



University of Missouri System  
2018 State Capital Requests,  
2017 Campus Capital Plans, &  
Long Range Plans

## **Table of Contents**

FY 2018 State Capital Appropriations .....	3
FY 2018 Higher Education Capital Fund Projects.....	13
FY 2018 Engineering Equipment Request.....	19
FY 2017 Campus Capital Plans .....	21
Campus Other Capital Planned Projects .....	27

***Our capital focus for the University of Missouri System is primarily on renovating STEM facilities and bring forward new research opportunities for the State of Missouri. If funded, the top priority projects will generate over 2,900 jobs, boost the State GDP by \$370 million and eliminate over \$71.5 million in deferred facility needs for the University of Missouri System. With the support of the State, the University of Missouri System can continue to meet its education and research commitments to the citizens of Missouri and achieve a well-education workforce.***

***Included are four Higher Education Capital Fund projects for the University of Missouri campuses. These key investments have extraordinary local support, align closely with the state and university priorities, and are ready to commence with help from the state.***



## **FY 2018 State Capital Appropriations**

*The University's top projects that are proposed for state funds.*



# University of Missouri - Columbia Waters Hall Reconstruction / Plant Growth Facilities



Funding Source	Amount
FY 2018 State Request	\$53,525,000
Other	\$0
<b>Total</b>	<b>\$53,525,000</b>

## Waters Hall Building Profile

- Built in 1909
- 49,000 gross square feet
- \$14.1 Million Total Facilities Needs
- FCNI: 0.83
- Accommodates 5,000 students annually.

## Plant Growth Facilities Profile

- New Construction
- \$0 Million Total Facilities Needs
- Will contain 40 to 44 glasshouse research compartments.

Plant Growth Facilities expand plant research and decrease the potential for loss of valued faculty and students.



FCNI is Facilities Condition Needs Index and is calculated as facilities needs over the building replacement value. The higher the FCNI number is, the closer a building is to reaching the end of its useful life.

# FY 2018 State Capital Appropriation Request

## The challenges that are being experienced

- Need for additional classroom laboratories for STEM.
- Waters Hall has only received minimal improvements since its original construction.
- Plant growth facilities are beyond capacity and many are inadequate to support modern innovative research.



Waters Hall has only had minor improvements since the original construction in 1909.

## The project will

- Improve STEM space that is critical to maintain student access to important educational experiences.
- Create space for research programs to support modern innovative research.
- Eliminate \$14.1 million in facilities needs.

### Impact to the Economy

Adds  
\$117.9 Million  
to the Local  
Economy

Adds  
\$37.0 Million in  
Personal  
Earnings

930 Jobs



# University of Missouri - Kansas City

## Spencer Chemistry & Biological Sciences Renovation Phase II



### **Building Profile**

- Built in 1968
- 153,000 gross square feet
- \$17.7 Million Total Facilities Needs
- FCNI: 0.29
- Accommodates 1,000 students per week

Funding Source	Amount
FY 2018 State Request	\$31,829,000
Other	\$4,600,000
<b>Total</b>	<b>\$36,429,000</b>

Building repairs are frequent and costly for Spencer Chemistry and Biological Sciences. The renovation will address over \$17.7 million of facilities needs identified.



FCNI is Facilities Condition Needs Index and is calculated as facilities needs over the building replacement value. The higher the FCNI number is, the closer a building is to reaching the end of its useful life.

# FY 2018 State Capital Appropriation Request

## The challenges that are being experienced

- Phase 1 renovation, addressing lower division laboratories is currently underway; however, prior to this, the facility had not been updated in over thirty years.
- Facility has inadequate teaching and research laboratories.
- Building repairs are frequent and costly.



Current laboratory spaces are outdated. Though the Phase 1 renovation (currently underway) are addressing core teaching laboratory upgrades as well as building life safety issues, upper division laboratories and research labs remain out of date. The renovation will create laboratory spaces that meet current standards and encourage student collaboration.

## The project will

- Renovate 75,000 gsf.
- Provide state-of-the-art upper-division teaching laboratory spaces for the sciences.
- Support student retention, meet current laboratory standards, and encourage student collaborative learning.
- Eliminate \$17.7 million in facilities needs.

### Impact to the Economy

Adds  
**\$80.2 Million**  
to the Local  
Economy

Adds  
**\$25.2 Million in**  
Personal  
Earnings

**640 Jobs**

# Missouri University of Science and Technology

## Schrenk Hall Addition and Renovation - Phase III



### **Building Profile**

- Built in 1938/1973
- 118,000 gross square feet
- \$15.0 Million Total Facilities Needs
- FCNI: 0.49
- Accommodates 2,500 students per week

Funding Source	Amount
FY 2018 State Request	\$52,244,000
Other	\$0
<b>Total</b>	<b>\$52,244,000</b>

Repairs are required frequently within Schrenk Hall, the renovation will address \$15.0 million of facility needs.

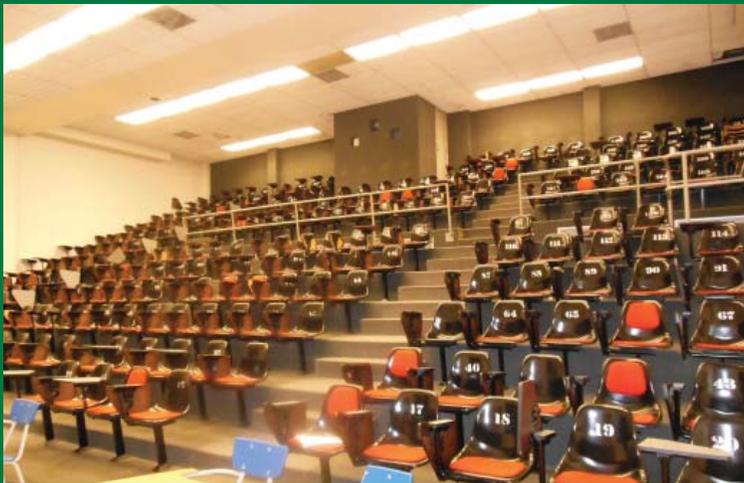


FCNI is Facilities Condition Needs Index and is calculated as facilities needs over the building replacement value. The higher the FCNI number is, the closer a building is to reaching the end of its useful life.

# FY 2018 State Capital Appropriation Request

## The challenges that are being experienced

- Lack of adequate classrooms and support spaces.
- Chemistry and Biological Sciences Departments are currently in multiple buildings.
- Due to limited upgrades, the building does not meet current safety codes or standards.



The renovation will unify related departments to Schrenk Hall which will enhance the educational experience.

## The project will

- Renovate 40,000 gsf and replace the East Wing with a new 90,000 gsf facility and atrium to consolidate related departments to one location to enhance the educational experience on campus.
- Address energy conservation measures and associated cost savings.
- Eliminate \$15.0 million in facilities needs including code issues and accessibility.

### Impact to the Economy

Adds  
**\$115.1 Million**  
to the Local  
Economy

Adds  
**\$36.1 Million in**  
Personal  
Earnings

**910 Jobs**

University of Missouri - St. Louis

# Stadler Hall Renovation



## Building Profile

- Built in 1967
- 83,000 gross square feet
- \$24.7 Million Total Facilities Needs
- FCNI: 0.53
- Accommodates 2,800 students annually

Funding Source	Amount
FY 2018 State Request	\$25,786,000
Other	\$0
<b>Total</b>	<b>\$25,786,000</b>

Current mechanical systems are out dated. The renovation will install modern building systems that will be more efficient and cost less to operate.



FCNI is Facilities Condition Needs Index and is calculated as facilities needs over the building replacement value. The higher the FCNI number is, the closer a building is to reaching the end of its useful life.

# FY 2018 State Capital Appropriation Request

## The challenges that are being experienced

- Laboratory spaces are out dated and do not meet current codes and standards.
- Current building systems are inefficient and have surpassed their expected useful life.
- Building repairs are frequent and costly.



Current laboratory space in Stadler Hall. The renovation will create state-of-the-art class laboratory spaces that meet today's standards at University of Missouri - St. Louis.

## The project will

- Provide critically needed state-of-the-art technology equipped flexible classrooms, class laboratories, research laboratories, and support spaces.
- Install modern building systems that will be significantly more efficient and less costly to operate.
- Eliminate \$24.7 million in facilities needs.

### **Impact to the Economy**

**Adds  
\$56.8 Million  
to the Local  
Economy**

**Adds  
\$17.8 Million in  
Personal  
Earnings**

**450 Jobs**

**UMSL**

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## **FY 2018 Higher Education Capital Fund Projects**

*Projects that are proposed for state matching funds through the Higher Education Capital Fund.*



# University of Missouri - Columbia

## MU School of Music

FY 2018  
Higher  
Education  
Capital  
Fund  
Request



### Building Profile

- New Construction
- 60,000 gross square feet
- 300 students

Funding Source	Amount
FY 2018 State Request	\$15,940,447
Private Gifts	\$15,940,447
<b>Total</b>	<b>\$31,880,894</b>

### Major Donors:

Rex and Jeanne Sinquefield, Richard Miller, Anne L. Kinder, Gary Dickinson Family Charitable Foundation, and Ann King Dickinson

### The project will

- Create a home for the School of Music which is currently located in five separate buildings.
- Create appropriately sized acoustical rehearsal rooms for large instrument ensembles, group percussion rehearsal, and opera and chorale education.
- Include specialty faculty studio/office spaces and individual rehearsal rooms for student use.

### Impact to the Economy

Adds \$77.1  
Million to the  
Local Economy

Adds \$24.2  
Million in  
Personal  
Earnings

610 Jobs



# University of Missouri - Kansas City Downtown Campus for the Arts / Conservatory of Music & Dance

FY 2018  
Higher  
Education  
Capital  
Fund  
Request



## Building Profile

- New Construction
- 165,000 gross square feet

Funding Source	Amount
FY 2018 State Request	\$48,000,000
Private Gifts	\$48,000,000
<b>Total</b>	<b>\$96,000,000</b>

## Major Donors:

Muriel McBrien Kauffman Foundation, City of Kansas City, Missouri,  
Block 4 Development LLC., William T. Kemper Foundation

## The project will

- Be a new 165,000 gsf facility which include teaching, studio, and office and support spaces.
- Provide an opportunity to create innovative state-of-the-art educational facilities downtown for Conservatory students, critical to the conservatory's ability to satisfy accrediting organizations and keep pace with other premiere arts education institutions in competing to attract high-potential world-class young talent to the city and state.
- Be built in a prominent location bordering the internationally recognized Kauffman Center for the Performing Arts, reinforcing the profile of downtown Kansas City, Missouri as 'the place to be' for the quality of life coveted by a highly educated, highly paid workforce and entrepreneurial community.

## Impact to the Economy

Adds \$211.4  
Million to the  
Local Economy

Adds \$66.4  
Million in  
Personal  
Earnings

1,670 Jobs



# Missouri University of Science and Technology Butler-Carlton Hall Advanced Construction Materials Lab-Expansion

FY 2018  
Higher  
Education  
Capital  
Fund  
Request



## Building Profile

- New Construction (Addition)
- 16,000 gross square feet
- 700 students

Funding Source	Amount
FY 2018 State Request	\$3,145,000
Private Gifts	\$3,145,000
<b>Total</b>	<b>\$6,290,000</b>

## Major Donors:

James Heidman

## The project will

- Expand the department's current structural and materials engineering laboratory facilities to allow faculty to engage in research critical to addressing the ever-changing infrastructure needs of the State and Nation.
- Consolidate teaching and research functions that are currently spread over multiple buildings.
- Enable S&T investigators to provide advance research capabilities to collaborate with other leading universities specializing in advance civil engineering materials.

## Impact to the Economy

Adds \$13.9  
Million to the  
Local Economy

Adds \$4.4  
Million in  
Personal  
Earnings

110 Jobs



# University of Missouri - Columbia

## MOI - Center for Regenerative Orthopaedics

FY 2018  
Higher  
Education  
Capital  
Fund  
Request



### Building Profile

- New Construction (4th Floor Addition)
- 14,000 gross square feet
- Academic Laboratories

Funding Source	Amount
FY 2018 State Request	\$3,000,000
Private Gifts	\$3,000,000
<b>Total</b>	<b>\$6,000,000</b>

### Major Donors:

William S. and Nancy E. Thompson Foundation

### The project will

- Add a fourth floor to connect with the existing building dedicated to the academic function of the School of Medicine, Orthopaedic Department.
- Create additional academic space to provide opportunities for discovery of real world application as never seen before because of the collaboration at MOI.
- Bring world class scientists and clinicians together to collaborate more efficiently and effectively.

### Impact to the Economy

Adds \$13.2  
Million to the  
Local Economy

Adds \$4.2  
Million in  
Personal  
Earnings

100 Jobs



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## FY 2018 Engineering Equipment Request



# University of Missouri System

## Engineering Equipment

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- 1,560 degrees awarded in FY 2015 on all of the campuses.
- Matching grant program to purchase much needed teaching and research laboratory equipment.
- Purchase cutting-edge engineering and technology-based equipment.
- May not exceed \$1,200 per engineering bachelor degree awarded.

### The challenges that are being experienced

- The state has not appropriated matching funds since FY 2003 for the 14,848 degrees earned (see below for the backlog).
- Additional equipment is needed for graduates to be competitive in the marketplace.

<b>Current Request</b>	<b>MU</b>	<b>UMKC</b>	<b>S&amp;T</b>	<b>UMSL</b>
FY 2018 State Request	\$558,000	\$100,800	\$1,107,600	\$105,600
Other	\$558,000	\$100,800	\$1,107,600	\$105,600
<b>Total</b>	<b>\$1,116,000</b>	<b>\$201,600</b>	<b>\$2,215,200</b>	<b>\$211,200</b>

<b>Equipment Backlog</b>	<b>MU</b>	<b>UMKC</b>	<b>S&amp;T</b>	<b>UMSL</b>
FY 2018 State Request	\$5,660,400	\$896,400	\$10,645,200	\$615,600
Other	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$5,660,400</b>	<b>\$896,400</b>	<b>\$10,645,200</b>	<b>\$615,600</b>





## **FY 2017 Campus Capital Plans**

*These projects can be reasonably completed in six years assuming there is adequate funding from the State of Missouri.*



**University of Missouri - Columbia: Capital Plan**

**Educational and General Facilities**

Project Details				Funding				
Project Name	Type	Deferred Facilities Needs	FCNI	Total Cost	State	Debt	Gifts	Other
Waters Hall Reconstruction / Plant Growth Facilities	NC/RE	\$14.1 M	0.83	\$53,525,000	\$53,525,000	\$0	\$0	\$0
Mumford Hall	RE	\$9.7 M	0.52	\$24,967,000	\$24,967,000	\$0	\$0	\$0
General Classroom Building - Arvarh E. Strickland Building Renovation and Addition	NC/RE	\$12.6 M	0.56	\$50,558,000	\$50,558,000	\$0	\$0	\$0
School of Music Facility	NC	\$4.7 M	0.47	\$35,000,000	\$15,940,447	\$0	\$19,059,553	\$0
Fine Arts Building for Theatre and Art - Renovation / Addition	NC/RE	\$13.8 M	0.39	\$33,542,000	\$16,771,000	\$0	\$16,771,000	\$0
School of Nursing Facility	NC	\$0 M	0.00	\$55,000,000	\$20,000,000	\$0	\$20,000,000	\$15,000,000
Translational Precision Medicine Complex	NC	\$0 M	0.00	\$163,000,000	\$0	\$163,000,000	\$0	\$0
Campus Electrical Interconnection Capacity Upgrade	NC/RE	\$0 M	0.00	\$30,000,000	\$0	\$27,000,000	\$0	\$3,000,000
<b>Total</b>		<b>\$54.9 M</b>		<b>\$445,592,000</b>	<b>\$181,761,447</b>	<b>\$190,000,000</b>	<b>\$55,830,553</b>	<b>\$18,000,000</b>

**Non-Education and General Facilities (Auxiliaries)**

Project Details				Funding				
Project Name	Type	Deferred Facilities Needs	FCNI	Total Cost	State	Debt	Gifts	Other
Memorial Union - Renovation	RE	\$15.6 M	0.40	\$12,000,000	\$0	\$0	\$0	\$12,000,000
Keene Street Clinic Building	NC	\$0 M	0.00	\$42,515,000	\$0	\$0	\$0	\$42,515,000
Cardiovascular Center	RE	\$0 M	0.00	\$15,210,000	\$0	\$0	\$0	\$15,210,000
University Hospital - Innovations Acute Care Unit	NC	\$0 M	0.00	\$5,200,000	\$0	\$0	\$0	\$5,200,000
MU Health Care - Discovery Ridge Expansion	NC	\$0 M	0.00	\$80,000,000	\$0	\$60,000,000	\$0	\$20,000,000
<b>Total</b>		<b>\$15.6 M</b>		<b>\$154,925,000</b>	<b>\$0</b>	<b>\$60,000,000</b>	<b>\$0</b>	<b>\$94,925,000</b>

**University of Missouri - Kansas City: Capital Plan**

**Educational and General Facilities**

Project Details				Funding				
Project Name	Type	Deferred Facilities Needs	FCNI	Total Cost	State	Debt	Gifts	Other
Spencer Chemistry & Biological Sciences Renovation Phase II	RE	\$17.7 M	0.29	\$36,429,000	\$31,829,000	\$0	\$4,600,000	\$0
Downtown Campus for the Arts/Conservatory of Music and Dance	NC	\$0 M	0.00	\$96,000,000	\$48,000,000	\$0	\$48,000,000	\$0
Engineering Lab Building	NC	\$0 M	0.00	\$33,175,000	\$0	\$0	\$33,175,000	\$0
School of Medicine Renovation	RE	\$38.9 M	0.49	\$83,730,000	\$83,730,000	\$0	\$0	\$0
School of Dentistry Renovation and Addition	RE/NC	\$6.8 M	0.25	\$33,050,000	\$26,050,000	\$0	\$7,000,000	\$0
Miller Nichols Library Renovation	RE	\$7.9 M	0.28	\$8,396,000	\$8,396,000	\$0	\$0	\$0
<b>Total</b>		<b>\$71.3 M</b>		<b>\$290,780,000</b>	<b>\$198,005,000</b>	<b>\$0</b>	<b>\$92,775,000</b>	<b>\$0</b>
<b>Non Educational and General Facilities (Auxiliaries)</b>								
Project Name	Type	Deferred Facilities Needs	FCNI	Total Cost	State	Debt	Gifts	Other
Troost Avenue Development	NC	\$0 M	0.00	\$13,215,000	\$0	\$0	\$0	\$13,215,000
Basketball Facility at KCMO Municipal Auditorium Phase II	RE	\$0 M	0.00	\$41,206,000	\$0	\$0	\$12,243,000	\$28,783,000
<b>Total</b>		<b>\$0 M</b>		<b>\$54,421,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$12,243,000</b>	<b>\$41,998,000</b>

**Missouri University of Science and Technology: Capital Plan**

**Educational and General Facilities**

Project Details					Funding			
Project Name	Type	Deferred Facilities Needs	FCNI	Total Cost	State	Debt	Gifts	Other
Schrenk Hall Addition and Renovation - Phase III	RE/NC	\$15.0 M	0.49	\$52,244,000	\$52,244,000	\$0	\$0	\$0
Engineering Research Lab (ERL) Addition & Renovation	RE/NC	\$8.3 M	0.34	\$41,623,000	\$33,298,000	\$0	\$8,325,000	\$0
Library/Learning Commons	RE	\$7.6 M	0.24	\$20,039,000	\$16,031,000	\$0	\$4,008,000	\$0
Butler Carlton Hall Advanced Construction Materials Lab - Expansion	NC /RE	\$0 M	0.05	\$6,290,000	\$3,145,000	\$0	\$3,145,000	\$0
Kummer Student Design Center Expansion	NC	\$0 M	0.00	\$2,880,000	\$1,440,000	\$0	\$1,440,000	\$0
<b>Total</b>		<b>\$30.9 M</b>		<b>\$123,076,000</b>	<b>\$106,158,000</b>	<b>\$0</b>	<b>\$16,918,000</b>	<b>\$0</b>

**Non-Education and General Facilities (Auxiliaries)**

Project Details					Funding			
Project Name	Type	Deferred Facilities Needs	FCNI	Total Cost	State	Debt	Gifts	Other
Havener Center Renovation & Expansion	RE/NC	\$0 M	0.00	\$25,147,000	\$0	\$25,147,000	\$0	\$0
Athletic Fields Complex	RE/NC	\$0 M	0.00	\$7,065,000	\$0	\$5,652,000	\$1,413,000	\$0
<b>Total</b>		<b>\$0 M</b>		<b>\$32,212,000</b>	<b>\$0</b>	<b>\$30,799,000</b>	<b>\$1,413,000</b>	<b>\$0</b>

**University of Missouri - St. Louis: Capital Plan**

**Educational and General Facilities**

Project Details				Funding				
Project Name	Type	Deferred Facilities Needs	FCNI	Total Cost	State	Debt	Gifts	Other
Stadler Hall Renovation	RE	\$24.7 M	0.53	\$25,786,000	\$25,786,000	\$0	\$0	\$0
College of Business Administration Building Phase 2	NC	\$0 M	0.00	\$29,559,000	\$23,689,000	\$0	\$5,870,000	\$0
Seton Hall Renovation	RE	\$15.8 M	0.47	\$16,666,000	\$16,666,000	\$0	\$0	\$0
Social Sciences Building Renovation	RE	\$32.8 M	0.54	\$34,381,000	\$34,381,000	\$0	\$0	\$0
Science Research Building Renovation	RE	\$24.1 M	0.34	\$25,366,000	\$25,366,000	\$0	\$0	\$0
South Campus Utilities - Phase 1 Replacement	RE	\$0 M	0.00	\$36,163,000	\$36,163,000	\$0	\$0	\$0
<b>Total</b>		<b>\$97.4 M</b>		<b>\$167,921,000</b>	<b>\$162,051,000</b>	<b>\$0</b>	<b>\$5,870,000</b>	<b>\$0</b>

**Non-Education and General Facilities (Auxiliaries)**

Project Details				Funding				
Project Name	Type	Deferred Facilities Needs	FCNI	Total Cost	State	Debt	Gifts	Other
There are no projects.								
<b>Total</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

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## Campus Other Capital Planned Projects

*These projects have equal priority and are not listed in order of preference.*



**University of Missouri - Columbia: Long Range Plan**

<b>Project</b>	<b>Description</b>	<b>Total Project Cost</b>
Agriculture Building Renovation	Renovations to 96,486 gsf in Agriculture Building, built in 1958.	\$32,207,000
Animal Care Facilities	Per the March, 2004 Vivarium Master Plan. In order to reach campus wide research goals, significant increases in vivarium space will be required.	\$43,470,000
Arts & Science Building Renovation	Renovation to 56,525 gsf in Arts & Science Building, built in 1960.	\$17,294,000
CAFNR Center for Translational Plant Sciences	The Division of Plant Sciences (DPS) was formed in 1989 by combining four individual departments to improve academic and research connections and better utilize resources. While organizationally a single division, the space is located in five buildings across White Campus thus hampering maximum efficiencies and limiting collaborations between students and faculty. In order to further the teaching and research missions, DPS seeks to consolidate in one complex of buildings with a three phase project culminating in the demolition of the single story Agriculture Laboratory Building and constructing a five floor facility on the same footprint to house classrooms, offices and laboratories. The new building would replace the 33,000 gsf Ag Lab with 120,000 gsf thus increasing the available space three-fold within the same footprint. An additional floor could be included to incorporate teaching greenhouses in the heart of campus further fostering the Campus Master Plan objective to create density in the heart of campus while respecting human scale and exterior connections.	\$77,559,000
College of Engineering-Engineering Building West-Addition and Renovation	This project provides for the first full-scale improvement to Engineering Building West (EBW) since it was originally constructed in 1959. The project includes a major new 4-story (plus 5th story mechanical penthouse) teaching and research addition to the south side of EBW consisting of 124,620 gross square feet, and renovation of 92,280 gsf of existing space. The addition will remove and replace the original 1959 280-seat auditorium with a new 300-seat auditorium, and also require the removal of the existing Academic Support Center building, and relocation of a major electric distribution duct bank system serving campus.	\$111,006,000

**University of Missouri - Columbia: Long Range Plan**

<b>Project</b>	<b>Description</b>	<b>Total Project Cost</b>
College of Veterinary Medicine	There is an urgent need to expand veterinary medical services in Missouri for veterinary diagnoses, field practitioners for Missouri's agricultural industry and the animal-owning public, regulatory medicine, biomedical research, and academic veterinary medicine. The need also extends to veterinarians to advance comparative medicine and the One Medicine concept. The facilities at the MU College of Veterinary Medicine (CVM) designed in the 1970s to serve 64 students per year served class sizes of 80 in 2008, with only minor changes to the facilities, resulting in cramped teaching labs and marginal support facilities. With the desperate need for additional veterinary graduates, the CVM increased the enrollment in 2009 to 110 students per year by modifying the teaching schedule to maximize room utilization. However, sustainability of the current enrollment, while offering a customized and intensive educational experience, cannot be accomplished within the existing limited facilities.	\$86,819,000
Crowder Hall Renovation	Renovations to 25,181 gsf in Crowder Hall, built in 1938.	\$7,711,000
Curtis Hall Renovations	Renovations to 29,004 gsf in Curtis Hall, built in 1939.	\$10,579,000
Curtis Hall – Teaching Greenhouse & Research Addition	The Plant Growth Facilities Master Plan identified the existing greenhouses attached to Curtis Hall as significantly deteriorated and well beyond the expected life span. In order to provide core campus greenhouse space for teaching and growth chamber space central to many lab facilities, the PGFMP proposed a three level, 39,000 gsf addition to Curtis Hall. A multi-story addition would meet Campus Master Plan goals for density in core campus and would allow for one level of shell space for future Plant Sciences laboratories.	\$19,514,000
Dobbs Group Replacement Project - Phase 2B	The University of Missouri, Division of Student Affairs implemented the Residential Life Master Plan (RLMP) in 2001. The RLMP work is being completed in five phases and includes renovation or replacement of existing housing facilities. Phase IV of the RLMP includes the replacement of the Dobbs Group - Jones, Lathrop and Laws residence halls. Similarly, the Campus Dining Services master plan calls for the replacement of Dobbs Pavilion. Phase One included the construction of approximately 150,000 gsf of new residence hall space (approximately 570 beds) in two buildings, the demolition of one of the existing residence halls (Jones), construction of a new 35,000 gsf, 700-750 seat dining hall and the demolition of Dobbs Pavilion (the existing dining facility). Phase Two includes the construction of approximately 188,400 gsf of new residence hall space (approximately 699 beds) in three buildings and the demolition of the remaining two residence halls -Laws and Lathrop. Phase Two will be subdivided, with Phase 2A target of construction start in early 2017 for building three and four (383 new beds) to be ready for occupancy in Fall 2018 .	\$28,533,000

**University of Missouri - Columbia: Long Range Plan**

<b>Project</b>	<b>Description</b>	<b>Total Project Cost</b>
Ellis Library Interior Renovations	Ellis Library is an important academic resource for faculty and students located in the heart of the MU campus. With enrollment growth, the facility has seen increased usage and requests for study space, both collaborative and individual. This project would systematically modify 70,000 gsf within the Library to create a 24 hr/day zone for students, electronic classroom, additional quiet study area, new spaces for programmed scholarly events, and overall interior improvements to enhance the learning environment.	\$3,145,000
Gentry Hall Renovation	Renovations to 45,368 gsf in Gentry Hall, built in 1939.	\$15,654,000
Hill Hall Renovation	Renovations to 45,377 gsf in Hill Hall, built in 1951.	\$13,884,000
Human Performance Center	The Missouri Orthopedic Institute (MOI) is seeking to develop a Human Performance Center (HPC) that combines physical therapy, medicine, high performance training, strength and conditioning, and research into a single facility. This facility would provide services to both MU Intercollegiate Athletics (ICA) and athletes from the general public. A program and planning study has been completed in 2012 for a major expansion to the south side of the existing Devine Pavilion to house the MOI portions of the program including a public entrance element, offices, conference rooms, therapy pools, sprint track, training rooms, weight training, visual acuity training, treatment spaces, exercise physiology lab space, high altitude training, classrooms, lecture space, multi-purpose training rooms, restrooms, lockers, storage, and mechanical support spaces. The study proposes to expand the Devine Pavilion to provide roughly 34,000 square feet within four levels of new construction by extending the facility approximately 75' to the south.	\$17,429,000
Jesse Hall Renovation	Renovations to 131,500 gsf in Jesse Hall, built in 1893.	\$29,505,000
LeFevre Hall Renovation	Renovations to 54,817 gsf in LeFevre Hall, built in 1913.	\$20,126,000

**University of Missouri - Columbia: Long Range Plan**

<b>Project</b>	<b>Description</b>	<b>Total Project Cost</b>
Life/Fire Safety Compliance & Security Improvements	The main campus at MU includes about 6.4 Million gross square feet of buildings classified as Educational & General (E&G) which require upkeep through the General Operating budget. This project incorporates multiple facets of improving the antiquated or nonexistent systems in over 65 percent the E&G gross square footage. The purpose of this effort is to protect and secure the students, the faculty and staff, and the physical assets of the buildings themselves. One facet of the project entails installing or updating Life Safety Systems such as fire alarms, sprinkler systems, and exit/corridor lighting, as well as upgraded security by installing automated, remote exterior locking in 76 buildings. These buildings encompass facilities which serve twelve of the thirteen Colleges/Schools at MU. Those colleges are responsible for teaching more than 28,000 students equating to approximately 85 percent of MUs total enrollment.	\$87,805,000
Manor House Renovation	Renovate Manor House	\$16,247,000
McAlester Hall Renovation	Renovation of 41,435 gs in McAlester hall built in 1902 for classrooms and offices.	\$13,830,000
Meats Science and Training Center	The college of Agriculture, Food and Natural Resources at the University of Missouri proposes to construct a turn-key harvest and processing plant to serve as an industry model for education, training , technical support and research in meat animal discovery, production, and information transfer. This center will accommodate the research and the development of many small and very small meat processors, thus bridging the gap between and Land Grant Mission and small business development. A 22,000 sq. ft. pilot facility will be constructed on East Campus of the University of Missouri in Columbia, fitted with classroom and conference meeting space to meet the growing education and technical support demands of the undergraduate students, graduate students, processors and regulatory agencies in the State of Missouri and beyond. In addition, it will provide an upgraded and modernized facility to replace the existing separate abattoir and processing facilities currently located on Rollins street.	\$10,900,000

**University of Missouri - Columbia: Long Range Plan**

<b>Project</b>	<b>Description</b>	<b>Total Project Cost</b>
Medical Science Building Renovation	The School of Medicine’s more than 650 faculty physicians and scientists educate approximately 1,000 medical students, residents, fellows and other students seeking advanced medical degrees. The School of Medicine at MU provides the Medical Doctor (MD) degree program along with multiple advanced residencies and fellowships. Each year the School accepts 96 students into the MD program (with current planning to grow to 128 students). The four year curriculum substantially reduces the use of lecture based learning, implemented at most other medical schools, in favor of problem-based learning. This type of curriculum emphasizes problem solving, self-directed learning, and early clinical experiences, and integrates the basic sciences into clinical cases. This curriculum is more space and faculty intensive than a lecture based program, but provides better learning outcomes by enabling physicians to be critical thinkers and problem solvers. The University of Missouri’s School of Medicine was founded more than 160 years ago as the first public medical school west of the Mississippi River. That proud tradition continues as more Missouri physicians receive their medical degree from MU than from any other university.	\$102,056,000
Middlebush Hall Renovation	Renovations to 71,180 gsf in Middlebush Hall, built in 1959.	\$21,781,000
Museum of Art and Archaeology	This project will construct a new museum to include galleries for permanent and temporary collections, public and operation support areas, professional areas, collection storage and exam areas, and collection service areas.	\$43,543,000
Neff and Neff Addition Renovations	Renovations to 40,322 gsf in Neff and the Neff Addition, built in 1918 and 1959 respectively.	\$12,336,000
Noyes Hall Renovation	Renovations to 21,671 gsf in Noyes Hall, built in 1923.	\$7,232,000
Parker Hall Renovation	Renovations to 27,378 gsf in Parker Hall, built in 1899	\$9,138,000
Physics Renovation	Renovations to 89,749 gsf in Physics Hall, built in 1964.	\$32,953,000
Read Hall Renovation	Renovations to 19,496 gsf in the Read Hall Building, built in 1903.	\$6,509,000

**University of Missouri - Columbia: Long Range Plan**

<b>Project</b>	<b>Description</b>	<b>Total Project Cost</b>
Regional Biocontainment Laboratory BSL-3 Addition	Phase 2 of the University of Missouri Regional Bio-containment Laboratory (MU RBL) encompasses construction of a three story 23,866 gsf specialized research facility for the study of insect and tick-borne emerging infectious diseases, and a one story 2,522 gsf bio-containment training laboratory for instructional research activities. The majority of the lower and penthouse levels of the research addition will be devoted to housing mechanical and electrical equipment in support of the Bio-safety Level 3 (BSL3) and Animal Bio-safety Level 3 (ABSL3) research activities found on the main level. The main level will also include some general non-containment space in support of lab space. RBL's training addition will provide personnel, faculty, graduate students, technical staff, laboratory animal veterinarians, veterinary pathologists and physician scientists with an instructional laboratory and conference/seminar room specifically designed to prepare them for careers in infectious disease research under bio-containment conditions.	\$17,610,000
Sinclair School of Nursing - New Facility	The Sinclair School of Nursing has a goal to admit 20 percent more students to the highly sought after program. To achieve this goal, new facilities are needed to increase the space available for the larger class, additional faculty, and research team space. An expanded Clinical Simulation Center and Safe Practices Rooms are primary space types to be accommodated in a new building to support successful academic outcomes and appropriate training environments. This project would also relocate functions of another facility.	\$60,796,000
Student Health Center Renovation	Renovations to 23,031 gsf of space in the Old Student Health Center, built in 1936.	\$7,687,000
Tiger Welcome Center	To support ever growing interest in Mizzou, the Tiger Welcome Center will support public aspects of campus in a visually prominent location at the corner of Stadium Drive and Mick Deaver Drive readily accessible by vehicle and within walking distance of campus. The project is a two story, approximately 30,500 gross square foot facility housing a Mizzou Store retail outlet, a welcome desk for visitors needing orientation to campus, athletic events ticket sales on the first floor and event space for campus and public gatherings associated with the University on the second floor.	\$13,712,000
Tucker Hall Renovation	Renovations to 86,196 gsf in Tucker Hall, built in 1967.	\$35,966,000
Vet Med West Renovation	Renovations to 73,497 gsf in Vet Med West, built in 1975.	\$22,489,000
Whitten Hall Renovation	Renovations to 26,071 gsf in Whitten Hall, built in 1902.	\$8,703,000

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**University of Missouri - Kansas City: Long Range Plan**

<b>Project Name</b>	<b>Description</b>	<b>Total Project Cost</b>
Climate Sustainability Center / Brush Creek Economic Development Accelerator	The Climate Sustainability Center will serve as both a regional resource and national model in developing a sustainable workforce for green collar jobs in the 21st century, providing opportunities for world-class research in renewable energy and featuring a botanical garden with an emphasis on research and education in urban agriculture. A Feasibility Study for the project was conducted in 2010. Plans for the Center focus on four primary occupancy types: Research, Business Incubation, Community Education/Training and a Botanical Garden. Total programmed space is approximately 216,500 GSF, with a Phase I project identified with approximately 137,000 GSF. The project site is located just north of the intersection of Troost Avenue and Brush Creek and east of Troost Avenue. The project is consistent with the Campus Master Plan.	\$59,538,000
Cockefair Hall Renovation	Renovations to the 27,095 GSF building, constructed in 1950. This project will address approximately \$2,400,000 in deferred maintenance.	\$5,660,000
Education Building Renovation	Renovation of the 74,852 GSF Education Building constructed in 1969. This renovation will improve building systems, classroom and technology components to meet current standards. This project will address approximately \$7,500,000 in deferred maintenance in this facility.	\$15,723,000
Fine Arts Renovation	Renovation of the 44,319 GSF Fine Arts Building constructed in 1941. The renovation will improve building systems, classrooms, office space, and class labs to meet current standards. This project will address approximately \$5,700,000 in deferred maintenance.	\$9,329,000
Grant Hall Classroom Renovation	This project will renovate the existing 69,294 GSF Grant Hall facility constructed in 1926 for classroom use. This project will address approximately \$1,300,000 in deferred maintenance in this facility	\$14,570,000

**University of Missouri - Kansas City: Long Range Plan**

<b>Project Name</b>	<b>Description</b>	<b>Total Project Cost</b>
Health Sciences Research Building Phase II	The Health Sciences Research Building on the Hospital Hill Campus will be a collaborative research facility for basic and translational research. The primary use is flexible adaptable laboratory space for wet and dry research activities. To support the research, there will be Administrative Offices and Support Space, Core Facilities, Specialized Research including a large animal facility and areas for Institutional Partners, Research and Technology Transfer and Incubation. The current project is programmed at 175,272 GSF. A Program Planning Study was completed in 2010 and the project is consistent with the Campus Master Plan.	\$79,258,000
James C. Olsen Performing Arts Center Renovation	Renovation of the 169,430 GSF Performing Arts Center built in 1978. This renovation will improve building systems, theatrical equipment components, and technology to meet current standards. This project will address approximately \$8,000,000 in deferred maintenance in this facility.	\$32,389,000
Law School Building Renovation	Renovation of the 126,221 GSF Law School Building constructed in 1978. This renovation will improve building systems, library, and technology components to meet current standards. Renovations to library, lecture, and courtroom facilities occurred in 2005, 2006, and 2010 using campus and private funds. This project will address approximately \$11,800,000 in deferred maintenance in this facility.	\$26,415,000
Scofield Hall Renovation	Renovation of the 28,954 GSF College of Arts and Sciences Building constructed in 1912. The renovation will improve building systems, classroom and office spaces to meet current standards. This project will address approximately \$4,800,000 in deferred maintenance.	\$7,600,000
Translational Clinical Research Building	The primary function of the 53,343 GSF Translational Clinical Research Building on the Hospital Hill Campus, will be to conduct clinical studies in which patients from the community will participate. The building includes Clinical Research and patient treatment spaces, Clinical Faculty Offices and Administrative Offices and support spaces. A Program Planning Study was completed in 2010 and the project is consistent with the Campus Master Plan.	\$20,990,000

**Missouri University of Science and Technology: Long Range Plan**

<b>Project Name</b>	<b>Description</b>	<b>Total Project Cost</b>
Castleman Hall	Castleman Hall is the performing arts center on the Missouri University of Science and Technology campus, home to Leach Theater, the Department of Arts, Languages and Philosophy, and the Offices of University Advancement and Development. It is the primary teaching facility for theater, music and the arts on campus. In addition to serving as an academic center for the theatrical arts, Leach Theatre is the largest performance venue in the area, appreciated for the professional and fine arts performances it brings to the community and region. Castleman Hall is also considered the best venue on campus for formal events, used by S&T and the surrounding community for graduations, reunions, and other special events. Since the building was constructed in the early 1990s, arts programming has increased dramatically on campus. These demands, along with aging facilities have brought Castleman to a point where significant reinvestment is needed to preserve and enhance the building as a primary campus asset.	\$24,549,000
Corporate Event Center (Innovation Park)	The Corporate Event Center will provide collaboration space for students, faculty and industry partners adjacent within the Innovation Park and adjacent to the primary teaching and research spaces on the main Academic Campus (20,000 GSF).	\$5,527,000
Emerson Electric Hall Addition	This Emerson Electric Hall Addition will construct a 40,000 gross square foot addition to the northwest side of the existing building. This addition is needed for the fast growing Electrical and Computer Engineering Department for classroom, graduate offices, instructional and research laboratories. The research and education that will take place in the facility can have impacts on how we deal with energy consumption and its impact on the atmosphere. Environmental quality and reduced resource waster play an important role in the creation of this project. A preliminary estimate and programming study was developed in April 2006 (40,000 gsf).	\$22,316,000
Field House Addition	This project will add space to support student athletes and intramural programs.	\$18,449,000
Mixed Use / Parking Garage	This project will provide space for university support services such as parking and university police as well as providing parking for the prospective students and families, alumni, corporate partners, students, faculty, staff and the larger community.	\$32,636,000
New Academic Building (Arts, Sciences and Business)	The Academic Building (Arts, Sciences and Business) will provide additional space needed for the new College including classroom, teaching and research laboratories, student success and support, staff and faculty (60,000 GSF).	\$24,872,000
New Interdisciplinary Research Center	The New Interdisciplinary Research Center will provide additional research laboratory space which has been identified as a high priority in both the Strategic Plan and the Campus Master Plan (75,000 GSF).	\$41,452,000

**Missouri University of Science and Technology: Long Range Plan**

<b>Project Name</b>	<b>Description</b>	<b>Total Project Cost</b>
Physics Hall	The Physics Hall Addition and Renovation of the 46,700 GSF building constructed in the 1960s will improve building systems and components to current standards. The addition will provide state of the art space to support the Physics and Engineering curriculum (90,000 total GSF).	\$32,444,000
Residential Complex (Quad Site)	This project will provide a new student housing complex on an existing site which will be created when the antiquated Quad Dormitories are demolished.	\$31,918,000
Stadium Athletic Locker / Dressing Rooms	This project will add space and renovate the Stadium Athletic locker and dressing rooms, supporting student athletes.	\$11,017,000

<b>University of Missouri - St. Louis: Long Range Plan</b>		
<b>Project Name</b>	<b>Description</b>	<b>Total Project Cost</b>
Athletic Fields and Facility	The project will construct new athletic fields and a new athletic facility. The current facilities are inadequate and cannot be expanded to accommodate program growth.	\$59,642,000
Campus Development	This project will assist in the following land acquisitions: 1. Normandy Apartments. Campus would like to continue to acquire property north of the main campus as outlined in the Campus Master Plan. 2. Mansion Hills Condos. Campus currently owns approximately 75-80 percent of the units. The campus goal is to consolidate acquisition and have 100 percent ownership. This property is located north of the main campus adjacent to university-owned properties that have high visibility from the regional highway system.	\$12,893,000
Campus Development - Road Redesign	This project will construct an entrance road from the recently completely I-70 Interchange and reconstructed University Boulevard, a loop road that will provide a safer on-campus connection between the east and north sides of the North Campus, and a service road that will make large areas of the North Campus accessible for on-going maintenance and future development. The project realigns Grobman Drive and constructs an underpass to create a safer and more direct pedestrian access from buildings on the North Campus to 1,600 parking spaces located in two garage structures. Grobman Drive will also be extended across Natural Bridge Road to the South Campus to establish a direct vehicular and safer pedestrian connection through a controlled intersection. South Campus construction includes a loop road to connect the east and west sides of the South Campus, a connector road to provide a critically needed secondary connection between the South Campus and public roads for emergency vehicle access to South Campus building and student housing.	\$39,308,000
Clark Hall Renovation	This project will renovate 73,000 gross square feet in the Clark Hall building on the North Campus. The project provides for state-of-the-art classrooms, office, and lecture facilities to be used as a campus resource. Constructed in 1966, Clark Hall is a five-story facility on the North Campus.	\$14,151,000
Education Building	This project will construct a new building for the College of Education on the North Campus.	\$61,634,000
Fine Arts - Phase 1	Phase 1 of this two-phased project will provide a total of about 72,000 gross square feet of renovated and new space to accommodate offices, classrooms, the Theater Department and meet current needs. Phase 1 will renovate 55,000 gross square feet in the existing Arts Administration (former General Services) building and construct about 17,000 gross square feet of new performance spaces whose functions cannot be accommodated within the structure or the envelope of the existing building. The project and creates a new identity for the building and new image to the north entry of the campus.	\$23,165,000

<b>University of Missouri - St. Louis: Long Range Plan</b>		
<b>Project Name</b>	<b>Description</b>	<b>Total Project Cost</b>
Fine Arts - Phase 2	This project will complete the final phase of the new facility for the College of Fine Arts by constructing about 190,000 gross square feet of additional new space to consolidate the remainder of the College of Fine Arts and Communication (CoFAC) programs, accommodate long term future growth, consolidate College space and complete the development of the Fine Arts District.	\$86,057,000
Garage and Plaza - West Drive	This project will construct a 500 space parking structure to be located in the area bounded by West Drive on the west, Lucas Drive on the south, the Touhill Performing Arts Center on the east and Parking Lot K on the north. The location will maximize landscape areas between it and Lucas Drive to complement and enhance the Master Plan valley concept. A 525 space parking structure was previously located on this site and was recently demolished. The garage structure will serve faculty, staff, students and visitors.	\$16,352,000
JC Penney Building Renovation	This project will renovate 111,950 gross square feet in the JC Penney Building/Conference Center. The work will upgrade building services and utility systems, ADA compliance upgrades, renovate offices, classrooms, lecture halls and computer labs. A planning study has been completed.	\$26,100,000
Lucas Hall Renovation	This project will renovate 102,000 gross square feet in the Lucas Hall building. The project provides for state-of-the-art classrooms, office, and lecture hall facilities to be used as a campus resource. Constructed in 1969, Lucas Hall, a six and one-half floor building, is located in the academic core on the North Campus, between Express Scripts Hall and the Millennium Student Center.	\$23,899,000
Optometry/Nursing Building - Phases 2 & 3	This project will construct a 205,000 GSF of new space to house the College of Optometry and the College of Nursing. Phase 1 of this project, financed with bonds and campus funds and scheduled for completion in Summer 2016, is underway and will provide 57,000 GSF of integrated health care space. The program for phases 2 and 3 of the Colleges of Optometry and Nursing will include teaching and learning space, laboratories and space for health related services. The project will also provide shared space, capitalizing on synergies between the two programs. The building, when all phases have been completed, will include tiered classrooms, simulation lab virtual learning areas, video observation rooms, support areas, and an auditorium/simulation operating theatre. This project will benefit a combined enrollment of approximately 980 students that is expected to grow to approximately 1,240 students by 2018. The project is consistent with the campus strategic vision and its master plan. It will meet recognized sustainability standards.	\$85,742,000
South Campus Utilities - Phase 2	This project will construct a new hot water boiler plant on the South Campus. The project completes the replacement of all boiler house steam production with a new hot water boiler plant potentially located in the future College of Optometry and Nursing Building.	\$13,627,000

**University of Missouri - St. Louis: Long Range Plan**

<b>Project Name</b>	<b>Description</b>	<b>Total Project Cost</b>
St. Louis Mercantile Library Expansion	This project will construct a new 77,000 gross square foot addition to the St. Louis Mercantile Library at the University of Missouri-St. Louis. The new addition will better serve patrons locally and nationally and provide enhanced access to a new generation of scholars. The new, modern addition will include a controlled environment for preserving and protecting valuable historic documents, new galleries, programs and acquisitions.	\$38,679,000
Thomas Jefferson Library Renovation	This project will renovate the Thomas Jefferson Library. Constructed in 1966, the Thomas Jefferson Library is located on the North Campus and anchors the academic core. This building contains 143,000 square feet of area on six levels of library and support space.	\$21,698,000
Various Academic and Auxiliary Facilities Renovation	This project will renovate and is expected to eliminate the current deferred facilities needs of approximately 2,285,000 gross square feet in 44 facilities on the University of Missouri-St. Louis campus. Approximately 1,975,000 gross square feet are in 41 academic and administrative facilities. The remaining 621,000 gross square feet are in three various auxiliary facilities.	\$116,141,000



# University of Missouri System

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