

EXECUTIVE SUMMARY

ACTION ITEM: Request Revised Project Approval and Budget Increase, New Laboratory Facility

ISSUE: Northern Arizona University seeks Revised Project Approval and a Budget Increase of \$3 million for a total project budget of \$36 million to construct the New Laboratory Facility

PREVIOUS BOARD ACTION:

Capital Development Approval	June 2004
Project Implementation Approval	April 2005
Project Approval	June 2005

PROJECT DESCRIPTION:

- Northern Arizona University seeks approval to increase the current approved project budget by \$3 million for a new total project budget of \$36 million. The proposed increase will cover costs resulting from: 1) program and compliance changes in lab space; 2) extensive repair and replacement of existing underground infrastructure due to deterioration and failures; and, 3) materials and labor cost escalation.
- 1) Program Changes: The construction programming for the New Laboratory included user input and feedback based on current operations that were to relocate from the existing laboratories found in buildings 20 and 21. Since construction began on the New Laboratory Facility, NAU has successfully acquired new research grants and contracts that require more advanced biology and chemistry labs than the originally planned basic research labs. The biological safety laboratory three (BSL3) rated laboratories and advanced hazardous chemical laboratories will allow for the use of the wide array of controlled biological agents and hazardous chemicals required by the new grants and contracts. The advanced laboratories are considerably more costly due to extensive and sophisticated ventilation and filtration systems, redundant filtration systems, separate isolating ducts for hazardous materials, advanced electronic controls systems, electronic monitoring and access controls, and specialized hoods and equipment.
 - 2) Infrastructure Deterioration: The site selection for the laboratory was predicated on its ease of accessibility to a unified science complex, its ready availability to utility connection points and master plan infill recommendations. While the site location is excellent, deterioration of the existing infrastructure, much of which exceeds fifty years of age, has proven extremely problematic and required extensive replacement of failing water and sewer pipes servicing the new laboratory and existing instructional facilities. These failures have impacted and disrupted university operations. Increased costs have been incurred to maintain various utility services to neighboring instructional facilities. NAU has experienced five major outages and blockages requiring extensive remediation and sanitization of areas damaged by internal flooding and service disruption. As a result, NAU has replaced a portion of these failing systems during excavation to provide dependable, consistent utility service and maximize operation efficiency. More underground infrastructure replacement is anticipated.

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- 3) Materials and Labor Cost Escalation: The current construction market continues to experience unprecedented escalation in both labor and material costs. While the establishment of the GMP provided protection from rising concrete and steel costs, the project has been plagued by substantial increases in mechanical and electrical equipment costs. These are major components of the laboratory facility and significantly affect functionality and safety. CMAR cost estimates indicate 20% escalation in these systems which far exceed project contingencies. NAU immediately sought validation of these projections and assistance in negotiating with the CMAR by hiring Rider Hunt Levett and Bailey, a nationally renowned cost estimating and litigation support firm. In addition, NAU contacted other CMAR firms and held discussions with other construction firms, the Association of General Contractors, and ASU's Association for Construction Excellence. These sources validated unprecedented increases that are negatively impacting project budgets across the entire country. NAU has confirmed 20% cost increases in mechanical and electrical components, and costs for these systems are still rising.
- The original \$33 million is funded by Certificates of Participation (COPS) supported by Research Infrastructure funds appropriated by the legislature under House Bill 2529. The additional \$3 million will be funded from COPS supported by the remaining Research Infrastructure capacity and capital reserves and local fund balances. The debt service will be funded through interest capitalization until July 1, 2007 when appropriations for Research Infrastructure are to begin.
 - The New Laboratory Facility is 91,600 gross square feet of flexible instructional and research laboratories which replace existing instructional and research laboratories constructed in the early 1960's. Facility audits determined 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, which fall within category red based upon their Facility Condition Index.
 - Twenty three wet laboratories with supporting research and instructional spaces will relocate 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.

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%

RECOMMENDATION:

Resolved, that Northern Arizona University be granted Revised Project Approval and a budget increase of \$3 million for the New Laboratory Facility project.

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Capital Project Information Summary

University: Northern Arizona University

Project Name: New Laboratory Facility

Project Description / Location:

A new 91,600 gross square foot instructional and research 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	\$36,000,000
Direct Construction Cost	\$29,378,000
Total Project Cost per GSF	\$393
Construction Cost per GSF	\$321
Change in Annual O&M Costs	\$825,000
Utilities	\$425,000
Personnel	\$375,000
All Other Operating	\$25,000

Funding Sources:

Capital

A. Certificates of Participation \$36,000,000
(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 \$825,000

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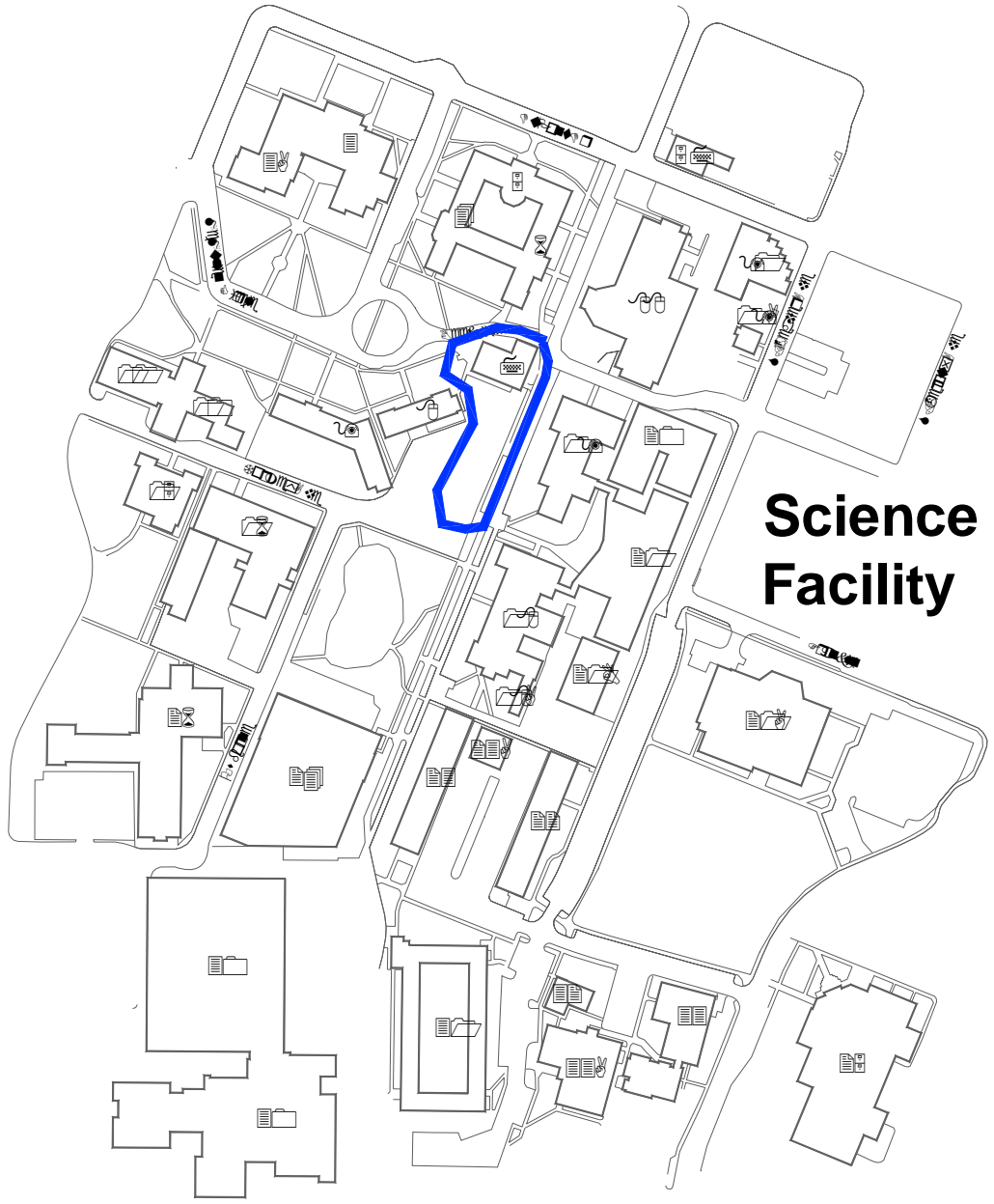
Capital Project Budget Summary

University: Northern Arizona University

Project Name: New Laboratory Facility

	Project Implementation Approval	Project Approval	Revised Project Approval
Capital Costs			
1. Land Acquisition			
2. Construction Cost			
A. New Construction / Precon	\$26,168,000	\$26,168,000	\$28,718,000
B. Renovation			
C. Special Fixed Equipment			
D. Site Development	\$500,000	\$500,000	\$560,000
E. Parking and Landscaping			
F. Utilities Extensions			
G. Demolition / Asbestos	\$100,000	\$100,000	\$100,000
H. Inflation Adjustment			
Subtotal Construction Cost	\$26,768,000	\$26,768,000	\$29,378,000
3. Fees (% of Construction Cost)			
A. Construction Manager			
B. Engineer	\$2,650,000	\$2,650,000	\$2,900,000
C. Other: Lab/Telecom/Commissioning	\$466,680	\$466,680	\$466,680
Subtotal Consultant Fees	\$3,116,680	\$3,116,680	\$3,366,680
4. FF&E Moveable	\$0	\$0	\$0
5. Contingency, Design Phase	\$0	\$0	\$0
6. Contingency, Constr. Phase	\$1,333,400	\$1,333,400	\$1,333,400
7. Parking Reserve			
8. Telecommunications Equipment			
Subtotal Items 4 – 8	\$1,333,400	\$1,333,400	\$1,333,400
9. Additional University Costs			
A. Surveys and Tests	\$180,000	\$180,000	\$180,000
B. Physical Plant SWO's			
C. Public Art / Other	\$0	\$0	\$0
D. Printing Advertising	\$70,004	\$70,004	\$70,004
E. Asbestos – fire curtain			
F. Project Management Cost	\$1,436,711	\$1,436,711	\$1,567,191
H. State Risk Mgmt Ins.	\$95,205	\$95,205	\$104,725
Subtotal Additional University Costs	\$1,781,920	\$1,781,920	\$1,921,920
TOTAL CAPITAL COST	\$33,000,000	\$33,000,000	\$36,000,000

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**Science Lab.
Facility**