MSU-Bozeman Campus

1. Montana Hall – Adaptive Renovation.....$28,000,000
Bozeman Campus - (Renovation/Deferred Maint/Code/Life Safety)

Construction on Montana Hall (39,725 gsf/ 32,144 nasf) was begun in 1896 and completed in 1898. Although not the oldest structure on campus, Montana Hall continues to be the flagship 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. Montana Hall is in the center of the historic core of the university and is physically the most dominant 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. The collective 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.

2. 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.

3. Campus – Classrooms Renovation..... $1,200,000
Bozeman Campus - (Deferred Maint/Code/Life Safety)

Estimate is for four classrooms in four buildings to be determined by recommendation by the Classroom Committee from a list of deficient classrooms (i.e. badly outmoded 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 and replace lighting with energy-efficient fixtures with variable level capabilities.

4. Campus – Utility Infrastructure Upgrades (Water and Sewer)..... $1,500,000
Bozeman Campus- (Planning/Deferred Maint/Code/Life Safety/Operational Resources Efficiency Savings)

The purpose of this project is to perform needed upgrade and deferred maintenance work on our existing campus infrastructure (mainly water and sewer), based on a condition and capacity assessment that was performed a couple of years ago and identified prioritized needs to improve these systems on campus. First phase improvements (most critical) were completed in FY08-09; and for system integrity all remaining upgrades should be installed within next 3 to 5 years.

5. Campus – Utilities Infrastructure Master Plan $250,000
Bozeman Campus- (Planning/Code Compliance/Life Safety/Operational Efficiency Savings)
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.

6. Campus – Central Energy Management System $750,000
Bozeman Campus- (Planning/Deferred Maint/Operational Energy Efficiency Savings)
Priority is very high. 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.

7. 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.)

8. Hamilton Hall – Stabilize/Deferred Maintenance/Adaptive Design.....$4,000,000
Bozeman Campus - (Renovation/Deferred Maint/Code/Life Safety)
Constructed in 1910 by Fred Willson, Hamilton Hall has significant value as a historic structure. This project addresses deferred maintenance identified through the Facilities Condition Inventory (FCI) process. The project will correct deficiencies in the original structural elements, repair existing mechanical system components; electrical system and power distribution, upgrade ADA access and limited adaptive renovations will be undertaken in offices and administrative areas, as well as historically sensitive restoration and repairs. Due to the development of the campus, the back of Hamilton Hall faces the center/pedestrian area of campus. This project will design a new entry and lobby off the Centennial Mall, which will include ADA considerations.

9. Campus – Utility Irrigation Reservoir Expansion (Pump and Liner)..... $1,200,000
Bozeman Campus- (Planning/Deferred Maint/Operational Resources Efficiency Savings)
The irrigation reservoir was built in 1985 and installed with a bentonite liner that had an expected lifetime of 15 years. During the last 24 years, silt has raised the bottom of the reservoir several feet, requiring relocation of the pump intake. Pump associated malfunctions requires divers for inspection. Replacement with a synthetic liner would allow periodical vacuuming and better preventative management of the silt. Water to the reservoir is furnished by surface water and is affected by drought or high precipitation conditions. The size of the reservoir is too small to accommodate the unpredictable and variable changes in the flow, and MSU has depleted all reservoir resources within a 3-day use. A larger reservoir can serve 100 irrigation stations with about 12 zone valves per station (~10,000 sprinkler heads) and will improve management of landscape operations. Used Major Maintenance funds in 2009 to contract design and and project estimate.

10. Reid Hall - Renovation $25,500,000
Bozeman Campus - (Deferred Maint/Code/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.

11. 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.

12. 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.

a) AJM Johnson Hall	$ 350,000
b) Plew Building	$ 275,000
c) EPS Building	$ 500,000
	$1,135,000

13. 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.

14. Campus – Vehicular Access Phase I $4,000,000
Bozeman Campus- (Planning/Deferred Maintenance)
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.

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

h) Gaines/VisCom/Traphagen/Reid/Sherrick
i) Renne/SUB/AJM
j) Fieldhouse/Tennis/Fitness Center
k) Herrick/Hamilton/Wilson
l) Creative Arts Complex

15. Linfield Hall – Elevator/Restrooms .....$ 2,000,000

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

Linfield Hall, 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.

16. Facilities- Chemical Storage & Handling Facility $60,000

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

Replace older and decentralized storage locations within Facilities Services operations into one building designed to protect the integrity of the stored chemicals and provide a higher degree of containment than currently.

17. Renne Library – Expansion Phase I $6,000,000

Bozeman Campus- (Adaptive Renovation/New Construction/Deferred Maintenance/Code)

Built in 1949, the Renne Library received its first and only substantial addition in 1961. It is comprised of approximately 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.

18. Romney - Renovation $25,000,000

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

Romney Gym, MSU's original (1922) state-funded health and physical education building, is now obsolete. With the exception of some HHD programs, all of the health and physical educations 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. Romney is historically significant and structurally sound which makes the building a good candidate to be adapted for use as a student/academic facility in the campus core.

19. ROTC Field Facilities.....$1,250,000

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.

20. 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.

21. Campus – Utility Upgrades at Facilities Complex..... $600,000
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.

22. Linfield Hall - Renovation.....$ 17,000,000
Bozeman Campus - (Deferred Maintenance/Code/Life Safety)
Linfield Hall, 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.

23. 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.

24. 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.

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

MSU is faced with a critical space shortage for biomedical and health sciences academic programs and is in need of a 100,000 sf state-of-the-art facility to address this shortage. Biomedical, biotechnology and health sciences academic programs have grown significantly over the past decade to a point at which existing facilities are inadequate. We need state-of-the-art research space as well as facilities for advanced training of students especially at the graduate level to accommodate this significant growth. Research to be conducted in the facility would include: infectious disease research resulting in the development of improved vaccines, vaccine delivery systems and adjuvants that enhance immunity to a wide range of diseases; improved treatments and possibly cures for Alzheimer's and other neurodegenerative diseases; advanced therapeutic agents for cancer treatment; and addressing health issues of rural Montana and the Native American communities. MSU is currently expending more than $100 million annually through its externally funded research programs. More than 25% is funded by the National Institutes of Health to conduct biomedical and health sciences research. In addition MSU expends in excess of an additional $15 million for biomedical/biotechnology and health sciences related research funded by other federal agencies. Not only does MSU need to address the space shortage resulting from the significant growth we have a confounding space crisis looming due to the loss of leased space in the Molecular Biosciences Building currently housing the Department of Veterinary Molecular Biology. A private developer designed and built a 40,000 square foot building as a quick fix to meet the needs of biomedical researchers in the Veterinary Molecular Biology Department. Leasing of space was the only solution available to solve the critical space shortage facing the VMB Department; however, once this lease expires MSU will need replacement space. Importantly we have a large number of undergraduate and graduate students who are majoring in biomedical and health sciences related disciplines and all of these students would benefit from this biomedical and health sciences facility, and the state would benefit from these students enhanced education resulting from the new facility. The state investment in a Biomedical and Health Sciences Facility would reap a huge return and contribute to economic and workforce development in what is becoming a key sector of Montana's economy namely health sciences and biomedical/biotechnology and related services and industries.

26. Heating Plant – Boiler Controls and Fluid Cooling Loop Upgrade..... $500,000
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.

27. 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.

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. 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.

30. AJM Johnson - Renovation.....$25,000,000
Bozeman Campus- (Deferred Maintenance/Code Compliance/Life Safety)
Built in 1959 as a general classroom/laboratory building, AJM Johnson Hall is a very deficient building in a number of areas. The exterior skin of the building consists in part of terra cotta panels that are in poor condition. The mechanical and electrical systems are out of date and do not meet the needs of a contemporary educational building. A complete renovation would involve all interior and exterior finishes, new mechanical and electrical systems, as well as access and accessibility issues. This renovation would allow the building to once again fulfill the academic needs of the University.

31. 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.

32. ITC Building – Server Farm & Offices.....$40,000,000
Bozeman Campus - (Planning Funds for future; 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.