B-1-25-2-02

PURDUE UNIVERSITY

Office of the Chief Financial Officer and Treasurer

August 15, 2024

The Honorable Eric J. Holcomb
Governor of the State of Indiana
Statehouse
Indianapolis, IN 46204

Dear Governor Holcomb:

At its meeting on August 2, 2024, the Purdue University Board of Trustees approved the planning, financing, construction and award of construction contracts for the Biochemistry Building Office of the State Chemist Lab Renovation on the West Lafayette campus.

This project will renovate approximately 19,000 GSF primarily in the first and second floors of the Biochemistry Building. The renovations will modernize and optimize the layout of available research laboratory space in the Biochemistry Building. Mechanical, electrical and plumbing systems that support the renovated spaces will be replaced or modified as part of this project.

This project will create a more efficient use of space for occupants associated with the Office of the State Chemist (OISC), allowing greater capacity for the number of researchers performing work in the Biochemistry Building. The new layout moves offices to adjacent rooms within the building and designs new, efficient labs to backfill the footprint. By stacking lab spaces on all three floors, stress on the mechanical systems is reduced, resulting in more efficient operation of the supporting mechanical systems and promote longevity of that equipment

The estimated total project cost is $16,500,000 funded by Auxiliary Funds – Other.

Subject to review by the Commission for Higher Education and recommendation by the State Budget Committee and the Budget Agency, we request your approval to proceed with this project. Attached are the completed forms that the Commission has prescribed for its review of such projects. We will be happy to answer any questions you or your staff may have or to provide any additional information that is needed.

Sincerely,

Christopher A. Ruhl
Chief Financial Officer and Treasurer

Attachments

c: Seth Hinshaw, Chief Financial Officer, Indiana Commission for Higher Education
Joe Habig, Deputy Director and Acting State Budget Director, Indiana State Budget Agency
Cody Wilson, Division Director, Indiana State Budget Agency
Kathleen Thomason, Comptroller, Purdue University
Anne Hazlett, Senior Director, Government Relations, Purdue University

Hovde Hall of Administration – 610 Purdue Mall – West Lafayette, IN 47907 – (765) 494-9705

PROJECT COST SUMMARY

Biochemistry Building Office of the State Chemist Lab Renovation

Institution:	Purdue University	**Budget Agency Project No.:**	B-1-25-2-02
Campus:	West Lafayette	**Institutional Priority:**	N/A
Previously approved by General Assembly:	No	**Previously recommended by CHE:**	No
Part of the Institution's Long-term Capital Plan:	Yes		

Project Size:	18,999	GSF (1)	16,169	ASF (2)	0.851044792 ASF/GSF
Net change in overall campus space:		GSF		ASF	

Total cost of the project (3):	$ 16,500,000	**Cost per ASF/GSF:**	$ 868.47 GSF
Total cost of the demolition:	$ -		$ 1,020.47 ASF

Funding Source(s) for project (4):	Amount	Type
	$ 16,500,000	Auxiliary Funds - Other

Estimated annual debt payment (6):	N/A
Are all funds for the project secured:	Yes

Project Funding:

All funding is secured, from reserve funds for the OISC.

Project Cost Justification

The project scope and cost are defined in the capital project details section.

Estimated annual change in cost of building operations based on the project:	$ (35,000)
Estimated annual repair and rehabilitation investment (5):	$ 247,500

PROJECT DETAILED DESCRIPTION - ADDITIONAL INFORMATION

Biochemistry Building Office of the State Chemist Lab Renovation

Institution:	Purdue University	**Budget Agency Project No.:**	B-1-25-2-02
Campus:	West Lafayette	**Institutional Priority:**	N/A

Description of Project

This project will renovate approximately 19,000 GSF primarily in the first and second floors of the Biochemistry Building on the West Lafayette campus. The renovations will modernize and optimize the layout of available research laboratory space in the Biochemistry Building, and mechanical, electrical and plumbing systems that support the renovated spaces will be replaced or modified as part of this project.

Select rooms in Whistler Hall of Agricultural Research and Lilly Hall of Life Sciences will undergo minor renovations to accommodate occupants during the renovation of the Biochemistry Building.

Need and Purpose of the Program

This project will create a more efficient use of space for occupants associated with the Office of the State Chemist (OISC), allowing greater capacity for the number of researchers performing work in the Biochemistry Building. The Biochemistry renovation will include a combination of modern research labs and modern office spaces that will maximize the efficiency of a currently dated and inefficiently laid out building. The current building has research and office space co-located within the same rooms, which is detrimental to the mechanical systems of those rooms and massively inefficient.

The new layout moves the office component to adjacent rooms within the building and designs new ultra-efficient labs to backfill the footprint. Lab spaces are stacked on all three floors instead of a jigsaw puzzle of office and labs on each floor. The stacking reduces stress on the mechanical systems, resulting in more efficient operation of the supporting mechanical systems and promote longevity of that equipment.

This project supports the College of Agriculture master plan.

Space Utilization

Overall, office space is shifting from 6,300 SF to 7,700 SF, a net increase of 1,400 SF. Lab space is shifting from 6,400 SF to 6,000 SF, a net decrease of 400 SF. However, even with the net decrease in lab SF, the OISC group is capable of increasing researcher headcount by 16% in the long-term from 84 FTE to 98 FTE because of the space efficiency gains.

Comparable Projects

Birck Nanotechnology Center Clean Room Modernization and Related Renovations and Equipment Purchases

Total project = $49M, with $19M being for specialty equipment.
20,500 GSF w/$30M budget for construction = $1,463/ GSF
Costs do not include inflation for current pricing comparison. This is a lab renovation, but the cost per square foot is higher because it's mostly cleanroom work.

Background Materials

CAPITAL PROJECT REQUEST FORM
INDIANA PUBLIC POSTSECONDARY EDUCATION
INSTITUTION CAMPUS SPACE DETAILS FOR Biochemistry Building Office of the State Chemist Lab Renovation

	Current Campus Totals				Capital Request		
(INSERT PROJECT TITLE AND SBA No.)	Current Space in Use	Space Under Construction (1)	Space Planned and Funded (1)	Subtotal Current and Future Space	Space to be Terminated (1)	New Space in Capital Request (2)	Net Future Space
A. OVERALL SPACE IN ASF							
Classroom (110 & 115)	310,758	(2,547)	53,413	**361,624**	-	-	**361,624**
Class Lab (210,215,220,225,230,235)	737,430	(13,353)	27,267	**751,343**	-	-	**751,343**
Non-class Lab (250 & 255)	1,741,662	22,026	1,992	**1,765,680**	-	1,733	**1,767,413**
Office Facilities (300)	2,315,009	(31,940)	37,685	**2,320,753**	-	(568)	**2,320,185**
Study Facilities (400)	470,942	24,974	17,175	**513,091**	-	-	**513,091**
Special Use Facilities (500)	1,200,135	11,251	(10,437)	**1,200,948**	-	-	**1,200,948**
General Use Facilities (600)	969,612	13,384	11,290	**994,286**	-	-	**994,286**
Support Facilities (700)	2,918,659	(8,356)	(44,374)	**2,865,928**	-	-	**2,865,928**
Health Care Facilities (800)	218,188	(1,900)	-	**216,288**	-	-	**216,288**
Resident Facilities (900)	2,438,915	111,146	-	**2,550,061**	-	-	**2,550,061**
Unclassified (000)	170,958	-	-	**170,958**	-	-	**170,958**
B. OTHER FACILITIES							
(Please list major categories)				-			-
TOTAL SPACE	**13,492,266**	**124,685**	**94,010**	**13,710,961**	**-**	**1,165**	**13,712,126**

Notes:
- Space/Room codes based on Postsecondary Ed Facilities Inventory and Classification Manual (2006)

(1) Identify in a footnote the specific facilities that are included in the data in these columns. Do not include pending approval, non-submitted projects or non-funded projects

Space under construction includes:
- Shealy Hall Roof Replacement
- Zucrow High Speed Propulsion Lab
- Mechanical Engineering Building Renovation
- Life Sciences Phenotyping Greenhouse Building
- University Hall and Related Renovations
- University and Schleman Halls Strategic Transformer Replacement
- Birck Nanotechnology Center Clean Room Modernization and Related Renovations
- Purdue Airport Terminal
- Chilled Water Capacity Enhancement Projects
- Hillenbrand Residence Hall South

Space planned and funded includes:
- Wetherill Lab Drain and Supply Line Replacement Phase I
- Nursing and Pharmacy Education Building
- Mitchell E. Daniels, Jr. School of Business Building
- Graduate House Parking Garage Demolition and Site Restoration
- Wetherill Lab Drain and Supply Line Replacement Phase II - 2024
- Vawter Hall Electrical Enhancements and Replacement
- Shreve Hall Electrical Enhancements and Replacement
- Stewart Center and Purdue Memorial Union Courtyard Plaza Concrete and Waterproofing Replacement - 2025
- Burke Boilermaker Aquatic Center Mechanical Project
- Mathematical Sciences Building Data Center Renovation
- Reed Animal Disease Diagnostic Laboratory Equipment Replacement
- Wesley Foundation Property Purchase & Sale
- Chi Omega Sorority Property Purchase & Ground Lease

CAPITAL PROJECT COST DETAILS

Biochemistry Building Office of the State Chemist Lab Renovation

Institution:	Purdue University	**Budget Agency Project No.:**	B-1-25-2-02
Campus:	West Lafayette	**Institutional Priority:**	N/A

ANTICIPATED CONSTRUCTION SCHEDULE

	Month	Year
GMP Delivery	November	2024
Start Construction	March	2025
Occupancy (End Date)	January	2027

ESTIMATED CONSTRUCTION COST FOR PROJECT

	Cost Basis (1)	Estimated Escalation Factors (2)	Project Cost
Planning Costs			
a. Engineering	$ 1,100,000		$ 1,100,000
b. Architectural	$ 500,000		$ 500,000
c. Consulting	$ 75,000		$ 75,000
Construction			
a. Structure	$ 6,500,000		$ 6,500,000
b. Mechanical (HVAC, plumbing, etc.)	$ 5,000,000		$ 5,000,000
c. Electrical	$ 1,000,000		$ 1,000,000
Movable Equipment	$ 650,000		$ 650,000
Fixed Equipment	$ 200,000		$ 200,000
Site Development/Land Acquisition			$ -
Other (PM fee, contingencies, insurance, etc.)	$ 1,475,000		$ 1,475,000
TOTAL ESTIMATED PROJECT COST	**$ 16,500,000**	**$ -**	**$ 16,500,000**

CAPITAL PROJECT OPERATING COST DETAILS

Biochemistry Building Office of the State Chemist Lab Renovation

Institution:	Purdue University	**Budget Agency Project No.:**	B-1-25-2-02
Campus:	West Lafayette	**Institutional Priority:**	N/A

GSF OF AREA AFFECTED BY PROJECT 18,999

ANNUAL OPERATING COST/SAVINGS (1)

	Cost per GSF	Total Operating Cost	Personal Services	Supplies and Expenses
1. Operations	-	**$ -**		
2. Maintenance	-	**$ -**		
3. Fuel	-	**$ -**		
4. Utilities	$ (1.84)	**$ (35,000)**		-35,000
5. Other	-	**$ -**		
TOTAL ESTIMATED OPERATIONAL COST/SAVINGS	**$ (1.84)**	**$ (35,000)**	**$ -**	**$ (35,000)**

Description of any unusual factors affecting operating and maintenance costs/savings.

The project will affect approximately 19,000 GSF of space. Today, the building operates at $12.42/GSF with $7.46/GSF accounted to utility consumption. Similar projects with updated lab spaces have seen approximately 25% more efficient mechanical systems. Using that as a baseline, the total cost per square foot of the building future state is $10.55/GSF and a utility consumption reduction of $35,500 per year.