



## STUDENT SUSTAINABILITY COMMITTEE

### Final Report

*Thank you for your commitment to green initiatives at the University of Illinois. One of the final steps in completing the terms of the funding agreement for your project is the submission of a Final Report with key information about your project. You will also need to submit a detailed report of expenses (if you don't list it within this document) as well as supporting photos to showcase your project.*

*Please be as accurate as possible in describing the project (including possible setbacks or challenges in meeting the initial goals of the project). Not fully meeting your project's goals will not disqualify you from making future funding requests as long as your reports are as complete and accurate as possible. If you have any questions, please contact the Student Sustainability Committee, at [sustainability-committee@illinois.edu](mailto:sustainability-committee@illinois.edu).*

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**Project Name:** Higher Efficiency Lighting (LED) in Illini Union Rooms 104 and 222

**Date of Report Submission:** 1/9/2019

**Project Purpose:**

The Illini Union rooms 104 and 222 previously used very outdated metal-halide lighting fixtures. Following an assessment of the light fixtures, it was found that there would be a dramatic reduction in CO<sub>2</sub> and unnecessary energy consumption by switching to LED lights. 40,488 kWh's a year would be saved by making the transition to LED light fixtures. As well as, 66,431 pounds of CO<sub>2</sub> reduced-equal to the energy of 3.3 homes annually. The transition from the outdated light fixtures allows the Illini Union to conserve energy and work towards reducing the carbon footprint of the campus.

**Project Summary:**

Rooms 104 and 222 of the Illini Union are both utilized extensively throughout the day. Each room maintains a high level of foot traffic and visibility within the building. An assessment team concluded that transitioning the old lighting fixtures to LED would have an overwhelmingly positive impact on energy consumption and unnecessary waste. The overarching goal of this project is to promote sustainability from within the Illini Union. The smaller scope of this project is to reduce carbon emissions and save energy by utilizing LED lighting fixtures within rooms 104 and 222 in the Illini Union. The lighting levels generated by the new LED fixtures are more than adequate for the usage, and end users and staff have been very satisfied.

**Summary of Project Expenditures:**

The cost summary for contracted parts & labor is attached to this report.

**Problems/Challenges Encountered**

Multiple capital projects (Illini Union Dining Center & Illini Union NE Window Replacement) occurred simultaneously with the LED lighting replacement in Room 104. This created some coordination issues that were resolved through close communication by Illini Union Facilities and the three sets of contractors.

**Student Involvement and Outreach to Date:**

The Illini Union Board serves as a student led advisory board for the Illini Union. Then VP of Policy, Hannah Price, was directly involved in packaging and presenting the Step 1 & 2 proposals. Students are directly impacted every day by the end product of this project. The IU Board organization actively uses room 222 as an office space and IU Board members often work long hours outside of the regular work day. Additionally, the Illini Union room 104 is serving as a dining hall while the ISR dining hall renovations take place in AY2018/19 - AY2019/20. This dramatically increases the usage of space and, in turn, demand for lighting.

**Marketing and Promotion Efforts to Date:**

Illini Union has been promoting all of our Sustainability efforts, including this critical LED retrofit, within Student Affairs at division wide meetings and with IU Board. The Union is revising its marketing and communication strategy for our energy reduction, waste reduction, materials/product selection, and technology improvements to be based within social media. This includes bringing on Hannah Price, former IU Board VP for Policy and majoring in Biology/Sustainability, as an administrative intern in the Director's Office. Her role will be focused on developing our social media & communications plan for sustainability, in addition to project and special event planning related to waste reduction and sustainability.

**Additional Comments:**

The Illini Union elected to exceed the funding provided by the SSC (\$46,000) by \$882 in order to optimize the dimming circuits within Room 104. After the room reverts to its normal event usage in 2020, the South portion of the room needs the ability to dim according to typical audio-visual and speaker setups for the room. Room 222 is used as a more conventional meeting space and did not require dimming.

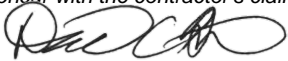
In addition to the above fields, please provide a detailed accounting of how the funding was spent as well as pictures of the final project in an email to [sustainability-committee@illinois.edu](mailto:sustainability-committee@illinois.edu). Thank you again for your commitment to sustainability.

**Facilities & Services  
Contractor Services Construction Permit**

**This Permit must be posted at the location of the work being performed by the contractor and remain posted until the work has been completed and inspected. Upon satisfactory completion, the project manager will signify agreement by signing below and returning a copy of the Permit to the contractor. The contractor will submit the signed permit, invoice and all required documents as indicated on this Permit to F&S Construction Services (fandsconservinvoice@illinois.edu).**

<b>Permit Number</b>	C231037	<b>F&amp;S WO Number</b>	10634860
<b>Issue Date:</b>	July 20, 2018		
<b>Work Location:</b>	ILLINI UNION #0023	<b>Room Number:</b>	0104
<b>Work Description:</b>	REFERENCE: CONTRACTOR PRICING PROPOSAL APPLICATION PO-NUMBER : P1648987 AND REF-NUMBER : 228-1  BASE SCOPE: FURNISH AND INSTALL 7 NEW LIGHT FIXTURES IN ROOM 104 AND 6 NEW FIXTURES IN ROOM 222. REMOVE EXISTING LIGHTING IN ROOMS 104 AND 222. INSTALL NEW		
<b>Start Date:</b>	July 20, 2018	<b>Completion Date:</b>	August 31, 2018
<b>Cost:</b>	46,882	<b>Terms:</b>	FIXED COST
<b>Work Requestor:</b>	DAVID GUTH	<b>Phone/Email:</b>	217-244-1505 / dcguth@illinois.edu
<b>Contractor:</b>	RATHJE ENTERPRISES INC/BODINE ELECTRIC		
<b>Project Manager:</b>	DAVID GUTH	<b>Phone/Email:</b>	217-244-1505 / dcguth@illinois.edu
<b>F&amp;S Work Manager:</b>	THOMAS DOUD	<b>Phone/Email:</b>	

*I concur with the contractor's claim that the work prescribed above is complete and satisfactory.*



08/20/18

DAVID GUTH

Date

**Documentation required for closeout:**

When checked, the following items must be included with invoice before payment will be authorized:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Final Inspection Report | <input checked="" type="checkbox"/> As-Built Drawings |
| <input type="checkbox"/> Operation & Maintenance Manuals    | <input type="checkbox"/> Key Return                   |

**Invoicing and Billing Procedures**

In order to facilitate timely payment invoices, contractor should adhere to the following procedures:

- Each permit must have only ONE invoice (duplicate invoices should be sent only when requested by UI rep)
- Each invoice page must reference only ONE permit
- Each invoice must be assigned a unique invoice number
- Invoices shall be submitted only upon 100% completion and dated no earlier than completion date

Mail Invoices to: **University of Illinois Facilities & Services, Construction Services**  
**1501 S. Oak Street, Champaign, IL 61820**

Email Invoices to: **fandsconstructioninvoice@illinois.edu**

Invoice must clearly reference: **CPO Number:** P1648987      **Permit Number:** C231037

Direct Inquiries regarding payment status to Invoice Payment Inquiry (217) 244-5000

Service Request# 309043 Running Total: 46,882.00

Contractor Name: Rathje Enterprises Inc/Bodine Electric Reference No: 228-1

Service request generated

**Work**

Building(\*): 0023 ILLINI UNION

Room: 01-0104: FOOD FACILITIES ▼

Attachment:

**Base proposal scope of work(\*):**

Furnish and install 7 new light fixtures in room 104 and 6 new fixtures in room 222.  
Remove existing lighting in rooms 104 and 222.  
Install new dimmers in room 104.  
Cut new switch in wall in room 104 and rework wiring.

**Exclusions and clarifications:**

Add Journeyman Detail:

Division	Trade	Base (Hr)	Rate	OT (Hr)	Rate	OSA (Hr)	Rate	OSH (Hr)	Rate	Total Cost

Add Foreman Detail:

Division	Trade	Base (Hr)	Rate	OT (Hr)	Rate	OSA (Hr)	Rate	OSH (Hr)	Rate	Total Cost
05 Electrical	Electrician, Bid	60.00	at 93.95	0.00	at 127.18	0.00	at 127.18	0.00	at 160.40	5,637.00

**Total Labor:** 5,637.00

**Material:** 35,795.66

**Material Markup:** 15.0 %

**Material Total:** 41,165.01

**Parking:** 80.00

**Equipment:** 0.00

**Freight on Material:** 0.00

**Contractor Base Total:** 46,882.00

**Add Sub-Contractors:**

Sub-contractor Name	Division of Work	CMS Certified MBE/DBE/FMB/DBE	Amount



Room 104 - Dining Center Setup



Room 104 - Dining Center Setup



# ILLINI UNION Board

ILLINI UNION BOARD  
IUPROD  
WELCOME TO YOU!  
GO FIGHT GO

ILLINI UNION BOARD  
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Room 222 - IU Board Room





Room 222 - IU Board Room