

EXECUTIVE SUMMARY

Item Name: Annual Capital Plan, Including Waiver of ABOR Policy Requiring ACP Projects to Appear on a Previous Capital Improvement Plan, for Arizona State University

Action Item

Requested Action: Arizona State University (ASU) asks the board to approve its Annual Capital Plan (ACP), including a waiver of ABOR Policy requiring ACP projects to appear in the previous Capital Improvement Plan (CIP). The ACP includes four new projects, which total \$110.2 million, as described in this executive summary.

Background/History of Previous Board Action

- Capital Improvement Plan FY 2025 – 2028 September 2023
 - Building and Infrastructure Enhancements and Modifications
 - Classroom and Academic Renovations
 - Research Laboratory Renovations
- Poly Chilled Water Expansion (Polytechnic Campus) – no prior action

Prior Year Activity

- Five projects totaling \$290,100,000 were substantially completed within the last 12 months.
- Fifteen projects totaling \$608,775,000 began or continued construction activity in the last 12 months, excluding one third-party project.
- Details on completed and ongoing projects are listed in Exhibit 1.

Overview and Alignment with Enterprise and University Goals and Objectives

- The ASU ACP includes four projects totaling \$110.2 million.
- ASU has developed the ACP to align with university's Campus Master Plan and university strategic goals and objectives.
- The primary institutional priorities supported by the ACP include:

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- **Academic Success:** The proposed projects will contribute to advancing the university's twin pillars of academic success—leadership in academic excellence and accessibility and establishing national standing in academic quality. These projects will provide essential support to achieving these goals and metrics, as follows:
 - Enhance the university graduation rate to greater than 85 percent and more than 40,000 graduates,
 - Attain national standing in the learning and post-graduation outcomes for students in all colleges and schools, and
 - Enhance our local impact and social embeddedness.
- **Research and Development:** The proposed projects will support the university's research goals, including the enhancement of its research competitiveness to more than \$1 billion in annual research expenditures by 2029. University research expenditures are used in part to advance the state of knowledge in various fields; purchase local goods and services; help create new companies and jobs; support the development of next-generation scientists and innovators; and attract top research talent to the faculty. Research and development expenditures also support the state's competitive advantage in the fields of science, technology and medicine.
- **Student Support and Engagement:** The proposed projects will enhance student development and learning to national leadership levels. These projects will foster student engagement in programs, events and activities that will enhance their learning and personal development by connecting them with their campus and community; building leadership skills; and preparing them for academic, personal and career success.
- **Campus Operations and Infrastructure Priorities:** To advance the university's academic and research goals, its facilities and related infrastructure must be maintained in a safe and reliable operational condition. Buildings and utility systems also must be cost-effective to maximize the use of the university's operational funds over time.
- **Life Safety and Code Compliance:** Life safety and code compliance issues must be resolved promptly and assume the highest priority in ensuring the safety and security of students, faculty, staff and visitors, as well as supporting the achievement of the university's academic and research goals.
- **Community Service:** Serving Arizona communities is an integral aspect of the university's mission and its programs. Enhancing and expanding the university's local impact and social embeddedness is vital to improving the quality of life and economic prosperity in Arizona.

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Annual Capital Plan Projects

- The following four projects are proposed for ACP approval, including notations where board policy waivers are requested:
 - Building and Infrastructure Enhancements and Modifications
 - Classroom and Academic Renovations
 - Research Laboratory Renovations
 - Poly Chilled Water Expansion (Polytechnic Campus) – waiver requested
- Additional detail on project costs, financing and scope can be found in the tables in Exhibits 2 and 3 and the individual Project Justification Reports attached at the end.

Fiscal Impact and Management

- The ASU ACP, if fully implemented, will cost a total of \$110.2 million.
- The total amount of \$110.2 million will be financed using debt.
- **Debt Ratio Impact:** The debt service associated with the non-SPEED projects in the ACP will increase the debt ratio by 0.18 percent. The current debt ratio prior to these projects is 4.8 percent excluding SPEED projects and 5.0 percent including SPEED projects.
- The tables in Exhibits 2 and 3 provide detailed project financing, funding sources and debt ratio impact.

Other Projects

- ASU does not anticipate any third-party projects, component unit projects, and commercial long-term leases that require board approval to be entered into in the next year.

Committee Review and Recommendation

The University Governance and Operations Committee reviewed this item at its September 12, 2024, meeting and recommended forwarding the item to the board for approval.

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Statutory/Policy Requirements

- Pursuant to ABOR Policy 7-102.B.2, each university shall submit an ACP for the upcoming twelve-month period in accordance with the calendar and form approved by the executive director of the board.
- ACPs are reviewed by the University Governance and Operations Committee and approved by the board.
- Approval of the ACP authorizes the university to seek legislative review for debt-funded or third-party projects, if applicable. A university cannot proceed with financing or execute construction contracts for a project until the committee has reviewed and the board has approved the Individual Project and Financing phase.
- Pursuant to ABOR Policy 7-102.B.2.a.(1), if a project has not appeared in the prior CIP, a waiver of this board policy can be requested in order for a project to appear on an ACP. ASU seeks an exception to the policy for the Polytechnic Chilled Water Expansion project to expand the infrastructure of the hydronic loop and distribution network for chilled and heated water at the Chilled Water Plant (CWP) on the Polytechnic campus to accommodate the planned Student Union (UNION) expansion and renovation, as well as future developments.

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EXHIBIT 1

Arizona State University Capital Project Status Report							
Project Name	Est. Gross Square Footage	Total Budget	Direct Construction Budget	Percent Work Completed	Percent to Gift Target	Date Last Board Approval	Original/ Revised Occupancy Date
Ongoing Projects							
Building and Infrastructure Enhancements/Modifications	N/A	\$20,000,000	\$14,000,000	96	N/A	2/13/2020	12/1/2024
Building and Infrastructure Enhancements/Modifications	N/A	\$20,000,000	\$16,000,000	57	N/A	9/30/2021	12/1/2026
Building and Infrastructure Enhancements and Modifications	N/A	\$35,000,000	\$35,000,000	38	N/A	11/17/2022	2/1/2027
Classroom/Academic Renovations	44,643	\$15,000,000	\$10,500,000	91	N/A	9/30/2021	12/31/2024
Classroom/Academic Renovations	39,170	\$15,000,000	\$10,500,000	39	N/A	11/17/2022	2/1/2027
ISTB12	180,000	\$187,000,000	\$148,840,140	54	N/A	6/15/2023	7/18/2025
IT Infrastructure Improvements	N/A	\$36,810,000	\$36,810,000	90	N/A	9/30/2021	12/31/2024
IT Infrastructure Improvements	N/A	\$63,000,000	\$63,000,000	10	N/A	4/4/2024	12/1/2027
Mill Avenue Student Housing Academic and Office Space	28,247	\$27,000,000	\$25,000,000	58	N/A	6/15/2023	6/13/2025
Polytechnic Utilities Expansion	3,000	\$17,300,000	\$13,800,000	21	N/A	11/16/2023	5/30/2025
Research Laboratory Renovations	32,000	\$20,000,000	\$14,000,000	93	N/A	9/30/2021	12/1/2024
Research Laboratory Renovations	28,400	\$30,000,000	\$30,000,000	39	N/A	11/17/2022	2/1/2027
Tempe Campus West Quadrant Utility Expansion	4,000	\$22,000,000	\$16,322,900	8	N/A	4/4/2024	12/31/2025
Tempe District Utility Plant	27,200	\$67,165,000	\$56,134,810	42	N/A	6/20/2024	11/30/2025
West Campus Student Housing Academic and Office Space	52,315	\$33,500,000	\$25,717,200	77	N/A	12/13/2022	2/6/2025
Ongoing Projects Total		\$608,775,000					
Ongoing Third-Party Projects							
Mill Avenue Student Housing	175,000	\$113,500,000	\$113,500,000	58	N/A	6/15/2023	6/13/2025
Substantially Completed Projects							
Classroom/Academic Renovations	50,000	\$15,000,000	\$11,250,000	100	N/A	2/13/2020	2/1/2024
Classroom Office Building	169,626	\$113,100,000	\$94,236,277	100	N/A	9/30/2021	7/24/2024
Research Laboratory Renovations	40,000	\$20,000,000	\$14,000,000	100	N/A	2/13/2020	2/1/2024
Tempe Campus Academic and Office Space	129,300	\$88,000,000	\$68,000,000	100	N/A	11/17/2022	8/1/2024
Substantially Completed Third-Party Projects							
West Campus Student Housing	134,264	\$54,000,000	\$54,000,000	100	N/A	6/15/2023	7/19/2024
Completed Projects Total		\$290,100,000					
This report reflects the status of Arizona State University capital projects effective September 12, 2024.							

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EXHIBIT 2

Arizona State University Annual Capital Plan							
Project	Board Approval Status	Est. Gross Square Footage	Project Cost	Amount Financed	Funding Method	Annual Debt Service	Debt Ratio
New Projects							
ASU-Building and Infrastructure Enhancements and Modifications	CIP Sept. 2023	N/A	\$45,000,000	\$45,000,000	System Revenue Bonds	\$3,306,600	0.07%
ASU-Classroom and Academic Renovations	CIP Sept. 2023	39,170	\$25,000,000	\$25,000,000	System Revenue Bonds	\$1,837,000	0.04%
ASUP-Poly Chilled Water Expansion	None	N/A	\$10,200,000	\$10,200,000	System Revenue Bonds	\$782,100	0.02%
ASU-Research Laboratory Renovations	CIP Sept. 2023	23,920	\$30,000,000	\$30,000,000	System Revenue Bonds	\$2,300,200	0.05%
New Projects Subtotal		0	\$110,200,000	\$110,200,000		\$8,225,900	0.18%
Resubmitted Projects							
No Resubmitted Projects							
Resubmitted Projects Subtotal		0	\$0	\$0		\$0	0.00%
Third Party Projects							
No Third-Party Projects							
Third Party Projects Subtotal		0					
TOTAL ACP		0	\$110,200,000	\$110,200,000	\$0	\$8,225,900	0.18%

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EXHIBIT 3

Annual Capital Plan–Annual Debt Service by Funding Source											
Project	Amount Financed	CIF	TUI	AUX	ICR	OLF	SLP	FGT	DFG	OTH	Total Annual Debt Service
New Projects											
ASU-Building and Infrastructure Enhancements and Modifications	\$45,000,000		\$3,306,600								\$3,306,600
ASU-Classroom and Academic Renovations	\$25,000,000		\$1,837,000								\$1,837,000
ASUP-Poly Chilled Water Expansion	\$10,200,000		\$782,100								\$782,100
ASU-Research Laboratory Renovations	\$30,000,000		\$2,300,200								\$2,300,200
New Projects Subtotal	\$110,200,000	\$0	\$8,225,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,225,900
Resubmitted Projects											
No Resubmitted Projects											\$0
Resubmitted Projects Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total ACP	\$110,200,000	\$0	\$8,225,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,225,900

Funding Source Codes:

(CIF) Capital Infrastructure Fund
(TUI) Tuition
(AUX) Auxiliary

(ICR) Indirect Cost Recovery
(OLF) Other Local Funds
(SLP) State Lottery Proceeds

(FGT) Federal Grant
(DFG) Debt Financed by Gifts
(OTH) Other

Annual Capital Plan–Operation and Maintenance by Funding Source											
Project	CIF	TUI	AUX	ICR	OLF	GFA	FGT	DFG	OTH	Total Annual O&M	
New Projects											
ASU-Building and Infrastructure Enhancements and Modifications											\$0
ASU-Classroom and Academic Renovations											\$0
ASUP-Poly Chilled Water Expansion											\$0
ASU-Research Laboratory Renovations											\$0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Resubmitted Projects											
No Resubmitted Projects											\$0
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total ACP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

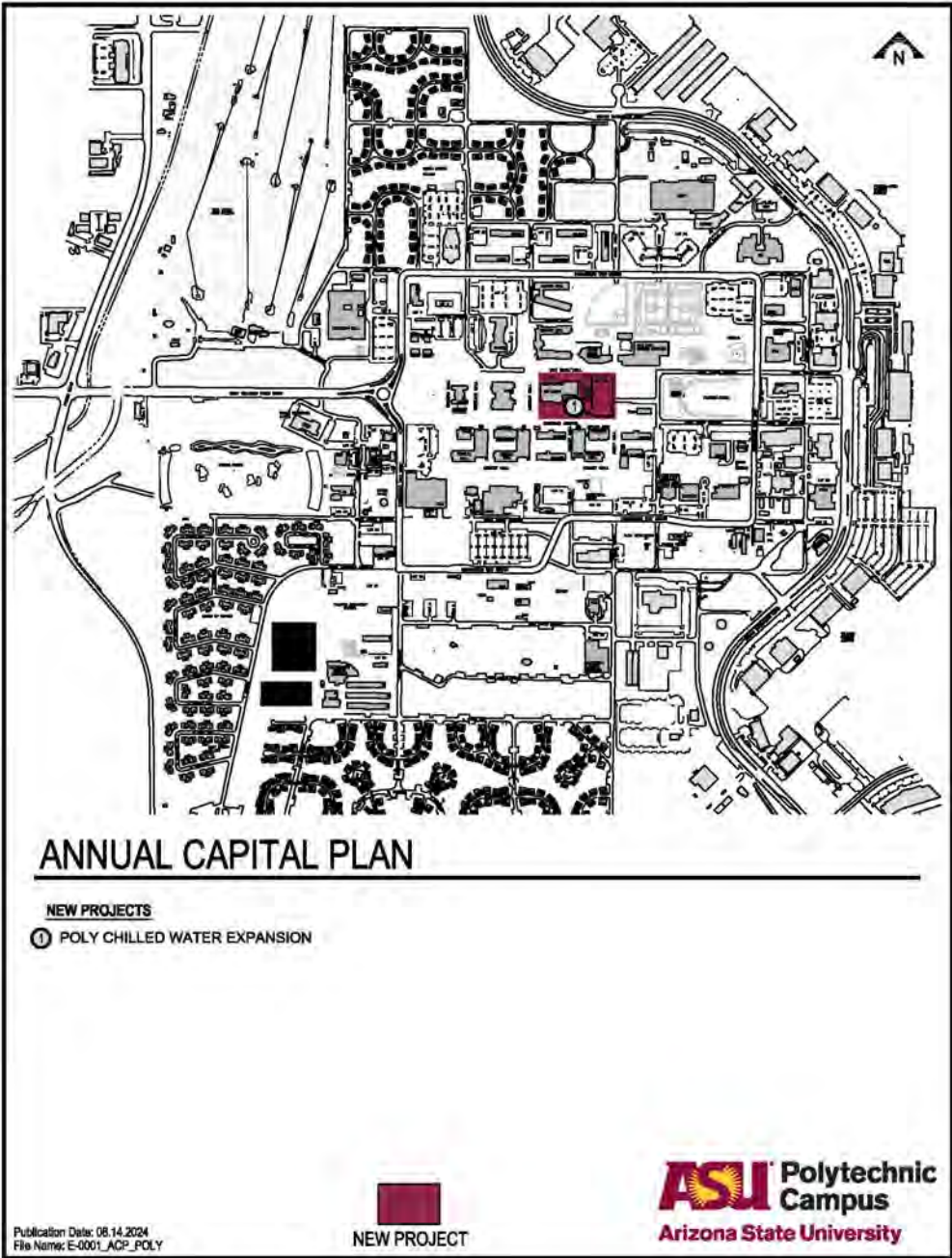
Funding Source Codes:

(CIF) Capital Infrastructure Fund
(TUI) Tuition

(ICR) Indirect Cost Recovery
(OLF) Other Local Funds

(FGT) Federal Grant
(DFG) Debt Financed by Gifts

EXHIBIT 4
Arizona State University
Polytechnic Campus Site Location Map



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**EXHIBIT 5
 Debt Capacity Update**

PURPOSE

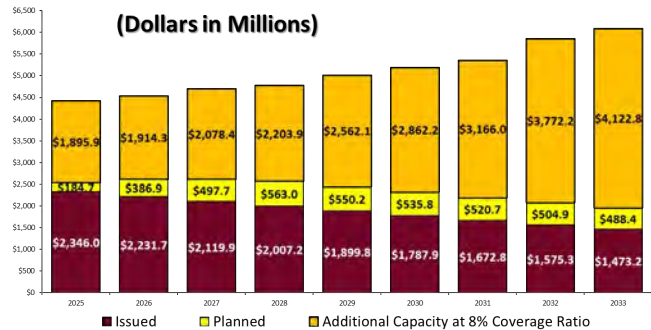
To demonstrate Arizona State University's ability to finance additional capital investment through debt instruments and to fund the related debt service (principal and interest).

PROJECTED DEBT CAPACITY

<i>Maximum Projected Ratio of Debt Service to Total Expenditures Excluding/Including SPEED debt</i>
5.0%/5.4%

Based upon the projects included in this ACP and the first year of the CIP, the maximum projected debt ratio is 5.0 percent in FY 2026. Outstanding debt in FY 2026 is projected to be \$2.62 billion at par, with total annual debt service of \$214.8 million. The 5.0 percent ratio is within the range used by credit rating firms to confirm an institution's creditworthiness and is below the 8 percent statutory maximum.

Currently outstanding (issued) debt declines from \$2.3 billion in FY 2025 to \$1.5 billion in FY 2033 as debt is retired. Planned debt includes future financings of projects included in the first year of the 2026-2029 Capital Improvement Plan (CIP) and projects that have received ACP approval. Additional debt capacity represents debt that can be issued in any given year based on the statutory 8 percent debt ratio maximum.



FUTURE PROJECTS

Future debt-financed projects include those in the first year of the FY 2026-2029 CIP and those projects that have received ACP approval. These projects are included in the future debt capacity assumptions.

	Project Budget	Remaining Amount to be Financed
Polytechnic Research and Educational Building	\$187,000,000	\$43,668,392
ASU Health Building	180,000,000	180,000,000
Building and Infrastructure Enhancements and Modifications	80,000,000	80,000,000
Tempe District Utility Plant	67,165,000	7,000,000
Polytechnic Student Union Expansion	65,236,000	65,236,000
IT Infrastructure Improvements	63,000,000	63,000,000
Research Laboratory Renovations	60,000,000	50,000,000
East Athletic Village Tennis, Track & Field Facilities	49,000,000	49,000,000
Classroom and Academic Renovations	40,000,000	40,000,000
Tempe Campus West Quadrant Utility Expansion	22,000,000	22,000,000
Polytechnic Utilities Expansion	17,300,000	17,300,000
Polytechnic Chilled Water Expansion	10,200,000	10,200,000
	\$ 840,901,000	\$ 627,404,392

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CREDIT RATINGS

Positive rating factors cited by the credit rating agencies include ASU’s strong brand and strategic position that has translated into rising net revenues, enrollment growth, growing tuition and fee revenues, growth in sponsored research, and solid donor support; excellent financial policy; strong risk profile, solid operating performance; and disciplined capital investment.

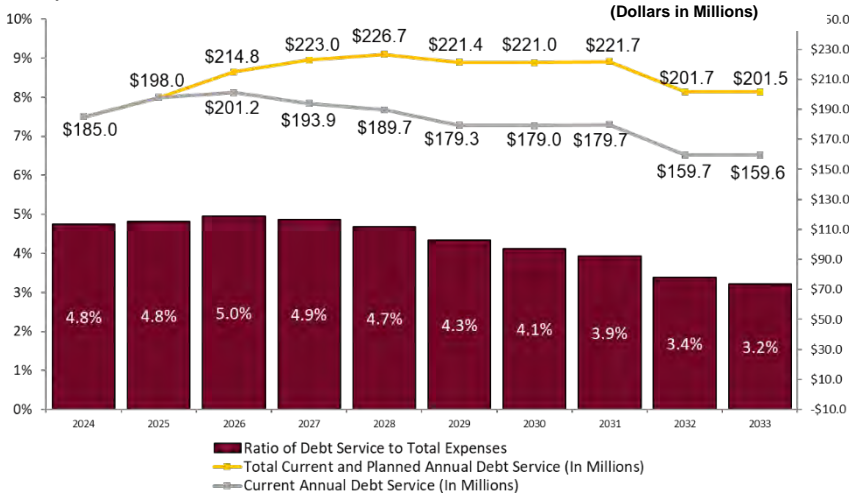
Offsetting factors identified by the agencies include high debt levels, ongoing capital needs, modest state support, exposure to the competitive online education market, and limited revenue diversity with high student dependence.

Fiscal Year	Moody's		Standard & Poor's (S&P)	
	Rating	Outlook	Rating	Outlook
2017	Aa3	Positive	AA	Stable
2018	Aa2	Stable	AA	Stable
2019	Aa2	Stable	AA	Stable
2020	Aa2	Stable	AA	Stable
2021	Aa2	Stable	AA	Stable
2022	Aa2	Stable	AA	Stable
2023	Aa2	Stable	AA	Stable
2024	Aa2	Stable	AA	Stable

RATIO OF DEBT SERVICE TO TOTAL EXPENSES

Annual debt service on system revenue bonds and certificates of participation (COPs) is projected to increase from \$185.0 million in FY 2024 to a maximum of \$226.7 million in FY 2028. The projected ratio of debt service to total expenses is expected to reach its highest point in FY 2026 at 5.0 percent.

SPEED (Stimulus Plan for Economic and Educational Development) bonds are funded up to eighty percent by state lottery revenues, with the balance funded by the University. SPEED debt service is excluded from the statutory debt ratio, but if SPEED debt service is included, the highest projected debt ratio increases to 5.4 percent.



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**ASU
Annual Capital Plan – Project Justification Report
Building and Infrastructure Enhancements and Modifications**

Background/History of Previous Board Action

- FY 2025–2028 Capital Improvement Plan September 2023

Project Justification/Description/Scope

- This project encompasses enhancements and modifications to ASU buildings and infrastructure across all ASU campuses that will address the university’s primary areas of concern, which include, but are not limited to, life safety deficiencies; aging mechanical; critical building and utility distribution systems; and timeworn and unreliable elevators and roofs.
- Many components of the ASU built environment have exceeded their useful life and some are incapable of effectively supporting the advancement of the university’s mission of academic and research excellence. The planned project will ensure the efficient, reliable and safe operation of all essential campus facilities, infrastructure and systems, including those that must continue without interruption to support the university’s critical academic and research initiatives.
- This project will enhance the quality of the campus infrastructure and systems, enable the university to maintain compliance with code requirements and address ABOR directives to reduce deferred maintenance. Projects essential for life safety, code compliance and the advancement of university strategic initiatives will be given top priority.

Project Delivery Method and Process

- Depending on the nature of the work, components of this project bundle 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 or Design Professional (DP) firm for any components of this project bundle. Contractors and DPs will be selected according to ABOR policy and Arizona law.

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Project Status and Schedule

- DPs will be selected after project approval is in place. The project design will be completed approximately 6-12 months after the DP contract has been 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 is targeted for completion by December 2027.

Project Cost

- The total budget for this project bundle is \$45 million.
- 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 construction manager will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP).
- The total project construction cost is \$34.5 million, but the individual project costs will vary depending on the scope and scale of the building and infrastructure modifications included in this bundle.

Fiscal Impact and Financing Plan

- The \$45 million project will be debt-financed with system revenue bonds and amortized over an approximately twenty-year term. The annual debt service of \$3,306,600 will be funded by tuition revenue and is included in current budget planning.
- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project bundle is 0.07 percent.
- There are no expected increases in operations and maintenance costs associated with this project bundle.

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Occupancy Plan

- This project will not affect occupancy or existing programs but will provide increased infrastructure to support the advancement of the university's academic and research initiatives.

Statutory/Policy Requirements

- ABOR Policy 7-102 requires all Major Capital Projects with an estimated project cost of \$10 million or more to be included in the ACP, including new construction, renovation, infrastructure, information technology and third-party projects.

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Capital Project Information Summary

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

Project Description and Location: These projects encompass enhancements and modifications to ASU buildings and infrastructure that will address the university’s primary areas of concern at all ASU campuses. These concerns include, but are not limited to, life safety deficiencies; the replacement of aging mechanical, critical building and utility distribution systems; and the repair and replacement of timeworn and unreliable elevators and roofs.

Project Schedule:

Planning	November	2022
Design Start	April	2023
Construction Start	November	2024
Construction Completion	December	2027

Project Budget:

Total Project Cost	\$	45,000,000
Total Project Construction Cost	\$	34,500,000
Total Project Cost per GSF	\$	n/a
Construction Cost per GSF	\$	n/a

Estimated Annual O&M Cost:

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

Funding Sources:

A. System Revenue Bonds	\$	45,000,000
Debt Service Funding Source:		Tuition
Operation/Maintenance	\$	0
Funding Source:		Not Applicable

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**Annual Capital Plan – Project Justification Report
Classroom and Academic Renovations**

Background/History of Previous Board Action

- FY 2025 – 2028 Capital Improvement Plan September 2023

Project Justification/Description/Scope

- ASU plans to renovate existing classrooms, create new classrooms of various sizes and add smaller instructional spaces at all campuses. This project bundle will be comprised of approximately 65,274 gross square feet of renovations consisting of university classroom and academic spaces. The renovations may include heating; ventilation and air conditioning (HVAC); plumbing and electrical; flooring; ceiling; roof; elevator; window; door; internal wall; and partition components; as well as upgrades to address life safety and Americans with Disabilities Act deficiencies. This project will be comprised of multiple components at each ASU campus.
- The ASU Enterprise Strategic Framework identifies several goals that will be supported by this project bundle, including improved retention and graduation performance, curricular reform, and improved student outcomes. The resources needed to achieve these goals include a continued investment in faculty and in space renovations that will support teaching innovations and improved student and faculty interactions. This project will renovate worn areas that distract from teaching and learning effectiveness and create updated and growth spaces for academic programs to enable student learning and success.
- The components included in this project bundle will enhance the quality of the built environment, comply with code requirements for safety, and reduce deferred maintenance. Project components essential for life safety and code compliance and those that support university strategic initiatives will be given top priority.

Project Delivery Method and Process

- Depending on the nature of the work, components of this project bundle may be delivered through either the CMAR or the JOC method.
- ASU has not yet selected a CMAR, JOC contractor or DP firm for any components of this project bundle. Contractors and DPs will be selected according to ABOR policy and Arizona law.

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Project Status and Schedule

- DPs will be selected after project approval is in place. The design will be completed within approximately 6-12 months after the DP contract is awarded.
- General construction for these projects is scheduled to begin when the design is complete and after all approvals are in place. Construction on all project components is targeted for completion by December 2027.

Project Cost

- The total budget for this project bundle is \$25 million. This budget represents an estimated construction cost of \$268 per GSF. The estimated total project cost is \$383 per GSF.
- For this ACP 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 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 construction manager will be at risk to provide the completed project within the agreed-upon GMP.

• **Comparable Projects:**

Project	Location	Project Size GSF	Total Project Cost/GSF	Year Constructed
SSV Enrollment Services Office Renovation- 102079	Tempe	8,900	\$266	2022
PSF 6th Floor Renovations 102525	Tempe	18,995	\$367	2022
Payne LL Renovation to University Classrooms	Tempe	9,874	\$292	2022
FY 21 UCL Summer Renovations 102516	Tempe	6,611	\$194	2021
AZCT Mindfulness Center and CISA Office and Classroom	Tempe	600	\$435	2021
Sun Devil Hall Interplanetary Initiative	Tempe	6,298	\$533	2021
Average Comparable Total Project Cost			\$348	

Fiscal Impact and Financing Plan

- The \$25 million project bundle will be debt-financed with system revenue bonds and amortized over an approximate twenty-year term. The annual debt service of \$1,837,000 will be funded by tuition revenue and is included in current budget planning.

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- There are no expected increases in O&M costs associated with this project bundle.
- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project bundle is 0.04 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.

Statutory/Policy Requirements

- ABOR Policy 7-102 requires all major capital projects with an estimated total project cost of \$10 million or more to be included in the Annual Capital Plan, including new construction, renovation, infrastructure, information technology, or third-party projects.

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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 encompasses the renovation of approximately 65,274 GSF of classroom and academic space, including faculty and student space at all ASU campuses. The renovations will include HVAC, plumbing and electrical, flooring, ceiling, roof, elevator, window, door, internal wall and partition components, as well as upgrades to address life safety and Americans with Disabilities Act deficiencies.

Project Schedule:

Planning	April	2023
Design Start	April	2023
Construction Start	November	2024
Construction Completion	December	2027

Project Budget:

Total Project Cost	\$	25,000,000
Total Project Construction Cost	\$	17,500,000
Total Project Cost per GSF	\$	383
Construction Cost per GSF	\$	268

Estimated Annual O&M Cost:

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

Funding Sources:

A. System Revenue Bonds	\$	25,000,000
Debt Service Funding Sources:		Tuition
Operation/Maintenance	\$	0
Funding Sources:		Not applicable

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**Arizona State University
Annual Capital Plan - Project Justification Report
Research Laboratory Renovations**

Previous Board Action

- FY 2025 – 2028 Capital Improvement Plan September 2023

Project Justification/Description/Scope

- ASU plans to renovate approximately 35,885 GSF of laboratories and associated spaces across all ASU campuses to meet growing demand based on increased student enrollment, new programs as well as updated research requirements. Many existing laboratories and building systems are inadequate due to age and the requirements of emerging technologies.
- Multiple wet and dry laboratory spaces will be upgraded to provide future flexibility and better space utilization through shared services. These planned renovations will ensure that existing facility systems meet the growing demands of the university's research initiatives and comply with code requirements.
- Many existing university laboratories and building systems are inadequate, due to age and the requirements of emerging technologies. The poor condition of these spaces and the age of the building systems constrain the development of these strategically important areas. This project will convert inadequate research laboratories into state-of-the-art facilities that will meet the growing demands of the university's research initiatives and comply with code requirements.
- Increasing research activity and the resultant arrival of new faculty continue to make laboratory renovation projects a university imperative. Spaces must be updated and renovated to address the needs of incoming researchers and to support successful grant applications. These laboratories will provide the core infrastructure required to enable faculty and students to compete in the global marketplace of ideas, not only stimulating advances in science and human health, but also potentially advancing the regional economy.
- The university's 2021 Masterplan Update identified a need for additional research space. This project bundle will contribute to meeting this need and accomplishing the goal of establishing the university as a leading global center for interdisciplinary research, discovery and development by 2029.

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Project Delivery Method and Process

- Depending on the nature of the work, components of this project bundle may be delivered either through the CMAR or the JOC method.
- ASU has not yet selected a CMAR, JOC contractor or DP firm for any components of this project bundle. Contractors and DPs will be selected according to ABOR policy and Arizona law.

Project Status and Schedule

- DPs will be selected after project approval is in place. The design will be completed within approximately 6-12 months after the DP contract is awarded.
- General construction for these projects is scheduled to begin when the design is complete and after all approvals are in place. Construction on all project components is targeted for completion by December 2027.

Project Cost

- The total budget for this project bundle is \$30 million. This budget represents an estimated construction cost of \$585 per gross square foot. The estimated total project cost is \$836 per gross square foot.
- For this ACP 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 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 construction manager will be at risk to provide the completed project within the agreed-upon GMP.
- Comparable Projects:

Project	Location	Project Size GSF	Total Project Cost/GSF	Year Constructed
ISTB1 Basement Surgical Suite	Tempe	400	\$765	2022
PSC 1st Floor Redding Lab Relocation	Tempe	3,300	\$683	2022
CLCC 3rd Floor Research Labs	Tempe	2,144	\$986	2022
MTW Area 5 Rolston Lab Renovation	Tempe	860	\$1,274	2022
MTW Area 3 & 5 Lab TI	Tempe	4,306	\$1,254	2022
Average Comparable Total Project Cost			\$1,006	

EXECUTIVE SUMMARY

Fiscal Impact and Financing Plan

- The \$30 million project bundle will be debt-financed with system revenue bonds and amortized over an approximate twenty-year term. The annual debt service of \$2,300,200 will be funded by tuition revenue and is included in current budget planning.
- There are no expected increases in O&M costs associated with 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 and support the advancement of the university's research initiatives.

Statutory/Policy Requirements

- ABOR Policy 7-102 requires all major capital projects with an estimated total project cost of \$10 million or more to be included in the Annual Capital Plan, including new construction, renovation, infrastructure, information technology, or third-party projects.

EXECUTIVE SUMMARY

Capital Project Information Summary

University: Arizona State University **Project Name:** Research Laboratory Renovations

Project Description and Location: This project bundle will encompass the renovation of approximately 35,885 GSF of laboratories and associated spaces across all ASU campuses to meet growing demand based on increased student enrollment, new programs as well as updated research requirements. Multiple wet and dry lab spaces, as well as infrastructure and building systems, will be upgraded to maximize adaptable and flexible technologies.

Project Schedule:

Planning	April	2023
Design Start	April	2023
Construction Start	November	2024
Construction Completion	December	2027

Project Budget:

Total Project Cost	\$	30,000,000
Total Project Construction Cost	\$	21,000,000
Total Project Cost per GSF	\$	836
Construction Cost per GSF	\$	585

Estimated Annual O&M Cost:

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

Funding Sources:

A: System Revenue Bonds	\$	30,000,000
Debt Service Funding Sources:		Tuition
Operation/Maintenance	\$	0
Funding Sources:		Not Applicable

EXECUTIVE SUMMARY

**ASU
Annual Capital Plan – Project Justification Report
Poly Chilled Water Expansion**

Background/History of Previous Board Action

- No previous action
- Requesting waiver

Project Justification/Description/Scope

- This project expands the infrastructure of the hydronic loop and distribution network for chilled and heated water at the Chilled Water Plant (CWP) on the Polytechnic campus to accommodate the planned Student Union (UNION) expansion and renovation as well as future developments. The expansion will run north from 7152 Unity Avenue along Terripin Mall and then east on E. Sonoran Arroyo Mall, as depicted on the map attached as Exhibit C.
- The project will enhance the capabilities of the campus utility infrastructure and systems as well as enable the university to look ahead at additional development to enhance the Polytechnic campus with new academic, laboratory and student housing projects.
- The existing hydronic loop serving the UNION will be extended from CWP to Chilled Water Plant 2 (CWP2) with a 24-inch chilled water header in Terripin Mall. New 20-inch chilled water lines will be installed and run north to Sonoran Arroyo where a 16-inch stub-out will be installed for future Gateway Plaza developments to the north.
- The loop expansion also will expand east with the installation of 16-inch lines in the center wash area of Sonoran Arroyo. It includes the installation of four crosstie connections to the existing campus loop to improve circulation and cooling capability to campus buildings. It includes the installation of an additional eight-inch lateral line that will run north to the UNION. The main advantage of network crossties is the improved efficiency, operation and circulation of chilled and heated water to serve the planned UNION expansion and future developments.
- ASU is requesting a waiver of the ABOR Policy requiring CIP approval. The project was not originally included on the previous CIP, which was approved by ABOR on September 28, 2023.

EXECUTIVE SUMMARY

Project Delivery Method and Process

- The project will be constructed through the Design Build (DB) delivery method to streamline project delivery and alleviate potentially adversarial project environments.
- ASU will solicit invitations to bid via a RFQ process in accordance with ABOR requirements for the construction of the project.

Project Status and Schedule

- The project is scheduled to begin construction in May 2025. The project is scheduled for completion in December 2025.

Project Cost

- The total budget for this project is \$10.2 million. The budget represents an estimated construction cost of \$7.6 million.
- Comparable Projects:

Project	Description	Location	Project Size GSF	Total Project Cost/GSF	Year Completed
Polytechnic Utilities Expansion	New 3,000 GSF chiller plant and utility infrastructure	Tempe	3,000	\$5,667	2025
INTDSAB Wet Utilities Pipe Replacement	Replaced chilled water and steam utility pipes inside Interdisciplinary A & B buildings	Tempe	91,000	\$50	2020
Infrastructure Phase VI	Renovations to existing Arizona Health Sciences Center Central Heating and Refrigeration Plant including two 5,000-ton chillers and three 30,000 LB/HR broilers	Tucson	36,221	\$511	2006
Average Comparable Total Project Cost				\$2,076	

Fiscal Impact and Financing Plan

- The \$10.2 million project will be debt-financed with system revenue bonds and amortized over an approximate twenty-year term. The annual debt service of \$782,100 will be funded by tuition and is included in current budget planning.
- **Debt Ratio Impact:** The projected incremental debt ratio impact for this project bundle is 0.02 percent.

EXECUTIVE SUMMARY

- There are no expected increases in O&M costs associated with this project.

Occupancy Plan

- Most construction will take place during the summer months when the campus is less populated. The project will require construction fencing around the site's trenching to install the piping and associated infrastructure for the expansion of the hydronic loop. New wayfinding signage will be installed to redirect pedestrians and traffic throughout the duration of the project.

Statutory/Policy Requirements

- ABOR Policy 7-102 requires all Major Capital Projects with an estimated project cost of \$10 million or more to be included in the ACP, including new construction, renovation, infrastructure, information technology and third-party projects.
- Pursuant to ABOR Policy 7-102.B.2.a.(1), if a project has not appeared in the prior CIP, a waiver of this board policy can be requested in order for a project to appear on an ACP. ASU seeks an exception to the policy for this project to expand the infrastructure of the hydronic loop and distribution network for chilled and heated water at the Chilled Water Plant on the Polytechnic campus to accommodate the planned Student Union expansion and renovation, as well as future developments.

EXECUTIVE SUMMARY

Capital Project Information Summary

University: Arizona State University **Project Name:** Poly Chilled Water Expansion

Project Description and Location: This project expands the hydronic loop and distribution network for chilled and heated water at CWP on the Polytechnic campus to accommodate the Student Union expansion and renovation, as well as future developments. The expansion will run north from 7152 Unity Avenue along Terripin Mall and east on E. Sonoran Arroyo Mall, as depicted on the map attached as Exhibit C.

Project Schedule:

Planning	June	2024
Design Start	October	2024
Construction Start	May	2025
Construction Completion	December	2025

Project Budget:

Total Project Cost	\$	10,200,000
Total Project Construction Cost	\$	7,615,000
Total Project Cost per GSF	\$	n/a
Construction Cost per GSF	\$	n/a

Estimated Annual O & M Cost:

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

Funding Sources:

A. System Revenue Bonds	\$	10,200,000
Debt Service Funding Source:		Tuition
B. Operations/Maintenance	\$	0

EXECUTIVE SUMMARY

Capital Project Budget Summary

University: Arizona State University
Project: Poly Chilled Water Expansion

	Annual Capital Plan
Capital Costs	
1. Land Acquisition	
2. Construction Cost	
A. New Construction	
B. Tenant Improvement	
C. Special Fixed Equipment	
D. Site Development (excl. 2.E.)	
E. Parking and Landscaping	615,000
F. Utilities Extensions	\$ 7,000,000.00
G. Other* (Demolition/abatement)	
Subtotal Construction Cost	\$ 7,615,000.00
3. Fees	
A. CMAR Pre-Construction	\$ 271,000.00
B. Architect/Engineer	\$ 500,000.00
C. Other	\$ 250,000.00
Subtotal Consultant Fees	\$ 1,021,000.00
4. FF&E Movable	
5. Contingency, Design Phase	\$ 77,000.00
6. Contingency, Constr. Phase	\$ 1,050,000.00
7. Parking Reserve	
8. Telecommunications Equipment	
Subtotal Items 4-8	\$ 1,127,000.00
9. Additional University Costs	
A. Surveys, Tests, Haz. Mat. Abatement	
B. Move-in Costs	
C. Printing Advertisement	
D. Keying, signage, facilities support	\$ 10,000.00
E. Project Management Cost	\$ 392,320.00
F. State Risk Mgt. Ins. (.0034 **)	\$ 34,680.00
Subtotal Addl. Univ. Costs	\$ 437,000.00
Total Capital Cost	\$ 10,200,000.00

* 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
 Poly Chilled Water Expansion
 Site Location Map**

