



Office of the Chief Financial Officer and Treasurer

August 11, 2022

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

Dear Governor Holcomb:

At its meeting on August 5, 2022, the Purdue University Board of Trustees approved the planning, financing, construction and award of construction contracts for the Vawter Hall Electrical Enhancements and Replacement on the West Lafayette campus.

This project will enhance the electrical distribution system currently located in Vawter Residence Hall, which also serves Warren Residence Hall and Windsor Dining Court. This project will install a new, larger transformer to replace two existing, smaller transformers; add three new transformers; and replace main electrical distribution equipment.

This project will result in improved lighting and equipment reliability through the modernization of the buildings' electrical distribution system. The enhanced system will allow power to be shut down to portions of the building instead of requiring a full building closure when electrical work is required.

The estimated total project cost is \$3,000,000 and is funded by Auxiliary Funds – Housing/Dining. This project is included in Purdue's approved FY23 Repair and Rehabilitation budget.

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,

A handwritten signature in black ink, appearing to read 'C. Ruhl', written over a horizontal line.

Christopher A. Ruhl
Chief Financial Officer and Treasurer

Attachments

c: Seth Hinshaw, Chief Financial Officer, Indiana Commission for Higher Education
Zachary Jackson, Director, Indiana State Budget Agency
Jasmine Williams, Assistant Director, Indiana State Budget
Kathleen Thomason, Comptroller, Purdue University
Anne Hazlett, Senior Director, Government Relations, Purdue University

PROJECT COST SUMMARY
Vawter Hall Electrical Enhancements and Replacement

| | | | |
|--|-------------------|---------------------------------------|-------------|
| Institution: | Purdue University | Budget Agency Project No.: | B-1-23-2-05 |
| 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: | N/A | GSF (1) | N/A | ASF (2) | N/A | ASF/GSF |
| Net change in overall campus space: | N/A | GSF | N/A | ASF | | |

| | | | | |
|---|--------------|----------------------------------|-----|-----|
| Total cost of the project (3): | \$ 3,000,000 | Cost per ASF/GSF: | N/A | GSF |
| Total cost of the demolition: | \$ - | | N/A | ASF |
| Funding Source(s) for project (4): | Amount | Type | | |
| | \$ 3,000,000 | Auxiliary Funds – Housing/Dining | | |
| | | | | |
| | | | | |
| Estimated annual debt payment (6): | \$0 | | | |
| Are all funds for the project secured: | Yes | | | |

Project Funding:
The purchase is being funded by Auxiliary Funds – Housing/Dining, and all of the funds are secured.

Project Cost Justification
Since the project is utilities based, there is not a ASF or GSF associated with the work. This project scope and cost are similar to the projects listed in the comparable project section.

| | |
|---|-----------|
| Estimated annual change in cost of building operations based on the project: | |
| Estimated annual repair and rehabilitation investment (5): | \$ 45,000 |

(1) Gross Square Feet (GSF)- Sum of all area within the exterior envelope of the structure.
(2) Assignable Square Feet (ASF)- Amount of space that can be used by people or programs within the interior walls of a structure. Assignable square feet is the sum of the 10 major assignable space use categories: classrooms, laboratories, offices, study facilities, special use facilities, general use facilities, support facilities, health care facilities, residential facilities and unclassified facilities. For information on assignable space use categories, see Space-Room Codes tab.
(3) Projects should include all costs associated with the project (structure, A&E, infrastructure, consulting, FF&E, etc.)
(4) Be consistent in the naming of funds to be used for projects. If bonding, note Bonding Authority Year (1965, 1929, 1927, etc.)
(5) Estimate the amount of funding the institution would need to set aside annually to address R&R needs for the project. CHE suggests 1.5% of total construction cost
(6) If issuing debt, determine annual payment based on 20 years at 4.75% interest rate
- If project is a lease-purchase or lease, adjust accordingly. Note the total cost of the lease in the project cost, and annual payments in project description

PROJECT DETAILED DESCRIPTION - ADDITIONAL INFORMATION
Vawter Hall Electrical Enhancements and Replacement

| | | | |
|---------------------|-------------------|-----------------------------------|-------------|
| Institution: | Purdue University | Budget Agency Project No.: | B-1-23-2-05 |
| Campus: | West Lafayette | Institutional Priority: | N/A |

Description of Project

This project will enhance the electrical distribution system currently located in Vawter Residence Hall, which also serves nearby Warren Residence Hall and Windsor Dining Court, on the West Lafayette campus. This project will install a new, larger transformer to replace two existing, smaller transformers; add three new transformers; and replace main electrical distribution equipment. The existing transformers and main electrical distribution equipment are past their expected service lives and are not meeting the buildings' needs.

Need and Purpose of the Program

This project will improve lighting and equipment reliability through the modernization of the buildings' electrical distribution system. The project will add controls for remote operation of high arc flash switching, increasing the safety for electrical maintenance staff. The enhanced system will allow power to be shut down to portions of the building when electrical work needs to be performed allowing operations to continue in the majority of the building. Currently, the entire building loses power when electrical work needs to be completed. Facilities personnel will have the ability to monitor and record energy usage on demand, which is not currently possible without the installation of temporary metering equipment.

The average life expectancy of the new transformers is 30-40 years, and that of the main electrical distribution equipment is 20-30 years.

Vawter and Warren Residence Halls are part of a five-facility residential complex that was constructed between 1934 and 1951, which contains approximately 687 student beds. Windsor Dining Court supports faculty, staff, students and visitors with operating hours between 7 a.m. and 9 p.m. during the academic year.

This project is included in Purdue's approved FY23 Repair and Rehabilitation budget.

Space Utilization

Since this is a utilities project, there will be no significant space impact.

Comparable Projects

Biochemistry Building Main Electrical Distribution Replacement (2021)

- \$2,300,000
- Replaced two transformers and two electrical distribution systems, including main switches, panels and circuit breakers, with new equipment

The 2021 project included a similar scope with the replacement of transformers, though only two transformers were replaced, compared to the proposed project that includes a total of four new transformers, plus other equipment.

Background Materials

CAPITAL PROJECT REQUEST FORM
INDIANA PUBLIC POSTSECONDARY EDUCATION
INSTITUTION CAMPUS SPACE DETAILS FOR VAWTER HALL ELECTRICAL ENHANCEMENTS AND REPLACEMENT

| (INSERT PROJECT TITLE AND SBA No.) | Current Campus Totals | | | Subtotal Current and Future Space | Capital Request | | Net Future Space |
|--|-----------------------|------------------------------|------------------------------|-----------------------------------|----------------------------|----------------------------------|-------------------|
| | Current Space in Use | Space Under Construction (1) | Space Planned and Funded (1) | | Space to be Terminated (1) | New Space in Capital Request (2) | |
| A. OVERALL SPACE IN ASF | | | | | | | |
| Classroom (110 & 115) | 336,545 | - | (211) | 336,334 | | | 336,334 |
| Class Lab (210,215,220,225,230,235) | 755,112 | 72,943 | 256 | 828,311 | | | 828,311 |
| Non-class Lab (250 & 255) | 1,660,895 | 16,022 | 32,432 | 1,709,349 | | | 1,709,349 |
| Office Facilities (300) | 2,385,957 | 17,570 | 7,784 | 2,411,311 | | | 2,411,311 |
| Study Facilities (400) | 392,685 | 14,337 | 664 | 407,686 | | | 407,686 |
| Special Use Facilities (500) | 1,218,311 | - | 12,709 | 1,231,020 | | | 1,231,020 |
| General Use Facilities (600) | 1,008,003 | 3,335 | 21,390 | 1,032,728 | | | 1,032,728 |
| Support Facilities (700) | 2,875,731 | (860) | (69) | 2,874,802 | | | 2,874,802 |
| Health Care Facilities (800) | 216,011 | - | - | 216,011 | | | 216,011 |
| Resident Facilities (900) | 2,489,928 | - | 254,158 | 2,744,086 | | | 2,744,086 |
| Unclassified (000) | 15,282 | - | - | 15,282 | | | 15,282 |
| B. OTHER FACILITIES (Please list major categories) | | | | | | | |
| TOTAL SPACE | 13,354,459 | 123,347 | 329,113 | 13,806,919 | - | - | 13,806,919 |

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:

- Gateway Complex
- Hypersonics Building
- Schleman/Stewart Renovation
- Whistler Mechanical Project

Space planned and funded includes:

- Life Sciences Phenotyping Greenhouse Building
- Mackey Locker Rooms Renovation
- Ross-Ade Stadium Renovation
- Max W & Maileen Brown Family Hall Renovation
- Northwest Chiller Plant System Improvements

There is no space to be added or terminated as part of this capital project.

CAPITAL PROJECT COST DETAILS
Vawter Hall Electrical Enhancements and Replacement

| | | | |
|---------------------|-------------------|-----------------------------------|-------------|
| Institution: | Purdue University | Budget Agency Project No.: | B-1-23-2-05 |
| Campus: | West Lafayette | Institutional Priority: | N/A |

ANTICIPATED CONSTRUCTION SCHEDULE

| | Month | Year |
|-----------------------------|--------------|-------------|
| Bid Date | February | 2023 |
| Start Construction | May | 2024 |
| Occupancy (End Date) | July | 2024 |

ESTIMATED CONSTRUCTION COST FOR PROJECT

| | Cost Basis (1) | Estimated Escalation Factors (2) | Project Cost |
|---|-----------------------|---|---------------------|
| <u>Planning Costs</u> | | | |
| a. Engineering | \$ 325,000 | | N/A |
| b. Architectural | \$ - | | N/A |
| c. Consulting | \$ - | | N/A |
| <u>Construction</u> | | | |
| a. Structure | \$ 350,000 | | N/A |
| b. Mechanical (HVAC, plumbing, etc.) | \$ - | | N/A |
| c. Electrical | \$ 1,400,000 | | N/A |
| <u>Movable Equipment</u> | \$ - | | N/A |
| <u>Fixed Equipment</u> | \$ 400,000 | | N/A |
| <u>Site Development/Land Acquisition</u> | \$ - | | N/A |
| <u>Other (Please list)</u> | \$ 525,000 | | N/A |
| TOTAL ESTIMATED PROJECT COST | \$ 3,000,000 | \$ - | N/A |

(1) Cost Basis is based on current cost prevailing as of: (INSERT MONTH AND YEAR)

(2) Explain in the Description of Project Section of the "Cap Proj Details" schedule the reasoning for estimated escalation factors

CAPITAL PROJECT OPERATING COST DETAILS
Vawter Hall Electrical Enhancements and Replacement

| | | | |
|---------------------|-------------------|-----------------------------------|-------------|
| Institution: | Purdue University | Budget Agency Project No.: | B-1-23-2-05 |
| Campus: | West Lafayette | Institutional Priority: | N/A |

| <u>ANNUAL OPERATING COST/SAVINGS (1)</u> | | | <u>GSF OF AREA AFFECTED BY PROJECT</u> | |
|---|-----------------|----------------------|--|--------------------------|
| | Cost per GSF | Total Operating Cost | Personal Services | Supplies and Expenses |
| 1. Operations | \$ - | \$ - | | \$ - |
| 2. Maintenance | \$ - | \$ - | | \$ - |
| 3. Fuel | \$ - | \$ - | | \$ - |
| 4. Utilities | \$ - | \$ - | | \$ - |
| 5. Other | \$ - | \$ - | | \$ - |
| TOTAL ESTIMATED OPERATIONAL COST/SAVINGS | \$ - | \$ - | \$ - | \$ - |

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

(1) Based on figures from "Individual Cap Proj Desc" schedule