

Student Proposal

MATEUS INKE | MELISSA FIERRO

A USE HEALTH CAMPUS PROJECT

UNIVERSITY OF SOUTH FLORIDA



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"Our commitment is to improve the full spectrum of health, from the environment, to the community, to the individual." - USF Health Missions and Values

Abstract

Honoring the USF Health Missions Statement, the objective of this project is to make USF Health, specifically MDL's Group Learning space and the Shimberg Health Science Library, a more energy efficient space for students to utilize all hours of the day. The goal for this project would consist of replacing the current lighting, which are fluorescent and incandescent bulbs, to light-emitting diode, or *LED*, bulbs. By implementing these changes, the amount of energy (Kwh/HR) used will decrease while quality of light for the students' increases.

The locations of this project were chosen largely based on the fact they are one of the most utilized spaces for Health's student body. The MDL Building in particular consists of eighteen Group Learning rooms that are available to the students on a twenty-four-hour basis for studying or simply to attend classes. As for the Shimberg Library, students continue to find classroom and degree-related resources, as well as additional group study rooms that may be used after traditional library hours.

While this project is a large step for USF Health in the direction of sustainability, the college wants to continue on a pattern of growth. With the completion of this transition, it is the project team's hope that future renovations will begin to take place so Health students, faculty, and administration may continue to leave the Tampa Bay Area a better place to live and learn for future generations.

Student Engagement

We will be utilizing two students from USF Health's Shared Student Services for this project who will work alongside USF Facilities Management from the initial planning phase through completion.

These two students are already staff members and thus their involvement will be factored into their current pay.

Student pay \$12/hr.

Why LED over Fluorescent?

	60W Traditional Incandescent	43W Energy Saving Incandescent	15W CFL	12W LED
Energy \$ Saved (%)	-	~25%	~75%	~75% to 80%
Annual Energy Cost*	\$4.80	\$3.50	\$1.20	\$1.00
Bulb Life (hours)	1,000	1,000 to 3,000	10,000	25,000

Provided by: <https://bit.ly/2D2lxmn>

As seen above, an LED bulb is more than 25 times more efficient than a traditional incandescent light bulb and 2 times more efficient than a traditional Compact Fluorescent Light bulb which are currently in place in most spaces, including the Group Learning rooms and the Shimberg Health Science Library.

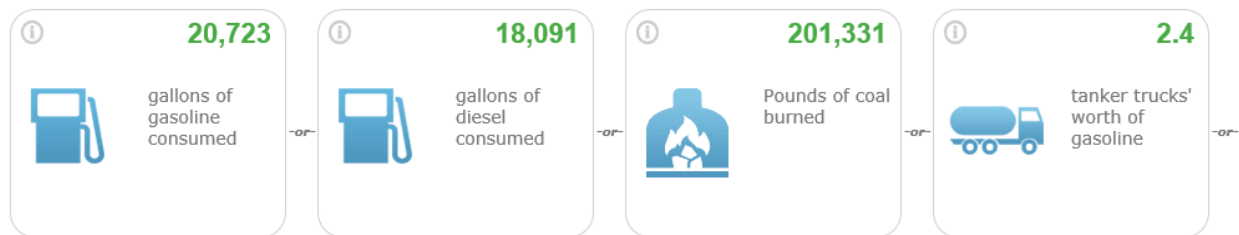
LEDs emit light in a specific direction, reducing the need for reflectors and diffusers which can trap light. This means that half of the light may not even leave the fixture.

LEDs release a minimal amount of heat, compared to incandescent bulbs where 90% of energy is released as heat and Compact Fluorescent Light bulbs where 80% of energy is released as heat. The lack of heat emission also helps with AC efficiency.

Sustainability Benefits

While the transition to LED lighting from florescent bulbs is only the beginning of improving our overall sustainability in USF Health, it as a big step since the MDL and the Shimberg Library are two of the most utilized spaces on the Health campus. To put our electricity usage into perspective, the United States Environmental Protection Agency (EPA) **Greenhouse Gas Equivalencies Calculator** has equated USF's current annual kilowatt-hours usage of 260,428 Kwh into 184 metric tons of carbon dioxide waste or CO2 emissions from 18,091 gallons of diesel consumed.

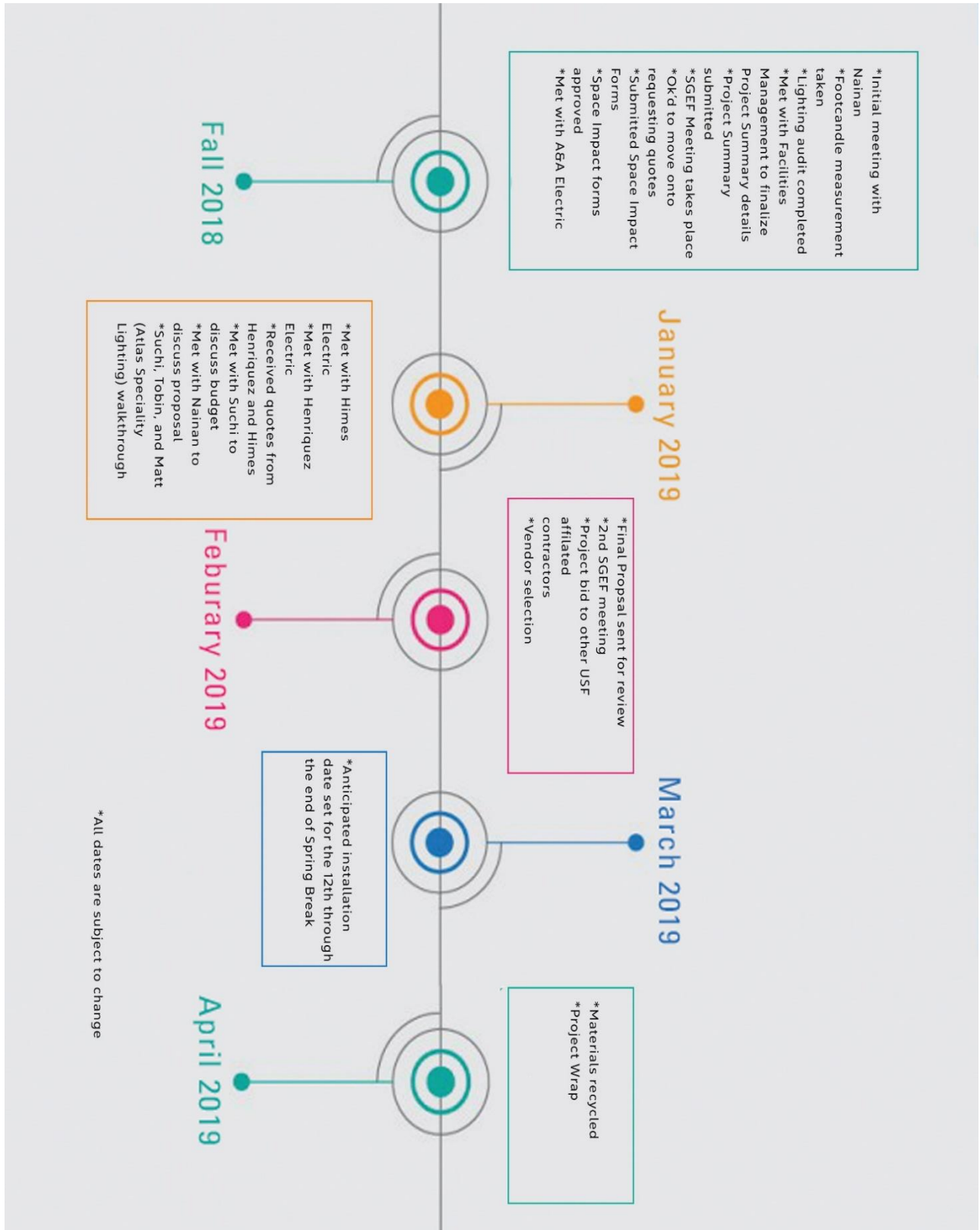
CO₂ emissions from



Project Implementation Plan

- **Proposed Space:** USF Health's MDL Building and Shimberg (Health Science) Library
- **Lighting type(s):** 4ft T8 and T5 Bulbs, 6cm Can fixtures with 4pin bulbs, and 2ft T5 bulb
- **Anticipated Completion:** Spring Break 2019

Project execution will be completed by both students detailed in the Student Engagement Section (see above) in collaboration with USF Health and USF Facilities Management. The students began work by performing a lighting audit on all lamps included in the renovation space, then followed up with a light measurement (in foot-candles) to make sure the project is on track to meet or improve current light conditions. The students are direct contacts for all site visits made by potential bidders and will take on the responsibility of assuring vendors receive accurate and sufficient knowledge of the renovation space. This project will not require an outside architectural or engineering consultant, however individuals within the university and Facilities Management will work closely with the project team to assure an optimized result. Additionally, we plan to use the university's building code official to ensure our renovation meets the necessary code compliance. The Space Impact Form, required by the University, can be found in the Appendix.



Long Term Sustainability Maintenance

Once the lamps and new fixtures are installed, Facilities Management will take on the responsibility of changing out burnt out bulbs for the foreseeable future. The WELL and Operations Assistants will continue to use the work-order system already in place to inform the necessary party of replacements as they are needed.

Project Cost

- We estimate that this project will cost \$2.19/sq. ft. This projection was estimated using the \$/square ft. cost from the BSF Building Project plus an added cushion to compensate for inflation and extra labor costs.
- The total space for the MDL Group Learning and the Shimberg Library is 55,606 square feet. This would mean the projected total cost of our project would be around \$112,212.
- Three quotes were requested, ranging between \$117,000 and \$150,000. A budget has been created based on the highest bid in order to stay within a conservative range. However, the full project cost is anticipated to cost less. We requested quotes from A&A Electric, Henriquez Electric Corp, and Himes Electric Company. The latter, we did not receive information back.

Project Summary

<u>Items</u>	<u>Cost</u>
Lighting Materials (with taxes)	\$59,543.72
Cost of Labor	\$74,282.00
Direct Job Expenses*	\$16,747.28
Student Engagement	\$2,000.00
Total Budgeted Cost	\$152,573.00

APPENDIX


**FACILITIES
MANAGEMENT**

 Facilities Management Service Center
 4202 E. Fowler Avenue / OPM 100 | Tampa, FL 33620-7550

Edition: June 21, 2018

SIR-01
**USF FACILITIES MANAGEMENT
SPACE IMPACT REQUEST**

 EMAIL COMPLETED FORM TO: jgahagan@usf.edu FOR INFORMATION CALL: 813-974-0332

A REQUESTOR: ☐ CHECK IF REQUESTOR IS PROJECT CONTACT.

COLLEGE/UNIT: USF Health Shared Student Services

REQUEST DATE: 11/26/2018

NAME: Emily Meyer

EMAIL: emilymeyer@health.usf.edu

PHONE: (813) 974-4414

PROJECT CONTACT:

Name: Mateus Minko

Email: Minko@health.usf.edu

Phone: (813) 468-2905

RESERVED FOR SIR MANAGER USE:

SIR NUMBER:
18-559mdc
DATE: 11/27/18

B REQUEST: ☐ CHECK IF ADDITIONAL INFORMATION IS ATTACHED (SKETCHES, PHOTOS, PRODUCT INFO, ETC.)

BUILDING NAME: (IF NOT IN BUILDING, PLEASE ATTACH A MAP)

Yes No SPACE IMPACT QUESTIONNAIRE: ☒ CHECK YES OR NO FOR ALL QUESTIONS.

☐ ☒ WILL THIS PROJECT REQUIRE BUILDING OR REMOVING WALLS?

☐ ☒ WILL OCCUPANTS BE DISPLACED WHILE WORK OCCURS?

☒ ☐ IS AN ESTIMATE BEING REQUESTED FOR BUDGETING PURPOSES?

EXPECTED BUDGET RANGE:
☐ <\$5,000

☐ \$5,000 – \$25,000

☐ \$25,000 – \$100,000

☒ >\$100,000

AREA IMPACTED:

DESCRIPTION OF MODIFICATION REQUESTED: All fluorescent and incandescent light bulbs want to be switched for LED bulbs.

WILL ROOM CLASSIFICATION CHANGE?

☐ Yes ☒ No

 IN WHAT WAY IS YOUR CURRENT SPACE
 INADEQUATE FOR THE IDENTIFIED NEED? ADDRESS
 THE IMPLICATIONS TO YOUR PROGRAM/SERVICE IF
 YOUR REQUEST IS NOT APPROVED.

The current space does not have adequate, bright and efficient lighting in place. The implications of not having the project approved includes students not having adequate lighting for studying and extra curricular activities, and the University spending large amounts on energy consumption.

 ANY CRITICAL FACTORS TO BE CONSIDERED
 IN SCHEDULING THIS PROJECT?

No, work can be performed after hours

C CHARTFIELD(S): IF REQUEST IS APPROVED, IS SUFFICIENT FUNDING IN PLACE TO COVER THE PROJECT COST? IF YES, IDENTIFY FUNDING SOURCE.

Op. UNIT	FUND CODE	ACCOUNT	DEPT.	PRODUCT	INITIATIVE	BUD. REF.

ACCOUNTABLE OFFICER:

NAME:

EMAIL:

PHONE:

D SIGNATURE: SIGNATURE BELOW IS REQUIRED PRIOR TO REVIEW AND DOES NOT IMPLY APPROVAL OF THIS REQUEST.

REQUEST CATEGORY: ☒ CHECK ONE OF TWO CATEGORIES

☐ **ROUTINE:** ROUTINE MODIFICATION REQUIRE SIGNATURE FROM DEAN OR APPROVED DESIGNEE OF THE DEPARTMENT. EXAMPLES OF ROUTINE MODIFICATIONS INCLUDE ADDITION OF AN ELECTRICAL OUTLET, MINOR AV PROJECTS, AND INSTALLING A NEW DOOR OR WALL IN OFFICE SPACE. SIGNATURE ① REQUIRED.

☐ **NON-ROUTINE / OTHER:** ALL NON-ROUTINE REQUIRES SIGNATURE FROM THE DEAN OR APPROVED DESIGNEE AND AREA VICE PRESIDENT OR APPROVED DESIGNEE. EXAMPLES OF NON-ROUTINE INCLUDE SUITE RENOVATIONS, SIGNIFICANT ALTERATIONS TO INTERIOR OR EXTERIOR SPACES, AND ACCOMMODATIONS MADE DUE TO LARGE EQUIPMENT PURCHASES AND DEPARTMENTAL RESTRUCTURING. SIGNATURE ① AND ② REQUIRED.

① DEAN OR APPROVED DESIGNEE:

(PLEASE PRINT NAME)

SIGNATURE

DATE:

EMAIL:

PHONE:

② AREA VICE PRESIDENT OR APPROVED DESIGNEE:

(PLEASE PRINT NAME)

SIGNATURE

DATE:

EMAIL:

PHONE:

UNIVERSITY OF SOUTH FLORIDA
Space Impact Request

12/04/18

MEMORANDUM

TO: Emily Meyer

FROM: Jackie Gahagan
Facilities Management

SUBJECT: Space Impact Approval #18-559mdc – Switch all fluorescent and
incandescent light bulbs with LED bulbs

Subject to working with assigned project manager to assure that all pertinent Issues are addressed in order to receive final approval.

The appropriate departments have reviewed and conceptually approved your request. To proceed contact Facilities Management Project Manager Stan Douglas at x4-0876.

Building Code Administration Permit may be required. A fee for service is required for document review, building permit, construction inspections, and certificate of occupancy/re-occupancy/completion. Fee will be charged. (USF Policy #6-019).

It is strongly recommended that all contractors/vendors park in parking lot spaces as compared to parking on the grass areas unless absolutely necessary

See attached comments from EH&S.

cc: FM - Campus Planning and Space Management
FM - Design and Construction
FM - Environmental Health and Safety
FM - Maintenance and Plant Operations
FM - Building and Campus Services
FM - Emergency Management
Information Technology

MEMORANDUM

TO: Emily Meyer

DATE: November 28, 2018

RE: Space Impact Request #18-559mdc – Switch all fluorescent and incandescent light bulbs with LED bulbs

This request has been reviewed by Facilities Management.

- ☒ The request has been **reviewed and FM has no objections at this time. If approved** and the requestor wishes to proceed, he/she must contact the project manager/department below:

<input type="checkbox"/>	Ballester, Michael	4-9679	<input type="checkbox"/>	Hao, Shuang	4-0646
<input type="checkbox"/>	Berrian, Scot	4-1429	<input type="checkbox"/>	Ilse, Chris	4-0891
<input type="checkbox"/>	Crosby, Don	4-3095	<input type="checkbox"/>	Laverty, Brian	4-0885
<input type="checkbox"/>	Daniels, Suchi	4-0857	<input type="checkbox"/>	Martin, Chris	4-9604
<input type="checkbox"/>	Edwards, Jill	4-5972	<input type="checkbox"/>	Mullins, Paul	4-6954
<input type="checkbox"/>	Georgis, Daoud	4-2420	<input type="checkbox"/>	Piccininni, Rich	4-0882
<input type="checkbox"/>	Hansen, Kevin	4-4983	<input type="checkbox"/>	Wasilefsky, Steven	4-0889
<input type="checkbox"/>	Hanwisal, Chaddy	4-0564			

☐ Other: _____

☒ Douglas, Stanley 4-0876 ☐ Pestrak, Walter 4-6172

- ☐ The request has been **conceptually approved**. For approval, additional information must be submitted

- ☐ The request is **not approved** for the following reasons:

- ☒ The following **permits** need to be obtained before work is to start:
- ☒ Building Code Administration Permit is required. A fee for service is required for document review, building permit, construction inspections, and certificate of occupancy/re-occupancy/completion. A minimum fee of \$50.00 will be charged. (USF Policy #6-019)

☐ SWFTMUD

☐ Other: _____

- ☐ **Comments:**

- ☒ Hire Campus Services Architect/Engineer for Design Services
- ☐ Hire Campus Services Construction Manager for Construction Services
- ☐ Hire Campus Services General Contractor
- ☒ Hire Campus Services Electrical Contractor
- ☐ Hire Campus Services Mechanical Contractor
- ☐ FM Interior Design Project
- ☐ FM In-House Project
- ☐ Other: _____



Approval Tracking Request

Date: 12/04/2018

Request #	Request Type	Date / Time	Campus	Completed	Complete Date / Time
18-559mdc	Space Impact	11/27/2018 12:19	Tampa	Yes	12/04/2018 07:44

Requester	Description
Name: Emily Meyer Main Phone: 974-4414 Fax: Email: emilymeyer@health.usf.edu	Switch all fluorescent and incandescent light bulbs with LED bulbs

Reviewer Comments for Request #18-559mdc

Date / Time	Status	Staff	Comments
11/27/2018 12:53	App	STAFF	EHS: No IH issues with request.

11/29/2018 08:23	App	STAFF	EHS: All electrical work must comply with National Electrical Code, NFPA 70.
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11/30/2018 05:54	App	STAFF	DEM: No apparent Department of Emergency Management issues with this request.
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7713 Benjamin Rd.
Tampa Fl. 33634
P: 813.877.1104
F: 813.879.0758
EC001637

PROPOSAL

DATE: 1/11/2019

ATTENTION: MELISSA FIERRO

PHONE, WORK AND HOME:

**PROPOSAL SUBMITTED TO: UNIVERSITY OF SOUTH FLORIDA
USF HEALTH SHARED STUDENT SERVICES**

STREET: 12901 BRUCE B. DOWNS BLVD

CITY, STATE, ZIP: TAMPA, FL. 33612

**JOB NAME: USF CPH 1151
CONNECT FURNITURE WITH DEDICATED CIRCUIT**

JOB LOCATION: USF, TAMPA, TRANSITION OF TWO FACILITIES TO LED LIGHTING

WE HEREBY SUBMIT, AS PER CONVERSATIONS AND 6 SPREADSHEETS, A COMPLETE ELECTRICAL INSTALLATION OF REPLACEMENT LIGHTING, USING ONE FOR ONE REPLACEMENT OF FLUORESCENT LAMPS WITH LED LAMPS AND REPLACEMENT OF RECESSED FLUORESCENT CAN LIGHTS WITH LED EQUIVALENTS. PROPER DISPOSAL OF FLUORESCENT LAMPS IS INCLUDED. 29 EMERGENCY BALLASTS FOR THE RECESSED CAN LIGHTS ARE INCLUDED, TO BE PLACED AS DIRECTED IN THE FIELD. IT IS UNDERSTOOD THAT THERE ARE SOME HARD TO GET TO FLUORESCENT PERIMETER LIGHTS THAT WILL NEED TO BE INCLUDED. SCAFFOLDING TO REACH THE HIGH LIGHTS IN THE LIBRARY IS INCLUDED. WORK IS EXPECTED TO BE ACCOMPLISHED DURING THE SPRING BREAK. WE EXPECT IT WILL TAKE 2 CREWS OF 8 ELECTRICIANS THE WHOLE WEEK TO FINISH THIS PROJECT.

PRICE TO BE \$117,900.00

BOND WOULD ADD \$3,600.00

BREAKDOWN:

MATERIAL COSTS WITH TAXES - \$40,900.00

MISC MATERIALS FL. LAMP DISPOSAL FEES, LIFT, SCAFFOLD, SUPERVISION - \$22,100.00

LABOR - \$54,900.00

ANY QUESTIONS, PLEASE CALL STAN HANKINS.



4409 N. Thatcher Avenue, Tampa, Florida 33614

Phone: (813) 872-8597 Fax: (813) 872-8762

January 14, 2019

University of South Florida
4202 E. Fowler Avenue
Tampa, FL 33620
Attention: Ms. Emily Meyer

**Proposal for University of South Florida MDN Health Shimborg Library Lighting Retro Project.
A&A Electric Proposal #4869**

Dear Ms. Meyer:

We are pleased to offer our proposal for the above referenced project in accordance with the information gathered during our site walk thru with USF. Our proposal takes into consideration USF standards, our understanding of the project, and as follows;

Bid Documents Provided:

- Lighting Reference Document
- 12/10/18 Final Lighting Audit Spreadsheets
- 01/10/19 Revised Lighting Audit Spreadsheets

Spreadsheet #1: \$33,934.00

- Lighting Materials: \$13,706.97
- Labor: \$16,585.00
- Direct Job Expense: \$ 3,642.03

Spreadsheet #2: \$24,025.00

- Lighting Materials: \$ 9,541.19
- Labor: \$12,193.00
- Direct Job Expense: \$ 2,290.81

Spreadsheet #3: \$42,878.00

- Lighting Materials: \$16,801.33
- Labor: \$20,315.00
- Direct Job Expense: \$ 5,761.67

Spreadsheet #4: \$19,464.00

- Lighting Materials: \$7,801.70
- Labor: \$9,738.00
- Direct Job Expense: \$1,924.30

Spreadsheet #5: \$16,249.00

- Lighting Materials: \$6,062.85
- Labor: \$8,609.00
- Direct Job Expense: \$1,577.15

Spreadsheet #6: \$14,023.00

- Lighting Materials: \$5,629.68
- Labor: \$6,842.00
- Direct Job Expense: \$1,551.32

Page 2 of 2
1/14/2019

Scope of work:

- Remove existing lamps and ballasts where new LED lamps are to be replaced. Our proposal includes recycle fees to dispose of old lamps and ballasts accordingly.
- If any new dimmer switches are needed the unit price to furnish and install is \$300.00/each.
- Install new lighting as identified in USF Lighting Audit Spreadsheets 1 through 6. Lighting fixture packages will be DOPO by USF. Our break out numbers for the lighting materials above include 7% sales tax in the total amount.
- Our proposal assumes that all the type C downlight fixtures are in drop-in ceilings. Our proposal does not carry any associated costs for hard lid ceiling applications and/or ceiling repairs.
- Were indicated we have included costs for complete fixture removal and replacement on the 4' & 2' strip fixture.
- Our proposal is solely based on the quantities provided by USF in their audit spreadsheet.
- Provide scissor lift to perform work in the Shimberg Library in open ceiling area above 1st floor. All furniture will have to be removed and replaced by USF in order to perform this work.
- USF will have to provide a schedule of acceptable times that our crews can work in the various areas. USF will have to coordinate with the end users of each area.
- Our proposal includes applicable taxes and inspection fees.
- Our proposal does not include bonding fees.

All work will be accomplished after normal working hours (ie: evenings and/or weekends). No holiday premium time is included in our proposal. Please contact me if you should have any questions.

Sincerely,



Mike Springstead
Project Manager
(813) 267-4963
mikes@anelectricservices.com