

Narrative Summary of the Projects Shown in the Draft 2019-29 Ten-Year Capital Plan

Sciences Building Addition (STEM I)

This important project will provide laboratory and classroom space to support State-wide goals to expand opportunities in science, technology, engineering and math (STEM) education. Western has experienced unprecedented growth in enrollment for almost every STEM major, and the University continues to develop new degree programs in the STEM field. Western's existing science instructional space does not meet contemporary performance standards and there is a significant shortfall in available instructional space in general. This situation is compounded by a significant increase in demand for introductory science and mathematics courses from non-STEM majors, and the hiring of new STEM faculty with resulting pressure for faculty support space. Western is at risk of failing to meet student demand while maintaining program quality.

The program, use, and location of this facility will be determined based on the outcome of a comprehensive STEM study.

STEM II and STEM III (includes Environmental Studies Center Renovation and space for Computer Science and Electrical Engineering)

This project will renovate the forty-two year old Environmental Studies Center and provide a new facility that will help resolve critical instructional space and faculty office shortfalls within the sciences. The renovation of the Environmental Studies Center will address maintenance and repairs backlog, implement an entirely new and separate HVAC system, and provide modern teaching and research space needed for a 21st century education. The program and use of this facility, after renovation, will be determined based on the outcome of a comprehensive STEM study. The new facility will be determined based on the outcome of a comprehensive STEM study; however, this project will include space for Computer Science and Electrical Engineering programs.

Classroom & Lab Upgrades

This is a multi-year program that will repurpose and upgrade existing instructional space on campus. The goal of the program is to ensure the Institution has adequate access to high performance and modern learning space and, in the short term, partially accommodate the recent growth in STEM. The determination of what instructional space is upgraded or re-purposed is based on the following criteria:

1. Measurable Outcomes – The upgrades will increase capacity and room usage. The capacity and usage should be supported with usable data.
2. Course Data – The structured, academic use of the renovated room must be recorded and tracked within the Institution's enterprise data system. This will preclude using the funding for renovations of scholarly activity space that was never intended to be used for instruction.
3. Performance Thresholds – The renovated rooms will operate at a minimum level of usage per academic year.

The 2017-19 scope of work includes both the renovation of upper division instructional labs as well as comprehensive renewal of general use classrooms.

Consolidated Academic Support Services Facilities (includes Phase 2 and Phase 3)

These projects would construct up to three buildings on the vacant land owned by the university at 25th and Taylor Streets. The site is currently zoned to accommodate approximately 60,000 gross square feet of office space. The new facilities would house various departments that require proximity to campus but do not need to be located on campus, thereby creating more capacity in the core for strategic programs. This, in concert with the Classroom and Lab Upgrades and Minor Works Program projects, would allow the core of the campus to partially accommodate recent growth in STEM and other academic programs.

Minor Works – Program

Programmatic Minor Works projects have not received funding in the last several biennia, consequently many of the prior biennia project requests resurface every two years with even more dire conditions and need of funding than before. The programmatic projects include: student outreach/advising, career and counseling services; study and media equipped conference rooms; and most critically, office space-optimization projects. Much of the requested funding in this category is to address critical shortages in office space by compacting larger offices and suites within our older buildings. Several of our older buildings are heavily comprised of over-sized offices that were designed decades ago. The priority ranking of the projects in queue has been determined according to anticipated positive space outcomes.

Minor Works – Preservation

Our Minor Works Preservation omnibus categories are for requests of projects ranging in size from \$25,000 to \$2,000,000. The project requests are submitted by departmental personnel and include facility preservation, health, safety and code compliance, and infrastructure renewal. Many of the projects have been identified in Western's Facilities Management Backlog Reduction Plan; others are critical departmental needs or are intended to mitigate existing deficiencies while awaiting a more comprehensive building renewal. Based on the recommendations from our consultant, Sightlines, and the cost to just keep up with our maintenance, we estimate our biennial capital preservation need to be \$24.8 million.

Access Control Security and Infrastructure Upgrades

The University's existing campus access control system is based on Edwards Systems Technology, integrated with the campus fire alarm system. In 2012, Western learned that Edwards would be phasing out the access control portion of the system and when the next system upgrade of the fire alarm system occurred, the University's access control system would no longer be supported. First proposed in the 15-17 biennia, and then as an emergent supplemental project in 2016, the project would replace the campus head-end access control system, convert existing building access control systems to a new system and install electronic control on exterior doors and designated high security internal doors of all major academic buildings. The project will also install new hardware on selected classroom doors to enable locking from the inside in the case of a campus emergency.

An integral component to the access control system is the communications pathways through which data and information must flow. The current fiber network that serves all of campus is reaching the end of useful life, and does not have the capacity to accept the additional load anticipated of an expanded and improved access control security system. In addition, emerging technologies in building systems as well as increasing needs of faculty, students, and staff are placing unattainable requirements on the existing fiber cable. Exacerbating the condition is that fact that the fiber cable has been damaged in numerous locations over time, effectively reducing the capacity of the entire network. The recommended solution is to install new multi-mode and single-mode fiber cable between and within campus buildings.

Overall, these upgrades will improve campus building access and security, provide improved integration with other security systems such as video monitoring and intrusion detection and simplify dispatch functions during emergency responses.

Elevator Preservation Safety & ADA Upgrades

In 2015, with an increasing incidence of elevator breakdowns, Facilities Management hired a consultant to inspect and analyze all campus elevators to determine their current condition, compliance with current code, safety requirements, and to identify and recommend options for an elevator modernization. Overall, 29 elevators were identified as needing some level of modernization, repairs, or renewal.

We have created a prioritized list of work to be accomplished on each elevator, based upon 1) building and personal safety and code compliance; and 2) current operation and performance (reduce repair rate); and 3) appearance and quality of life. It has been determined that correction of the deficiencies generally cannot wait for a full building renovation, and instead must be accomplished as part of a stand-alone elevator renewal project.

Waterfront Land Acquisition

Western has been involved in discussion with the City of Bellingham and the Port of Bellingham regarding the revitalization of Bellingham's central waterfront for over a decade and project requests have been submitted for funding consideration in prior biennia. The waterfront development and Western's planned growth are linked. The University's Institutional Master Plan recognizes that we cannot grow to our planned capacity without acquiring property for development. Relocating and/or expanding some of Western's programs to the waterfront would allow for our future growth. Potential uses include a multi-purpose community learning center for conferences and large-group gatherings and new academic facilities to accommodate expanding graduate programs, emerging academic programmatic needs, and extended education.

Wilson Academic Renovation

The Wilson Library project was requested in the prior biennia to provide for effective reuse of space, improved accessibility, and updating of building systems that have met or exceeded their useful life. There are several programmatic opportunities in renovating the facility. To some degree, the extent of that opportunity hinges on how we will manage Library collections and where we will store those collections.

With the completion of the Carver Academic Renovation, Wilson Library will have the largest facility maintenance backlog on campus at \$13 million. The brick exterior for the original building and the 1976 addition are solid masonry and have infiltration issues. The multi-level sloped built-up roof and walkways have drainage path bottlenecks and are in need of replacement. There are no draft stops in the attic, making a small fire difficult to contain. The 1927 section of the facility has no functioning fresh air ventilation system and depends on open windows year round for fresh air. The HVAC equipment in the 1970's wing has had recent in-house and ESCO energy savings upgrades and is operating acceptably despite being past its expected service life. The main electrical service was replaced in 2012. Branch panels and wiring in the old and newer sections are original and overdue for replacement. Elevators are the least reliable of any on campus and overdue for replacement.

Southcentral Campus Roadway Revisions

Requests for roadway revisions have been submitted several biennia. The University received predesign funding in 2003-05 to assess south campus roadway development/revision options. There is a critical need for improving pedestrian safety when accessing the campus from the south. The congestion at two intersections involves pedestrians, bicyclists, transit buses, private vehicles, vendor semi-trucks and any number of motorists using the campus roadway as a standard route to downtown Bellingham. The project involves creating a safe area for crossing by redirecting pedestrian and bus traffic related to East and West College Way where Bill McDonald Parkway enters the campus. Included in the project is installation of a traffic signal at Bill McDonald Parkway and South College Drive.

CFPA Renovation & Addition

Exterior renewal of the Performing Arts Center facility (PAC) was approved and executed in the 2013-15 biennia, along with the exterior roofing renewal of PAC which was completed winter of 2015. However, the renovation and addition project proposes an intense overhaul of the Performing Arts Center to address a multitude of facility infrastructure, building renewal, code compliance and programmatic needs. It was previously requested and referred to as the "Gateway Complex" project. The project includes adding several thousand square feet of multi-disciplinary academic and performance spaces that meet contemporary technology and curriculum requirements. The expansion would require removal of High Street Hall and Canada House. The Center for Canadian American Studies and the Border Policy Research Institute would be relocated to the PAC addition. The project also involves upgrades/replacements of mechanical and life safety systems that are in poor condition.

Heating System Carbon Reduction & Energy Efficiency Improvements

Proposed in the 2013-15 biennia, this project would reduce our annual CO2 emissions by roughly 10% and involve a pre-design and subsequent construction budget estimate to convert our central steam heating system to a hot water system. Centralized hot water heating is roughly 30% more energy efficient than steam. A pre-design is needed to thoroughly analyze the conversion needed and the costs to construct. Our aging steam distribution system requires nearly wholesale replacement over the next few biennia. The size and capacity on our steam line does not meet our hot water needs. In 2013-15 biennia we spent \$2.5 million in essential repairs and anticipated spending another \$15 million over the course of the next 10 years. It is possible to implement this conversion in phases. This essential request also demonstrates our commitment to work toward a zero carbon footprint by 2050.

Westside By-Pass Road Realignment

The Westside By-Pass Road Realignment projects realigns the connection with West College Drive to Bill McDonald Parkway. The realigned road was developed during a previous south campus roadway predesign study in 2003-05. The realigned roadway would improve pedestrian safety and create an improved south campus transit center and southern entry to the campus. The realignment will also allow non-university bound traffic to avoid student pedestrian traffic.