

STATE OF ARIZONA

**Joint Committee on Capital Review**

STATE  
SENATE

ROBERT L. BURNS  
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LINDA AGUIRRE  
TIMOTHY S. BEE  
ROBERT CANNELL  
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RON GOULD  
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1716 WEST ADAMS  
PHOENIX, ARIZONA 85007

PHONE (602) 542-5491

FAX (602) 542-1616

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HOUSE OF  
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TOM BOONE  
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STEPHEN TULLY

JOINT COMMITTEE ON CAPITAL REVIEW

Tuesday, June 28, 2005

1:30 p.m.

Senate Appropriations Room 109

MEETING NOTICE

- Call to Order
- [Approval of Minutes of May 10, 2005.](#)
- DIRECTOR'S REPORT (if necessary).
- 1. [ARIZONA DEPARTMENT OF EMERGENCY AND MILITARY AFFAIRS - Consider Approval of Building Renovation.](#)
- 2. [ARIZONA GAME AND FISH DEPARTMENT - Consider Approval of Capital Project Funding Transfer and Review of Project Scope Changes.](#)
- 3. [DEPARTMENT OF JUVENILE CORRECTIONS / ARIZONA DEPARTMENT OF ADMINISTRATION - Review of Department of Juvenile Corrections Vocational Education Remodel.](#)
- 4. [ARIZONA DEPARTMENT OF TRANSPORTATION - Review of FY 2006 Construction Budget Operating Expenditure Plan.](#)
- 5. [SCHOOL FACILITIES BOARD - Review of New School Construction Report and New School Facilities Fund Litigation Account.](#)
- 6. [NORTHERN ARIZONA UNIVERSITY - Review of Research Infrastructure Lease-Purchase Projects.](#)

(Continued)

7. ARIZONA STATE UNIVERSITY
  - A. Review of Infrastructure and Sewer Systems Bond Projects.
  - B. Review of Revised Project Costs and Scopes.
8. UNIVERSITY OF ARIZONA
  - A. Review of New System Bond Capital Projects.
  - B. Reports on Capital Project Contingency Allocations.

The Chairman reserves the right to set the order of the agenda.

06/21/05

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**MINUTES OF THE MEETING  
JOINT COMMITTEE ON CAPITAL REVIEW**

Tuesday, May 10, 2005

The Chairman called the meeting to order at 8:40 a.m. Tuesday, May 10, 2005 in Senate Appropriations Room 109 and attendance was as follows:

Members: Senator Burns, Chairman  
Senator Bee  
Senator Cannell  
Senator Giffords  
Senator Johnson

Representative A. Aguirre  
Representative Biggs  
Representative Boone  
Representative Brown  
Representative Lopes

Absent: Senator L. Aguirre  
Senator Gould

Representative Pearce, Vice-Chairman  
Representative Tully

*Senator Burns moved the Committee approve the minutes of February 9 and 10 and February 22, 2005 as presented. The motion carried.*

**PINAL COMMUNITY COLLEGE DISTRICT – Review of Bond Projects**

Mr. Jake Corey, JLBC Staff, presented the Pinal Community College District (PCCD) request that the Committee review its \$435.2 million General Obligation (GO) bond proposal. The GO proceeds would be combined with \$47.8 million from revenue bond proceeds for a total of \$482.9 million. Proceeds would be used to fund construction and renovation projects to address student growth in the district. The bonds would be issued in four installments every five years, with the first issuance occurring in FY 2006.

There was no discussion on this item.

*Representative Boone moved the Committee give a favorable review to the Pinal Community College District \$435.2 million General Obligation (GO) bond proposal, with the provision that the district return to the Committee for review prior to each actual GO bond issuance. The motion carried.*

**YUMA-LA PAZ COMMUNITY COLLEGE DISTRICT – Review of General Obligation Bond Issuance**

Mr. Jake Corey, JLBC Staff, presented the Yuma-La Paz Community College District request that the Committee review its proposed \$20 million General Obligation (GO) bond issuance. The board was authorized by a November 2004 bond election to issue a total of \$73.9 million in bonds. The board plans to issue \$20 million in bonds now and the remaining \$53.9 million in June 2006. Previously, the Committee gave a favorable review to the entire \$73.9 million bond proposal, with the provision that the district return for Committee review prior to each actual bond issuance.

The district plans to issue a total of \$20 million in bonds in FY 2005. Over a 25-year period, with an estimated interest rate of 5%, total interest payments would equal \$15.2 million. Total debt service would be approximately \$35.2 million.

There was no discussion on this item.

*Representative Boone moved the Committee give a favorable review to the Yuma-La Paz Community College District proposed \$20 million General Obligation bond issuance, with the provision that the district submit the remaining \$53.9 million prior to issuing those bonds. The motion carried.*

#### **ARIZONA EXPOSITION & STATE FAIR BOARD – Review of FY 2005 Building Renewal Allocation Plan**

Nick Klingerman, JLBC Staff, presented the Arizona Exposition & State Fair Board (AESF) request that the Committee review its FY 2005 Building Renewal allocation plan of \$1,007,000 and that \$240,400 from the appropriation be available for contingencies. AESF was appropriated a total of \$1,247,400 for building renewal in FY 2005.

The 5 projects include security fencing replacement, asphalt reconstruction, Coliseum roof repair, light fixture replacement and underground cabling.

Senator Giffords asked what other activities will benefit from the building renewal projects. Don West, Deputy Director, AESF stated that the non-fair activities that will benefit include home and garden shows, gun shows, volunteer nurse's book sale, antique markets and herb shows. There are approximately 116 non-fair events per year in addition to the 18 days of the State Fair that will benefit from the projects.

Senator Cannell asked where the excess revenues go. Mr. Klingerman stated that the fair has their own fund so any excess revenues remain in the State Fair Fund.

*Representative Boone moved that the Committee give a favorable review to the Arizona Exposition and State Fair (AESF) FY 2005 Building Renewal Allocation plan of \$1,007,000 for the 5 submitted projects with the following provisions:*

- *AESF be allowed to allocate \$100,000 from the remaining \$240,400 as a contingency amount if needed to complete the projects.*
- *AESF submit for Committee review an allocation plan for the remaining \$140,400 if monies are to be used for new projects.*

The motion carried.

#### **ARIZONA DEPARTMENT OF ADMINISTRATION – Review of Revised FY 2005 Building Renewal Allocation Plan**

Jeremy Olsen, JLBC Staff, presented the Arizona Department of Administration request that the Committee review the revised FY 2005 Building Renewal allocation plan. The Committee had favorably reviewed the expenditure of \$2,766,000 from this fund in previous meetings, leaving \$734,000 unallocated. The department's request includes reallocating \$200,000 from a \$300,000 air handler building renewal project at a Department of Corrections facility. This \$200,000 reallocation would increase the unallocated amount to \$934,000. Of the \$934,000, \$812,000 would be allocated to the requested projects and the remaining \$122,000 would be available for emergency projects (in addition to \$665,000 previously authorized for emergency projects).

There was no discussion on this item.

*Representative Boone moved that the Committee give a favorable review to the \$812,000 revised building renewal request and \$200,000 reallocation, with the provision that the department continue to report to JLBC Staff on allocations from the \$787,000 available for emergency projects. The motion carried.*



## **ARIZONA BOARD OF REGENTS – Report on Private Office Leases**

Ms. Shelli Carol, JLBC Staff, presented the Arizona Board of Regents report for FY 2003 and FY 2004 private office leases that exceeded the average lease cost per square foot determined by the Lease Cost Review Board (LCRB). LCRB determined a \$17.25 average private lease rate for FY 2003 and an \$18.25 average private lease rate for FY 2004. Additionally, LCRB estimates the average per square foot cost for leasing privately owned space will remain at \$18.25 through FY 2006 and FY 2007.

Of the 169 private leases approved by ABOR in FY 2003, 30 exceeded the \$17.25 per square foot estimate for private office space. Of the 186 private leases approved by ABOR in FY 2004, 32 exceeded the \$18.25 per square foot estimate for private office space.

The actual ABOR average lease rate in FY 2004 was around \$16.70.

Senator Cannell asked if it would be better to build buildings instead of paying lease space in certain remote areas.

In response to Senator Cannell, Lorenzo Martinez, JLBC Staff, stated that some of the remote areas have historically had higher lease costs because rental space is limited and the demand for space may increase lease costs. Typically, the amount of space the state needs in remote areas is insufficient to make constructing a state building feasible.

This item is for information only and no Committee action is required.

Without objection the Committee adjourned at 9:00 a.m.

Respectfully submitted:

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Jan Belisle, Secretary

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Lorenzo Martinez, Assistant Director

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Senator Bob Burns, Chairman

STATE OF ARIZONA

**Joint Committee on Capital Review**

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STEPHEN TULLY

DATE: June 13, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Jeremy Olsen, Fiscal Analyst

SUBJECT: Arizona Department of Emergency and Military Affairs – Consider Approval of  
Building Renovation

**Request**

The Arizona Department of Emergency and Military Affairs (DEMA) requests Committee approval of the renovation of a fire station acquired from the City of Tempe, which the department will utilize as a readiness center. A.R.S. § 26-231 allows the Department of Emergency and Military Affairs to utilize monies deposited in the Armory Property Fund for the construction and capital improvement of national guard armories, subject to the approval of the JCCR.

**Recommendation**

JLBC Staff recommends approval of the use of up to \$1,366,000 from the State Armory Property Fund for renovations to the Tempe fire station, with the provision that the department return for approval after defining the scope and estimated cost of the project.

**Analysis**

The department has arranged to exchange the Tempe Armory, which is located on 1.65 acres situated on the southeast corner of Stadium Drive and College Avenue, with the City of Tempe in exchange for a Fire Station which sits on 2.34 acres near Rural Road and University Avenue. The fire station will be converted into a new armory by the department, and the old armory will be conveyed by the City to a private developer. The department would also receive \$1,366,000 from the exchange, which would be used to pay for the modifications to convert the fire station to a readiness center.

(Continued)

The Tempe armory was constructed in 1954 and is 5,964 square feet in size, and is currently vacant. The property also contains a vehicle storage building which was built in 1949, and is approximately 5,348 square feet in size. The fire station to be acquired was built in 1965 and is 15,956 square feet in size. The department intends to convert the fire station to a readiness center, which would house the 123<sup>rd</sup> Public Affairs detachment and the 108<sup>th</sup> Army band units when completed. These units have recently returned from active duty and will be housed in renovated readiness center. Currently both units are assigned space in armories which are over capacity.

The department plans to use the \$1,366,000 received from the exchange to fund the renovations. The appraised value of the Tempe armory is \$2,700,000, while the value of the fire station parcel is \$1,334,000. The difference in the appraised value of the properties, \$1,336,000, equals the cash payment to be received by the department. DEMA has not developed a detail scope or cost estimates for the project.

RS/JO:ym



**ARIZONA DEPARTMENT OF EMERGENCY AND  
MILITARY AFFAIRS  
JOINT PROGRAMS DIVISION**

5636 East McDowell Road, Building M5101, Phoenix, Arizona 85008-3495



JANET NAPOLITANO  
GOVERNOR

DAVID P. RATACZAK  
THE ADJUTANT GENERAL

May 3, 2005

Senator Robert Burns  
Chairman, Joint Committee on Capital Review  
1700 W Washington  
Phoenix, AZ 85007



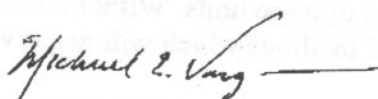
Dear Senator Burns,

I respectfully request that the sale of the Tempe Armory be on the agenda for the May Joint Committee on Capital Review meeting.

The Arizona National Guard is seeking approval for the sale of the Tempe Armory in partnership with the City of Tempe and the purchase of the Tempe Fire Station to be converted into a readiness center. Attached is an information paper on this issue.

Thank you for your favorable consideration.

Sincerely,

  
Michael E. Virgin  
Director  
Joint Programs

cc: Jeremy Olson, JLBC  
Attachment

## Information Paper on the Sale of the Tempe Armory

### Purpose:

In partnership with the City of Tempe, the Arizona National Guard will sell the Tempe Armory at the appraised value. The Armory first must be transferred to the City of Tempe because of the reversionary clause that states that once the Armory is no longer used for military purposes the property reverts back to the City of Tempe. Once the property is transferred, the City of Tempe will sell the Armory and turn the proceeds over to the National Guard. The National Guard will then purchase and convert the Tempe Fire Station into a new readiness center.

### Cost of Armory:

The Armory site is approximately 1.68 net acres located on the SEC of Stadium Drive and College Ave. The appraised value of the property is \$34.64/net square foot of land or approximately \$2,540,000.

### Cost of Fire Station:

The fire station is approximately 2.34 acres located east of Rural Rd on the North side of University Drive in Tempe. The National Guard will purchase the Fire Station from the City of Tempe for \$1,100,000.

There will be approximately 1.5 million dollars in profit after the purchase of the Fire Station. This money will be used to renovate and convert the Fire station into a readiness center.

### Units:

The new readiness center will be utilized by the 123<sup>rd</sup> Public Affairs Detachment and the 108<sup>th</sup> Army Band.

### Benefits:

These units have never had their own readiness center and the new development will aide current soldiers and facilitate recruiting efforts. This facility will include new classrooms, a drill floor, and many other means to aid in the training of these units. Without this facility, it will force the continued use of other crowded facilities which will negatively impact troop readiness and morale.

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DATE: June 13, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Jeremy Olsen, Fiscal Analyst

SUBJECT: Arizona Game and Fish Department – Consider Approval of Capital Project  
Funding Transfer and Review of Project Scope Changes

**Request**

The Arizona Game and Fish Department (AGFD) request the Committee:

- 1) Approve a transfer of a FY 2003 allocation of \$50,000 from the Game & Fish fund for the Deer Valley Paving project to the Pinetop Regional Office Paving project;
- 2) Review the reallocation of a FY 2005 allocation of \$150,000 from the Game & Fish Capital Improvement fund for the Ben Avery safety berm project to the Ben Avery electrical/lighting project.

Committee review of capital projects is required pursuant to A.R.S. § 41-1252, and Committee approval of transfers between capital projects is required pursuant to A.R.S. 35-173.

**Recommendation**

The JLBC Staff recommends:

- 1) The Committee approve the transfer of \$48,500 from the Deer Valley Headquarters paving project to the Pinetop regional office paving project. Any unexpended monies should revert to the fund from which they were appropriated at completion of these projects.
- 2) The JLBC Staff is working with the department to further clarify the components of the Ben Avery Shooting Range electrical/lighting project and reasonableness of the cost estimates. JLBC Staff will have further comments for the Committee by the time of the meeting.

(Continued)

## **Analysis**

### Pinetop Regional Office Paving

Laws 2004, Chapter 276 appropriated \$50,000 from the Game & Fish Capital Improvement Fund in FY 2005 for a paving project at the department's Deer Valley Headquarters. Since that time, AGFD has begun evaluating the feasibility of relocating its headquarters building to property adjacent to the Ben Avery shooting range. Given the uncertainty regarding the headquarters facility, the department is requesting the funding be transferred to the Pinetop paving project, which was authorized in FY 2004 and was favorably reviewed by the Committee in November 2003. The \$310,000 allocated for a new warehouse and paving was insufficient to complete the paving.

The Department requires additional funding to complete the paving, and has received a bid of \$48,500. This would bring total costs of the Pinetop warehouse project to \$358,500. The additional funding would pave the entry and exit driveways at the Pinetop regional office with 3 inches on a 6 inch asphalt base. Given that the amount represents the low bid, JLBC Staff recommends a favorable review. A.R.S. § 35-173 requires Committee approval of funding transfers between capital projects.

### Ben Avery Shooting Range Facility Improvements

Laws 2001, Chapter 237 appropriated \$170,000 in each of FY 2002 and FY 2003 from the Game and Fish Fund for facilities improvements at the Ben Avery Shooting Range (BASR) and two wildlife areas. The department was able to construct safety berms at the BASR with materials donated by developers from a nearby project (Anthem). A.R.S. § 41-1252 requires Committee review of capital projects.

Of the original appropriation, the department has \$146,000 remaining and is requesting Committee review to reallocate funding for a project which would provide lighting and electrical system upgrades at the main shooting range. Total costs for the project are estimated to be \$270,000. The additional \$124,000 required to complete the project will come from a FY 2005 building renewal allocation of \$80,000, and the remaining \$44,000 would be provided from FY 2006 building renewal funds. The department is required to submit a building renewal allocation plan to the Committee for review, and will submit its FY 2006 building renewal allocation plan at a future date.

JLBC staff is working with the department to further clarify the components of the project and reasonableness of its cost estimates. JLBC Staff will provide the Committee with a recommendation by the time of the meeting.

RS/JO:ym



THE STATE OF ARIZONA  
**GAME AND FISH DEPARTMENT**

2221 WEST GREENWAY ROAD, PHOENIX, AZ 85023-4399  
(602) 942-3000 • AZGFD.GOV

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WILLIAM H. MCLEAN, GOLD CANYON  
SUSAN E. CHILTON, ARIVACA  
DIRECTOR  
DUANE L. SHROUFE  
DEPUTY DIRECTOR  
STEVE K. FERRELL



April 28, 2005

Representative Robert Burns, Chairman  
Joint Committee on Capital Review  
Arizona House of Representatives  
Capitol Complex  
1700 W. Washington  
Phoenix, AZ 85007-2890



Re: Request for Placement on Joint Committee on Capital Review Agenda – May 2005

Dear Representative Burns:

The Arizona Game & Fish Department requests placement on the May 2005 agenda of the Joint Committee on Capital Review to review the following:

1. Re-title of Deer Valley Paving appropriation to "Pinetop Regional Office Paving."
2. Re-title of Ben Avery Safety Berms appropriation to Ben Avery Electrical/Lighting Upgrades."

The information for this request is attached.

Sincerely,

Fred J. Bloom, P.E.  
Engineering and Construction Manager

FJB:fb

cc: David Jankofsky, Director, OSPB  
Representative Russell K. Pearce  
Representative Tom Boone  
Richard Stavneak, Staff Director, JLBC  
✓ Lorenzo Martinez, JLBC  
Jeremy Olsen, JLBC  
Anthony Guiles, Legislative Liaison, Arizona Game and Fish Department

Enclosure



## **ARIZONA GAME AND FISH DEPARTMENT JUSTIFICATION FOR RETITLING OF APPROPRIATIONS**

### ***Re-titling of the BASF Safety Berm Appropriation***

The Department currently has a COLBI facilities improvement appropriation for "Safety Berms at Ben Avery Shooting Facility" for \$150,000. The primary intent for this funding was to construct the lateral safety berms along the high power range. The lack of these berms has affected the associated safety zone such that operation of this range places a constraint on scheduling of other range activities. Recently the Department has had the benefit of receiving large volumes of material generated from the development occurring in the Anthem area, at literally no cost. The supplier has placed this material so as to roughly construct the safety berms mentioned above, with our heavy equipment crews performing final shaping and grading.

Recently, we have been working on design plans and specifications for two major electrical system upgrade projects, one at the main range and one at the clay target center. The estimated cost for the main range upgrades and lighting is \$270,000. Planned funding for this project includes building renewal with some range development funds. The Department is requesting that JCCR approve re-titling the safety berm appropriation to "BASF Electrical/Lighting Upgrades," which will increase available funding as to allow us to proceed with this project.

### ***Re-titling of the Deer Valley Paving Project***

The Department currently has a COLBI facilities improvement appropriation for "Deer Valley Paving" for \$50,000. However, the Department has initiated the process for its plan to construct a new state headquarters facility at its Ben Avery Shooting Facility site. The Phase I (Qualifications, Experience and Approach) Request For Proposals (RFP) was advertised on February 9, 2005, with proposals submitted on March 31, 2005. The results of this first phase of the proposal process indicate that the Department's plan to relocate its headquarters is feasible. As such the Department feels it is prudent to defer any further improvements to its Deer Valley facilities.

There is currently an urgent need to pave the entry and exit driveways and ADOT R/W approaches at the Department's Region 1 office in Pinetop. A recent bid for this work came in at \$48,500. The Department is requesting that JCCR approve re-titling the Deer Valley paving appropriation to "Pinetop-Region 1 Paving," which will allow us to proceed with this project.

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DATE: June 22, 2005

TO: Senator Robert Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Kimberly Chelberg, Fiscal Analyst

SUBJECT: Department of Juvenile Corrections / Arizona Department of Administration – Review of  
Department of Juvenile Corrections Vocational Education Remodel.

**Request**

At its February 2005 meeting, the Committee considered a Department of Juvenile Corrections (DJC) request to use FY 2005 operating budget monies to convert a housing unit to a vocational education unit in order to address a federal audit. The Committee referred the item to the full Legislature to be considered during the budget process for FY 2006. As a result, the General Appropriations Act (Laws 2005, Chapter 286) includes a footnote authorizing the Department of Juvenile Corrections (DJC) to use \$6,674,800 of its FY 2006 operating budget to address operating and capital issues related to the federal audit.

DJC is requesting Committee review of its proposal to use \$489,500 to convert an existing Black Canyon housing unit to a vocational education unit.

**Recommendation**

The JLBC Staff recommends a favorable review of the request with the provision that any future request to use FY 2006 operating budget monies for audit-related capital projects include a comprehensive plan of prioritized projects.

**Analysis**

In FY 2004, DJC was investigated by the U.S. Department of Justice for violations of the Civil Rights of Institutionalized Persons Act (CRIPA), and signed a Memorandum of Agreement on September 15, 2004. This agreement requires the DJC to improve certain programs and facilities, including suicide prevention, special education, medical care, and mental health care. DJC is authorized to use to use \$6,674,800 of its FY 2006 operating budget to address operating and capital issues related to the federal audit.

(Continued)

The Department of Juvenile Corrections is proposing to remodel a building at the Black Canyon Girls School for an expanded educational program, which will offer instruction in computer training and repair, cosmetology, and culinary arts. The building is currently closed as a result of a reduced population, but contains space for 24 beds.

DJC maintains that the Black Canyon project addresses the federal audit in that as special education programs and instructors are added, additional space will be required for classes to maintain an 8-to-1 student-teacher ratio. As further justification, DJC cites the CRIPA consultant's First Semi-Annual Report, which notes the potential need for facility modifications if new vocational education electives are added.

Of the entire 6,400 square foot building, 2,470 square feet would be remodeled at a direct construction cost of \$332,200, or \$134 per square foot. Total project costs equate to \$198 per square foot. The project includes \$80,000 in equipment costs necessary for the kitchen component of the project. The costs appear reasonable given that the scope of renovations includes extensive plumbing and electrical system upgrades and expansions. Construction also includes demolition of existing dorm space and reconstruction to meet the needs of the proposed project.

Estimated costs for the project components are listed in *Table 1*.

**Table 1**

<b><u>Category</u></b>	<b><u>Educational Space</u></b>
Professional Fees	\$ 16,800
Construction Services	332,200
Equipment	80,000
Project Support	23,500
Contingency	<u>37,000</u>
<b>Total</b>	<b>\$489,500</b>

RS/KC:ym



JANET NAPOLITANO  
GOVERNOR

BETSEY BAYLESS  
DIRECTOR

**ARIZONA DEPARTMENT OF ADMINISTRATION**

GENERAL SERVICES DIVISION  
100 NORTH 15<sup>TH</sup> AVENUE, SUITE 202  
PHOENIX, ARIZONA 85007



May 24, 2005

The Honorable Bob Burns  
Joint Committee on Capital Review  
Arizona Senate  
1700 West Washington  
Phoenix, AZ 85007

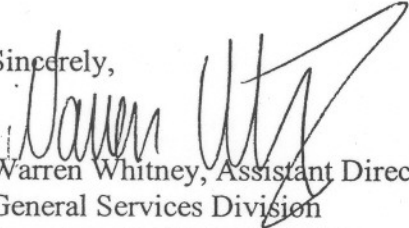
RE: Request for Placement on Joint Committee on Capital Review Agenda

Dear Senator Burns:

The Department of Administration and the Department of Juvenile Corrections request placement on the June 2005 agenda of the Joint Committee on Capital Review for review of the budget proposed for the Department of Juvenile Corrections' Vocation Education Remodel.

The information for this project is attached.

Sincerely,

  
Warren Whitney, Assistant Director  
General Services Division  
Department of Administration

Attachment

c: Representative Russell Pearce, Arizona House of Representatives  
Betsey Bayless, Director, ADOA  
Gary Yaquinto, Director, OSPB  
Bill Greeney, Capital Analyst, OSPB  
Richard Stavneak, Staff Director, JLBC  
Lorenzo Martinez, JLBC  
Alan Ecker, ADOA  
Pat Cruse, ADJC

**ARIZONA DEPARTMENT OF ADMINISTRATION  
100 NORTH 15TH AVENUE, SUITE 202  
PHOENIX, ARIZONA 85007**

**General Services Division/Construction Services  
Department of Juvenile Corrections' Vocation Education Remodel**

**History**

There has been a need for programs and space within the Department of Juvenile Corrections (ADJC) which to implement education and vocational programs. A portion of ADJC's fiscal year 2006 appropriations will be used to renovate the building for culinary and other vocational programs. Listed below is the proposed schedule and budget for construction.

**Project Description**

The project consists of the construction of a vocation education remodel.

***Proposed Completion Dates***

Bid Date	07/15/05
Notice to Proceed	08/15/05
Substantial Completion	12/15/05
Final Completion	01/15/06

***Proposed Budget***

Professional Fees	\$ 16,762
Construction Services	332,200
Equipment	80,000
Project Support	23,539
Contingency	37,000
<i>Total</i>	<i>\$489,420</i>

**Request**

The Department of Administration Construction Service and Department of Juvenile Corrections requests Joint Committee on Capital Review to approve this expenditure.

Prepared by: Bruce Ringwald, General Manager  
General Services Division  
May 24, 2005

STATE OF ARIZONA

**Joint Committee on Capital Review**

STATE  
SENATE

ROBERT L. BURNS  
CHAIRMAN 2005  
LINDA AGUIRRE  
TIMOTHY S. BEE  
ROBERT CANNELL  
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RON GOULD  
KAREN S. JOHNSON

1716 WEST ADAMS  
PHOENIX, ARIZONA 85007

PHONE (602) 542-5491

FAX (602) 542-1616

<http://www.azleg.state.az.us/jlbc.htm>

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REPRESENTATIVES

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RUSSELL K. PEARCE  
STEPHEN TULLY

DATE: June 21, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Bob Hull, Principal Research/Fiscal Analyst

SUBJECT: Arizona Department of Transportation - Review of FY 2006 Construction Budget  
Operating Expenditure Plan

**Request**

In compliance with a Capital Outlay Bill footnote, the Arizona Department of Transportation (ADOT) requests that the Committee review its FY 2006 highway construction budget expenditure plan for Professional & Outside Services (contracted consultants).

**Recommendation**

The JLBC Staff recommends:

1. A favorable review of ADOT's \$97 million Professional & Outside Services expenditure plan for FY 2006.
2. Adoption of the traffic congestion performance measures, with the stipulation that ADOT report on these performance measures as part of next year's Committee review.

In summary, the Staff has recommended a favorable review as the consultants' budget remains in line with previous years. It remains difficult, however, to measure the efficiency of these expenditures. The "traffic congestion" measures have been useful in identifying the targets for future improvements. ADOT is to report on all Maricopa County state highway segments that are "over capacity" for ½ hour or longer along with the department's Executive Summary of the 5-Year Transportation Facilities Construction Program for FY 2006 - FY 2010, which is due by July 31, 2005. More detailed "over capacity" information is not available for the Tucson area.

## Analysis

ADOT's approved operating budget, in the General Appropriation Act (Laws 2005, Chapter 286), includes \$54 million and 616 FTE Positions from the State Highway Fund in FY 2006 for field administration, engineering, and oversight on highway construction projects. Additional monies for consulting services in the capital budget allow ADOT the flexibility to handle any interim changes in the level of funding for highway construction.

The Capital Outlay Bill appropriated \$204 million from the State Highway Fund to ADOT for highway construction in FY 2006. Of the \$204 million, ADOT plans to expend \$97 million for capital construction consultant services. ADOT's projected \$97 million is \$(8) million less than their planned expenditures of \$105 million in FY 2005. Part of the \$(8) million decrease reflects the reallocation of \$2.7 million from Professional and Outside Services in the capital budget to ADOT's operating budget for a 5% salary increase in FY 2006 for participants in ADOT's engineering pay plan.

The following table shows how ADOT's actual expenditures for construction consultant services have varied from the department's planned dollar amounts for the past several fiscal years. It is difficult to evaluate Professional and Outside Services and whether resources are being used efficiently.

ADOT's Construction Budget Professional and Outside Services Expenditure Plan			
	Expenditures		
<u>FY</u>	<u>Plan</u>	<u>Actual</u>	<u>Over/Under Plan</u>
2006	\$97,000,000	-	-
2005	105,000,000	-	-
2004	105,000,000	\$82,000,000	(\$23,000,000)
2003	99,000,000	96,000,000	(3,000,000)
2002	99,000,000	111,000,000	12,000,000
2001	105,000,000	93,000,000	(12,000,000)

## Performance Measures

Last year the Committee adopted the following performance measures, which describe how ADOT's 5-year plan addresses some of the state's most crowded roadways. All the listed "over capacity" highway segments have some action in the 5-Year Plan, which was approved by the State Transportation Board on June 17, 2005. However, ADOT's definition of "over capacity" highway segments only addresses those segments that are "over capacity" for 3 hours during either the morning or afternoon commute for the Phoenix and Tucson areas

The Committee asked ADOT, at its September 21, 2004 meeting, to provide additional information on all Maricopa County state highway segments that are "over capacity" for ½ hour or longer along with the department's Executive Summary of the 5-Year Transportation Facilities Construction Program for FY 2006 - FY 2010, which is due by July 31, 2005. ADOT reports that more detailed "over capacity" information is not available for the Tucson area.

<b>PHOENIX AREA</b>				FY 2003 Actual	FY 2004 Actual	FY 2006 Estimate
<ul style="list-style-type: none"> <li>Percent of state highway system with traffic volume over 100% of capacity during 3 hours of the morning or afternoon commute in Phoenix Metro area</li> </ul>				14	14	14
<b>Phoenix Metro Area Highway Segments Over 100% of Capacity During Peak Driving Periods</b>						
<u>Action in 5-Year Plan</u>	<u>Route</u>	<u>Segment</u>	<u>ADOT Action</u>			
Yes	I-10	Agua Fria - I-17	General purpose lanes; completion FY 08			
Yes	I-10	Baseline Rd - 40 <sup>th</sup> St	Collector distributor roads; completion FY 11			
Yes	I-17	Carefree Hwy - Loop 101	HOV/general purpose lanes; completion FY 09			
Yes	US 60 (Grand Ave)	I-10 - Loop 202	8 traffic interchanges; 5 done; completion FY 06			
Yes	US 60 (Grand Ave)	Loop 303 - Loop 101	General purpose lanes; completion FY 10			
Yes	US 60 (Superstition)	I-10 - Loop 101	General purpose lanes; completion FY 11			
Yes	SR 51	Loop 101 - Shea Blvd	HOV/ramp; completion FY 09			
Yes	Loop 101	Princess Dr - Loop 202	HOV lanes; completion FY 09			
Yes	Loop 202	Rural Rd - Loop 101	General purpose lanes; completion FY 10			
<b>Completed Projects</b>						
	I-10	Baseline - 16 <sup>th</sup> St	Design concept report completed. Overall project expanded to encompass collector distributor roads for Baseline Rd - 40 <sup>th</sup> St in current 5-Year Plan with completion in FY 11.			
	SR 51	Northern - Thomas	HOV lanes Added			

<b>TUCSON AREA</b>				FY 2003 Actual	FY 2004 Actual	FY 2006 Estimate
<ul style="list-style-type: none"> <li>Percent of state highway system with traffic volume over 100% of capacity during 3 hours of the morning or afternoon commute in Tucson Metro area</li> </ul>				10	10	10
<b>Tucson Metro Area Highway Segments Over 100% of Capacity During Peak Driving Periods</b>						
<u>Action in 5-Year Plan</u>	<u>Route</u>	<u>Segment</u>	<u>ADOT Action</u>			
Yes	I-10	Prince Rd - 25 <sup>th</sup> Ave	Widening project; completion FY 08			
Yes	I-10	Ruthrauff - Prince Rd	Widening from 6 to 8 lanes; completion FY 11			
Yes	Oracle Rd	Calle Concordia - Tangerine	Widening from 4 to 6 lanes; completion FY 06			
Yes	Oracle Rd	Ina Rd - River Rd	Add shoulders; completion FY 05			

<b>BALANCE OF STATE</b>				FY 2003 Actual	FY 2004 Actual	FY 2006 Estimate
<ul style="list-style-type: none"> <li>Percent of state highway system with traffic volume over 100% of capacity in balance of state</li> </ul>				1	1	1
<b>State Highway Segments Over 100% of Capacity in Balance of State</b>						
<u>Action in 5-Year Plan</u>	<u>Route</u>	<u>Segment</u>	<u>ADOT Action</u>			
Yes	SR 195	Yuma (MP 12 - 12.9)	Design area service highway; completion FY 08			
Yes	US 93	Hoover Dam Bypass (MP 1.7 - 16.1)	Widen from 2 to 4 lanes; start FY 10			
Yes	SR 179	I-17 - Sedona (MP 306.2 - 307)	Needs study; completion FY 09			
<b>Completed Projects</b>						
	SR 95	S. of Bullhead City (MP 236.2 - 242.8)	Expanded to 4 lanes			
	US 93	Hoover Dam Bypass (MP 0 - 1.7)	South bridge approach done. Project in current 5-Year Plan is to widen 14.4 miles leading to the south approach. Nevada is near completion on North bridge approach. New bridge is totally federally funded with completion in 2008.			
MP - Mile post.				SA - Alternate route.		
				SR - State route.		
				SB - Business route.		





Janet Napolitano  
Governor

Victor M. Mendez  
Director

# Arizona Department of Transportation Transportation Services Group

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

June 7, 2005

John A. Bogert  
Chief of Staff



Mr. Richard Stavneak, Director  
Joint Legislative Budget Committee Staff  
1716 West Adams  
Phoenix, Arizona 85007

Dear Mr. Stavneak,

Enclosed please find schedules outlining the Arizona Department of Transportation's Professional and Outside Services Expenditure Plan, funded from the capital budget, including contracted field administration and field engineering for fiscal year 2006.

As you know, the Professional and Outside Services Expenditure Plan will, in some measure, be determined by the Department's FY 2006 Five year Highway Construction Program, which is scheduled for adoption by the State Transportation Board on June 17, 2005. Although we do not foresee any significant deviations from this spending plan, construction modifications do occur and may have an influence on the overall Expenditure Plan throughout FY 2006.

If you have any questions or desire additional information, please do not hesitate to contact me, (602) 712-8981.

Sincerely,

  
Terry Trost  
ADOT Office of Strategic Planning and Budgeting

cc: Gary Yaquinto, Director, Office of Strategic Planning and Budgeting  
Bob Hull, Joint Legislative Budget Committee  
Marcel Benberou, Office of Strategic Planning and Budgeting  
Diane Minton, State Engineer's Office



AGENCY NAME & AFIS CODE:

DEPARTMENT OF TRANSPORTATION DTA

COST CENTER/PROGRAM NAME:

CONSTRUCTION - STATE HIGHWAY FUND NON-APPROPRIATED

SCHEDULE 3A - FY 2006  
COST CENTER/PROGRAM SUMMARY OF EXPENDITURES

AFIS OBJ CODE	CATEGORY	(A) ACTUAL FY 2004	(B) APPROVED FY 2005 (EXP PLAN)	(C) FY 2006 BASE ADJUSTMENTS	(D) FY 2006 BASE BUDGET (B) + (C)	(E) MANDATED & DEMOGRAPHIC ISSUES	(F) BASE MODIFICATIONS (Net to \$0)	(G) FY 2006 (D) + (E) + (F)
6200	EXPENDITURE DETAIL:  PROFESSIONAL & OUTSIDE SERVICES	82,192.8	105,000.0	(8,470.0)	96,530.0			96,530.0
	TOTAL PROGRAM EXPENDITURES	82,192.8	105,000.0	(8,470.0)	96,530.0			96,530.0
1000	FUNDING SOURCES:  GENERAL FUND							
	NON-APPROPRIATED FUNDS	82,192.8	105,000.0	(8,470.0)	96,530.0			96,530.0
	SUBTOTAL NON-APPROPRIATED FUNDS	82,192.8	105,000.0	(8,470.0)	96,530.0			96,530.0
	TOTAL FUNDS	82,192.8	105,000.0	(8,470.0)	96,530.0			96,530.0

AGENCY NAME & AFIS CODE:

DEPARTMENT OF TRANSPORTATION DTA

COST CENTER/PROGRAM NAME:

CONSTRUCTION - NON-APPROPRIATED

FUND NAME & AFIS NUMBER:

STATE HIGHWAY FUND 2030

SCHEDULE 7  
PROFESSIONAL AND OUTSIDE SERVICES

AFIS COMP SRC CLS	EXPENDITURE CATEGORY	(A) ACTUAL FY 2004	(B) APPROVED FY 2005 (EXP PLAN)	(C) FY 2006 BASE ADJUSTMENTS	(D) FY 2006 BASE BUDGET (B) + (C)
6219	Other External Financial Services	189.4	550.0	(275.0)	275.0
6221	Attorney General Legal Services	361.7	400.0	75.0	475.0
6222	External Legal Services	100.0	100.0	(50.0)	50.0
6231	Preliminary Engineering	33,349.4	50,000.0	(3,750.0)	46,250.0
6232	Construction Engineering	22,390.3	21,000.0	(2,000.0)	19,000.0
6239	Other Design	1,763.8	4,125.0	(2,850.0)	1,275.0
6240	Temp Agency Services	355.0	600.0	(475.0)	125.0
6271	Education and Training	74.0	150.0	(95.0)	55.0
6299	Other Professional and Outside Services	23,609.2	28,075.0	950.0	29,025.0
	TOTAL Professional and Outside (to SCH. 3A)	82,192.8	105,000.0	(8,470.0)	96,530.0

STATE OF ARIZONA

**Joint Committee on Capital Review**

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PHIL LOPES  
RUSSELL K. PEARCE  
STEPHEN TULLY

DATE: June 21, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Jake Corey, Senior Fiscal Analyst

SUBJECT: School Facilities Board - Review of New School Construction Report and New School  
Facilities Fund Litigation Account

**Request**

Pursuant to A.R.S. § 15-2002, the School Facilities Board (SFB) requests the Committee review its demographic assumptions, proposed construction schedule, and new school construction cost estimates for FY 2006. The Committee previously heard this item at its December 20, 2004 meeting, but did not take action on the item as SFB had not provided all the required information at that time.

In addition, pursuant to A.R.S. § 15-2041, the Committee is required to conduct an annual review of the New School Facilities Fund Litigation Account, including the costs associated with current and potential litigation.

**Recommendation**

The JLBC Staff recommends a favorable review of the board report on New School Construction, with the following provisions:

- The board report back to the Committee on actual FY 2006 expenditures for Emergency Deficiencies. The board expects to spend \$6.5 million for Emergency Deficiencies in FY 2006.
- The board report back to the Committee after determining how it will allocate \$4 million in funding provided in FY 2006 for Full-Day Kindergarten capital grants.

The board estimates that it will oversee approximately 105 new school construction projects in FY 2006 and that it will spend \$386.5 million in that year.

The JLBC Staff recommends a favorable review of the board report on the Litigation Account. The account is to be used to pay the litigation expenses when SFB pursues the recovery of damages for design or construction defects. To date, the board has not made any expenditures from the account.

## Analysis

### New School Construction Report

#### *Demographic Assumptions*

The SFB bases its demographic assumptions on its analysis of the school district forecasts of Average Daily Membership (ADM), included in the Capital Plans submitted by districts to the board. To conduct the analysis, SFB uses state population data, grade progression estimates, historical ADM growth, and, if applicable, residential housing growth. Analysis of student enrollment growth is performed on a district by district basis.

For districts that submitted a Capital Plan to the board, SFB expects enrollment to grow at a higher rate in FY 2005 and FY 2006 than in FY 2004. The board expects enrollment growth to be 6.1% in FY 2005 and 6.6% in FY 2006. Actual enrollment growth for the same districts in FY 2004 was 4.8%.

For FY 2006, within Maricopa County SFB expects growth of approximately 7.6% in the southeastern portion of the county, including the cities of Chandler and Gilbert. In the northern part of the county, including Deer Valley, Cave Creek, and Scottsdale, the board expects growth of about 3.9%. In the western and southern districts of Phoenix, including Tolleson, the board expects growth of 13.1%. In the districts outlying the western edge of Phoenix, including Dysart, Litchfield, Avondale, Agua Fria, Buckeye, and Saddle Mountain, SFB expects growth of 5.4%.

In the other areas of the state, the board expects growth of 12.7% in Pinal County, 4.0% in Yuma County, 3.4% in Southern Arizona, and 4.2% in Northern Arizona.

#### *Construction Schedule*

The board has a total of 77 construction projects approved prior to FY 2005 that it expects to oversee in FY 2006. Of the total, 63 are on-going projects that will be completed in FY 2006, 2 are on-going projects that will be completed after FY 2006, and 12 are projects that will begin construction in FY 2006.

In addition to the projects approved in prior years, the board approved 28 projects in FY 2005. Most of these projects are expected to begin construction in FY 2006.

Including both projects approved in prior years and projects approved in FY 2005, therefore, the board may oversee up to 105 construction projections in FY 2006.

#### *Cost Estimates*

The board estimates spending a total of \$386.5 million in FY 2006. The table below provides a summary of the board's estimated expenditures.

<u>Expenditures</u>	
Construction – FY 04 Lease-Purchase Projects	\$ 11.8 M
Construction – FY 05 Lease-Purchase Projects	82.4 M
Construction – Cash Projects	236.9 M
Land	30.0 M
Architecture & Engineering	15.0 M
Emergency Deficiencies	6.5 M
Full-Day Kindergarten	<u>4.0 M</u>
<b>TOTAL</b>	<b>\$386.5 M</b>

Of the total \$386.5 million expected to be spent in FY 2006, the board expects to incur the following costs:

- \$11.8 million for 22 on-going construction projects included in the board's FY 2004 lease-purchase agreement. These projects are all expected to be completed in FY 2006. (*See Attachment #1.*)
- \$82.4 million for 32 on-going construction projects included in the board's FY 2005 lease-purchase agreement. These projects are all expected to be completed in FY 2006. (*See Attachment #2.*)
- \$236.9 million for construction projects to be paid for with cash. Of this total, the board will allocate:
  - \$11.6 million for projects included as part of a prior year lease-purchase agreement. Due to cost increases, the funding provided from lease-purchase proceeds is insufficient to complete these projects. The board, therefore, will supplement these projects with cash funding.
  - \$165.8 million for 23 projects approved prior to FY 2005. The estimate is based on prior year cash flow trends. (*See Attachment #3.*)
  - \$59.5 million for 28 projects approved in FY 2005. The board approved a total of \$235.3 million of projects in FY 2005. Based on prior year trends, the board expects to spend 25% of the total amount, or \$59.5 million, in FY 2006. (*See Attachments #4 & #5.*)
- \$30.0 million for land. The estimate is based on prior year expenditures.
- \$15.0 million for architecture and engineering fees. Once the board approves a project, it immediately distributes 5% of the total cost of the project to the school district. Based on a rough estimate of \$300 million of approvals in FY 2006, the board would distribute \$15.0 million for these fees ( $\$300 \text{ M} * 5\% = \$15 \text{ M}$ ).
- \$6.5 million for Emergency Deficiencies Correction projects. The estimate is based on outstanding approved projects that have yet to receive funding.
- \$4.0 million for Full-Day Kindergarten capital grants. Of the \$250.0 million in cash provided to the New School Facilities fund in FY 2006, Laws 2005, Chapter 287 authorizes the board to use up to \$4.0 million for these grants.

To finance the projected \$386.5 million in expenditures, the board expects to use lease-purchase proceeds remaining from prior years and new cash funding. The table below provides a summary of the board's estimated financing.

<u>Financing</u>	<u>FY 2006</u>
FY 04 Lease-Purchase Proceeds (\$250 M) <sup>1/</sup>	\$ 11.8 M
FY 05 Lease-Purchase Proceeds (\$250 M) <sup>1/</sup>	82.4 M
Transfer From Treasurer	250.0 M
New School Facilities Fund	<u>42.3 M</u>
<b>TOTAL</b>	<b>\$386.5 M</b>

<sup>1/</sup> Amount in parentheses equals original issuance.

Of the total \$386.5 million amount, the board expects to allocate funding from the following revenue sources:

- \$11.8 million in lease-purchase proceeds from the FY 2004 lease-purchase agreement. The board expects to spend all remaining proceeds in FY 2006.
- \$82.4 million in lease-purchase proceeds from the FY 2005 lease-purchase agreement. The board expects to have an FY 2006 ending balance of \$7.6 million.
- \$250 million in cash provided in FY 2006. Laws 2005, Chapter 287 directed the Treasurer to transfer this amount from the General Fund to the New School Facilities Fund in FY 2006.
- \$42.3 million in cash from the New School Facilities Fund balance. The estimated FY 2006 beginning fund balance is \$63.9 million. Allocating \$42.3 million for FY 2006 expenditures, therefore, would leave the fund with an ending FY 2006 balance of \$21.6 million.

Including \$7.6 million in lease-purchase proceeds and \$21.6 million in cash, the board expects an FY 2006 total ending balance of \$29.2 million. In addition, Laws 2005, Chapter 287 appropriated \$50 million to the New School Facilities Fund in FY 2007. Prior to any additional funding that may be provided, therefore, the board will have \$71.6 million available in FY 2007.

New School Facilities Fund Litigation Account

A.R.S. § 15-2041 establishes a Litigation Account within the New School Facilities Fund to be used for litigation expenses associated with the recovery of damages for correcting deficiencies that were due to defects in the original design or construction of the facility. Any monies recovered as damages are to be used to offset the debt service on bonds issued to pay for the costs of the Deficiencies Correction Program.

To date SFB has not made any expenditures from the account and there is currently no money in the account. The board is currently attempting to recover costs associated with architect and contractor mistakes that occurred while correcting deficiencies, but has not yet begun to pursue cost recovery for errors in the original construction that created a deficiency. (*See Attachment #6.*)

RS/JC:ym

## Lease To Own FY 2004 Project List

District	Project Number	Board Approval Date	Project Type	Grade Level	Status	Total NC Funding	Land	Total Lease	Funding Source	Paid To Date	FY 06 Projected
Avondale Elementary	070444000-9999-211N	3/9/2000	New School	K-6	Completed	\$7,453,770		\$7,453,770	2003 B	\$7,453,770	\$0
Cartwright Elementary District	070483000-9999-004N	3/9/2000	Additional Space	K-6	Under Construction	\$3,126,596		\$3,126,596	2003 B	\$2,677,032	\$449,564
Cartwright Elementary	070483000-9999-214N	3/9/2000	Additional Space	K-6	Completed	\$931,500		\$931,500	2003 B	\$931,500	\$0
Cartwright Elementary	070483000-9999-006N	3/9/2000	Additional Space	K-6	Completed	\$1,612,054		\$1,612,054	2003 B	\$1,612,054	\$0
Cartwright Elementary District	070483000-9999-005N	5/9/2002	Additional Space	K-6	Under Construction	\$3,179,836		\$3,179,836	2003 B	\$2,644,257	\$535,579
Cave Creek Unified District	070293000-9999-004N	2/6/2003	New School	K-5	Under Construction	\$5,733,585	\$1,486,133	\$7,219,718	2003 B	\$5,360,658	\$1,859,060
Chandler Unified District	070280000-9999-003N	2/6/2003	New School	K-6	Completed	\$2,991,853		\$2,991,853	2003 B	\$2,991,853	\$0
Chandler Unified District	070280000-9999-007N	2/6/2003	New School	K-6	Completed	\$2,991,853		\$2,991,853	2003 B	\$2,991,853	\$0
Cottonwood-Oak Creek Elementary District	130406000-9999-002N	8/2/2001	Core	K-8	Under Construction	\$4,766,727		\$4,766,727	2003 B	\$4,707,604	\$59,123
Crane Elementary District	140413000-9999-001N	2/6/2003	New School	K-6	Under Construction	\$5,733,585	\$1,071,467	\$6,805,052	2003 B	\$6,749,047	\$56,005
Dysart Unified District	070289000-9999-006N	1/10/2002	New School	K-8	Under Construction	\$9,175,320		\$9,175,320	2003 B	\$9,175,320	\$0
Gadsden Elementary	140432000-9999-005N	3/1/2001	New School	7-8	Under	\$8,228,000	\$694,335	\$8,922,335	2003 B	\$8,576,176	\$346,159
Gadsden Elementary District	140432000-9999-007N	4/4/2002	Core	K-6	Completed	\$3,726,830	\$624,901	\$4,351,731	2003 B	\$4,351,731	\$0
Gilbert Unified District	070241000-9999-010N	2/6/2003	Core	7-8	Under Construction	\$9,805,852		\$9,805,852	2003 B	\$9,324,939	\$480,913
Isaac Elementary District	070405000-9999-002N	6/7/2001	Core	6-8	Under Construction	\$3,514,949	\$1,624,332	\$5,139,281	2003 B	\$4,942,737	\$196,544
J O Combs	110344000-9999-002N	8/2/2001	New School	K-8	Completed	\$6,836,951		\$6,836,951	2003 B	\$6,836,951	\$0
Liberty Elementary District	070425000-9999-211N	11/4/1999	New School	K-8	Under Construction	\$6,383,493		\$6,383,493	2003 B	\$5,941,519	\$441,974
Liberty Elementary	070425000-9999-002N	11/4/1999	Additional Space	K-8	Completed	\$921,047		\$921,047	2003 B	\$921,047	\$0
Litchfield Elementary District	070479000-9999-003N	2/7/2002	Core	6-8	Under Construction	\$5,748,511		\$5,748,511	2003 B	\$4,545,417	\$1,203,094
Litchfield Elementary District	070479000-9999-002N	12/5/2002	New School	K-5	Completed	\$7,056,720		\$7,056,720	2003 B	\$7,056,720	\$0
Littleton Elementary District	070465000-9999-211N	2/3/2000	New School	K-8	Completed	\$7,567,956		\$7,567,956	2003 B	\$7,532,956	\$35,000
Maricopa County Regional District	070199000-9999-001N	6/6/2002	New School	K-6	Under Construction	\$2,205,225		\$2,205,225	2003 B	\$2,125,362	\$79,863
Patagonia Union High School District	120520000-9999-001N	6/5/2003	Replacement	9-12	Under Construction	\$6,981,093		\$6,981,093	2003 B	\$6,670,413	\$310,680
Pendergast Elementary District	070492000-9999-003N	3/1/2001	New School	K-8	Under Construction	\$6,885,123		\$6,885,123	2003 B	\$6,817,986	\$67,137



Peoria Unified District	070211000-9999-001N	2/1/2001	New School	9-12	Under Construction	\$26,795,250		\$26,795,250	2003 B	\$25,918,395	\$876,855
Ray Unified District	110203000-9999-001N	2/6/2003	Replacement	K-12	Under	\$9,547,993		\$9,547,993	2003 B	\$9,511,588	\$36,405
Somerton Elementary	140411000-9999-001N	8/2/2001	Additional Space	6-8	Completed	\$2,531,935		\$2,531,935	2003 B	\$2,531,935	\$0
Tolleson Union High School District	070514000-9999-211N	3/9/2000	New School	9-12	Under Construction	\$26,794,598		\$26,794,598	2003 B	\$25,402,575	\$1,392,023
Tombstone Unified District	020201000-9999-002N	6/30/2003	Replacement	9-12	Under Construction	\$7,436,444		\$7,436,444	2003 B	\$6,313,003	\$1,123,441
Union Elementary District	070462000-9999-001N	5/9/2002	Build Out	K-8	Completed	\$2,005,860		\$2,005,860	2003 B	\$2,005,860	\$0
Vernon Elementary	010309000-9999-201N	7/1/1999	Replacement	K-8	Completed	\$2,423,694		\$2,423,694	2003 B	\$2,423,694	\$0
Agua Fria Union High School District	070516000-9999-001N	4/3/2003	Build Out	9-12	Under Construction	\$8,697,480		\$8,697,480	2004 A	\$7,684,757	\$1,012,723
Buckeye Union High School District	070501000-9999-001N	3/7/2002	Build Out	9-12	Under Construction	\$7,461,743		\$7,461,743	2004 A	\$7,101,667	\$360,076
Chandler Unified District	070280000-9999-012N	11/6/2003	Additional Space	K-6	Completed	\$3,318,204		\$3,318,204	2004 A	\$3,318,204	\$0
Chandler Unified District	070280000-9999-004N	11/6/2003	Additional Space	K-6	Completed	\$3,318,203		\$3,318,203	2004 A	\$3,318,203	\$0
Dysart Unified District	070289000-9999-007N	12/5/2002	New School	K-8	Completed	\$9,175,320	\$231,000	\$9,406,320	2004 A	\$9,406,320	\$0
Dysart Unified District	070289000-9999-008N	12/5/2002	New School	K-8	Under Construction	\$9,175,320	\$255,000	\$9,430,320	2004 A	\$9,372,776	\$57,544
Yuma Union High School District	140570000-9999-001N	4/3/2003	Build Out	9-12	Under Construction	\$7,533,383		\$7,533,383	2004 A	\$6,749,542	\$783,841
<b>TOTAL</b>								\$255,761,024		\$243,997,421	\$11,763,603

## Lease To Own FY 2005 Projected Project List

District	Project Number	Project Type	Grade Configuration	New Construction Funding	Land Funding	LTO Value	LTO #	Status	Paid To Date	FY 2006 Estimate
Avondale Elementary District	070444000-9999-003N	New School	K-8	\$8,126,534		\$8,126,534	2004 B	Construction	\$5,172,868	\$2,953,666
Buckeye Elementary District	070433000-9999-004N	New School	K-8	\$7,448,142		\$7,448,142	2004 B	Construction	\$6,423,253	\$1,024,889
Cartwright Elementary District	070483000-9999-009	New School	K-6	\$2,654,563		\$2,654,563	2004 B	Construction	\$2,252,828	\$401,735
Cartwright Elementary District	070483000-9999-007N	Additional Space	K-6	\$3,218,452		\$3,218,452	2004 B	Construction	\$2,268,096	\$950,356
Cave Creek Unified District	070293000-9999-004	New School	K-5	\$0	\$16,134,671	\$16,134,671	2004 C	Done	\$16,134,671	0
Chandler Unified District	070280000-9999-006N	New School	7-8	\$12,697,416	\$2,160,000	\$14,857,416	2004 B	Construction	\$11,011,037	\$3,846,379
Coconino Accommodation District	030199000-9999-201N	New School	7-12	\$2,195,759	\$500,000	\$2,695,759	2004 B	Construction	\$1,928,119	\$767,640
Coconino Accommodation District	030199000-9999-202N	New School	7-12	\$2,195,759		\$2,195,759	2004 B	Done	\$2,195,759	\$0
Deer Valley Unified District	070297000-9999-012N	New School	K-8	\$8,257,788		\$8,257,788	2004 B	Construction	\$7,317,591	\$940,197
Deer Valley Unified District	070297000-9999-013N	New School	K-8	\$8,257,788		\$8,257,788	2004 B	Construction	\$1,197,528	\$7,060,260
Dysart Unified	070289000-9999-010N	New School	K-8	\$9,560,628		\$9,560,628	2004 B	Construction	\$4,902,558	\$4,658,070
Dysart Unified	070289000-9999-009N	New School	K-8	\$9,560,628		\$9,560,628	2004 B	Construction	\$6,038,910	\$3,521,718
Florence Unified School District	110201000-9999-004N	New School	K-8	\$10,092,852	\$262,600	\$10,355,452	2004 B	Construction	\$10,233,691	\$121,761
Fowler Elementary	070445000-9999-004N	New School	K-5	\$6,893,775		\$6,893,775	2004 B	Construction	\$2,411,609	\$4,482,166
Fowler Elementary	070445000-9999-006N	Buildout	6-8	\$2,866,937		\$2,866,937	2004 B	Construction	\$143,346	\$2,723,591
Gilbert Unified	070241000-9999-006N	New School	K-6	\$8,397,497	\$1,087,915	\$9,485,412	2004 B	Construction	\$4,830,680	\$4,654,732
Higley Unified District	070260000-9999-002N	New School	K-8	\$9,794,367		\$9,794,367	2004 B	Construction	\$8,209,349	\$1,585,018
Humboldt Unified District	130222000-9999-001N	New School	K-5	\$6,403,760		\$6,403,760	2004 B	Construction	\$3,413,578	\$2,990,182
JO Combs	110344000-9999-003N	Additions	K-5	\$6,893,775		\$6,893,775	2004 B	Construction	\$5,365,740	\$1,528,035
Liberty Elementary District	070425000-9999-221N	New School	K-8	\$7,296,643		\$7,296,643	2004 B	Construction	\$5,843,603	\$1,453,040
Litchfield Elementary	070479000-9999-005N	Buildout	6-8	\$3,225,370		\$3,225,370	2004 B	Construction	\$2,508,285	\$717,085
Litchfield Elementary District	070479000-9999-004N	New School	K-5	\$7,353,360	\$236,060	\$7,589,420	2004 C	Construction	\$5,066,541	\$2,522,879
Littleton Elementary	070465000-9999-005N	Buildout	K-8	\$9,292,951		\$9,292,951	2004 B	Construction	\$2,325,523	\$6,967,428
Maricopa Unified School District	110220000-9999-008N	New School	K-6	\$4,136,265		\$4,136,265	2004 C	Construction	\$2,460,040	\$1,676,225
Palominas Elementary	020349000-9999-001N	Additions	K-8	\$2,509,815		\$2,509,815	2004 B	Approved	\$125,491	\$0
Queen Creek Unified	070295000-9999-004N	School	K-5	\$6,434,190		\$6,434,190	2004 B	Construction	\$5,325,301	\$1,108,889
Queen Creek Unified	070295000-9999-007N	Addition	9-12	\$5,018,568		\$5,018,568	2004 B	Construction	\$4,448,323	\$570,245
Riverside Elementary District	070402000-9999-001N	New School	5-8	\$4,280,985		\$4,280,985	2004 B	Construction	\$2,544,179	\$1,736,806
Roosevelt Elementary District	070466000-9999-003N	New School	K-8	\$7,340,256		\$7,340,256	2004 B	Construction	\$4,384,981	\$2,955,275
Sunnyside Unified	100212000-9999-001N	School	K-5	\$5,515,020		\$5,515,020	2004 B	Approved	\$275,751	\$0
Sunnyside Unified	100212000-9999-002N	School	6-8	\$7,167,500		\$7,167,500	2004 B	Construction	\$4,308,966	\$2,858,534
Union Elementary District	070462000-9999-002N	New School	K-8	\$7,448,142	\$1,154,300	\$8,602,442	2004 C	Construction	\$5,879,905	\$2,722,537
Vail Unfied	100220000-9999-007	New School	6-8	\$6,655,589		\$6,655,589	2004 B	Construction	\$2,665,351	\$3,990,238
Vail Unified District	100220000-9999-008N	New School	9-12	\$12,945,587		\$12,945,587	2004 C	Construction	\$8,702,149	\$4,243,438
Yavapai Accommodation District	130199000-9999-001N	New School	9-12	\$552,532		\$552,532	2004 B	Construction	\$533,976	\$18,556
Yuma Elementary	140401000-9999-001N	School	K-5	\$5,515,020		\$5,515,020	2004 B	Construction	\$851,809	\$4,663,211
<b>Total</b>				<b>\$228,204,213</b>	<b>\$21,535,546</b>	<b>\$249,739,759</b>			<b>\$159,701,385</b>	<b>\$82,414,781</b>

## Current Projects Scheduled for FY 06 Construction

District	Project Number	Board Approval Date	Project Type	Grade Level	Status	Total NC Funding	Projected Start Date	Prior Years	FY 2006 Need
Agua Fria Union High School	070516000-9999-002N	1/8/04	New School	9-12	Under Construction	\$24,968,000	4/15/05	\$1,248,400	\$19,000,000
Avondale Elementary District	070444000-9999-004N	4/1/04	Additional Space	K-8	Under Construction	\$1,142,309	4/15/05	\$57,115	\$1,085,194
Avondale Elementary District	070444000-9999-005N	4/1/04	Additional Space	K-8	Under Construction	\$211,079	4/15/05	\$10,554	\$200,525
Cartwright Elementary District	070483000-9999-002N	5/9/02	Additional Space	K-6	Board Approved	\$201,117	FY 2006	\$0	\$201,117
Cedar Unified District	090225000-9999-001N	6/7/01	New School	9-12	Under Construction	4,197,634	09/01/04	\$2,463,809	\$1,733,825
Chandler Unified District	070280000-9999-013N	11/6/03	New School	9-12	Board Approved	\$39,012,500	7/1/05	\$1,950,625	\$28,869,250
Crane Elementary District	140413000-9999-003N	4/1/04	Additional Space	7-8	Board Approved	\$2,695,250	9/1/05	\$134,763	\$2,021,438
Florence Unified School	110201000-9999-006N	4/1/04	New School	K-8	Under Construction	\$10,516,691	1/1/05	\$3,771,160	\$6,745,531
Glendale Elementary District	070440000-9999-005N	3/6/03	Core	K-8	Under Construction	\$5,963,958	1/1/05	\$1,656,600	\$4,307,358
Isaac Elementary District	070405000-9999-004N	2/6/03	New School	K-5	Board Approved	\$5,292,540	11/1/05	\$264,627	\$3,969,405
J O Combs Elementary District	110344000-9999-004N	4/4/02	Core	6-8	Board Approved	9,948,791		\$383,236	\$6,632,859
Laveen Elementary District	070459000-9999-004N	4/1/04	New School	7-8	Board Approved	\$9,810,208	9/1/05	\$0	\$7,946,268
Littlefield Elementary District	080409000-9999-001N	6/7/01	Core	9-12	Under Construction	4,276,334		\$4,095,387	\$180,947
Maricopa County Regional District	070199000-9999-002N	6/6/02	New School	7-12	Board Approved	\$8,419,183	9/1/05	\$420,959	\$7,577,265
Nadaburg Elementary District	070381000-9999-201N	2/12/04	New School	K-8	Board Approved	5,736,377	01/01/06	\$261,566	\$3,180,260
Pendergast Elementary	070492000-9999-004N	5/9/02	New School	K-8	Board Approved	\$8,775,339	10/1/05	\$365,836	\$7,897,805
Peoria Unified District	070211000-9999-006N	3/6/03	Core	9-12	Under Construction	\$27,351,900	4/1/05	\$876,038	\$24,069,672
Sahuarita Unified District	100230000-9999-002N	1/8/04	New School	6-8	Board Approved	\$11,691,532	10/1/05	\$307,179	\$8,461,470
Sahuarita Unified District	100230000-9999-003N	1/8/04	Additional Space	9-12	Under Construction	\$2,877,312	11/4/04	\$1,004,848	\$1,872,464
San Fernando Elementary District	100335000-9999-001N	4/4/02	New School	K-8	Board Approved	\$458,766	FY 2006	\$22,938	\$0
Somerton Elementary District	140411000-9999-002N	2/6/03	Core	K-5	Board Approved	\$2,293,434	2/1/05	\$699,766	\$1,593,668
Stanfield Elementary District	110424000-9999-001N	6/3/04	New School	K-8	Board Approved	\$6,692,440	FY 2006	\$334,622	\$1,338,488
Tolleson Elementary District	070417000-9999-002N	1/8/04	New School	K-8	Under Construction	\$6,692,440	12/1/04	\$334,622	\$6,357,818
Yuma Union High School	140570000-9999-002N	3/4/04	New School	9-12	Board Approved	\$28,284,750	4/15/05	\$702,225	\$20,511,338
						\$227,509,884		\$19,295,640	\$165,753,965

## FY 2005 New Construction Awards

Approval Date	District	Project Number	Project	Grades	# Students	Square Footage	Open FY	NC Funding
11/4/04	Casa Grande Elementary	110404000-9999-	School	K-5	750	67,500	2007	\$6,990,300
11/4/04	Casa Grande Elementary	110404000-9999-	School	6-8	1,000	96,670	2007	\$10,382,358
11/4/04	Florence Unified	110201000-9999-	School	K-8	1,100	101,640	2008	\$10,664,069
	<b>Subtotal:</b>				<b>2,850</b>	<b>265,810</b>		<b>\$28,036,727</b>
1/6/05	Buckeye Union	070501000-9999-	School	9-12	1,200	160,800	2008	\$20,354,064
1/6/05	Dysart Unified	070289000-9999-	School	K-8	1,100	101,640	2007	\$10,664,069
1/6/05	Dysart Unified	070289000-9999-	School	K-8	1,100	101,640	2008	\$10,664,069
1/6/05	Dysart Unified	070289000-9999-	School	9-12	1,800	225,000	2007	\$28,480,500
1/6/05	Liberty Elementary	070425000-9999-	School	K-8	800	73,920	2008	\$7,755,686
1/6/05	Littleton Elementary	070465000-9999-	School	K-8	972	89,813	2008	\$9,423,180
1/6/05	Yuma Union	140570000-9999-	Revision	9-12	900	112,500	2007	\$14,240,250 (1)
	<b>Subtotal:</b>				<b>7,872</b>	<b>865,313</b>		<b>\$101,581,818</b>
2/10/05	Higley Unified	070260000-9999-	School	K-8	1,200	110,880	2007	\$11,633,530
2/10/05	Higley Unified	070260000-9999-	School	9-12	1,700	227,800	2008	\$28,834,924
	<b>Subtotal:</b>				<b>2,900</b>	<b>338,680</b>		<b>\$40,468,454</b>
3/3/05	Buckeye Elementary	070433000-9999-	School	K-8	800	73,920	2008	\$7,755,686
3/3/05	Crane Elementary	140413000-9999-	School	K-6	650	58,500	2006	\$6,058,260
3/3/05	Queen Creek Unified	070295000-9999-	School	6-8	1,000	96,670	2007	\$10,382,358
3/3/05	Riverside Elementary	070402000-9999-	School	K-8	600	55,440	2008	\$5,816,765
	<b>Subtotal:</b>				<b>3,050</b>	<b>284,530</b>		<b>\$30,013,069</b>
4/7/05	Chandler Unified	070280000-9999-	School	K-6	850	76,500	2006	\$7,922,340
4/7/05	Chandler Unified	070280000-9999-	School	K-6	750	67,500	2007	\$6,990,300
4/7/05	Laveen Elementary	070459000-9999-	School	K-8	600	52,400	2007	\$5,497,808 (2)
4/7/05	Laveen Elementary	070459000-9999-	School	K-8	1,000	92,400	2008	\$9,694,608
4/7/05	Maricopa Unified	110220000-9999-	School	7-9	750	83,475	2007	\$9,605,468
4/7/05	Rainbow Accommodation	090199000-9999-	School	K-12	20	TBD	2007	1,957,375
4/7/05	Saddle Mountain Unified	070390000-9999-	School	K-8	500	1,155	2008	\$121,183 (3)
4/7/05	Sahuarita Unified	100230000-9999-	School	K-8	600	52,878	2008	\$5,547,960 (4)
4/7/05	Santa Cruz Co. Accommod.	120199000-9999-	School	5-12	100	TBD	2006	1,334,040
4/7/05	Santa Cruz Valley Unified	120235000-9999-	School	6-8	400	38,668	2007	\$4,152,943
	<b>Subtotal:</b>				<b>5,570</b>	<b>464,976</b>		<b>\$52,824,025</b>
4/21/05	Coolidge Unified	110221000-9999-	School	K-8	800	73,920	2007	\$7,755,686
	<b>Subtotal:</b>				<b>800</b>	<b>73,920</b>		<b>\$7,755,686</b>
5/5/05	J.O. Combs Elementary	110344000-9999-	School	6-8	400	21,267	2007	\$2,284,076 (5)
	<b>Subtotal:</b>				<b>400</b>	<b>21,267</b>		<b>\$2,284,076</b>
	<b>Grand Total:</b>				<b>23,442</b>	<b>2,314,496</b>		<b>\$262,963,855</b>
	<b>Expansions</b>							<b>\$27,691,276</b>
	<b>Total New Projects</b>							<b>\$235,272,578</b>

(1) Originally approved 3/4/04 as a 900-student high school, revised 1/6/05 to 1,800 students. Students, square footage, and funding shown are additional amounts approved 1/6/05.

(2) Originally approved 4/1/04 as a 7-8 school for 400 students, revised 4/7/05 to a K-8 school for 1,000 students. Students, square footage, and funding shown are additional amounts approved 4/7/05.

(3) Originally approved 5/1/03 as a core school for 750 students with classroom space for 375. Original approval was for 45,045 SF. Revised 4/7/05 to a complete facility for 500 students, with 46,200 SF. Square footage and funding shown are additional amounts approved 4/7/05.

(4) Originally approved 1/8/04 as a 6-8 school for 600 students, revised 4/7/05 to a K-8 school for 1,200 students. Students, square footage, and funding shown are additional amounts approved 4/7/05.

(5) Originally approved 4/4/02 as a core 6-8 school for 1,200 students with classroom space for 600, revised 5/5/05 to a 6-8 school for 1,000 students. Students, square footage, and funding shown are additional amounts approved 5/5/05.

## Projected FY 2006 Cost of New Projects

Attachment #5

### New Projects

Anticipated FY 2005 Projected Awards\*

\$235,272,578

Percent of FY 04 Awards Projected Spent in FY 05

26% \$60,246,787.02

Percent of FY 03 Awards Spent in FY 04

25% \$58,233,358.82

Percent Of Combined Years

25% \$59,501,652.57

Projected FY 05 Awards Spent In FY 2006

\$59,501,652.57

\*The projected amount is reduced by \$14,240,250 which was awarded as an expansion to Yuma Union  
This award is counted as a current project.





Governor of Arizona  
Janet Napolitano

STATE OF ARIZONA  
SCHOOL FACILITIES BOARD



Executive Director  
William Bell

December 6, 2004

Representative Russell K. Pearce  
Chairman  
Joint Committee on Capital Review  
House of Representatives  
1700 West Washington  
Phoenix, Arizona 85007

Dear Chairman Pearce:

Pursuant to ARS §15-2041 (L), the Joint Committee on Capital Review (JCCR) conducts an annual review of the litigation account within the New School Facilities Fund. This account is set up to cover the costs of attorneys fees, expert witness fees, and other costs associated with litigation used to pursue damage recoveries from original construction or design defects which the School Facilities Board (SFB) believes may have contributed to a deficiency in the building adequacy requirements. While the New School Fund advances the monies, any recoveries are to be used to offset debt service on deficiencies corrections.

There has been no activity in this account since the Board has not pursued redress against contractors or architects for this purpose. However, as the Deficiencies Corrections program closes, errors and omissions, as well as other claims, are being pursued to recover costs incurred by the Board for architectural and contractor re-work during the course of the program. The information necessary to successfully recover State monies is more readily available to the Board and the authority to collect is clear for these state-held contracts more so than for the older situations which gave rise to the deficiencies corrections program in the first place.

The Board is mindful of the limited resources available for both the Deficiencies Corrections and New School Facilities programs, and attempts to make appropriate business decisions for pursuit of recoveries. If you have any questions related to this account, please contact me at 364-0283.

Sincerely,

  
William Bell  
Executive Director

Cc: Richard Stavneak, JLBC ✓  
David Jankofsky, OSPB

STATE OF ARIZONA

## Joint Committee on Capital Review

STATE  
SENATE

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CHAIRMAN 2005  
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TIMOTHY S. BEE  
ROBERT CANNELL  
GABRIELLE GIFFORDS  
RON GOULD  
KAREN S. JOHNSON

1716 WEST ADAMS  
PHOENIX, ARIZONA 85007

PHONE (602) 542-5491

FAX (602) 542-1616

<http://www.azleg.state.az.us/jlbc.htm>

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STEPHEN TULLY

DATE: June 21, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Shelli Carol, Fiscal Analyst

SUBJECT: Northern Arizona University – Review of NAU Research Infrastructure Lease-Purchase Projects

### Request

A.R.S. § 15-1682.01 requires Committee review of any university projects financed with Certificates of Participation (COP), also known as lease-purchase agreements. Northern Arizona University (NAU) requests Committee review of a New Laboratory Facility and North Campus Research Infrastructure. NAU would finance these projects with a COP issuance not to exceed \$44 million.

### Recommendation

JLBC Staff recommends favorable reviews of the New Laboratory Facility and North Campus Research Infrastructure with the following standard university financing provisions for each:

- NAU shall report to the Committee before expenditure of any allocations that exceed the greater of \$100,000 or 10% of the reported contingency amount total for add-alternates that do not expand the scope of the project.
- NAU shall submit for Committee review any allocations that exceed the greater of \$100,000 or 10% of the reported contingency amount total for add-alternates that expand the scope of the project. In the case of an emergency, NAU may report immediately on the scope and estimated cost of the emergency rather than submit the item for review. JLBC Staff will inform the university if they do not concur with the emergency nature of the change in scope.
- NAU shall report to the Committee with a comparison between any compliance costs of the Governor's Executive Order 2005-05, concerning energy efficiency, and operating and other savings generated through those efficiencies.
- A favorable review by the Committee does not constitute endorsement of General Fund appropriations for operational costs when the project is complete. These costs should be considered by the entire Legislature through the budget development process.

(Continued)

The NAU New Laboratory Facility and North Campus Research Infrastructure are part of the university research infrastructure lease-purchase plan authorized by the Legislature in 2003. The COP would consist of \$33 million for the New Laboratory Facility, \$5 million for North Campus Research Infrastructure, and up to \$6 million to capitalize interest payments until FY 2008. NAU anticipates selling the COP in July 2005, with a Standard and Poor's AAA credit rating, for a term of 25 years, at an estimated interest rate of 5.75%.

In FY 2008, annual debt service payments of \$3.3 million would begin. Of this amount, NAU would pay \$3.0 million annually from its \$5.9 million appropriation in Laws 2003, Chapter 267 and \$0.3 million annually from local university funds. Total debt service would be a projected \$79.7 million, of which NAU would pay \$72.3 million from its General Fund appropriation and \$7.4 million from local funds.

NAU would contract the New Laboratory Facility and North Campus Research Infrastructure using Construction Manager at Risk (CMAR). CMAR defines a guaranteed maximum price, after which the General Contractor must absorb almost all cost increases, except those caused by scope changes or unknown site conditions. Occasionally, in the case of substantial materials price inflation, a university will partially cover higher costs to maintain good contractor relations. The costs for these projects are comparable to other university projects of their respective scopes.

A.R.S. § 15-1683 allows each state university to incur projected annual debt service for bonds and certificates of participation of up to 8% of each institution's total projected annual expenditures. This calculation is known as the debt ratio. These projects would increase the NAU debt ratio from 4.8% to 5.5%.

NAU estimates new operating and maintenance costs of \$625,000 for the New Laboratory Facility and \$125,000 for North Campus Research Infrastructure. NAU has stated its intention to request legislative appropriations to support these expenses, but is prepared to make payments from indirect cost recovery and other local university resources.

### **Analysis**

NAU submitted the New Laboratory Facility and North Campus Research Infrastructure as research infrastructure projects. A.R.S. § 15-1670 defines research infrastructure as "installations and facilities for continuance and growth of scientific and technological research activities at the university." Laws 2003, Chapter 267 amended A.R.S. § 42-5075 to confer tax-exempt status on the proceeds and income of research-infrastructure-related construction contracts, with the intent of lowering project costs.

Chapter 267 also appropriates debt service payments from the General Fund between FY 2008 and FY 2031 to support research infrastructure lease-purchases. In exchange, Chapter 267 requires the universities, starting in FY 2008, to deposit into the General Fund a portion of licensing, royalty, and intellectual property income.

Chapter 267 makes an annual General Fund appropriation, from FY 2008 through FY 2031, of \$5.9 million to NAU for debt service payments. Given previously reviewed projects and assuming this COP issuance takes place, NAU would have exhausted its research infrastructure capacity. *Table 1* summarizes all NAU research infrastructure projects, including their capital and financing costs.



**Table 1**

**NAU Research Infrastructure Project Summary**

<u>Project</u>	<u>Committee Review</u>	<u>Total Project Finance Cost</u>	<u>Annual Debt Service</u>	<u>Total Debt Payments</u>
College of Engineering and Technology Renovation	June 2004	\$ 15,000,000	\$ 1,311,600 <sup>2\</sup>	\$ 31,478,400 <sup>2\</sup>
Applied Research and Development Facility	June 2004	18,000,000 <sup>1\</sup>	1,576,000 <sup>2\</sup>	37,824,000 <sup>2\</sup>
New Laboratory Facility	June 2005	33,000,000	2,573,300 <sup>3\</sup>	61,759,200 <sup>3\</sup>
North Campus Research Infrastructure	June 2005	5,000,000	439,100	10,538,400
<b>Total</b>		<b>\$ 71,000,000</b>	<b>\$ 5,900,000</b>	<b>\$141,600,000</b>

<sup>1\</sup> The total cost of this project was \$20.5 million. However, a U.S. Department of Commerce grant funded \$2.5 million of those expenses.

<sup>2\</sup> NAU has updated these amounts since Committee review to reflect the actual terms of the COP issuance.

<sup>3\</sup> These amounts do not include additional debt service of \$310,000 annually, or \$7,440,000 in total, paid with local NAU funds.

### New Laboratory Facility

NAU would construct a 3 story, 80,000 square-foot New Laboratory Facility on the north side of campus, adjacent to the existing Chemistry, Physical Sciences, and Biological Sciences buildings, at an estimated cost of \$33 million. The facility would house 23 wet laboratories and their supporting research and instructional spaces.

In accordance with the Governor's Executive Order 2005-05, the New Laboratory Facility would meet the Leadership, Energy, and Environmental Design silver rating. The U.S. Green Building Council publishes this energy-efficiency standard, which also ensures the use of appropriate materials for the colder climate at NAU. To monitor the rate of return for this Executive Order, Staff recommends adding a new standard provision supplying reports to the Committee with comparisons between any compliance costs and operating and other savings generated through energy efficiencies.

NAU estimates the New Laboratory Facility would require 19 months of construction. Upon completion of the project, the majority of wet laboratories from the Chemistry and Biological Sciences buildings would move. NAU would reconfigure the existing Chemistry and Biological Sciences buildings, now over 40 years old and unable to meet current wet laboratory code requirements, for instructional classrooms, as well as faculty and administrative offices. The university would relocate faculty temporarily housed in a converted plant (mechanical systems) building and demolish that facility.

While the university cannot determine the details of these transfers until the New Laboratory Facility is complete, NAU estimates a rough cost between \$15 million and \$20 million for these transfers. If the Legislature makes no building renewal appropriations, NAU would fund the renovations from locally retained tuition, as available. Tuition collections used for building renewal would be unavailable to support operating expenses and may, therefore, impact the General Fund in the future.

The total cost per square foot for the New Laboratory Facility would be approximately \$413 and the direct construction cost per square foot would be \$335. These estimates are above the average per-square-foot cost of other Committee-reviewed university research infrastructure projects. However, because wet laboratories require more mechanical systems than other types of construction, Staff believes the per-square-foot costs for the facility are reasonable. *Table 2* compares the costs of university research infrastructure projects.

(Continued)

Table 2

**University Research Infrastructure Projects  
Estimated Per Square Foot Costs**

<u>Project</u>	<u>Total Project Cost</u>	<u>Total Cost Per Square Foot</u>	<u>Direct Construction Cost Per Square Foot</u>
ASU-Interdisciplinary Science and Technology Building 2	\$18,000,000	\$300	\$217
ASU-Interdisciplinary Science and Technology Building 3	12,000,000	305	228
NAU-Applied Research and Development Facility	20,500,000 <sup>1\</sup>	342	275
<b>AVERAGE</b>		<b>\$384</b>	<b>\$294</b>
UA-Thomas W. Keating Bioresearch Building	65,652,000 <sup>2\</sup>	389	306
UA-Medical Research Building	54,350,000	392	317
ASU-Interdisciplinary Science and Technology Building 1	74,000,000	412	285
<b>NAU-New Laboratory Facility</b>	<b>33,000,000</b>	<b>413</b>	<b>335</b>
ASU-Biodesign Institute, Building B	73,000,000	425	307
UA-Chemistry Building Expansion	46,100,000 <sup>3\</sup>	507	415

<sup>1\</sup> Includes a \$2.5 million U.S. Department of Commerce grant.

<sup>2\</sup> Includes \$5.7 million in federal funds.

<sup>3\</sup> Includes \$1.1 million from indirect cost recovery and donations.

### North Campus Research Infrastructure

NAU would add two water chillers, replace a boiler, and install related piping in and around the existing North Plant Facility to support the utility demands of the New Laboratory Facility and the new Applied Research and Development Facility. The university estimates the project would require 13 months of construction.

These improvements would also allow NAU to redeploy \$100,000 to \$200,000 in annual operating costs by eliminating 2 stand-alone cooling units, which are less reliable and energy efficient, and a boiler past its useful lifespan. By conducting these installations concurrent with facilities construction, NAU can minimize the costs of materials and trenching.

North Campus Research Infrastructure would provide 2,000 additional tons of chilled water capacity and 45,000 pounds per hour of new steam boiler capacity. Estimates from the Arizona Department of Administration Facilities Management Division indicate that a \$5 million cost for this equipment is reasonable.

RS/SC:ym



**NORTHERN  
ARIZONA  
UNIVERSITY**

Office of the Vice  
President for  
Administration and  
Finance

Northern Arizona University  
PO Box 4088  
Flagstaff, AZ 86011-4088

928-523-2708  
928-523-4230 fax  
www4.nau.edu/vpadmin



May 26, 2005

The Honorable Robert L. Burns, Chairman  
Joint Committee on Capital Review  
1716 West Adams  
Phoenix, AZ 85007

RE: Project Review

Dear Representative Pearce:

The Arizona Board of Regents for and on behalf of Northern Arizona University (NAU), is seeking favorable review at the next session from the Joint Committee on Capital Review. Northern Arizona University received Capital Development Approval (CDP) and Project Implementation Approval (PIA) by the Arizona Board of Regents for the following projects:

PROJECT	ABOR APPROVAL	EXPENDITURE
New Lab Facility	CDP, PIA 05/05	\$33 M
North Campus Infrastructure	CDP, PIA 04/05	\$5 M

We appreciate your consideration of our requests. If you have any questions or desire any clarification on the enclosed material, please contact me at (928) 523-8831.

Sincerely,

John D. Haeger, President  
Northern Arizona University

Richard Bowen, Interim VP Administration & Finance  
Northern Arizona University

cc: Joel Sideman, Executive Director, Arizona Board of Regents  
Ted Gates, Asst. Exec. Director for Capital Resources, Arizona Board of Regents  
Lorenzo Martinez, Assistant Director, Joint Legislative Budget Committee  
M.J. McMahon, Executive Vice President, Northern Arizona University  
Christy Farley, Director, Government Affairs, Northern Arizona University

## EXECUTIVE SUMMARY

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**ACTION ITEM:** Northern Arizona University (NAU) requests authority to (1) lease-purchase certificates of participation (COPs) in an amount not to exceed \$44.0 million for the purpose of financing two capital improvement projects and paying the costs of issuing the certificates of participation and (2) take all related actions and enter into all necessary agreements related to the COPs.

### ISSUE:

NAU seeks board authorization to sell lease-purchase COPs, not exceeding \$44.0 million principal amount for the purpose of financing two projects on the NAU mountain campus listed below, with the debt service to be funded from capitalized interest through June 2007 and from State legislative appropriations beginning in July 2007. In conjunction with this financing, NAU also seeks authorization to pay all costs of issuance related to the COPs issuance. NAU also seeks authorization to take all related actions and to enter into all necessary agreements related to the issuance and sale of the COPs.

### BACKGROUND:

The proceeds of the COPs issuance will be used to finance two projects on the mountain campus as set forth in the Board approved Capital Development Plan.

New Lab Facility	\$33,000,000	CDP 06/04, PIA 04/05
North Campus Research Infrastructure	\$5,000,000	CDP 06/04, PIA 04/05

### FINANCING PLAN:

- NAU intends to finance the new construction, renovation and improvement projects by issuing lease-purchase COPs. The COPs are anticipated to be sold with a "AAA" rating based on obtaining bond insurance for the issue, provided that such an approach will result in the lowest net borrowing costs. The true interest cost for the COPs is not expected to exceed 6.0 percent.
- The COPs will have a final maturity in fiscal year 2031 to coincide with the termination of the State appropriations authorized pursuant to Research Infrastructure House Bill 2529.
- With the issuance of these bonds, the University debt ratios would not exceed 7.4% for ABOR policy and 5.5% for Arizona State law purposes; both of which ratios are well within the required limits.
- As permitted by IRS regulations, interest to be paid to the certificate holders during construction, and for up to three years from the date of the financing, is being capitalized as part of the financing. This approach provides a funding mechanism for making interest payments on the COPs until the start of the State appropriations, commencing on July 1, 2007 (FY08).

Contact: M.J. McMahon, Executive Vice President  
(928) 523-6515 [M.J.McMahon@nau.edu](mailto:M.J.McMahon@nau.edu)  
Robert Norton, Assistance Vice President for Financial Services  
(928) 523-6054 [Robert.Norton@nau.edu](mailto:Robert.Norton@nau.edu)

## EXECUTIVE SUMMARY

- NAU will be called upon to enter into various agreements in conjunction with the COPs, such as “bond” insurance (to lower the net borrowing cost), a lease-purchase agreement, a continuing disclosure agreement, a certificate purchase agreement and possibly a reserve fund surety agreement. NAU will be called on to enter into various agreements in connection with the COPs issuance such as an insurance agreement and a purchase agreement with underwriters for the issue. It is anticipated that this series will be sold approximately in July of 2005.
- NAU intends to use, in connection with the proposed financing, its current bond counsel, Snell and Wilmer and current financial advisor, RBC Dain Rauscher Inc., both of which were selected through a competitive proposal and previously approved by the Board. The COPs will be marketed and sold on a negotiated basis by one or more investment banking firms selected by NAU through a competitive proposal process.
- The action being requested would authorize NAU to execute this financing within the parameters approved by the Board.

## RECOMMENDATION:

That Northern Arizona University Arizona University be authorized to (1) sell lease-purchase certificates of participation in an amount not to exceed \$44.0 million for the purpose of financing two new improvement projects and paying the costs of issuing the COPs and (2) take all related actions and enter into all necessary agreements related to the COPs issue, as provided in a resolution to be approved by Board Counsel and staff prior to Board approval.

**EXECUTIVE SUMMARY**

**Northern Arizona University  
2005 Capital Development Plan Summary**

Project	Amount Financed	Funding Mechanism	Annual Debt Svc <sup>1,2</sup>	GSF	Annual O & M <sup>3</sup>	Approval Status
<b>ACADEMIC / RESEARCH</b>						
<b>New Capital Project Proposal</b>						
North Campus Research Infrastructure	\$5,000,000	COP	\$439,156	NA	\$100,000	
<b>Previously Approved</b>						
New College of Business Administration	\$22,000,000	SRB, GIF	\$1,447,487	111,000	\$450,000	PI 08/03
Modular Swing Space Phase II	\$2,600,000	SRB	\$171,067	26,000	\$65,000	PA 11/03
Campus Infrastructure Upgrades	\$17,600,000	SRB	\$1,157,989	NA	\$100,000	PA 09/02
New Laboratory Facility	\$33,000,000	COP	\$2,883,281	100,000	\$750,000	PI 04/03
Applied Research Facility/Site Prep <sup>4</sup>	\$18,000,000	COP, GIF and FGT	\$1,575,983	70,000	\$400,000	PI 04/03
College of Engineering and Technology Renovation	\$15,000,000	COP	\$1,311,566	70,713	\$325,000	PI 04/03
<b>PUBLIC / NON-PROFIT PARTNERSHIPS</b>						
<b>RESIDENCE LIFE</b>						
New Student Housing at Campus Heights	\$30,000,000	NA	NA	110,000	L.L.C.	LLC 03/03
<b>Cumulative Project Totals</b>	<b>\$113,200,000</b>		<b>\$8,547,373</b>		<b>\$2,090,000</b>	

Note<sup>1</sup>: Debt Service - system revenue bonds estimated annual principal and interest payments, 30 years at 5.10%.

Note<sup>2</sup>: Debt Service - Certificates of Participation estimated annual principal and interest payments, FY 2004 26 years at 5.25%, FY 2005.25 years at 5.75%.

Note<sup>3</sup>: 2.5% of construction costs.

Note<sup>4</sup>: Project (including site prep) includes \$18M in Research Infrastructure financing and additional, estimated funding of \$7M grants and gifts.

**EXECUTIVE SUMMARY**

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**ACTION ITEM:** Request Project Implementation Approval, New Laboratory Facility

**ISSUE:** Northern Arizona University seeks Project Implementation Approval for the New Laboratory Facility

**PREVIOUS BOARD ACTION:** Project received Capital Development Approval June 2004

**PROJECT DESCRIPTION:**

- The New Laboratory Facility will be located on north campus within a unified science complex, readily accessible to the existing buildings, facilitating a comprehensive and functional use of campus space, while utilizing cost economies in meeting programmatic and instructional needs. Based upon institutional review, the chosen site provides a high return on perception while the presence of existing infrastructure provides for ease of connection to existing campus utility systems. Siting this facility adjacent to the pedestrian corridor enhances the site value along this main campus artery.
- The New Laboratory Facility will consist of approximately 80,000 gross square feet of flexible instructional and research laboratories to: 1) replace existing instructional and research laboratories; and, 2) enhance and support the collaborative instructional and research requirements of the increasingly complex and advanced undergraduate and graduate level laboratory sciences. The existing labs are currently located in the Chemistry Building (20) and Biological Sciences Building (21) and were constructed in the early 1960's. It was determined from facility audits that renovation of the existing laboratories to meet current building and life safety codes would be technically prohibitive and not financially feasible. Critical code issues were identified with the existing wet labs. These laboratory facilities fall within category red based upon their Facility Condition Index.
- Twenty three wet laboratories with supporting research and instructional spaces are being relocated from Buildings 20 and 21 into the New Laboratory Facility. Backfill options requiring less restrictive code mandates than wet laboratories are being researched for the vacated spaces; these include instructional classroom spaces, faculty office spaces, and administrative office spaces. NAU will continue to use these vacated spaces in the future.
- The project is using the Construction Manager at Risk process. The design professional is Carter & Burgess partnered with laboratory consultant, Earl Walls Associates, and the construction manager is Holder Construction partnered with local Flagstaff contractor, Kinney Construction.
- The total project budget is \$33 million funded by Certificates of Participation supported by Research Infrastructure funds appropriated by the legislature under House Bill 2529. The debt service will be funded through interest capitalization until July 1, 2007 when appropriations for Research Infrastructure are to begin.

**CONTACT:** Dr. M.J. McMahon, Executive Vice President  
(928) 523-6515 [MJ.McMahon@nau.edu](mailto:MJ.McMahon@nau.edu)

## **EXECUTIVE SUMMARY**

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### **FISCAL IMPACT AND FINANCING PLAN:**

The debt ratio previously approved by the Board in NAU's Capital Improvement Plan for FY 2005-2007 was State (A.R.S.) 4.23% and ABOR 5.29%. The revised debt ratio for the full implementation of the CDP is estimated to be: State (A.R.S.) 6.19%, limit 8% and ABOR 7.74%, limit 10%. Debt ratio estimates are derived from audited FY 2004 financial data that includes all final adjustments as reflected in the debt capacity report. The incremental debt service for the New Laboratory Facility - State (A.R.S.) 0.65% and ABOR 0.82%

### **PROJECT JUSTIFICATION:**

In 2002, NAU retained Vanderweil Facility Advisors of Boston to complete a thorough facility audit of the Biological Sciences and Chemistry Buildings. In addition, GLHN Architects and Engineers were retained to provide a code study of the Biological Sciences and Chemistry Buildings.

The studies revealed critical code issues with the existing wet laboratories. Affiliated with the wet laboratory problems are major building mechanical systems that can no longer provide adequate exhaust or ventilation which is a violation of current indoor air quality standards. The entire plumbing and electrical systems need to be replaced. The fire/life safety systems are minimal and require immediate replacement as they no longer meet current safety codes. It was determined that new construction would provide better financial and academic returns for continuing research and instruction in wet laboratories. Achieving compliance with building and safety codes, correcting poor indoor air quality, and attaining ADA compliance within the existing facilities would be cost prohibitive renovations. In addition, renovation would have a devastating impact on academic learning environments and academic schedules due to laboratory space limitations in already inadequate wet laboratory facilities.

### **STRATEGIC OBJECTIVES:**

Mission and Strategic Plans: As a university committed to its goals to provide undergraduate educational excellence in a residential learning community, strengthen graduate education and research, and to increase enrollment and retention of students, this project directly focuses upon the University 2005 strategic plan by providing a quality learning environment with advanced technology to support instruction and research. This project meets strategic goals of academic excellence and improved instructional technology by providing quality instructional lab space.

Campus Master Plans: This project is congruent with the spirit and stated intention of the master plan. The campus master plan called for an analysis of the replacement versus the renovation costs. In either case, the master plan recognized the urgent need to renovate or replace laboratories as one of the highest facility priorities for the University. The master plan did recognize a new science facility should be located in the sciences complex vicinity consistent with increasing campus density levels.



**EXECUTIVE SUMMARY**

Community Outreach Process: As part of President Haeger's community outreach plan, capital projects are shared with a variety of city agencies and authorities, as well as Flagstaff community service organizations. These presentations and meetings include participants from diverse cultures and educational backgrounds within the city of Flagstaff and surrounding region. In addition, these same presentations and information sharing opportunities are offered to the campus community, e.g. user groups, students, departments, committees, advisory groups, etc.

**RECOMMENDATION:**

**Resolved, that Northern Arizona University be granted Project Implementation Approval for the New Laboratory Facility project and is authorized to proceed to complete design and construction documentation.**

**EXECUTIVE SUMMARY**

**Capital Project Information Summary**

University: Northern Arizona University

Project Name: New Laboratory Facility

Project Description / Location:

A new 80,000 gross square foot laboratory facility located on north campus within a unified Sciences Complex (see attached map).

Project Schedule (Beginning Month/Year):

Planning	03/03	<i>(Project put on hold pending legislation for House Bill 2529)</i>
Design	03/03	<i>Research Infrastructure appropriation)</i>
Construction	06/05	
Occupancy	01/07	

Project Budget:

Total Project Cost	\$33,000,000
Direct Construction Cost	\$26,768,000
Total Project Cost per GSF	\$413
Construction Cost per GSF	\$335
Change in Annual O&M Costs	\$625,000
Utilities	\$225,000
Personnel	\$375,000
All Other Operating	\$25,000

Funding Sources:

Capital .

A. Certificates of Participation                      \$33,000,000  
(The debt service will be funded through interest capitalization until July 1, 2007 when appropriations for Research Infrastructure, House Bill 2529, are to begin.)

Operation / Maintenance

A. General Funds    \$625,000

**EXECUTIVE SUMMARY**

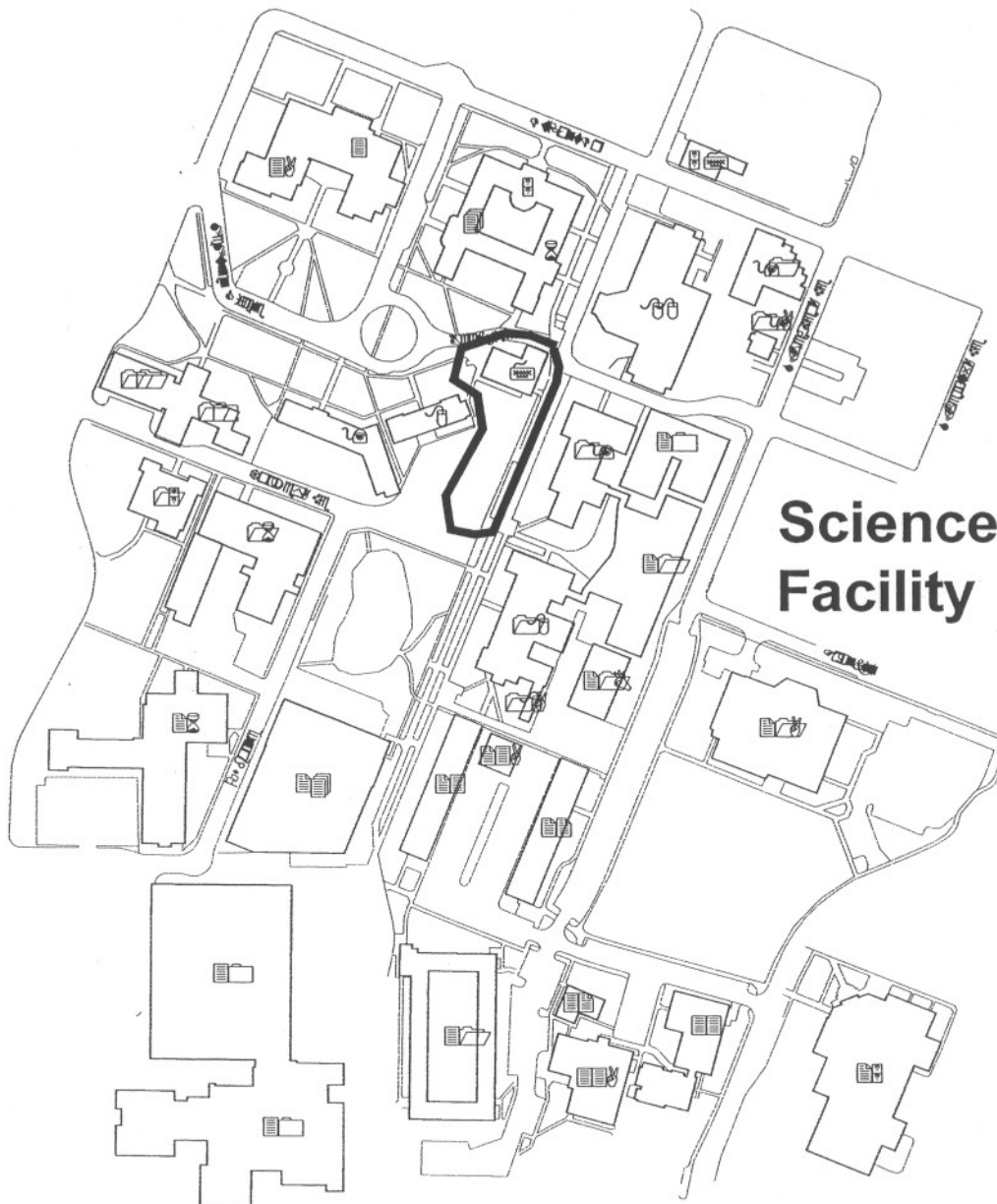
**Capital Project Budget Summary**

University: Northern Arizona University

Project Name: New Laboratory Facility

	<b>CDP Estimate</b>	<b>Project Implementation Approval</b>	<b>Project Approval</b>
Capital Costs			
1. Land Acquisition			
2. Construction Cost			
A. New Construction / Precon		\$26,168,000	
B. Renovation			
C. Special Fixed Equipment			
D. Site Development		\$500,000	
E. Parking and Landscaping			
F. Utilities Extensions			
G. Demolition / Asbestos		\$100,000	
H. Inflation Adjustment			
Subtotal Construction Cost		\$26,768,000	
3. Fees (% of Construction Cost)			
A. Construction Manager			
B. Engineer		\$2,650,000	
C. Other: Lab/Telecom/Commissioning		\$466,680	
Subtotal Consultant Fees		\$3,116,680	
4. FF&E Moveable		\$0	
5. Contingency, Design Phase		\$0	
6. Contingency, Constr. Phase (4.9%)		\$1,333,400	
7. Parking Reserve			
8. Telecommunications Equipment			
Subtotal Items 4 – 8		\$1,333,400	
9. Additional University Costs			
A. Surveys and Tests		\$180,000	
B. Physical Plant SWO's			
C. Public Art / Other		\$0	
D. Printing Advertising		\$70,004	
E. Asbestos – fire curtain			
F. Project Management Cost		\$1,436,711	
H. State Risk Mgmt Ins.		\$95,205	
Subtotal Additional University Costs		\$1,781,920	
<b>TOTAL CAPITAL COST</b>		<b>\$33,000,000</b>	

**EXECUTIVE SUMMARY**



**Science Lab.  
Facility**

## **EXECUTIVE SUMMARY**

**ACTION ITEM:** Request Project Implementation Approval,  
North Campus Research Infrastructure

**ISSUE:** Northern Arizona University seeks Project Implementation Approval for the North  
Campus Research Infrastructure

**PREVIOUS BOARD ACTION:** Project received Capital Development Approval June 2004

### **PROJECT DESCRIPTION:**

- This project directly supports the utility demands that state-of-the-art research technologies require. The construction will provide utility extensions to the new Applied Research and Development Facility and the new Laboratory Facility. Within the existing north plant facility, Building 24, the project will add two chillers, replace an aging boiler, and install related equipment to support utility needs driven by research and instructional laboratory functions.
- Increased chiller capacity will eliminate stand alone cooling units currently in place on north campus, resulting in increased energy efficiency, reliability and cost effectiveness. Adding chiller capacity to the north campus chiller plant during campus construction currently scheduled allows NAU to maximize concurrent construction requirements such as trenching, utilities, materials, etc. The current boiler equipment is operating in excess of its life cycle and replacement will enhance efficiency and sustain current operations, as well as ensure delivery of steam for heating to research facilities on north campus.
- The project is using the Construction Manager at Risk process. The design professional is GLHN Architects and Engineers from Tucson.
- The total project budget is \$5 million funded by Certificates of Participation supported by Research Infrastructure funds appropriated by the legislature under House Bill 2529. The debt service will be funded through interest capitalization until July 1, 2007 when appropriations for Research Infrastructure are to begin.

### **FISCAL IMPACT AND FINANCING PLAN:**

The debt ratio previously approved by the Board in NAU's Capital Improvement Plan for FY 2005-2007 was State (A.R.S.) 4.23% and ABOR 5.29%. The revised debt ratio for the full implementation of the CDP is estimated to be: State (A.R.S.) 6.19%, limit 8% and ABOR 7.74%, limit 10%. Debt ratio estimates are derived from audited FY 2004 financial data that includes all final adjustments as reflected in the debt capacity report. The incremental debt service for the North Campus Infrastructure - State (A.R.S.) 0.10% and ABOR 0.12%

**CONTACT:** Dr. M.J. McMahon, Executive Vice President  
(928) 523-6515 [MJ.McMahon@nau.edu](mailto:MJ.McMahon@nau.edu)

## **EXECUTIVE SUMMARY**

### **PROJECT JUSTIFICATION:**

The need to renovate research and laboratory facilities on the NAU campus has been long recognized and extends into the renovation needs of the infrastructure systems that support campus facilities. Expanding the north campus infrastructure with increased chiller capacity to support scheduled new instructional and research laboratory construction directly correlates with the increased utility demands required by state-of-the-art research technologies being funded by House Bill 2529 Research Infrastructure.

Increased chiller capacity will eliminate stand alone cooling units currently in place on north campus, resulting in increased energy efficiency, reliability and cost effectiveness. Adding chiller capacity to the north campus chiller plant during currently scheduled campus construction allows NAU to maximize concurrent construction requirements such as trenching, utilities, materials, etc.

### **STRATEGIC OBJECTIVES:**

Mission and Strategic Plans: The North Campus Research Infrastructure project will enhance the university's strategic goal of strengthening graduate education, economic development, and undergraduate and graduate research functions. Research and educational programs are validated by a facility that integrates instructional opportunities with a state-of-the-art research delivery system. These research systems necessitate infrastructure to support their energy requirements. The new infrastructure directly supports the university's strategic goals, which includes continued research focus within areas unique to NAU's strengths.

Campus Master Plans/Land use: The proposed new construction and renovation are consistent and congruent with the land use pattern identified in the current approved Campus Master Plan. Consolidation of academic functions, laboratories and research tasks supports the master plan objective and is consistent with traffic management patterns and promotion of a pedestrian campus.

Community Outreach Process: As part of President Haeger's community outreach plan, capital projects are shared with a variety of city agencies and authorities, as well as Flagstaff community service organizations. These presentations and meetings include participants from diverse cultures and educational backgrounds within the city of Flagstaff and surrounding region. In addition, these same presentations and information sharing opportunities are offered to the campus community, e.g. user groups, students, departments, committees, advisory groups, etc.

### **RECOMMENDATION:**

**Resolved, that Northern Arizona University be granted Project Implementation Approval for the North Campus Research Infrastructure project and is authorized to proceed to complete design and construction documentation.**

**EXECUTIVE SUMMARY**

**Capital Project Information Summary**

University: Northern Arizona University

Project Name: North Campus Research Infrastructure

Project Description / Location:

The construction will provide utility extensions to the new Applied Research and Development Facility and the new Laboratory to support the utility demands that research technologies require. The project will replace an aging boiler, add two chillers and install related equipment to support research laboratory functions on north campus in the existing north plant, Building 24.

Project Schedule (Beginning Month/Year):

Planning	10/04
Design	03/05
Construction	08/05
Completion	08/06

Project Budget:

Total Project Cost	\$5,000,000
Direct Construction Cost	\$3,975,575
Total Project Cost per GSF	\$ N/A
Construction Cost per GSF	\$ N/A
Change in Annual O&M Costs	\$125,000
Utilities	\$75,000
Personnel	\$40,000
All Other Operating	\$10,000

Funding Sources:

Capital

A. Certificates of Participation                      \$5,000,000

(The debt service will be funded through interest capitalization until July 1, 2007 when appropriations for House Bill 2529 Research Infrastructure are to begin.)

Operation / Maintenance

A. General Funds    \$125,000

**Capital Assets & Services**
**PROJECT NAME:**

North Campus Research Infrastructure

**PROJECT #:**

10.010.045

**REVISION DATE:**

May 18, 2005

**PROJECT MANAGER:**
**PROJECT Sq Ft: 0**
**PROJECT DESCRIPTION:**
**Construction Cost Sq Ft: #DIV/0!**
**Total Project Cost Sq Ft: #DIV/0!**

<b>SCHEDULE:</b>	<b>CONCEPTUAL</b>	<b>POST-BID / GMP</b>	<b>FINAL</b>	<b>ACTUAL</b>
PRELIMINARY PLAN APPROVAL				
BID DATE				
CONSTRUCTION PERIOD				
OCCUPANCY DATE				
<b>TOTAL APPROVED FUNDING</b>				
<b>DESCRIPTION OF CAPITAL COSTS</b>	<b>CONCEPTUAL BUDGET</b>	<b>CONTRACT AWARD</b>	<b>FINAL BUDGET</b>	<b>ACTUAL COST</b>
<b>CONSTRUCTION COST</b>				
New Construction	\$1,750,575	\$0	\$0	\$0
Demolition / Asbestos	\$100,000	\$0	\$0	\$0
Fixed / Built-In FF&E	\$0	\$0	\$0	\$0
Site Development	\$0	\$0	\$0	\$0
Parking	\$0	\$0	\$0	\$0
Landscaping	\$0	\$0	\$0	\$0
Utility Extensions	\$2,125,000	\$0	\$0	\$0
Inflation / Material Cost Adjustment 0.0%	\$0	\$0	\$0	\$0
<b>CONTINGENCY 10.0%</b>	<b>\$200,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>SUBTOTAL: CONSTRUCTION COST</b>	<b>\$4,175,575</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>ARCHITECT / ENGINEERING FEES</b>				
Building Commissioning 0.0%	\$0	\$0	\$0	\$0
Architect / Engineer Fee 5.0%	\$410,000	\$0	\$0	\$0
Programming	\$0	\$0	\$0	\$0
Schematic Design	\$0	\$0	\$0	\$0
Design Development	\$0	\$0	\$0	\$0
Construction Documents	\$0	\$0	\$0	\$0
Bidding / Negotiation	\$0	\$0	\$0	\$0
Construction Administration	\$0	\$0	\$0	\$0
Field Observation	\$0	\$0	\$0	\$0
Reimbursables (Not to exceed)	\$0	\$0	\$0	\$0
<b>CONTINGENCY 2.0%</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>SUBTOTAL: CONSULTANT FEES</b>	<b>\$410,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>ASBESTOS ABATEMENT</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>FF&amp;E MOVABLE</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>PARKING PERMITS</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>TELECOMMUNICATION LINES/HOOK-UP</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>TELECOMMUNICATION EQUIPMENT</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Survey & Tests 1.0%	\$125,000	\$0	\$0	\$0
Western Technologies	\$0	\$0	\$0	\$0
Asbestos Testing	\$0	\$0	\$0	\$0
CAS: Inspections / Other 0.0%	\$0	\$0	\$0	\$0
Move-in Costs 0.0%	\$0	\$0	\$0	\$0
Public Art (If over \$1,000,000) 0.5%	\$0	\$0	\$0	\$0
Printing/Advertisement 0.25%	\$25,000	\$0	\$0	\$0
Construction Insurance: Risk Mgmt 0.34%	\$14,425	\$0	\$0	\$0
Project Management Fee (2% w A/E) (10% if no A/E and over \$10,000)	\$250,000	\$0	\$0	\$0
<b>SUBTOTAL:</b>	<b>\$414,425</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>PROJECT TOTAL COST</b>	<b>\$5,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



STATE OF ARIZONA

**Joint Committee on Capital Review**

STATE  
SENATE

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CHAIRMAN 2005  
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1716 WEST ADAMS  
PHOENIX, ARIZONA 85007

PHONE (602) 542-5491

FAX (602) 542-1616

<http://www.azleg.state.az.us/jlbc.htm>

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STEPHEN TULLY

DATE: June 21, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Shelli Carol, Fiscal Analyst

SUBJECT: Arizona State University – Review of Infrastructure and Sewer Systems Bond Projects

**Request**

A.R.S. § 15-1683 requires Committee review of any university projects financed with system revenue bonds. Arizona State University (ASU) requests Committee review of \$14 million for Infrastructure Improvements Phase IV and \$6 million for a Sewer Systems Expansion. ASU plans to incorporate these initiatives into a \$56 million bond issuance in fall 2005, with an anticipated Standard and Poor's credit rating of AAA. This issuance would include projects the Committee has already favorably reviewed, as well as projects the university will submit for review later in the summer. With those final submittals, Staff will summarize the entire bond issuance.

**Recommendation**

JLBC Staff recommends a favorable review of the Sewer Systems Expansion project with the following standard university financing provisions. Subsequent to these provisions, Staff separately comments on Infrastructure Improvements Phase IV.

- ASU shall report to the Committee before expenditure of any allocations that exceed the greater of \$100,000 or 10% of the reported contingency amount total for add alternates that do not expand the scope of the project. ASU shall also report to the Committee before any reallocation exceeding \$100,000 among the individual planned improvements or expansions.
- ASU shall submit for Committee review any allocations that exceed the greater of \$100,000 or 10% of the reported contingency amount total for add alternates that expand the scope of the project. In case of an emergency, ASU may immediately report on the scope and estimated cost of the emergency rather than submit the item for review. JLBC Staff will inform the university if they do not concur with the emergency nature of the change in scope.
- A favorable review by the Committee does not constitute endorsement of General Fund appropriations to offset any tuition collections or auxiliary revenues that may be required for debt service, or any operations and maintenance costs when the project is complete. These costs should be considered by the entire Legislature through the budget development process.

(Continued)

JLBC Staff continues to work with ASU in evaluating the reasonableness of costs associated with Infrastructure Improvements Phase IV. Staff will provide further comments to the Committee prior to review.

Table 1 summarizes the two projects and their associated financing costs. Since each initiative has a different useful life span, each associated bond series has its own term and interest rate.

<b>Table 1</b>			
<b>ASU New System Revenue Bond Project Financing Costs</b>			
<u>Project</u>	<u>Infrastructure Improvements</u>	<u>Sewer Systems Expansion</u>	<u>Total</u>
Bond Term (years)	20	30	
Bond Interest Rate	5.0%	6.0%	
Total Project Cost	\$14,000,000	\$ 6,000,000	\$20,000,000
<i>Annual Debt Service</i>			
Tuition Collections	842,500	109,000	951,500
Auxiliary Revenues	280,900	326,900	607,800
<b>Total Annual Debt Service</b>	<b>\$ 1,123,400</b>	<b>\$ 435,900</b>	<b>\$ 1,559,300</b>
Total Debt Payments	\$22,468,000	\$13,077,000	\$35,545,000

A.R.S. § 15-1683 allows each state university to incur a projected annual debt service for bonds and certificates of participation of up to 8.0% of each institution's total projected annual expenditures. This calculation is known as the debt ratio. An additional \$20 million in system revenue bonds would increase the ASU debt ratio from 4.8% to 4.9%.

Tuition collections and auxiliary revenues used for debt service would be unavailable to support operating expenses and may, therefore, impact the General Fund in the future. University auxiliary revenues derive from enterprises including student housing, bookstores, student unions, intercollegiate athletics, and internal operations.

## Analysis

With the exception of one portion of Infrastructure Improvements Phase IV (ASU would accomplish Central Plant Improvements through an existing contract with APS), ASU would contract the above bond projects using Construction Manager at Risk (CMAR). In CMAR, a competitively selected General Contractor manages a construction project, including the associated architect and other subcontractors, from design to completion. CMAR defines a guaranteed maximum price, after which the General Contractor must absorb almost all cost increases, except those caused by scope changes or unknown site conditions. Occasionally, in the case of substantial materials price inflation, a university will partially cover higher costs to maintain good contractor relations.

## Infrastructure Improvements Phase IV

Infrastructure Improvements Phase IV would upgrade utilities to support new facilities on the ASU main campus. The university designed Infrastructure Improvements Phase IV to enhance the efficiency of utility distribution towards the university's energy reduction goals.

ASU plans to issue system revenue bonds with a 20-year term at an estimated interest rate of 5%. Annual debt service would be approximately \$1,123,400, including \$842,500 from tuition collections and \$280,900 from auxiliary revenues. The total 20-year debt service would be \$22.5 million.

(Continued)

Prior to this \$14 million phase, the Committee favorably reviewed \$22.8 million for 14 Phase I projects at its March 2002 meeting, \$10 million for 11 Phase II projects at its August 2003 meeting, and \$7.4 million for 6 Phase III projects at its March 2004 meeting. ASU anticipates Infrastructure Improvements Phase IV would have a direct construction cost of \$11.7 million, management and architectural fees of \$1.6 million, and a \$0.7 million contingency fund. The university anticipates completing the upgrades over a 31-month period. Upon project completion, ASU estimates new associated operating and maintenance costs of \$150,000. The university has stated its intention to accommodate these expenses from its existing General Fund operations budget.

Table 2 summarizes the capital costs and scopes of the 7 utility extensions.

<b>Table 2</b>			
<b>ASU Infrastructure Improvements Phase IV Extension Costs and Scopes</b>			
<u>Project</u>	<u>Allocation</u>	<u>Useful Life (Years)</u>	<u>Description</u>
Apache Drive 12" Water Line	\$ 65,000	50	Utilities for new McAllister Academic Village
Utility Tunnel Repairs	1,550,000	30	Reinforcements to extend useful life
DPS IT Extension	1,500,000	30	Telecomm and police alarms for new DPS location and South Campus
Campus Research Electric Cogeneration	2,000,000	30	16 MW plant providing electrical redundancy to protect research projects
Central Plant Improvements	4,000,000	30	New 80,000 lb/hr steam boiler and 60,000 lb/hr boiler burner replacement
Campus Research Network Controller	150,000	15	Remote Internet control for building systems
Campuswide IT Extensions	4,735,000	15	Conduits and vaults for voice, data, TV, fire, and building control lines under several campus roads
<b>Total</b>	<b>\$14,000,000</b>		

Staff continues to work with ASU in evaluating the reasonableness of costs associated with Infrastructure Improvements Phase IV. Staff will provide further comments to the Committee prior to review.

#### Sewer Systems Expansion

The Sewer Systems Expansion would occur along University and McAllister Drives, on the west side of the main ASU campus. The project would support university construction and renovation projects including the McAllister Village Residences, Barrett Honors College, South Campus Residence Expansion, Biodesign Institute, and Gateway Development at Tempe Center. The university's current sewer systems are operating at capacity.

ASU plans to issue system revenue bonds with a 30-year term at an estimated interest rate of 6%. Annual debt service would be approximately \$435,900, including \$109,000 from tuition collections and \$326,900 from auxiliary revenues. The total 30-year debt service would be \$13.1 million.

ASU anticipates the Sewer Systems Expansion would begin in August 2005. The project would have a direct construction cost of \$4.7 million (including \$60,000 for parking and landscaping expenses), management and architectural fees of \$0.4 million, and a \$0.9 million contingency fund. The university intends to time this construction cycle to coincide with larger City of Tempe infrastructure improvements. As a result, the City would perform the extension work and ASU would avoid some trenching expenses. ASU is still negotiating one of two required Intergovernmental Agreements with the City of Tempe for the sewer work. Therefore, the university could not provide a completion date for the project.

(Continued)

Table 3 summarizes the capital costs and scopes of the 5 expansion components.

<b>Table 3</b>			
<b>ASU Sewer Systems Expansion Costs and Scopes</b>			
<u>Project</u>	<u>Diameter</u>	<u>Length</u>	<u>Allocation</u>
McAllister Drive	33"	1.0 mi	\$2,400,000
University Drive	27"	0.8 mi	2,100,000
Forest Mall	18"	0.1 mi	200,000
Student Recreation Center	21"	0.3 mi	800,000
Associated Connections			500,000
<b>Total</b>			<b>\$6,000,000</b>

Since each sewer construction project involves unique soil conditions, piping, depth, and layout, it is difficult to make meaningful comparisons. However, generalized estimates from the Arizona Department of Administration Facilities Management Division indicate that a \$6 million cost for this project is reasonable.

RS/SC:ym

**ASU**  
ARIZONA STATE UNIVERSITY

TEMPE, ARIZONA 85287

June 3, 2005



The Honorable Robert Burns, Chair  
Joint Committee on Capital Review  
1700 W. Washington  
Phoenix, AZ 85007

Dear Senator Burns:

In accordance with ARS 15-1683, the Arizona Board of Regents requests that the following bond financed projects for ASU be placed on the next JCCR agenda for review:

→ Infrastructure Improvements – Phase IV  
Sewer Systems Expansion

Enclosed is pertinent information relating to this project.

Also enclosed is an update on a previously reviewed project, due to reprioritization changes within the project:

Academic Renovations and Deferred Maintenance Phase I

We appreciate your consideration of our requests. If you have any questions or desire any clarification on the enclosed material, please contact me at (480) 727-8307.

Sincerely,

Richard Stanley  
Senior Vice President and University Planner

Enclosure

c: Lorenzo Martinez, Assistant Director, JCCR  
Joel Sideman, Executive Director, Arizona Board of Regents  
Ted Gates, Assistant Executive Director for Capital Resources, Arizona Board of Regents  
Milton Glick, Executive Vice President and Provost  
Carol Campbell, Executive Vice President and CFO  
Virgil Renzulli, Vice President for Public Affairs  
Scott Cole, Deputy Executive Vice President, University Services  
Steve Miller, Deputy Vice President, Public Affairs  
James Sliwicki, Director, Budget Planning and Management  
Gerald Snyder, Associate Vice President for Finance and Treasurer  
Scott Smith, Director, State Relations

## EXECUTIVE SUMMARY

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### ACTION ITEM:

Infrastructure Improvements Phase IV, Project Implementation Approval, Arizona State University Tempe campus (ASUT).

### ISSUE:

ASU requests Project Implementation for Phase IV of an extensive infrastructure project to upgrade utilities, repair deterioration of existing facilities and to support new building projects now in their design or planning phases.

### PROJECT DESCRIPTION:

Previous Board Action:

- 2005 Revised Capital Development Plan

January 2005

This project encompasses sewer, water, steam, chilled water, electrical, utility tunnels and other miscellaneous upgrades including, but not limited to:

• Apache Drive 12-inch water line	\$ 65,000
• Utility Tunnel Repairs	\$1,550,000
• DPS IT extension to lot 17	\$1,500,000
• Campus Research Buildings. Electrical cogeneration primary and backup feeds	\$2,000,000
• Central Plant Improvements	\$4,000,000
• Campus research buildings NIE controller	\$ 150,000
• IT Extensions. Duct bank crossing under Apache to North Campus – from Palm Walk south of University and tunnel access south of Palo Verde, including conduits and vault; Duct bank crossing under Apache to South Campus – tunnel access west of Parking Structure 1 and Lot 17 west, including eight, four-inch conduits and a vault; Duct bank crossing under Stadium Drive to North Campus –Tunnel access southwest of Manzanita Hall and north of Stadium Dr. south of Wells Fargo Arena including eight, four-inch conduits and a multiple vault; Duct bank crossing under Rural Rd – for development required in Karsten area.	\$4,735,000

The total project cost estimate is \$14,000,000.

### **PROPOSED SCHEDULE:**

- |   |              |
|---|--------------|
| • Project Implementation                        | January 2005 |
| • Project Approval (Central Plant Improvements) | January 2005 |
| • Construction start                            | June 2005    |
| • Completion                                    | June 2007    |

### **PROJECT JUSTIFICATION:**

All of the Infrastructure Improvements Phase IV projects are to upgrade utilities, repair deteriorating existing facilities and to support new building projects now in their design or planning phases. ASU must complete these infrastructure improvements before we can open and operate new campus facilities. Many of these infrastructure projects will enhance utility distribution efficiencies that will assist in meeting the ASU energy reduction goals.

### **FISCAL IMPACT AND FINANCING PLAN:**

This project was included in the ASU Revised 2005 Capital Development Plan, submitted in January 2005. It indicates that the debt service on all outstanding debt would be 5.1 percent of total projected expenditures (State law basis is a maximum of 8%) and 6.4 percent of projected unrestricted expenditures (ABOR policy basis is a maximum of 10%). The debt service for this project is 0.07 percent (7/100 of 1%) of total projected expenditures (State Law basis) and 0.09 percent (9/100 of 1%) of total projected unrestricted expenditures (ABOR Policy basis).

### **RECOMMENDATION:**

**That the Board grant Project Implementation to Arizona State University for the Infrastructure Phase IV Project.**

## EXECUTIVE SUMMARY

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### Capital Project Information Summary

**University:** Arizona State University Tempe

**Project Name:** Infrastructure Improvements Phase IV

**Project Description/Location:**

Campus wide infrastructure upgrades including sewer, water, steam, chilled water, electrical, utility tunnels and miscellaneous.

**Project Schedule (Beginning Month/Year):**

Planning	January 2005
Design	February 2005
Construction	June 2005
Occupancy (Completion)	June 2007

**Project Budget:**

Total Project Cost	\$14,000,000
Direct Construction Cost	\$11,735,400
Total Project Cost per GSF	N/A
Construction Cost per GSF	N/A
Change in Annual Oper. /Main. Cost	
Utilities	\$ 150,000
Personnel	N/A
All Other Operating	N/A

**Funding Sources:**

Capital

A. System Revenue Bonds \$ 14,000,000  
(Funding source for Debt service: Tuition and Auxiliary Generated Funds)

Operation/Maintenance

A. General Fund \$ 150,000



**EXECUTIVE SUMMARY**

**University:** Arizona State University Tempe

**Project Name:** Infrastructure Improvements Phase IV

	<b>Capital Development Plan Approval</b>	<b>Project Implementation Approval</b>	<b>Project Approval</b>
Capital Costs			
1. Land Acquisition			
2. Construction Cost			
A. New Construction	\$ 6,328,400	\$ 6,328,400	-
B. Renovation	-	-	-
C. Special Fixed Equipment	3,407,000	3,407,000	-
D. Site Development (excl. 2.E.)	-	-	-
E. Parking and Landscaping	-	-	-
F. Utilities Extensions	\$ 2,000,000	\$ 2,000,000	-
G. Other* (Environmental control)	-	-	-
H. Inflation Adjustment	-	-	-
Subtotal Construction Cost	<u>\$ 11,735,400</u>	<u>\$ 11,735,400</u>	<u>-</u>
3. Fees (% of Construction Cost)			-
A. Construction Mgr	\$ 450,000	\$ 450,000	-
B. Architect/Engineer	850,000	850,000	-
C. Other	-	-	-
Subtotal Consultant Fees	<u>\$ 1,300,000</u>	<u>\$ 1,300,000</u>	<u>-</u>
4. FF&E Movable			-
5. Contingency, Design Phase	\$ 100,000	\$ 100,000	-
6. Contingency, Constr. Phase	600,000	600,000	-
7. Parking Reserve			-
8. Telecommunications Equipment			-
Subtotal Items 4-8	<u>\$ 700,000</u>	<u>\$ 700,000</u>	<u>-</u>
9. Additional University Costs			-
A. Surveys and Tests			-
B. Move-in Costs			-
C. Printing Advertisement			-
D. Keying, signage			-
E. Project Management Cost (1.55%)	\$ 217,000	\$ 217,000	-
F. State Risk Mgt. Ins. (.0034) **	47,600	47,600	-
Subtotal Addl. Univ. Costs	<u>\$ 264,600</u>	<u>\$ 264,600</u>	<u>\$ -</u>
<b>TOTAL CAPITAL COST</b>	<u><u>\$ 14,000,000</u></u>	<u><u>\$ 14,000,000</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

# **ARIZONA STATE UNIVERSITY**

## **INFRASTRUCTURE IMPROVEMENTS PHASE IV – JCCR REVIEW**

The following is more detailed information for the specific sub-projects in the Infrastructure Improvements Phase IV project.

### **Apache Drive 12-inch water line:**

This project will install a water line to sustain the McAllister Academic Village being constructed at Arizona State University at the Tempe campus. The water line has a useful life expectancy of over 50 years.

### **Utility Tunnel Repairs**

Utility tunnels at the Tempe campus need repair to maintain the integrity of utility systems within the tunnels and to maintain load bearing capability. The repairs have a useful life expectancy of over 30 years.

### **DPS IT extension to Lot 17**

This project will extend IT, telecommunications and police alarms to the new DPS location at Lot 17. The path also needs to be extended to Central Plant South for all planned development in the South Campus area. The IT extensions have a useful life expectancy of 30 years.

### **Campus Research Buildings – electrical cogeneration primary and backup feeds**

This project will install backup electrical feeds to Tempe campus research buildings. The project is required because electrical redundancy is needed to protect research projects from electrical power loss. The electrical feeds have a useful life expectancy of more than 30 years.

### **Central Plant Improvements**

This project will install a new boiler, replace a boiler burner, and perform other necessary upgrades at the Tempe campus Central Plant. This project is necessary to sustain steam demand from buildings across campus. The new components will have a useful life expectancy of more than 30 years.

### **Campus research buildings NIE controller**

This project will allow research building systems to be controlled securely through the Internet. The project has a life expectancy of over 15 years.

### **IT Extensions**

ASU requires construction of new duct bank crossings at the north, south and east borders of the ASU Tempe campus due to the lack of existing infrastructure pathways. The new duct banks are required in order for ASU to provide, maintain and upgrade the many special systems such as voice, data, CATV, fire alarm, AC power metering and building controls for existing and new build projects. Currently, ASU can not extend or upgrade existing infrastructure for these special systems without the construction of the duct banks as requested. ASU believes the new duct banks will be able to accommodate the expansion of new services for at least the next 15 years.

## EXECUTIVE SUMMARY

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### ACTION ITEMS:

Sewer Systems Expansion, Project Implementation Approval, Arizona State University Tempe Campus (ASUT); and one or more Intergovernmental Agreements with City of Tempe relating to the Sewer Systems Expansion project.

### ISSUES:

The ASU requests Project Implementation Approval for the Sewer Systems Expansion project to upgrade campus sewer systems capacity for present and future development at the Tempe Campus.

ASU also requests ABOR approval to enter into one or more intergovernmental agreements with the City of Tempe relating to this project.

### PROJECT DESCRIPTION:

Previous Board Action:

- 2005 Revised Capital Development Plan – January 2005

The Sewer Systems Expansion includes, but is not limited to the following:

- McAllister Drive 33-inch sewer - \$2,400,000
- University Drive 27-inch sewer - \$2,100,000
- Forest Mall 18-inch lateral sewer - \$200,000
- Student Recreation Center 21-inch lateral sewer - \$800,000
- Associated lateral connections to all new sewer systems - \$500,000

The estimated total project cost is \$6,000,000.

- The City of Tempe will construct this project.
- The university is in discussions with the City of Tempe regarding the costs of this project. If Tempe chooses to assist ASU in paying for this project, the \$6,000,000 cost to ASU would be reduced.

### PROPOSED SCHEDULE:

- |                                   |               |
|-----------------------------------|---------------|
| • Project Implementation Approval | January 2005  |
| • Project Approval                | February 2005 |
| • Construction Start              | March 2005    |
| • Completion                      | October 2005  |

## EXECUTIVE SUMMARY

---

### PROJECT JUSTIFICATION:

Present sewer systems are at maximum capacity. The Sewer System Expansion is necessary to sustain present and future growth at the Tempe campus. The Sewer Systems Expansion will also relieve present congestion on the west half of the Tempe campus. This project must be completed for any restorations or new facilities on the west side of campus to occur. In coordination with the City of Tempe, the new expansion to the campus must be completed in early 2005 to sustain the following:

- McAllister Village Residential Life Project
- Barrett Honors College
- South Campus Residential Life Expansion
- Biodesign Institute at Arizona State University Building A, B, C, D, E and F
- Combined Heat and Power Plant
- Gateway Development at Tempe Center

This project must be completed at this time to enable the university to coordinate projects with the City of Tempe. The city will be upgrading its infrastructure at the same time and in the same location. The university will save considerable costs because trenches will be open and the city will perform the work.

### FISCAL IMPACT AND FINANCING PLAN:

This project was included in ASU's Revised 2005 Capital Development Plan, submitted in January 2005, which shows that ASU's debt service on all outstanding debt would be 5.1 percent of the university's total projected expenditures (State law basis, max 8%) and 6.4 percent of the university's projected unrestricted expenditures (ABOR policy basis, max 10%). The debt service for this project is .03 percent (3/100th of 1%) of ASU's total projected expenditures (State Law basis) and .04 percent (4/100th of 1%) of ASU's total projected unrestricted expenditures (ABOR Policy basis).

### INTERGOVERNMENTAL AGREEMENT

Because the City of Tempe will construct this project, it is contemplated that ASU and the City of Tempe will enter into one or more intergovernmental agreements to document their relationship relating to the project.

### RECOMMENDATION:

RESOLVED, that Project Implementation Approval is hereby granted to Arizona State University for the Sewer Systems Expansion project AND

FURTHER RESOLVED, that Arizona State University is hereby authorized to enter into one or more intergovernmental agreements with the City of Tempe relating to the Sewer Systems Expansion project and further resolved that the President of the University, the Chief Financial Officer, or the Deputy Executive Vice President for University Services, are each separately hereby authorized to take all appropriate actions to negotiate, execute and deliver the intergovernmental agreement or agreements on the terms described herein, with such modification of such terms as the President, the Chief Financial Officer or the Deputy Executive Vice President for University Services or any of them acting alone determines to be necessary or advisable or convenient and proper.

**EXECUTIVE SUMMARY**

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**Capital Project Information Summary**

**University:** Arizona State University Tempe

**Project Name:** Sewer Systems Expansion

**Project Description/Location:**

Main project locations are University Drive and McAllister Drive. The Sewer Systems Expansion is necessary to sustain present and future growth at the ASU Tempe campus. In coordination with the City of Tempe, the new expansions be completed in 2005 to sustain upcoming growth and to satisfy current needs. In addition, the Sewer Systems Expansion will relieve present congestion on the west half of the ASU Tempe Campus. This is necessary for any renovations or new facilities on the west side of campus.

**Project Schedule (Beginning Month/Year):**

Planning	October 2004
Design	January 2005
Construction	March 2005
Completion	October 2005

**Project Budget:**

Total Project Cost	\$ 6,000,000
Direct Construction Cost	\$ 4,686,600
Total Project Cost per GSF	N/A
Construction cost per GSF	N/A
Change in Annual Oper./Main. Cost	
Utilities	N/A
Personnel	N/A
All Other Operating	N/A

**Funding Sources:**

**Capital**

A. Revenue Bonds	\$ 6,000,000
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(Funding source for Debt service: Tuition and Auxiliary Generated Funds)

**Operation/Maintenance**

A. General Fund	\$ 0
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## EXECUTIVE SUMMARY

**University:** Arizona State University Tempe

**Project Name:** Sewer Systems Expansion

	<u>Capital Development Plan Approval</u>	<u>Project Implementation Approval</u>	<u>Project Approval</u>
Capital Costs			
1. Land Acquisition			
2. Construction Cost			
A. New Construction	\$ 4,596,600	\$ 4,596,600	\$ 4,596,600
B. Renovation	-	-	-
C. Special Fixed Equipment	-	-	-
D. Site Development (excl. 2.E.)	-	-	-
E. Parking and Landscaping	60,000	60,000	60,000
F. Utilities Extensions	-	-	-
G. Other* (Environmental control)	20,000	20,000	20,000
H. Inflation Adjustment	10,000	10,000	10,000
Subtotal Construction Cost	<u>\$ 4,686,600</u>	<u>\$ 4,686,600</u>	<u>\$ 4,686,600</u>
3. Fees (% of Construction Cost)			
A. Construction Mgr	\$ 200,000	\$ 200,000	\$ 200,000
B. Architect/Engineer	100,000	100,000	100,000
C. Other	-	-	-
Subtotal Consultant Fees	<u>\$ 300,000</u>	<u>\$ 300,000</u>	<u>\$ 300,000</u>
4. FF&E Movable			
5. Contingency, Design Phase	\$ 300,000	\$ 300,000	\$ 300,000
6. Contingency, Constr. Phase	600,000	600,000	600,000
7. Parking Reserve	-	-	-
8. Telecommunications Equipment	-	-	-
Subtotal Items 4-8	<u>\$ 900,000</u>	<u>\$ 900,000</u>	<u>\$ 900,000</u>
9. Additional University Costs			
A. Surveys and Tests	\$ -	\$ -	\$ -
B. Move-in Costs	-	-	-
C. Printing Advertisement	-	-	-
D. Keying, signage	-	-	-
E. Project Management Cost (1.55%)	93,000	93,000	93,000
F. State Risk Mgt. Ins. (.0034) **	20,400	20,400	20,400
Subtotal Addl. Univ. Costs	<u>\$ 113,400</u>	<u>\$ 113,400</u>	<u>\$ 113,400</u>
<b>TOTAL CAPITAL COST</b>	<u><u>\$ 6,000,000</u></u>	<u><u>\$ 6,000,000</u></u>	<u><u>\$ 6,000,000</u></u>

\* Universities shall identify items included in this category

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

ARIZONA STATE UNIVERSITY  
ASU DEBT FINANCING

Bonds:

Infrastructure Improvements  
Phase IV

Sewer Systems Expansion

Total Bonds

Project Costs				Debt Service				Operating Costs (Presently Estimated)			
General Fund	Tuition	Auxiliary/ Other	Total	General Fund	Tuition	Auxiliary/ Other	Total	General Fund	Tuition	Auxiliary/ Other	Total
-	10,500,000	3,500,000	14,000,000	-	842,550	280,850	1,123,400 (1)	150,000	-	-	150,000
-	1,500,000	4,500,000	6,000,000	-	108,975	326,925	435,900 (2)	-	-	-	-
-	12,000,000	8,000,000	20,000,000	-	951,525	607,775	1,559,300 (3)	150,000	-	-	150,000

(1) The debt service calculation for this bond financed project is based on an assumed 5.0% interest rate over 20 years.

(2) The debt service calculation for this bond financed project is based on an assumed 6.0% interest rate over 30 years.

(3) ASU's debt service percentage in accordance with ARS 15-1683 will increase from 4.8 to 4.9% for the new financing (based on current expenditure estimates in most recent debt capacity study which was issued in October 2004).

6/20/05

**Arizona State University**  
**Future Debt Financing Fall 2005**  
**(\$ in Millions)**

615-617 E. Apache Blvd Land Purchase	\$	6.0	
Instructional Research Lab Renovations Phase II		20.0	**
Academic Renovations/Deferred Maintenance Phase I		10.0	**
Infrastructure Phase IV		14.0	
Sewer Systems Expansion		6.0	
Subtotal		<u>56.0</u>	

\*\* Portions of these projects have been previously reviewed by JCCR. The remaining project information is anticipated to be submitted for review by August 2005.



6/20/2005

**Arizona State University**  
**Debt Service Schedule- Infrastructure Phase IV**  
**Assumes 5% Interest Rate**

	Payment	Principal	Interest	Balance
				14,000,000
1	1,123,396	423,396	700,000	13,576,604
2	1,123,396	444,566	678,830	13,132,038
3	1,123,396	466,794	656,602	12,665,243
4	1,123,396	490,134	633,262	12,175,109
5	1,123,396	514,641	608,755	11,660,469
6	1,123,396	540,373	583,023	11,120,096
7	1,123,396	567,391	556,005	10,552,704
8	1,123,396	595,761	527,635	9,956,943
9	1,123,396	625,549	497,847	9,331,394
10	1,123,396	656,827	466,570	8,674,568
11	1,123,396	689,668	433,728	7,984,900
12	1,123,396	724,151	399,245	7,260,749
13	1,123,396	760,359	363,037	6,500,390
14	1,123,396	798,377	325,020	5,702,013
15	1,123,396	838,296	285,101	4,863,718
16	1,123,396	880,210	243,186	3,983,507
17	1,123,396	924,221	199,175	3,059,287
18	1,123,396	970,432	152,964	2,088,855
19	1,123,396	1,018,953	104,443	1,069,901
20	1,123,396	1,069,901	53,495	-
Total	22,467,924	14,000,000	8,467,924	-

<b>Amount of Principal Repaid in first 15 Years</b>	<b>9,136,282</b>
---	------------------

Total Project Budget for Projects with useful life of 15 years	4,885,000
Total Project Budget for Projects with useful life of 30 or more years	9,115,000
Total	14,000,000

**Note:** The amount of principal repaid within 15 years is \$9,136,282. The total project costs for projects with a useful life of 15 years is \$4,885,000, therefore, ASU is not financing projects over a term that exceeds the useful life of the improvement.

STATE OF ARIZONA

**Joint Committee on Capital Review**

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1716 WEST ADAMS  
PHOENIX, ARIZONA 85007

PHONE (602) 542-5491

FAX (602) 542-1616

<http://www.azleg.state.az.us/jlbc.htm>

HOUSE OF  
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RUSSELL K. PEARCE  
STEPHEN TULLY

DATE: June 21, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Shelli Carol, Fiscal Analyst

SUBJECT: Arizona State University – Review of Revised Project Costs and Scopes

**Request**

Arizona State University (ASU) requests Committee review of scope and cost revisions for:

- Biodesign Institute, Building B, a university lease-purchase research infrastructure project favorably reviewed by the Committee at its December 2003 meeting
- Academic Renovations and Deferred Maintenance, Phase I, a system revenue bond project favorably reviewed by the Committee at its June 2004 meeting

Both favorable reviews included the provision that scope changes exceeding the greater of \$100,000 or 10% of the reported contingency amount totals required additional Committee review.

The total project cost of the Biodesign Institute, Building B is increasing from \$73 million to \$78.5 million to upgrade security and laboratory technologies. Meanwhile, ASU seeks to cancel certain projects associated with Academic Renovations and Deferred Maintenance, Phase I, replacing them with projects addressing elevator code compliance and academic department growth.

**Recommendation**

JLBC Staff recommends favorable reviews of the scope and cost revisions for both projects, with the following standard university financing provisions and one special provision:

(Continued)

- ASU shall submit for Committee review an allocation plan for the remaining \$1.8 million associated with Academic Renovations and Deferred Maintenance, Phase I before expending those funds.
- ASU shall report to the Committee with a comparison between any compliance costs of the Governor's Executive Order 2005-05, concerning energy efficiency, and operating and other savings generated through those efficiencies.
- ASU shall report to the Committee before expenditure of any allocations that exceed the greater of \$100,000 or 10% of the reported contingency amount total for add-alternates that do not expand the scope of the project. ASU shall also report to the Committee before any reallocation exceeding \$100,000 among the individual planned renovations.
- ASU shall submit for Committee review any allocations that exceed the greater of \$100,000 or 10% of the reported contingency amount total for add-alternates that expand the scope of the project. In case of an emergency, ASU may immediately report on the scope and estimated cost of the emergency rather than submit the item for review. JLBC Staff will inform the university if they do not concur with the emergency nature of the change in scope.

## **Analysis**

ASU would contract these scope revisions using Construction Manager at Risk (CMAR). In CMAR, a competitively selected General Contractor manages a construction project, including the associated architect and other subcontractors, from design to completion. CMAR defines a guaranteed maximum price, after which the General Contractor must absorb almost all cost increases, except those caused by scope changes or unknown site conditions. Occasionally, in the case of substantial materials price inflation, a university will partially cover higher costs to maintain good contractor relations.

### **Biodesign Institute, Building B**

A.R.S. § 15-1682.01 requires Committee review of any university projects financed with Certificates of Participation, also known as lease-purchase agreements. The Committee favorably reviewed the Biodesign Institute, Building B at its December 2003 meeting. At that time, the estimated cost of the project was \$73 million.

ASU is constructing 142,000 square feet of bioengineering, biotechnology, and integrative biomedicine laboratories (including an animal care facility), as well as 30,000 square feet of faculty, research, and administrative office space. As ASU hires Biodesign Institute faculty, they are clarifying laboratory, technology, and security needs for the building. The university intends to complete \$5.5 million of upgrades concurrent with the larger construction process, to maximize economies of scale. These scope changes would delay completion of the facility by one month, to October 2005.

The additional project costs consist of \$4.0 million for laboratory upgrades, \$0.6 million for security upgrades, and \$0.9 million for additional furniture, fixtures, and equipment. ASU would fund this \$5.5 million increase from locally retained tuition, indirect cost recovery, and other

(Continued)

local university funds. ASU also estimates that the increased operating and maintenance demands of the upgrades would raise these annual costs by \$0.4 million to \$2.1 million. Upon project completion, indirect cost recovery would fund all these operations and maintenance expenses.

The revised cost per square foot for this project is \$456 (originally \$425) and the revised direct construction cost per square foot is \$320 (originally \$299). These estimates are above the average per-square-foot cost of other Committee-reviewed university research infrastructure projects. However, because wet laboratories require more mechanical systems than other types of construction, Staff believes the per-square-foot costs for the facility are reasonable.

#### Academic Renovations and Deferred Maintenance, Phase I

A.R.S. § 15-1683 requires Committee review of any university projects financed with system revenue bonds. The Committee favorably reviewed Academic Renovations and Deferred Maintenance, Phase I at its June 2004 meeting.

At that time, ASU planned to renovate 11 buildings, covering approximately 75,000 square-feet, at an estimated total cost of \$10 million. Typical building renewal categories are fire and life safety improvements, preservation of assets, and critical repairs for continued operation of existing programs. Typical building renewal projects include replacement of utility distribution systems; Heating, Ventilating, Air Conditioning (HVAC) systems; and roofs. All 11 buildings required major renovations and some violated life safety codes.

In the interim, the Arizona State Industrial Commission's Elevator Safety Division published code revisions that require modifications to many university elevators. To reduce costs and maximize efficiencies, ASU plans to conduct all needed elevator upgrades and deferred maintenance at one time, at a cost of around \$3.0 million. In addition to the elevator work, the university prioritized 6 new renovations relating to academic program growth, with projected expenses of \$2.9 million.

As a result, ASU intends to cancel 7 previously reviewed renovations with combined costs of \$7.7 million. Since most of these renewals included life safety components, the university is incorporating some into future renovation projects and evaluating other funding sources, most likely locally retained tuition, for the rest. Although ASU has not yet identified the remaining Phase I renovations, the university anticipates that its known scope changes would delay completion of the facility by 3 months, to November 2006.

The combination of new and cancelled renovations has resulted in an uncommitted \$1.8 million from the original \$10 million system revenue bond issuance. Therefore, Staff recommends that ASU submit for Committee review an allocation plan for the remaining monies before expending those funds.

Academic Renovations and Deferred Maintenance, Phase I, as revised, would renovate approximately 44,800 square feet in 9 buildings. *Table 1* summarizes the status, estimated capital costs, and scopes of both the previously reviewed and newly proposed renovations.

(Continued)

<u>Building</u>	<u>Request</u>	<u>Ext.</u> <u>Structure</u>	<u>Int.</u> <u>Structure</u>	<u>Air</u>	<u>Plumbing</u>	<u>Electric</u>	<u>Safety</u>
<i>Continuing Projects</i>							
University Archives	\$1,200,000	X	X	X	X	X	X
Psychology Floors 2 & 3	716,000		X			X	
Armstrong Hall	<u>363,000</u>		X		X	X	
<i>Continuing Subtotal</i>	<i>\$2,279,000</i>						
<i>Planned Projects</i>							
Campuswide Elevators	\$3,020,000		X				
East Engineering Labs	1,100,000	X	X	X	X	X	
Social Sciences	362,500		X				
Language & Literature	362,500		X				
Ceramics Relocation	250,000		X				
Psychology Floor 1	545,400		X				X
East Flight Simulator	<u>291,800</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	-
<i>Planned Subtotal</i>	<i>\$5,932,200</i>						
<i>Uncommitted Funds</i>	<i><u>\$1,788,800</u></i>						
<b>Construction Total</b>	<b>\$10,000,000</b>	<b>3</b>	<b>10</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>2</b>
<i>Cancelled Projects</i>							
Payne Hall	\$1,600,000	X	X	X	X	X	
Nursing	1,500,000	X	X	X	X	X	X
Farmer Education	1,300,000	X	X	X	X	X	X
Dixie Gammage Hall	960,000	X	X	X	X	X	X
Durham Language	884,000	X	X	X	X	X	
Schwada Classroom Office	800,000	X	X	X	X		X
Wilson Hall	<u>668,000</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<b>Cancelled Total</b>	<b>\$7,712,000</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>5</b>
<i>Locally Retained Tuition</i>							
Ross-Blakely Law Library	\$40,000		X				

These scope changes have resulted in \$26,000 of new operations and maintenance costs, which ASU would absorb within its existing budgets. The revised total cost per square foot for this project would be approximately \$183 (originally \$133) and the direct construction cost per square foot would be \$140 (originally \$100). These estimates are above the average per-square-foot cost of other Committee-reviewed university renovation projects.

Since renewal and renovation projects often combine both minor and major work, it is difficult to make meaningful comparisons among them. However, due to the new emphasis on elevator work, Staff believes the per-square-foot costs for Academic Renovations and Deferred Maintenance, Phase I are reasonable. *Table 2* compares the costs of some assorted renovation projects.

(Continued)

Table 2

**Selected Building Renewal/Renovation Projects  
Estimated Per Square Foot Costs**

<u>Project</u>	<u>Total Project Cost</u>	<u>Total Cost Per Square Foot</u>	<u>Direct Construction Cost Per Square Foot</u>
ASU-Backfill Space Renovation II	\$ 3,800,000	\$ 40	\$ 24
Treasurer Renovations	360,000	42	34
UA-Residential Life Building Renewal Phase I	8,600,000	61	51
<b>AVERAGE</b>		<b>\$122</b>	<b>\$96</b>
NAU-School of Communication Building Renovations	14,020,000	154	131
<b>ASU-Academic Renovations &amp; Deferred Maintenance Phase I</b>	<b>10,000,000</b>	<b>183</b>	<b>140</b>
ASU-Instruction/Research Laboratory Renovations Phase I	10,000,000	303	236

Comments: Costs are not adjusted for general or materials inflation.

RS/SC:ym

**ASU**  
ARIZONA STATE UNIVERSITY

TEMPE, ARIZONA 85287

June 7, 2005



The Honorable Robert "Bob" Burns, Chair  
Joint Committee on Capital Review  
1700 W. Washington  
Phoenix, AZ 85007

Dear Senator Burns:

In accordance with House Bill 2529 and ARS 15-1682.01, Arizona Board of Regents (ABOR) requests that the following Arizona State University (ASU) project that is being Certificate of Participation lease purchase financed from Research Infrastructure funds, along with supplemental funding from ASU non financed ASU funds, be placed on the next Joint Committee on Capital Review (JCCR) agenda for review of a scope and budget increase:

Biodesign Institute at ASU, Building B (formerly Arizona Biodesign Institute – Phase II)

The reason for the scope and budget increase is changes needed to accommodate new research faculty hires. The original design of Biodesign Institute, Building B was to be as adaptable as possible for incoming researchers, with changes needed upon hiring of new researchers, which is now occurring. This change in scope and budget is subject to Regents' revised project approval at its June 16-17, 2005 meeting. Funding for the scope and budget increase is available ASU local funds.

Enclosed is pertinent other information relating to this project.

We appreciate your consideration of this request. If you have any questions or desire any clarification on the enclosed material, please contact me at (480) 727-8307.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. Stanley'.

Richard Stanley  
Senior Vice President and University Planner

Enclosure

c: Lorenzo Martinez, Assistant Director, JCCR  
Joel Sideman, Executive Director, Arizona Board of Regents  
Ted Gates, Assistant Executive Director for Capital Resources, Arizona Board of Regents  
Milton Glick, Executive Vice President and Provost  
Carol Campbell, Executive Vice President and CFO  
Virgil Renzulli, Vice President for Public Affairs  
Scott Cole, Deputy Executive Vice President, University Services  
Steve Miller, Deputy Vice President, Public Affairs  
James Sliwicki, Director, Budget Planning and Management  
Gerald Snyder, Associate Vice President for Finance and Treasurer  
Scott Smith, Director, State Relations

## EXECUTIVE SUMMARY

### ACTION ITEM:

Arizona State University at the Tempe campus, Biodesign Institute at Arizona State University Building B, Revised Project Approval.

### ISSUE:

The University requests Revised Project Approval for a scope and budget increase at the Biodesign Institute at Arizona State University Building B.

### PREVIOUS BOARD ACTION:

- |   |                |
|---|----------------|
| ○ 2003 Revised CDP Approval                         | January 2003   |
| ○ 2004 CDP Approval (Revised Project Justification) | September 2003 |
| ○ Project Implementation                            | September 2003 |
| ○ Project Approval                                  | January 2004   |

### PROJECT DESCRIPTION:

This project will increase the scope and budget of Building B from \$73,000,000 to \$78,500,000, a \$5,500,000 increase.

The cost estimate from the architect/engineer and the CMAR Guaranteed Maximum Price (GMP) are both within the approved budget.

ASU intends to perform the following work related to this project:

- **ABSL-3 Modifications** – Approximately 2,650 square feet in the lower level ABSL-3 Vivarium space will be modified to include new lab space. Modifying the ABSL-3 will allow validation by CDC's Select Agent Program.
- **Additional Proximity Card Readers** – Additional card readers are needed to support the evolving security protocols required by the Biodesign Institute.
- **Casework and Furniture Modifications** – Additional mobile casework for the first, second, and third floor open labs. This will support research within the Center for Infections Diseases and Vaccinology, the Center for Innovations in Medicine, and other research areas within Building B.
- **Third Floor Revisions** – 10,600 square feet of space on this floor will be altered. Distributed services (specialty gas, vacuum) in the third floor laboratory space will be augmented, to increase the bench-top space available to support bench-mounted analytical equipment within the open lab. A new Flow Cytometry lab will be outfitted to support an adjacent tissue culture suite. Imaging areas and a cold room will also be added, and a Tissue Culture Suite will be upgraded to a Biosafety Level 3 (BSL-3) laboratory to support tuberculosis research. Additional autoclave space will also be created in support of the BSL-3 Lab.



## **EXECUTIVE SUMMARY**

- **Tenant Space for the Center for Innovations in Medicine** - Second floor lab modifications involve 6,500 square feet and include an increase in the fume hood density due to the nature of cancer research. A Mass Spectroscopy lab will be added, requiring point-of-use exhaust. A new Tissue Culture Suite and an imaging area will also be added to this area.
- **Tenant Space for Future Researcher** – Provisions for a future researcher have been estimated to include laboratory fit-out and office furnishings modifications for about 10,000 gross square feet. Provisions will enable a quick response when a new researcher is recruited.
- **MRI Modifications – Lower Level** - Building infrastructure and systems were designed to accommodate future integration of a MRI Suite, however the subsequent equipment requirements and operational protocols, developed and approved in the research grant, require modifications of the existing building infrastructure and systems.
- **Server Room** - Biodesign Institute has determined that the Server Rooms for Biodesign A and Biodesign B will operate independently; however, these upgrades will allow each to be capable of providing redundant backup in the event of catastrophic failure of either Server Room.

## **JUSTIFICATION FOR SCOPE AND BUDGET INCREASE:**

- In the past two years, ASU has recruited Institute Director George Poste, several senior and highly productive faculty from other universities in the Life Sciences, Physical Sciences and Bioengineering, and other more junior faculty. Presently, ASU is recruiting several distinguished international researchers that have achieved at the National Academy of Engineering or/and National Academy of Science level and whose research areas are synergistic with the Institute theme.
- ASU originally designed the building and building infrastructure to be as adaptable as possible for incoming researchers. As the specific research programs become defined by the faculty who have been hired, renovations to the flexibly-designed space can be accomplished to support the research plans of the faculty who will occupy the space when complete. The ability to accomplish these build-outs prior to the opening of the building will allow the work to be done more economically and will allow research work to begin immediately. A scope and budget increase is necessary to fulfill these research requirements.

## **PROPOSED SCHEDULE:**

- |                            |              |
|----------------------------|--------------|
| • Revised Project Approval | June 2005    |
| • Construction start       | July 2005    |
| • Occupancy                | October 2005 |

## **EXECUTIVE SUMMARY**

### **FISCAL IMPACT AND FINANCING PLAN:**

The increase in the project budget will be funded from other local funds; consequently, the debt ratios for ASU will not be impacted. The initial project budget is funded from debt associated with the Research Infrastructure initiative, and there is no change to that component of the overall project funding. The ASU 2006 Capital Development Plan, submitted in June 2005, shows that ASU's debt service on all outstanding debt would be 5.0 percent of the university's total projected expenditures (State law basis, max 8 percent ) and 6.4 percent of the university's projected unrestricted expenditures (ABOR policy basis, max 10 percent). The debt service for that portion of the project, which has already been financed, is .4% (4/10<sup>th</sup> of 1%) of ASU's total projected expenditures (State Law basis) and .5% (5/10<sup>th</sup> of 1%) of ASU's projected unrestricted expenditures (ABOR policy basis)

The debt service for that portion of the project will be funded from state appropriations starting on July 1, 2007. Until that time, there will be financing assistance through the state sales tax exemption for the contractor of this project, which will be captured by ASU, and the capitalization of interest payments. The objective of the capitalization of interest approach is the matching of debt service costs when paid to the available appropriations starting on July 1, 2007.

### **RECOMMENDATION:**

**That the Board grant Revised Project Approval to Arizona State University for the Biodesign Institute at Arizona State University Building B project .**

## EXECUTIVE SUMMARY

### Capital Project Information Summary

**University:** Arizona State University at the Tempe Campus

**Project Name:** Biodesign Institute at Arizona State University Building B

#### **Project Description/Location:**

Building B of the Biodesign Institute at Arizona State University is an approximately 172,000 square foot, \$78,500,000 research facility to be situated at the northwest corner of Lot 44 on the Arizona State University campus (see attached site diagram).

#### **Project Schedule (Beginning Month/Year):**

Planning	May 2005
Design	June 2005
Construction	July 2005
Occupancy	October 2005

#### **Project Budget:**

Total Project Cost	\$	78,500,000
Direct Construction Cost	\$	54,968,215
Total Project Cost per GSF	\$	456.40
Construction Cost per GSF	\$	319.60
Change in Annual Oper. /Main. Cost:		
Utilities	\$	1,115,354
Personnel	\$	714,000
All Other Operating	\$	259,488
Subtotal	\$	2,088,842

#### **Funding Sources:**

##### Capital

A. Certificates of Participation      \$    73,000,000

(Funding Source of Debt Service: State appropriations starting on July 1, 2007. Until that time, there will be financing assistance through the state sales tax exemption for the contractor of this project, which will be captured by ASU, and the capitalization of interest payments.

B. Other Local Funds      \$    5,500,000\*

##### Operation/Maintenance

A. Indirect Cost Recovery      \$    2,088,842

\*Note: The \$5,500,000 budget increase will be funded from other local funds and therefore will not increase ASU's debt service ratio.

**EXECUTIVE SUMMARY**

**Capital Project Information Summary**

**University:** Arizona State University

**Project Name:** Biodesign Institute at ASU Building B

	<b><u>Project Implementation Approval</u></b>	<b><u>Project Approval</u></b>	<b><u>Revised Project Approval</u></b>
Capital Costs			
1. Land Acquisition			
2. Construction Cost			
A. New Construction Shell / Core	\$ 43,843,800	\$ 43,843,800	\$ 47,225,282
B. New Construction Tenant Improvements	-	-	-
C. Special Fixed Equipment	2,525,000	2,525,000	2,525,000
D. Site Development (excl. 2.E.)	1,512,000	1,512,000	1,512,000
E. Parking and Landscaping	1,008,000	1,008,000	1,008,000
F. Utilities Extensions	225,000	225,000	225,000
G. Other* (1) (Demolition, Haz Mat Abatement, Sign)	1,500,000	200,000	200,000
H. Inflation Adjustment Construction Midpoint	530,000	400,000	400,000
I. State Sales Tax Research Exemption (6.3%)	1,656,200	1,656,200	1,872,933
Subtotal Construction Cost	<u>\$ 52,800,000</u>	<u>\$ 51,370,000</u>	<u>\$ 54,968,215</u>
3. Fees (% of Construction Cost)			
A. Pre-construction Services	200,000	286,195	286,195
B. Architect/Engineer	5,460,000	3,921,317	4,329,608
C. Other (Interior Design, Special Consultant)	260,000	2,217,000	2,366,563
Subtotal Consultant Fees	<u>\$ 5,920,000</u>	<u>\$ 6,424,512</u>	<u>\$ 6,982,366</u>
4. FF&E Movable	\$ 5,840,000	\$ 5,700,000	\$ 6,770,317
5. Contingency, Design Phase	720,000	1,386,990	1,452,620
6. Contingency, Constr. Phase	1,350,000	1,643,840	1,742,284
7. Parking Replacement Reserve	3,105,000	3,105,000	3,105,000
8. Telecommunications Equipment	1,000,000	1,200,000	1,200,000
Subtotal Items 4-8	<u>\$ 12,015,000</u>	<u>\$ 13,035,830</u>	<u>\$ 14,270,221</u>
9. Additional University Costs			
A. Surveys and Tests	\$ 247,400	\$ 260,000	\$ 276,407
B. Move-in Costs	50,000	80,000	80,000
C. Printing Advertisement	5,000	10,000	10,000
D. Project Management Cost (1.55%)	1,095,000	1,095,000	1,176,882
E. Other (Demolition)	80,000	-	-
F. Other (Facilities Support) (1)	588,000	550,000	550,000
G. State Risk Mgt. Ins. (.0034) (2)	199,600	174,658	185,909
Subtotal Addl. Univ. Costs	<u>\$ 2,265,000</u>	<u>\$ 2,169,658</u>	<u>\$ 2,279,198</u>
<b>TOTAL CAPITAL COST</b>	<u><b>\$ 73,000,000</b></u>	<u><b>\$ 73,000,000</b></u>	<u><b>\$ 78,500,000</b></u>

(1) Universities shall identify items included in this category: Line item 9F "Other" includes:

demolition, hazardous material assessment and abatement, signage, alarm and detection systems, Campus Entry).

(2) State Risk Management Insurance factor is calculated on construction contract and architect/engineer fees if applicable.



**Biodesign Institute Building B**  
**JCCR Review-June 2005**

Biodesign Building B		
	Project Approval	Revised Project Approval
Budget	\$ 73,000,000	\$ 78,500,000
Direct Construction Cost	\$ 51,370,000	\$ 54,968,215
Total Project Cost per GSF	\$ 425	\$ 456
Construction Cost per GSF	\$ 299	\$ 320

Direct Construction Costs (w/soft costs)	GSF	Cost	Cost/GSF
ABSL-3 (shared space-lower level)	2650	\$ 367,317	\$139
Proximity Card Readers	N/A	\$ 348,814	N/A
3rd Floor Revisions (Curtiss)	10600	\$ 1,621,736	\$153
Center for Innovations in Medicine (Johnston-2nd floor)	6500	\$ 672,003	\$103
Tenant Space-Future (1st floor)	10000	\$ 1,080,670	\$108
MRI Modifications (lower level)	1199	\$ 319,818	\$267
Server Room (lower level)	N/A	\$ 223,722	N/A
<b>Total Construction Costs</b>		<b>\$ 4,634,080</b>	
<b>Casework &amp; FF&amp;E (w/soft costs)</b>		<b>\$ 865,920</b>	
<b>Total Project Increase</b>		<b>\$ 5,500,000</b>	

**ASU**  
ARIZONA STATE UNIVERSITY

TEMPE, ARIZONA 85287

June 3, 2005



The Honorable Robert Burns, Chair  
Joint Committee on Capital Review  
1700 W. Washington  
Phoenix, AZ 85007

Dear Senator Burns:

In accordance with ARS 15-1683, the Arizona Board of Regents requests that the following bond financed projects for ASU be placed on the next JCCR agenda for review:

Infrastructure Improvements – Phase IV  
Sewer Systems Expansion

Enclosed is pertinent information relating to this project.

Also enclosed is an update on a previously reviewed project, due to reprioritization changes within the project:

→ Academic Renovations and Deferred Maintenance Phase I

We appreciate your consideration of our requests. If you have any questions or desire any clarification on the enclosed material, please contact me at (480) 727-8307.

Sincerely,

Richard Stanley  
Senior Vice President and University Planner

Enclosure

c: Lorenzo Martinez, Assistant Director, JCCR  
Joel Sideman, Executive Director, Arizona Board of Regents  
Ted Gates, Assistant Executive Director for Capital Resources, Arizona Board of Regents  
Milton Glick, Executive Vice President and Provost  
Carol Campbell, Executive Vice President and CFO  
Virgil Renzulli, Vice President for Public Affairs  
Scott Cole, Deputy Executive Vice President, University Services  
Steve Miller, Deputy Vice President, Public Affairs  
James Sliwicki, Director, Budget Planning and Management  
Gerald Snyder, Associate Vice President for Finance and Treasurer  
Scott Smith, Director, State Relations

# ARIZONA STATE UNIVERSITY

## ACADEMIC RENOVATIONS AND DEFERRED MAINTENANCE PHASE I JCCR UPDATE • MAY 2005

The following is an update on the Academic Renovations and Deferred Maintenance Phase I project, first reviewed by JCCR in June 2004.

ASU originally identified 11 projects in Academic Renovations and Deferred Maintenance Phase I. However, since identifying the original projects, ASU has had to reprioritize the remaining resources in the overall project.

One of the most urgent reasons prompting the change in projects is the need for code upgrades to elevators throughout campus. These code upgrades are required by the Arizona State Industrial Commission's Elevator Safety Division, which mandated that all elevators with single-bottom cylinders must be changed to double-bottom cylinders. With the approval of the Elevator Safety Division, ASU has created a phased plan to repair the elevators in a timely manner. As the cylinders are being replaced, ASU also plans to attend to deferred maintenance issues with the elevators. The simultaneous maintenance and cylinder replacement will save ASU significant costs.

In addition to the Elevator Code Upgrades project, other internal factors prompted a reassessment of the best use of the remaining funding. The university has since reprioritized its most urgent needs: projects addressing life safety/code upgrades, academic renovations, and deferred maintenance renovations. Thus far, seven new projects have been identified (see table of current projects, page 2), including Engineering Instructional Labs at ASU at the East campus. ASU continues to prioritize its remaining projects and will report back to JCCR as they are identified.

Neither the scopes nor the budgets have changed for the University Archives and Psychology North 2nd & 3rd Floor Renovation projects since JCCR first reviewed Academic Renovations and Deferred Maintenance Phase I. The preliminary budget estimate for Armstrong Hall has increased after a more thorough evaluation of the scope of the project.



**ARIZONA STATE UNIVERSITY**  
**ACADEMIC RENOVATIONS AND DEFERRED MAINTENANCE PHASE I**  
**JCCR UPDATE • MAY 2005**

Comparison of projects identified in June 2004 to projects identified in May 2005

June 2004 Projects		May 2005 Projects		
Project	Cost	Project	Status	Cost
University Archives	\$ 1,200,000	University Archives	no change	\$1,200,000
Psychology North	\$ 716,000	Psychology North	no change	716,000
Armstrong Hall	\$ 332,000	Armstrong Hall	cost increase	363,000
Repair Dome Ceiling Cracks	\$ 40,000	Repair Dome Ceiling Cracks	alternate funding source	-
Dixie Gammage Hall	\$ 960,000	Dixie Gammage Hall	cancelled	-
Wilson Hall	\$ 668,000	Wilson Hall	cancelled	-
Payne Hall	\$ 1,600,000	Payne Hall	cancelled	-
Farmer Education Bldg.	\$ 1,300,000	Farmer Education Building	cancelled	-
Schwada Classroom Office Building	\$ 800,000	Schwada Classroom Office Building	cancelled	-
Nursing Building	\$ 1,500,000	Nursing Building	cancelled	-
Durham Language & Literature Bldg	\$ 884,000	Durham Language and Literature Building	cancelled	-
		<b>Renovate Social Sciences •</b> Renovate 5000 square feet to accommodate space needs for new hires in Family and Human Development, the Institute of Human Origin, Anthropology, CLAS, Journal Office, and the Consortium for Science and Policy Outcome.	new	362,500
		<b>Renovate Language and Literature, 1st floor Project 85 •</b> Renovate 5000 square feet to accommodate growth in English associated with Project 85 and reorganization of adjacencies to accommodate three target hires in Languages and Literature and target hires in English.	new	362,500
		<b>Elevator Code Upgrades •</b> This project replaces all single-bottom hydraulic cylinder piston elevator jacks that have been identified at ASU at the Tempe campus with double-bottom piston jacks. This project is required for ASU to comply with AZ Industrial Commission mandate to abide by the ASME Code for Elevators and Escalators. ASU will renovate elevators as it replaces cylinders.	new	3,020,000

**ARIZONA STATE UNIVERSITY**  
**ACADEMIC RENOVATIONS AND DEFERRED MAINTENANCE PHASE I**  
**JCCR UPDATE • MAY 2005**

		<b>Engineering Instructional Labs at ASU at the East Campus</b> • This project will renovate an unoccupied 4,200 square foot, single-story facility into an engineering studio for engineering instruction and labs. The proposed renovation includes a total redesign of functional space and replacement of building systems, and a new roof. The studio will be open space with different functional areas including a prototyping and fabrication area, a modeling and simulation area, an instrumentation and test area, a communication area, and a learning resource area. The facility will also house storage rooms, a supervisor office, and restrooms. (Note: This project is subject to Regents' Project Implementation Approval at its June 16-17, 2005 meeting)	new	\$1,100,000
		<b>Ceramics Relocation</b> • Relocation of existing Graduate Ceramics Studio to Solar Demo House. Project will renovate 1000 square feet to prepare space for Ceramics	new	250,000
		<b>Psychology Building 1<sup>st</sup> Floor Renovation</b> • This project will reconfigure 8,440 square feet in the Psychology Building. The project will include renovations to the Child Study Lab, classrooms, asbestos abatement, and site improvements	new	545,398
		<b>Flight Simulator Room Renovation at ASU East</b> • The Aeronautical Management Technology Department will receive a new flight simulator in 2005. The project will build a small addition of 875 sf on the northwest corner of the Simulator Building to house the flight simulator and an observation area.	new	291,822

<b>Total cost of projects identified as of May 2005:</b>	<b>\$8,211,220</b>
<b>Remaining funding:</b>	<b>\$1,788,780</b>

STATE OF ARIZONA

**Joint Committee on Capital Review**

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RON GOULD  
KAREN S. JOHNSON

1716 WEST ADAMS  
PHOENIX, ARIZONA 85007

PHONE (602) 542-5491

FAX (602) 542-1616

<http://www.azleg.state.az.us/jlbc.htm>

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STEPHEN TULLY

DATE: June 21, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Shelli Carol, Fiscal Analyst

SUBJECT: University of Arizona – Review of New System Revenue Bond Capital Projects

**Request**

A.R.S. § 15-1683 requires Committee review of any university projects financed with system revenue bonds. The University of Arizona (UA) requests Committee review of a new \$6.8 million Poetry Center, a new \$9.4 million Architecture Building Expansion, a \$6.5 million second phase of Residence Life Building Renewal, and a \$20.0 million Deferred Renovation plan. UA would finance these projects with a total new revenue bond issuance of \$40.4 million and \$2.3 million from private donations.

**Recommendation**

Per-square-foot costs for the Poetry Center appear significantly higher than those for similar projects. JLBC Staff will continue to work with UA in evaluating the reasonableness of these costs. However, based on present available information, the Committee has, at least, the following options:

- A favorable review, with the standard university financing provisions (listed below) and the additional provision that UA report to the Committee with a detailed accounting and justification of costs for the Poetry Center before construction begins.
- A deferment of review, until UA provides a detailed accounting and justification of costs for the Poetry Center.

Meanwhile, JLBC Staff recommends favorable reviews of all other projects associated with this bond issuance, with the following standard university financing provisions for each:

- UA shall report to the Committee with a comparison between any compliance costs of the Governor's Executive Order 2005-05, concerning energy efficiency, and operating and other savings generated through those efficiencies.

(Continued)

- UA shall report to the Committee before expenditure of any allocations that exceed the greater of \$100,000 or 10% of the reported contingency amount total for add-alternates that do not expand the scope of the project. UA shall also report to the Committee before any reallocation exceeding \$100,000 among the individual planned renovations, renewals, or extensions.
- UA shall submit for Committee review any allocations that exceed the greater of \$100,000 or 10% of the reported contingency amount total for add-alternates that expand the scope of the project. In case of an emergency, UA may immediately report on the scope and estimated cost of the emergency rather than submit the item for review. JLBC Staff will inform the university if they do not concur with the emergency nature of the change in scope.
- A favorable review by the Committee does not constitute endorsement of General Fund appropriations to offset any tuition collections, auxiliary revenues, or donations that may be required for debt service, or any operations and maintenance costs when the project is complete. These costs should be considered by the entire Legislature through the budget development process.

UA anticipates issuing the system revenue bonds in fall 2005, with a Standard & Poor's AAA credit rating, for a term of 25 years, at an estimated interest rate of 6.0%. Total annual debt service would be approximately \$3.2 million, paid from tuition collections, auxiliary revenues, and donations. The total 25-year debt service would be \$80.7 million. Tuition collections and auxiliary revenues used for debt service would be unavailable to support operating expenses and may, therefore, impact the General Fund in the future.

Furthermore, UA estimates that, upon completion, the Poetry Center and Architecture Building Expansion projects would require new operating and maintenance costs of almost \$400,000. UA intends to request legislative appropriations to support these new costs, but is prepared to make payments from tuition collections and other local university resources.

Table 1 summarizes these 4 projects and their associated capital and operational costs.

Table 1 UA New System Revenue Bond Project Financing Costs					
Project	Poetry Center	Architecture Building Expansion	Residence Life	Deferred Renovation	Total
<i>Project Financing</i>					
System Revenue Bonds	\$ 5,800,000	\$ 8,100,000	\$ 6,500,000	\$20,000,000	\$40,400,000
Donations	<u>1,000,000</u>	<u>1,300,000</u>	<u>0</u>	<u>0</u>	<u>2,300,000</u>
<b>Total Project Cost</b>	<b>\$ 6,800,000</b>	<b>\$ 9,400,000</b>	<b>\$ 6,500,000</b>	<b>\$20,000,000</b>	<b>\$42,700,000</b>
<i>Annual Debt Service</i>					
Tuition Collections	152,500	648,000	0	1,593,000	2,393,500
Auxiliary Revenues	0	0	520,000	0	520,000
Donations	<u>312,500</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>312,500</u>
<b>Total Annual Debt Service</b>	<b>\$465,000</b>	<b>\$648,000</b>	<b>\$520,000</b>	<b>\$1,593,000</b>	<b>\$3,226,000</b>
Total Debt Payments	11,625,000	16,200,000	13,000,000	39,825,000	80,650,000
New Operations & Maintenance	127,600	272,100	0	0	399,700

A.R.S. § 15-1683 allows each state university to incur a projected annual debt service for bonds and certificates of participation of up to 8.0% of each institution's total projected annual expenditures. This calculation is known as the debt ratio. The \$40.4 million system revenue bond issuance would increase the UA debt ratio from 4.1% to 4.3%.

(Continued)

## Analysis

With the exception of the Deferred Renovation initiative, UA would contract these bond projects using Construction Manager at Risk (CMAR). In CMAR, a competitively selected General Contractor manages a construction project, including the associated architect and other subcontractors, from design to completion. CMAR defines a guaranteed maximum price, after which the General Contractor must absorb almost all cost increases, except those caused by scope changes or unknown site conditions. Occasionally, in the case of substantial materials price inflation, a university will partially cover higher costs to maintain good contractor relations. UA would accomplish the Deferred Renovations through a combination of CMAR, Job Order Contracting, and traditional bidding.

### *Non-Research Capital Projects*

Table 2 compares the per-square-foot costs of the Poetry Center and Architecture Building Expansion to those of other university non-research-related capital projects. Table 2 does not adjust earlier project costs for general or materials inflation. In the past few years, however, materials costs have risen markedly due to increasing worldwide demand.

Table 2 Assorted University Non-Research Capital Projects Estimated Per Square Foot Costs				
<u>Project</u>	<u>Review Date</u>	<u>Total Project Cost</u>	<u>Total Cost Per Square Foot</u>	<u>Direct Construction Cost Per Square Foot</u>
ASU-Mediated Classroom & Social Sciences Building	Mar 2002	\$58,700,000	\$212	\$138
NAU-New College of Business	Nov 2003	22,000,000	220	182
<b>AVERAGE</b>			<b>\$228</b>	<b>\$155</b>
ASU-Memorial Union Expansion	Mar 2002	38,830,000	251	146
<b>UA-Architecture Building Expansion</b>	<b>Jun 2005</b>	<b>9,400,000</b>	<b>281</b>	<b>202</b>
<b>UA-Poetry Center</b>	<b>Jun 2005</b>	<b>6,800,000</b>	<b>385</b>	<b>286</b>

Comments: Costs are not adjusted for general or materials inflation.

### Poetry Center

The Poetry Center would integrate academic support programs, including the Humanities Seminars Program, outreach activities, the university's entire collection of poetry books, journals, and multi-media materials, and guest accommodations for visiting writers into one 17,650 square-foot facility. The center would include reading areas, office space, meeting rooms, and environmentally controlled closed stacks for the non-circulating special collection. Starting this fall, UA would construct the building over 14 months.

Of the \$6.8 million total cost for this project, system revenue bonds would fund \$5.8 million, with an additional \$1.0 million coming from private donations. The Poetry Center would have a total cost per square foot of \$385 and a direct construction cost per square foot of \$286. As Table 2 above illustrates, the magnitude of these expenses, compared to those of other university non-research-related capital projects, is more than materials cost inflation can justify.

UA explains that the small size of the facility, which prevents economies of scale, as well as the light, temperature, humidity, and security requirements of the rare book archive lead to higher costs. For comparison, the Committee favorably reviewed, in March 2002, a similar Remote Library Storage

(Continued)

Facility at Arizona State University. This 15,000 square foot building also provided environmentally controlled storage, but had a total cost per square foot of \$187 and a direct construction cost per square foot of \$143. Again, Staff believes that materials price inflation can account for part, but not all of the difference in per-square-foot costs. Therefore, Staff believes that UA should provide a detailed accounting and justification of costs for the Poetry Center before construction begins.

UA demolished the original Poetry Center to make room for the growth of its campus research corridor, and then housed the Poetry program in temporary space on-campus. Additionally, parts of the poetry collection are currently in university storage off-campus. When the Poetry Center vacates its current temporary facility, the space will accommodate the growth of other UA programs.

### Architecture Building Expansion

The Architecture Building Expansion would add 33,500 square feet to the existing building, including a centralized collaborative studio and new office space. The addition would allow the College of Architecture and Landscape Architecture (CALA) to consolidate its faculty and students, currently located in several non-adjacent facilities, into one site. Starting this fall, UA would construct the building over 17 months.

Of the \$9.4 million total cost for this project, system revenue bonds would fund \$8.1 million, with an additional \$1.3 million coming from private donations. The Architecture Building Expansion would have a total cost per square foot of \$281 and a direct construction cost per square foot of \$202. As Table 2 above illustrates, these expenses are somewhat higher than other university non-research-related capital project expenditures. However, considering the materials price inflation discussed previously, the proposed Architecture Building Expansion budget is reasonable.

Upon consolidation of CALA faculty and students in the new extension, UA would use some of the non-adjacent facilities as overflow space for other academic programs and demolish others to create more parking.

### ***Building Renewal Projects***

State agencies normally fund on-going routine maintenance and minor repairs to existing facilities through their operating budgets. ABOR policy requires the universities to request Legislative appropriations for building renewal. The university system has not received any state funding for building renewal since FY 2001. Full annual funding of the building renewal formula in FY 2006 would have provided \$31.0 million for UA.

### Residence Life Building Renewal, Phase 2

Phase 2 of Residence Life Building Renewal would replace plumbing systems in Maricopa and Sonora Halls. UA anticipates these renewals would have a direct construction cost of \$5.1 million. The university's preliminary estimate is that replacements would occur over 4 months. System revenue bonds would fund the total \$6.5 million cost of this project.

For comparison, the Committee favorably reviewed Residence Life Building Renewal, Phase 1 in March 2004. This first phase replaced plumbing and electrical systems in the Gila, Yuma, and Arizona residential halls. The plumbing component for those three halls cost approximately \$26 per square foot. Meanwhile, Phase 2 plumbing costs for Maricopa and Sonora Halls are around \$66 per square foot.

UA explains that Sonora Hall, of comparable size to Arizona Hall, holds a higher density of students and needs disability access modifications. Furthermore, Maricopa Hall, of comparable size to Gila and Yuma Halls, has a less efficient plumbing layout and requires more extensive fixture replacement. Given these differences, Staff believes the higher Phase 2 costs to be reasonable.

#### Deferred Renovation

The Deferred Renovation project encompasses 22 tasks. *Table 3* summarizes the numbers and cost allocations for each task type.

<b>Table 3</b>			
<b>UA Deferred Maintenance Task Costs and Scopes</b>			
<u>Task Category</u>	<u># of Tasks</u>	<u>Direct Construction Cost</u>	<u>Total Allocation</u>
Building Renewal	10	\$ 6,775,100	\$10,360,000
Building Renovation	3	2,060,000	2,460,000
Utility Extensions / Improvements	4	3,295,000	5,030,000
Surface Infrastructure	<u>5</u>	<u>1,420,500</u>	<u>2,150,000</u>
<b>Total</b>	<b>22</b>	<b>\$13,550,600</b>	<b>\$20,000,000</b>

The tasks include fire and life safety system upgrades, elevator upgrades in 4 buildings, HVAC upgrades in 17 buildings, IT upgrades, water and electrical distribution extensions, and paving and drainage improvements. UA estimates these renewals would have a direct construction cost of \$15.6 million. Starting this fall, the university anticipates completing the jobs over a 4-year period, with most work occurring during academic calendar breaks to minimize disruptions.

System revenue bonds would fund the total \$20.0 million cost of this project. The planned Building Renewal jobs have a total cost per square foot of \$127 and a direct construction cost per square foot of \$83, while the Building Renovations have a total cost per square foot of \$47 and a direct construction cost per square foot of \$40. Since renewal and renovation projects often combine both minor and major work, it is difficult to make meaningful comparisons among them. However, the above costs are generally in line with prior university renewal and renovation projects.

UA did not supply useful quantities for the Utility Extensions/Improvements or Surface Infrastructure tasks. Therefore, Staff cannot offer an analysis of the reasonability of those costs.

RS/SC:ym

Senior Vice President  
for Business Affairs

THE UNIVERSITY OF  
**ARIZONA**®  
TUCSON ARIZONA

Administration Building  
Tucson, Arizona 85721  
(520) 621-5977  
FAX: (520) 621-7714

June 2, 2005

The Honorable Robert Burns; Chairman  
Joint Committee on Capital Review  
1716 W. Adams  
Phoenix, AZ 85007



Dear Mr. Burns:

**Subject: Four Projects for Review**

On behalf of the Arizona Board of Regents, I respectfully request that the University of Arizona be placed on the next available agenda of the Joint Committee on Capital Review.

The ABOR Executive Summaries of the projects are enclosed:

- Poetry Center
- Architecture Building Expansion
- Residence Life Building, Renewal, Phase 2
- Deferred Renovation, Building Renewal and Infrastructure

These projects have all received approval by the Arizona Board of Regents. If you require additional information, please don't hesitate to call me at (520) 621-5977. Thank you for your assistance.

Sincerely,

Joel D. Valdez  
Senior Vice President for Business Affairs

JDV/dk

enclosures (4)

cc: President Likins  
Joel Sideman  
Greg Fahey  
✓ Lorenzo Martinez  
Charles Ingram  
Ted Gates





## **Poetry Center Cost Per Square Foot Review**

It has been noted that the cost per square foot figures related to the Poetry Center project, at \$286/sf construction cost, and \$385/sf total project cost, appear to be significantly higher than those of some other non-research capital projects. Comparisons have been made to ASU student union expansion and classroom buildings, both reviewed in March, 2002, an NAU business classroom building reviewed in 2003, and the UA College of Architecture Expansion submitted this year.

As previously noted, the Poetry Center project contains a number of factors that lead to a higher cost per square foot than some other projects, including its relatively small size and loss of economies of scale, the strict temperature and humidity control systems required for the substantial collections to be stored and preserved, security measures required to protect rare and valuable editions kept in the collections, and the significant construction cost escalation experienced over the past few years, particularly throughout 2004.

It is projected by the design team that a smaller building such as this would cost roughly 15% more than a larger facility of say 100,000 sf that is commonly found on modern university campuses. The loss of economies of scale of larger materials purchases for larger projects is considerable, and the costs of administration, mobilizations and demobilizations of the many trades constructing the many building systems are greater in proportion to the overall cost in smaller projects.

The sophisticated mechanical, controls and security systems required to preserve the large collections kept by the Center may be considered to add another 15% of cost to the building. These systems are in no way comparable to those commonly found in classroom buildings, or most other non-research facilities.

Factors used for construction cost escalation were showing a trend of roughly 4% per year up until 2004, when a global material shortage and price destabilization crisis led to a 15% to 17% increase on the several construction projects then on University campus. Prices still have not stabilized, and are still increasing at higher than normal rate. When comparing Poetry Center costs to projects reviewed in early 2002, it would reasonably appropriate to escalate the previous project costs by 25% ( $4\% + 4\% + 15\% + 2\%$ ). This approach would even be conservative, since the yearly escalation factors are not compounded as they would be in actuality.

Therefore, if comparing the \$386/sf total project cost of the Poetry Center with a larger ASU student union expansion reviewed in March of 2002, you would reasonably add: 15% for building size difference, 15% for special mechanical, controls and security systems, and 25% for three years and three months of escalation. This would result in a truly comparable student union project cost of \$389/sf -- again, with no compounding of percentage increases.

This example illustrates how just the few size, use and escalation variances noted above can cause substantial cost per square foot differences. Generally, many other more subtle variations in use and conditions also impact project costs. Renovations to old buildings can cost more due to unknown conditions. Additions to newer buildings can cost less since some existing walls and mechanical and electrical systems may be utilized. New stand-alone projects may cost more if utility/infrastructure extensions are required to serve them. Buildings with smaller, more specialized rooms will often cost more than those with larger, more generic classroom spaces. Cost comparisons of facilities of even seemingly comparable building types can be complex and misleading.

The Poetry Center is even less comparable to the UA Architecture Building Expansion than to most classroom facilities, because the Architecture facility design is primarily made up of large, open design studios that are much lower in cost than even more typical classrooms. In some ways, the Poetry project has mechanical systems that are more like those required for some research lab facilities than for most classroom buildings. Still, the Poetry Center costs are coming in below any current research lab project cost on the UA campus.

I hope that this more detailed cost per square foot review will be helpful in answering questions about the Poetry Center. In this time of very limited resources, we at the University of Arizona are continuously working to maximize the square footage and use benefits of our building projects. The College of Architecture project is evidence that we are looking to keep costs per square foot as low as we can, whenever we reasonably can, in consideration of the use and other cost-impact factors involved.

The Executive Summary of 03/10/05 which described the funding for the project may have caused some confusion. The State cost for the building is \$1.9 million. Gifts of \$4.9 million cover the remainder. Of the gifts expected, \$3.7 million has been collected in cash with solid pledges and expected grants covering more than the remaining \$1.2 million needed. If we look only at the cost to the State, the \$1.9 million equates to a project cost of \$107.65 per sq. ft. Therefore, the State receives a facility relatively inexpensively.

If you need any further information please advise.

## EXECUTIVE SUMMARY

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### **ACTION ITEM:** Poetry Center: Project Approval and Budget Increase

**ISSUE:** The University of Arizona requests Project Approval and a Budget Increase of \$1.0 million to construct a new facility for the Poetry Center.

<b>PREVIOUS BOARD ACTIONS:</b>	Capital Development Plan:	June 2003
	Project Implementation Approval:	June 2004

### **PROJECT DESCRIPTION:**

- The Poetry Center houses an important research collection and functions as a vibrant arts center and resource for students, teachers, writers, and scholars. A new facility is required to provide necessary space to house the unique combination of academic support programs, outreach activities, and the center's entire special collection of literary books, journals, and multi-media materials. The new facility will incorporate existing off-site storage and accommodate growth of the center's significant contemporary literature collection for the foreseeable future. In addition, the new facility will provide a permanent home for the Humanities Seminars Program, a flourishing outreach program, and guest accommodations for visiting writers and the center's summer residency program.
- The requested budget increase is necessary to address significant market cost increases in construction materials. Design development phase estimates verified that the project cost was approximately \$1.5 million over the ABOR approved budget. Several design changes were incorporated that resulted in a reduction to the project cost without impacting the Poetry Center's program. However, further reductions above the value engineering items identified, will severely impact the scope of the project. Therefore, after careful and thorough cost analysis and mitigation efforts, the total project budget for the Poetry Center must be increased by \$1.0 million for a revised budget of \$6.8 million. The project will be funded by \$1.0 million in cash gifts and \$5.8 million in System Revenue Bonds (SRBs) of which \$1.9 million will be tuition supported with the balance of \$3.9 million in gifts. Operations and Maintenance costs will be funded through the General Fund Appropriations.
- Debt Ratio Impact: The incremental impact of the annual debt service for this project is 0.03% State (A.R.S.) and 0.04% ABOR. The debt ratios for the current Capital Development Plan are estimated to be State (A.R.S.) 4.30% and ABOR 7.48%.

**RECOMMENDATION:** That the Board grant the University of Arizona Project Approval and Budget Increase of \$1.0 million for the Poetry Center.

**Contact:** Joel D. Valdez (520) 621-5977  
Sr. Vice President for Business Affairs  
jdvaldez@u.arizona.edu

**EXECUTIVE SUMMARY**

**Capital Project Information Summary**

**University:** The University of Arizona

**Project Name:** Poetry Center

**Project Description/Location:** A new facility to house the existing academic support programs, outreach activities, and the special collection to be located on the southeast corner of Helen and Vine.

	Project Implementation <u>Approval</u> June 2004	Project <u>Approval</u> March 2005
<b><u>Date of Board Action:</u></b>		
<b><u>Project Scope:</u></b>		
Gross Square Feet	17,150	17,650
Net Assignable Square Feet	12,075	11,820
Efficiency Ratio [NASF/GSF]	70%	67%
NASF by Space Type		
Library	5,300	7,515
Administration/Education/Support	6,775	4,305

**Project Schedule (Beginning Month/Year):**

Planning	12/99	12/99
Design	7/03	7/03
Construction	5/05	9/05
Occupancy	6/06	10/06

**Project Budget:**

Total Project Cost	\$	5,800,000	\$	6,800,000
Direct Construction Cost	\$	3,778,000	\$	5,040,000
Total Project Cost per GSF	\$	338	\$	385
Construction Cost per GSF	\$	220	\$	286
Change in Annual Oper./Main. Cost	\$	127,600	\$	127,600
Utilities	\$	48,800	\$	48,800
Personnel	\$	62,400	\$	62,400
Other	\$	16,400	\$	16,400

**Funding Sources:**

**Capital:**

A. Gifts				
• Cash	\$	1,000,000	\$	1,000,000
B. System Revenue Bonds				
• Gifts	\$	2,900,000	\$	3,900,000
• Tuition	\$	1,900,000	\$	1,900,000
TOTAL	\$	5,800,000	\$	6,800,000
Operation/Maintenance:				
General Fund Appropriation	\$	127,600	\$	127,600

**EXECUTIVE SUMMARY**

**Capital Project Budget Summary**

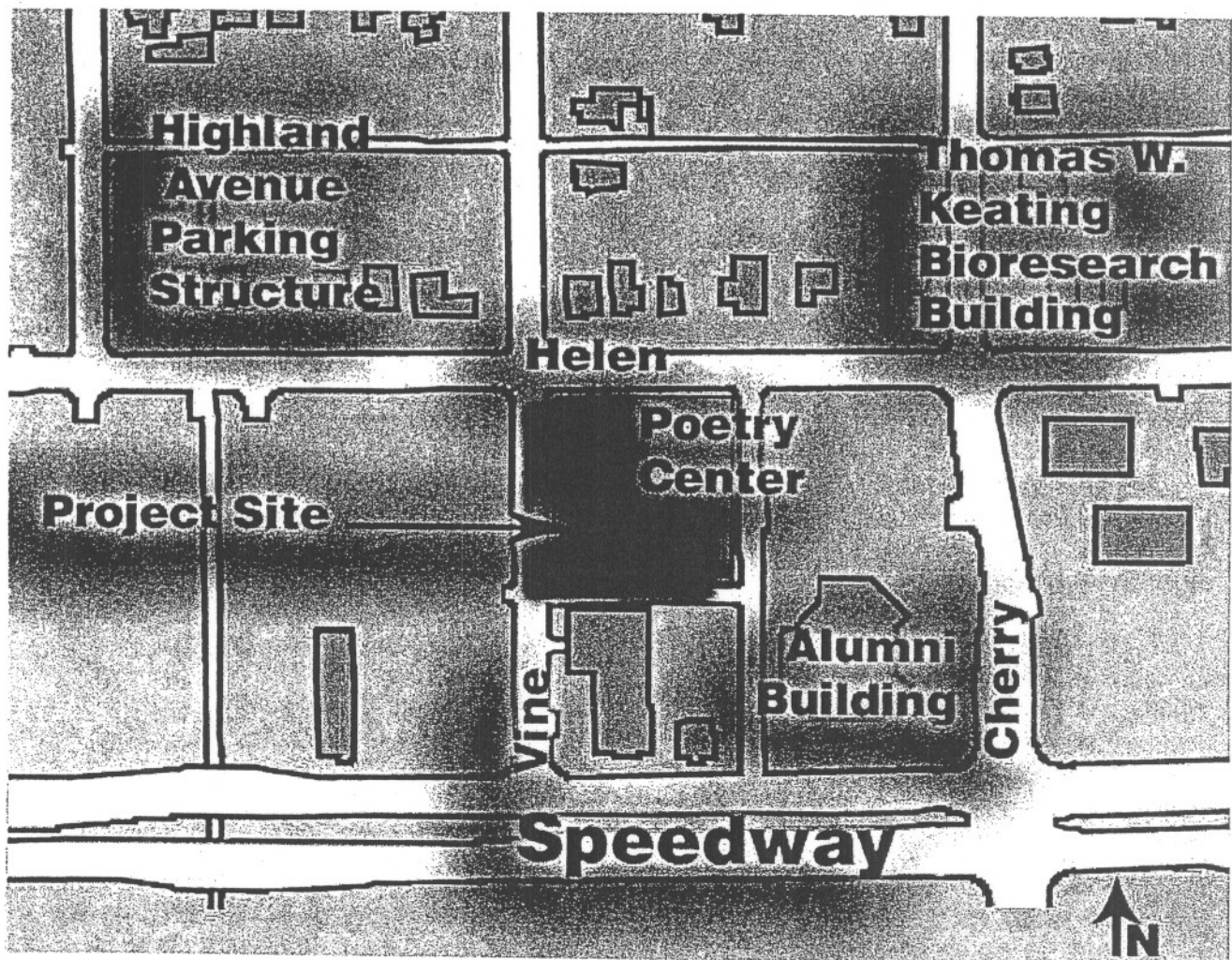
**University:** The University of Arizona

**Project Name:** Poetry Center

	<b>Project Implementation <u>Approval</u></b>	<b>Project <u>Approval</u></b>
Date of Budget Estimate	April 2004	February 2005
1. Land Acquisition	0	0
2. Construction Cost		
A. New Construction	3,000,000	5,020,000
B. Renovation	0	
C. Fixed Equipment	20,000	0
D. Site Development (exclude 2.E.)	40,000	0
E. Parking & Landscaping	180,000	0
F. Utilities Extensions	300,000	0
G. Other	38,000	20,000
H. Inflation and Market Adjustment	200,000	0
Subtotal Construction Cost	\$ 3,778,000	\$ 5,040,000
3. Consultant Fees		
A. Construction Manager	76,000	73,000
B. Architect/Engineering Fees	642,500	647,000
C. Other (Cost Est., Programming, Special Conslt.)	107,500	31,000
Subtotal Consultant Fees	\$ 826,000	\$ 751,000
4. FF& E Movable	360,000	360,000
5. Contingency, Design Phase	205,000	0
6. Contingency, Construction Phase	205,000	202,000
7. Parking Reserve	0	0
8. Telecommunications Equipment	33,000	50,000
Subtotal Items 4-8	\$ 803,000	\$ 612,000
9. Additional University Costs		
A. Surveys and Tests	45,000	45,000
B. Move-in Costs	36,000	36,000
C. Public Art	0	0
D. Printing/Advertisement	10,000	10,000
E. Other	274,000	270,000
F. State Risk Mgt. Ins	28,000	36,000
Subtotal Additional University Costs	\$ 393,000	\$ 397,000
<b>TOTAL CAPITAL COST</b>	<b>\$ 5,800,000</b>	<b>\$ 6,800,000</b>

Line 9E includes Project Management and Facilities Management costs.

**EXECUTIVE SUMMARY**





## EXECUTIVE SUMMARY

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**ACTION ITEM:** Poetry Center: Project Implementation Approval

**ISSUE:** The University of Arizona seeks Project Implementation Approval to construct a new \$5.8 million facility for the Poetry Center.

**PREVIOUS BOARD ACTION:** Capital Development Plan: June 2003

### PROJECT DESCRIPTION:

- The Poetry Center houses an important research collection and functions as a vibrant arts center and resource for students, teachers, writers, and scholars. A new facility is required to house the unique combination of academic support programs, outreach activities, and the center's entire special collection of literary books, journals, and multi-media materials. The new facility will incorporate existing off site storage and accommodate growth of the center's significant contemporary literature collection for the foreseeable future. In addition, the new facility will provide a permanent home for the Humanities Seminars Program, a flourishing outreach program offering.
- The new facility's program calls for approximately 17,000 gross square feet and provides necessary space to meet the Poetry Center's functional requirement. It will house user-reading areas, open and closed stacks to store the growing collection, office space and other support spaces, and meeting rooms for a variety of the center's academic support activities and the Humanities Seminars Program. The facility also provides guest accommodations for visiting writers and the center's summer residency program.
- The total project budget for the Poetry Center project is \$5.8 million. The project will be funded by \$3.9 million in gifts (\$1.0 million cash and \$2.9 million debt financed) and \$1.9 million in tuition supported Certificates of Participation (COP's). Operations and Maintenance costs will be funded through the General Fund Appropriations (GFA).
- Debt Ratio Impact: This project was approved as part of the Capital Development Plan in June 2003 and currently represents 0.03% of the total State debt ratio and 0.04% of the total Arizona Board of Regents debt ratio.
- Proposed Schedule:

Project Approval	January 2005
Construction	May 2005
Occupancy	June 2006

**Contact:** Joel D. Valdez (520) 621-5977  
Sr. Vice President for Business Affairs  
[jvaldez@u.arizona.edu](mailto:jvaldez@u.arizona.edu)

## EXECUTIVE SUMMARY

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### PROJECT JUSTIFICATION:

[The complete Project Justification Report is contained in the June 2003 Capital Development Plan submittal.]

- The nationally prominent Poetry Center houses an important research collection and functions as a vibrant arts center and resource for students, teachers, writers, and scholars. The center's non-circulating special collection of more than 50,000 books, rare books, broadsides, journals, and limited-edition publications is a valued scholarly archive of the late 20<sup>th</sup> Century and contemporary literature. Through the center's comprehensive acquisition of first edition volumes of poetry, the archive has become an invaluable resource for both the study of individual authors and artistic movements. The new facility will meet the national standards of University libraries for the protection of the center's valuable collection, as well as optimal management of user-access.
- The center provides academic support to undergraduate and graduate students by offering opportunities to access the collection, participate in workshops and discussion groups, and conduct research projects and classroom assignments.
- Several existing University properties were considered for renovation or adaptive re-use by the Poetry Center, including several adjacent residences much like the center's original home. However, none of these renovated facilities could meet the demands of the center's growing library collection. The proposed facility protects the valuable collection from direct sunlight and fluctuations of temperature and humidity, while accommodating user-access. A permanent, clearly visible location is also necessary to meet the needs of the center's unique combination of academic support activities and outreach programs.

### ADDITIONAL CONSIDERATIONS:

- Since the submission of the Capital Development Plan in June 2003, the project has been relocated to a site at the southeast corner of Helen and Vine. The new site proposed for this project is consistent with the land-use zoning identified in the Comprehensive Campus Plan. The updated plan considers the long-term development implication of the proposed site for the Poetry Center. The site is proximate to the proposed Highland Avenue Garage, and adjacent to the Swede Johnson Alumni Building.
- Backfill/Use plan: The Poetry Center was relocated to temporary facilities at Second and Cherry subsequent to the razing of their old facility at Cherry Avenue in order to support the long-term development of the research corridor along Warren Avenue. The Second Street space will be released for other University assignments with the completion of the project.
- The project will utilize a Construction Manager at Risk delivery process.

### RECOMMENDATION:

That the Board grant Project Implementation Approval to the University of Arizona for the Poetry Center.



## EXECUTIVE SUMMARY

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**ACTION ITEM:** Architecture Building Expansion: Project Approval and Budget Increase

**ISSUE:** The University of Arizona seeks Project Approval and a Budget Increase of \$1.2 million for the Architecture Building Expansion project. This project is an addition to the existing building to serve the College of Architecture and Landscape Architecture (CALA).

<b>PREVIOUS BOARD ACTIONS:</b>	Project Initiation	April 2001
	Capital Development Plan	June 2001
	Project Implementation Approval	November 2003

### PROJECT DESCRIPTION:

- This expansion will add 33,500 gross square foot (gsf) of new space to the Architecture Building.
- The need for the expansion project is to provide critical centralized studio and office space for the architecture and landscape architecture programs. Enlarging the Architecture Building will create a facility that encourages collaboration among the disciplines.
- The project design has not changed since receiving initial Project Implementation Approval in November 2003. The requested budget increase is necessary to address the significant cost increases in construction materials over the last year. The building has been designed to use materials and space efficiently. Without this construction pricing adjustment, the project scope and size would have to be reduced in scope significantly and would impact the project to the point that the current programs could not be adequately accommodated.
- The current approved project budget is \$8.2 million (\$6.9 million System Revenue Bonds; \$1.3 million Gifts). The University requests an increase of \$1.2 million in additional System Revenue Bonds for a revised total budget of \$9.4 million. Operations and Maintenance costs will be funded from General Fund Appropriation.
- Debt Ratio Impact: The incremental impact of the annual debt service for this project is 0.05% State (A.R.S.) and 0.07% ABOR. The debt ratios for the current Capital Development Plan are estimated to be State (A.R.S) 4.30% and ABOR 7.48%.

### RECOMMENDATION:

- That the Board grant the University of Arizona Project Approval and Budget Increase of \$1.2 million for the Architecture Building Expansion project.

**Contact:** Joel D. Valdez, (520) 621-5977  
Sr. Vice President for Business Affairs  
jdvaldez@u.arizona.edu

## EXECUTIVE SUMMARY

### Capital Project Information Summary

**University:** The University of Arizona

**Project Name:** Architecture Building Expansion

### Project Description/Location:

The Architecture Building Expansion is a four-story addition located at Speedway Boulevard and Olive Road.

	Project Implementation <u>Approval</u>	Project <u>Approval</u>
<b><u>Date of Board Action:</u></b>	November 2003	January 2005
<b><u>Project Scope:</u></b>		
Gross Square Feet	33,500	33,500
Net Assignable Square Feet	22,800	22,800
Efficiency Ratio [NASF/GSF]	68%	68%
NASF by Space Type		
Studios/Labs	17,800	17,800
Offices	5,000	5,000
<b><u>Project Schedule (Beginning Month/Year):</u></b>		
Planning	February 2000	February 2000
Design	July 2002	July 2002
Construction	December 2004	April 2005
Occupancy	December 2005	August 2006
<b><u>Project Budget:</u></b>		
Total Project Cost	\$8,200,000	\$9,400,000
Direct Construction Cost	\$5,600,000	\$6,765,000
Total Project Cost per GSF	\$245	\$281
Construction Cost per GSF	\$167	\$202
Change in Annual Oper./Main. Cost	<u>\$272,100</u>	<u>\$272,100</u>
Utilities	\$102,500	\$102,500
Personnel	\$134,300	\$134,300
Other	\$35,300	\$35,300
<b><u>Funding Sources:</u></b>		
<b>Capital:</b>		
A. System Revenue Bonds	\$6,900,000	\$8,100,000
(Debt Service: Tuition)		
B. Gifts	<u>\$1,300,000</u>	<u>\$1,300,000</u>
Total	\$8,200,000	\$9,400,000
<b>Operation/Maintenance:</b>		
General Fund	\$272,100	\$272,100

**EXECUTIVE SUMMARY**

**Capital Project Budget Summary**

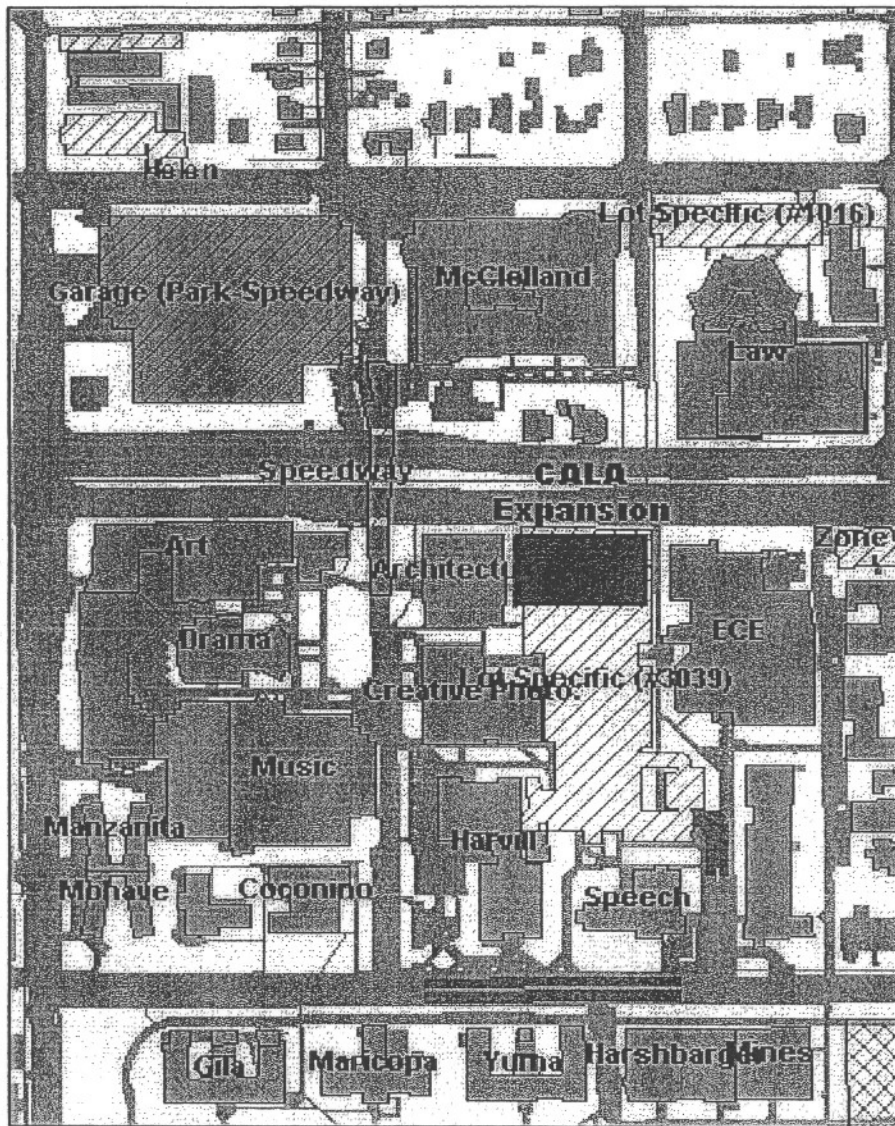
**University:** The University of Arizona

**Project Name:** Architecture Building Expansion

	Project Implementation <u>Approval</u> November 2003	Project <u>Approval</u> October 2004
Date of Budget Estimate:		
1. Land Acquisition	\$ 0	\$
2. Construction Cost		
A. New Construction	\$ 4,850,000	\$ 5,840,000
B. Renovation	0	0
C. Fixed Equipment	0	25,000
D. Site Development (exclude 2.E.)	\$ 50,000	\$ 0
E. Parking & Landscaping	\$ 50,000	\$ 400,000
F. Utilities Extensions	\$ 500,000	\$ 500,000
G. Other	0	0
H. Inflation Adjustment	\$ 150,000	\$ 0
Subtotal Construction Cost	\$ 5,600,000	\$ 6,765,000
3. Consultant Fees		
A. Construction Manager	\$ 120,000	\$ 120,000
B. Architect/Engineering Fees	\$ 775,000	\$ 775,000
C. Other: Interior Design, Cost Estimating, etc.	\$ 100,000	\$ 100,000
Subtotal Consultant Fees	\$ 995,000	995,000
4. FF& E Movable	\$ 250,000	\$ 300,000
5. Contingency, Design Phase	\$ 200,000	\$ 0
6. Contingency, Construction Phase	\$ 300,000	\$ 200,000
7. Parking Reserve	\$ 263,000	\$ 351,000
8. Telecommunications Equipment	\$ 75,000	\$ 270,000
Subtotal Items 4-8	\$ 1,088,000	\$ 1,121,000
9. Additional University Costs		
A. Surveys and Tests	\$ 35,000	\$ 35,000
B. Move-in Costs	\$ 25,000	\$ 25,000
C. Public Art	\$ 0	0
D. Printing/Advertisement	\$ 25,000	\$ 16,000
E. Other*	\$ 390,000	\$ 395,000
F. State Risk Mgt. Insurance	\$ 42,000	\$ 48,000
Subtotal Additional University Costs	\$ 517,000	\$ 519,000
<b>TOTAL CAPITAL COST</b>	<b>\$ 8,200,000</b>	<b>\$ 9,400,000</b>

\*University Project Management and Facilities Management costs.

**EXECUTIVE SUMMARY**



**The University of Arizona  
CALA Expansion**

## EXECUTIVE SUMMARY

**ACTION ITEM:** Architecture Building Expansion: Project Implementation Approval and Budget Increase

**ISSUE:** The University of Arizona seeks Project Implementation Approval and Budget Increase for the Architecture Building Expansion project. This project is an addition to the existing building to serve the College of Architecture and Landscape Architecture (CALA).

### PREVIOUS BOARD ACTIONS

Project Initiation  
Capital Development Plan

April 2001  
August 2003

### PROJECT DESCRIPTION:

- The Architecture Building Expansion is 33,500 gross square feet (gsf) of new space connected to the existing Architecture building located at Speedway Boulevard and Olive Road.
- The purpose of the Architecture Building Expansion project is to provide centralized studio and office space for the Architecture and Landscape Architecture programs. The curriculum for the programs encourages collaboration among the disciplines; however, CALA currently occupies multiple remote facilities making collaboration difficult to achieve. Enlarging the Architecture Building will create a facility to support this important mission.
- The design of the Architecture Building Expansion is being developed with an understanding that changes to the existing building will be necessary in order to provide an efficient and effective facility to meet the current and future educational goals of architecture and landscape architecture.
- The project budget included in the most recent Capital Development Plan (CDP) is \$6.0 million (\$5.9 million System Revenue Bonds; \$0.1 million Gifts). The University would like to increase its commitment to CALA by \$1.0 million; and the college has acquired an additional \$1.2 million in gift proceeds through active fund raising efforts. The combined amount of these sources increases the total project budget to \$8.2 million. The requested increase will benefit the landscape and architecture programs with a building expansion that can accommodate several program elements currently situated in off-site locations. Operations and Maintenance costs will come from General Fund Appropriation.
- Debt Ratio Impact: The incremental impact of the annual debt service to the overall debt ratios are 0.04% State (A.R.S.) and 0.06% ABOR. The debt ratios for the current Capital Development Plan are estimated to be State (A.R.S.) 4.59% and ABOR 7.72%.
- Proposed Schedule:

Project Approval	September 2004
Construction Start	December 2004
Occupancy	December 2005

**Contact:** Joel D. Valdez, (520) 621-5977  
Sr. Vice President for Business Affairs  
jdvaldez@u.arizona.edu

## EXECUTIVE SUMMARY

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### PROJECT JUSTIFICATION

- The project conforms with ABOR Space Guidelines and complies with missions, strategic plans and campus master plan developments.
- The Architecture and Landscape Architecture programs are currently operating out of the main outdated facility and multiple remote facilities. Several of these facilities could be vacated with functions moving to the central location. The expansion will provide a facility that will add efficiency to the programs and create a more effective learning environment.
- This project supports the institutional goals of focused excellence through program strength. It fosters relationships through shared facility use and combined programs.
- Backfill Plan: The addition will help to reduce the shortage of space in the existing facility and will provide space for faculty and students currently housed in remote facilities.

### RECOMMENDATION:

- That the Board grant to the University of Arizona Project Implementation Approval and Budget Increase for the Architecture Building Expansion project.



## EXECUTIVE SUMMARY

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**ACTION ITEM:** Residence Life Building Renewal, Phase 2: Project Implementation Approval

**ISSUE:** The University of Arizona requests Project Implementation Approval for Phase 2 of the Residence Life Building Renewal Project which includes renovations and building infrastructure replacement at Maricopa Hall and Sonora Hall.

**PREVIOUS BOARD ACTIONS:** FY 2004 Capital Development Plan Amendment      January 2004  
Long Range Plan (LRP) – Phase I PIA/PA      January 2004

**PROJECT STATUS:**

- Residence Life Building Renewal, Phase 2 will extend the useful life of aging residential facilities, and reduce the risk of potentially disruptive system failures that would affect both the health and safety of the occupants. Phase 2 will replace plumbing systems in Maricopa and Sonora Halls. No additional gross square footage (gsf) will be added. Originally, Phase 2 was intended to address five buildings but due to the shortened summer construction scheduling challenges experienced in Phase 1, it was agreed to limit the scope of Phase 2 to Maricopa and Sonora Halls at this juncture and add another phase to the total effort at some future date.
- Schedule: It is intended to schedule Phase 2 during the summer of 2005. The University of Arizona will issue a Notice to Proceed to the selected contractor in March 2005. The contractor will begin ordering long-lead equipment so actual construction within the buildings can start immediately at the end of the spring semester when the students vacate the buildings, and be completed in time for the return of students for fall 2005 semester. Residence Life Building Renewal, Phase 2 is the second phase of an ABOR approved multi-phased project that is intended to be completed by the summer of 2008.
- Residence Life Building Renewal, Phase 2 estimated project cost is \$6.5 million and will be funded by Certificates of Participation with debt service paid from Residence Life Auxiliary Enterprise proceeds. Operations and maintenance costs will be funded from the Auxiliary Enterprise proceeds.
- Debt Ratio Impact: The incremental debt ratio associated with this project is 0.03% for State (ARS) and 0.04% for ABOR. The debt ratios for the current Capital Development Plan are estimated to be State 4.30% and ABOR 7.48%.
- This project will utilize a Construction Manager at Risk delivery process. It is anticipated that a Guaranteed Maximum Price (GMP) contract for Phase 2 will be executed during March 2005.

**Contact:** Joel D. Valdez      (520) 621-5977  
Sr. Vice President for Business Affairs  
jdvaldez@u.arizona.edu

## EXECUTIVE SUMMARY

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### PROJECT JUSTIFICATION:

- The Department of Residence Life is committed to providing housing that promotes student success through interactive living and learning communities where students can thrive in a safe and supportive environment. Over 75% of the University's freshmen class is housed in residence halls. Residence Life is particularly concerned with helping students successfully transition from a home to a university environment. Consequently, Residence Life provides an extensive array of programs and services that intentionally focus on first-year learning communities. A primary part of its mission is to provide clean, comfortable, and memorable living spaces while promoting safety and security.
- Residence Life has implemented a plan to incrementally manage deferred maintenance and building renewal activities during the past sixteen years. The Long Development Plan (LDP) for its facilities is a five-year projection of deferred maintenance, building renewal, life/safety improvements and building enhancements that are necessary to maintain the high standards for buildings required for a residential program. During the past sixteen years, Residence Life has expended over \$20.0 million on LDP projects. Priorities are based upon the urgency, availability of funding and the ability of staff and/or contractors to complete the work within allotted timeframes. Most projects are completed during summer periods in order to maintain bed inventory during the academic year.

### RECOMMENDATION:

That the Board grant Project Implementation Approval to the University of Arizona for Phase 2 of the Residence Life Building Renewal Project.



**EXECUTIVE SUMMARY**

**Capital Project Information Summary**

**University:** The University of Arizona      **Project Name:** Residence Life Building Renewal, Phase 2

**Project Description/Location:**

Phase 2 of this multi-phased project includes renovation of Maricopa Hall and Sonora Hall. This phase focuses on the replacement of plumbing systems in Maricopa and Sonora Halls.

**Project  
Implementation**

**Date of Board Action:**

January 2005

**Project Scope:**

Gross Square Feet

N/A

**Project Schedule (Beginning Month/Year):**

Planning

04/03

Design

10/04

Construction start

05/05

Construction completion

08/05

**Project Budget:**

Total Project Cost

\$6,500,000

Direct Construction Cost

\$5,132,000

Total Project Cost per GSF

N/A

Construction Cost per GSF

N/A

Change in annual Operating/Maintenance Cost

N/A

**Funding Source:**

Capital:

Certificates of Participation

\$6,500,000

Debt Service: Auxiliary Enterprise

Operations & Maintenance:

N/A

Auxiliary Enterprise

## EXECUTIVE SUMMARY

### Capital Project Budget Summary

University: The University of Arizona

Project Name: Residence Life Building Renewal, Phase 2

		Project Implementation
		<u>Estimate</u> 12/04
Date of Budget Estimate		
1. Land Acquisition	\$	0
2. Construction Cost		
A. New Construction		0
B. Renovation		4,582,000
C. Fixed Equipment		0
D. Site Development (exclude 2.E.)		0
E. Parking & Landscaping		0
F. Utilities Extensions		0
G. Other (Asbestos Abatement)		120,000
H. Inflation Adjustment		430,000
Subtotal Construction Cost	\$	5,132,000
3. Consultant Fees		
A. Construction Manager		112,000
B. Architect/Engineering		590,000
C. Other (Asbestos Survey)		36,000
Subtotal Consultant Fees	\$	738,000
4. FF& E Movable		0
5. Contingency, Design Phase		130,000
6. Contingency, Construction Phase		240,000
7. Parking Reserve		0
8. Telecommunications Equipment		0
Subtotal Items 4-8	\$	370,000
9. Additional University Costs		
A. Surveys and Tests		22,000
B. Move-in Costs		25,000
C. Public Art		0
D. Printing/Advertisement		8,000
E. Other (Project & Facilities Management)		170,000
F. State Risk Management Insurance		35,000
Subtotal Additional University Costs	\$	260,000
TOTAL CAPITAL COST	\$	6,500,000

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## EXECUTIVE SUMMARY

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**ACTION ITEM:** Deferred Renovation, Building Renewal, and Infrastructure  
Project Implementation Approval

**ISSUE:** The University of Arizona seeks Project Implementation Approval to complete the \$20.0 million Deferred Renovation, Building Renewal, and Infrastructure project.

**PREVIOUS BOARD ACTION:** Capital Development Plan Approval (CDP) June 2004

### PROJECT STATUS:

- The project consolidates a number of deferred improvements into a single capital project to maintain a campus environment that supports the University instruction and research mission, and to facilitate future campus development. The Deferred Renovation, Building Renewal, and Infrastructure project was created after determining that State funded building renewal would not be available again in FY 2005. This is the fourth consecutive year (since FY01) the State has not allocated Building Renewal funding to the universities. Project components address a variety of deficiencies that include: renovating buildings and/or spaces to support academic programs, instruction, and department activities; improving indoor air quality; improving safety; replacing obsolete/inefficient equipment; and correcting conditions that reduce equipment life expectancy and reliability. Projects listed depict the University's most critically known areas of attention at this time. The absence of future Building Renewal funding may also require adjustments to proposed projects and budgets to address future deficiencies that become a higher priority.
- The total estimated project budget of \$20.0 million would be funded through Certificates of Participation with debt service paid for with tuition. The FY 2004 financial data used to calculate the estimated debt ratio presented to the Board in the FY 2005 Capital Development Plan has been updated with data from the audited FY 2004 financial statements, which included all final adjustments. The revised debt ratios are: State (A.R.S.) 4.30%, limit 8%; and ABOR 7.48%, limit 10.0%. This includes projects listed in the Capital Development Plan and projects that have received Project Approval. The incremental changes to the debt ratios associated with the Deferred Renovation, Building Renewal, and Infrastructure project are: State (A.R.S.) 0.11%, and ABOR 0.16%. The projected ratios reflect the highest ratios within the next five years. Projects with a useful life that is less than the maximum bond period (e.g. street paving) will be paid off first. Each project will be reviewed individually to ensure that debt service payments will adhere to the estimated useful life.
- The Deferred Renovation, Building Renewal, and Infrastructure project is comprised of multiple individual projects, each with a separate schedule. The University will request ABOR Project Approval for each individual project greater than one million dollars as specified in ABOR Policy Chapter Seven (7-106.C.2). It is anticipated that the earliest component may begin construction in late FY 2005. A complete list of projects is located on pages 5 and 6.
- The project will utilize both Construction Manager at Risk and Job Order Contracting delivery methods. The method selected is dependent upon the size and complexity of the project, and which process delivers the necessary improvements in the most cost efficient manner.

**Contact:** Joel D. Valdez (520) 621-5977  
Sr. Vice President for Business Affairs  
jdvaldez@u.arizona.edu

## **EXECUTIVE SUMMARY**

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### **PROJECT JUSTIFICATION:**

- The project objective is to extend the useful life of existing facilities by correcting building and infrastructure (utility and surface) deficiencies. It consists of multiple projects in four categories: Building Renewal, Building Renovation, Utility Extensions/Improvements, and Surface Infrastructure.
- The project directly supports the University's instructional and research mission by extending the useful life of existing facilities, addressing deferred maintenance, and improving utility distribution systems that support facilities across campus. Enhancing open space also contributes to the campus environment by repairing deteriorating streets and sidewalks, creating community spaces that encourage interaction beyond the classroom, and improving the overall campus image. The project is consistent with the open space and infrastructure improvements identified in the Comprehensive Campus Plan.

### **RECOMMENDATION:**

That the Board grant Project Implementation Approval to the University of Arizona for the Deferred Renovation, Building Renewal, & Infrastructure project.

**EXECUTIVE SUMMARY**

**Capital Project Information Summary**

**University:** The University of Arizona

**Project Name:** Deferred Renovation, Building Renewal,  
and Infrastructure

**Project Description/Location:** Extend the useful life of existing facilities by correcting building and infrastructure deficiencies.

**Date of Board Action:**

Project  
Implementation  
Approval  
January 2005

**Project Scope:**

Gross Square Feet

N/A

**Project Schedule (Beginning Month/Year):**

Planning

FY 2004

Design

FY2005

Construction

FY 2005-2008

Occupancy

FY 2008

**Project Budget:**

Total Project Cost

\$20,000,000

Direct Construction Cost

\$15,600,000

Total Project Cost per GSF

N/A

Construction Cost per GSF

N/A

Change in Annual Oper./Main. Cost

N/A

**Funding Sources:**

Capital:

Certificates of Participation  
(Debt Service: Tuition)

\$20,000,000

Operation/Maintenance:

N/A

## EXECUTIVE SUMMARY

### Capital Project Budget Summary

University: The University of Arizona

Project Name: Deferred Renovation, Building Renewal,  
and Infrastructure

	Project Implementation Approval Estimate January 2005
Date of Budget Estimate	
1. Land Acquisition	0
2. Construction Cost	
A. New Construction	0
B. Renovation/Building Renewal	\$8,800,000
C. Telecommunication Infrastructure	1,200,000
D. Surface Infrastructure	1,700,000
E. Parking & Landscaping	0
F. Utilities Extensions	3,900,000
G. Other	0
H. Inflation Adjustment	Incl. above
Subtotal Construction Cost	\$ 15,600,000
3. Consultant Fees	
A. Construction Manager	450,000
B. Architect/Engineering Fees	1,850,000
C. Other (Indep. Cost Est., Programming)	250,000
Subtotal Consultant Fees	\$ 2,550,000
4. FF& E Movable	
5. Design Phase Reserve	604,400
6. Construction Phase Reserve	710,000
7. Pkg. Replacement	0
8. Telecommunications Equipment	0
Subtotal Items 4-8	\$ 1,314,400
9. Additional University Costs	
A. Surveys and Tests	0
B. Move-in Costs	0
C. Public Art	0
D. Printing/Advertisement	20,000
E. Other <sup>1</sup>	445,600
F. State Risk Mgt. Ins.	70,000
Subtotal Additional University Costs	\$ 535,600
TOTAL CAPITAL COST	\$ \$20,000,000

<sup>1</sup> Line 9E includes Project Management and Facilities Management costs

## EXECUTIVE SUMMARY

### Deferred Maintenance, Building, and Infrastructure Project Scope

#### Project Summary

Project Category	Budget Est.
Building Renewal	10,360,000
Building Renovation	2,460,000
Utility Extensions / Improvements	5,030,000
Surface Infrastructure	2,150,000
Total Project Budget	\$20,000,000

**Building Renewal:** Major repairs and reworking of a building and supporting infrastructure that maintain and/or extend the building's expected useful life, and reduces the University's deferred maintenance backlog. Typical projects include replacing: heating, ventilating, and air conditioning (HVAC) systems; structural repairs; elevator repairs; and instructional space renovations.

Project Name	Budget Est.
Administration, Remodel Second Floor	979,000
Crowder Hall Theatre - Replace Stage Floor	77,000
Elevator Upgrades in Buildings 55, 67, 81, 94	455,000
Finish Education Classroom Renovations	500,000
Fire Alarm Replacements	1,924,900
HVAC Improvements Vet Sciences - Phase I	3,000,000
HVAC Mechanical Projects (16 Buildings)	419,700
IT Closet Upgrades	1,923,000
Repair & Waterproof McKale Exterior Ramp Decking	250,000
UA South Acoustics Improvement in Classrooms Bldg B & C	150,000
Building Renewal Project Reserve	681,400
Total Building Renewal	\$ 10,360,000

**Building Renovation:** Upgrading or replacing major building systems to extend the building's useful life, and to reduce the University's deferred maintenance backlog. Renovations are more comprehensive than building renewal projects because these projects usually encompass the entire facility.

Project Name	Budget Est.
Architecture Renovation - Phase I	750,000
Nugent Renovation - Phase I	750,000
Enclosure of Hazardous Waste Management Facility	800,000
Building Renovation Project Reserve	160,000
Total Building Renovation	\$ 2,460,000



## EXECUTIVE SUMMARY

**Utility Extensions / Improvements:** Major repair, upgrade, and expansion of the utility-generating and distribution systems to enhance operational efficiencies. Typical projects include: chilled water flow optimization, and electrical distribution system upgrades.

Project Name	Budget Est.
Chilled Water Flow Optimization Project (AHSC/UMC)	1,060,400
Install Chilled Water Piping from Football Stadium to Mirror Casting Laboratory	320,000
Main Campus Electrical Distribution and Grid Upgrade - Phase I	3,000,000
Upgrade Feedwater Piping - AHSC Steam Production System	316,000
Utility Extensions / Improvements Project Reserve	333,600
Total Utility Extensions / Improvements	\$ 5,030,000

**Surface Infrastructure:** Major repairs to sidewalks, bicycle paths, streets, plazas, and landscape area refinements to maintain campus circulation systems and allow open space to support multiple uses. Typical projects include: sidewalk and street repairs, storm water improvements, and landscape revitalization.

Project Name	Budget Est.
Campus Storm Water Improvements	1,000,000
University Blvd. - Pave South Lane of Main Mall	175,000
Sidewalk Repair	75,600
Street Paving - Priority A	700,000
UA South Drainage - Address Courtyard Drainage	60,000
Surface Infrastructure Project Reserve	139,400
Total Surface Infrastructure	\$ 2,150,000

STATE OF ARIZONA

**Joint Committee on Capital Review**

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KAREN S. JOHNSON

1716 WEST ADAMS  
PHOENIX, ARIZONA 85007

PHONE (602) 542-5491

FAX (602) 542-1616

<http://www.azleg.state.az.us/jlbc.htm>

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DATE: June 21, 2005

TO: Senator Bob Burns, Chairman  
Members, Joint Committee on Capital Review

THRU: Richard Stavneak, Director

FROM: Shelli Carol, Fiscal Analyst

SUBJECT: University of Arizona – Reports on Capital Project Contingency Allocations

**Request**

The University of Arizona (UA) is reporting on contingency allocation changes for three projects. At its September 2003 meeting, the Committee gave a favorable review for the Chemistry Building Expansion, the Medical Research Building, and the Thomas W. Keating Bioresearch Building, all research infrastructure projects. Furthermore, at its June 2004 meeting, the Committee favorably reviewed cost increases and a scope reduction for the Chemistry Building Expansion. With these reviews, the Committee stipulated that UA report on allocations that exceed the greater of \$100,000 or 10% of each project's contingency fund amounts.

**Recommendation**

This item is for information only and no Committee action is required. UA reported previous contingency allocation changes in all these projects, tied to significant cost increases for raw materials, to improvements in laboratory and security technologies, and to unforeseen underground conditions. The newly submitted contingency adjustments reflect faculty research needs and equipment purchases that could not be included in the original project bids.

UA is reallocating \$0.2 million of the Chemistry Building Expansion's remaining \$1.1 million contingency fund, \$2.0 million of the Medical Research Building's remaining \$2.2 million contingency fund, and \$1.4 million of the Thomas W. Keating Bioresearch Building's remaining \$3.6 million contingency fund. As staff previously noted, the amount of specialized laboratory space in the Chemistry Building Expansion has created project costs significantly higher than in other projects of its class. The per-square-foot cost estimates for the Medical Research and Keating Bioresearch Buildings are still reasonable after modification.

(Continued)

## Analysis

The rising costs of materials caused certain laboratory equipment prices to fluctuate when UA originally contracted for the construction of these projects. Therefore, the general contractors were unwilling to incorporate such equipment into the project bids at reasonable prices. To cope with this situation, UA periodically re-bids certain equipment separately, using contingency funds when opportunities arise to make purchases that are more economical.

UA will shift monies from the Chemistry Building Expansion, Medical Research Building, and Thomas W. Keating Bioresearch Building contingency allocations to cover the costs of new equipment and associated mechanical systems modifications. The three individual total budgets remain unchanged from the most recent Committee-reviewed amounts.

The following table shows the total budgets and contingency reallocations for the three projects.

<b>University of Arizona Contingency Reallocations Total Project Budgets and Revised Costs</b>			
<b>Project</b>	<b>Chemistry Building Expansion</b>	<b>Medical Research Building</b>	<b>Thomas W. Keating Bioresearch Building</b>
Total Project Budget	\$ 46,100,000 <sup>1\</sup>	\$ 54,350,000	\$ 65,652,000
Original Contingency	1,350,000 <sup>1\</sup>	4,360,000	5,772,000
Previously Reallocated Funds	224,000	2,160,000	2,213,200
Additional Reallocated Funds	160,000	2,000,000	1,370,000
Total Unit Cost	\$ 507/sq ft <sup>1\</sup>	\$ 392/sq ft	\$ 389/sq ft
Original Construction Unit Cost	410/sq ft <sup>1\</sup>	287/sq ft	285/sq ft
Revised Construction Unit Cost	415/sq ft	317/sq ft	306/sq ft
<sup>1\</sup> These amounts represent those favorably reviewed at the June 2004 Committee meeting. The Committee had previously favorably reviewed a total project budget of \$45,000,000, with an original contingency of \$3,923,000, a total unit cost of \$475/sq ft, and an original construction unit cost of \$324/sq ft.			

## Previous Contingency Allocations

While the Committee originally favorably reviewed, in September 2003, a Chemistry Building Expansion of 88,500 square-feet for \$45.0 million, at its June 2004 meeting, the Committee favorably reviewed a total project cost increase of \$1.1 million, a reallocation of \$2.6 million of the project's original \$3.9 million contingency fund, and a scope reduction to 85,000 square feet. UA also reported to the Committee at its June 2004 meeting on a \$1.5 million reallocation from the Keating Bioresearch Building's original \$5.8 million contingency fund. The university reported again to the Committee at its August 2004 meeting on a \$1.7 million reallocation of the Medical Research Building's original \$4.4 million contingency fund.

This first round of adjustments derived from rising construction expenses. Material costs for such items as steel, cement (concrete), petroleum, copper, and gypsum (drywall) rose above the university's original estimates due to increasing worldwide demand for raw materials, especially from economic growth areas in Asia.

(Continued)

In September 2004, UA reported to the Committee on a reallocation of an additional \$0.5 million of the Medical Research Building's contingency fund and an additional \$0.7 million of the Keating Bioresearch Building's contingency fund. These adjustments purchased improved laboratory and security technology. UA aimed, within its approved budget, to acquire the most state-of-the-art equipment available.

Furthermore, at the Committee's October 2004 meeting, UA reported a reallocation of \$0.2 million of the Chemistry Building Expansion's revised \$1.3 million contingency fund to remove old underground utilities. The university's older infrastructure was not consistently documented and UA could not predict what the contractor might uncover in site preparation.

### ***New Contingency Allocations***

As previously noted, UA will use the newly reported contingency allocations to fund faculty research needs and equipment purchases that could not be included in the original project bids.

The following revised excerpts from memos presented to the Committee at its June 2004 and September 2003 meetings reflect the reallocation of contingency funds.

#### **Chemistry Building Expansion**

UA will construct 85,000 square feet (originally 88,500 square feet) of expansion space for the Chemistry Building. The expansion will add laboratory and office space, and allow the consolidation of the chemistry research and instructional programs in one area. Additionally, the project is relocating the insectaries and greenhouses from the Chemistry Building to another location on campus. Contingencies have delayed the anticipated completion of the Chemistry Building Expansion by 2 months, until August 2006.

The revised cost per square foot for this project is \$507 (originally \$475) and the revised direct construction cost per square foot is \$415 (originally \$324). The square foot costs for this project are higher than costs for other research infrastructure projects the Committee has reviewed. Design and construction costs for building expansions are usually higher than new construction.

#### **Medical Research Building**

UA will construct 138,710 square feet of space to provide laboratory, support, and office space for programs related to translational research, as well as to alleviate a shortage of wet laboratory space. Contingencies have delayed the anticipated completion of the Medical Research Building by 3 months, until May 2006.

The cost per square foot for this project is \$392 and the direct construction cost per square foot is \$317. Based on historical actual costs for similar UA buildings and accounting for unique research design and fixed equipment requirements, the costs per square foot for the project appear reasonable.

(Continued)

Thomas W. Keating Bioresearch Building (former Institute for Biomedical Science and Biotechnology)

UA will construct 168,640 square feet of space dedicated to molecular life sciences research. Contingencies have delayed the anticipated completion of the Keating Bioresearch Building by 10 months, until October 2006.

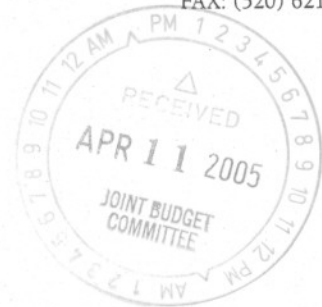
The cost per square foot for this project is \$389 and the direct construction cost per square foot is \$306. Based on market increases for construction materials, UA historical actual costs for similar buildings, unique research design, and fixed equipment requirements, the costs per square foot for the project appear reasonable.

RS/SC:ym

Senior Vice President  
for Business Affairs

THE UNIVERSITY OF  
**ARIZONA**  
TUCSON ARIZONA

Administration Building  
Tucson, Arizona 85721  
(520) 621-5977  
FAX: (520) 621-7714



March 30, 2005

Richard Stavneak, Director  
Joint Committee on Capital Review  
1716 West Adams  
Phoenix, AZ 85007

**RE:** Chemistry Expansion Project  
UA Project No. 99-8121

Dear Mr. Stavneak:

Please be advised that \$160,000 of the project's contingency funds will be reallocated to the Construction Budget line to address previously unforeseen site conditions and design coordination requirements related to the complex Chemistry laboratories being provided.

The total Project Budget of \$46,100,000 as presented at the June 22, 2004 Joint Committee on Capital Review Meeting, remains unchanged.

Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel D. Valdez".

Joel D. Valdez

Senior Vice President, Business Affairs

JDV/jc

cc: Lorenzo Martinez  
Greg Fahey  
Ted Gates  
Dick Roberts  
Bob Smith



Senior Vice President  
for Business Affairs

THE UNIVERSITY OF  
**ARIZONA**®  
TUCSON ARIZONA

Administration Building  
Tucson, Arizona 85721  
(520) 621-5977  
FAX: (520) 621-7714



April 8, 2005

Richard Stavneak, Director  
Joint Committee on Capital Review  
1716 West Adams  
Phoenix, AZ 85007

**Subject: Medical Research Building  
UA Project No. 02-8444**

Dear Mr. Stavneak:

Please be advised that \$2,000,000 of the Medical Research Building's contingency funds will be reallocated to the Construction Budget line to accommodate previously unforeseen conditions, design coordination, material price fluctuations and specialized laboratory equipment required.

The total Project Budget of \$54,350,000 for the Medical Research Building as presented at the August 15, 2003 Arizona Board of Regents meeting remains unchanged.

Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel D. Valdez".

Joel D. Valdez  
Senior Vice President, Business Affairs

JDV/jc

cc: Lorenzo Martinez  
Greg Fahey  
Ted Gates  
Dick Roberts  
Bob Smith



Senior Vice President  
for Business Affairs

THE UNIVERSITY OF  
**ARIZONA**  
TUCSON ARIZONA

Administration Building  
Tucson, Arizona 85721  
(520) 621-5977  
FAX: (520) 621-7714

April 8, 2005



Richard Stavneak, Director  
Joint Committee on Capital Review  
1716 West Adams  
Phoenix, AZ 85007

**Subject: Thomas W. Keating Bioresearch Building  
UA Project No. 01-8343**

Dear Mr. Stavneak:

Please be advised that \$1,370,000 of the Keating Project's contingency funds will be reallocated to the Construction Budget line to accommodate previously unforeseen conditions, design coordination, material price fluctuations and specialized laboratory equipment required.

The total Project Budget of \$65,652,000 for the Keating Project as presented at the June 19, 2003, Arizona Board of Regents meeting remains unchanged.

Please let me know if you have any questions.

Sincerely,

Joel D. Valdez  
Senior Vice President, Business Affairs

JDV/jc

cc: Lorenzo Martinez  
Greg Fahey  
Ted Gates  
Dick Roberts  
Bob Smith

