2020 PROJECT PROPOSAL CHECKLIST

2021-23 Biennium Four-year Higher Education Scoring Process

WSUINSTITUTION	CAMPUS LOCATION
365 - Washington State University	Pullman
PROJECT TITLE	**FPMT UNIQUE FACILITY ID # (OR NA)**
Johnson Hall Demolition	A00267
PROJECT CATEGORY	**PROJECT SUBCATEGORY**
Replacement	Standalone
PROPOSAL IS	
New or Updated Proposal (for scoring)	**Resubmitted Proposal (retain prior score)**
☒ New proposal ☐ Resubmittal to be scored (more than 2 biennia old or significantly changed)	☐ Resubmittal from 2017-19 biennium ☐ Resubmittal from 2019-21 biennium
CONTACT	**PHONE NUMBER**
Jason Baerlocher	509-335-9012

PROPOSAL CONTENT

- ☒ Project Proposal Checklist: this form; one for each proposal
- ☒ Project Proposal Form: Specific to category/subcategory (10-page limit)
- ☒ Appendices: templates, forms, exhibits and supporting/supplemental documentation for scoring.

INSTITUTIONAL PRIORITY

- ☒ Institutional Priority Form. Sent separately (not in this packet) to: Darrell Jennings.

Check the corresponding boxes below if the proposed project meets the minimum threshold or if the item listed is provided in the proposal submittal.

MINIMUM THRESHOLDS

- ☒ Project is not an exclusive enterprise function such as a bookstore, dormitory or contract food service.
- ☐ Project meets LEED Silver Standard requirements.
- ☒ Institution has a greenhouse gas emissions reduction policy in place in accordance with RCW 70.235.070 and vehicle emissions reduction policy in place per RCW 47.01.440 or RCW 43.160.020 as applicable.
- ☐ Design proposals: A complete predesign study was submitted to OFM by July 1, 2020.
- ☐ Growth proposals: Based on solid enrollment projections and is more cost-effectively providing enrollment access than alternatives such as university centers and distance learning.
- ☐ Renovation proposals: Project should cost between 60 – 80% of current replacement value and extend the useful life of the facility by at least 25 years.
- ☐ Acquisition proposals: Land acquisition is not related to a current facility funding request.
- ☐ Infrastructure proposals: Project is not a facility repair project.
- ☒ Stand-alone, infrastructure and acquisition proposals: is a single project requesting funds for one biennium.

2020 PROJECT PROPOSAL CHECKLIST

2021-23 Biennium Four-year Higher Education Scoring Process

REQUIRED APPENDICES

- ☒ Capital Project Report CBS 002
- ☒ Project cost estimate:
  - CBS 003 for projects between $2 million and $5 million
  - Excel C-100 for projects greater than $5 million
- ☐ Degree Totals and Targets template to indicate the number of Bachelors, High Demand and Advanced degrees expected to be awarded in 2021. (Required for Overarching Criteria scoring criteria for Major Growth, Renovation, Replacement and Research proposals).
- ☒ Availability of Space/Campus Utilization template for the campus where the project is located. (Required for all categories/subcategories except Infrastructure and Acquisition proposals).
- ☒ Assignable Square Feet template to indicate program-related space allocation. (Required for Growth, Renovation and Replacement proposals, all categories/subcategories).

OPTIONAL APPENDICES

Attach supplemental and supporting project documentation, *limit to materials directly related to and needed for the evaluation criteria*, such as:

- ☐ Degree and enrollment growth projections
- ☐ Selected excerpts from institutional plans
- ☐ Data on instructional and/or research space utilization
- ☐ Additional documentation for selected cost comparables (acquisition)
- ☒ Selected materials on facility conditions
- ☐ Selected materials on code compliance
- ☐ Tables supporting calculation of program space allocations, weighted average facility age, etc.
- ☐ Evidence of consistency of proposed research projects with state, regional, or local economic development plans
- ☐ Evidence of availability of non-state matching funds
- ☒ Selected documentation of prior facility failures, high cost maintenance, and/or system unreliability for infrastructure projects
- ☒ Documentation of professional assessment of costs for land acquisition, land cleanup, and infrastructure projects
- ☒ Selected documentation of engineering studies, site survey and recommendations, or opinion letters for infrastructure and land cleanup projects
- ☒ Other: WSU Facility Development Plan

I certify that the above checked items indicate either that the proposed project meets the minimum thresholds or the corresponding items have been included in this submittal.

Name: Kate Kamerrer Title: Exec Director, Finance, Business and Building Services

Signature: Kate Kamerrer Date: 08/20/2020

INSTITUTION	CAMPUS
Washington State University	Pullman, WA
PROJECT TITLE	
Johnson Hall Demolition	

SUMMARY NARRATIVE

- *Problem statement (short description of the project – the needs and the benefits)*
- *History of the project or facility*
- *University programs addressed or encompassed by the project*

Problem Statement - Washington State University requests $8,000,000 in the 2021-23 Capital Budget for the demolition of Johnson Hall on the Pullman campus to capitalize on the rare appropriation of federal funds to replace the aged building with a new 105,000 square foot state-of-the-art research facility.

WSU ranks among the top research institutions in the world in the area of plant sciences. This reputation has been largely garnered through the accomplishments of faculty in the College of Agricultural, Human, and Natural Resource Sciences (CAHNRS) and its long-term partnership with co-located scientists from the United States Department of Agriculture (USDA)-Agricultural Research Service (ARS). WSU is home to more ARS scientists than any university in the country. While dramatic improvements have been made, scientists housed in Johnson Hall are making use of facilities that are grossly inadequate for conducting cutting-edge plant science research. Johnson Hall was constructed in 1961. The maintenance and operation of this facility has become increasingly expensive and the building structure and mechanical layout make it a poor candidate for renovation. It was originally constructed with shallow floor-to-floor heights which do not accommodate the mechanical systems and distribution necessary for modern, functional research space. This lack of functionality and general poor condition jeopardizes the model for funding research, which is based on attracting large, competitive, external grants. The success of the WSU/ARS partnership is linked to the ability to carry out solid fundamental research upon which applied research programs are based.

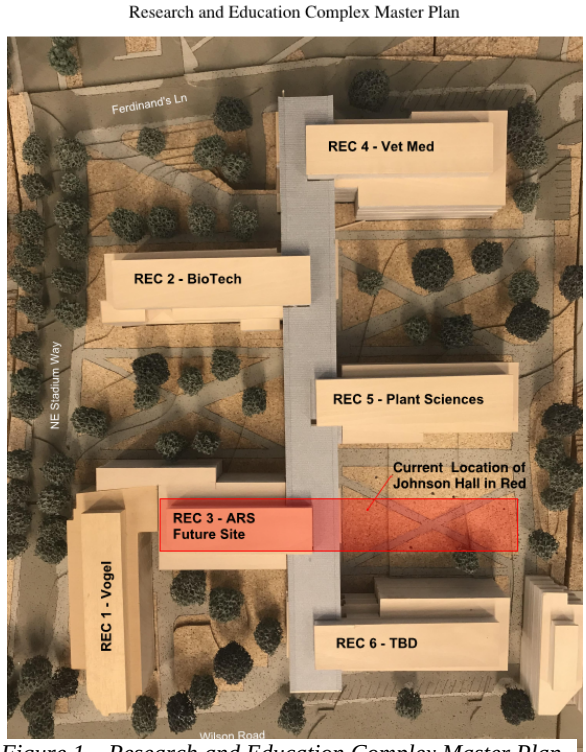

Figure 1 – Research and Education Complex Master Plan

History - The WSU Campus Master Plan includes the development of a research and graduate education core on the east side of the Pullman campus. The Research and Education Complex plays prominently in this master plan by supporting molecular science from CAHNRS, the College of Veterinary Medicine, and the College of Arts and Sciences. (Figure 1)

Original plans for the complex included six buildings with five WSU facilities and one USDA/ARS facility and the intention that ARS and WSU researchers be fully integrated in the complex. Thus far, four of the planned six buildings have been constructed. Though uncommon to receive federal funds for capital construction, federal funds have been appropriated to fully fund the design and construction of a new USDA/ARS Plant Biosciences Building on the Pullman campus. This facility is intended to be an integral

part of the Research and Education Complex with connections to the core spine collaboration area and Vogel. As shown in Figure 1, the new USDA/ARS Plant Biosciences Building was planned to be sited on the current location of Johnson Hall.

The new, federally-funded USDA/ARS Plant Biosciences Building will advance the creation of a precinct on the Pullman campus in which biological sciences is aggregated through a series of interconnected facilities that encourage interdisciplinary collaboration among the institution's leading faculty and students. Part of the university's success in plant sciences is due to a partnership with the USDA/ARS. This research partnership is exemplary and one of the strongest federal-state partnerships in the nation. The collaboration between WSU and USDA/ARS in the creation of this facility will be unprecedented and continue to build upon what is already an excellent partnership.

To date, a comprehensive engineering study, site survey, good faith survey, and Phase 1 environmental study have all been performed on the Johnson Hall facility and site by industry professionals. Executive summaries from each of these studies have been included in **Appendix A**. Programming and predesign efforts on the federally funded USDA/ARS Plant Biosciences Building are currently underway with construction expected to begin immediately following the demolition of Johnson Hall in 2022.

University Programs - Johnson Hall is currently occupied by the following programs and approximately 330 faculty, staff, students, and USDA scientists work in the facility. All of these programs will be positively affected by the long term vision of this project in the master plan.

Programs (or portions thereof) that will be relocated to the new USDA/ARS Plant Biosciences Building:

- Crop and Soil Sciences Department
- Grain Legume Genetics Physiology Research (USDA/ARS)
- Horticulture Department
- Northwest Sustainable Agroecosystems Research (USDA/ARS)
- Plant Germplasm Introduction and Testing Research (USDA/ARS)
- Plant Pathology Department
- USDA Administrative support
- Wheat Health, Genetics, and Quality Research (USDA/ARS)

Programs (or portions thereof) that will be relocated to improved/purpose built space on campus:

- WSU Apparel, Merchandising, Design and Textiles Department
- WSU CAHNRS Graduate Advising Center
- WSU Biological Systems Engineering
- WSU CAHNRS Business Center
- WSU Global Campus (for IT classroom support needs)
- WSU School of the Environment
- WSU Horticulture Department - Potato Research

GENERAL CATEGORY SCORING CRITERIA

1. Age of building since last major remodel

Identify the number of years since the last substantial renovation of the facility or portion proposed for renovation. If only one portion of a building is to be remodeled, provide the age of that portion only. If the project involves multiple wings of a building that were constructed or renovated at different times, calculate and provide a weighted average facility age, based upon the gross square feet and age of each wing.

Johnson Hall was constructed in 1961 and received a small addition in 1967. The building has not experienced any substantial renovations since the original construction date, a span of almost 60 years.

2. 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 appendix, and reference them in the body of the proposal.

Johnson Hall was originally constructed as a facility for research and education. It has a current Comparable Framework Study score of 5 (Needs Improvement – Marginal Functionality) with annual operating costs in excess of $1,000,000 and a deferred maintenance back log value exceeding $29,000,000 (**Appendix B**). As a result of this project, Johnson Hall will be demolished, paving the way for the new state-of-the-art USDA/ARS Plant Biosciences Building.

Justification:

Building	Gross Sq Ft	Year Constructed	Year Renovated	FCI Score	Comparable Framework Score	DM Backlog
Johnson	194,017	1961	n/a	0.76	5	$29,422,733

In 2014-2015, WSU conducted facility condition assessments of multiple buildings through VFA, a well-known consulting firm that provides facility assessment services. VFA determines overall building condition by Facility Condition Index (FCI), a ratio of facility requirements to the replacement value, and provides real time FCI updates based on lifecycle requirements associated with critical building systems.

Johnson Hall contains many critical building systems that have past their useful life and are in need replacement. Examples include:

- Air Handling Units
- Primary Electrical Service
- Building Electrical Distribution
- Cooling Tower
- Building Controls and IT Infrastructure
- Mechanical Distribution System
- Elevators
- 500 ton chiller (currently not operational)
- Building Envelope (windows, cladding, doors)
- Fire Alarm System (Figure 2)

Figure 2 - Johnson Hall Fire Alarm Panel

Over the past five years, WSU Facilities Services has received an average of nearly 70 reactive maintenance requests per month for Johnson Hall. The Maintenance Log Summary below shows the number of service calls addressed each year over the past five years and their associated cost.

Johnson Hall Maintenance Log Summary		
Year	**Number of Calls**	**Cost**
2015	706	$436,500
2016	808	$604,500
2017	861	$581,500
2018	838	$462,750
2019	966	$499,140

3. Significant health, safety, and code issues

It is understood that all projects that obtain a building permit will have to comply with current building codes. Identify whether the project is needed to bring the facility within current life safety (including seismic and ADA) or energy code requirements. Clearly identify the applicable standard or code, and describe how the project will improve consistency with it. Provide selected supporting documentation in appendix, and reference them in the body of the proposal.

Demolition of Johnson Hall will eliminate all existing life safety, accessibility, and code deficiencies. Construction of this facility and most of its systems are consistent with the code that was in place when the building was constructed in 1961, 60 years ago. However, the facility does not meet current code in many areas.

Justification:
Reference the following for a summary of example items in the facility that do not meet current codes:

Life Safety:

- Johnson Hall was constructed prior to the formation of the National Fire Protection Association, and as such, the items listed below are not compliant with this code:
  - Existing visual and audible fire alarm notifications.
  - Existing fire alarm coverage.
  - No fire sprinklers in the building.
  - Fire separation – long corridors with no fire separation (Figure 3) and stairwells are open with windows and no standpipes.
- Asbestos Containing Materials – ducting, insulation, flooring and other finishes are insulated or made with asbestos-containing materials as was common at the time of construction.

Figure 3 - Johnson Hall Corridor

ADA 2010 Standards:

- Due to the age of the facility, the items listed below are not compliant with portions of the ADA standards, (chapters 3 through 8):
  - Lab furnishings and fixtures
  - Lab safety equipment
  - Corridors and egress pathways
  - Restrooms

Washington Energy Code:

- The state of Washington has adopted numerous energy initiatives since Johnson Hall was constructed. As a result, the list below includes some of the significant items that do not comply with current energy codes.
  - Existing constant volume air handling systems are energy inefficient along with every fume hood having its own constant volume exhaust fan.
  - Existing controls for operation of room temperature and regulation of air flow are pneumatic or operated with manual dampers. WEC requires electronic controls that can vary with loading.
  - Building exhaust system does not include code required heat recovery and with each fume hood having individual exhaust it is impractical to retrofit this to the facility.
  - Current lights controls are manually operated and do not include occupancy sensors. In addition, the lighting type does not comply with current energy use regulations.

4. Reasonableness of cost

Provide as much detailed cost information as possible, including baseline comparison of costs per square foot (SF) with the cost data provided in Chapter 5 of the scoring process instructions and a completed OFM C-100 form. Also, describe the construction methodology that will be used for the proposed project.

This replacement project will use the Design Build method of delivery and is well within OFM standards for reasonableness of cost. The estimated Maximum Allowable Construction Cost (MACC), which includes both the demolition which is the subject of this request and the federally funded replacement facility, is approximately 94% of the expected MACC for a research lab facility escalated to the construction mid-point.

Justification:
Reference the following for a comparison of estimated project MACC (including both the new USDA/ARS Plant Biosciences Building and the demolition of Johnson Hall) against OFM standards.

OFM Chapter 5		**Proposed Project Estimates**	
Program Type	Research Labs	Anticipated Mid-Const. Date	2/15/2024
Cost Index at Mid-Const. Date	1.13	Estimated MACC	$60,824,627
Expected MACC/GSF	$545	Estimated GSF	105,000

OFM Standard Comparison			
Metric	OFM Standard	Proposed Project	% Difference
MACC/GSF at Mid-Const. Date	$616	$579	94%

The estimated Maximum Allowable Construction Cost (MACC) noted above was determined by combining the MACC for the new federally funded USDA/ARS Plant Biosciences Building (estimated by the United States Army Corps of Engineers at $56,854,203) with the MACC for the demolition of Johnson Hall (estimated in the C100 at $3,970,424). Reference **Appendix C** for additional detail.

Please note, the C100 document submitted with this project proposal includes only the costs associated with this $8,000,000 request to demolish Johnson Hall.

If applicable, provide Life Cycle Cost Analysis results demonstrating significant projected savings for selected system alternates (Uniformat Level II) over 50 years, in terms of net present savings.

A Life Cycle Cost Analysis is not required for a standalone replacement request.

5. 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

Classroom improvements are not included in this program. Reference **Appendix D** for Availability of Space/Campus Utilization data for the Pullman campus.

B. The utilization of class laboratory space

This renovation will serve research laboratories, not teaching laboratories.

6. Efficiency of space allocation

A. *For each major function in the proposed facility (classroom, instructional labs, offices), identify whether space allocations will be consistent with Facility Evaluation and Planning Guide (FEPG) assignable square feet standards. To the extent any proposed allocations exceed FEPG standards, explain the alternative standard that has been used, and why. See Chapter 4 of the scoring process instructions for an example. Supporting tables may be included in an appendix.*

The FEPG Standard does not include a guideline for research labs and service areas, as they are particular to the specific research taking place. The proposed space allocations for the new USDA/ARS Plant Biosciences Building will dramatically improve on the current inefficiencies within Johnson Hall and encourage sharing of space and resources to allow for more collaboration among researchers and the disciplines that overlap.

B. *Identify the following on form CBS002:*

Reference **Appendix E** for the program-related space allocation summary. Note that the numbers provided are for the new federally funded USDA/ARS Plant Bioscience Building that will replace Johnson Hall.

1. *Usable square feet (USF) in the proposed facility* **67,279 SF**
2. *Gross square feet (GSF)* **105,000 SF**
3. *Building efficiency (USF divided GSF)* **64.1%**

7. Adequacy of space

Describe whether and the extent to which the project is needed to meet modern educational standards and/or to improve space configurations, and how it would accomplish that.

The removal of Johnson Hall is a planned part of a series of strategic facility replacements and renovations as shown in university's Facility Development Plan, Pullman Campus Master Plan and the Research and Education Complex Master Plan. Construction of the new USDA/ARS research facility will dramatically improve program space configuration by providing a modern research environment that meets current health and safety standards.

Justification:
WSU's Facility Development Plan is focused on identifying and prioritizing capital projects which balance continued stewardship and renewal of existing facilities and infrastructure within a framework for responsible growth. The plan recognizes the urgent need to address a large and rapidly growing deferred maintenance backlog which has been identified as a significant risk to future operations at all of the WSU campuses as they age. Additionally, the goals of this plan are consistent with the Master Plans for each of the WSU campuses which together include emphasis on open spaces, pedestrian access, community connection and campus identity, and research and/or program excellence.

The Research and Education Complex Master Plan which is included in the Facility Development Plan (**Appendix F**) does not include Johnson Hall. Instead, this plan calls for Johnson Hall to be removed and replaced with a new facility that meets the research and education needs of WSU faculty and students.

With the demolition of Johnson Hall, this project will clear a path for an investment to improve facilities and leave a legacy in capital assets through learning space improvements, research benefits, and the continued USDA-WSU partnership in the new USDA/ARS Plant Biosciences Building. This partnership between WSU and USDA is the model strived for nationwide by the USDA in all their locations across the nation. This new research facility will be intermixed with researchers from both WSU and the USDA in a 50/50 blend.

TEMPLATES REQUIRED IN APPENDIX FOR SCORING

- Availability of space/campus utilization
- Program-related space allocation

OFM

365 - Washington State University
Capital Project Request

2021-23 Biennium

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Version: 10 2021-23 WSU Capital Budget Request

Report Number: CBS002
Date Run: 8/20/2020 1:37PM

Project Number: **40000271**
Project Title: **Johnson Hall Demolition**

Description

Starting Fiscal Year: 2022
Project Class: Program
Agency Priority: 3

Project Summary

Washington State University requests $8,000,000 in the 2021-23 Capital Budget for the demolition of Johnson Hall on the Pullman campus to capitalize on the rare appropriation of federal funds to replace the aged building with a new 105,000 square foot state-of-the-art research facility. The building structure and mechanical layout of Johnson Hall makes it a poor candidate for renovation. Therefore, when the Research Education Complex was master planned in 2004, Johnson Hall was slated to be replaced by a new facility. Johnson Hall currently houses scientists from four United States Department of Agriculture – Agricultural Research Service (USDA/ARS) Research Units as well as three WSU academic departments and fosters close collaboration between these units. All will be relocated into the new USDA/ARS Plant Biosciences Building that will be constructed on the current site of Johnson Hall.

Project Description

Identify the problem or opportunity addressed. Why is the request a priority? This narrative should identify unserved/underserved people or communities, operating budget savings, public safety improvements or other backup necessary to understand the need for the request. For preservation projects, it is helpful to include information about the current condition of the facility or system.

WSU ranks among the top research institutions in the world in the area of plant sciences. This reputation has been largely garnered through the accomplishments of faculty in the College of Agricultural, Human, and Natural Resource Sciences (CAHNRS) and its long-term partnership with co-located scientists from the United States Department of Agriculture (USDA)-Agricultural Research Service (ARS). WSU is home to more ARS scientists than any university in the country.

While dramatic improvements have been made, scientists housed in Johnson Hall are making use of facilities that are grossly inadequate for conducting cutting-edge plant science research. Johnson Hall was constructed in 1961. The maintenance and operation of this facility has become increasingly expensive and the building structure and mechanical layout make it a poor candidate for renovation. It was originally constructed with shallow floor-to-floor heights which do not accommodate the mechanical systems and distribution necessary for modern, functional research space. Due to the age of the facility and the way it was originally constructed, many critical issues cannot be addressed properly. Johnson Hall is consistent with the codes that where in place when the building was constructed in 1961 which is prior to the Americans with Disabilities Act (ADA). Many parts of the building do not meet ADA requirements and the facility was constructed without a fire sprinkler system which puts lives at risk. The facility has a Comparable Framework Study Score of 5 (Needs Improvement – Marginal Functionality). This lack of functionality and general poor condition jeopardizes the model for funding research, which is based on attracting large, competitive, external grants. The success of the WSU/ARS partnership is linked to the ability to carry out solid fundamental research upon which applied research programs are based.

The fiscal year 2019 Federal Congressional funding included monies to design and build a new USDA/ARS Plant Biosciences Building on the WSU Pullman campus. This facility is intended to be an integral part of the Research and Education Complex with connections to the core spine collaboration area and Vogel. As such, the building site for this new USDA/ARS Plant Biosciences Building was planned to occupy the current location of Johnson Hall. The demolition of Johnson Hall will clear a path for this once-in-a-lifetime investment opportunity to improve facilities and leave a legacy in capital assets through learning space improvements, research benefits, and USDA-WSU partnership in the new USDA/ARS Plant Biosciences Building.

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

Washington State University requests $8,000,000 in the 2021-23 Capital Budget for the demolition of Johnson Hall on the Pullman Campus. These funds will allow the facility to be decommissioned and demolished by August of 2022. This will allow the construction of the new USDA/ARS Plant Biosciences Building which will commence in September of 2022.

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

In the event that Johnson Hall is not demolished ahead of the federally funded USDA/ARS Plant Biosciences Building, the USDA/ARS facility will need to be constructed in an alternate, less desirable location. The alternate location would be disconnected from other research facilities in the complex and have devastating long term effects on the team's ability to conduct effective research. In addition the expensive annual operating cost and the $29,000,000 deferred maintenance backlog

Description

will not be addressed and WSU will continue to contend with an underutilized and inefficient facility.

What alternatives were explored? Why was the recommended alternative chosen? Be prepared to provide detailed cost backup. If this project has an associated predesign, please summarize the alternatives the predesign considered.

In 2001, WSU launched a university wide strategic planning initiative that focused on nine key areas of study. This initiative was the foundation for the development of the Research and Education Complex to bring together multiple disciplines into one collaborative complex centered on biotechnology research and education.

The complex vision included multiple phases of development centered on the goal to create one cohesive research facility connected by a core collaboration spine. In order to maintain this cohesive vision, Johnson Hall would eventually need to be replaced with a new facility. Individuals originally housed in Johnson Hall would then be relocated to new facilities in the complex. Multiple alternate building sites have been explored that would allow the new USDA/ARS Plant Biosciences Building to be constructed without demolishing Johnson Hall, however none of the alternative sites sufficiently address the research needs and long term vision of the complex.

Which clientele would be impacted by the budget request? Where and how many units would be added, people or communities served, etc.

Johnson Hall is currently occupied by the following programs and approximately 330 faculty, staff, students, and USDA scientists work in the facility. All of these programs will be positively affected by the long term vision of this project in the master plan.

Programs (or portions thereof) that will be relocated to the new USDA/ARS Plant Biosciences Building:
· Crop and Soil Sciences Department
· Grain Legume Genetics Physiology Research (USDA/ARS)
· Horticulture Department
· Northwest Sustainable Agroecosystems Research (USDA/ARS)
· Plant Germplasm Introduction and Testing Research (USDA/ARS)
· Plant Pathology Department
· USDA Administrative support
· Wheat Health, Genetics, and Quality Research (USDA/ARS)

Programs (or portions thereof) that will be relocated to improved/purpose built space on campus:
· WSU Apparel, Merchandising, Design and Textiles Department
· WSU CAHNRS Graduate Advising Center
· WSU Biological Systems Engineering
· WSU CAHNRS Business Center
· WSU Global Campus (for IT classroom support needs)
· WSU School of the Environment
· WSU Horticulture Department - Potato Research

Does this project or program leverage non-state funding? If yes, how much by source? If the other funding source requires cost share, also include the minimum state (or other) share of project cost allowable and the supporting citation or documentation.

Though uncommon to receive federal funds for capital construction, federal funds have been appropriated to fully fund the design and construction of a new 105,000 square foot USDA/ARS Plant Biosciences Building on the Pullman campus. Therefore, WSU requests only $8,000,000 in 2021-23 Capital Budget to cover costs associated with the demolition of Johnson Hall.

Describe how this project supports the agency's strategic master plan or would improve agency performance. Reference feasibility studies, master plans, space programming and other analyses as appropriate.

WSU's Facility Development Plan is focused on identifying and prioritizing capital projects which balance continued stewardship and renewal of existing facilities and infrastructure within a framework for responsible growth. The plan recognizes the urgent need to address a large and rapidly growing deferred maintenance backlog which has been identified as a significant risk to future operations at all of the WSU campuses as they age. Additionally, the goals of this plan are consistent with the Master Plans for each of the WSU campuses which together include emphasis on open spaces, pedestrian access, community connection and campus identity, and research and/or program excellence.

The Research and Education Complex Master Plan which is included in the Facility Development Plan does not include Johnson Hall. Instead, this plan calls for Johnson Hall to be removed and replaced with a new facility that meets the research and education needs of WSU faculty and students from the College of Agricultural, Human and Natural Resource Sciences, the

Project Number: 40000271
Project Title: Johnson Hall Demolition

Description

College of Veterinary Medicine, and the College of Arts and Sciences.
Original plans for the complex included six buildings with five WSU facilities and one USDA/ARS facility and the intention that ARS and WSU researchers be fully integrated in the complex. Thus far, four of the planned six buildings have been constructed. Though uncommon to receive federal funds for capital construction, federal funds have been appropriated to fully fund the design and construction of a new USDA/ARS Plant Biosciences Building on the Pullman campus. This facility is intended to be sited on the current location of Johnson Hall with connections to the core spine collaboration area and Vogel. With the demolition of Johnson Hall, this project will clear a path for an investment to improve facilities and leave a legacy in capital assets through learning space improvements, research benefits, and the continued USDA-WSU partnership in the new USDA/ARS Plant Biosciences Building. This partnership between WSU and USDA is the model strived for nationwide by the USDA in all their locations across the nation. This new research facility will be intermixed with researchers from both WSU and the USDA in a 50/50 blend.

Does this decision package include funding for any Information Technology related costs including hardware, software (to include cloud-based services), contracts or staff? If the answer is yes, you will be prompted to attach a complete IT addendum. (See Chapter 10 of the operating budget instructions for additional requirements.)
This request does not include any Information Technology related costs.

If the project is linked to the Puget Sound Action Agenda, describe the impacts on the Action Agenda, including expenditure and FTE detail. See Chapter 12 Puget Sound Recovery) in the 2021-23 Operating Budget Instructions.
This proposed project is not linked to the Puget Sound Action Agenda.

How does this project contribute to statewide goals to reduce carbon pollution and/or improve energy efficiency? Please elaborate.
Capital projects identified in the University's Facility Development Plan contribute directly to a reduction in the deferred maintenance backlog, through either significant renovation, rehabilitation or replacement of existing facilities. In addition, the development plan's guiding principles include energy efficiency improvements, carbon reduction and water savings.
The current programming and predesign efforts taking place on the new USDA/ARS Plant Biosciences Building that will replace Johnson Hall acknowledges the requirements of House Bill 1257 (Washington State Clean Energy Standards) and House Bill 2311 (Greenhouse Gas Emissions) and strives to include energy improvements and carbon reduction throughout all project design and execution. In addition, demolishing Johnson Hall will effectively remove an aging building with obsolete and energy inefficient systems.

Is there additional information you would like decision makers to know when evaluating this request?
In order to fulfill the long term vision of the Research and Education Complex and to allow the four previously constructed facilities within the complex to function properly, the new USDA/ARS Plant Biosciences Building should ideally be constructed on the site of Johnson Hall. The new USDA/ARS facility has already received federal funding and will allow the complex to come together as originally envisioned once Johnson Hall has been removed.
*Reference the project proposal and associated appendices for additional information.

Location
City: Pullman **County:** Whitman **Legislative District:** 009

Project Type
Intermediate

OFM

365 - Washington State University
Capital Project Request
2021-23 Biennium

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Version: 10 2021-23 WSU Capital Budget Request

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Description

Growth Management impacts

WSU Pullman'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 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

See: https://gis.wsu.edu/portal/apps/MapSeries/index.html?appid=9cc577c31d314e0fb75c0d519e82802f

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
062-1	WSU Building Account-State	8,000,000				8,000,000
	Total	**8,000,000**	**0**	**0**	**0**	**8,000,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
062-1	WSU Building Account-State				
	Total	**0**	**0**	**0**	**0**

Schedule and Statistics

Start Date	End Date

OFM

365 - Washington State University
Capital Project Request
2021-23 Biennium

*

Version: 10 2021-23 WSU Capital Budget Request

Report Number: CBS002
Date Run: 8/20/2020 1:37PM

Project Number: **40000271**
Project Title: **Johnson Hall Demolition**

Schedule and Statistics

	Start Date	End Date
Predesign	07/01/2021	08/01/2021
Design	8/1/2021	12/1/2021
Construction	12/1/2021	6/1/2022

	Total
Gross Square Feet:	168,394
Usable Square Feet:	100,000
Efficiency:	59.4%
Escalated MACC Cost per Sq. Ft.:	24
Construction Type:	Research Facilities
Is this a remodel?	No
A/E Fee Class:	A
A/E Fee Percentage:	10.42%

Cost Summary

		Escalated Cost	% of Project
Acquisition Costs Total		**0**	**0.0%**
Consultant Services			
Pre-Schematic Design Services		0	0.0%
Construction Documents		295,741	3.7%
Extra Services		0	0.0%
Other Services		134,705	1.7%
Design Services Contingency		21,727	0.3%
Consultant Services Total		**453,352**	**5.7%**
Maximum Allowable Construction Cost(MACC)	**3,970,424**		
Site work		196,821	2.5%
Related Project Costs		0	0.0%
Facility Construction		3,773,603	47.2%
GCCM Risk Contingency		305,124	3.8%
GCCM or Design Build Costs		526,339	6.6%
Construction Contingencies		198,579	2.5%
Non Taxable Items		0	0.0%
Sales Tax		390,036	4.9%
Construction Contracts Total		**5,390,501**	**67.4%**
Equipment			
Equipment		0	0.0%
Non Taxable Items		0	0.0%
Sales Tax		0	0.0%

OFM

365 - Washington State University
Capital Project Request
2021-23 Biennium

*

Version: 10 2021-23 WSU Capital Budget Request

Report Number: CBS002
Date Run: 8/20/2020 1:37PM

Project Number: **40000271**
Project Title: **Johnson Hall Demolition**

Cost Summary

	Escalated Cost	% of Project
Equipment Total	**0**	**0.0%**
Art Work Total	**39,802**	**0.5%**
Other Costs Total	**1,709,235**	**21.4%**
Project Management Total	**407,395**	**5.1%**
Grand Total Escalated Costs	**8,000,285**	
Rounded Grand Total Escalated Costs	**8,000,000**	

Operating Impacts

No Operating Impact

Narrative

This is a demolition project, no additional FTE required.

Capital Project Request

2021-23 Biennium

*

Parameter	Entered As	Interpreted As
Biennium	2021-23	2021-23
Agency	365	365
Version	10-A	10-A
Project Classification	*	All Project Classifications
Capital Project Number	40000271	40000271
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

Updated June 2020

Agency	Washington State University
Project Name	Washington State University Pullman - Johnson Hall Demolition
OFM Project Number	40000271

Contact Information	
Name	Jason Baerlocher
Phone Number	509-335-9012
Email	jason.baerlocher@wsu.edu

Statistics			
Gross Square Feet	168,394	MACC per Square Foot	$23
Usable Square Feet	100,000	Escalated MACC per Square Foot	$24
Space Efficiency	59.4%	A/E Fee Class	A
Construction Type	Research Facilities	A/E Fee Percentage	10.42%
Remodel	No	Projected Life of Asset (Years)	0
Additional Project Details			
Alternative Public Works Project	Yes	Art Requirement Applies	Yes
Inflation Rate	2.38%	Higher Ed Institution	Yes
Sales Tax Rate %	7.80%	Location Used for Tax Rate	3,812
Contingency Rate	5%		
Base Month	June-20	OFM UFI# (from FPMT, if available)	A00267
Project Administered By	Agency		

Schedule			
Predesign Start	July-21	Predesign End	August-21
Design Start	August-21	Design End	December-21
Construction Start	December-21	Construction End	June-22
Construction Duration	6 Months		

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Project Cost Estimate

Total Project	**$7,693,069**	Total Project Escalated	**$8,000,290**
		Rounded Escalated Total	**$8,000,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington State University
Project Name	Washington State University Pullman - Johnson Hall Demolition
OFM Project Number	40000271

Cost Estimate Summary

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

Consultant Services			
Predesign Services	$0		
A/E Basic Design Services	$287,741		
Extra Services	$0		
Other Services	$129,275		
Design Services Contingency	$20,851		
Consultant Services Subtotal	**$437,867**	**Consultant Services Subtotal Escalated**	**$453,353**

Construction			
GC/CM Risk Contingency	$292,825		
GC/CM or D/B Costs	$505,123		
Construction Contingencies	$190,575	Construction Contingencies Escalated	$198,580
Maximum Allowable Construction Cost (MACC)	$3,811,500	Maximum Allowable Construction Cost (MACC) Escalated	$3,970,424
Sales Tax	$374,402	Sales Tax Escalated	$390,037
Construction Subtotal	**$5,174,425**	**Construction Subtotal Escalated**	**$5,390,504**

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

Artwork			
Artwork Subtotal	**$39,802**	**Artwork Subtotal Escalated**	**$39,802**

Agency Project Administration			
Agency Project Administration Subtotal	$390,974		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$390,974**	**Project Administation Subtotal Escalated**	**$407,396**

Other Costs			
Other Costs Subtotal	**$1,650,000**	**Other Costs Subtotal Escalated**	**$1,709,235**

Project Cost Estimate

Total Project	**$7,693,069**	Total Project Escalated	**$8,000,290**
		Rounded Escalated Total	**$8,000,000**

Cost Estimate Details

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

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0278**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$287,741			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$287,741**	**1.0319**	**$296,921**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning				
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0319**	**$0**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$129,275			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$129,275**	**1.0420**	**$134,705**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$20,851			
Other				
Insert Row Here				
Sub TOTAL	**$20,851**	**1.0420**	**$21,727**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$437,867**		**$453,353**	

Green cells must be filled in by user

Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$190,000			
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities				
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$190,000**	**1.0359**	**$196,821**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0359**	**$0**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure	$312,500			
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems	$130,000			
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems	$94,000			
F10 - Special Construction				
F20 - Selective Demolition	$2,755,000			
General Conditions	$330,000			
Other				
Insert Row Here				
Sub TOTAL	**$3,621,500**	**1.0420**	**$3,773,603**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$3,811,500**		**$3,970,424**	

5) GCCM Risk Contingency				
GCCM Risk Contingency	$292,825			
Other				
Insert Row Here				
Sub TOTAL	**$292,825**	**1.0420**	**$305,124**	
6) GCCM or Design Build Costs				
GCCM Fee	$351,390			
Bid General Conditions	$0			
GCCM Preconstruction Services	$153,733			
Other				
Insert Row Here				
Sub TOTAL	**$505,123**	**1.0420**	**$526,339**	
7) Construction Contingency				
Allowance for Change Orders	$190,575			
Other				
Insert Row Here				
Sub TOTAL	**$190,575**	**1.0420**	**$198,580**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0420**	**$0**	
Sales Tax				
Sub TOTAL	**$374,402**		**$390,037**	
CONSTRUCTION CONTRACTS TOTAL	**$5,174,425**		**$5,390,504**	

Green cells must be filled in by user

Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0420**	**$0**	
1) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0420**	**$0**	
Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$39,802				0.5% of total project cost for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$39,802**		**NA**	**$39,802**	

Green cells must be filled in by user

Cost Estimate Details

Project Management				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$390,974			
Additional Services				
Other				
Insert Row Here				
PROJECT MANAGEMENT TOTAL	**$390,974**	**1.0420**	**$407,396**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal	$1,650,000				
Historic and Archeological Mitigation					
Other					
Insert Row Here					
OTHER COSTS TOTAL	**$1,650,000**		**1.0359**	**$1,709,235**	

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C-100(2020)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
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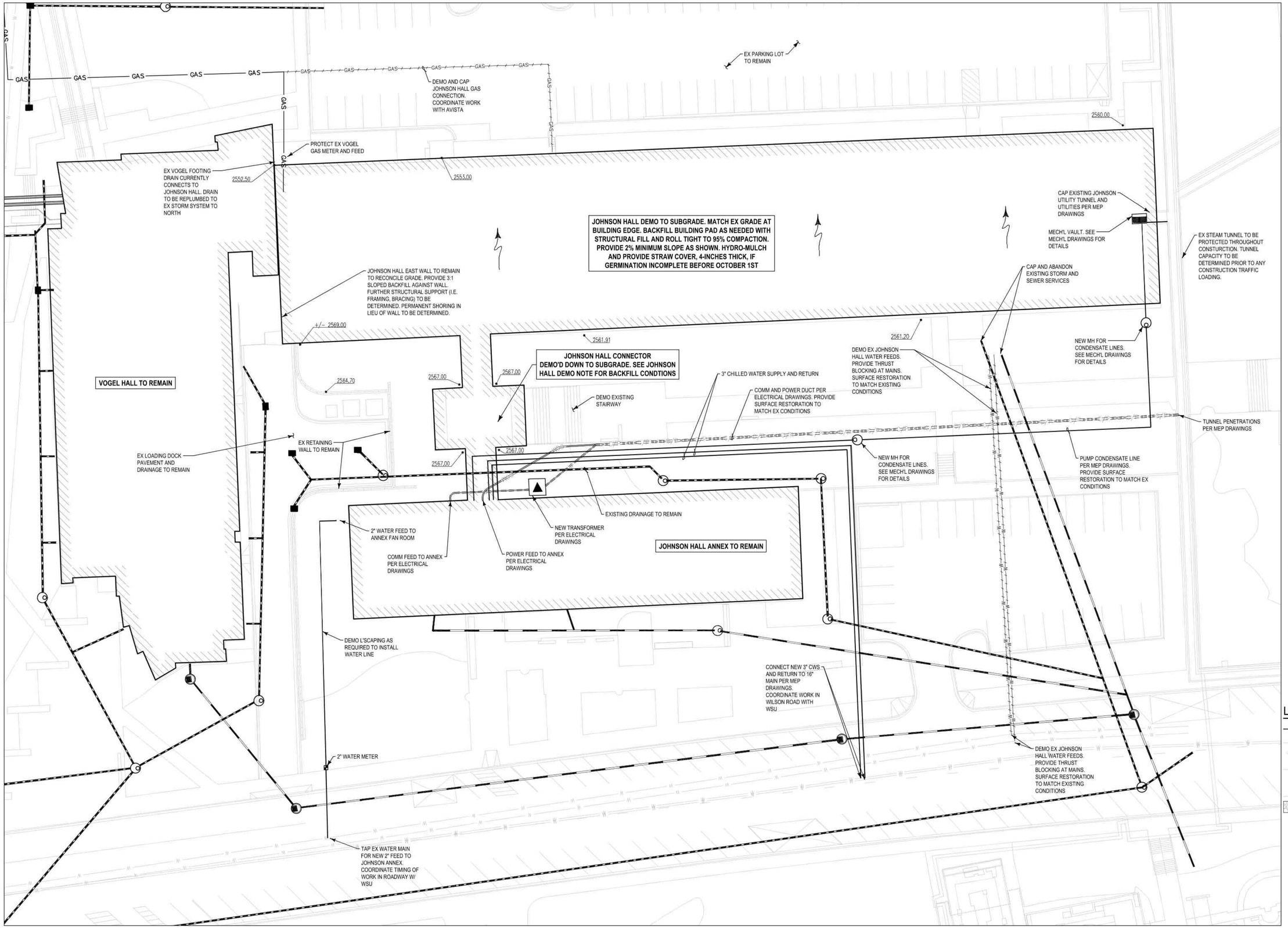
Appendix A - Engineering Study

Johnson Hall Demolition

Civil Schematic

2020-01-14



General Notes:

Trees and other landscaping to be preserved to the maximum extent feasible.

Disturbed landscaping areas to be reseeded/landscaped to match previous condition unless otherwise directed by WSU.

Utilities shown for rebuild/reconnection to the Johnson Annex are based upon information currently available.

Any downspouts or roof drainage lines from the Annex that connect to Johnson hall to be rerouted to ex storm system at nearest connection point.

Final grading of building pad to be gentle with slopes kept to a minimum. Backfill and structural solutions against Vogel Hall make this condition subject to change. Additional permanent site stabilization measures may apply.

Legend

- N 78°53'26" E – 46.81' — PROPERTY LINE
- 8" SD @ xx% — SEWER PIPE
- YD/CO/CB/CB 2/MH
- 8" SS @ xx% — STORM PIPE
- SANITARY MH/CO
- 12" DI W — WATER LINE
- BUILDING PAD RESTORATION

COUGHLIN PORTER LUNDEEN

801 SECOND AVENUE, SUITE 900
SEATTLE, WA 98104

(206) 343-0460 www.cplinc.com

JOHNSON HALL ADDITION

VOGEL HALL

SEE FLOOR PLANS NEXT PAGE.

JOHNSON HALL ANNEX

JOHNSON HALL

SITE RETAINING WALL TO REMAIN

~2550

~2558

~2564

~2567

~2553

DEMOLISH JOHNSON HALL AND CONNECTION TO JOHNSON HALL ANNEX

TWO LEVEL CONNECTION TO JOHNSON ANNEX. SEE ANNOTATED PHOTOS ATTACHED.

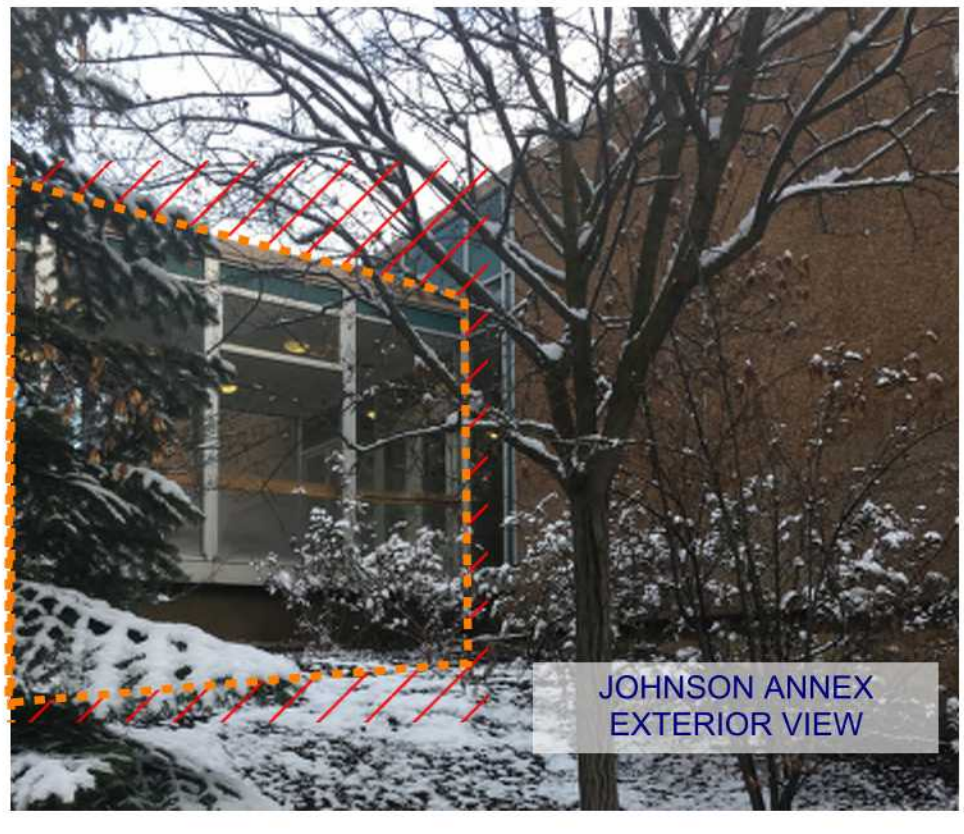
NORTH

SITE PLAN

LMN ARCHITECTS
1/16/2020

JOHNSON ANNEX
EXTERIOR VIEW

DEMOLISH GROUND LEVEL, AND LEVEL 1 OF JOHNSON ANNEX CONNECTION.



JOHNSON ANNEX
EXTERIOR VIEW

JOHNSON HALL ANNEX
CONNECTION TO JOHNSON HALL

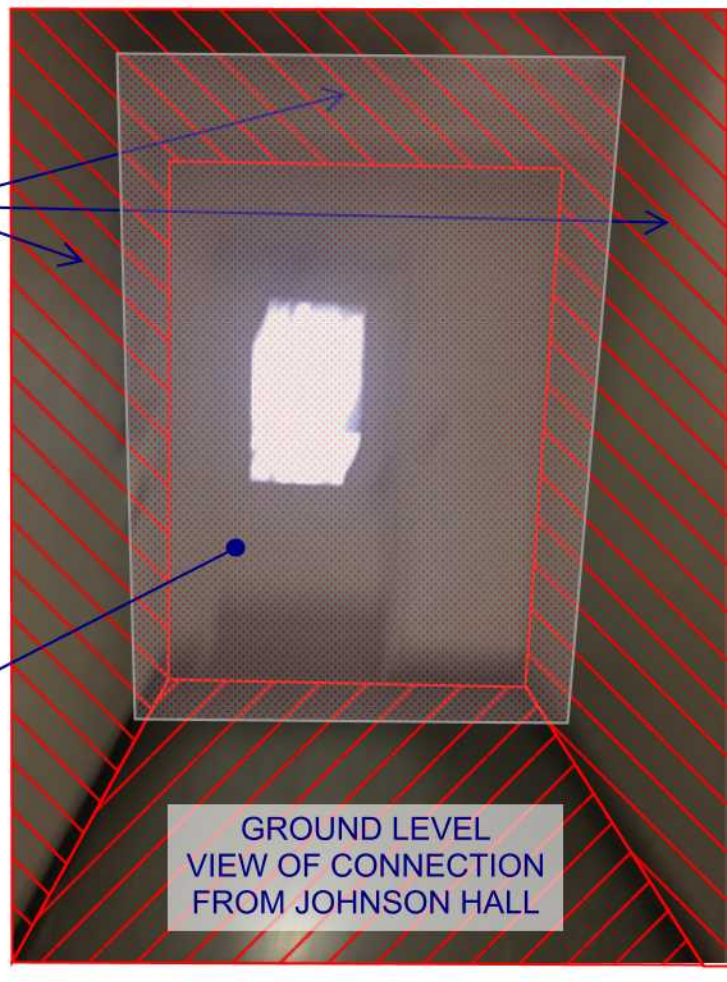
DEMOLISH JOHNSON ANNEX CONNECTION.

DEMOLISH INTERIOR GLAZING. INFILL OPENING WITH MTL STUD EXTERIOR WALL, AND METAL PANEL CLADDING.

GROUND LEVEL
VIEW OF CONNECTION
FROM JOHNSON ANNEX

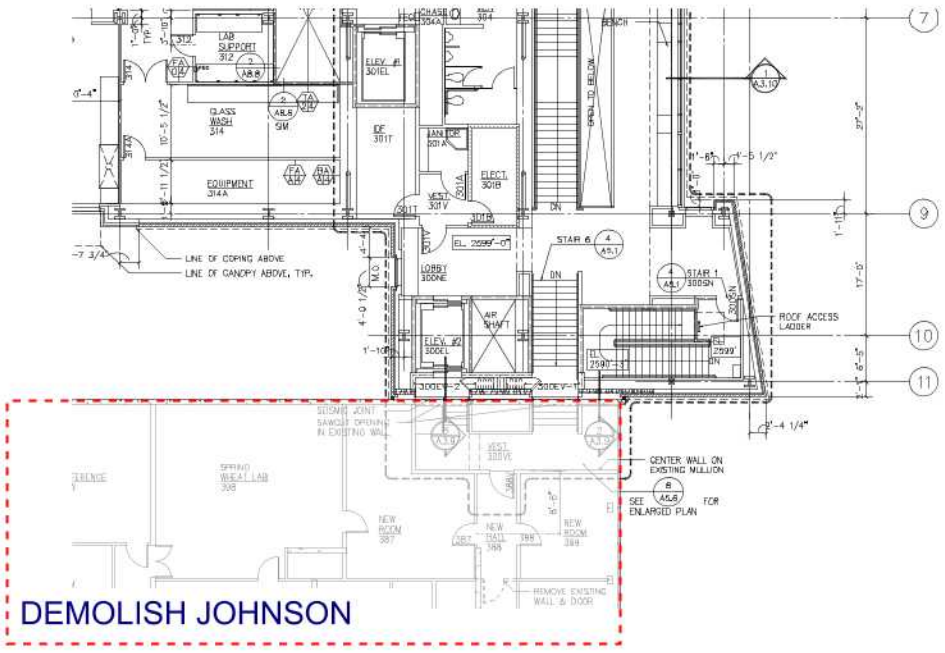
-REMOVE DOOR.
-INFILL OPENING WITH INSULATED METAL STUD WALL.

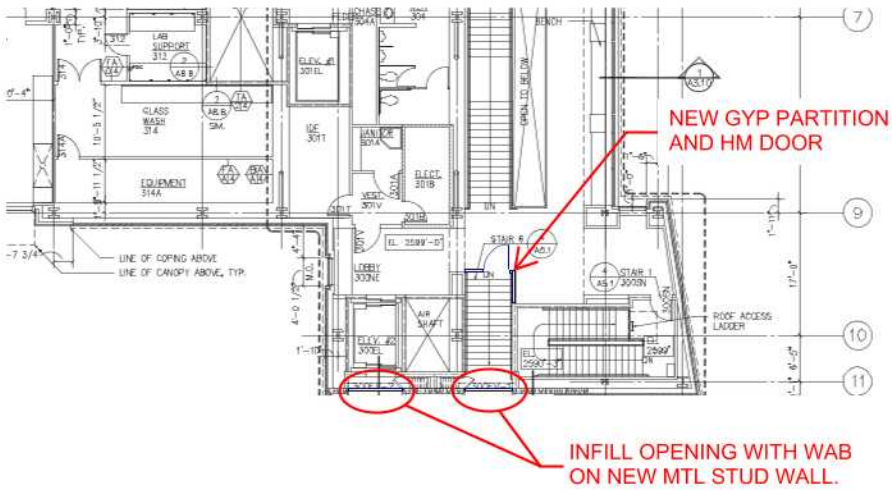
NEW CAST IN PLACE WALL. WATERPROOFING AT BELOW GRADE PORTIONS OF WALL. EXPOSED CONCRETE AT ABOVE GRADE PORITONS.



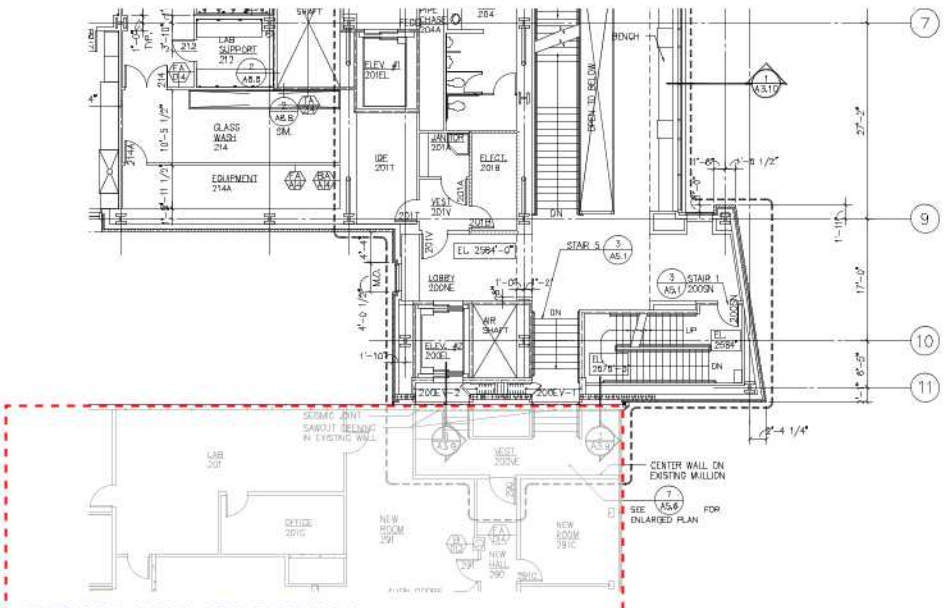
GROUND LEVEL
VIEW OF CONNECTION
FROM JOHNSON HALL

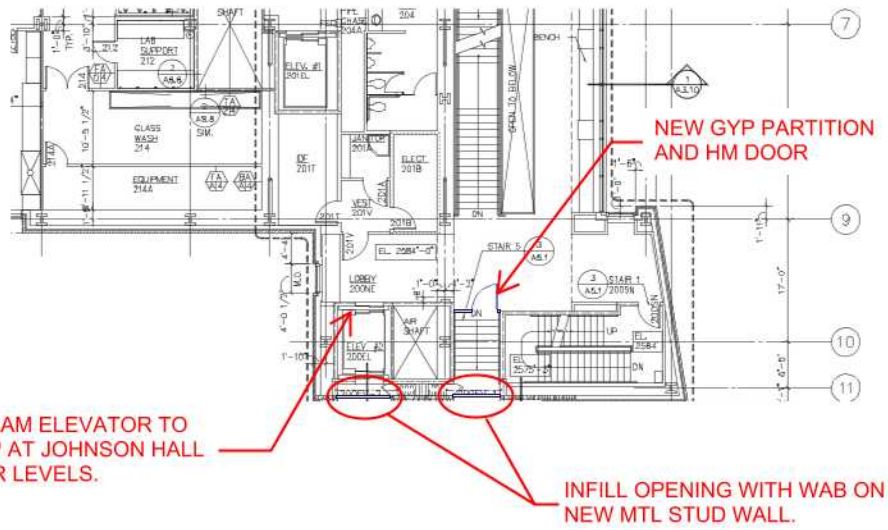
LMN ARCHITECTS
1/16/2020



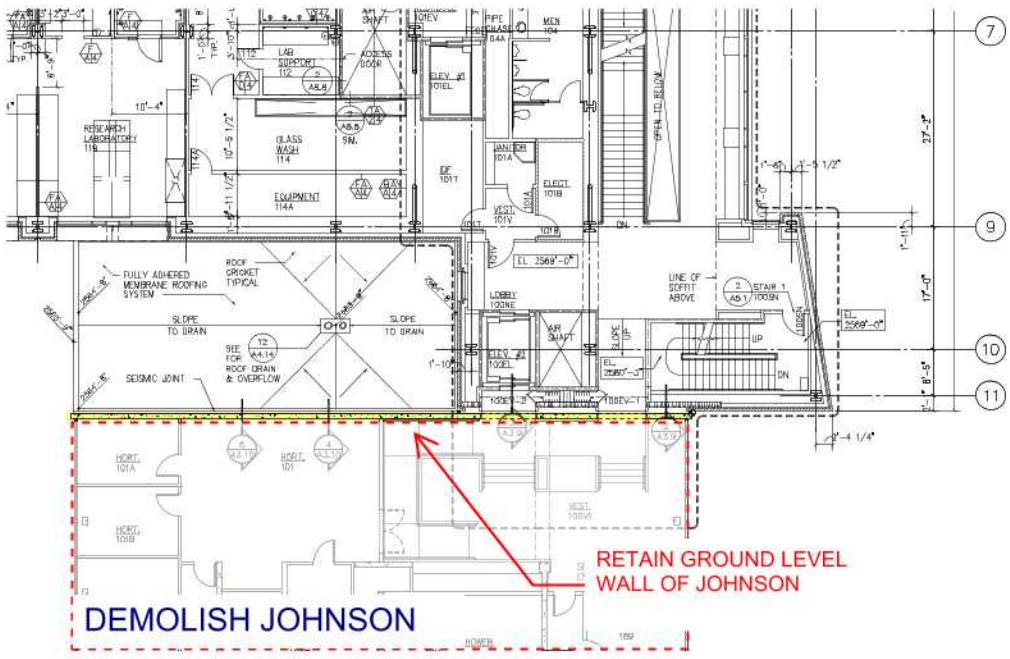


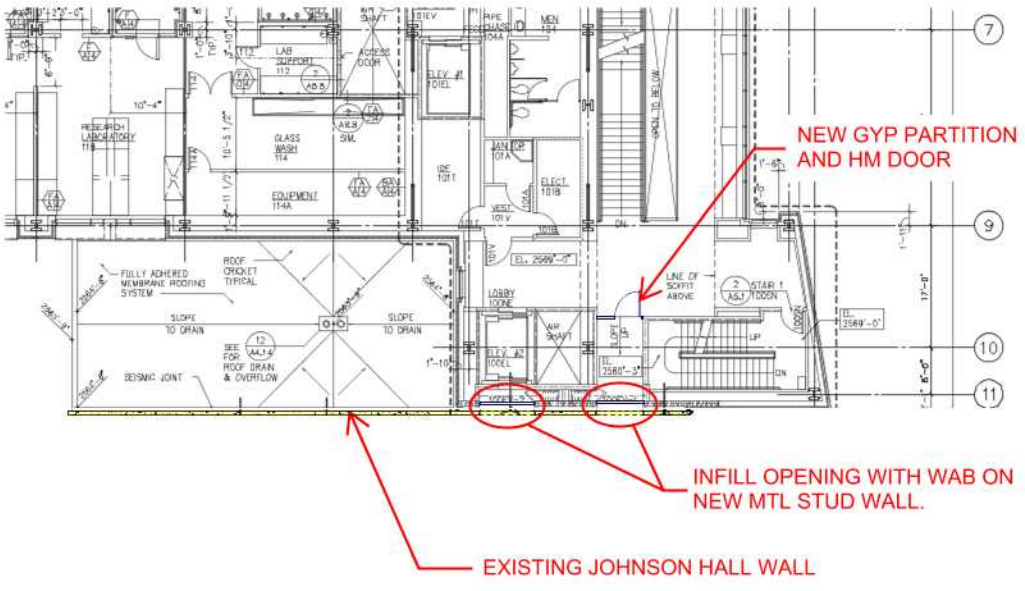
LV 3



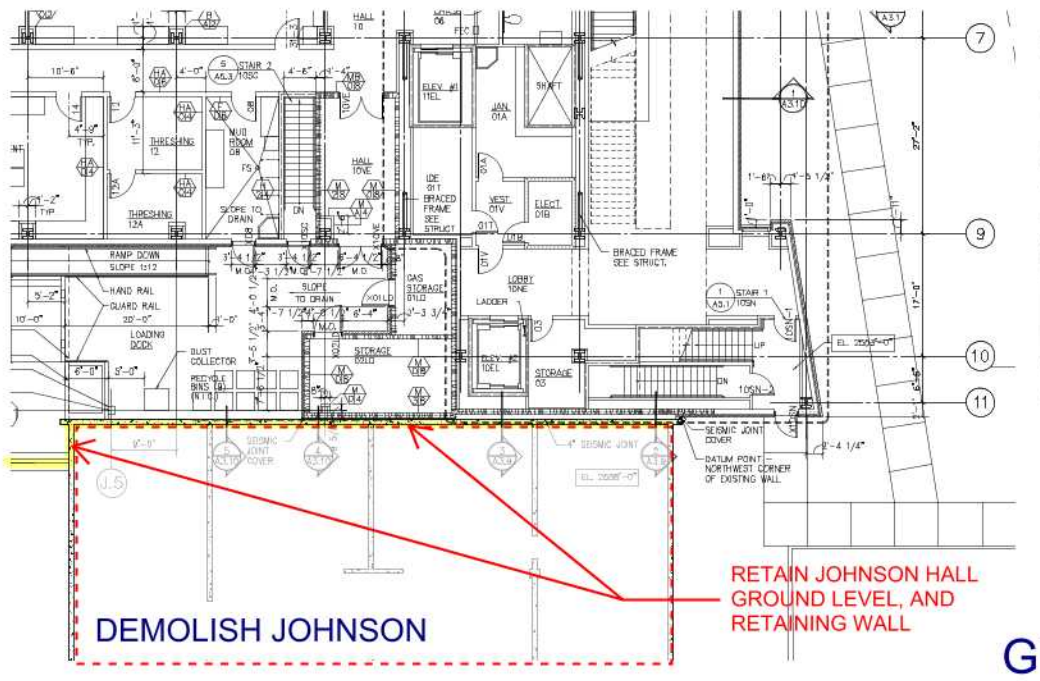


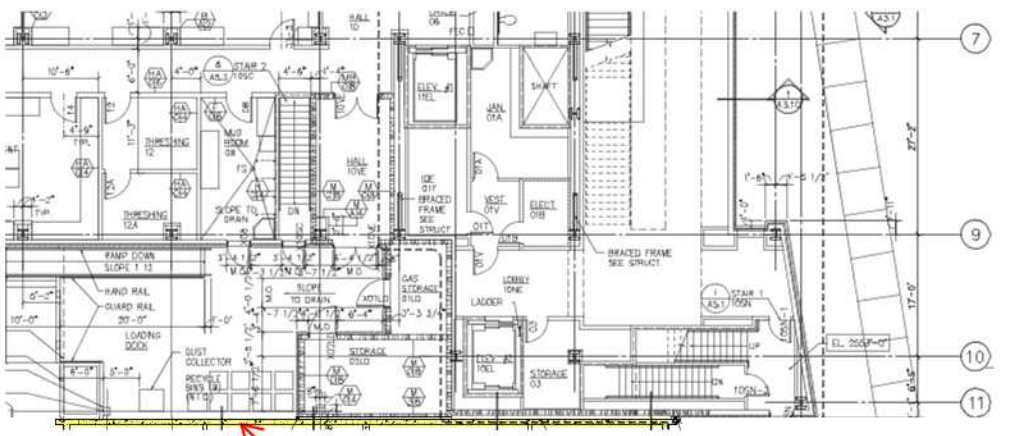
LV 2





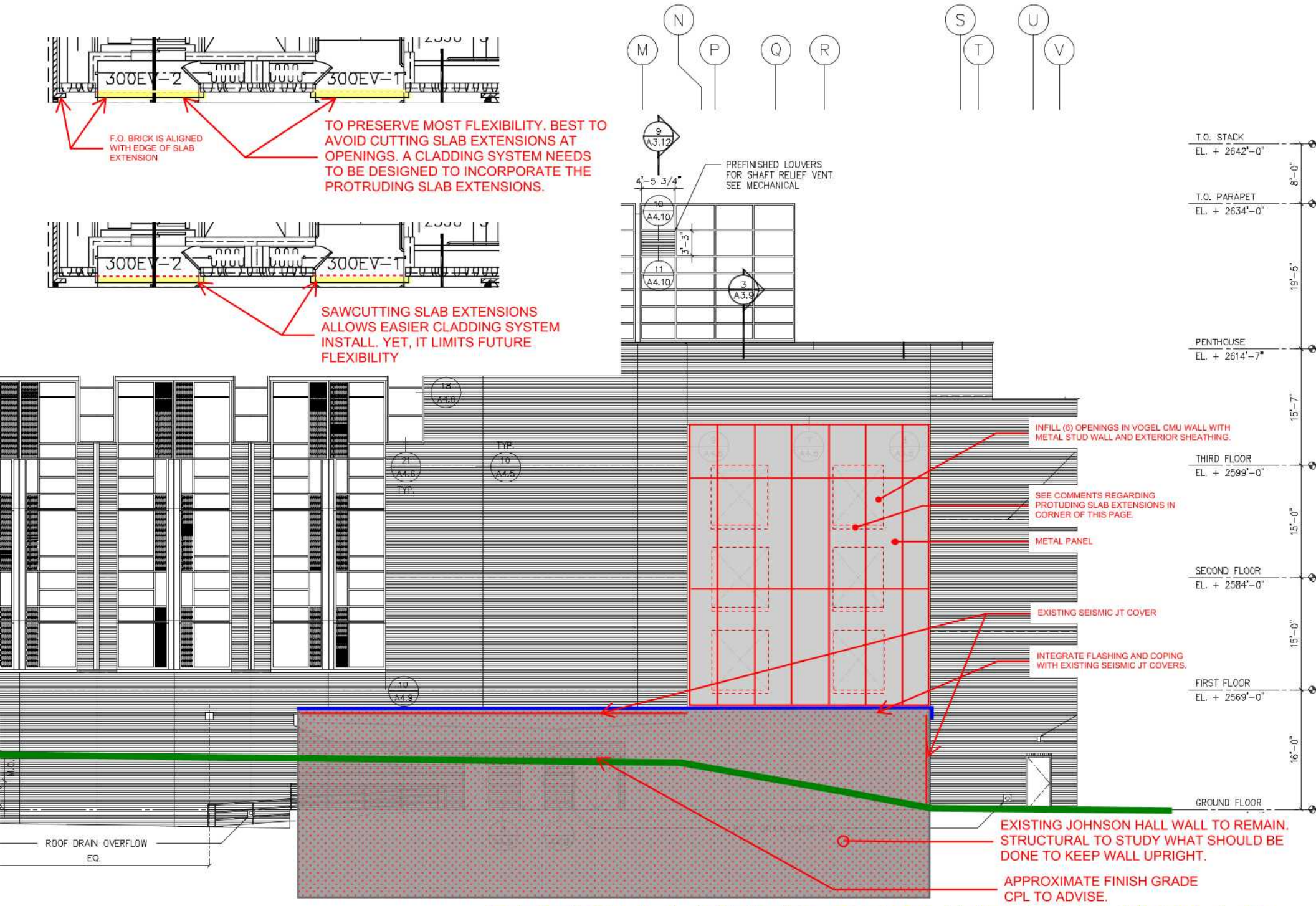
LV 1





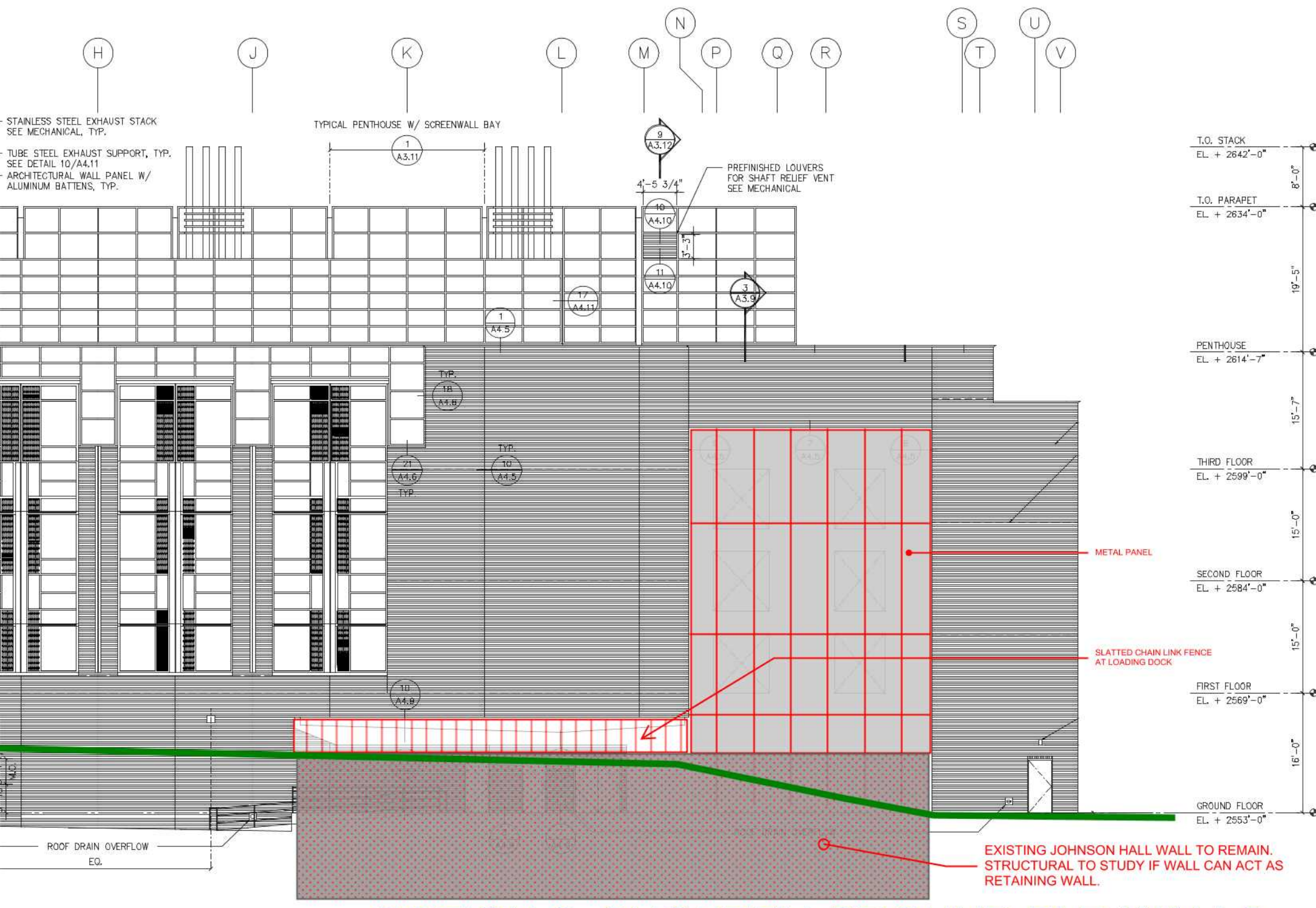
GRND LV

LMN ARCHITECTS
1/16/2020



OPTION 1-KEEP GROUND FLR WALLS

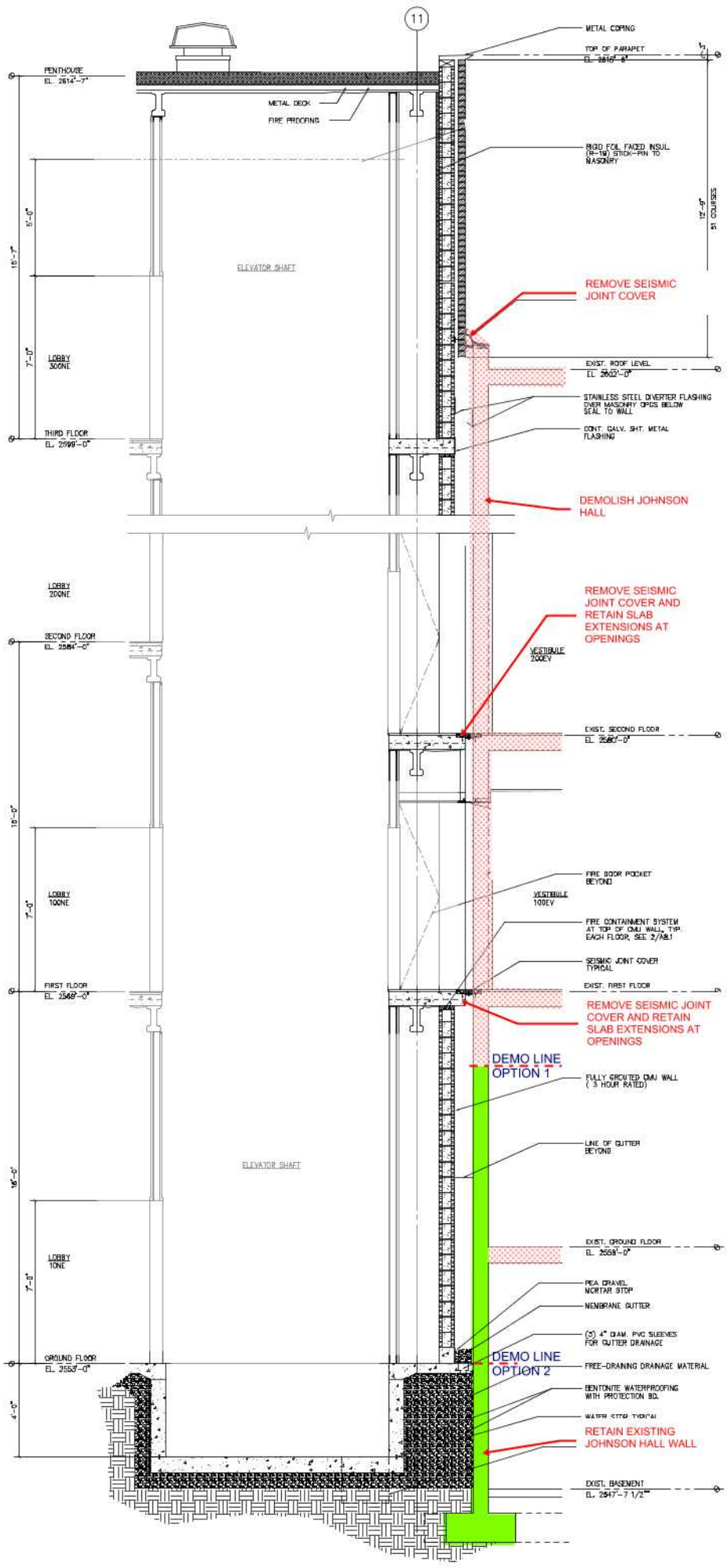
1 A3.2 EAST ELEVATION
SCALE: 1/8" = 1'-0"

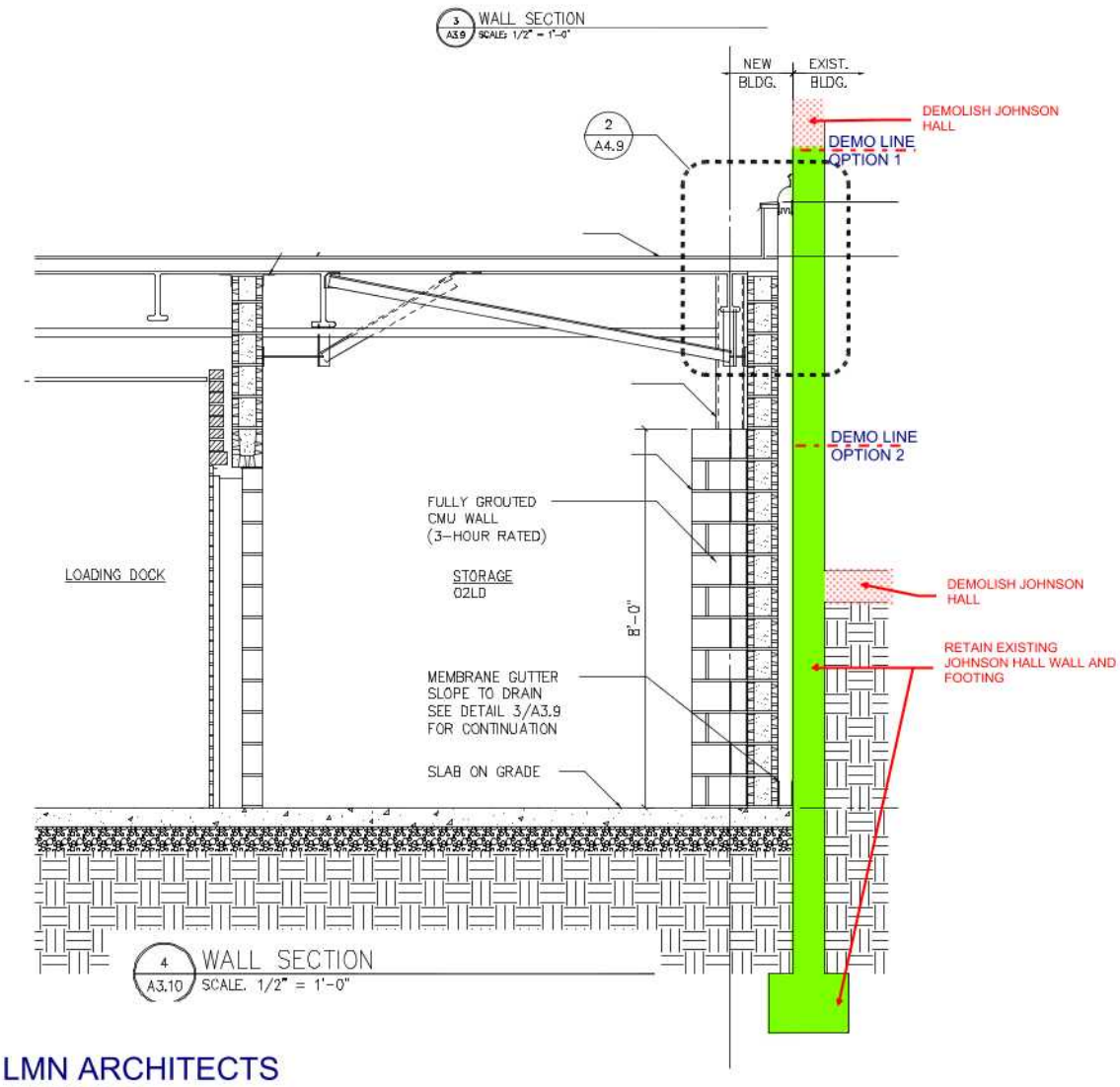


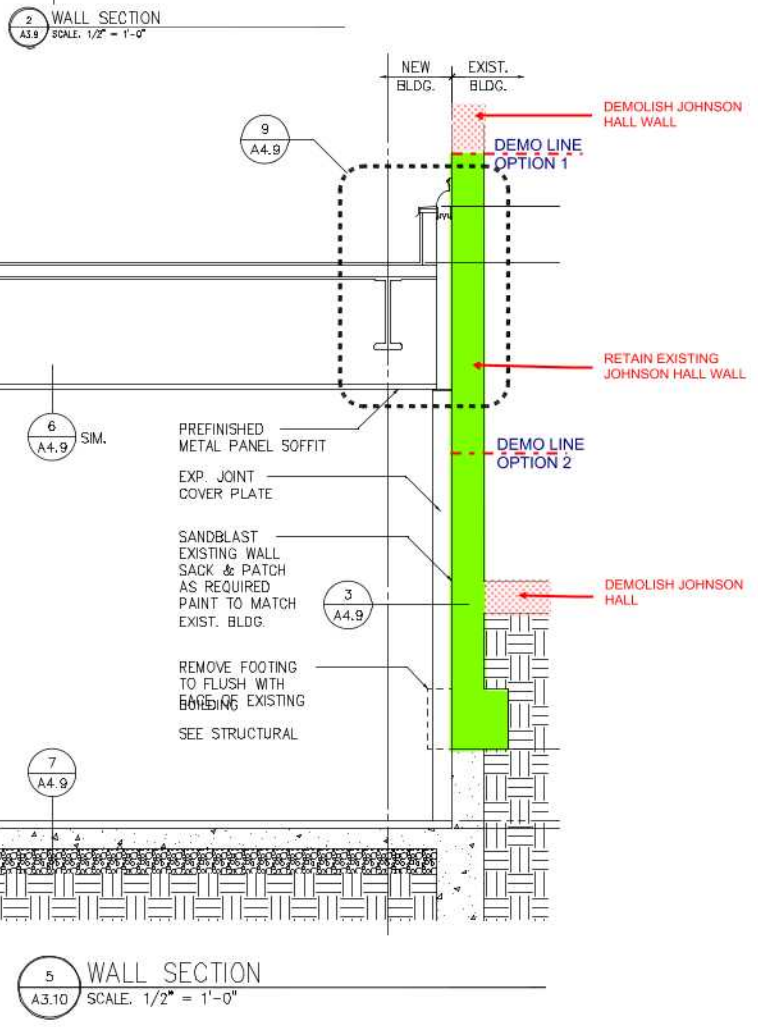
OPTION 2- SHORTEN GROUND FLR WALLS

1 EAST ELEVATION

LMN ARCHITECTS
1/16/2020

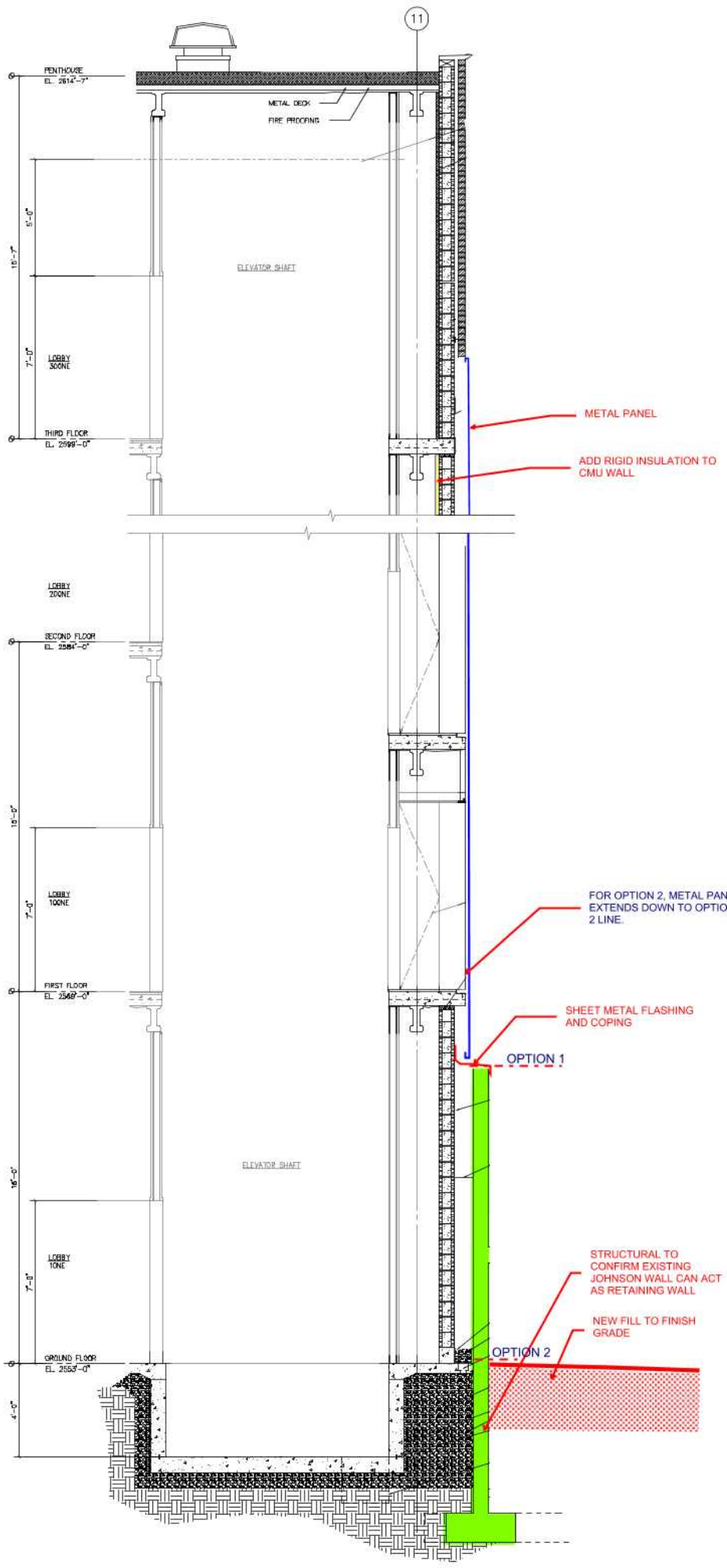


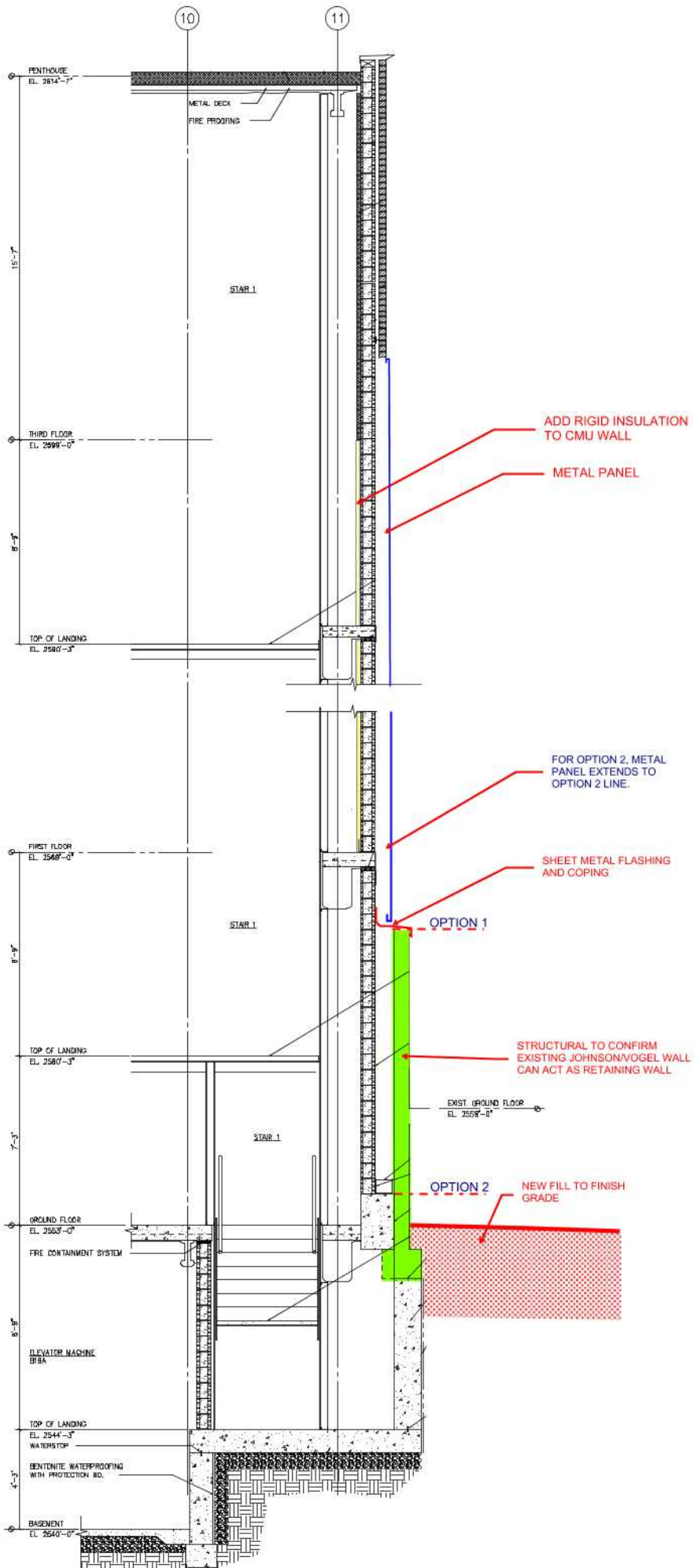


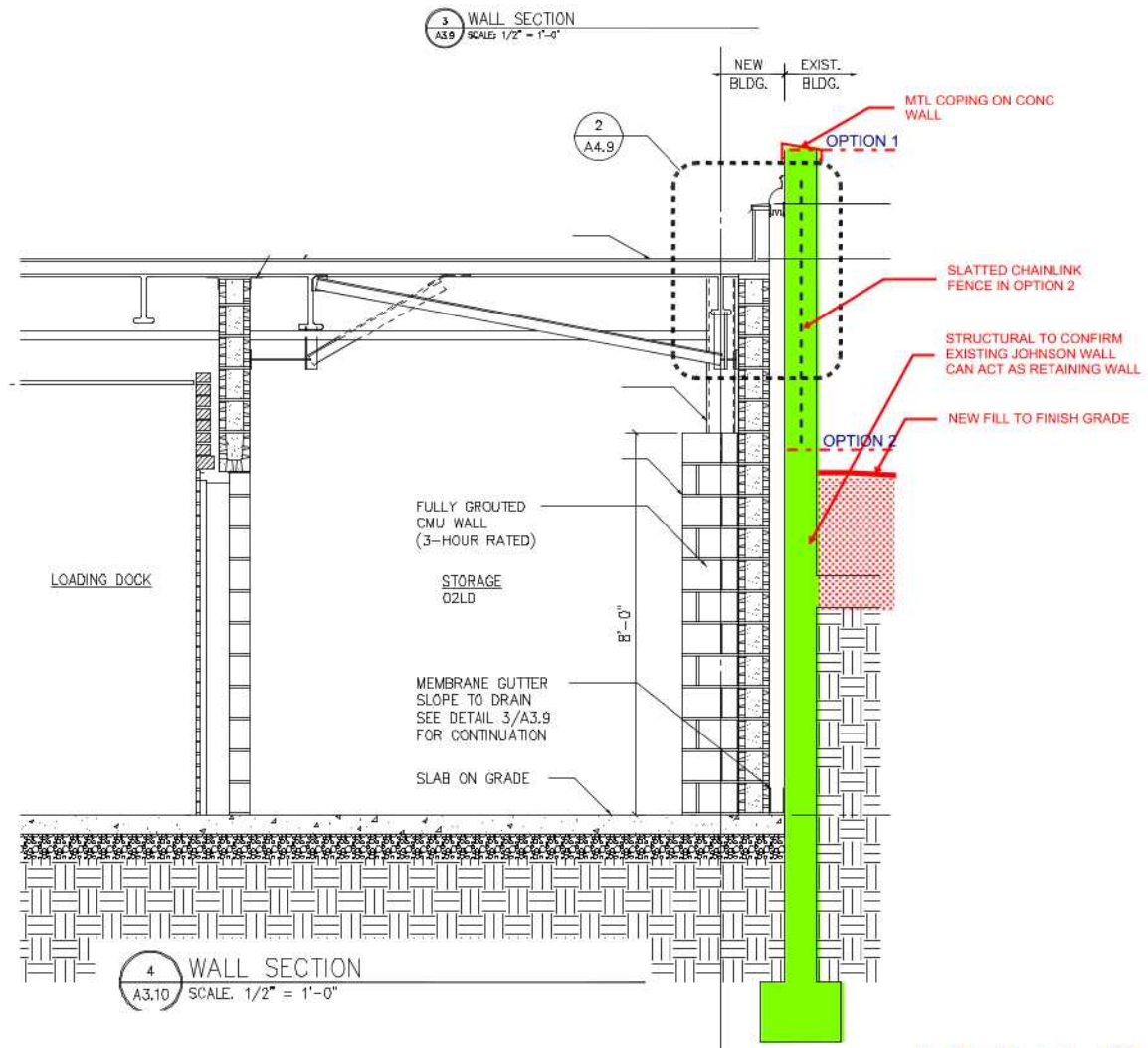


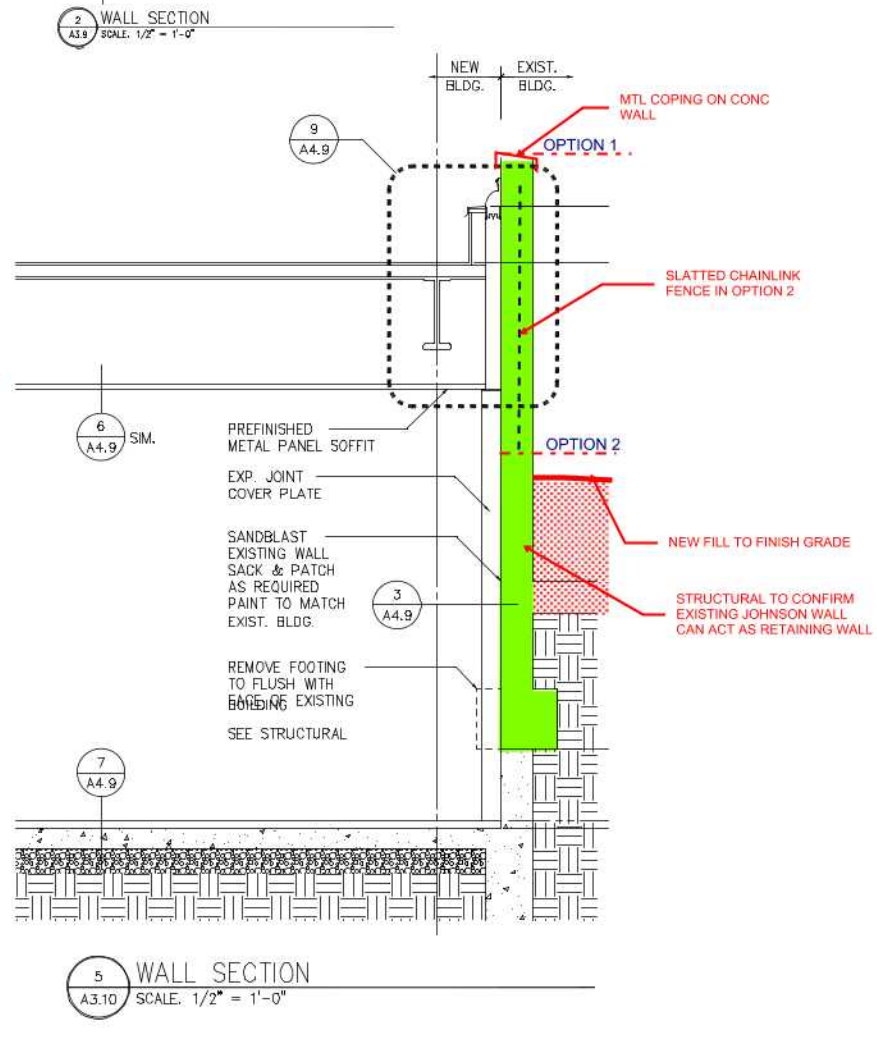
LMN ARCHITECTS
1/16/2020

DEMOLITION SECTIONS



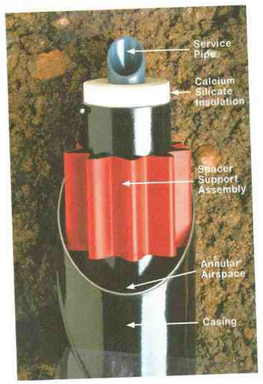






LMN ARCHITECTS
1/16/2020

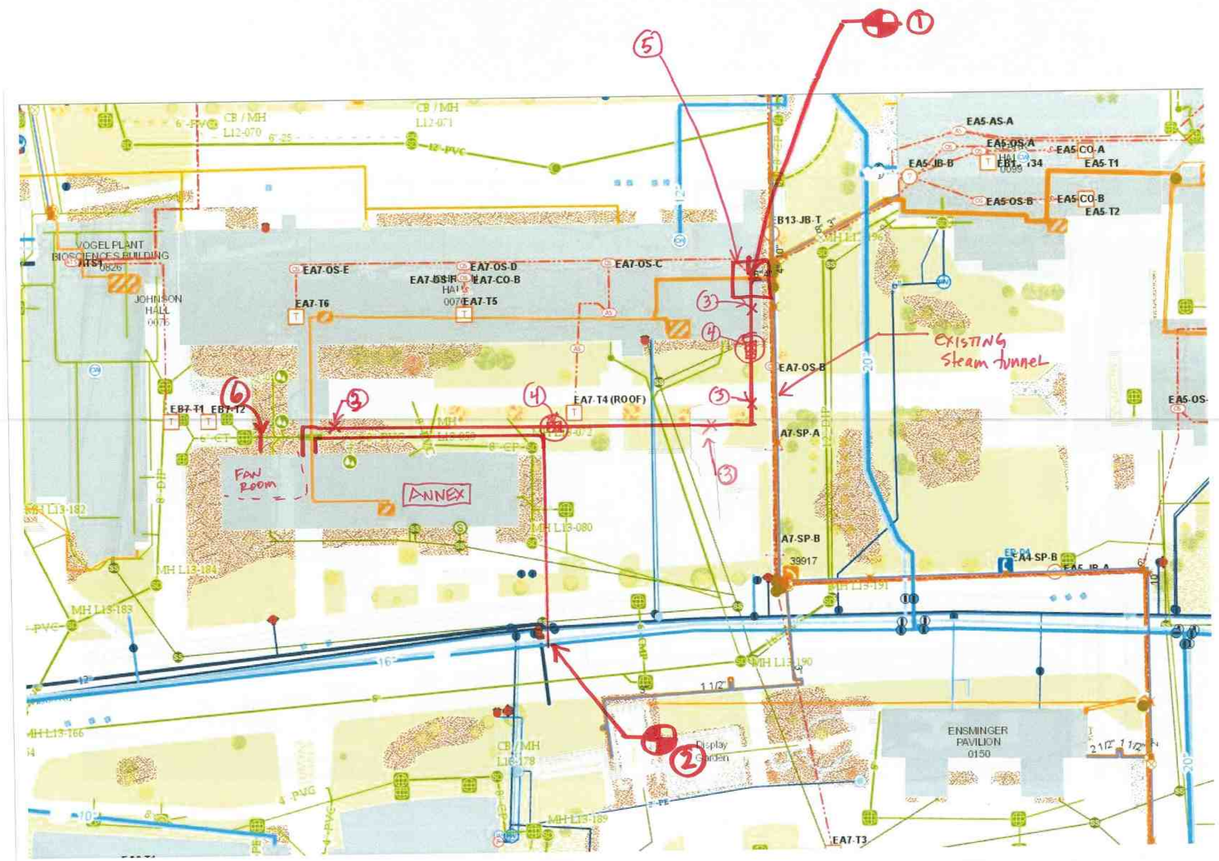
NEW CONSTRUCTION SECTIONS



Steam/Condensate pipe

Keynotes:

1. Create vault at tunnel intersection. Existing feeds to Johnson Hall are 6" HPS, 4" high pressure steam and 2 ½" pumped condensate.
   a. Provide a T and isolation valve in the pumped condensate line for a 1 ½" feed PC to the Annex. Sleeve new direct buried pumped condensate conduit through the vault wall with link seal around pipe for water seal.
   b. Provide a 2 ½" isolation valve in the pumped condensate for future extension.
   c. Provide a tee and isolation valve in the 6" high pressure steam line for a 2" HPS feed to the Annex. Sleeve new high pressure direct buried steam conduit through the vault wall with link seal around pipe for water seal.
   d. Provide a 6" HPS and 4" HPS isolation valve in the HPS lines for future extension.
   e. Provide high pressure drip at 6" and 4" HPS steam lines and pipe back to tunnel PC with a sparge tub connection where the high pressure drip connects to the existing pumped condensate.
   f. Provide ½" warm up throttling valve and bypass around the 2" Annex isolation valve for the new 2" hps warm up.
2. Connect new 3" chilled water supply and return to existing 16" mains located in Wilson road. Provide Valve/valve boxes for building isolation near mains.
3. Anchor in HPS and PC pipe. Install anchors in concrete blocks. Anchor blocks to be physically separated from chilled water lines by several feet.
4. Expansion joint located in manhole. Provide full size drip leg in high pressure steam line high pressure condensate trap and pipe condensate into the steam line with a sparge tube.
5. Vault formed at intersection of east tunnel and east end of Johnson Hall.
6. 2" water service



Scale 1" = 50' +/-

KEY
1. Domestic water, blue/dark blue
2. Chilled water, blue/light blue
3. Sanitary sewer, dark green
4. Storm drain, light green
5. Power, red
6. Comm., gold
7. Steam, gray

General Notes:

1. Johnson Hall and the connector to Johnson Hall annex will be demolished.
2. Johnson Hall mechanical services (steam, condensate, chilled water, domestic water) are fed to the annex through a tunnel.
3. After demolition, the annex needs to function for 5 years. Solutions for services to the annex do not need to be designed to the 30-50 year criteria commonly provided for campus buildings but the building does need to be functional for 5 years.
4. Vogel, which shares a wall with Johnson Hall, does not share services with Johnson Hall except for chilled water. See Johnson Hall notes below.
5. The size and extent of the addition to Vogel Hall is unknown but WSU did not believe it would occupy the entire footprint of Johnson Hall.
6. Provide Link seal at all penetrations of vaults, manholes, tunnels, foundation walls.

Johnson Hall Notes

1. The chiller plant at the top of Johnson is primarily used for winter cooling on campus. This plant will be removed in the project demolition and WSU presently has no plans to salvage any of the equipment. This scope does not include rebuild of plant as WSU will be examining other options elsewhere on campus to meet their winter cooling demand. Johnson Hall has 12" underground feeds from the north near the east end of Johnson Hall and 8" feeds from the west from Vogel
   a. Cap 8" feeds from Vogel in Vogel at the top floor and provide isolation valves in Vogel for future use and extension to future REC building expansion.
   b. Cap 12" under ground feeds immediately outside of Johnson at northeast feed.
2. There was some interest in retaining the east/west basement tunnel in Johnson. Due to need to elevation difference between basement and grade, is was discussed that retaining the tunnel would not allow for a flat/clean site and may be an obstacle for future work on the site. It is recommended that perhaps 10-15 feet of the tunnel remain at the east end as a vault for future extension of tunnels to the future Johnson Hall replacement Building.

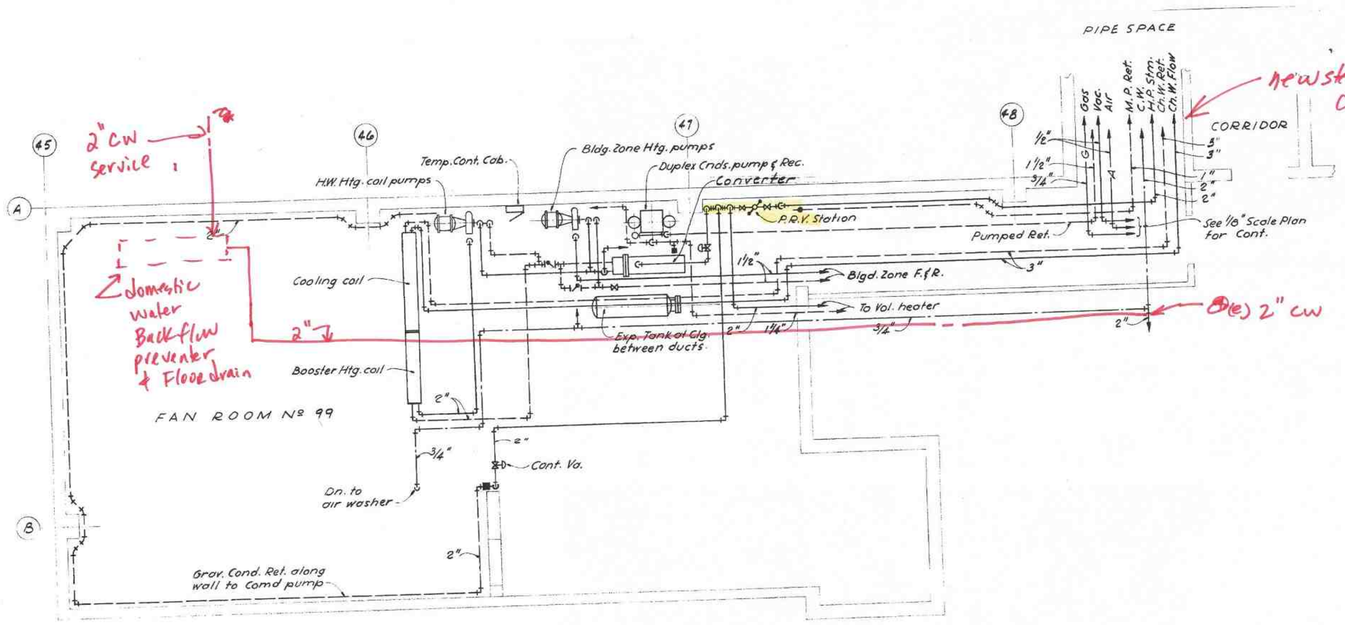
Annex Notes

1. Utilities for the annex are fed from Johnson Hall (water, steam, condensate, chilled water)
2. The annex has its own independent fan systems so air distribution within the annex is unaffected by the demolition of Johnson Hall.
3. Utilities that can be abandoned (and are not required in the Annex): Vacuum, Lab Compressed air, Lab Gas.
4. The annex does not have fire sprinkling.
5. Utilities from Johnson that need to be reestablished for the Annex
   a. Compressed air.
      i. Compressed is used for pneumatic controls in the annex and needs to be retained. The east penthouse has a control air compressor, but it cannot be determined if this feeds all of the control air in the building.
      ii. Based upon compressed air pipe routing from Johnson Hall, a small control air compressor with dryer and blowdown should be anticipated for the basement mechanical room in the annex as this is likely fed from Johnson Hall.
   b. Chilled water
      i. The building requires 3" supply and return water service. Ideally this would route to the northwest mechanical room.
   c. Domestic Water
      i. The building requires a 2" domestic cold-water service with double check backflow preventor assembly. Ideally this would route to the northwest corner of the annex. Backflow prevention to be located in the north or west walls of the northwest ground level mechanical room that is partially below grade on the north side of the building.
      ii. The building has an electric water heater that will be retained.
   d. Steam and condensate
      i. 2" campus steam enters the north side of the lower level annex mechanical room from an inaccessible steam crawl space. Steam is reduced in a single stage pressure reducing station (60# to 10#) and feeds steam coils in the building.
      ii. Gravity condensate is piped to a condensate receiver and 1 ½" condensate is pumped from the receiver to the campus condensate return system. Receiver and pump to be retained. The building does not have a flash tank.
      iii. Budget:
         1. Remove existing PRV and add new steam PRV to reduce 100 psi steam to 10 psi steam.
         2. Remove existing safety relief valve and provide new (reutilize existing 2 ½" vent through roof)
         3. New Flash tank for receipt of high-pressure condensate from drip legs. Tie into safety relief valve vent.
         4. Provide new direct buried 2" campus steam service and 1 ½" pumped condensate from the Johnson Hall new vault to the annex connection.
      iv. Direct Buried Steam/Condensate Pipe Materials: Budget prefabricated direct buried pipe installed in conduit equal to Perm pipe ESCON A Ferro-Shield. Service pipe-schedule 80 carbon steel, welded. Dryable insulation. 10 gauge steel outer conduit with corrosion resistant coating. Internal guides for expansion/contraction.

1.9.2020

ANNEX MECH SITE PLAN

M1



PLAN OF FAN ROOM
PIPING ONLY
SCALE: 1/4" = 1'-0"

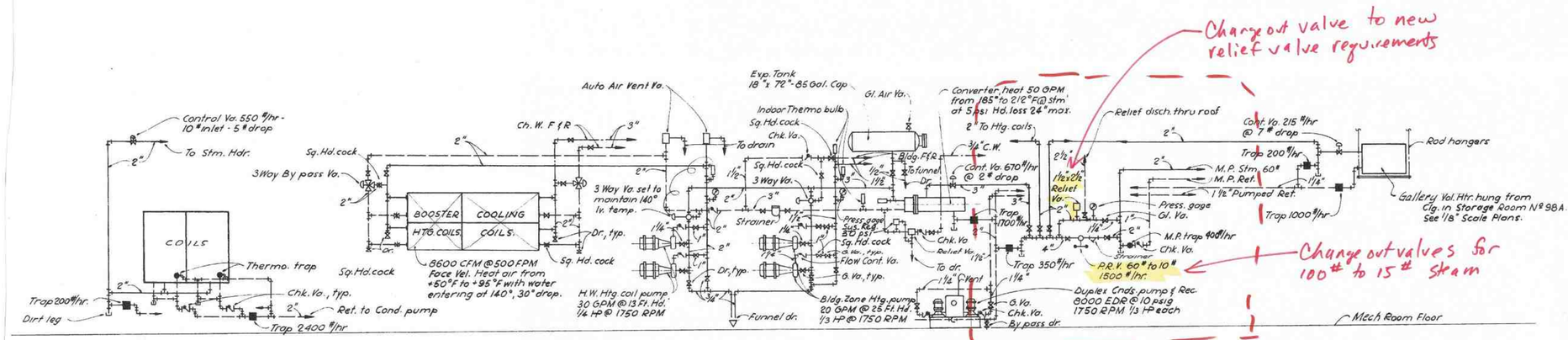


DIAGRAM OF PIPING IN FAN ROOM
SCALE : NONE

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ANNEX MECH ROOM

M2

FEEDER SCHEDULE

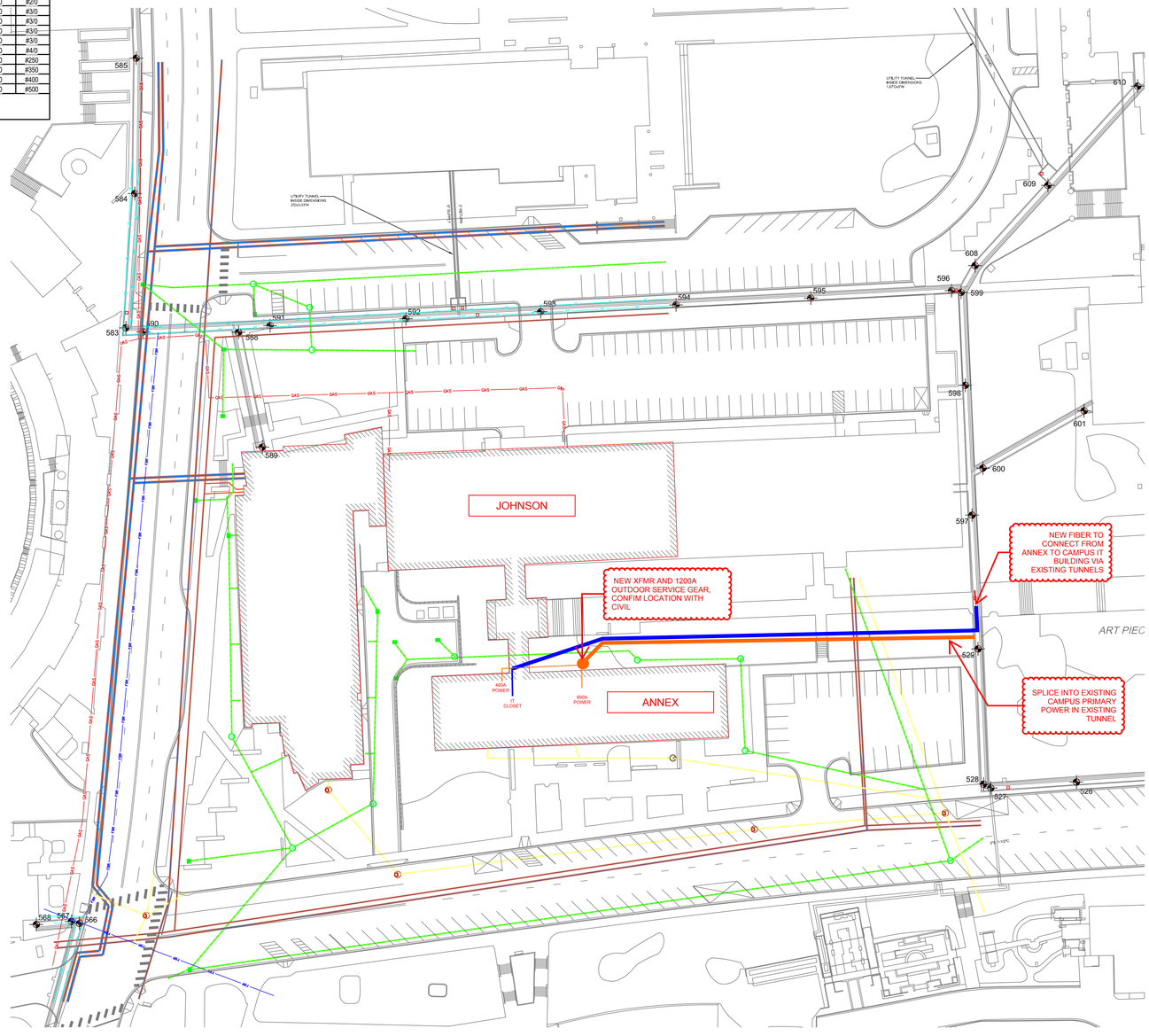
AMPACITY (AMPS)	FEEDER WITH NEUTRAL					FEEDER WITH 200% NEUTRAL AND ISOLATED GROUND					FEEDER WITHOUT NEUTRAL				
	FEEDER NUMBER	NUMBER OF SETS	CONDUIT (INCHES)	CONDUCTOR	GROUND	FEEDER NUMBER	NUMBER OF SETS	CONDUIT (INCHES)	CONDUCTOR	GROUND	FEEDER NUMBER	NUMBER OF SETS	CONDUIT (INCHES)	CONDUCTOR	GROUND
20	20N	1	3/4	4#12	#12	20K	1	3/4	3#12+#8	2#12	20	1	3/4	3#12	#12
30	30N	1	3/4	4#10	#10	30K	1	1	3#8+#4	2#10	30	1	3/4	3#10	#10
40	40N	1	1	4#8	#10	40K	1	1	3#8+#3	2#10	40	1	1	3#8	#10
50	50N	1	1	4#6	#8	50K	1	1 1/4	3#6+#1	2#8	50	1	1	3#6	#8
60	60N	1	1 1/4	4#4	#8	60K	1	1 1/4	3#4+#1	2#8	60	1	1 1/4	3#4	#8
70	70N	1	1 1/4	4#4	#8	70K	1	1 1/2	3#3+#1/0	2#8	70	1	1 1/4	3#4	#8
80	80N	1	1 1/2	4#3	#8	80K	1	1 1/2	3#3+#2/0	2#8	80	1	1 1/4	3#3	#8
90	90N	1	1 1/2	4#2	#8	90K	1	1 1/2	3#2+#3/0	2#8	90	1	1 1/4	3#2	#8
100	100N	1	2	4#1	#6	100K	1	2	3#1+#3/0	2#6	100	1	1 1/2	3#1	#6
125	125N	1	2	4#1	#6	125K	1	2 1/2	5#2/0	2#4	125	1	1 1/2	3#1	#6
150	150N	1	2	4#1/0	#6	150K	1	2 1/2	5#3/0	2#4	150	1	2	3#1/0	#6
175	175N	1	2	4#2/0	#4	175K	1	2 1/2	5#4/0	2#2	175	1	2	3#2/0	#4
200	200N	1	2 1/2	4#3/0	#4	200K	1	3	5#250	2#2	200	1	2	3#3/0	#4
225	225N	1	2 1/2	4#4/0	#2	225K	1	3	5#300	2#2	225	1	2 1/2	3#4/0	#2
250	250N	1	3	4#250	#2	250K	1	4	5#400	2#1/0	250	1	3	3#250	#2
300	300N	1	4	4#350	#2	300K	1	4	5#500	2#1/0	300	1	3	3#350	#2
350	350N	1	4	4#500	#1/0	350K	2	2 1/2	5#4/0	2#2/0	350	1	4	3#500	#1/0
		1	4	4#600	#1/0	400K	2	3	5#250	2#2/0	400	1	4	3#600	#1/0
450	450N	2	2 1/2	4#4/0	#2/0	450K	2	3	5#300	2#2/0	450	2	2 1/2	3#4/0	#2/0
500	500N	2	3	4#250	#2/0	500K	2	4	5#400	2#2/0	500	2	3	3#250	#2/0
		2	4	4#350	#2/0	600K	2	4	5#500	2#3/0	600	2	3	3#350	#2/0
700	700N	2	4	4#500	#3/0	700K	4	2 1/2	5#4/0	2#3/0	700	2	4	3#500	#3/0
800	800N	2	4	4#600	#3/0	800K	4	3	5#250	2#3/0	800	2	4	3#600	#3/0
1000	1000N	3	4	4#400	#3/0	1000K	4	4	5#400	2#3/0	1000	3	3	3#400	#3/0
		4	4	4#350	#3/0	1200K	4	4	5#500	2#3/0	1200	4	3	3#350	#3/0
1600	1600N	4	4	4#600	#4/0	1600K	8	3	5#250	2#4/0	1600	4	4	3#600	#4/0
2000	2000N	5	4	4#500	#250	2000K	8	4	5#400	2#250	2000	5	4	3#500	#250
2500	2500N	6	4	4#600	#350	2500K	10	4	5#400	2#350	2500	6	4	3#600	#350
3000	3000N	8	4	4#500	#400	3000K	10	4	5#500	2#400	3000	8	4	3#500	#400
4000	4000N	10	4	4#600	#500	4000K	16	4	5#400	2#500	4000	10	4	3#600	#500

NOTES:

1. CONDUIT SIZES ARE BASED ON THWN INSULATION FOR ALL CONDUCTORS AND RGS CONDUIT.

LEGEND

- NEW BURIED POWER, (1)4"C W/ MV CABLE
- NEW BURIED COMM, (1)4"C W/ FIBER
- NEW BURIED/SURFACE POWER CONDUIT W/ CABLING, AMPERAGE SIZE AS NOTED
- NEW BURIED/SURFACE COMM CONDUIT, (1)4"C W/ FIBER



Johnson Hall Demo Cost Scoping Study - Electrical

General Notes:

1.The electrical systems for Johnson Hall & the Annex have both exceeded their useful service life. Minor improvements have been made where noted below.

2.The exact timeline for eventual demolition of the Annex is not defined, but it is anticipated the Annex will be demolished within 5 years.

Johnson Hall Notes:

1.The Electrical and Telecom services exist in the tunnel level. Electrical and Telecom campus feeds enter the Johnson hall tunnel from the East.

2.Electrical and Telecom distribution systems originate from the tunnel level and then feed vertical to upper floors. It appears feasible to maintain the electrical systems at the tunnel level if the tunnel remains and only the floors above are demolished.

3.Demo of the tunnel level West of Grid 10 is feasible with no impact to the electrical systems, since the Electrical and Telecom services are all East of Grid 10 at the tunnel level.

4.If the tunnel level remains, the building demolition shall include removal of abandoned low voltage cabling and equipment in the tunnel.

Annex Notes:

1. Utilities for the Annex are fed from Johnson Hall through the existing Tunnel/Utilidor that runs North-South along Grid 10 between the buildings. Power services include (1)400A, 208V feed to the 1958 Annex and (1)600A, 208V feed to the 1967 Annex Addition. Both services originate from Johnson Hall at the tunnel level near Grid 10.

2. A remodel of the 1967 portion of the Annex building was performed in approximately 2015. New lighting and power was provided at that time. Additionally, new fire alarm systems were installed for the entire Annex.

3. Utilities from Johnson Hall the need to be reestablished to allow Johnson Hall tunnel demo as follows:

Power (Normal)
A new electrical service would need to be provided. Assume a single 1200A, 208V service could be established to refeed the 600A and 400A distribution panels in the Annex. New service would include capacity for new Mechanical loads. A location on the site would be needed for the 208V , 500kva service transformer. The new 1200A switchboard would be located near the new transformer.

Power (Emergency)
Feeder 13 is not currently provided to the Annex for life safety loads. Assume that a new 2000W lighting inverter will be provided to backup egress and exit lighting loads with minimum 90 minutes of run time per code. Intercept existing Panel X circuits at ground level and feed from new inverter, which shall be fed from the nearest normal power panel.

Telecom
A new telecom service would need to be provided. Assume new outside plant fiber from the existing campus IT building to the existing Annex via the existing campus tunnel system. New buried pathways from the tunnel east of Johnson Hall to the NW corner of the Annex. Assume new full height cabinet in the Annex IDF to house new telecom service equipment.

Fire Alarm
A new campus fiber connection would need to be provided for monitoring. Assume fiber for fire alarm connection will be included in the new Telecom service to the building.

ANNEX ELECTRICAL SITE PLAN - SHEET E1

DATE: 01-09-2020

US Army Corps of Engineers ®
Walla Walla District
BUILDING STRONG®

PHASE I ENVIRONMENTAL SITE ASSESSMENT
WASHINGTON STATE UNIVERSITY
JOHNSON HALL
PULLMAN, WASHINGTON

July 2020
PPL-C-2020-0013

Contents

APPENDICES

ACRONYMS & ABBREVIATIONS

ASTM	American Society for Testing and Materials
BER	Business Environmental Risk
CEG	Conditionally Exempt Generators
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CORRACTS	Corrective Action Report
CREC	Controlled REC
CSCS	Confirmed and Suspected Contamination Sites
ECP	Environmental Condition of Property
ECR	Environmental Covenants Registry
EPA	United States Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
HREC	Historical Recognized Environmental Condition
HTRW	Hazardous, Toxic, or Radioactive Waste
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
NFA	No Further Action
NPL	National Priority List
PCB	Polychlorinated Biphenyls (PCBs)
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
SQG	Small Quantity Generator
SWDF	Solid Waste Disposal Facilities
SWDS	Solid Waste Disposal Sites
TSD	Treatment, Storage, and Disposal
USACE	United States Corps of Engineers
UST	Underground Storage Tank
WDOE	Washington Department of Ecology

1.0 GENERAL SITE INFORMATION

Project Information:	Phase I Environmental Site Assessment (ESA)
Site Information:	Johnson Hall Building (0.8 acres), a 1.3-acre open lot (Site 1), and a one-acre open lot (Site 2) 1820 Northeast Wilson Road Washington State University, Pullman Campus Pullman, Washington
Site Access Contact:	Mr. Jason Baerlocher, Project Manager (509) 335-9012
Client Information:	Mr. Jason Baerlocher Washington State University Pullman, WA 509-335-9012

SIGNATURE PAGE

This report was prepared by:
Kristen M. Shacochis-Brown, P.W.S., V. P.W.D.
Army Corps of Engineers-Environmental Compliance Section
Walla Walla District
201 North Third Avenue
Walla Walla WA 99362
(509) 527-7262

Signature:_____

This report was reviewed by:
Matthew Drumheller
Army Corps of Engineers-Environmental Compliance Section
Walla Walla District
201 North Third Avenue
Walla Walla WA 99362
(509) 527-7121

"I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a parcel of the nature, history, and setting of the subject parcel. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Signature:_____

1.0 EXECUTIVE SUMMARY

1.1 Subject Property Description

The subject property consists of three adjacent sites: two vacant lots (Site 1 and Site 2) and the Johnson Hall building located at the intersection of NE Stadium Way and Wilson Road within the Research and Education Complex of the Washington State University campus in Pullman, Washington (Figure 1). Site 1 is an approximately 1.3-acre vacant lot located between Vogel Hall, Johnson Hall and School of Molecular Biosciences and NE Stadium Way. Site 2 is an approximately one-acre vacant lot bordered by Hulbert Hall, Clark Hall and the Horticulture and Landscape Architecture Display building. The Johnson Hall Building sits on approximately 0.8 acres and is located at 1820 Northeast Wilson Road, Washington State University, Pullman Campus, Pullman, Washington

Access to the subject property is from Wilson Road and NE Stadium Way.

Adjacent and vicinity properties are in use as part of the college campus.

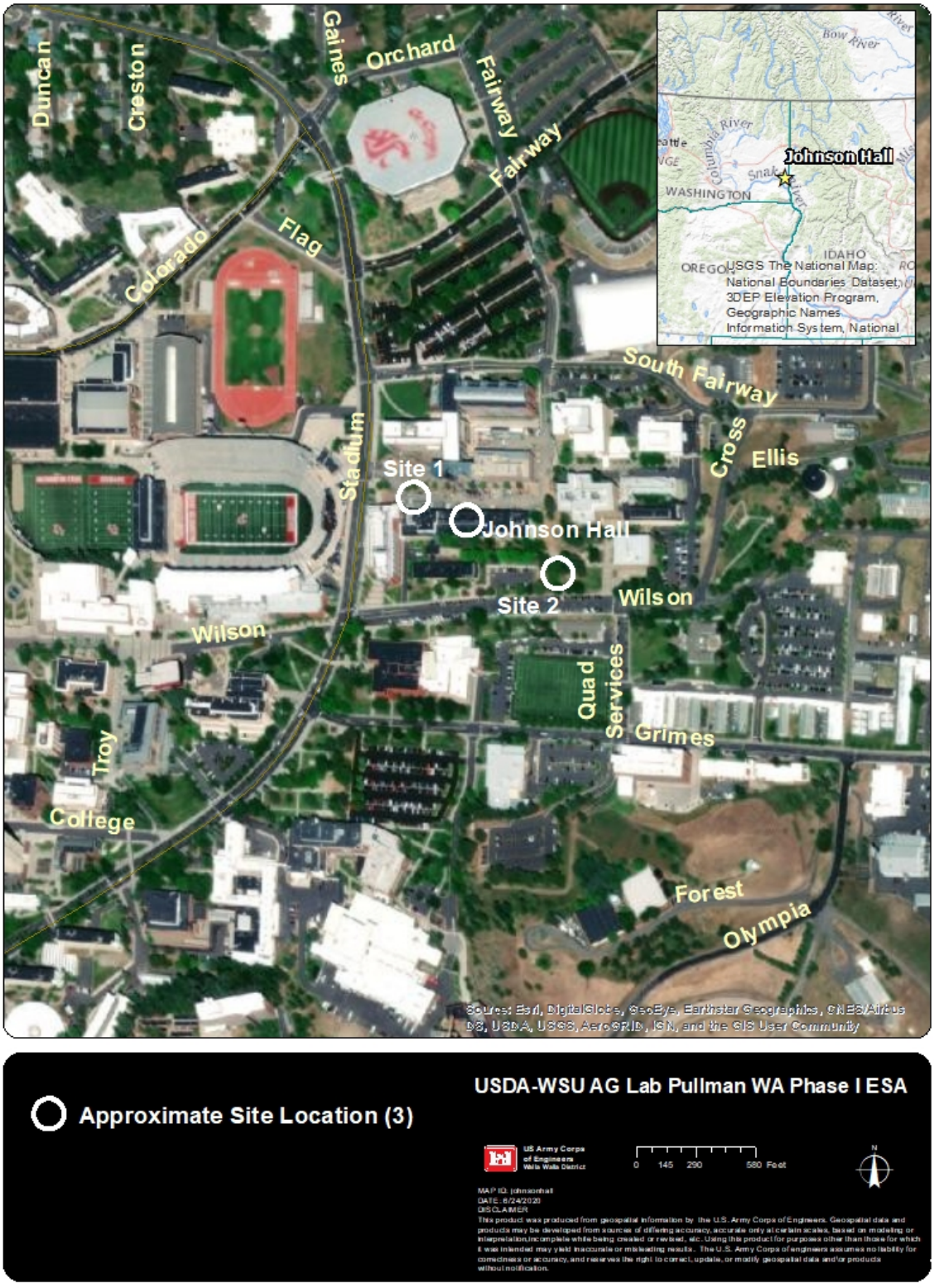


Figure 1. Location of the Subject Property. The Subject Property consists of Site 1, Site 2, and Johnson Hall.

1.2 Data Gaps

To the Army Corps of Engineers (Corps) knowledge, no data gaps have been encountered during the preparation of this ESA.

1.3 Summary of Findings

The Corps performed a Phase I Environmental Site Assessment in substantial conformance with the scope and limitations in ASTM Practice E1527-13. Any exceptions to, or deletions from, this practice are described in Section 2.2 of this report. The Corps did not identify recognized environmental conditions, as that term is defined by ASTM, in connection with the subject parcel.

1.4 Recommendations

Based on the information presented in this report, the Corps does not recommend additional investigation with respect to the potential for recognized environmental conditions in connection with the property.

- Chemicals, chemical waste and other hazardous waste should be properly handled and disposed of in an appropriate manner. A copy of the WSU handbook is found in Appendix H.
- Sink traps and drains should be inspected for possible chemical and radiation contamination.
- Asbestos and lead have been found at various locations throughout Johnson Hall. These materials should be disposed of an appropriate manner. A copy of the Good Faith report is found in Appendix H.
- PCB ballasts need to be disposed of according to the WSU handbook. A copy of the handbook is found in Appendix H.

Conclusions and opinions presented for this assessment are based solely on the information derived from the study sources and references noted in the appendices and presented within this report. If additional information becomes available that is not included in this report, such information may lead the Corps to modify the opinions and conclusions contained herein.

The Corps recommends that this Executive Summary be used solely as a broad description of the environmental conditions at the site. The entire document, including appendices, should be read completely prior to the development of independent conclusions on the environmental status of the subject parcel.

2.0 INTRODUCTION

2.1 Purpose

The purpose of the Phase I Environmental Site Assessment (ESA) was to evaluate the current and historical conditions of the subject parcel consistent with good commercial or customary practice as outlined by the ASTM Practice E1527-13. As part of these requirements, the Corps

acting as the Environmental Professional endeavors to identify "recognized environmental conditions" (REC) in connection with the subject parcel.

ER-200-2-3 states that the Phase I ESA must comply with applicable standards for performing either a Phase I or Phase II Environmental Site Assessment as defined in American Society for Testing and Materials (ASTM) Standard E 1527-13 entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," or ASTM E 1903-11, "Standard Guide for Environmental Site Assessment: Phase II Environmental Site Assessment Process" as appropriate.

A **Recognized Environmental Condition** (REC**)** is defined by ASTM E1527-13 as: the presence of or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that suggest a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.

A *de minimis* condition is defined by ASTM as a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* conditions are not recognized RECs or Controlled REC's.

A condition for the exclusion of petroleum is defined by the ASTM as: "The exclusion from [Comprehensive Environmental Response, Compensation, and Liability Act] liability provided in 42U.S.C. §9601(14), as interpreted by the courts and [Environmental Protection Agency (EPA)]: "The term (hazardous substance) does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas such as synthetic gas)."

A Business Environmental Risk (BER) is identified by the ASTM as: "A risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice."

Certain RECs are further characterized as follows:

A **Controlled REC** is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

An **Historic REC** is a REC characterized as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to

the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

A **Vapor Encroachment Condition (VEC)** is defined as "presence or likely presence of Chemical of Concern vapors in the subsurface of the Property caused by the release of vapors from contaminated soil or groundwater either on or near the Property."

The Corps, as an Environmental Professional, uses professional judgment to render an opinion as to whether a VEC represents a REC.

The identification of RECs in connection with the Subject Property could impose an environmental liability on owners or operators of the site, reduce the value of the site, or restrict the use or marketability of the site. This Report does not include or address groundwater, soil, or extraneous material contamination under the soil surface with respect to testing, coring, or sampling. If a REC is noted, further investigation may be necessary to evaluate the scope and extent of potential environmental liabilities.

2.2 Scope of Work

The Corps conducted this Phase I ESA at the parcel in substantial compliance with ASTM Standard E1527-13. The methodologies within this ASTM are utilized to identify RECs associated with the Subject Property and includes the following tasks:

- Conducting a record search and reviewing all reasonably attainable federal, state, and local government information and records to determine possible onsite sources of hazardous substances and environmental condition of the property.
- Reviewing of all reasonably attainable federal, state, and local government records of adjacent facilities that could have released or likely released contamination to determine possible offsite sources of hazardous materials.
- Analysis of historical data on prior uses of the property and the surrounding area.
- Interviews with the owner and/or tenants or other knowledgeable sources.
- Visual site inspection of the property to identify possible hazardous substance sources.
- Identification of contamination sources using data gathered and evaluation of risk they pose and the effect to the categorization of the environmental condition of the property.
- Identification of all ongoing actions that may affect the environmental conditions of the property.
- Determination of the environmental condition of the property.
- A site reconnaissance.

A Phase I ESA does not include sampling or testing of air, groundwater, surface water, or building materials. If required, such activities would be carried out in a Phase II ESA. For this Phase I ESA, no additions to the ASTM E1527-13 standard were made.

2.3 Significant Assumptions

This report is intended for use on a voluntary basis by the Client who wishes to assess the environmental condition of the subject parcel considering commonly known and reasonably ascertainable information. The report is site specific and time specific in that it relates to the assessment of environmental conditions on the specific parcel at the time of the preparation of this report.

ASTM Practice E1527-13 notes that while the purpose of such investigations is to reduce uncertainty, no environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs on a property. Not every property warrants the same level of assessment. Consistent with good commercial or customary practice, the appropriate level of environmental site assessment will be guided by the type of property subject to assessment and on the information developed over the course of inquiry.

There is a possibility that even with the proper application of these methodologies there may exist on the Property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. The Corps believes that the information obtained from the record review and the interviews concerning the site is reliable. However, the Corps cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The methodologies of this assessment are not intended to produce all-inclusive or comprehensive results, but rather to provide ARS with information relating to the property.

2.4 Limitations and Exceptions

The Corps has conducted a Phase I ESA, which consisted of a visual site visit, a site history review, a review of practically reviewable federal and state environmental records, and/ or interviews or interview attempts with persons knowledgeable about the property. This ESA was researched and prepared following the general protocols outlines in ASTM Standard E 1527-13 by the Corps for the use of the Client in accordance with the defined scope of services provided in an agreement between the Corps and the Client. The conclusions provided in this report are based solely upon the information reported in this document.

Additional information with respect to the property or adjacent properties that was not available to us at the time this assessment was prepared could modify the conclusions stated herein. This report has been prepared in accordance with current generally accepted engineering and environmental practices and with generally accepted definitions of "Phase I" or "Level 1" ESAs; no other warranty, expressed or implied, is made as to the professional advice provided under the terms of our agreement and included in this report.

No sampling and testing for asbestos containing materials, mercury, lead in paint, lead in water, indoor air quality, or radon are included in this assessment. Washington State University conducted an assessment for the presence of Asbestos and Lead Paint, titled "*Good Faith Survey Johnson Hall (#0076) Washington State University Pullman Washington*", conducted in 2017, and did identify the presence of Asbestos and Lead Paint on site. The report is found in Appendix H.

The field identification of wetlands or other preservation areas is not included in this assessment. The evaluation of compliance issues (e.g., actions taken under the Emergency Planning and Right to Know Act, employee notification and training under the Occupational Safety and Health Act, etc.) is specifically excluded from this assessment. This assessment did not include a review or audit of operational environmental compliance, or of any environmental management systems (EMS) that may exist on the property.

Reference materials (including but not limited to road maps, historic maps, directories, deeds, and government documents) reviewed during the preparation of this report are believed to be accurate and complete per the circumstances of their preparation. Per ASTM E1527-13, the Corps, as an environmental professional, is under no obligation to verify independently information obtained from others.

Conclusions and recommendations presented in this report should not be construed as legal advice.

2.5 Special Terms and Conditions

This Phase I ESA was performed in substantial accordance with and/or consistent with the provisions contained in ASTM E1527-13 Standard Practice for Environmental Site Assessments. Instructions as to the location of the property, access, and an explanation of the properties and facilities to be assessed were provided by the Client.

2.6 Reliance

This Phase I ESA was performed by the Corps for Washington State University (Client) and is provided for the sole use of the Client and their designated representatives. Use of this report by any other party will be at that party's sole risk. The Corps accepts no liability for the use or reliance on this report by any other party.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The subject property consists of three sites: two vacant lots and the Johnson Hall building located at the intersection of NE Stadium Way and Wilson Road within the Research and Education Complex of the Washington State University campus in Pullman, Washington. Site 1 is an approximately 1.3-acre vacant lot located between Plant Sciences Building, Johnson Hall, and NE Stadium Way. Site 2 is an approximately one-acre vacant lot bordered by Hulbert Hall, Clark Hall and the Horticulture and Landscape Architecture Display building. The Johnson Hall Building sits on approximately 0.8 acres.

Access to the subject property is from Wilson Road and NE Stadium Way.

3.2 Site and Vicinity Description

The City of Pullman has identified the subject property as zoned "Washington State University" in the Comprehensive plan. As such, all activities normally associated with higher education are permitted. Academic facilities are appropriate activities within this category. It is located within the WSU science, agriculture, and technology section of campus. The property is developed on all four sides of the subject property. Adjacent and vicinity properties are college buildings mainly for teaching, classrooms, and research.

3.3 Current Use of the Property

Johnson Hall is currently in use as a research and teaching facility with faculty offices. Site 1 and Site 2 are vacant lots that are underdeveloped with access to campus utilities.

3.4 Description of Site Improvements

The subject property is located within the WSU science, agriculture, and technology section of campus. The property is developed on all four sides of the subject property. Adjacent and vicinity properties are college buildings mainly for teaching, classrooms, and research.

There is an access road to the subject property on NE Stadium Way along the west side of the subject property and Wilson Road to the south of the subject property.

3.5 Current Use of Adjoining Properties

The Corps observed the following uses of adjoining properties.

North	School of Molecular Biosciences Johnson Hall Annex Clark Hall
Northeast	Clark Hall
East	Hulbert Hall
Southeast	Ensminger Pavilion and Wilson Road
South	Wilson Road and Ensminger Pavilion
Southwest	Horticulture and Landscape Architecture Display
West	Vogel Plant Biosciences Building
Northwest	NE Stadium Way and Washington State Athletic Stadium

Clark Hall is the WSU Extension Service offices. It houses faculty offices and research labs for the animal science and plant physiology departments and the institute of biological chemistry. There are teaching labs and classrooms.

Plant Sciences Building: Newly Constructed as of 2019. It is connected to Johnson Hall.

Hulbert Hall is the central location of the WSU Extension service and includes the College of Agricultural, Human and Natural Resource Sciences, Department of Human Development, administrative offices of USDA research services, and several other agriculture-related departments.

Ensminger Pavilion is a building that is available for campus events up to 400 people.

Vogel Plant Biosciences Building consists of biotechnology research, teaching labs, and research labs. Most of the research includes genomic, proteomic, and bioinformatic analysis in support of the University's plant science research.

4.0 USER PROVIDED INFORMATION

The following information was provided from the client.

4.1 Owner, Property Manager, and Occupant Information

Property Contact: Mr. Jason Baerlocher, Project Manager
P.O. Box 641150
WSU Facilities Service
Pullman, WA 99164-1150
(804) 717-8374

Occupants: Crop and Soil Sciences Department
Grain Legume Genetics Physiology Research (USDA/ARS)
Horticulture Department
Northwest Sustainable Agroecosystems Research (USDA/ARS)
Plant Germplasm Introduction and Testing Research (USDA/ARS)
Plant Pathology Department
USDA Administrative support
Wheat Health, Genetics, and Quality Research (USDA/ARS)
Apparel, Merchandising Design and Textiles Department
Advising Center
Biological Systems Engineering
Business Center
Global Campus (for IT classroom support needs)
School of the Environment

4.2 Reason for Performing Phase I ESA

The purpose of this Phase I Environmental Site Assessment (ESA) was to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) in connection with the subject property. The Corps understands that the findings of this study will be used to evaluate a pending financial transactions and leasing agreements in connection with the property.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

The Corps contracted Environmental Risk Information Services (ERIS) to conduct a search of Federal and State databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E1527-13 are summarized in the Map Findings Summary Table which is presented in Appendix C.

The Corps has reviewed the records and made a professional judgment as to which has potential relevance to the property. Detailed information for sites identified within the AMSDs and Sections 5.1.1 and 5.1.2. Copies of the ERIS research data and a description of the databases are included in Appendix E of this report.

5.1.1 Assessment Property

The property is not identified in the databases researched by ERIS.

5.1.2 Adjacent and Vicinity Properties

Adjacent and vicinity properties are not listed in the environmental databases researched by ERIS with the following exceptions:

Two underground storage tank facilities within the vicinity of the subject property:

- WSU Motor Pool, located within 0.31 mile distance of the subject property contains three operational Underground Storage Tanks (USTs) that contain unleaded and alcohol blend gasoline. Three additional USTs were removed and historically stored leaded and unleaded gasoline and used motor oil. This site is located at a lower elevation than the subject property. Based on distance and lower elevation, this site is at low risk of contaminating the subject property.

- The Murrow Hall Loading Dock, located within 0.47 miles of the subject property, contains one UST. The UST is on site and contains Diesel Fuel for Emergency power generation. It was installed in 1997 and is not known to be leaking. This site is 37 feet lower in elevation than the subject property. Based on distance and lower elevation, this site is at low risk of contaminating the subject property.

Two Historic LUST's

- A Leaking Underground Storage Tank (LUST) was reported in the WSU Motor Pool site in 1993 (Facility/Site Id 94456782, Cleanup Site ID: 11146) and contaminated both the soil and groundwater with petroleum. The WDOE records indicate that the site was remediated and the incident is **closed**. The site is at a lower elevation than the subject property.

- A Leaking Underground Storage Tank (LUST) was reported in 1993 at the WSU Horticulture Shop, located approximately 0.09 miles away from the subject property (Facility Site ID 27829687, cleanup site ID: 8564). This tank contained petroleum and was removed in 1997. The record indicates that the incident is **closed**. This site is 24 feet higher than the subject property.

Five State Voluntary Clean Up Sites

- The WA WSU Livestock Pavilion, located within 0.07 miles of the subject property, underwent a site hazard assessment in 1999-2001. The site was found to contain below cleanup levels of heavy metals and no further action was needed. The incident is **closed**.

- The WSU Fulmer Hall Crawlspace (Fac Site ID 808), located 0.43 miles from the subject property, is undergoing a state cleanup for heavy metals. The soil is confirmed to contain above cleanup level of heavy metals and groundwater is suspect. This site is approximately 42 feet lower in elevation than the subject property. Based on distance and the site being at a lower elevation, the site is at low risk of contaminating the subject property.

- WSU K-House, located approximately 0.43 miles from the subject property, has underwent voluntary cleanup for petroleum-diesel contamination in the local soil. The WDOE has indicated that no further action is necessary and that the incident is **closed.**

- The WSU Road Paint Shop located 0.38 miles from the Subject Property (FAC Site ID: 809, Cleanup Site ID 75) is undergoing voluntary cleanup. WDOE has reported the site contains heavy metals, non-halogenated solvents, and polychlorinated biphenyls (PCB). Soils are contaminated and are contained within the site. The site is approximately 9 feet lower in elevation than the subject property. Based on distance and the site being at a lower elevation, this site is at a low risk of contaminating the subject property.

- WA WSU Scrap Metal Yard, located 0.54 miles from the subject property, is undergoing toxics cleanup program. The incident is open (Interaction ID 1727) and the site is suspected to contain polychlorinated biphenyls and heavy metals above the cleanup level. Groundwater is suspected to be contaminated and soils are confirmed. This site is located 37 feet lower than the subject property. Based on distance and the site being at a lower elevation, this site is at a low risk of contaminating the subject property.

In summary, all the LUST sites within the AMSD were closed by the Washington Department of Ecology (WDOE). The Corps did not identify ongoing environmental cleanups with potential current risk to the property being assessed.

5.2 Additional Environmental Record Sources

The ASTM identifies alternative environmental sources to include regulatory files, on-site records, user provided records, records from local government agencies, and interviews with regulatory officials and/or other individuals knowledgeable about environmental conditions on the property.

The Corps has reviewed WSU Environmental Services Employee Handbook and Emergency Response Standard Operating Procedures. WSU has indicated that this plan has been implemented for 40+ years. A copy of the Handbook is found in Appendix H.

5.3 General Site Setting

5.3.1 Topography

The subject property (i.e. all three sites) is located on a ridge that has an average slope of 3.5%. The subject property ranges from 2551 to 2567 feet above Mean Sea Level and slopes west southwest towards the South Fork of the Palouse River.

5.3.2 Surface Water Bodies

There are no surface water bodies on the property. The nearest natural surface water bodies appear to be the South Fork of the Palouse River, located within 0.78 miles to the west of the subject property and three small ponds approximately 0.3 miles to the south of the subject property. There is a drainage divide that separates the three ponds from the subject property.

5.3.3 Geology and Hydrology

The site is in the Washington Columbia Basin physiographic province. According to ERIS report, this area is composed of Miocene volcanic rocks that may be in excess of 10,000 feet overlaid by Quaternary nonmarine Pleistocene deposits of perglacial eolian deposits.

According to the U.S. Department of Agriculture's Soil Conservation Service, National Cooperative Soil Survey, the dominant soil types on the subject parcel are classified as Palouse silt loam. This soil type is a silt loam that extends to a depth of 60 inches and is rated as being moderately permeable and available water capacity is high.

Depth to groundwater was not measured for this assessment.

No settling ponds, lagoons, surface impoundments or natural catch basins were observed on the subject property during this investigation.

Stormwater runoff runs off the subject property and onto Stadium Way, Wilson Road, or South Fairway Drive.

The subject property is not located within a Flood Hazard Zone.

5.4 Historical Use

5.4.1 Historical Summary

Historical information identifying the past site use was obtained from a variety of sources as detailed in Appendix E of this report and included: City Directories, Aerial Photographs, Sanborn Fire Insurance Maps, and topographic Maps. The Corps contracted Environmental Risk Information Services (ERIS) to conduct a search of a variety of sources that included:

- Aerial Photographs
- Sanborn Fire Insurance Maps
- Topographic Maps
- City Directories
- Building Permits (not available for this site)

Copies of the ERIS historical research data are included in Appendix D of this report.

Based on this review, the following summary of site history has been assembled:

- Prior to 1961, the Subject Property consisted of agricultural land, stables, and barns. Barns are observed on aerial photographs. These barns are labeled turkey, brooder, incubator on Fire Insurance Maps from 1929 through 1952.

- Johnson Hall was constructed between 1952 and 1961.

- Clark Hall and Hulbert Hall were constructed between 1961 and 1975. The site has changed little since that time.

In summary, the only apparent use of the parcel has been as a research center for WSU University since the early 1960's. Prior to this time, the property was agricultural.

5.4.2 Environmental liens and Activity/Use Limitations

The Environmental Lien Search provided by ERIS is included in Appendix D. No environmental liens or activity/use limitations are identified at the property.

5.4.3 Vapor Encroachment Evaluation

The Corps utilized the ERIS Radius Report to evaluate properties located within applicable ASTM E2600-10, Tier 1 Default Areas of Concern. Based on this review, The Corps did not identify conditions within Tier 1 Default Areas of Concern which could not be ruled out as VEC, with the following exceptions:

- Washington State University Pullman Plan Materials Center Johnson Hall 113 was identified as a station operated for Electric Power Generation/Alternative Fuels. No vapors should be associated with this fueling station.

5.4.4 Radon

Whitman County is within Federal EPA Radon Zone 2. These are Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L. The EPA/State Residential Radon Survey of Washington was conducted during 1991-1992. The data is based on 2 to 7-day charcoal canister measurements form the lowest level of each home tested.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

The site reconnaissance was conducted on June 16, 2020, by Kristen Shacochis-Brown. Weather conditions at the time of the site reconnaissance were mostly cloudy. Temperatures were in the low to mid-50's.

The survey excludes areas of the building which were inaccessible such as personal offices and three lab/classrooms (Room 20, 272, 326 and Annex classroom) as well as a room in the basement marked "Flammable Storage". Other areas such as elevator mechanical rooms, shafts and pits, enclosed pipe chases in laboratories, and the transformer vault were not accessed for safety reasons. In addition, the utility tunnel corridors were not accessed, however, we received pictures of the tunnels on June 30, 2020. In the Corps opinion, the limiting conditions encountered do not represent and obstacle to our ability to identify REC in connection with the property.

The Site Reconnaissance Summary is included in Appendix B.

6.2 General Site Setting

The subject property is located within the Research Center of the Washington State University Campus in Pullman, Washington along NE Stadium Way and Wilson Road. The surrounding area is the WSU campus and consists of other research buildings, offices, and classrooms as well as the football stadium.

The subject property consists of approximately 3-acre area of land containing three sites: a 1.3 acres site (Site 1), a one-acre site (Site 2), and the Johnson Hall Building (0.8 acres). Site 1 and Site 2 have no improvements except sidewalks. An underground utility corridor is located along the southern extent of Site 1, north of Johnson Hall. Buildings surround the subject property to the north, east, and south. NE Stadium Way is located to the west.

Access is via NE Stadium Way and Wilson Road.

6.3 Site Reconnaissance Findings

6.3.1 Hazardous Substances

This section addresses substances considered a necessary part of commercial, agricultural, or industrial operations at a site (for example, a chemical used in a manufacturing process). For purposes of this assessment, the concern regarding such substances is that there be visible and/or readily obtainable evidence that the substances are being stored, used, and (if pertinent) disposed of in a manner consistent with applicable regulations. The term "hazardous substance" is used as defined in the ASTM Standard E1527-13.

As defined by the above paragraph, The Corps did not observe hazardous substances associated with identified site uses on the subject parcel during the site reconnaissance with the following exceptions:

In Johnson Hall:

- Janitorial products in gallon-sized or smaller containers located throughout Johnson Hall.
- Paint in gallon sized or smaller containers located in the basement and stored in a closet.
- Laboratory chemicals, including acids, corrosive materials, and strong bases throughout the laboratory/research rooms. Containers were five gallons or smaller.
- Five-gallon drums for disposal of hazardous waste/laboratory chemicals.
- X-Ray equipment and equipment containing radioactive chemicals (tracers).
- Sign indicating that attic room is presumed to contain asbestos.

Site 1:

- No hazardous substances were observed.

Site 2:

- No hazardous substances were observed.

The Corps did not observe evidence of visible indications of release of the identified hazardous substances during the site reconnaissance. Photographs of general site conditions are found in Appendix B.

6.3.2 Petroleum Products

This section addresses petroleum products not stored in tanks.

During the reconnaissance, the Corps did not observe petroleum products on the subject parcel during the site reconnaissance, with the following exception:

- Used Motor oil stored in a drum in the basement.
- Various oil products and lubricants in gallon sized or smaller containers in basement and attic of Johnson Hall.

The Corps did observe evidence of visible indications of release of petroleum products during the site reconnaissance. The release was found to be *de minimis*. Photographs of general site conditions are found in Appendix B.

6.3.3 Underground Storage Tanks (UST)

During the site reconnaissance, the Corps did not observe visible indication of USTs (such as fill pipes, vent pipes, pump island cutouts, etc.).

6.3.4 Aboveground Storage Tanks (AST)

During the site reconnaissance, the Corps did not observe visible indications of AST's.

6.3.5 Containers with Unidentified Contents

This section addresses containers that could not be visually and/or physically observed or confirmed. The Corps did not observe containers holding unidentified contents on the subject parcel during the site reconnaissance, with the following exception:

- One small bucket of unknown liquid (less than a pint) in a small container in the basement. It appeared to be lubricant or hydraulic fluid. It was in an area where there appeared to be leaking machinery. The material appeared to be contained but was not labeled.
- One gas container filled with unknown liquid, likely petroleum based, was observed in the basement. It also was in an area of leaky machinery.

6.3.6 Equipment Likely to Contain PCBs

This section addresses equipment that may contain polychlorinated biphenyls (PCBs). PCBs belong to a broad family of manufactured organic chemicals known as chlorinated hydrocarbons. PCBs were domestically manufactured from 1929 until their manufacture was banned in 1979 because of their potential toxicity. Due to their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications including electrical, heat transfer, and hydraulic equipment.

The Corps site reconnaissance does not address transformers owned and operated by an electrical utility unless there is a visible sign of release of transformer fluid.

The Corps did not observe equipment likely to contain PCBs during the site reconnaissance, except for the following:

- Old florescent light ballasts that are temporarily disposed of in the basement may contain PCB's. These materials should be disposed of in an appropriate manner.

The site reconnaissance observed three pad-mounted transformers located in the basement of the site. The transformers appeared to be in good condition and no staining or leaking was observed

beneath the transformers. The transformers are unlikely to represent an environmental concern to the Site. These transformers were labeled non-PCB. The Corps did not observe visible indication of release of PCB's, transformer fluid associated with equipment or transformers owned and maintained on or near the parcel.

6.3.7 Building Interior Observations

Interior Staining/Corrosion

The Corps did not observe significant interior staining/corrosion inside the property building during site reconnaissance.

Sumps/Floor Drains

The Corps did not observe any sumps or floor drains during the site reconnaissance, except the following:

Floor drains are in the basement and a few classrooms. According to WSU, the drains feed to a central collection and then the municipal sewer system.

Sinks and toilets are connected to the municipal sewer system.

Heating/Cooling

The building is heated and cooled via gas furnaces and HVAC units.

6.3.8 Exterior Observations

Pits, Ponds, Lagoons

The Corps did not observe pits, ponds or lagoons on the site during the site reconnaissance.

Ditches/Drop Inlets/Conveyances

The Corps did not observe any ditches on or immediately adjacent to the sites. The Corps did not observe any visible staining on the ground during the site reconnaissance.

Solid Waste Dumping/Landfills

The Corps did not observe readily apparent evidence of solid waste dumping, suspect fill material, or landfills on any of the three sites during the site reconnaissance.

Stained Soil or Pavement

The Corps did observe evidence of stained soil on the parcel during the site reconnaissance.

Stressed Vegetation

The Corps did not observe readily apparent evidence of stressed vegetation on the parcel during the site reconnaissance.

Wells

The Corps did not observe evidence of a well on the parcel during the site reconnaissance.

Septic Systems

The Corps did not observe readily apparent evidence of septic systems on the parcel during the site reconnaissance. The site is connected to sanitary and stormwater systems that are under the purview of WSU. Sanitary sewage generated by the University is treated at the City of Pullman's wastewater treatment facility.

7.0 INTERVIEWS

The Corps interviewed Mr. Jason Baerlocher in person during the site inspection. Based on this interview:

- Mr. Baerlocher is aware that the building may contain asbestos containing building materials and lead-based paint. A report of the findings is attached to this Phase I ESA in Appendix H.
- Mr. Baerlocher has indicated that biological agents are managed under biosafety protocols, biological agents would be limited to recombinant DNA and plant pathogens.
- Mr. Baerlocher is not aware of any spills of chemicals or petroleum on the property or nearby properties.
- Mr. Baerlocher is not aware of any environmental cleanups on or near the property.
- Mr. Baerlocher is not aware of any activity or land use limitations in place on the site or that have been filed or recorded in a registry.
- Mr. Baerlocher has specialized knowledge or experience related to the parcel or nearby properties.
- Mr. Baerlocher is aware of past uses of the property for the years that it has been in current ownership and is aware of specific chemicals that may be or once were present on the parcel.
- Mr. Baerlocher is not aware of any obvious indicators that may point to the presence or likely presence of contamination on the parcel.
- Mr. Baerlocher had no other knowledge or experience with the parcel that may be pertinent to determining its environmental condition.

On June 29, 2020, the Corps interviewed Mr. Richard Partine, safety officer for USDA for Johnson Hall. He indicated that inspections audits are done by WSU Environmental Health and Safety. Drinking water is tested for safety and there are annual inspections of Johnson Hall. The USDA does have an inventory list of chemicals for Johnson Hall labs.

On June 23, 2020, Jason Sampson, WSU safety officer, was interviewed. He indicated that the site undergoes routine testing and clean up based on annual audits. He provided a copy of the Hazardous Waste Disposal Plan. A copy of this manual is in Appendix H.

8.0 FINDINGS

ASTM E1527-13 requires that Phase I ESA reports shall have a Findings section which identifies known or suspect REC, Controlled REC, Historical REC, and *de minimis* conditions. Based on the Corps's review of the public environmental database records, historical maps and records, and the site reconnaissance, the Corps identified the following.

8.1 Recognized Environmental Condition

A **REC** is defined by ASTM E1527-13 as: the presence of or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that suggest a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.

The Corps did not identify conditions or observations relative to the parcel which, in our opinion, represent a REC.

8.2 Controlled REC

A **Controlled REC** is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

The Corps did not identify conditions or observations relative to the property which, in our opinion, represent a Controlled REC.

8.3 Historic REC

An **Historic REC** is a REC characterized as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

The Corps did not identify conditions or observations relative to the parcel which, in our opinion, represent an historic REC.

8.4 Vapor Encroachment Condition

A **Vapor Encroachment Condition (VEC)** is defined in ASTM Guide E2600 as "presence or likely presence of Chemical of Concern vapors in the subsurface of the Property caused by the release of vapors from contaminated soil or groundwater either on or near the Property."

The Corps did not identify conditions relative to the parcel which, in our opinion, represent a VEC.

8.5 De minimis Conditions

A *de minimis* condition is defined by ASTM as a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* conditions are not recognized RECs nor Controlled REC's.

The Corps did identify conditions or observations relative to the parcel which, in our opinion, represent a release of hazardous substances or petroleum products that would be classified as *de minimis*. These releases are found in the basement mechanical room and in the attic.

9.0 OPINIONS

ASTM E1527-13 requires that Environmental Professionals include their opinion on the impact on the property of conditions identified in the Findings Section, and, if appropriate, whether additional investigation is appropriate to detect the presence of hazardous substances or petroleum products.

The Corps identified no REC in the Findings. Since an historic REC is by definition a REC that "has been addressed to the satisfaction of the applicable regulatory authority," the impact on the property from the identified HREC, if any, has been previously adequately addressed to the satisfaction of the WDOE.

Since no RECs, Controlled RECs, or other historic RECs were identified in the Findings, there is no need to provide an opinion on other potential impact to the parcel. Petroleum releases appeared to be de minimis condition.

10.0 CONCLUSIONS

ASTM E1527-13 requires that Phase I ESA reports include a Conclusions Section that summarizes all REC (including Controlled REC) connected with the property.

The Corps performed a Phase I Environmental Site Assessment of the parcel in substantial conformance with the scope and limitations in ASTM Practice E1527-13. Any exceptions to, or deletions from, this practice are described in Section 2.2 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

11.0 RECOMMENDATIONS

Recommendations are not required by the ASTM E1527-13 Standard but are generally provided by the Corps in cases where they may be useful to the report user's analysis of Landowner Liability Protections and/or business environmental risk.

- Based on the information presented in this report, the Corps does not recommend additional investigation with respect to the potential for recognized environmental conditions in connection with the property.
- Chemicals, chemical waste and other hazardous waste should be properly handled and disposed of in an appropriate manner. A copy of the WSU handbook is found in Appendix H.
- Sink traps and drains should be inspected for possible chemical and radiation contamination.
- Asbestos and lead have been found at various locations throughout Johnson Hall. These materials should be disposed of an appropriate manner. A copy of the Good Faith report is found in Appendix H.

Opinions, conclusions, and recommendations presented for this assessment are based solely on the information derived from the study sources and references noted in the appendices and presented within this report. If additional information becomes available that is not included in this report, such information may lead the Corps to modify the opinions and conclusions contained herein. The Corps recommends that these conclusions be used solely as a broad description of environmental conditions at the site. The entire document, including appendices, should be read completely prior to the development of independent conclusions on the environmental status of the property.

12.0 REFERENCES

Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Practice E 1527-13

Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, ASTM Guide E2600

Appendix B - Asset Report

Asset Detail Report

By Asset Name

Region: Pullman - WSU Main Campus **Asset:** JOHNSON HALL
Campus: Pullman Campus - Assessed Buildings **Asset Number:** 0076

Assets are ordered by Asset Name **Currency: USD**

Statistics

FCI Cost:	29,422,733	**FCI:**	0.76
RI Cost:	36,053,318	**RI:**	0.93
Total Requirements Cost:	36,053,315		
Current Replacement Value:	38,671,752	**Date of most Recent Assessment:**	Sep 2, 2014

Type	Building		
Area	194,017 SF		
Use	ACADEMIC INSTRUCTION	**Construction Type**	IBC - Type II A
Floors	5	**Historical Category**	None
Address 1	1820 WILSON RD	**City**	PULLMAN
Address 2	-	**State/Province/Region**	UNITED STATES OF AMERICA
Year Constructed	1961	**Zip/Postal Code**	99164
Year Renovated	-	**Architect**	-
Ownership	Client Owned	**Commission Date**	-
		Decommission Date	-

Photo

JOHNSON HALL

Asset Description

General:

The Johnson Hall is located on the Washington State University Campus in Pullman, Washington. The building is situated near NE Stadium and Wilson Road. The structure is a 195394 square-foot (GSF), 5 story structure (including basement, not

penthouse). According to WSU information, construction for the existing building was completed in 1961, underwent various minor work since with exception of the annex which underwent a complete renovation in 2014.

The building contains mechanical equipment associated in the penthouse and basement. Per the 2012 International Building Code, Chapter 3, and Section 303 – Assembly Group, this building is classified as Occupancy Group A3. According to the 2012 International Building Code, Chapter 6, Section 602, this building's construction type is Type II - Noncombustible, as determined from field observations.

Requirements

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
ACT System - Concealed Spline Renewal	Yes	C3030 - Ceiling Finishes	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	618,041
AHU-1 - Const Volume w/Distribution Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	637,625
AHU-1A - Const Volume w/Distribution Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	267,365
AHU-2 - Const Volume w/Distribution Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	637,625
AHU-3 - Const Volume w/Distribution Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	255,050
Aluminum Windows Renewal	Yes	B2020 - Exterior Windows	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	1,196,700
Automatic Openers - Pair - Orignal Renewal	Yes	B2030 - Exterior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	16,032
Automatic Openers - Pair - Original Renewal	Yes	C1023 - Interior Door Hardware	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	48,097

Asset Detail Report

By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Automatic Openers - Single - Original Renewal	Yes	C1023 - Interior Door Hardware	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	8,936
Branch Wiring - Non-GFCI Receptacle - Rooftop	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	245
Branch Wiring - Non-GFCI Receptacle - Room 152	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	245
Branch Wiring - Non-GFCI Receptacle - Room 201C	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	245
Branch Wiring - Non-GFCI Receptacle - Room 25	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	245
Branch Wiring - Non-GFCI Receptacle - Room 339	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	245
Branch Wiring - Non-GFCI Receptacles - Dark Room 318	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	491
Branch Wiring - Non-GFCI Receptacles - Room 248	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	491
Branch Wiring - Non-GFCI Receptacles - Room 42	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	1,472
Branch Wiring - Obstructed Panel Access - Room 288	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 21, 2015	211
Branch Wiring - Obstructed	No	D5021 - Branch	Life Safety	1- Due	Sep 21,	208

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Panel Access - Room 380		Wiring Devices		within 1 Year of Inspection	2015	
Branch Wiring - Power Receptacle Lacking - Johnson Annex Rooftop	No	D5021 - Branch Wiring Devices	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	2,531
Branch Wiring Renewal	Yes	D5021 - Branch Wiring Devices	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	887,630
CMU Block Walls - Facing 1 Side Renewal	Yes	C1010 - Partitions	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	58,386
Carpeting - Tile - 2000 Renewal	Yes	C3020 - Floor Finishes	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2015	4,029
Chillers - Centrifugal w/Cooling Tower Renewal	Yes	D3030 - Cooling Generating Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2023	479,899
Cisco 4500 Series Switch Renewal	No	D50392 - LAN Network - Wired	Lifecycle	2- Due within 2 Years of Inspection	Nov 8, 2018	28,219
Concrete - Painted Renewal	Yes	C3020 - Floor Finishes	Interior Finishes	1- Due within 1 Year of Inspection	Sep 2, 2014	441
Curtain Wall System Renewal	Yes	B2020 - Exterior Windows	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	668,381
Custodial/Utility Sinks Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	43,010
DDC/Pneumatic System - Hybrid Renewal	Yes	D3060 - Controls and	Lifecycle	3- Due within 5	Sep 2, 2020	28,219

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
		Instrumentation		Years of Inspection		
DX Condensing Unit - 1968 Renewal	Yes	D3030 - Cooling Generating Systems	Lifecycle	2- Due within 2 Years of Inspection	Sep 2, 2016	18,556
DX Condensing Unit Renewal	Yes	D3030 - Cooling Generating Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	3,711
Distribution Equipment - 1200A 480V Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	121,879
Distribution Equipment - 3000A 208Y/120V Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	1,544,584
Distribution Equipment - Capacity Upgrade Needed	No	D5012 - Low Tension Service and Dist.	Capacity	2- Due within 2 Years of Inspection	Sep 2, 2016	2,886,132
Door Assembly - 3 x 7 HM Renewal	Yes	B2030 - Exterior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	29,877
Door Assembly - 6 x 7 HM Renewal	Yes	B2030 - Exterior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	24,587
Door Assembly - 6 x 7 Storefront - Original Renewal	Yes	B2030 - Exterior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	30,846
Drinking Fountains - Wall-Mount Single-Height Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	64,388
Ductwork: Clean and Balance	No	D30 - HVAC	Reliability	2- Due within 2 Years of	Sep 2, 2016	35,647

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
				Inspection		
Emergency Eyewash Units Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2018	60,442
Emergency Shower Units Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2018	48,356
Exhaust System - Fume Hoods Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	1,651,613
Exhaust System - General Building Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	242,054
Exhaust System - Restroom w/Roof Fan Renewal	Yes	D3040 - Distribution Systems	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2015	11,949
Exit Signs - Lacking - Basement Floor	No	D5092 - Emergency Light and Power Systems	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	6,094
Exit Signs - Lacking - Ground through Third Floors	No	D5092 - Emergency Light and Power Systems	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	183,833
Exit Signs - Lacking - Room 401	No	D5092 - Emergency Light and Power Systems	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	3,830
Exit Signs - Lacking - Room C201	No	D5092 - Emergency Light and Power Systems	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	3,406
Exit Signs Renewal	Yes	D5092 - Emergency Light and Power Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2024	129,142

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Fan Coil System - Cabinet - Heating/Cooling - 4 Pipe Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	251,690
Feeder Distribution System #1 Renewal	Yes	D5011 - High Tension Service and Dist.	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	1,100,321
Feeder Distribution System #2 Renewal	Yes	D5011 - High Tension Service and Dist.	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	1,100,321
Feeder Distribution System #3 Renewal	Yes	D5011 - High Tension Service and Dist.	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	1,100,321
Fire Alarm System - Coverage Upgrade Needed	No	D5037 - Fire Alarm Systems	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	947,685
Fire Alarm System - Johnson Annex Renewal	Yes	D5037 - Fire Alarm Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2024	165,109
Fire Alarm System - Johnson Hall Renewal	Yes	D5037 - Fire Alarm Systems	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	800,598
Fire Protection - Building Not Sprinklered	No	D40 - Fire Protection	Building Code	4- Not Time Based		986,300
Fittings - Signage (Room Numbering and Identification) - Original Renewal	Yes	C1035 - Identifying Devices	Interior Finishes	1- Due within 1 Year of Inspection	Sep 2, 2014	22,552
Fixed Theater Seating - Deluxe Renewal	Yes	E - Equipment and Furnishings	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	114,451
GWB 2HR Rated Walls Renewal	Yes	C1010 - Partitions	Lifecycle	1- Due within 1 Year of	Sep 2, 2014	55,204

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
				Inspection		
GWB Taped and Finished - Original Renewal	Yes	C3030 - Ceiling Finishes	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	523,322
Glazed Brick Renewal	Yes	C3020 - Floor Finishes	Interior Finishes	1- Due within 1 Year of Inspection	Sep 2, 2014	57,334
HVAC Distribution System - Ductwork Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	955,558
INSTALL PROCESS COOLING SYSTEMS; REFRIGERATION SYSTEMS	No	D3030 - Cooling Generating Systems	Technological Improvements	1- Due within 1 Year of Inspection	Jul 5, 2017	451,508
Indoor Air Quality (IAQ) - Testing	No	D30 - HVAC	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	13,186
Interior Doors - Corridor Doors not Fire Rated	No	C1020 - Interior Doors	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	583,253
Interior Doors - Non-Compliant Door Hardware	No	C1020 - Interior Doors	Accessibility	3- Due within 5 Years of Inspection	Sep 2, 2019	46,324
LAN System Renewal	Yes	D50392 - LAN Network - Wired	Technological Improvements	1- Due within 1 Year of Inspection	Sep 2, 2014	1,131,479
Laboratory Equipment - College - Original Renewal	Yes	E - Equipment and Furnishings	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	450,551
Laboratory Sinks Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	1,325,819

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Lighting - Interior - Emergency Lighting Lacking	No	D5022 - Lighting Equipment	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	167,583
Main Electrical Service #1 - 1600A 208Y/120V Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	151,039
Main Electrical Service #2 - 1000A 208Y/120V Renewal	Yes	D5012 - Low Tension Service and Dist.	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	117,829
Natural Gas Distribution for Lab Renewal	Yes	D2090 - Other Plumbing Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2020	752,858
Painted Finish - Average (1 Coat Prime - 2 Coats Finish) Renewal	Yes	C3010 - Wall Finishes	Interior Finishes	1- Due within 1 Year of Inspection	Sep 2, 2014	43,616
Perimeter Heat System - Hydronic Fin Tube Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	1,163,129
Plumbing Fixttures - Acid Neutralization Basin Lacking	No	D2090 - Other Plumbing Systems	Building Code	2- Due within 2 Years of Inspection	Sep 2, 2016	22,327
Plumbing Fixtures - Floor Drains Lacking Under Emergency Showers	No	D2010 - Plumbing Fixtures	Reliability	1- Due within 1 Year of Inspection	Sep 2, 2015	16,419
Pocket Door Assembly - 3 x 7 Wood Renewal	Yes	C1020 - Interior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	15,737
Refrigeration Unit - 1975 Renewal	Yes	D3032 - Direct Expansion Systems	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2015	173,618
Refrigeration Unit - 2006	Yes	D3032 - Direct	Lifecycle	3- Due	Sep 2, 2020	173,618

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Renewal		Expansion Systems		within 5 Years of Inspection		
Repair SE Sidewalk (cracked and broken 60' x 6')	No	G2030 - Pedestrian Paving	Lifecycle	2- Due within 2 Years of Inspection	Apr 4, 2019	0
Restroom Accessories Renewal	Yes	C1030 - Fittings	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2020	43,481
Restroom Fixtures Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	2- Due within 2 Years of Inspection	Sep 2, 2016	668,219
Restrooms - Aged and Not Accessible	No	C1030 - Fittings	Accessibility	3- Due within 5 Years of Inspection	Sep 2, 2019	641,984
Roof Drainage - Gravity Renewal	Yes	D2040 - Rain Water Drainage	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	476,168
Sanitary Waste - Gravity Disch Renewal	Yes	D2030 - Sanitary Waste	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	598,250
Security System - Access Control Renewal	Yes	D5038 - Security and Detection Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2020	39,157
Steam Piping and Condensate Return Renewal	Yes	D3040 - Distribution Systems	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	508,863
Stucco On CMU Walls Renewal	Yes	B2010 - Exterior Walls	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2021	41,499
Swinging Doors - 3 x 7 HM - NR Renewal	Yes	C1020 - Interior Doors	Lifecycle	1- Due within 1	Sep 2, 2014	357,214

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
				Year of Inspection		
Swinging Doors - 3 x 7 HM - Rated - Original Renewal	Yes	C1020 - Interior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	18,193
Swinging Doors - 3 x 7 Wd - Full Glass - Original Renewal	Yes	C1020 - Interior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	638,525
Swinging Doors - 3 x 7 Wd - NR - Original Renewal	Yes	C1020 - Interior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	547,912
Swinging Doors - 6 x 7 Storefront - Original Renewal	Yes	C1021 - Interior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	20,564
Swinging Doors - Pair - 6 x 7 HM - NR Renewal	Yes	C1020 - Interior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	26,390
Swinging Doors - Pair - 6 x 7 HM - Rated Renewal	Yes	C1020 - Interior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	18,431
Swinging Doors - Pair - 6 x 7 Wd - NR - Original Renewal	Yes	C1020 - Interior Doors	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	119,957
TBar System - 1996 Renewal	Yes	C3030 - Ceiling Finishes	Interior Finishes	2- Due within 2 Years of Inspection	Sep 2, 2016	58,984
Tectum Ceiling System Renewal	Yes	C3030 - Ceiling Finishes	Interior Finishes	1- Due within 1 Year of Inspection	Sep 2, 2014	15,559
Toilet Partitions Renewal	Yes	C1030 - Fittings	Lifecycle	1- Due within 1 Year of	Sep 2, 2014	40,772

Asset Detail Report

By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
				Inspection		
Traction Geared Passenger Elevator #1 - Exposed Live Electrical Parts - Room 400EL	No	D1010 - Elevators and Lifts	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	4,322
Traction Geared Passenger Elevator #1 Renewal	Yes	D1010 - Elevators and Lifts	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	242,355
Traction Geared Passenger Elevator #2 - Exposed Live Electrical Parts - Room 406	No	D1010 - Elevators and Lifts	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	3,996
Traction Geared Passenger Elevator #2 Renewal	Yes	D1010 - Elevators and Lifts	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2014	242,355
Transformer Vault - Improper Fire Separation	No	B10 - Superstructure	Life Safety	1- Due within 1 Year of Inspection	Sep 2, 2015	28,837
Unit Heaters - Hot Water Renewal	Yes	D3050 - Terminal and Package Units	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2020	13,957
VAT Renewal	Yes	C3020 - Floor Finishes	Interior Finishes	1- Due within 1 Year of Inspection	Sep 2, 2014	566,929
VCT - 1996 Renewal	Yes	C3020 - Floor Finishes	Interior Finishes	1- Due within 1 Year of Inspection	Sep 2, 2014	26,736
VCT - 2000 Renewal	Yes	C3020 - Floor Finishes	Interior Finishes	1- Due within 1 Year of Inspection	Sep 2, 2015	1,490
Wall Covering - Linen Renewal	Yes	C3010 - Wall Finishes	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2024	4,149

Asset Detail Report

By Asset Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Water Coolers - Wall-Mount Dual-Height Renewal	Yes	D2010 - Plumbing Fixtures	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2020	8,585
Water Dist Complete Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2020	706,635
Water Heater - Elec - Residential - 52 Gal Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2015	4,383
Water Heater - Steam - Storage Tank Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	102,954
Water Supply - Potable Water Storage - Above Ground Tank - 250,000 Gallons Renewal	Yes	G3011 - Potable Water Distribution and Storage	Lifecycle	1- Due within 1 Year of Inspection	Sep 2, 2015	100,770
Wet Standpipe System Renewal	Yes	D40 - Fire Protection	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	683,470
Window AC Units Renewal	Yes	D3050 - Terminal and Package Units	Lifecycle	3- Due within 5 Years of Inspection	Sep 2, 2017	77,847
Wireless System Upgrade	No	D50393 - LAN Network - Wireless	Technological Improvements	2- Due within 2 Years of Inspection	May 21, 2017	381,524
Total						**36,053,315**

Appendix C - Professional Cost Estimate

SKANSKA

Estimate Date: 2/25/2020

	Johnson Hall Demo and Abatement Budget Estimate		VALUE	$/sf
			168,394 SF	
SITEWORK				
A10	**Civil and Site Utilities**		**190,000**	$1.13/SF
INTERIOR / EXTERIOR				
B10	**Exterior Improvements**		**312,500**	$1.60/SF
SERVICES				
C10	**Mechanical, Plumbing & Fire Protection**		**130,000**	$.77/SF
C20	**Electrical**		**94,000**	$.56/SF
EQUIPMENT &FURNISHINGS				
D10	**None**			
SPECIAL CONSTUCTION & DEMOLITION AND ABATEMENT				
F10	**Abatement & Demo**		**4,500,000**	$26.72/SF
BUILDING SITE				
G10	**Site Fence and Toilets**		**26,000**	$0.13/SF
ACCEPTED ALTERNATES & EXTENDED PRECON SERVICES				
H10	**ACCEPTED BCS**			
H20	**GENERAL REQUIREMENTS & LOGISTICS**		**380,157**	$1.95/SF
	SUBTOTAL DIRECT CONSTRUCTION COST		**5,632,657**	37.90774215
	INDIRECT PROJECT COSTS			
	GENERAL CONDITIONS			
	DESIGN COMPLETION CONTINGENCY	**0.00%**	**$0**	
	CONSTRUCTION CONTINGENCY	5.00%	292,825	
	NON-MEP ESCALATION ALLOWANCE (Assumes September 1, 2019 Project Buyout / Start)	0.00%	$0	
	ESCALATION ALLOWANCE		Included in Cost-of-Work Above	
	SUBTOTAL		**5,925,482**	
	GLI	0.90%	53,329	
	SUBCONTRACTOR DEFAULT INSURANCE (SDI - In lieu of Sub Bonds)	1.20%	71,106	
	BUILDER'S RISK - BY OWNER	0.00%	$0	
	B&O TAX - STATE	0.471%	27,909	
	B&O TAX - CITY	0.222%	13,155	
	SUBTOTAL		**6,090,981**	
	SERVICE & FEE			
	DESIGN SERVICES AND PERMITTING (Permit by Owner)	0.00%		
	OVERHEAD & PROFIT	4.25%	351,390	
	TOTAL CONSTRUCTION COST WITHOUT WSST		**6,442,371**	

Availability of Space/Campus Utilization Template

2020 Four-year Higher Education Scoring Process

Required for all categories except Infrastructure and Acquisition.

Project Name:	Johnson Hall Demolition
Institution:	Washington State University
Campus Location:	Pullman

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 porposed porject's campus. Please fill in the green shaded cells for the **campus** where the project is located.

(a) General University Classroom Utilization		**(b) General University Lab Utilization**	
Fall 2019 Weekly Contact Hours	222,087	Fall 2019 Weekly Contact Hours	37,921
Multiply by % FTE Increase Budgeted	0.00%	Multiply by % FTE Increase Budgeted	0.00%
Expected Fall 2020 Contact Hours	222,087	Expected Fall 2020 Contact Hours	37,921
Expected Fall 2020 Classroom Seats	10,577	Expected Fall 2020 Class Lab Seats	2,592
Expected Hours per Week Utilization	**21.0**	**Expected Hours per Week Utilization**	**14.6**
HECB GUC Utilization Standard	22.0	HECB GUL Utilization Standard	16.0
Differrence in Utilization Standard	-5%	Differrence in Utilization Standard	-9%

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

WSU's Facilities Development plan is focused on identifying and prioritizing capital projects which balance continued stewardship and renewal of existing facilities and infrastructure within a framework for responsible growth. While recent completed projects have aided progress towards reaching state targets for classroom and laboratory utilization, additional improvements are still required. This proposed project plans to remove existing underutilized space and replace it with modern laboratory space that will exceed HECB utilization standards. This guiding principle for all WSU projects will contribute to achieving the state's target space utilization goals.

Appendix E - Space Allocation

Program Related Space Allocation Template

Assignable Square Feet

Required for all Growth, Renovation and Replacement proposals.

Institution: Washington State University

Campus location: Pullman, WA

Project name: Johnson Hall Demolition

Input the assignable square feet for the proposed project under the applicable space types below:

Type of Space	Points	Assignable Square Feet	Percentage of total	Score [Points x Percentage]
Instructional space (classroom, laboratories)	10	2,758	4.10	0.41
Research space	2	38,658	57.46	1.15
Office space	4	25,863	38.44	1.54
Library and study collaborative space	10		0.00	0.00
Other non-residential space	8		0.00	0.00
Support and physical plant space	6		0.00	0.00
Total		**67,279**	**100.0**	**3.10**

WSU Facility Development Plan

WSU Facilities Services | Geographic Information System

Pullman 2021-2023

Johnson Hall Demolition
$8,000,000 (Design and Construction)

ARS Plant Biosciences Building
$105,000,000 (Federal Funding)

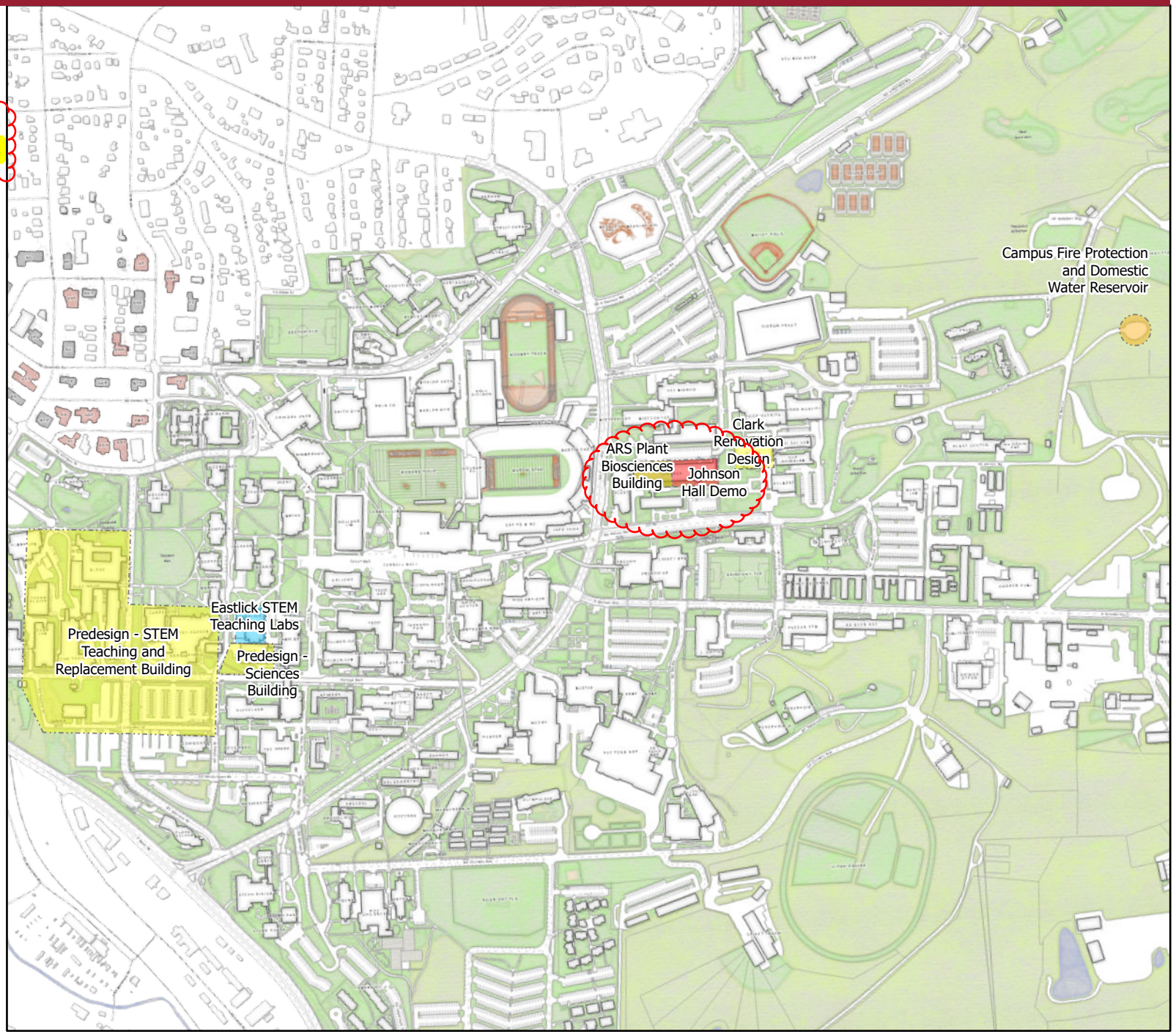
Campus Fire Protection and Domestic Water Reservoir
$8,000,000 (Design and Construction)

Pullman Sciences Building
$500,000 (Predesign)

STEM Teaching and Replacement Building – VCEA
$500,000 (Predesign)

STEM Teaching Labs
$4,900,000 (Design and Construction)

Clark Hall Research Lab Renovation
$4,900,000 (Design and Construction)



WSU Facility Development Plan

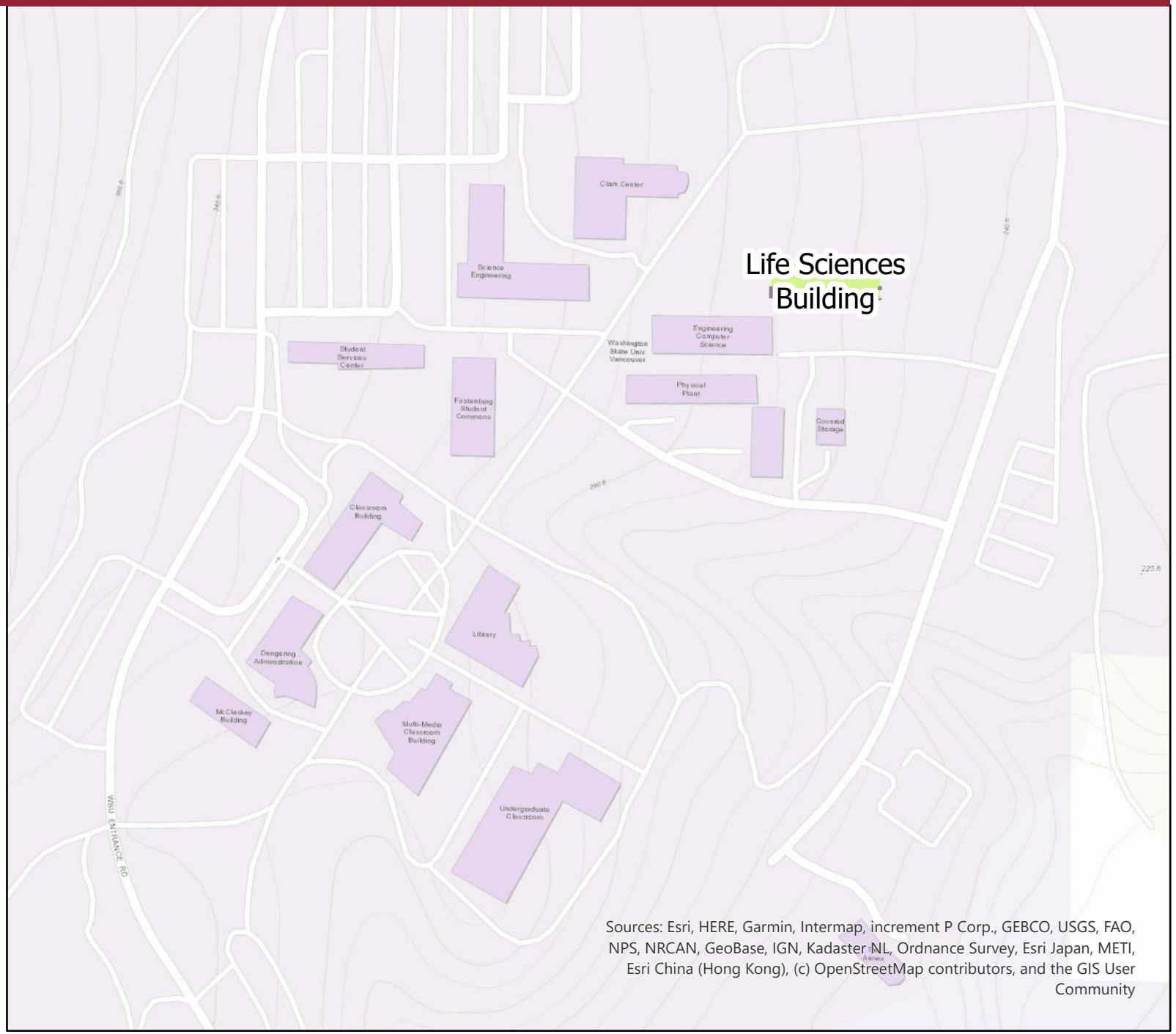
Spokane 2021-2023

Spokane Phase One Building Renovation
$15,000,000 (Design and Construction)

WSU Facility Development Plan

Vancouver 2021-2023

Vancouver Life Sciences Building
$52,600,000 (Construction)



WSU Facility Development Plan

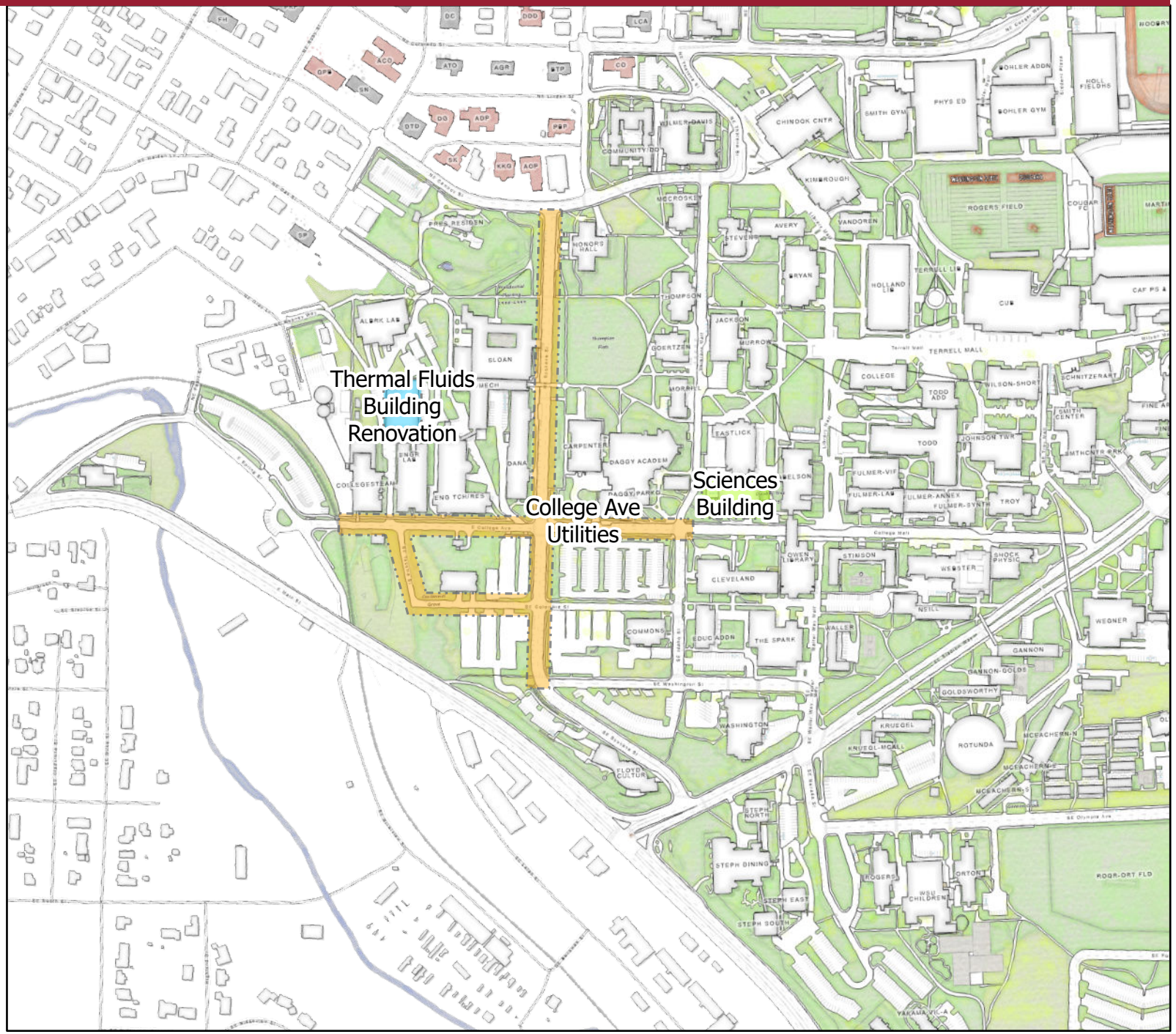
Pullman 2023-2025

Pullman Sciences Building
$53,000,000 (Design, Heald Hall Demolition and Construction)

College Avenue Utility Upgrades
$10,000,000 (Design and Construction)

Thermal Fluids Building Renovation
$10,000,000 (Design and Construction)

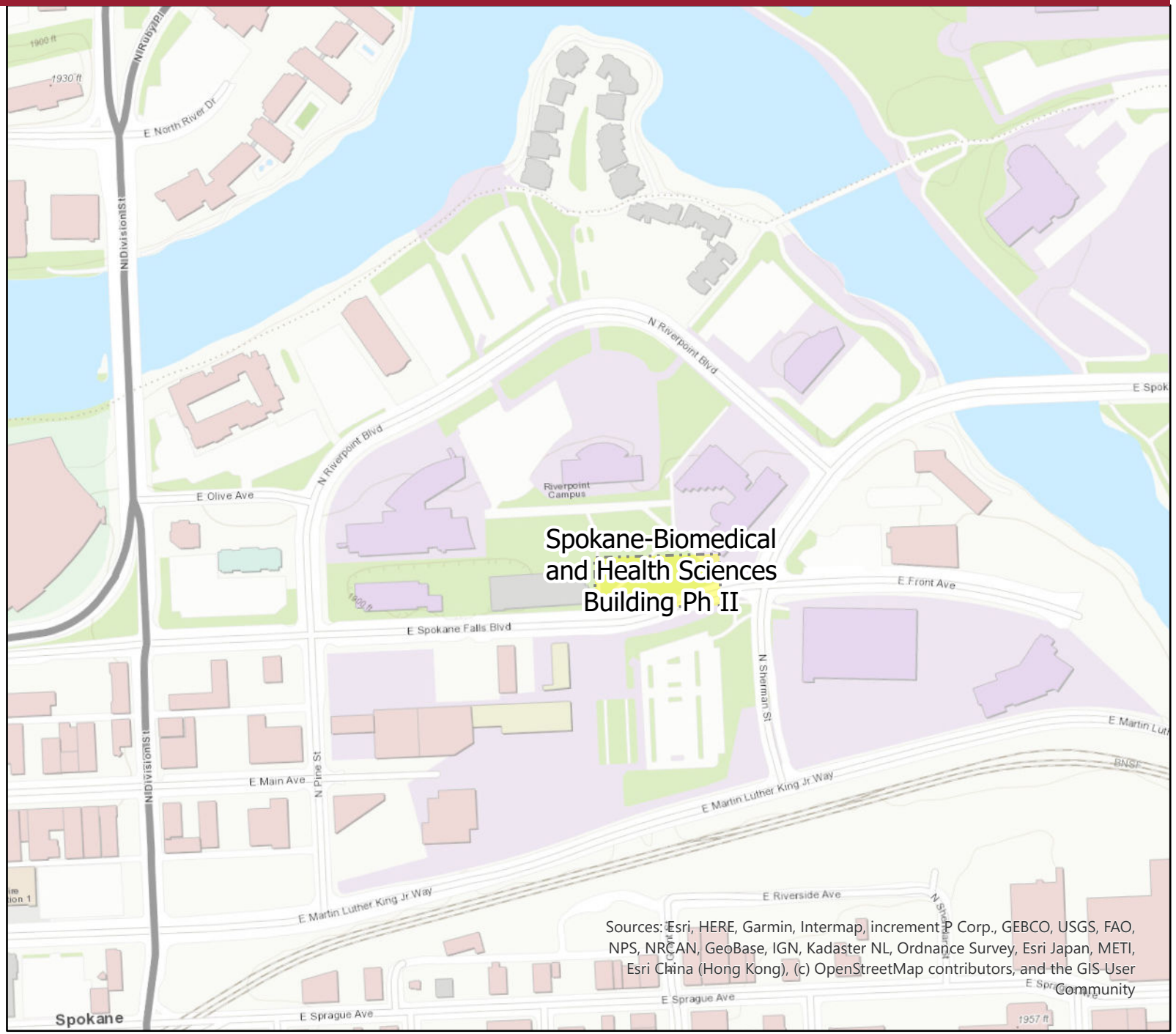
Building Systems (roofs, elevators, envelope, BAS, MEP)
$10,000,000 (Design and Construction)
(Multiple locations - not shown on map)



WSU Facility Development Plan

Spokane 2023-2025

Spokane-Biomedical and Health Sciences Building Ph II
$5,000,000 (Design)



WSU Facility Development Plan

Pullman 2025-2027

STEM Teaching and Replacement Building – VCEA
$8,000,000 (Design and Dana Hall Demolition)

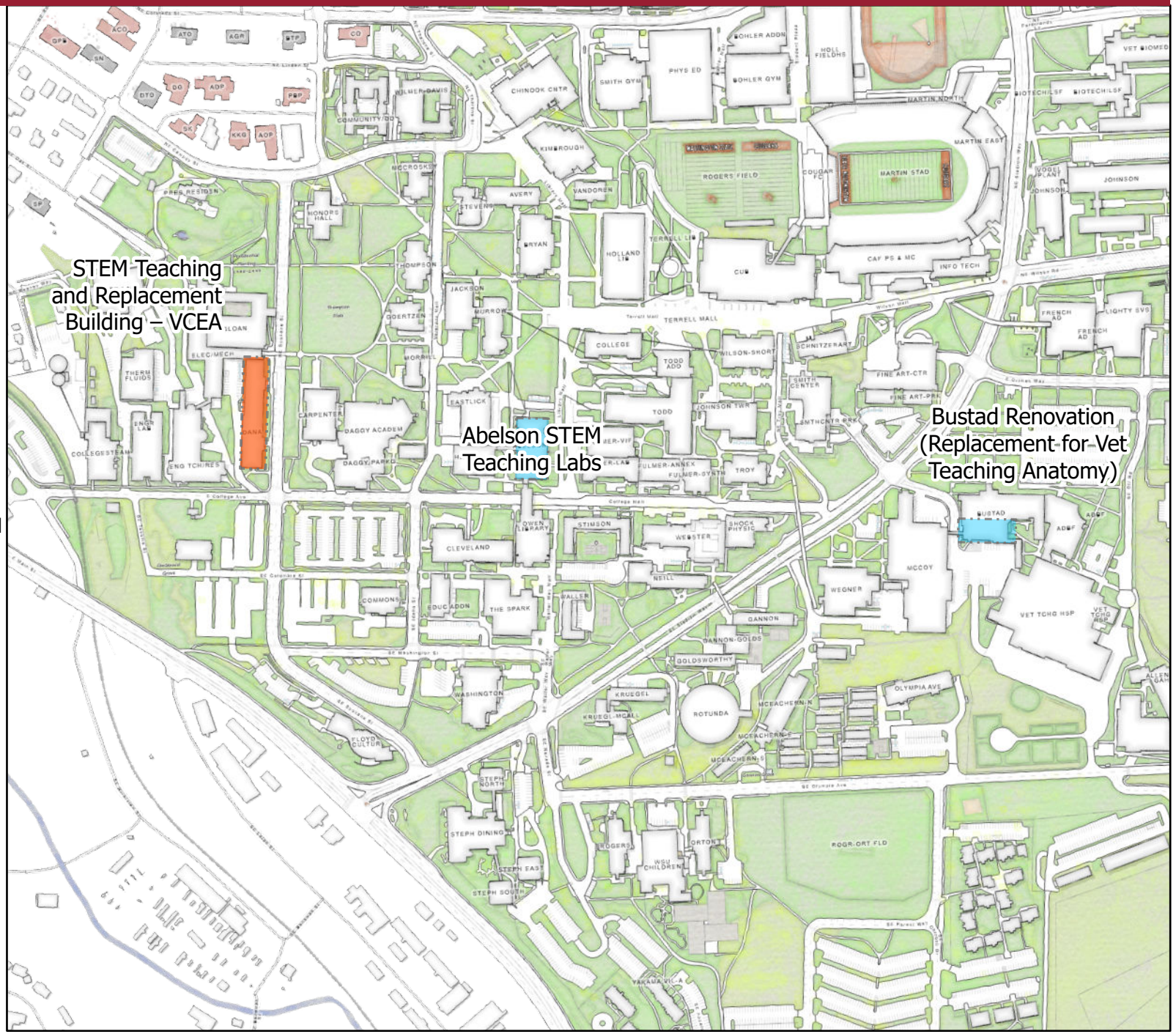
Washington State University Pullman - STEM Teaching Labs
$5,000,000 (Design and Construction)

Bustad Renovation (Replacement for Vet Teaching Anatomy)
$10,000,000 (Design and Construction)

Infrastructure (electrical, water, chilled water, steam, tunnels)
$10,000,000 (Design and Construction)
(Multiple locations - not shown on map)

Learning Renovations
$10,000,000 (Design and Construction)
(Multiple locations - not shown on map)

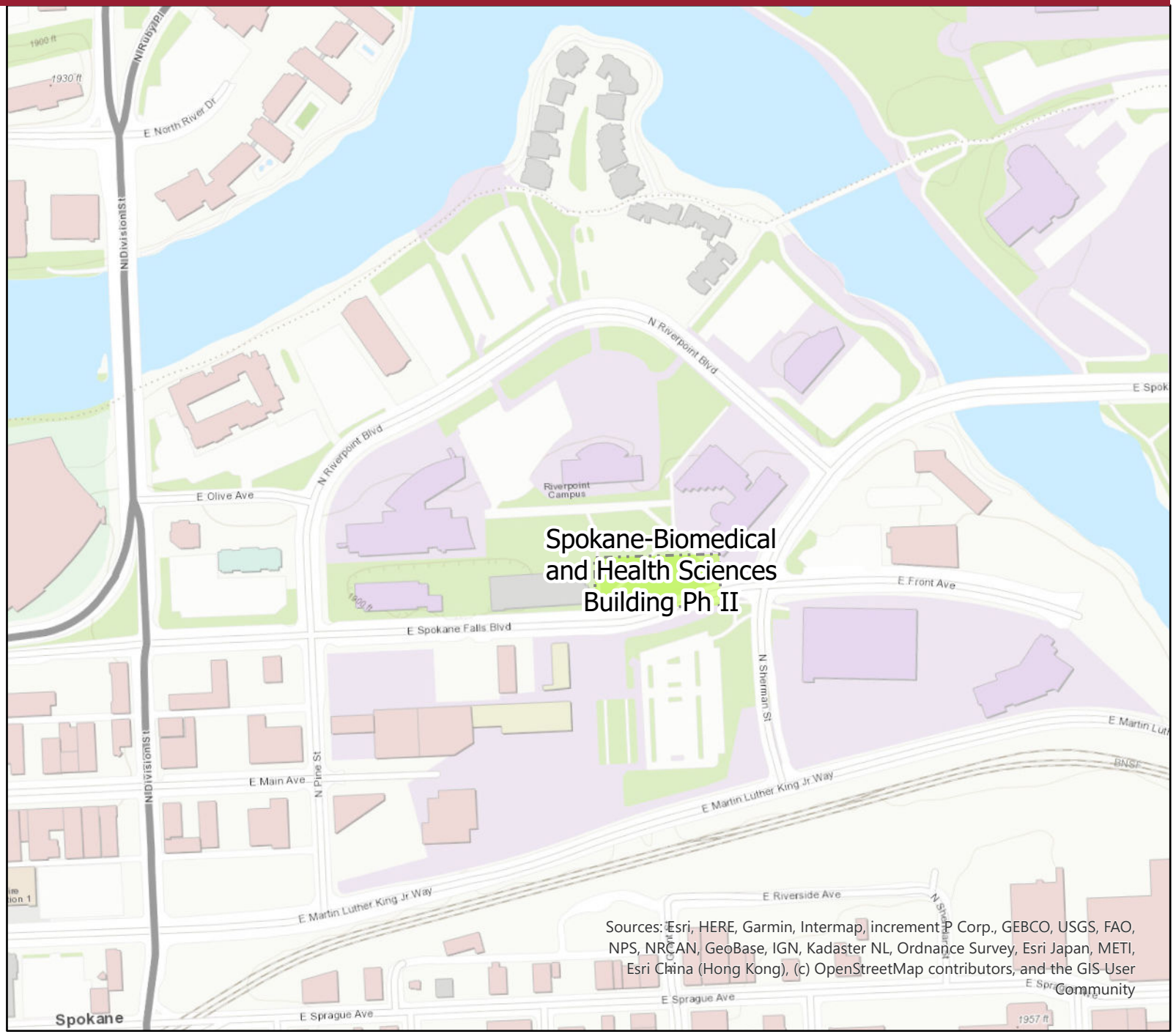
Information Technology Renovations
$5,000,000 (Design and Construction)
(Multiple locations - not shown on map)



WSU Facility Development Plan

Spokane 2025-2027

Spokane-Biomedical and Health Sciences Building Ph II
$35,000,000 (Construction Phase 1)



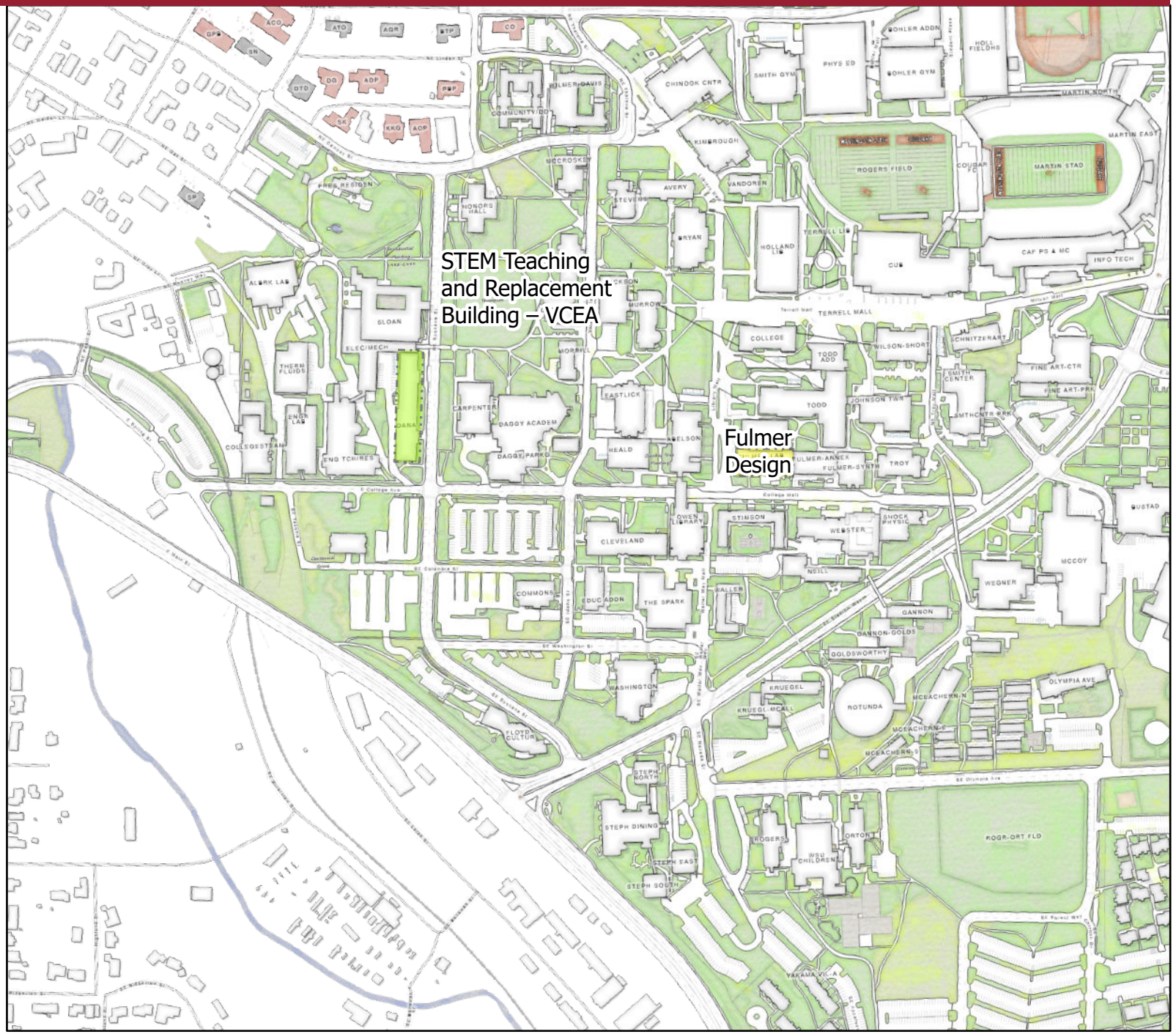
WSU Facility Development Plan

Pullman 2027-2029

STEM Teaching and Replacement Building – VCEA
$45,000,000 (Construction)

Fulmer Hall Renovation Phase 1
$3,000,000 (Design)

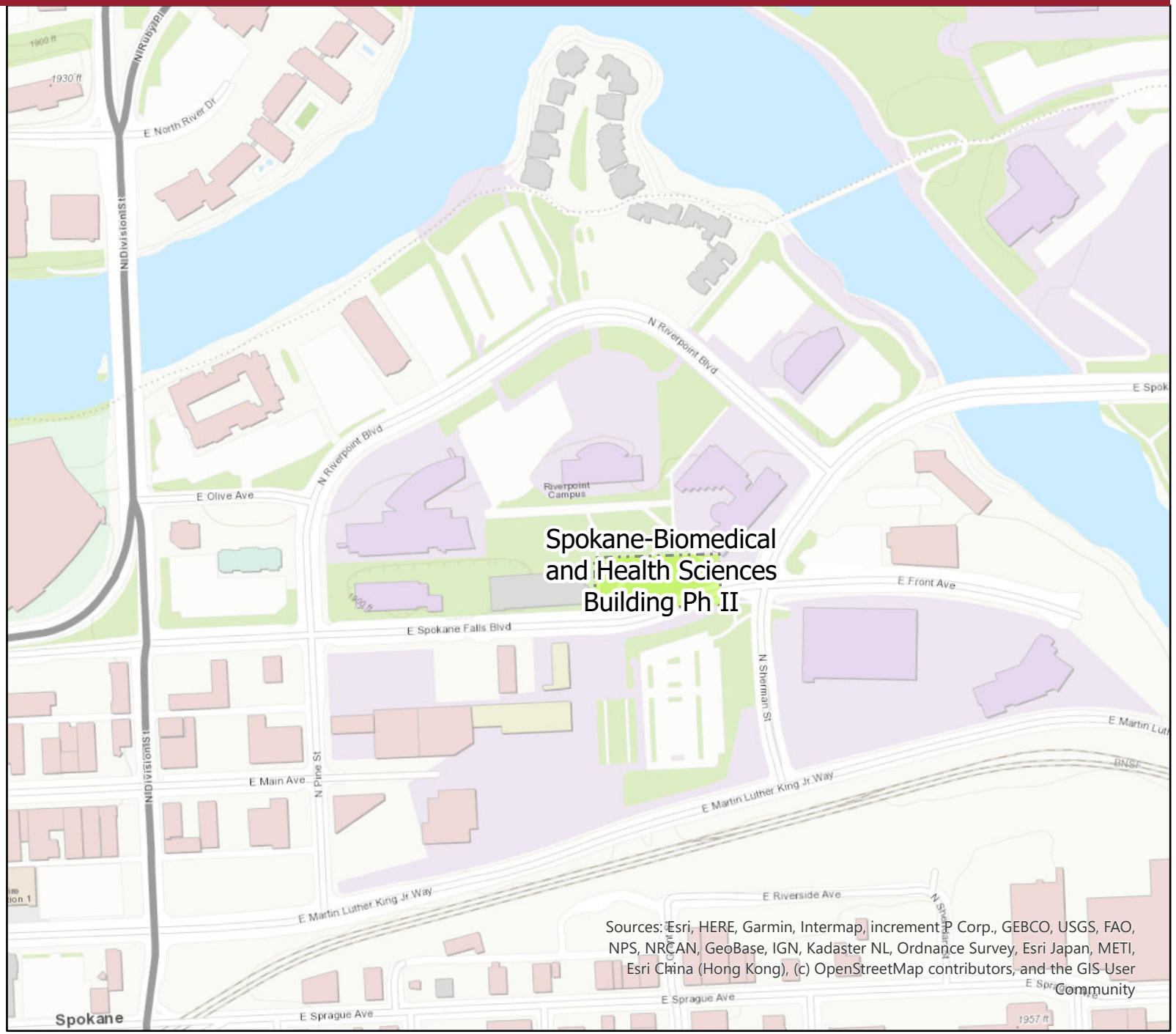
Research Renovations
$10,000,000 (Design and Construction)
(Multiple locations - not shown on map)



WSU Facility Development Plan

Spokane 2027-2029

Spokane-Biomedical and Health Sciences Building Ph II
$35,000,000 (Construction Phase 2)



WSU Facility Development Plan

Pullman 2029-2031

Fulmer Hall Renovation Phase 1
$35,000,000 (Construction)

Engineering Renovation/Replacement Ph 2 – VCEA
$8,000,000 (Design and Demolition of Daggy Hall)

McCoy Hall Demolition
$8,000,000 (Design and Demolition of McCoy Hall)

Murrow Hall Renovation
$3,000,000 (Design)

Building Systems (roofs, elevators, envelope, BAS, MEP)
$10,000,000 (Design and Construction)
(Multiple locations - not shown on map)

Infrastructure (electrical, water, chilled water, steam, tunnels)
$10,000,000 (Design and Construction)
(Multiple locations - not shown on map)

Learning Renovations
$10,000,000 (Design and Construction)
(Multiple locations - not shown on map)

Information Technology Renovations
$5,000,000 (Design and Construction)
(Multiple locations - not shown on map)