

**FY 2018**

**Capital Development Plan**

**Arizona State University**

## EXECUTIVE SUMMARY

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### Item Name: FY 2018 Capital Development Plan (ASU)

- Action Item
- Committee Recommendation to Full Board
- First Read of Proposed Policy Change
- Information or Discussion Item

**Issue:** Arizona State University (ASU) requests approval of its FY 2018 Capital Development Plan (CDP), which includes one new construction and four renovation projects. The ASU FY 2018 CDP totals \$200.0 million.

### Enterprise or University Strategic Plan

(Check the element(s) of the strategic plan that this item supports or advances)

- Empower Student Success and Learning
- Advance Educational Attainment within Arizona
- Create New Knowledge
- Impact Arizona
- Compliance
- Real property purchase/sale/lease
- Other:

### Statutory/Policy Requirements

- Pursuant to Arizona Board of Regents Policy, Chapter 7-107, the annual Capital Development Plan is reviewed by the Capital and Project Finance Committee and approved by the Board.

### Project Justification/Description/Scope

- The Arizona State University FY 2018 CDP totals \$200.0 million and proposes the following five new major capital projects for approval:
  - Building and Infrastructure Enhancements and Modifications
  - Classroom and Academic Renovations
  - Research Laboratory/Faculty Startup Renovations
  - Hayden Library Reinvention
  - Health Solutions Innovation Center

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### Contact Information:

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## EXECUTIVE SUMMARY

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These projects are depicted on the maps attached hereto as Exhibits “A” and “B.”

- For this CDP update, ASU has set as its highest priorities the construction of the Health Solutions Innovation Center in northeast Phoenix, the reinvention of the Hayden Library at the Tempe campus, as well as infrastructure upgrades and classroom, academic and research laboratory renovations at multiple campuses. These projects respond to the need both to provide students, faculty and staff with high-quality facilities that will enable their success and to support the key elements of ASU’s Strategic Enterprise Framework, including:
  - Achieving a fifty-seven percent increase in degree production
  - Establishing national standing in academic quality and the impact of colleges and schools in every field
  - Enhancing local impact and social embeddedness
  - Expanding research performance to \$815 million in annual research expenditures by 2025.

### **Fiscal Impact and Financing Plan:**

- The ASU FY 2018 CDP, if fully implemented, reflects a total cost of \$200.0 million.
- The \$200.0 million in project budgets will be funded with system revenue bonds. Debt service will be funded by tuition.
- Debt Ratio Impact: The projected incremental debt ratio impact on system revenue bond debt service for the proposed FY 2018 CDP is 0.58 percent.
- The details on project financing, funding sources and debt ratio impact are outlined in the attached Table 1 and 2.

### **Requested Action**

Arizona State University asks the committee to forward to the full for approval of the ASU FY 2018 Capital Development Plan, as presented in this Executive Summary.

**EXECUTIVE SUMMARY**

**TABLE 1**  
**Arizona State University**  
**FY 2018 Capital Development Plan**

ARIZONA STATE UNIVERSITY							
FY 2018 CAPITAL DEVELOPMENT PLAN							
Project	Board Approval Status	Gross Square Footage	Project Cost	Amount Financed	Funding Method	Annual Debt Service	Debt Ratio
<b>New Academic/Support Project</b>							
ASU - Building and Infrastructure Enhancements and Modifications	CIP Sept 2016	N/A	\$10,000,000	\$10,000,000	System Revenue Bonds	\$802,400	0.03%
ASU - Classroom and Academic Renovations	CIP Sept 2016	30,750	\$10,000,000	\$10,000,000	System Revenue Bonds	\$802,400	0.03%
ASU - Research Laboratory/ Faculty Startup Renovations	CIP Sept 2016	30,000	\$15,000,000	\$15,000,000	System Revenue Bonds	\$1,203,600	0.05%
ASUT - Hayden Library Reinvention	CIP Sept 2016	240,000	\$90,000,000	\$90,000,000	System Revenue Bonds	\$7,221,800	0.28%
ASU - Health Solutions Innovation Center	CIP Sept 2016	150,000	\$75,000,000	\$75,000,000	System Revenue Bonds	\$5,448,700	0.19%
<b>New Project Total</b>		<b>450,750</b>	<b>\$200,000,000</b>	<b>\$200,000,000</b>		<b>\$15,478,900</b>	<b>0.58%</b>
<b>Total CDP</b>		<b>450,750</b>	<b>\$200,000,000</b>	<b>\$200,000,000</b>		<b>\$15,478,900</b>	<b>0.58%</b>

**EXECUTIVE SUMMARY**

**TABLE 2  
 Annual Debt Service and Operation and Maintenance By Funding Source**

<b>CAPITAL DEVELOPMENT PLAN - ANNUAL DEBT SERVICE BY FUNDING SOURCE</b>											
Project	Amount Financed	301	TUI	AUX	ICR	OLF	SLP	FGT	DFG	OTH	TOTAL ANNUAL DEBT SERVICE
<b>New Academic/Support Project</b>											
ASU - Building and Infrastructure Enhancements and Modif.	\$10,000,000		\$802,400								\$802,400
ASU - Classroom and Academic Renovations	\$10,000,000		\$802,400								\$802,400
ASU - Research Laboratory/Faculty Startup	\$15,000,000		\$1,203,600								\$1,203,600
ASUT - Hayden Library Reinvention	\$90,000,000		\$7,221,800								\$7,221,800
ASU - Health Solutions Innovation Center	\$75,000,000		\$5,448,700								\$5,448,700
<b>Total</b>	<b>\$200,000,000</b>		<b>\$15,478,900</b>								<b>\$15,478,900</b>

<b>CAPITAL DEVELOPMENT PLAN - OPERATION AND MAINTENANCE BY FUNDING SOURCE</b>											
Project	TOTAL ANNUAL O&M	301	TUI	AUX	ICR	OLF	GFA	FGT	DFG	OTH	TOTAL ANNUAL O&M
<b>New Academic Support Project</b>											
ASU - Building and Infrastructure Enhancements and Modif.											
ASU - Classroom and Academic Renovations											
ASU - Research Laboratory/Faculty Startup											
ASUT - Hayden Library Reinvention	\$96,343		\$96,343								\$96,343
ASU - Health Solutions Innovation Center	\$1,161,925		\$1,161,925								\$1,161,925
<b>Total</b>	<b>\$ 1,258,268</b>	<b>\$ -</b>	<b>\$ 1,258,268</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,258,268</b>

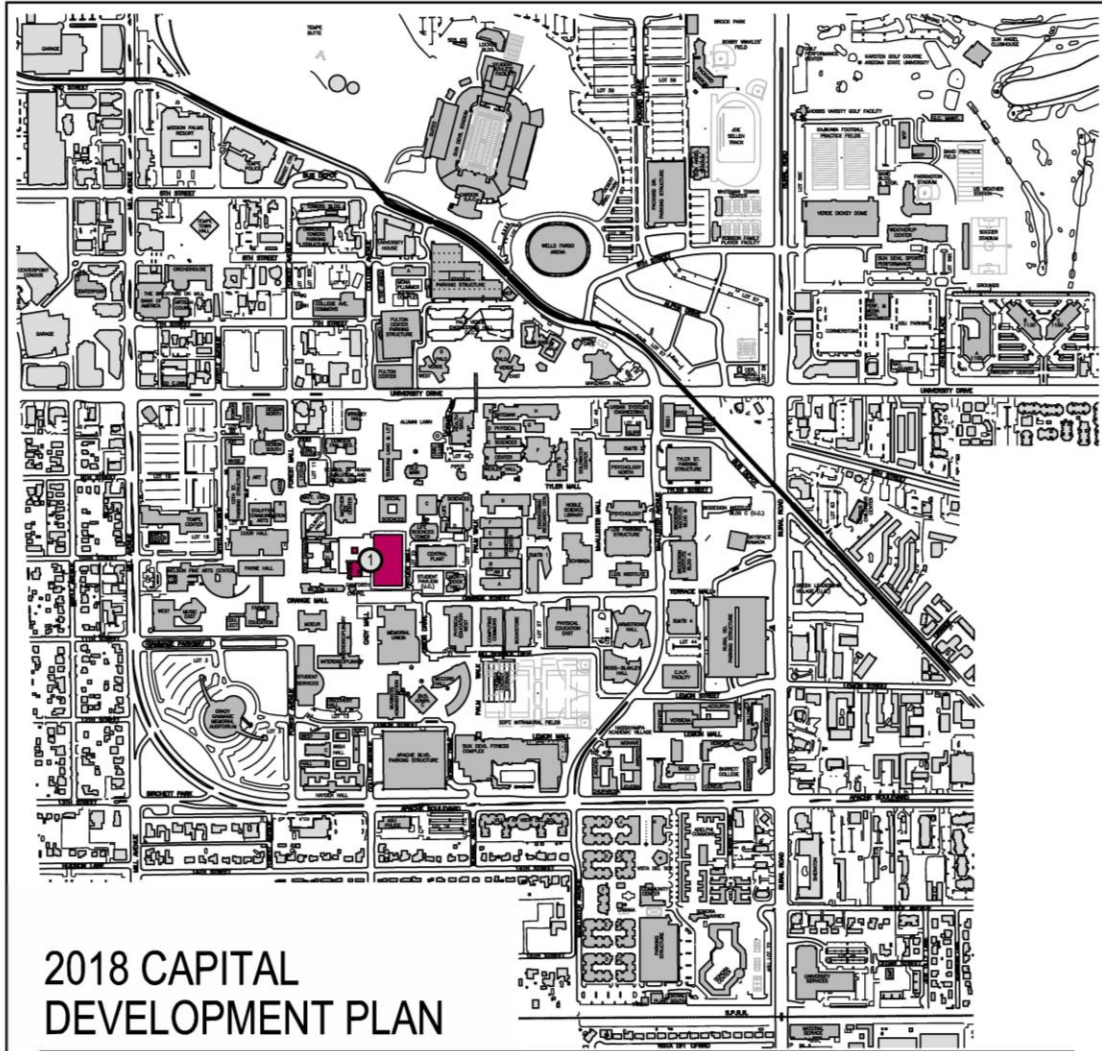
Debt Service Funding Source Codes:

(301) 301 Fund/Other  
 (TUI) Tuition  
 (AUX) Auxiliary

(ICR) Indirect Cost Recovery  
 (OLF) Other Local Funds  
 (SLP) State Lottery Allocation Proceeds  
 (GFA) General Fund Appropriation  
 (FGT) Federal Grant  
 (DFG) Debt Financed by Gifts  
 (OTH) Other

EXECUTIVE SUMMARY

EXHIBIT "A"  
FY 2018 CDP – Arizona State University  
Tempe Campus Location and Site Map



2018 CAPITAL  
DEVELOPMENT PLAN

NEW PROJECTS

- ① HAYDEN LIBRARY REINVENTION
- ② BUILDING AND INFRASTRUCTURE ENHANCEMENTS AND MODIFICATIONS - ALL CAMPUSES
- ③ CLASSROOM AND ACADEMIC RENOVATIONS - ALL CAMPUSES
- ④ RESEARCH LABORATORY/FACULTY STARTUP RENOVATIONS - ALL CAMPUSES

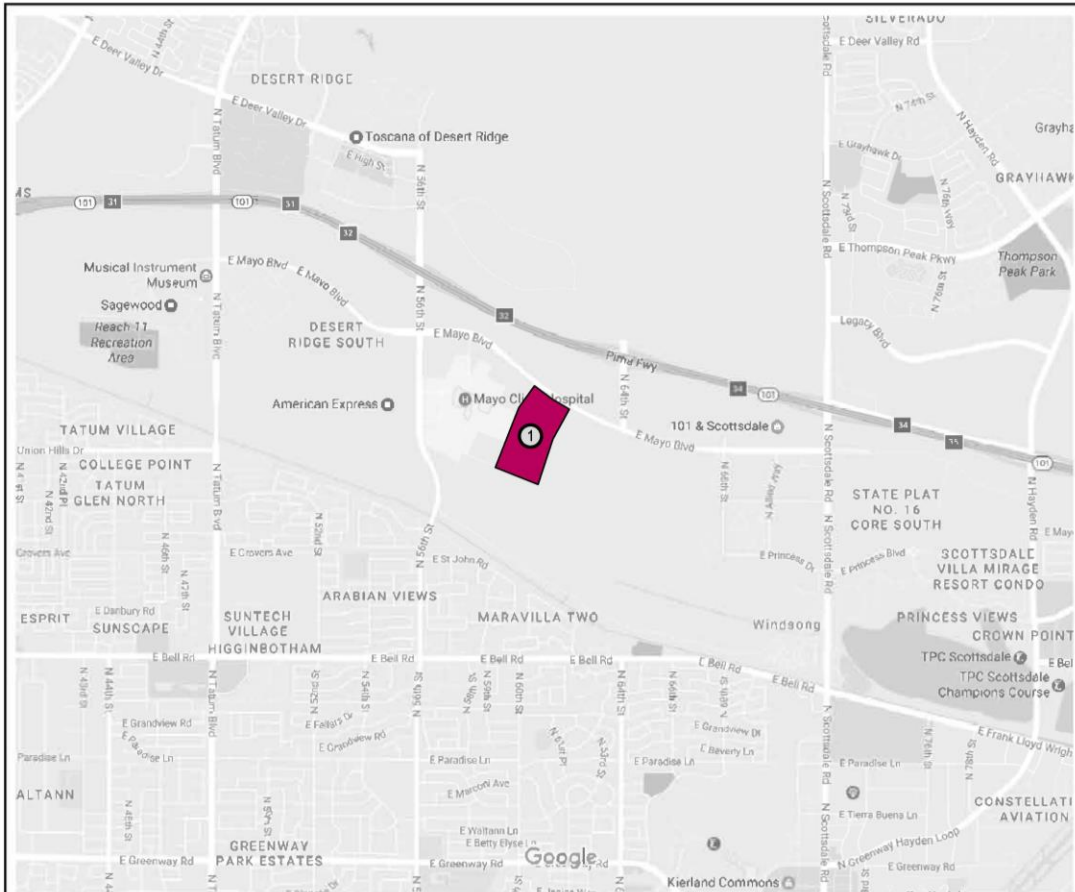
Publication Date: 5.9.2016  
File Name: C-0873\_2018\_CDP

  
NEW PROJECT

 **Tempe  
Campus**  
Arizona State University

**EXECUTIVE SUMMARY**

**EXHIBIT "B"**  
**FY 2018 CDP – Arizona State University**  
**Phoenix Location and Site Map**



**2018 CAPITAL  
DEVELOPMENT PLAN**

**NEW PROJECTS**

- ① HEALTH SOLUTIONS INNOVATION CENTER - PHOENIX

**EXECUTIVE SUMMARY**

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**Arizona Board of Regents  
Arizona State University  
Capital Development Plan Project Justification Report  
Building and Infrastructure Enhancements and Modifications**

**Previous Board Action:**

- FY 2019-2020 Capital Improvement Plan September 2016

**Statutory/Policy Requirements**

- ABOR Policy 7-102 (B) requires all renovation or infrastructure projects with an estimated total project cost of \$5 million or more be brought to the Business and Finance Committee for approval, regardless of funding source or financing structure.

**Project Justification/Description/Scope**

- This project bundle is planned to upgrade, install and replace building systems and infrastructure, such as fire sprinklers and alarms; elevators; HVAC and electrical systems (including reliability and redundancy upgrades); exhaust, chilled water and steam systems; roof replacement/coating; and re-caulking windows and building joints. Abatement of hazardous materials will be performed as needed. Campus infrastructure enhancements may include site improvements for malls, lighting, street repair and realignment, parking, site drainage and retention. Additionally, this project will replace some of the infrastructure between the central plant and campus buildings, distribution of chilled water supply and return, steam and condensate return, domestic water, and sewer systems, as needed, to bring campus distribution up to current standards.
- Many components of the ASU built environment are not capable of supporting the additional functions now required by the university to carry out its mission of research and academic excellence. Building envelope components either must be replaced or brought up to a condition that ensures protection from outside elements.
- These projects not only will enhance the quality of campus infrastructure and systems, but also will keep the university in compliance with code requirements for safety and reduce deferred maintenance. Projects that are essential for life safety/code compliance and to university strategic initiatives have been given top priority.



## EXECUTIVE SUMMARY

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### **Project Delivery Method and Process:**

- Depending on the nature of the work, components of this project may be delivered through the Design Build (DB), Construction Manager at Risk (CMAR) or Job Order Contracting (JOC) methods.
- ASU has not yet selected a DB, CMAR, JOC contractor or design professional firm for any components of this project bundle. Contractors and design professionals will be selected according to ABOR policy and Arizona law.

### **Project Status and Schedule**

- Design Professionals (DPs) will be selected after CDP approval. The project design will be complete approximately six to twelve months after the DP contract is awarded for that component of work.
- General construction is scheduled to begin when the design is complete and after all approvals are in place. Construction on all project components will be completed by 2020.

### **Project Cost**

- The budget for this set of projects is \$10,000,000.
- For this Capital Development Plan phase, no preliminary external cost estimates have been provided by third-party consultants. The DP and DB, CMAR or JOC contractor teams have not yet been selected for these project components. Independent cost estimates will be provided by the DP, DB, CMAR or JOC contractor after these selections are complete.
- For projects selected to use the DB or CMAR delivery method, the CMs will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP). A final report on project control procedures, including change orders and contingency use, will be provided at project completion.

### **Fiscal Impact and Financing Plan:**

- The \$10.0 million project budget will be funded with system revenue bonds. Debt service will be funded by tuition.
- There are no expected increases in operation and maintenance costs for these projects.

## EXECUTIVE SUMMARY

- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project bundle is 0.03 percent.

### Occupancy Plan

- These projects will not affect occupancy or programs, but will renew building and campus infrastructure and life safety systems.

**EXECUTIVE SUMMARY**

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**Capital Project Information Summary**

**University:** Arizona State University    **Project Name:** Building and Infrastructure Enhancements and Modifications

**Project Description and Location:** This project bundle is planned to upgrade, install and replace building systems and infrastructure at all campuses. Abatement of hazardous materials will be performed as needed. Campus infrastructure enhancements may include site improvements for malls, lighting, street repair and realignment, parking, site drainage and retention. Additionally, this project will replace some of the infrastructure between the Tempe campus central plant and the campus buildings, distribution of chilled water supply and return, steam and condensate return, domestic water, and sewer systems, as needed, to bring campus distribution up to current standards.

**Project Schedule:**

Planning	June	2017
Design	September	2017
Construction Start	December	2017
Construction Completion	December	2020

**Project Budget:**

Total Project Cost	\$	10,000,000
Total Project Construction Cost	\$	8,000,000
Total Project Cost per GSF	\$	N/A
Construction Cost per GSF	\$	N/A

**Change in Annual O & M Cost:**

Utilities	\$	0
Personnel		
All Other Operating		0
Subtotal	\$	0

**Funding Sources:**

Capital		
A. System Revenue Bonds	\$	10,000,000
Debt Service Funding Sources:		Tuition
Operation/Maintenance	\$	0
Funding Sources:		

**EXECUTIVE SUMMARY**

**Capital Project Budget Summary**

**University:** Arizona State University **Project:** Building & Infrastructure Modifications & Enhancements

	<b><u>Capital Development Plan</u></b>	<b><u>Project Approval</u></b>
Capital Costs		
1. Land Acquisition		
2. Construction Cost		
A. New Construction		
B. Bldg. Infrastructure Improvements	\$ 8,000,000	
C. Special Fixed Equipment		
D. Site Development (excl. 2.E.)		
E. Parking and Landscaping		
F. Utilities Extensions		
G. Other* (Demolition)		
Subtotal Construction Cost	\$ 8,000,000	\$ -
3. Fees		
A. CMAR Pre-Construction	\$ 120,000	
B. Architect/Engineer	650,000	
C. Other		
Subtotal Consultant Fees	\$ 770,000	\$ -
4. FF&E Movable/Security		
5. Contingency, Design Phase	300,000	
6. Contingency, Constr. Phase	500,000	
7. Parking Reserve		
8. Telecommunications Equipment		
Subtotal Items 4-8	\$ 800,000	\$ -
9. Additional University Costs		
A. Surveys, Tests, Haz. Mat. Abatement	\$ 110,000	
B. Move-in Costs		
C. Printing Advertisement		
D. Keying, signage, facilities support		
E. Project Management Cost	290,000	
F. State Risk Mgt. Ins. (.0034 **)	30,000	
Subtotal Addl. Univ. Costs	\$ 430,000	\$ -
<b>Total Capital Cost</b>	<b>\$ 10,000,000</b>	<b>\$ -</b>

\* Universities shall identify items included in this category

\*\* State Risk Management Insurance factor is calculated on construction costs and consultant fees.

**EXECUTIVE SUMMARY**

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**Arizona Board of Regents  
Arizona State University  
Capital Development Plan Project Justification Report  
Classroom and Academic Renovations**

**Previous Board Action:**

- FY 2019-2020 Capital Improvement Plan September 2016

**Statutory/Policy Requirements**

- ABOR Policy 7-102 (B) requires all renovation or infrastructure projects with an estimated total project cost of \$5 million or more be brought to the Business and Finance Committee for approval, regardless of funding source or financing structure.

**Project Justification/Description/Scope**

- ASU intends to renovate existing classrooms, create new classrooms of various sizes and add smaller instructional spaces at all campuses. Plans call for the renovation of approximately 30,750 gross square feet of classrooms and academic space, including faculty and student space. Building components such as HVAC, plumbing, electrical systems, flooring, ceilings, interior and exterior paint, roofs, windows, doors, internal walls and partitions, elevators, and fire prevention equipment may be upgraded in this project. The Classroom and Academic Renovations project bundle will comprise multiple components at each ASU campus.
- The ASU Strategic Enterprise Framework identifies several goals, including improving retention and graduation performance, curricular reform, and improved student outcomes. Resources needed to achieve these ends include continued investment in faculty, as well as space renovations to support teaching innovations. These projects will provide renovated and growth space for academic programs, allowing better student/faculty interaction and learning experiences. The work will create attractive spaces for student learning and renovate worn areas that distract from teaching and learning effectiveness, resulting in improved and updated space for new faculty hires.
- These project components will enhance the quality of the built environment, with improved space for faculty and a better classroom experience for students, maintain compliance with code requirements for safety, and reduce deferred maintenance. Project components essential for life safety/code compliance and those that support university strategic initiatives are given top priority.

## EXECUTIVE SUMMARY

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### **Project Delivery Method and Process:**

- Depending on the nature of the work, components of this project may be delivered through either the Construction Manager at Risk (CMAR) or Job Order Contracting (JOC) method.
- ASU has not yet selected a CMAR, JOC contractor or design professional firm for any components of this project. Contractors and design professionals will be selected according to ABOR policy and Arizona law.

### **Project Status and Schedule**

- Design Professionals (DPs) will be selected after CDP approval. Design will be complete approximately six to nine months after the DP contract is awarded.
- General construction is scheduled to begin when the design is complete and after all approvals are in place. Construction on all project components will be completed by 2020.

### **Project Cost**

- The budget for this set of projects is \$10,000,000. The budget represents an estimated construction cost of \$211 per gross square foot. The estimated total project cost is \$325 per gross square foot.
- For this Capital Development Plan phase, no preliminary external cost estimates have been provided by third-party consultants. DP and CMAR or JOC contractor teams have not been selected yet for these projects. Independent cost estimates will be provided by the DP, CMAR or JOC contractor after these selections are complete.
- For projects selected to use the CMAR delivery method, the CMARs will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP). A final report on project control procedures, including change orders and contingency use, will be provided at project completion.

### **Fiscal Impact and Financing Plan:**

- The \$10.0 million project budget will be funded with system revenue bonds. Debt service will be funded by tuition.

## EXECUTIVE SUMMARY

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- There are no expected increases in operation and maintenance costs for this set of projects.
- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project bundle is 0.03 percent.

### Occupancy Plan

- These project components will reconfigure and renew spaces for classroom and academic areas. Programs may be temporarily displaced as spaces are renovated.

**EXECUTIVE SUMMARY**

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**Capital Project Information Summary**

**University:** Arizona State University      **Project Name:** Classroom and Academic Renovations

**Project Description and Location:** This project bundle includes the renovation of approximately 30,750 gross square feet of classrooms and academic space, including faculty and student space at all campuses. Building components such as HVAC, plumbing, electrical systems, flooring, ceilings, interior and exterior paint, roofs, windows, doors, internal walls and partitions, elevators, and fire prevention equipment may be upgraded in this project.

**Project Schedule:**

Planning	June	2017
Design	September	2017
Construction Start	December	2017
Construction Completion	December	2020

**Project Budget:**

Total Project Cost	\$	10,000,000
Total Project Construction Cost	\$	6,500,000
Total Project Cost per GSF	\$	325
Construction Cost per GSF	\$	211

**Change in Annual O & M Cost:**

Utilities	\$	0
Personnel		0
All Other Operating		0
Subtotal	\$	0

**Funding Sources:**

Capital		
A. System Revenue Bonds	\$	10,000,000
Debt Service Funding Sources:		Tuition
Operation/Maintenance	\$	0
Funding Sources:		



**EXECUTIVE SUMMARY**

**Capital Project Budget Summary**

**University:** Arizona State University      **Project:** Classrooms and Academic Renovations

	<b><u>Capital Development Plan</u></b>	<b><u>Project Approval</u></b>
Capital Costs		
1. Land Acquisition		
2. Construction Cost		
A. New Construction		
B. Tenant Improvements	5,300,000	
C. Special Fixed Equipment	1,000,000	
D. Site Development (excl. 2.E.)		
E. Parking and Landscaping		
F. Utilities Extensions		
G. Other* (Demolition/abatement)	200,000	
Subtotal Construction Cost	\$ 6,500,000	\$ -
3. Fees		
A. CMAR Pre-Construction	\$ 97,500	
B. Architect/Engineer	780,000	
C. Other	91,660	
Subtotal Consultant Fees	\$ 969,160	\$ -
4. FF&E Movable	\$ 325,000	
5. Contingency, Design Phase	650,000	
6. Contingency, Constr. Phase	650,000	
7. Parking Reserve		
8. Telecommunications Equipment	455,000	
Subtotal Items 4-8	\$ 2,080,000	\$ -
9. Additional University Costs		
A. Surveys, Tests, Haz. Mat. Abatement		
B. Move-in Costs	8,840	
C. Printing Advertisement		
D. Keying, signage, facilities support	50,000	
E. Project Management Cost	358,680	
F. State Risk Mgt. Ins. (.0034 **)	33,320	
Subtotal Addl. Univ. Costs	\$ 450,840	\$ -
<b>Total Capital Cost</b>	<b>\$ 10,000,000</b>	<b>\$ -</b>

\* Universities shall identify items included in this category

\*\* State Risk Management Insurance factor is calculated on construction costs and consultant fees.

**EXECUTIVE SUMMARY**

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**Arizona Board of Regents  
Arizona State University  
Capital Development Plan Project Justification Report  
Research Laboratory/Faculty Startup**

**Previous Board Action:**

- FY 2019-2020 Capital Improvement Plan September 2016

**Statutory/Policy Requirements**

- ABOR Policy 7-102 (B), requires all renovation or infrastructure projects with an estimated total project cost of \$5 million or more be brought to the Business and Finance Committee for approval, regardless of funding source or financing structure.

**Project Justification/Description/Scope**

- The Research Laboratory/Faculty Startup projects bundle will involve the renovation of approximately 30,000 gross square feet of laboratories to meet new and current research requirements within existing facilities. Multiple wet and dry lab spaces will be upgraded, as well as infrastructure and building systems, in order to maximize adaptable and flexible technologies. Renovation activities will involve building systems such as HVAC, mechanical, fume hoods, lab gas lines, electrical, and code-required life safety upgrades.
- Many existing university laboratories and building systems are inadequate, due to age and the requirements of emerging technologies. The poor condition of the spaces and age of the building systems constrain the development of these strategically important areas. This project will ensure facility systems can meet research demands and will keep areas in code compliance. It will convert inadequate classroom laboratories, research laboratories and research building systems to state-of-the-art research facilities.
- Increasing research activity and the resultant arrival of new faculty continue to make laboratory renovation projects an imperative. Spaces must be updated and renovated for the needs of incoming researchers and successful grant applications. These laboratories will provide the core infrastructure from which faculty and students can compete in the global marketplace of ideas, not only stimulating advances in science and human health, but also potentially advancing the regional economy.

## EXECUTIVE SUMMARY

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- The 2012 campus master plan update identified a need for additional research space totaling 350,000 gross square feet. This project will contribute to meeting this need.

### **Project Delivery Method and Process:**

- Depending on the nature of the work, components of this project may be delivered through either the Construction Manager at Risk (CMAR) or Job Order Contracting (JOC) methods.
- ASU has not yet selected a CMAR, JOC contractor or design professional firm for any components of this project bundle. Contractors and design professionals will be selected according to ABOR policy and Arizona law.

### **Project Status and Schedule**

- Design Professionals (DPs) will be selected after CDP approval. Design will be complete approximately six to nine months after the DP contract is awarded.
- General construction is scheduled to begin when design is complete and after all approvals are in place. Construction on all project components is targeted for completion by December 2020.

### **Project Cost**

- The budget for this project bundle is \$15,000,000. The budget represents an estimated construction cost of \$325 per gross square foot. The estimated total project cost is \$500 per gross square foot.
- For this Capital Development Plan phase, no preliminary external cost estimates have been provided by third-party consultants. DP and CMAR or JOC contractor teams have not yet been selected for these project components. Independent cost estimates will be provided by the DP, CMAR or JOC contractor after these selections are complete.
- For project components selected to use the CMAR delivery method, the CMs will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP). A final report on project control procedures, including change orders and contingency use, will be provided at project completion.

## EXECUTIVE SUMMARY

### **Fiscal Impact and Financing Plan:**

- The \$15.0 million project bundle budget will be funded with system revenue bonds. Debt service will be funded by tuition.
- There are no expected increases in operation and maintenance costs for this project bundle.
- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project bundle is 0.05 percent.

### **Occupancy Plan**

- These project components will not affect occupancy or programs, but will renew research spaces.

**EXECUTIVE SUMMARY**

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**Capital Project Information Summary**

**University:** Arizona State University **Project Name:** Research Laboratory/Faculty Startup

**Project Description and Location:** The Research Laboratory/Faculty Startup project bundle will involve the renovation of approximately 30,000 gross square feet of existing laboratory space required to establish the university as a leading center for interdisciplinary research and discovery.

**Project Schedule:**

Planning	June	2017
Design	September	2017
Construction Start	December	2017
Construction Completion	December	2020

**Project Budget:**

Total Project Cost	\$ 15,000,000
Total Project Construction Cost	\$ 9,760,000
Total Project Cost per GSF	\$ 500
Construction Cost per GSF	\$ 325

**Change in Annual O & M Cost:**

Utilities	\$	0
Personnel		0
All Other Operating		<u>0</u>
Subtotal	\$	0

**Funding Sources:**

Capital

A. System Revenue Bonds	\$ 15,000,000
Debt Service Funding Sources:	Tuition

Operation/Maintenance	\$	0
Funding Sources:		

**EXECUTIVE SUMMARY**

**Capital Project Budget Summary**

**University:** Arizona State University    **Project:** Research Laboratory/Faculty Start Up

	<b><u>Capital Development Plan</u></b>	<b><u>Project Approval</u></b>
Capital Costs		
1. Land Acquisition		
2. Construction Cost		
A. New Construction		
B. Tenant Improvements	\$ 7,260,000	
C. Special Fixed Equipment	2,000,000	
D. Site Development (excl. 2.E.)		
E. Parking and Landscaping		
F. Utilities Extensions		
G. Other* (Demolition/abatement)	500,000	
Subtotal Construction Cost	<u>\$ 9,760,000</u>	<u>\$ -</u>
3. Fees		
A. CMAR Pre-Construction	\$ 146,400	
B. Architect/Engineer	1,171,200	
C. Other	50,000	
Subtotal Consultant Fees	<u>\$ 1,367,600</u>	<u>\$ -</u>
4. FF&E Movable	\$ 650,000	
5. Contingency, Design Phase	976,000	
6. Contingency, Constr. Phase	976,000	
7. Parking Reserve		
8. Telecommunications Equipment	650,000	
Subtotal Items 4-8	<u>\$ 3,252,000</u>	<u>\$ -</u>
9. Additional University Costs		
A. Surveys, Tests, Haz. Mat. Abatement		
B. Move-in Costs	\$ 8,772	
C. Printing Advertisement		
D. Keying, signage, facilities support	50,000	
E. Project Management Cost	528,444	
F. State Risk Mgt. Ins. (.0034 **)	33,184	
Subtotal Addl. Univ. Costs	<u>\$ 620,400</u>	<u>\$ -</u>
<b>Total Capital Cost</b>	<b><u>\$ 15,000,000</u></b>	<b><u>\$ -</u></b>

\* Universities shall identify items included in this category

\*\* State Risk Management Insurance factor is calculated on construction costs and consultant fees.

**EXECUTIVE SUMMARY**

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**Arizona Board of Regents  
Arizona State University  
Capital Development Plan Project Justification Report  
Hayden Library Reinvention**

**Previous Board Action:**

- FY 2019-2020 Capital Improvement Plan September 2016

**Statutory/Policy Requirements**

- ABOR Policy 7-102 (B) requires all renovation or infrastructure projects with an estimated total project cost of \$5 million or more be brought to the Business and Finance Committee for approval, regardless of funding source or financing structure.

**Project Justification/Description/Scope**

- This project will reinvent the original spaces of the iconic Hayden Library, the main library located at the heart of the Tempe campus. The library location is depicted on the map attached hereto as Exhibit C. The project will transform the building from a bookstack-intensive traditional library into a hub for 21<sup>st</sup> century learning, discovery and innovation.
- Reinvention of the library will encompass an expansion of the below-grade level, as well as a full renovation of all five levels of the “tower” portion of the building that was constructed in 1966. This reinvention project will increase the gross square footage (GSF) of the building from 211,000 to approximately 240,000 GSF.
- The guiding principles of the project include maximizing and enhancing space for students to connect, collaborate, learn and make; elevating the visibility of library collections; improving overall accessibility, navigation and discovery through a user-friendly design and multiple entrances on the main level; and strengthening community engagement through curated exhibits, makerspaces and a high-tech geospatial data room.
- Current and future high-technology innovations, including multi-media production spaces, will be accommodated in the flexible and adaptable project design. Building operation and code compliance issues also will be addressed in this project.

## EXECUTIVE SUMMARY

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- The transformation of Hayden Library into an innovative, state-of-the-art learning center will support the university and ABOR goals of advancing student learning and educational success. The reinvention of this library also will advance the establishment of the university as a leading global center for interdisciplinary scholarship and discovery.

### **Project Delivery Method and Process:**

- This project will be delivered through the Construction Manager at Risk (CMAR) delivery method. This approach was selected to provide contractor design input and coordination throughout the project, alleviate a potentially adversarial project environment and allow for the selection of the most qualified contractor team. With the use of two independent cost estimates at each phase and pre-qualified, low-bid subcontractor work for the actual construction, CMAR project delivery also provides a high level of cost and quality control.
- ASU has selected Holder Construction as the CMAR and Ayers Saint Gross as the Design Professional (DP) for this project. During the CMAR selection process, there were thirteen submittal responses and five contractors were interviewed. The selection process for the DP included twenty-three responses and five firms were interviewed.

### **Project Status and Schedule**

- General construction is scheduled to begin when the design is complete and after all approvals are in place. Construction on all project components is scheduled for substantial completion in November 2019.

### **Project Cost**

- The budget for this 240,000 gross-square-foot project is \$90.0 million. The budget represents an estimated construction cost of \$263 per gross square foot. The estimated total project cost is \$375 per gross square foot.
- For this Capital Development Plan phase, preliminary cost estimates have been provided by the CMAR and a third-party consultant.
- The CMAR will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP). A final report on project control procedures, including change orders and contingency use, will be provided at project completion.



## EXECUTIVE SUMMARY

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### **Fiscal Impact and Financing Plan:**

- The \$90.0 million project budget will be funded with system revenue bonds. Debt service will be funded by tuition.
- The annual operation and maintenance costs for the incremental space associated with this project are estimated at \$96,343. These costs will be funded by tuition.
- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project is 0.28 percent.

### **Occupancy Plan**

- The two underground levels of the library, which were constructed in 1989, will remain open and operational during the reinvention project. Library services will continue to function normally with as little disruption as possible. Print materials will remain accessible to the ASU community through an expedited delivery service.
- New classrooms to be created on the below-grade level of the tower are scheduled to open in fall 2019, with the above-grade levels scheduled for substantial completion in November 2019.

**EXECUTIVE SUMMARY**

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**Capital Project Information Summary**

**University:** Arizona State University    **Project Name:** Hayden Library Reinvention

**Project Description and Location:** This project will transform the iconic Hayden Library into a 21<sup>st</sup> century learning center. Hayden Library is the main library on the Tempe campus and is depicted on the attached map as Exhibit C. Through the creation of new entrances, better utilization of space and the inclusion of updated technologies, this renovation will gain much needed classroom, collaboration and study space to enable student success.

**Project Schedule:**

Planning	September	2016
Design Start	April	2017
Construction Start	January	2018
Construction Completion Lower Tower	July	2019
Construction Completion	November	2019

**Project Budget:**

Total Project Cost	\$	90,000,000
Total Project Construction Cost	\$	63,000,000
Total Project Cost per GSF	\$	375
Construction Cost per GSF	\$	263

**Change in Annual O & M Cost:**

Utilities	\$	45,507
Personnel		0
All Other Operating		50,836
Subtotal	\$	96,343

**Funding Sources:**

Capital		
A. System Revenue Bonds	\$	90,000,000
Debt Service Funding Sources:		Tuition
Operation/Maintenance	\$	96,343
Funding Source: Tuition		

**EXECUTIVE SUMMARY**

**Capital Project Budget Summary**

**University:** Arizona State University

**Project:** Hayden Library Reinvention

	<b><u>Capital Development Plan</u></b>	<b><u>Project Approval</u></b>
Capital Costs		
1. Land Acquisition		
2. Construction Cost		
A. New Construction	\$ 11,500,000	
B. Tenant Improvements	47,000,000	
C. Special Fixed Equipment	1,000,000	
D. Site Development (excl. 2.E.)	1,500,000	
E. Parking and Landscaping	300,000	
F. Utilities Extensions		
G. Other* (Demolition/abatement)	1,700,000	
Subtotal Construction Cost	<u>\$ 63,000,000</u>	<u>\$ -</u>
3. Fees		
A. CMAR Pre-Construction	\$ 671,667	
B. Architect/Engineer	6,099,880	
C. Other	500,000	
Subtotal Consultant Fees	<u>\$ 7,271,547</u>	<u>\$ -</u>
4. FF&E Movable	\$ 4,500,000	
5. Contingency, Design Phase	505,000	
6. Contingency, Constr. Phase	5,500,561	
7. Parking Reserve	150,000	
8. Telecommunications Equipment	1,300,000	
Subtotal Items 4-8	<u>\$ 11,955,561</u>	<u>\$ -</u>
9. Additional University Costs		
A. Surveys, Tests, Haz. Mat. Abatement	\$ 2,150,000	
B. Move-in Costs	550,000	
C. Printing Advertisement	15,000	
D. Keying, signage, facilities support	1,750,000	
E. Project Management Cost	3,093,692	
F. State Risk Mgt. Ins. (.0034 **)	214,200	
Subtotal Addl. Univ. Costs	<u>\$ 7,772,892</u>	<u>\$ -</u>
<b>Total Capital Cost</b>	<u><u>\$ 90,000,000</u></u>	<u><u>\$ -</u></u>

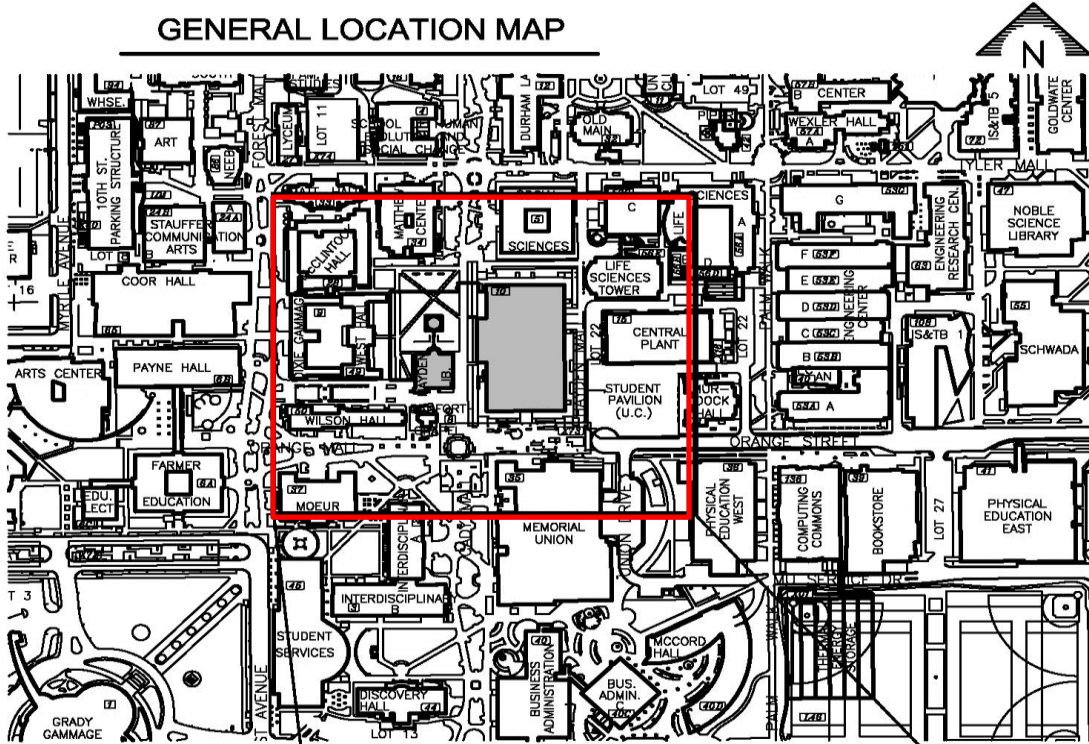
\* Universities shall identify items included in this category

\*\* State Risk Management Insurance factor is calculated on construction costs and consultant fees.

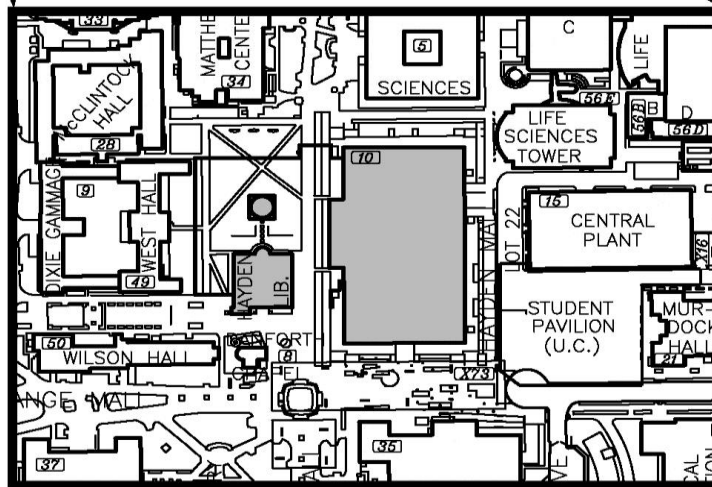
EXECUTIVE SUMMARY

EXHIBIT "C"  
Hayden Library Reinvention

GENERAL LOCATION MAP



HAYDEN LIBRARY REINVENTION



AREA IN DETAIL

**EXECUTIVE SUMMARY**

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**Arizona Board of Regents  
Arizona State University  
Capital Development Plan Project Justification Report  
Health Solutions Innovation Center**

**Previous Board Action:**

- FY 2019-2020 Capital Improvement Plan September 2016

**Statutory/Policy Requirements**

- ABOR Policy 7-102 (B) requires that all capital projects with an estimated total project cost of \$10,000,000 or more for new construction be brought to the Business and Finance Committee for approval, regardless of funding source or financing structure.

**Project Justification/Description/Scope**

- ASU and the Mayo Clinic share a bold vision to transform medical education and the field of health care. The realization of this shared vision is in their plans to collaborate in a world-class research, innovation and learning environment on ASU-controlled land in northeast Phoenix, adjacent to the Mayo Clinic Hospital campus.
- The planned new facility will be the first to be located on this ASU Health Solutions Innovation site. The Mayo Clinic's expertise in complex patient care, medical education and research will be joined with ASU's robust engineering, informatics, health solutions and nursing programs on this site. The site will be a destination for top-quality health care, professional education, industry interaction and treatment breakthroughs.
- This approximately 150,000 gross-square-foot, leading-edge facility will feature a med-tech innovation accelerator, biomedical engineering and informatics research labs, and an innovative education zone. Programs from several ASU schools and colleges, particularly those with a focus on the health professions and biomedical sciences, will benefit from the proximity of this facility to the Mayo Clinic Hospital and Cancer Center, as depicted on the map attached hereto as Exhibit D.
- This project will support ABOR's goal of increasing capabilities and avenues for state-of-the-art research to enhance Arizona's economy and competitiveness.

## EXECUTIVE SUMMARY

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### **Project Delivery Method and Process:**

- This project will be delivered through the Construction Manager at Risk (CMAR) delivery method. This approach was selected to provide contractor design input and coordination throughout the project, alleviate potentially adversarial project environments and allow for the selection of the most qualified contractor team. With the use of two independent cost estimates at each phase and pre-qualified, low-bid subcontractor work for the actual construction, CMAR project delivery also provides a high level of cost and quality control.

### **Project Status and Schedule**

- The Design Professional (DP) will be selected after CDP approval is granted. The project design will be complete within approximately six to nine months after the DP contract is awarded.
- General construction is scheduled to begin when the design is complete and after all approvals are in place. Construction is scheduled for completion in December 2019.

### **Project Cost**

- The budget for this project is \$75.0 million, and represents an estimated construction cost of \$350 per gross square foot. The estimated total project cost is \$500 per gross square foot.
- For this Capital Development Plan phase, no preliminary external cost estimates have been provided by third-party consultants. DP and CMAR contractor teams have not yet been selected for this project. Independent cost estimates will be provided by the DP and CMAR after these selections are complete.
- The CMAR will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP). A final report on project control procedures, including change orders and contingency use, will be provided at project completion.

### **Fiscal Impact and Financing Plan:**

- The \$75.0 million project budget will be funded with system revenue bonds. Debt service will be funded by tuition.
- Operations and maintenance costs for this project are estimated at \$1,161,925 annually and will be funded by tuition

## EXECUTIVE SUMMARY

- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project is 0.19 percent.

### Occupancy Plan

- Occupancy of this facility is scheduled for January 2020.

**EXECUTIVE SUMMARY**

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**Capital Project Information Summary**

**University:** Arizona State University    **Project Name:** Health Solutions Innovation Center

**Project Description and Location:** The proposed new 150,000-square-foot leading-edge facility will feature a med-tech innovation accelerator, biomedical engineering and informatics research labs, and an innovative education zone. Programs from several ASU schools and colleges, particularly those with a focus on the health professions and biomedical sciences, will benefit from the proximity of this world class learning facility to the Mayo Clinic Hospital and Cancer Center, as depicted on the attached map as Exhibit "D."

**Project Schedule:**

Planning	July	2017
Design	December	2017
Construction Start	August	2018
Construction Completion	December	2019

**Project Budget:**

Total Project Cost	\$	75,000,000
Total Project Construction Cost	\$	52,500,000
Total Project Cost per GSF	\$	500
Construction Cost per GSF	\$	350

**Change in Annual O & M Cost:**

Utilities	\$	540,600
Personnel		0
All Other Operating		621,325
Subtotal	\$	1,161,925

**Funding Sources:**

Capital

A. System Revenue Bonds	\$	75,000,000
Debt Service Funding Source:	Tuition	
Operation/Maintenance	\$	1,161,925
Funding Source:	Tuition	



**EXECUTIVE SUMMARY**

**Capital Project Budget Summary**

**University:** Arizona State University

**Project:** Health Solutions Innovation Center

	<b><u>Capital Development Plan</u></b>	<b><u>Project Approval</u></b>
Capital Costs		
1. Land Acquisition		
2. Construction Cost		
A. New Construction	\$ 49,000,000	
B. Tenant Improvements		
C. Special Fixed Equipment		
D. Site Development (excl. 2.E.)	1,000,000	
E. Parking and Landscaping	2,500,000	
F. Utilities Extensions		
G. Other* (Demolition/abatement)		
Subtotal Construction Cost	\$ 52,500,000	\$ -
3. Fees		
A. CMAR Pre-Construction	\$ 787,500	
B. Architect/Engineer	6,300,000	
C. Other		
Subtotal Consultant Fees	\$ 7,087,500	\$ -
4. FF&E Movable	\$ 2,100,000	
5. Contingency, Design Phase	4,200,000	
6. Contingency, Constr. Phase	4,200,000	
7. Parking Reserve		
8. Telecommunications Equipment	2,719,317	
Subtotal Items 4-8	\$ 13,219,317	\$ -
9. Additional University Costs		
A. Surveys, Tests, Haz. Mat. Abatement	\$ 25,000	
B. Move-in Costs	5,000	
C. Printing Advertisement	1,000	
D. Keying, signage, facilities support	45,000	
E. Project Management Cost	1,938,683	
F. State Risk Mgt. Ins. (.0034 **)	178,500	
Subtotal Addl. Univ. Costs	\$ 2,193,183	\$ -
<b>Total Capital Cost</b>	<b>\$ 75,000,000</b>	<b>\$ -</b>

\* Universities shall identify items included in this category

\*\* State Risk Management Insurance factor is calculated on construction costs and consultant fees.

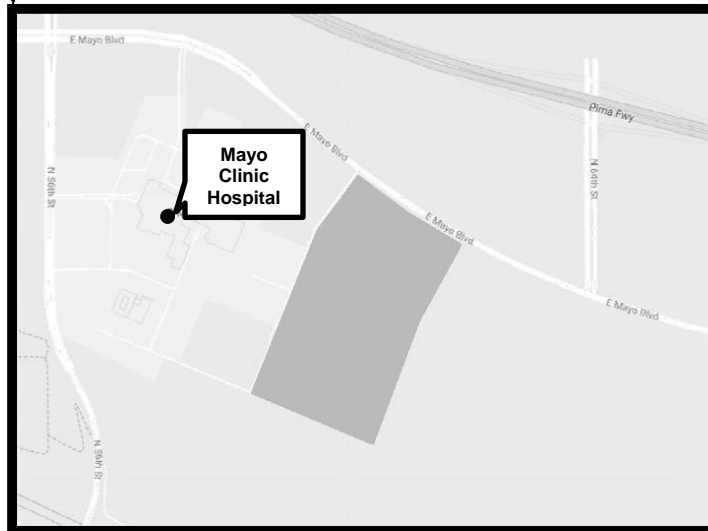
**EXECUTIVE SUMMARY**

**EXHIBIT "D"**  
**Health Solutions Innovation Center**

**GENERAL LOCATION MAP**



**HEALTH SOLUTIONS INNOVATION CENTER**



**AREA IN DETAIL**

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**EXECUTIVE SUMMARY**

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**Item Name: FY 2018 Capital Development Plan (NAU)**

- Action Item
- Committee Recommendation to Full Board
- First Read of Proposed Policy Change
- Information or Discussion Item

**Issue:** Northern Arizona University requests approval of its FY 2018 Capital Development Plan (CDP), which includes one new project, the renovation and expansion of a Recital Hall. The CDP financial impact totals \$15 million.

**Previous Board Action**

- FY 2018 – 2020 Capital Improvement Plan September 2016

**Enterprise or University Strategic Plan**

- Empower Student Success and Learning
- Advance Educational Attainment within Arizona
- Create New Knowledge
- Impact Arizona
- Compliance
- Real property purchase/sale/lease
- Other:

**Statutory/Policy Requirements**

- Pursuant to Arizona Board of Regents Policy Chapter 7-107, each university shall submit an annual Capital Development Plan for the upcoming fiscal year in accordance with the calendar approved by the President of the Board. The CDP may also be considered for revisions and include the addition of new projects, project budget adjustments, and deletion of projects.
- Capital Development Plans are reviewed by the Business and Finance Committee and approved by the Board.
- Approval of the CDP allows universities to complete design and planning in preparation for submitting individual projects for final approval by the Business and Finance Committee, with a final report to the full Board.

**Contact Information:**

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