

MSU-Bozeman Campus

1. Campus – Energy Utility Infrastructure Master Plan \$250,000

Bozeman Campus- (Planning/Code Compliance/Life Safety/Operational Efficiency Savings)

(An MSU-Bozeman Energy Conservation project)

The Utilities Infrastructure Master Plan is a high priority and required for planning, evaluating site requirements and is an essential tool to budget and construct utilities in an efficient and comprehensive manner instead of haphazardly locating infrastructure as buildings are being built. MSU is at a crossroads in its energy evolution. While MSU-Bozeman is the largest consumer of natural gas of all State agencies and, as a research institution, emits over 77,000 metric tons of carbon dioxide annually, there is tremendous opportunity for substantial reduction of energy use. MSU’s infrastructure preparation through the last two decades has positioned the campus to implement a unique and powerful energy strategy to dramatically reduce energy expenditures while reducing environmental impact. This planning effort would quantify the conceptual synergy of establishing a geothermally based infrastructure while developing a high efficiency cogeneration system. These strategies may be combined with the purchase of low carbon energy and aggressive energy conservation to achieve dramatic emissions reduction and economic benefit. This plan would be the basis for implementation of energy related infrastructure projects.

2. Howard Hall- ADA Upgrades (Restrooms, Entry, Corridor Ramp).....\$250,000

Bozeman Campus- (Deferred Maintenance/Code Compliance/Life Safety)

Constructed in 1974, Howard is the Music Department building, with the University’s premier performance space, is deficient in terms of accessibility issues at building entries, restrooms, and interior corridor ramp are non-compliant. These issues take on additional importance due to the fact that this building hosts music performances.

3. Visual Communications - ADA Upgrades (Restrooms)\$250,000

Bozeman Campus- (Deferred Maintenance/Code Compliance/Life Safety)

The Visual Communications building was constructed in 1983; it houses the School of Film and Photography, classrooms, media laboratories, and the University television station and studio. This building is heavily utilized by not only students but also persons coming to the building to participate in work associated with the television studio. Restrooms in the building are seriously deficient in terms of accessibility, both the university and the community will benefit from accessibility upgrades.

4. Campus – LRCDP (Master Plan) Update \$450,000

Bozeman Campus- (Planning/Code/Life Safety)

The Long Range Campus Development Plan was developed through an inclusive and participatory process. Since its adoption, planning efforts have already extensively drawn on the elements and principles of the framework plan and begun implementation. Built into the LRCDP is a scheduled review in five years. The regular review and updating of the master plan is essential to keep the plan relevant and viable in guiding the decisions pertaining to the campus’ physical environment. The university will benefit by having more carefully planned development and expansion that is in keeping with the overall vision as well as being flexible enough to adapt quickly to changing environments in the university’s aspirations, state direction, economic markets, campus

community needs, and community trends. The update will require similar planning processes including consultant involvement.

5. Campus – Wayfinding/Campus Directory Signage \$750,000
Bozeman Campus - (Planning/Code/Life Safety)

Critical to recruitment and retention efforts is a strong campus identity, and of impact to all campus constituents and visitors is a navigable and obvious campus layout. MSU has three entry signs (one temporarily removed for MDT road improvement project) and all buildings are signed; however MSU does not have a comprehensive, integrated signage program that provides safe, inclusive and aesthetically appropriate wayfinding. Facilities Planning is developing a signage plan (including an inventory and needs analysis) and signage standards to comply with ADA requirements, and that enhances the experience of the campus. Comprehensive signage includes information kiosks, graphical directional signage, and building and floor directories.

6. FEMA TIER 2 Seismic Study\$750,000
Bozeman Campus – (Code/Life Safety/Planning)

Estimate consists of ~30 major buildings at ~\$25K each. The MSU campus is within UBC Seismic Zone 3, which is adjacent to the only Zone 4 area in the US (Big Sky, Montana) that is outside California or Alaska. In 2005, MSU completed a FEMA Tier 1 Seismic Study which identified a list of 36 major (state-funded) facilities that required additional in-depth structural analysis. (Approximately 20 of MSU’s existing facilities scored high enough on the initial review that no further analysis is required.)

7. Campus – Utility Upgrades - Facilities Complex \$750,000
Bozeman Campus- (Deferred Maintenance/Code/Life Safety/Operational Efficiency Savings)

Facilities Complex includes land and structures of the former Faculty Court area that cannot have any more facilities added until the utilities are upgraded to meet the service demands. Current priority could escalate to high priority depending on land use decision for that area.

8. Mash Labs – HVAC Retrofit and Control Improvements..... \$850,000
Bozeman Campus- (Deferred Maint/Operational Energy Efficiency Savings)

This project replaces Marsh Labs HVAC systems and controls that are well beyond their service life, operate inefficiently, and represent significant deferred maintenance. This project would remove the steam fire heating system, consolidate rooftop equipment to laboratory-grade equipment, and improve controls for the building.

9. Campus – Masonry Repair- various buildings \$1,000,000
Bozeman Campus- (Planning/Health/Life Safety/Operational Efficiency Savings)

- a) Cobleigh Hall - repair roof parapet on south side; seal brick wall/precast window shroud joints: \$80,000.
- b) Taylor Hall - tuckpoint and repair historic brick; rebuild brick arches at windows: \$50,000.
- c) Wilson Hall – repair bridge and exterior stairs; repair retaining wall on north side: \$460,000.
- d) Renne Library - tuckpoint brick and stone joints; replace mortar joints at precast front entry: \$45,000.
- e) Romney Gym - tuckpoint brick, granite and terra cotta joints: \$165,000.
- f) Roberts Hall - tuckpoint brick, granite and terra cotta joints: \$80,000.

- g) Heating Plant - tuckpoint brick, granite and terra cotta joints: \$35,000.
- h) Herrick Hall – tuckpoint brick, granite and terra cotta joints: \$40,000.

10. Campus – Central Energy Management System \$1,500,000

Bozeman Campus- (Planning/Deferred Maint/Operational Energy Efficiency Savings)

The CEM system is a high-priority project is achieving MSU-Bozeman’s energy conservation efforts. The CEM system consists of a centralized campus energy metering/management system that completes the current campus metering with the installation of a central automated real time meter reading and data management system that includes built-in expansion capacity for future interface with building management systems. The new system will automate and improve monitoring and management of energy consumption and generate energy savings.

11. ROTC Field Facilities\$1,500,000

Bozeman Campus - (New Construction)

ROTC’s field functions currently occupy an old farm building on a piece of land that is owned by the MSU Foundation and currently is up for sale. A new facility for ROTC would comprise 8,000 gross square feet and include a classroom, offices, combat room, cannon garage, equipment storage, uniform storage, and uniform assignment areas. ROTC practices field exercises can appear threatening to onlookers and therefore need to be situated away from the main university campus and its neighbors. Field exercises require ten unbounded acres. Since a move is imminent, this new structure should be built before the existing one is sold to ensure continuity of program for the ROTC.

12. Reid – ADA Upgrades (Elevator, Restrooms)..... \$1,500,000

Bozeman Campus - (Deferred Maint/Code Compliance/Life Safety)

Reid Hall, constructed in 1957, houses the College of Business and the College of Education/Health & Human Development as well as several of the largest and most heavily used registrar-scheduled classrooms and lecture halls on campus. The original elevator has served beyond its useful life expectancy and does not comply with ADA accessibility requirements. MSU has commissioned the design of a new replacement elevator using university major maintenance funds. This project will install the new replacement elevator and renovate several restrooms.

13. Tietz Hall – Replace HVAC and Critical Care Engineered Systems.....\$1,700,000

Bozeman Campus - (Health and Life Safety)

Originally occupied in 1985, the 20,389gsf building was formerly known as the Animal Research Center (ARC) connected to Lewis Hall. The project will retrofit air handling, heating, cooling, and humidification of the building as needed for the health and comfort of the human and animal occupants. As a priority the project will increase reliability and redundancy of systems critical to protect living assets and research continuity. No other alternatives are available or feasible. These HVAC improvements reduce the buildings deferred maintenance.

14. Creative Arts Complex – Upgrades (Howard, Cheever, Haynes Halls) \$2,000,000

Bozeman Campus - (Deferred Maint/Code/Life Safety)

Originally constructed in 1974, the Creative Arts Complex (three buildings of a combined ~135, 012gsf) houses the College of Arts and Architecture, School of Art and the School of Music, and College of Agriculture and Technology Education programs (Cheever Hall), as well as campus registrar-scheduled classrooms and lecture/performance halls. The buildings have not been

significantly renovated or updated since original construction and are in need of upgrades to facilitate continued services to the campus community and as public venues. The current average FCI deficiency ratio for the three buildings is 5.8% and is considered fair by the APPA. The upgrades will significantly reduce or eliminate areas of deficiency. In addition the upgrades will extend the useful life of the building and prolong the need for a future full scale renovation. The project would include needed Americans with Disability Act (ADA) compliance improvements, elevator upgrades, building circulation enhancements, expansion of classroom, studio, and gallery space, and infrastructure updates. The project is intended to be performed concurrent with the Seismic Improvement project approved in the 62nd legislative session in an effort take advantage of economic and space efficiencies created by the retrofit as well as minimize building disruption to building occupants and services through a consolidated construction effort.

15. Campus – Classrooms Renovation..... \$2,000,000

Bozeman Campus - (Deferred Maint/Code/Life Safety)

The project will renovate and modernize classrooms as determined by recommendation from the UFPB Classroom Committee and based on deficiency audits of Registrar-controlled classrooms (i.e. badly outmoded and dysfunctional in terms of configuration, accessibility, electrical and audio/visual capabilities, finishes and lighting). A classroom renovation project will change configuration of some classrooms for current teaching methods and code compliance, make alterations for ADA accessibility, provide additional electrical outlets, upgrade data access, upgrade writing surfaces, upgrade finishes, update HVAC components and replace lighting with energy-efficient fixtures with variable level capabilities.

- a) Linfield Hall Rm 125 \$ 700,000 large 115+ classroom
- b) Reid Hall Rm 105 \$ 700,000 large 115+ classroom
- c) Wilson Hall Rm 1-119 \$ 500,000 medium 51-114 classroom
- d) Wilson Hall Rm 1-143 \$ 500,000 medium 51-114 classroom
- e) Wilson Hall Rm 1-132 \$ 150,000 small 1-50 classroom
- f) Reid Hall Rm 452 \$150,000 small 1-50 classroom

16. Campus ADA Projects.....\$2,000,000

Bozeman Campus – (Code/Life Safety/Planning)

MSU is committed to improving accessibility to campus facilities in an effort to meet Americans with Disability (ADA) standards and comply with Office of Civil Rights and Department of Justice campus reviews. The purpose of this project is to perform specific renovations, upgrades, and modifications to existing campus facilities based on the MSU ADA Transition Plan. The projects will improve accessibility to and within building and include site work upgrades, improved building entries, elevator and toilet room modifications, ADA signage, and technology upgrades. Projects will have minimal disruption to building occupants during construction. The integrity and architectural features of the historic buildings will be protected. The project addresses academic buildings impacting most if not all students and many faculty and staff.

- a) Creative Arts Complex
(Howard, Cheever, Haynes Halls) \$ 600,000
 - b) Linfield Hall \$ 750,000
 - c) Cobleigh and Roberts Halls \$ 650,000
- \$2,000,000**

17. Wilson Hall – Chilled Water/Energy Plant Improvements \$2,000,000

Bozeman Campus- (Deferred Maint/Operational Energy Efficiency Savings)

Capture significant energy savings and reduce deferred maintenance by replacing the steam-fired absorption chiller with a heat recovery heat pump or chiller system. Connection of Wilson Hall to the energy plant (chilled water/heating water) being installed in Leon Johnson Hall will be analyzed. This connection would greatly reduce the operating equipment required for the two buildings and result in an energy-sharing strategy that reduces total energy input and facilitates conversion of the building to a geothermal-based approach.

18. Linfield Hall – Elevator/Restrooms\$2,000,000

Bozeman Campus - (Deferred Maint/Code/Life Safety)

Constructed in 1910, houses the College of Agriculture. Originally designed for a male-dominated curriculum, the building has woefully inadequate and malfunctioning restroom facilities which are now significantly deteriorated. The four story building has no elevator. MSU has commissioned the design of new restrooms to meet modern gender demographics and a new elevator using university major maintenance funds. This project will construct new restrooms and install a new elevator to meet codes and accessibility requirements.

19. Cobleigh- ADA Upgrades (Restrooms, Entry, Elevator)\$2,000,000

Bozeman Campus - (Adaptive Reuse/Renovation/Deferred Maintenance/Code/Life Safety)

Constructed in 1970, the six-story building adjoins historic Roberts Hall and extended the College of Engineering operations. The building provides classrooms and labs, including a state of the art cold chamber completed in 2008 to advance cold-regions research and costing over 2 million dollars – funded mostly by grants (NSF, Murdock and WTI). The building is seriously deficient with respect to accessibility issues. The building entries, restrooms, stairwells and elevator currently make this a very difficult building for individuals with accessibility needs. This project will make the building fully accessible and in compliance with current ADAAG standards.

20. Campus - Roof Replacement.....\$2,400,000

Bozeman - (Deferred Maintenance)

These roofs are out of warranty and have lived considerably beyond their intended service life. They are beyond repair and are failing. These roofs must be replaced to avoid continued damage to the interiors of these facilities. The failure of these roofs was documented by the MSU Facilities Condition Inventory. Examples of possible roofs:

- a) Renne Library \$ 700,000
 - b) Museum of Rockies \$1,000,000
 - c) AJM Johnson Hall \$ 300,000
 - d) EPS Building \$ 400,000
- \$2,400,000

21. Linfield Hall – Electrical Upgrades\$3,000,000

Bozeman Campus - (Deferred Maint/Code Compliance/Life Safety)

The electrical systems serving Linfield Hall North and South buildings are obsolete, poorly arranged, and have inadequate capacity for current and future needs. There are several systems and arrangements that do not meet current electrical codes, including high voltage primary electrical systems located in the basement and knob-and-tube branch circuit wiring throughout much of the north building. This project would replace most of the building electrical systems downstream of the existing transformer serving the two buildings, and would include new building disconnects, building feeders, main distribution panels, branch panels, panel feeders, and branch

circuit wiring. The project would also include new systems to reduce safety concerns associated with the high voltage primary systems in the basement.

The current estimate for this work, including design, construction, administration, and contingencies based on a preliminary design and estimate performed by Scott Ritter in 2008 (report in PPA#07-0098). No other alternatives exist.

22. Campus – Site Work/ Landscaping..... \$3,000,000

Bozeman Campus- (Planning/Deferred Maint/Code/Life Safety/Operational Resources Efficiency Savings)

The aesthetic and functional aspects of campus landscaping are directly related to the experience while on campus and the positive interaction with the university community and surrounding community. Comprehensive, interconnected, attractive and well maintained landscapes and exterior spaces/places are critical to recruitment and retentions. Exterior spaces require site work to develop logically placed and safe pedestrian plazas and outdoor classrooms. Site work and site specific landscape plans will follow the LRCDP (completed in 2008) and the Landscape Master Plan, in its early development by Facilities Planning.

23. Hamilton Hall – Renovation 3rd and 4th Floors\$4,000,000

Bozeman Campus - (Major Maintenance/Code Compliance/Health and Life Safety)

Constructed in 1910 by Fred Willson, Hamilton Hall has significant value as a historic structure. This project will complete the balance renovations on the third and fourth floor the building and addresses deferred maintenance identified through the Facilities Condition Inventory (FCI) process. This project will include building infrastructure upgrades, Fire and Life safety improvements, corridors and stair well modifications, as well as ADA considerations. Exterior and 1st and 2nd floors renovation were completed in 2010, ADA compliant elevator addition construction underway (June 2011), leaving upper two levels and attic (~13,900nsf) requiring renovation.

24. Campus – Service Drives/Access Network Upgrades – Phase I \$4,000,000

Bozeman Campus- (Planning/Deferred Maintenance/Code/Life Safety)

To reconstruct those streets and service drives which are approaching or have exceeded their life expectancy. MSU streets require redesign and enhancements to improve their safety, accessibility and efficiency as transportation for vehicles, bicyclists, transit, and pedestrians. Service drives require similar consideration as well as improvements for efficient building operations and maintenance use and as staging areas for construction projects. Example of possible projects:

Streets

- a) 7th Street, from Kagy to Grant
- b) Garfield Street, from 11th to 19th
- c) 15th Street, from Garfield to College
- d) College Street, from 8th to 19th - - possible cost sharing with City
- e) Lincoln Street, from 11th to 19th - - possible cost sharing with City
- f) 6th Street, from Grant to Cleveland- - possible cost sharing with City
- g) 11th Street, from Kagy to Lincoln- - possible cost sharing with City

Service Drives

- a) Gaines/Vis Com/Traphagen/Reid/Sherrick
- b) Renne/SUB/AJM
- c) Fieldhouse/Tennis/Fitness Center

- d) Herrick/Hamilton/Wilson
- e) Creative Arts Complex

25. Heating Plant – Energy Conservation and Summer Boiler \$4,000,000
Bozeman Campus - (Deferred Maintenance/Operational Energy Efficiency Savings)

Boiler controls installed in 1994/98 are being replaced (majority of work completed in February 2009) on all three steam boilers, which is central heating source for all campus state buildings. A once-through domestic water supply currently serves many pieces of equipment that require cooling water in the Heating Plant. Water is quickly becoming an increasingly expensive resource and installing a closed loop cooling system would provide considerable water consumption savings.

26. Campus – Code/Deferred Maintenance.....\$4,700,000
Bozeman - (Deferred Maintenance/Code/Life Safety/)

State funding is needed to address life safety, code and accessibility problems that have been identified during thorough Facilities Condition Inventory inspections performed at each campus, and by various state and city agencies. These projects are necessary to meet requirements of the International Building Code, Americans with Disabilities Act, ANSI Guidelines, Uniform Fire Code, Life Safety Code, citations from OSHA, citations from the Department of Labor and Industry, etc. They include items such as fire alarms, fire sprinklers, fire doors and separation assemblies, stair enclosures, guardrails, emergency lighting, egress lighting, ventilation systems, and other noted deficiencies.

27. Campus – Central Cogeneration Expansion \$5,000,000
Bozeman Campus- (Deferred Maint/Operational Energy Efficiency Savings)

Expansion of the combined cycle cogeneration, central backup electrical, and base loading steam; and establish increased on-site generation of electricity to allow MSU to implement peak shaving and extensive backup electrical generation while co-producing heat for campus distribution. Cogeneration of electricity is an effective way to maximize the value of purchased natural gas. The precise size of the cogeneration plant will be determined in the Energy Utility Infrastructure master planning process. The plant is expected to be approximately 5MW in capacity.

28. Campus – Utility Upgrades – West of 19th Ave \$5,000,000
Bozeman Campus- (Planning/Deferred Maintenance)

Install utility infrastructure on MSU property west of 19th Street. The MSU property west of 19th Street has historically supported agriculture-related activities and was surrounded by County-regulated lands; however, in recent years the adjoining private properties have been annexed into the City of Bozeman, and through the LRCDP process some of the land (at the MSU/private property boundaries) has been identified as feasible for future development. Before any additional facilities can be built in that area the utilities need to be installed. Installation would be in phases.

29. Renne Library – Expansion Phase I \$6,000,000
Bozeman Campus- (Adaptive Renovation/New Construction/Deferred Maintenance/Code)

Built in 1949, Renne Library received its first and only substantial addition in 1961. It is ~142,000gsf, and houses MSU’s central library facilities and ITC services. MSU’s student to library square footage ratio is significantly lower compared to peer institutions and upgrades are necessary to provide appropriate services in support of teaching and research. Phase I of the renovation includes adding approximately 12,000gsf to the 4th floor of the existing facility. Goals

for the addition include; group and collaborative learning space, dual-use classroom and technology lab space, additional stack space, enhancing workspace, improving utilization of existing space, expanding library services, and improve wayfinding.

30. Campus – Fire Suppression Installment/Upgrade.....\$6,300,000

Bozeman Campus - (Life Safety/Code Compliance)

Install new or upgrade and expand current fire suppression system to cover the entire building as required by code. Projects will have minimal disruption to building occupants during construction. The integrity and architectural features of the historic buildings will be protected. The project addresses academic buildings impacting most if not all students and many faculty and staff.

- a) Leon Johnson Hall \$ 750,000 (priority carried forward)
 - b) AJM Johnson Hall \$ 260,204
 - c) Cobleigh Hall \$ 591,857
 - d) Culbertson Hall \$ 308,189
 - e) Herrick Hall \$ 56,385
 - f) Leon Johnson Hall \$ 255,808
 - g) Lewis Hall \$ 748,202
 - h) Linfield Hall \$ 266,448
 - i) McCall Hall \$ 420,742
 - j) Montana Hall \$ 606,032
 - k) Plew Building \$ 119,707
 - l) Roberts Hall \$1,090,586
 - m) Romney Gym \$ 348,082
 - n) Traphagen Hall \$ 232,008
 - o) Visual Comm Bldg \$ 245,105
- \$6,299,355**

31. Campus – Utility Infrastructure Upgrades (Water and Sewer)..... \$6,800,000

Bozeman Campus- (Planning/Major Maintenance/Code Compliance/Life Safety/Operational Efficiency Savings)

The purpose of this project is to perform needed upgrade and deferred maintenance work on existing campus infrastructure based on a engineering assessments (condition and capacity) completed in FY06-07 resulting in Water and Sanitary Sewer Facility Plans. A first phase of critical improvements was completed in FY08-09 and for system integrity all remaining upgrades should be installed within 3-5 years. This project addresses infrastructure capacity and rehabilitation improvements. MSU’s water and sanitary sewer requires extensive upgrade in select areas of the system to maintain reliable service with appropriate capacity. Approximately 3500 feet of water line will be 100 years old within the next century. This phase includes replacement of lines that are in poor condition and in many cases do not have the capacity required for fire protection; and extensive replacement of sanitary sewer sections of poor condition or deficient capacity. This project reduces the campuses deferred maintenance and O&M expenses as a new system, and significantly improves the reliability of these critical services to campus. No other alternatives are available and without this project, substantial failure of water or sewer systems is likely causing some operations to cease.

- a) Sewer Infrastructure: \$2,000,000
- Example capacity and rehabilitation sewer projects: 15Avenue/College to Glacier Court; 10 Street vicinity of Hamilton and Leon Johnson Halls.

b)Water Infrastructure: \$4,800,000

Example water projects: replace services, add mains; add and replace fire flow restricting lines and fire hydrants, meter housing, add fire redundancy and inter connections.

32. Campus – Energy Conservation Projects - Campus Core Buildings.....\$10,000,000

Bozeman - (Deferred Maintenance/Code/Life Safety/Operational Efficiency Savings)

About 90% of MSU-Bozeman’s state-operated building energy is consumed in 23 campus core buildings. Several of these builds have recently undergone some level of energy conservation; however, significant operational efficiency and unaddressed potential savings still exists. This project would further implement energy related projects in MSU’s continuing effort to reduce operating cost and reduce deferred maintenance. A list of buildings to be addressed in this phase is being developed.

33. Renne Library – Expansion Phase II \$18,000,000

Bozeman Campus- (Planning/Deferred Maintenance/Code/Life Safety)

Constructed in 1949, addition in 1961. Phase II of the renovation includes adding a ~27,500gsf four-story addition along the south side of the building. Goals for the addition include: expansion of ITC support space, ITC customer service facility, group and collaborative learning space, dual-use classroom and technology lab space, improved public space and ADA access, additional stack space, enhancing workspace, improving utilization of existing space, expanding library services and space, and improve wayfinding.

34. Montana Hall – Renovation\$21,500,000

Bozeman Campus - (Deferred Maint/Code/Life Safety)

Construction on Montana Hall (39,725gsf/ 32,144nasf) was begun in 1896 and completed in 1898. Although not the oldest structure on campus, Montana Hall continues to be MSU’s flagship historic structure and focal point of the campus. The building originally housed classrooms, laboratory spaces, offices for the president, registrar, library, and an assembly hall. Even though numerous (and sometimes insensitive) alterations have occurred, the building retains its character and most of the original detailing. The iconic building is in the center of the university’s historic core and while not the largest building on campus – its location and recognizable façade position it as the most prominent building on campus. A comprehensive study was performed on Montana Hall in 2001, and demonstrated that the building is in need of significant repairs and upgrading including deferred maintenance, adaptive renovation, life safety corrections, structural repairs, building code and ADA renovation. Montana Hall’s current FCI Deficiency Ratio is 17% - considered in the poor range by APPA, and the renovation project will significantly reduce or eliminate areas of deficiency in the building and address safety issues including fire and ADA code compliance regarding egress and interior circulation. A comprehensive renovation project will include major structural repairs, installation of mechanical HVAC system, and replacement of the electrical systems to provide up-to-date ventilation, power and data distribution and replacement of the obsolete plumbing system. Adaptive renovations will provide modern offices and administrative areas including restoring elements of the historically significant building.

35. Romney Gym– Adaptive Reuse/Renovation\$25,000,000

Bozeman Campus - (Adaptive Re-Use/Renovation/Deferred Maintenance/Code/Life Safety)

Constructed in 1922 as MSU’s original state-funded health and physical education building, (~53,074gsf) it is now obsolete. With the exception of some EHHD programs, all of the health and physical education programs have migrated to the Marga Hosaeus Fitness Center. The Romney pool was closed and decommissioned in 2006 and the main locker/shower facilities were closed and decommissioned in 2008. Some spaces are currently in use, while others remain unusable, such as the pool; or have low utilization, such as the basketball court and suspended running track. Romney is historically significant and structurally sound which makes the building a good candidate to be adapted for reuse. Romney’s current FCI Deficiency Ratio is 13.6% - considered in the poor range by APPA, and the renovation project will facilitate a comprehensive adaptive reuse of the building, reduce or eliminate areas of deficiency in the building’s HVAC, plumbing and electrical systems, and address safety issues including fire and ADA code compliance regarding egress and interior circulation.

36. Linfield Hall - Renovation\$29,000,000
Bozeman Campus - (Deferred Maintenance/Code/Life Safety)

Constructed in 1910, houses the College of Agriculture Animal and Range Sciences and the COA Dean and Montana Agriculture Experiment Station Director offices. Originally designed for a male-dominated curriculum, the building has woefully inadequate and malfunctioning restroom facilities which are now significantly deteriorated. The four-story building (~65,563gsf) has no elevator. MSU has commissioned the design-only of new restrooms to meet modern gender demographics and a new elevator using university major maintenance funds. This project will construct new restrooms and install a new elevator to meet codes and accessibility requirements and adapt the building to accommodate modern teaching needs. Linfield Hall’s current FCI Deficiency Ratio is 15% - considered in the poor range by APPA, and the renovation project will significantly reduce or eliminate areas of deficiency in the building’s HVAC, plumbing and electrical systems, and address safety issues including fire and ADA code compliance regarding egress, interior circulation of the four-story building, as well provide gender-sufficient and accessible restrooms.

37. Reid Hall - Renovation \$38,000,000
Bozeman Campus - (Major Maintenance/Code Compliance/Life Safety)

Originally constructed in 1957, Reid Hall (~91,167gsf) houses the College of Business (COB) and the College of Education, Health & Human Development (CEHHD) as well as several of the largest and most intensely utilized registrar-scheduled classrooms and lecture halls on campus. Improvements will have a positive impact on the ~1,100 COB students, and on ~1,000 students enrolled in CEHHD. The renovation of the entire building includes replacing the building elevator and altering the restrooms to comply with the Americans with Disabilities Act, installing a fire suppression system and fire alarm system, upgrading the secondary electrical system (including branch panels and select circuits) to handle required current load and expansion capability, replacing the building heating and ventilation system, providing building cooling, addressing code deficiencies and deferred maintenance as well as modernizing building finishes and improving space utilization. Alternatives include addressing individual systems/components issues separately and over time; but, this may result in costly overlapping of construction and longer periods of disruption to the buildings occupants and programs that will be relocated temporarily during construction. Reid Hall’s current FCI Deficiency Ratio is 14% - considered in the poor range by APPA, and the renovation project will significantly reduce or eliminate areas of deficiency in the building’s envelope, HVAC, and electrical system; and address safety issues including fire and

ADA code compliance regarding egress, interior circulation of the four-story building and accessible restrooms.

**38. Biomedical & Health Sciences Facility – New Facility\$40,000,000
Bozeman Campus - (New Construction)**

The need for biomedical and health sciences academic programs has grown significantly over the past decade. There is a large and expanding student interest in pursuing careers in biomedicine and health professions, whether it be MD's, nursing, biomedical R&D, graduate school, biotechnology or other allied health professions. Academic offerings in biotechnology, immunology, microbiology, pre-med and pre-vet have increased significantly. In addition MSU is working to expand the WWAMI program to include covering the second year of medical school training at MSU instead of at UW. MSU is the biomedical campus of the MUS.

In addition to the large health sciences teaching programs, MSU also has the largest biomedical related research enterprise in the state. Of the approximately \$100 million in research expenditures annually each of the last five years, more than 40% (over \$40 million per year) is spent on biomedical research on campus. However, MSU has a critical shortage of space for biomedical academic programs, and of the space that is available, much of it is out-dated or occupied on a temporary basis.

The return on the investment in a new Biomedical and Health Sciences Academic Facility at MSU would be far-reaching. Beyond the impact on the quality of the academic opportunities we offer our students, there would be immense contributions to workforce development and economic enhancement of the largest sector of Montana's economy, namely biomedical/biotechnology and health sciences and all of the related industries and services.

**39. ITC Building – Server Farm & Offices.....\$40,000,000
Bozeman Campus - (New Construction)**

Relocate ITC server operations out of the campus core to a peripheral site, possibly a designated enterprise zone. Explore private-public collaborative alternatives for the new data center that expands computer services to MSU and beyond. Design may include elements from the Enterprise Systems Services Center (ESSC) Project elements constructed in Helena. New facility will have raised floors, enhanced security, limited access, future expansion capacity, and since these types of facilities generate heat – include a waste heat recovery system to reuse the heat. Will include some office space, but most public interface operations and service center would remain located in campus core.