

In the absence of more current and/or customized standards, however, as the Spokane campus matures and programs and enrollments grow, the classroom utilization will improve and the need for more teaching labs will increase.

APPENDIX E2

SAMPLE OF IRREGULAR MEETINGS TIMES/BREAKOUTS FOR ONE PROFESSIONAL DEGREE COURSE: Healthcare and Foundations of Medical Sciences 501

Date	Time	Location	Session Title	Lead Instructor(s)	Instruction Setting
8/21/2017	8:10-9:30	SAC 20	You Make The Diagnosis	George Novan	LGAL
	11:10-12:00	SAC 241	Modern Inovations in Medical Tools	Radha Nandagopal	Small Group Session
	13:10-14:00	PBS 112-118	Vital Signs Workshop	Radha Nandagopal (8 facilitators)	Small Group Session
	14:10-16:00	PBS 112-118	Living Anatomy	Dave Conley	LGAL
8/22/2017	8:10-9:00	SAC 241	Self Directed Learning	Ann Poznanski	LGAL
	9:10-10:30	SAC 241	Does Doctor Know Best	Radha Nandagopal, Bill Kabasenche	LGAL
	10:30-12:00	SAC 241	Medical Ethics	Bill Kabasenche	LGAL
	13:10-15:00	SAC 241	Intro to Technology	Erika Fleck	LGAL
	15:10-17:00	Anatomy Lab	Introduction to Cadavers	Dave Conley, Bill Kabasenche	LGAL
8/23/2017	8:10-9:30	SAC 241	Intro to the H&P Template	Radha Nandagopal	LGAL
	9:40-12:00	PBS 112-118	Practice Limited Physical Exam Skills	Radha Nandagopal (8 facilitators)	Small Group Session
	13:10-14:00	SAC 241	Musculoskeletal Exam	Carl Heine	LGAL
	14:10-15:00	PBS 112-118	Practice MS Exam	Radha Nandagopal (8 facilitators)	Small Group Session
	15:10-17:00		Student Interest Group meetings	Faculy/Staff	
8/24/2017	8:10-9:00	SAC 241	Assessment	Dawn Cooper	LGAL
	9:10-10:00	SAC 241	Introduction to Population Health	Pat Butterfield	LGAL
	10:10-11:00	PBS 112-118	Discuss Regional Health Issues (in Learning Community Groups)	Pat Butterfield (+ADCEs)	Small Group Session--Regional Campus Groups
	11:10-12:00	PBS 112-118	Learning in Local Communities	Dawn DewWitt	LGAL
	13:10-14:00	SAC 20	Jess Walter's Reading	Pat Butterfield	LGAL
	14:10-16:00	SAC 241	Learning Community meetings	Radha Nandagopal, Steve Grossman	LGAL
8/25/2017	8:10-9:00	SAC 241	How to Work Through a Case	Dawn DeWitt	LGAL
	9:10-10:00	SAC 241	Journalistic Approach to Collecting A History and "Telling a story"	Radha Nandagopal, Carl Heine	LGAL
	10:10-11:00	PBS 112-118	Intro to HEENT Exam	Carl Heine (8 facilitators)	Small Group Session
	11:10-12:00	PBS 112-118	Practice HEENT Exam	Radha Nandagopal	Small Group Session
	13:10-14:00	SAC 241	Clinical Reasoning	George Novan	LGAL
	14:10-18:00		Social Event	All Faculty	
8/28/2017	8:10-9:00	SAC 241	Sick - Not Sick	Carl Heine	LGAL
	9:10-12:00	South Facility	BLS Course	Carl Heine	2 groups of 30 students
	13:10-14:00	SAC 241	Physiology of Resuscitation	Carl Heine	LGAL
	14:10-16:00	SAC 241	Finding and Assessing Evidence	Dawn Cooper, Kathryn Vela	LGAL
8/29/2017	8:10-9:00	SAC 241	Demonstration of Neurology Exam	Roger Cooke	LGAL
	9:10-12:00	PBS 112-118	Practice Physical Exam Skills II	Radha Nandagopal	Small Group Session
	13:10-15:00	SAC 241	How Has Science Changed Medicine	Dawn Cooper, Chris Coppin	LGAL
	15:10-16:00	SAC 20	P4 Medicine	Lucia Peixoto	LGAL
8/30/2017	8:10-9:00	SAC 241	Physician as Leader	John Tomkowiak	LGAL
	9:10-10:00	SAC 241	Health Care Systems	Carl Heine	LGAL
	10:10-12:00	SAC 241	Test Your Knowledge: You've learned something	Radha Nandagopal	LGAL
	13:10-15:00	PBS 112-118	Practice H&Ps Emphasizing Verbal Presentations	Radha Nandagopal (8 facilitators)	Small Group Session
8/31/2017	8:10-10:00	SAC 241	Healthy Lifestyle, Healthy Learning	Teraguchi, Grossman, Davis, Duncan, Skaer	LGAL
	10:10-11:00	SAC 241	Obstacles to your Success	Teraguchi, Grossman, Davis, Duncan, Skaer	LGAL
	11:10-12:00	PBS 112-118	Discussion on Student/Physician Wellness	Teraguchi, Grossman, Davis, Duncan, Skaer	Small Group Session
	13:10-17:00		Selection of Healthy Activities	Carl Heine	
9/1/2017	8:10-12:00	PBS 112-118	Modified OSCE with Feedback Session	Radha Nandagopal (facilitators??)	OSCE
	13:10-14:00	PBS 112-118	Introduction to Immunization Case	Pat Butterfield	LGAL
	14:10-15:00	SAC 241	Transition to Intersession	Daniel Teraguchi, Dawn DeWitt	LGAL
9/5/2017	8:10-10:00	PBS 114 (Clinical Campus)	Introduction to Clinical Campus	ADCEs	Small Group Session
	10:10--11:00	PBS 114 (Clinical Campus)	Weekly Case Discussion	Pat Butterfield	Small Group Session
	11:10--12:00	PBS 114 (Clinical Campus)	Leadership 501	Jeff Haney	Small Group Session
	1:10--4:00	PBS 114 (Clinical Campus)	Art and Practice of Medicine	Radha Nandagopal	Small Group Session
9/8/2017	8:10--9:00	PBS 114 (Clinical Campus)	Application of Ethical Principles	Bill Kabasenche	Small Group Session
	9:10--10:00	PBS 114 (Clinical Campus)	Scholarship/EBM	Dawn Cooper	Small Group Session
	10:10--12:00	PBS 114 (Clinical Campus)	Clinical Reasoning--Master Clinician	Pat Butterfield	Small Group Session
	1:10--2:00	PBS 114 (Clinical Campus)	Discussion of Cases -- Students	ADCE's	Small Group Session

APPENDIX E2 - Continued

Day(s) of Week							
M/T/Th	9/11 – 11/3	8:10--9:00	SAC 241	Anatomy	Dave Conley	LGAL	
M/T/Th	9/11 – 11/2 (M,T,Th)	9:10--12:00	Anatomy Lab	Anatomy	Dave Conley	Small Group Session	
	9/15 – 11/3(F)	11:10--12:00	Anatomy Lab	Anatomy	Dave Conley	LGAL	
Monday	9/11 – 11/3 (M)	1:10 -- 2:00	PBS 112-118 & SAC 241	CBL Session #1	(9 Facilitators)	Case Based Learning	
Monday	9/11 – 11/3 (M)	2:10 -- 4:00	SAC 241	Histology	Levente Kapas	LGAL	
Monday	9/25 - 10/30	4:10 - 6: 00	SAC 241	Histology	Levente Kapas	Small Group Session	
Tuesday	9/12 – 11/14 (T)	1:00 -- 2:00	SAC 241	Art & Practice of Medicine	Radha Nandagopal	LGAL	
Tuesday	9/12 – 11/14 (T)	2:10 -- 4:00	PBS 112-118	Art & Practice of Medicine	TBD (8 small group leaders)	Small Group Session	
Wednesday	9/13 – 11/1 (W)	8:10 -- 10:00	PBS 112-118 & SAC 241	CBL Session #2	(9 Facilitators)	Case Based Learning	
Wednesday	9/13 – 11/1 (W)	10:10 -- 12:00	SAC 241	Histology	Levente Kapas	LGAL	
Wednesday	9/13 – 11/1 (W)	1:10 -- 3:00	SAC 241	Scholarship	Dawn Cooper	LGAL	
Wednesday	9/27/2017	12:00 - 1:00	SAC 20	**Town Hall Mtg.	ALL Faculty	LGAL	
Wednesday	10/25/2017	12:00 - 1:00	SAC 20	**Town Hall Mtg.	ALL Faculty	LGAL	
Thursday	5-Oct	1:10 -- 2:00	SAC 20	Assessment	Dawn Cooper	LGAL	
Thursday	2-Nov	1:10 -- 2:00	SAC 20	Assessment	Dawn Cooper	LGAL	
Thursday	9-Nov	10:10-11:00	SAC 241	Master Clinician	TBD	LGAL	
Thursday	9-Nov	8:10 -- 10:00	PBS 112-118 & SAC 241	CBL Session #3	TBD	Small Group Session	
Friday	9/15 – 11/17 (F)	8:10 -- 10:00	PBS 112-118 & SAC 241	CBL Session #3	(9 Facilitators)	Small Group Session	
Friday	9/15 – 11/17 (F)	10:10 -- 11:00	SAC 241	Master Clinician	TBD	LGAL	
Friday	9/15 – 11/3 (F)	11:10 -- 12:00	SAC 241	Anatomy	Dave Conley	LGAL	
Friday	6-Oct	1:00 - 2:00	SAC 241	Mastery Exam Review	Dawn Cooper	Assessment	
M	11/6 – 11/13	8:10 -- 11:00	SAC 241	Pathology	Paul Eastvold	LGAL	
T/W/Thu	11/7 – 11/9	11:10--12:00	SAC 241	Pathology	Paul Eastvold	LGAL	
T/W	11/7 – 11/8	8:10 -- 10:00	SAC 241	Scholarship	Dawn Cooper	Small Group Session	
T/W	11/7 – 11/8	8:10 -- 10:00	PBS 112, 114 & 116	CBL Session #2	(9 Facilitators)	Small Group Session	
T/W/Thu	11/14 – 11/16	8:10 -- 10:00	SAC 241	Scholarship	Dawn Cooper	Small Group Session	
T/W/Thu	11/14 – 11/16	8:10 -- 10:00	PBS 112 & 114	CBL Session #2	(9 Facilitators)	Small Group Session	
T/W/Thu/F	11/14 – 11/17	11:10 -- 12:00	SAC 241	Pathology	Paul Eastvold	LGAL	
Monday	20-Nov	8:10 - 12:00	**Riverpoint Office Park (ROP)	OSCE	TBD	Small Group Session	
Monday	20-Nov	1:10 - 5:00	**Riverpoint Office Park (ROP)	OSCE	TBD	Small Group Session	
Tuesday	21-Nov	8:10 -- 12:00	SEWC 122	Assessment	Dawn Cooper	Assessment	
Tuesday	21-Nov	1:10 -- 5:00	SAC 20	Progress Testing	Dawn Cooper	Assessment	
Wednesday	22-Nov	8:10 - 12:00	SAC 241	Feedback	TBD	Feedback	
Wednesday	22-Nov	1:10 - 5:00	SAC 241	Feedback	TBD	Feedback	

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365 - Washington State University
Capital Project Request
2019-21 Biennium

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Version: 10 2019-21 WSU Capital Budget Request

Report Number: CBS002
Date Run: 7/30/2018 1:43PM

Project Number: 40000012
Project Title: Spokane-Biomedical and Health Sc Building Ph II

Description

Starting Fiscal Year: 2020
Project Class: Program
Agency Priority: 2

Project Summary

WSU is requesting predesign funds for a new facility to add educational and research space on its health sciences campus in Spokane. This is critical in helping the university fulfill its mission of educating doctors, nurses, pharmacists and other allied health professionals. The WSU colleges of Medicine, Nursing, and Pharmacy and Pharmaceutical Sciences headquartered on the Spokane campus serve high-demand fields and would share the new Biomedical and Health Sciences Building Phase II. Research activity at WSU Spokane has almost tripled since 2010 and is approaching $30 million annually. The university has worked to meet the growing needs of the health sciences colleges through remodeling existing buildings, but owned space has now been fully utilized, forcing WSU to lease nearly 20,000 net square feet for office space and critical simulation labs. In addition to the current space shortage and planned growth in existing programs, the campus plans to create six, two-year bachelor's degree-completion programs. These new programs would add a total potential of 360 undergraduates to campus per year for a total of 32% student enrollment growth. Construction of this facility is necessary to meet existing programs needs as well as for future program needs.

Project Description

Identify the problem or opportunity addressed. Why is the request a priority? (Numbers not served, students without classrooms, budget savings, safety improvements, history, and other backup necessary to understand the need for the request.)

WSU is requesting predesign funds for a new facility to add educational and research space on its health sciences campus in Spokane. This is critical in helping the university fulfill its mission of educating doctors, nurses, pharmacists and other allied health professionals. The WSU colleges of Medicine, Nursing, and Pharmacy and Pharmaceutical Sciences headquartered on the Spokane campus serve high-demand fields and would share the new Biomedical and Health Sciences Building Phase II. The university has worked to meet the growing needs of the health sciences colleges through remodeling existing buildings, but owned space has now been fully utilized, forcing WSU to lease nearly 20,000 net square feet for office space and critical simulation labs. In addition to the current space shortage and planned growth in existing programs, the campus plans to create six, two-year bachelor's degree-completion programs. These new programs would add a total potential of 360 undergraduates to campus per year for a total of 32% student enrollment growth. Construction of this facility is necessary to meet existing programs needs as well as for future program needs.

What will the request produce or construct (i.e., design of a building, construction of additional space, etc.)? When will the project start and complete? Identify whether the project can be phased, and if so, which phase is included in the request.

WSU is requesting predesign funds for a new facility to add educational and research space on its health sciences campus in Spokane. If funded in the 2019-21 Capital Budget, predesign would begin as soon as funding was released. Requests for design and construction funding would follow in future biennia.

How would the request address the problem or opportunity identified in question #1? What would be the result of not taking action?

Construction of this facility is necessary to meet existing programs needs as well as for future program needs. Most of the existing educational and research labs on the WSU Spokane campus were designed and built prior to the campus being designated specifically for health sciences. Of the 18 educational labs on campus, less than 50% are located in PBS, the only building constructed since the commissioning of the health sciences campus. These labs are occupied by the colleges of Pharmacy and Medicine, and all existing wet lab feasible spaces have been built out as of early 2018.

Nearly half of the educational lab space on campus is housed in two of the oldest buildings, one of which has program-specific dry lab space that is not suitable (and cost prohibitive) for conversion to wet lab space. The Health Sciences Building (HSB), has three class labs which are currently being used by the College of Pharmacy. HSB is also a shared facility with Eastern Washington University (EWU), and is not a candidate for needed lab expansion.

The remaining available educational lab space is located in the nursing building and is used by the College of Pharmacy. This building is operating at full capacity for the College of Nursing's priority functions, and it is not a reasonable candidate for lab or academic expansion that would jeopardize the success of well-established programs within the college.

In addition to educational lab space, classroom space on campus has become challenging as cohort sizes grow across all programs of study. Active learning spaces for large groups, as well as break-out, study spaces for smaller groups, are both in

Description

high demand. With limited space inventory properly fitting these needs, we are often required to schedule groups in less-than-ideal spaces. Steps have been taken to re-envision and remodel existing space, but with a long-term goal of expanding undergraduate programs on campus, as well as cohabitating with EWU, it does not make sense to deplete the supply of traditional, lecture-style accommodations.

Additionally, this space would allow for 360 undergraduates that would result from the new joint Bachelors of Science programs, also called the +2 BS degree programs. Without the new building, the new programs could not be initiated. Additional lab and academic space will be necessary to not only meet student needs while they are enrolled in their chosen track of study, but also to retain students as they consider pursuing a higher degree of education after completing their coursework.

Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc. Be prepared to provide detailed cost backup.

The Biomedical and Health Sciences Building will enable the campus to award an additional 200 plus bachelor's degrees in high demand fields, as well as an additional 50 plus advanced degrees in high demand fields.

Elson S. Floyd College of Medicine (EFSCOM) students will be impacted as the college plans to increase its entering class by 33%--to 80 students per year by fall of 2019. This would result in 160 first- and second-year medical students and 30 third- and fourth-year medical students on campus (the remaining third- and fourth-year student cohorts will be distributed across other WSU campuses) in 2020.

Other growing programs within ESFCOM are Speech and Hearing Sciences and Nutrition and Exercise Physiology. The latter will offer new degree programs in the fall of 2018 and expects to grow its BS program from 46 to 80 students and its MS program from 35 to 80 students.

College of Nursing students will be impacted as the university is prepared to meet growing demand for nurses and to increase the number of newly admitted nursing students by 30% between fall 2018 and 2023. A particular need for nursing students is simulation labs, where student nurses learn how to care for patients with complicated health care needs in a safe, supervised environment. Existing simulation spaces have over 9,000 student visits per semester, taxing the space.

The College of Pharmacy and Pharmaceutical Sciences has proposed six new joint bachelor of sciences degrees. These new programs would add a total potential of 360 undergraduates to campus per year for a total of 32% student enrollment growth.

Distance learning is particularly important to health science research and instruction given the high demand for graduates in those fields, and the fact that programs based on the WSU Health Sciences Spokane campus radiate to serve place-bound students statewide. Using videoconferencing and modern learning-management technologies, faculty in Spokane currently provide distance learning to place-bound students around the state, and the campus expects to increase those offerings in response to demand.

We anticipate that the Biomedical and Health Sciences Building will allow us to continue to innovate and grow distance-learning options for place-bound students in these high-demand fields. We also expect to develop and deploy technologies to serve patients and health-care providers in rural and underserved locations throughout the state.

Does the request include IT-related costs? (See the IT Appendix for guidance, and follow directions to meet the OCIO review requirement.) What alternatives were explored? Why was the recommended alternative chosen?

This request does not include funding for any IT-related costs.

Will non-state funds be used to complete the project? How much, what fund source, and could the request result in matching federal, state, local, or private funds?

Non-state funds will not be used to complete the project. None have been identified.

Describe how the project supports the agency's strategic/master plans, contributes to statewide goal, or enables the agency to perform better. Reference feasibility studies, master plans, space programming, and other analyses as appropriate.

This facility supports the goals of the WSU strategic plan that were developed to achieve significant progress toward WSU's aspiration of becoming one of the nation's leading land-grant universities, preeminent in research and discovery, teaching, and engagement. The plan emphasizes the institution's unique role as an accessible, approachable research institution that provides opportunities to an especially broad array of students while serving the state of Washington broad portfolio of social and economic needs. The strategic plan also reaffirms WSU's land-grant mission by focusing greater attention system-wide on increasing access to educational opportunity, responding to the needs of the State of Washington through research, instruction, and outreach, and contributing to economic development and public policy.

Two central foci of the strategic plan include offering a truly transformative educational experience to undergraduate and graduate students and accelerating the development of a preeminent research portfolio. This new building is critical to achieving these goals. Specifically, to develop a preeminent research portfolio, this facility will provide modern space needed

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for WSU's growing and strong health sciences program.
Results Washington World-class education goal 1.3.f is to increase the number of students enrolled in STEM and identified high-demand employment programs in public 4-year colleges. This facility will allow increased enrollment in STEM and identified high-demand employment programs within the College of Nursing, the College of Medicine, and the College of Pharmacy and Pharmaceutical Sciences.
The Results Washington Healthy & safe community's goal "Healthy People" aims to provide access to good medical care to improve people's lives. Included in this is increasing the percentage of residents who report they have a personal doctor or health care provider. This project supports the statewide goal by growing the number of health-care related professionals available to provide this service.

For projects linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda. See Chapter 14.4 in the 2017-19 Operating Budget Instructions

This project is not linked to the Puget Sound Action Agenda.

Is there additional information you would like decision makers to know when evaluating this request?

Location

City: Spokane **County:** Spokane **Legislative District:** 003

Project Type

New Facilities/Additions (Major Projects)

Growth Management impacts

WSU Spokane's physical planning policies are coordinated with many agencies and government units. The Growth Management Act and its companion Traffic Demand Management legislation and the State Environmental Policy Act, however, are applicable to WSU's physical facilities and programs. Growth Management Act (GMA)-WSU will coordinate with Counties and Municipalities throughout the State to ensure compliance with GMA. WSU will avoid construction or activities which would permanently impair "critical" areas on its campuses as they are defined in the GMA. Transportation Demand Management-A companion piece of legislation sets forth a policy for Transportation Demand Management in which the State of Washington will provide leadership. The Director of the State of Washington Department of General Administration (DGA) is required to develop a commute trip reduction plan for state agencies which are Phase I major employers. A major employer is a private or public employer with one hundred or more full time employees at a single work site located with a county containing a population in excess of 150,000. WSU will conform to the plans developed by DGA. State Environmental Policy Act (SEPA)-WSU has adopted procedures set forth in the State Environmental Policy Act Handbook December 1988 and the State Environmental Policy Act Rules Chapter 197-11 Washington Administrative Code Effective April 4, 1984. Adherence to these procedures will be one of the principal means by which WSU coordinates its compliance with Growth Management requirements.

New Facility: Yes

How does this fit in master plan

Please See http://facilitiesservices.wsu.edu/resources/pdf/masterplan/pullman_masterplan.pdf

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2019-21 Fiscal Period Reapprops	2019-21 Fiscal Period New Approps
057-1	State Bldg Constr-State	83,600,000				
062-1	WSU Building Account-State	500,000				500,000
	Total	**84,100,000**	**0**	**0**	**0**	**500,000**

Future Fiscal Periods 2021-23	2023-25	2025-27	2027-29

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Project Title: Spokane-Biomedical and Health Sc Building Ph II

Funding

		Future Fiscal Periods			
		2021-23	2023-25	2025-27	2027-29
057-1	State Bldg Constr-State	9,000,000	74,600,000		
062-1	WSU Building Account-State				
	Total	**9,000,000**	**74,600,000**	**0**	**0**

Schedule and Statistics

	Start Date	End Date
Predesign	07/01/2019	06/01/2020
Design	7/1/2021	6/1/2023
Construction	8/1/2023	6/1/2025

	Total
Gross Square Feet:	85,000
Usable Square Feet:	55,000
Efficiency:	64.7%
Escalated MACC Cost per Sq. Ft.:	608
Construction Type:	Science Labs (teaching)
Is this a remodel?	No
A/E Fee Class:	B
A/E Fee Percentage:	6.30%

Cost Summary

		Escalated Cost	% of Project
Acquisition Costs Total		**0**	**0.0%**
Consultant Services			
Pre-Schematic Design Services		549,700	0.7%
Construction Documents		3,579,542	4.3%
Extra Services		2,207,985	2.6%
Other Services		1,107,031	1.3%
Design Services Contingency		393,628	0.5%
Consultant Services Total		**7,837,884**	**9.3%**
Maximum Allowable Construction Cost(MACC)	**51,694,018**		
Site work		2,092,199	2.5%
Related Project Costs		1,916,384	2.3%
Facility Construction		47,685,435	56.7%
GCCM Risk Contingency		2,170,260	2.6%
GCCM or Design Build Costs		4,340,520	5.2%

OFM

365 - Washington State University
Capital Project Request
2019-21 Biennium

*

Version: 10 2019-21 WSU Capital Budget Request

Report Number: CBS002
Date Run: 7/30/2018 1:43PM

Project Number: 40000012
Project Title: Spokane-Biomedical and Health Sc Building Ph II

Cost Summary

	Escalated Cost	% of Project
Construction Contracts		
Construction Contingencies	2,590,446	3.1%
Non Taxable Items	0	0.0%
Sales Tax	5,349,981	6.4%
Construction Contracts Total	**66,145,225**	**78.7%**
Equipment		
Equipment	6,281,697	7.5%
Non Taxable Items	0	0.0%
Sales Tax	552,789	0.7%
Equipment Total	**6,834,486**	**8.1%**
Art Work Total	**258,470**	**0.3%**
Other Costs Total	**1,312,752**	**1.6%**
Project Management Total	**1,711,096**	**2.0%**
Grand Total Escalated Costs	**84,099,913**	
Rounded Grand Total Escalated Costs	**84,100,000**	

Operating Impacts

Total one time start up and ongoing operating costs

Acct Code	Account Title	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
FTE	Full Time Employee	8.7	8.9	8.9	8.9	8.9
001-1	General Fund-State	1,346,000	1,387,000	1,387,000	1,387,000	1,387,000
	Total	**1,346,000**	**1,387,000**	**1,387,000**	**1,387,000**	**1,387,000**

Narrative

Costs are based on calculated M & O rates by building type.

OFM

Capital Project Request

2019-21 Biennium

*

Parameter	Entered As	Interpreted As
Biennium	2019-21	2019-21
Agency	365	365
Version	10-A	10-A
Project Classification	*	All Project Classifications
Capital Project Number	40000012	40000012
Sort Order	Project Priority	Priority
Include Page Numbers	Y	Yes
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Washington State University
Project Name	Spokane-Biomedical and Health Sc Building Ph II
OFM Project Number	40000012

Contact Information	
Name	Kendra Kurz
Phone Number	509-368-6954
Email	kendra.kurz@wsu.edu

Statistics			
Gross Square Feet	85,000	MACC per Square Foot	$506
Usable Square Feet	55,000	Escalated MACC per Square Foot	$608
Space Efficiency	64.7%	A/E Fee Class	B
Construction Type	Science labs (teaching)	A/E Fee Percentage	6.30%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	Yes	Art Requirement Applies	Yes
Inflation Rate	3.12%	Higher Ed Institution	Yes
Sales Tax Rate %	8.80%	Location Used for Tax Rate	3,210
Contingency Rate	5%		
Base Month	June-18		
Project Administered By	Agency		

Schedule			
Predesign Start	July-19	Predesign End	June-20
Design Start	July-21	Design End	June-23
Construction Start	August-23	Construction End	June-25
Construction Duration	22 Months		

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Project Cost Estimate

Total Project	**$70,286,189**	Total Project Escalated	**$84,099,919**
		Rounded Escalated Total	**$84,100,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Washington State University
Project Name	Spokane-Biomedical and Health Sc Building Ph II
OFM Project Number	40000012

Cost Estimate Summary

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

Consultant Services			
Predesign Services	$500,000		
A/E Basic Design Services	$3,161,301		
Extra Services	$1,950,000		
Other Services	$918,164		
Design Services Contingency	$326,473		
Consultant Services Subtotal	**$6,855,939**	**Consultant Services Subtotal Escalated**	**$7,837,887**

Construction			
GC/CM Risk Contingency	$1,800,000		
GC/CM or D/B Costs	$3,600,000		
Construction Contingencies	$2,148,500	Construction Contingencies Escalated	$2,590,447
Maximum Allowable Construction Cost (MACC)	$42,970,000	Maximum Allowable Construction Cost (MACC) Escalated	$51,694,018
Sales Tax	$4,445,628	Sales Tax Escalated	$5,349,982
Construction Subtotal	**$54,964,128**	**Construction Subtotal Escalated**	**$66,145,227**

Equipment			
Equipment	$5,210,000		
Sales Tax	$458,480		
Non-Taxable Items	$0		
Equipment Subtotal	**$5,668,480**	**Equipment Subtotal Escalated**	**$6,834,487**

Artwork			
Artwork Subtotal	**$258,470**	**Artwork Subtotal Escalated**	**$258,470**

Agency Project Administration			
Agency Project Administration Subtotal	$1,221,172		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$1,419,172**	**Project Administation Subtotal Escalated**	**$1,711,096**

Other Costs			
Other Costs Subtotal	**$1,120,000**	**Other Costs Subtotal Escalated**	**$1,312,752**

Project Cost Estimate			
Total Project	**$70,286,189**	Total Project Escalated	**$84,099,919**
		Rounded Escalated Total	**$84,100,000**

Cost Estimate Details

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

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis	$290,000			
Environmental Analysis	$165,000			
Predesign Study	$45,000			
Other	$0			
Insert Row Here				
Sub TOTAL	**$500,000**	**1.0994**	**$549,700**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$1,961,301			69% of A/E Basic Services
site-specific historical analysis	$1,200,000			
Insert Row Here				
Sub TOTAL	**$3,161,301**	**1.1323**	**$3,579,542**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$750,000			
Geotechnical Investigation	$45,000			
Commissioning	$200,000			
Site Survey	$30,000			
Testing	$50,000			
LEED Services	$150,000			
Voice/Data Consultant	$0			
Value Engineering	$0			
Constructability Review	$200,000			
Environmental Mitigation (EIS)	$525,000			
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$1,950,000**	**1.1323**	**$2,207,985**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$881,164			31% of A/E Basic Services
HVAC Balancing	$37,000			
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$918,164**	**1.2057**	**$1,107,031**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$326,473			
Other				
Insert Row Here				
Sub TOTAL	**$326,473**	**1.2057**	**$393,629**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$6,855,939**		**$7,837,887**	

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Cost Estimate Details

Construction Contracts				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
1) Site Work				
G10 - Site Preparation	$510,000			
G20 - Site Improvements	$680,000			
G30 - Site Mechanical Utilities	$170,000			
G40 - Site Electrical Utilities	$425,000			
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$1,785,000**	**1.1721**	**$2,092,199**	
2) Related Project Costs				
Offsite Improvements	$340,000			
City Utilities Relocation				
Parking Mitigation	$140,000			
Stormwater Retention/Detention	$425,000			
GM/CM Reimbursables	$730,000			
Insert Row Here				
Sub TOTAL	**$1,635,000**	**1.1721**	**$1,916,384**	
3) Facility Construction				
A10 - Foundations	$1,275,000			
A20 - Basement Construction	$765,000			
B10 - Superstructure	$4,930,000			
B20 - Exterior Closure	$3,825,000			
B30 - Roofing	$680,000			
C10 - Interior Construction	$2,040,000			
C20 - Stairs	$510,000			
C30 - Interior Finishes	$2,125,000			
D10 - Conveying	$680,000			
D20 - Plumbing Systems	$5,525,000			
D30 - HVAC Systems	$5,525,000			
D40 - Fire Protection Systems	$425,000			
D50 - Electrical Systems	$5,950,000			
F10 - Special Construction	$510,000			
F20 - Selective Demolition	$0			
General Conditions	$1,785,000			
Fixed Lab Equipment	$3,000,000			
Insert Row Here				
Sub TOTAL	**$39,550,000**	**1.2057**	**$47,685,435**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$42,970,000**		**$51,694,018**	

5) GCCM Risk Contingency				
GCCM Risk Contingency	$1,800,000			
Other				
Insert Row Here				
Sub TOTAL	**$1,800,000**	**1.2057**	**$2,170,260**	
6) GCCM or Design Build Costs				
GCCM Fee	$1,800,000			
Bid General Conditions	$900,000			
GCCM Preconstruction Services	$900,000			
Other				
Insert Row Here				
Sub TOTAL	**$3,600,000**	**1.2057**	**$4,340,520**	
7) Construction Contingency				
Allowance for Change Orders	$2,148,500			
Other				
Insert Row Here				
Sub TOTAL	**$2,148,500**	**1.2057**	**$2,590,447**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.2057**	**$0**	
Sales Tax				
Sub TOTAL	**$4,445,628**		**$5,349,982**	
CONSTRUCTION CONTRACTS TOTAL	**$54,964,128**		**$66,145,227**	

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Cost Estimate Details

Equipment				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
E10 - Equipment	$4,158,500			
E20 - Furnishings	$1,000,000			
F10 - Special Construction				
moveable lab equipment	$51,500			
Insert Row Here				
Sub TOTAL	**$5,210,000**	**1.2057**	**$6,281,697**	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.2057**	**$0**	
Sales Tax				
Sub TOTAL	**$458,480**		**$552,790**	
EQUIPMENT TOTAL	**$5,668,480**		**$6,834,487**	

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Cost Estimate Details

Artwork				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Project Artwork	$0			0.5% of Escalated MACC for new construction
Higher Ed Artwork	$258,470			0.5% of Escalated MACC for new and renewal construction
Other				
Insert Row Here				
ARTWORK TOTAL	**$258,470**	**NA**	**$258,470**	

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Cost Estimate Details

Project Management				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Agency Project Management	$1,221,172			
Additional Services				
On-site project management	$198,000			
Insert Row Here				
PROJECT MANAGEMENT TOTAL	**$1,419,172**	**1.2057**	**$1,711,096**	

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Cost Estimate Details

Other Costs				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Mitigation Costs	$1,120,000			
Hazardous Material Remediation/Removal				
Historic and Archeological Mitigation				
Other				
Insert Row Here				
OTHER COSTS TOTAL	**$1,120,000**	**1.1721**	**$1,312,752**	

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Additional Notes

Tab A. Acquisition
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Tab B. Consultant Services
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Tab C. Construction Contracts
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Tab D. Equipment
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Tab E. Artwork
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Tab F. Project Management
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Tab G. Other Costs
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