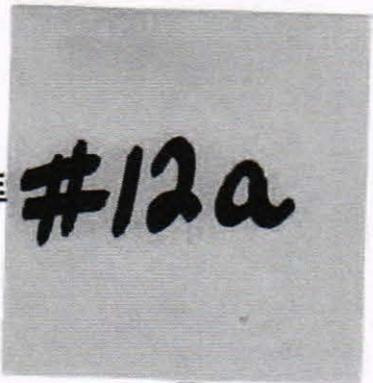


06/30/15



WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) RE

#12a

Date: June 25, 2015

Weekly Agenda Date: June 30, 2015

DEPARTMENT HEAD / CITIZEN: Supervisor Jeremy Taylor

SUBJECT: **LED Lighting Retrofit**

ACTION REQUIRED:

Approve Ordinance <input type="checkbox"/>	Approve Resolution <input type="checkbox"/>	Approve Motion <input checked="" type="checkbox"/>
Give Direction <input type="checkbox"/>	Other: Informational <input checked="" type="checkbox"/>	Attachments <input type="checkbox"/>

WORDING FOR AGENDA ITEM: Information on Woodbury County becoming the first all-LED county in the state.

EXECUTIVE SUMMARY: Currently, rebates through Mid-American are incentivizing LED fixtures (bulbs, ballasts) from 75-90% (and even in some cases potentially 100% of fixture cost). However, these rebates will very likely be revised as of January of 2016. My understanding of the current lighting implementation is that utilization of T-8 (most likely 28 watt rather than higher efficiency 25 watt) were purchased at a bulk discount rate. However, with the new LED incentives, even at \$125 / fixture, Mid-American could incentivize the full cost, especially if county-wide these were purchased in bulk. For these to be seriously considered, we would have to work with a representative from Mid-American, have the Baker Group walk the buildings and get counts and do so on an at-cost "special project" basis. The Baker Group could determine what this scope of work would be. The installation cost would be the bulk of what this would come down to but has exciting potential, especially as it relates to the mitigation of labor in the future. Typically, LED bulbs have more than a 15 year replacement life.

BACKGROUND: I presented the above information at last week's meeting. As a further follow-up, I am attaching several documents. This details the cost potential. We have 455,690 overall square feet. At an estimated \$2.50 - \$3.50 per square foot cost, the overall potential cost could be \$1.1 - \$1.5 million. Allowing The Baker Group to study our buildings, the type of lighting, the scope of rebates, potential payback, overall cost, savings, rebate requirements and packaging to ensure the best cost for the county will cost their time / labor at \$7,680. This will only be incurred if the County does not move forward with the project. Otherwise, as laid out in the documents, they would charge below their normal 17% that the State of Iowa Master Contract allows them to charge and be reduced to 10% of total project given the nature of the project. In telephone conversations with Joshua Widman, Dennis Butler, and Dave Jorgensen, our Asst. County Attorney is advising that we must retain an engineer as the total cost exceeds \$130,000. Mr. Jorgensen believes that in interviewing architects and engineers, we can find a reduced percentage rate because we do not need detailed blueprints but rather "schedules" of lighting. This is estimated to add 5% to cost. Utilizing an engineer or architect may also be helpful in maintaining the historic preservation of the courthouse. However, we can break these projects into separate projects for bidding purposes of contractors while buying in bulk, which is advantageous to the county. Furthermore, having separate projects allows us to stay under our bonding threshold.

The goal would be three-fold: first, we would realize rebate potentials of 70% of total project cost. Second, the life of these bulbs (+15 years) would mean that we might have otherwise done 2 or 3 retrofits of less efficient bulbs and incurred greater cost by not doing such a project, especially when rebates are as aggressive as they are before the January 1, 2016 revision. Third, the reduced electrical bills alone most likely have a payback so great that after rebates we may be looking at a time in 2-4 years when the after-rebate cost on initial investment is exceeded by the savings. This is great for taxpayers, the environment, and the light quality of all county facilities with dimmable LEDs that generate less heat. Potentially, 5 years from now, the county will have spent less money in total implementing this forward-planning project rather than having not done so.

FINANCIAL IMPACT: \$7,680.

RECOMMENDATION: The Board allow The Baker Group to assess all of our buildings.

ACTION REQUIRED: I move that The Baker Group study our buildings with a detailed audit report due back to the Board with a total cost not to exceed \$7,680.

Facility Improvement Master Plan

Woodbury County

EXECUTIVE SUMMARY – County wide Lighting Upgrade Project

Thank you for choosing Baker Group to initiate the first phase of our Facility Improvement Master Plan, the Preliminary Audit. The intent of this program is to assist your County in the following:

- Analyze the condition of your existing HVAC equipment.
- Test the interior environment for Indoor Air Quality based on CO₂ levels.
- Test the interior environment for existing light levels and types of fixtures.
- Evaluate the current energy consumption for each building.
- Explore improvements desired by the County.

As we were working on the first step of our process, the Preliminary Report, it quickly became obvious that the County should consider a County Wide upgrade to the existing lighting systems. After some discussions it also became apparent that the best solution for the County would be to consider a complete conversion to LED lighting in all buildings where appropriate. A unique opportunity right now is the very aggressive rebate program being offer by MidAmerican Energy for LED conversions. Rebate are available to cover up to 70% of the total cost of the project including materials, labor, management services and engineering. While we cannot know for sure, there is a strong opinion from various sources that the rebate program could be changed around the first of the year and the rebate amounts could be reduced by as much as 40%. With this possibility in mind, we feel it is in the County's best interest to move forward with this part of the Energy Conservation Project as soon as possible.

To move forward, our next step, the Detailed Audit, should be implemented at this time just for the lighting project. We have included a Project Development Agreement for these services and would ask that the Board of Supervisors approve this document. There is also a related Exhibit A that lists each building to be included along with the square footage for that building. We cannot give the County an accurate estimate of this project until our Detailed Audit of the lighting systems is complete. However, you will see a Rough Order of Magnitude budget using a range of average costs per square foot of building for a lighting upgrades. This is used only to give us all a rough idea of project size at this time. There will be many variables in each building that will impact the final recommendations. Our Detailed Audit report will provide financial estimates on the following:

- Installation cost – "Turn Key".
- Energy Savings Projections.
- Operational Savings Projections.
- Estimate of energy rebates

Once the detailed audit is complete, we will again meet with your Board of Supervisors to analyze our findings and help determine the direction of the project. This is the point where the group will make

Facility Improvement Master Plan

decisions on what to include in a final project scope, and is subject to the final bidding process. To simplify the construction process and to keep the design team and project development team interactive with the project, Baker Group would recommend implementing this project through a 'Construction Management' process. We will talk more about this in our meetings with you, but in short, Baker Group would manage the entire process for you including finalizing outside design work with a company of your choice, publishing bid requests, receiving said bids, evaluating all bids with your building committee on an open book pricing structure, handle all construction contracts, insurance documents and bonds as needed, and finally manage the entire construction and implementation process to completion. Our fees for construction management on this project will be 10% of the construction costs not including design fees. A Construction Management as Agency AIA document C132 will be provided to the County as we move into that phase of the project.

Funding for a major project in today's financial world is very economical. In addition to the utility rebate program there are low cost government leases available for up to 15 years. With all the sources available, facility improvement projects can typically be 100% funded without dipping into your capital outlay reserves if you wish. In today's world of budget cuts and tight funding we take great care in trying to utilize the funds you have available for building improvement projects, that in the end will help reduce your operating cost.

We are looking forward to being your partner in the Facility Improvement Master Plan process.

Sincerely,

David C. Jorgenson
Director, Facility Improvement Master Plan
Baker Group

Facility Improvement Master Plan

Project Development Agreement

Customer's Premises: Woodbury County Iowa Facilities
Customer Name: Woodbury County
Address: 620 Douglas St
City/State/Zip: Sioux City, Iowa

1. **EVALUATION STUDY.** Baker Group agrees to undertake a Detailed Facility Audit of the lighting systems in the Customer's Premises as listed in Exhibit A attached hereto. Customer agrees to provide its complete cooperation in the conduct and completion of the study. Baker Group will provide to the Customer a written report on or before 30 days from the date of approval of this document. The report will include:
 - (a) Detailed analysis of all lighting systems and improvements for each facility as follows:
 1. Lighting Survey to include the following for each building:
 - A. Sample light level in each room
 - B. Quantity count itemized by each room of existing fixtures
 - C. Wattage and type of tube or bulb inside the fixtures such as T8 or T12 florescent or CFL or Incandescent etc.
 - D. Light switch count in each room
 - E. Ceiling height in each room
 - (b) Adequate in-house pre-engineering will be completed at this time to support budget Pricing. Detailed engineering along with bid documents will be provided by the County's design team after the Detailed Audit. Baker Group's pre-engineering and budget pricing will be in coordination with and provided to the design team.
 - (c) Coordinate designs with MidAmerican Energy to maximize potential rebates
 - (d) Budget numbers, by individual building, for the following:
 - Installation costs for Turn Key projects
 - Energy Savings Projections if any
 - Operational Savings Projections if any
 - Estimates of energy rebates
2. **Customer Information to be provided.** During the evaluation study, Customer will furnish to Baker Group, upon its request, accurate and complete data concerning energy usage and operational expenditures for the Premises, including the following data for the most recent two years from the effective date of this Agreement:
 - actual utility bills or summary supplied by the utility company for the past 24 months;
 - occupancy and usage information;
 - input on any building, or part of, that should not be included in the survey
 - summary of expenditures for maintenance, repairs, or replacements of the existing lighting systems

Facility Improvement Master Plan Project Development Agreement

3. **PREPARATION OF FINAL PROJECT.** Baker Group will work in conjunction with the design team to provide all above services to enable the publication of the plans and specifications. Separate bids will be requested for lighting products and lighting installation services. Bids will be submitted to Woodbury County and analyzed under the advisement of Baker Group. Baker Group will also assist the County in applying for utility rebates and outside financing as needed.
4. **PRICE AND PAYMENT TERMS.** Customer agrees to pay to Baker Group the sum of Seven Thousand Six Hundred Eighty Dollars (\$7,680.00) for the services described in this document as Detailed Audit. This fee will be billed to the County only if the County decides not to move forward with implementation of the project. Project implementation will be completed through a Construction Management process and Baker Group will be compensated through the Construction Management Agreement for those services at the rate of 10% of all equipment and labor costs and the above fee will be absorbed into that total amount.
5. **INDEMNITY.** Baker Group and the Customer agree that Baker Group shall be responsible only for such injury, loss, or damage caused by the intentional misconduct or the negligent act or omission of Baker Group. Baker Group and the Customer agree to indemnify and to hold each other, including their officers, agents, directors, and employees, harmless from all claims, demands, or suits of any kind, including all legal costs and attorney's fees, resulting from the intentional misconduct of their employees or any negligent act or omission by their employees or agents. Neither Baker Group nor the Customer will be responsible to the other for any special, indirect, or consequential damages.
6. **DISPUTES.** If a dispute arises under this Agreement, the parties shall promptly attempt in good faith to resolve the dispute by negotiation. All disputes not resolved by negotiation shall be resolved in accordance with the Commercial Rules of the American Arbitration Association in effect at that time, except as modified herein. All disputes shall be decided by a single arbitrator. A decision shall be rendered by the arbitrator no later than nine months after the demand for arbitration is filed, and the arbitrator shall state in writing the factual and legal basis for the award. No discovery shall be permitted. The arbitrator shall issue a scheduling order that shall not be modified except by the mutual agreement of the parties. Judgment may be entered upon the award in the highest state or federal court having jurisdiction over the matter. The prevailing party shall recover all costs, including attorney's fees, incurred as a result of the dispute. If the Customer is a state or local governmental entity, then this paragraph shall not apply.
7. **MISCELLANEOUS PROVISIONS.** This Agreement cannot be assigned by either party without the prior written consent of the other party. This Agreement is the entire Agreement between Baker Group and the Customer with respect to development activities and services and supersedes any prior oral understandings, written agreements, proposals, or other communications between Baker Group and the Customer. Any change or modification to this Agreement will not be effective unless made in writing. This written instrument must specifically indicate that it is an amendment, change, or modification to this Agreement.

Customer
Organization Name
Signature
Printed Name
Title
Date

Baker Group
Signature
Printed Name
Title
Date

Exhibit A

Woodbury County
Lighting Survey

Town	Building Name	Building Use	Sq Feet	ROM Cost Per Square Foot Lighting only			
				\$ 2.50	\$ 3.00	\$ 3.50	
<u>County Buildings:</u>							
	Court House	offices	83808	\$ 209,520	\$ 251,424	\$ 293,328	
	Law Enforcement Center	Jail	85000	\$ 212,500	\$ 255,000	\$ 297,500	
	Trosper-Hoyt	Office/Jail	88000	\$ 220,000	\$ 264,000	\$ 308,000	
	Siouxland District Health	Clinic	27396	\$ 68,490	\$ 82,188	\$ 95,886	
	Social Services and VA	Offices	5600	\$ 14,000	\$ 16,800	\$ 19,600	
	Eagles Club	Storage	9,360	\$ 23,400	\$ 28,080	\$ 32,760	
	Prairie Hill	Center	13590	\$ 33,975	\$ 40,770	\$ 47,565	
	Prairie Hill 3 morton buildings	Garages	7000	\$ 17,500	\$ 21,000	\$ 24,500	
	Climbing Hill Emergency Services	Ofc/Storage	13000	\$ 32,500	\$ 39,000	\$ 45,500	
	Climbing Hill outbuildings	Garage	900	\$ 2,250	\$ 2,700	\$ 3,150	
	Anthon Courthouse	Rental space		\$ -	\$ -	\$ -	
	Sub Total			\$ -	\$ -	\$ -	
<u>Secondary Roads:</u>				\$ -	\$ -	\$ -	
	Moville Office	Office	7350	\$ 18,375	\$ 22,050	\$ 25,725	
	Moville Shops	sheds	10500	\$ 26,250	\$ 31,500	\$ 36,750	
	Lawton	shop	5000	\$ 12,500	\$ 15,000	\$ 17,500	
	Correctionville	shop	8700	\$ 21,750	\$ 26,100	\$ 30,450	
	Anthon	shop	3300	\$ 8,250	\$ 9,900	\$ 11,550	
	Pierson	shop	2000	\$ 5,000	\$ 6,000	\$ 7,000	
	Oto	shop/stor	15500	\$ 38,750	\$ 46,500	\$ 54,250	
	Danbury	shop	2500	\$ 6,250	\$ 7,500	\$ 8,750	
	Hornick	shop	4900	\$ 12,250	\$ 14,700	\$ 17,150	
	Climbing Hill	shop	2000	\$ 5,000	\$ 6,000	\$ 7,000	
	Luthon	shop	5000	\$ 12,500	\$ 15,000	\$ 17,500	
	Sub Total			\$ -	\$ -	\$ -	
				\$ -	\$ -	\$ -	

			\$	-	\$	-	\$	-
			\$	-	\$	-	\$	-
			\$	-	\$	-	\$	-
<u>Conservation:</u>			\$	-	\$	-	\$	-
Dorothy Becaut Nature Center		14168	\$	35,420	\$	42,504	\$	49,588
Brown's Lake	House	1248	\$	3,120	\$	3,744	\$	4,368
Same as Browns			\$	-	\$	-	\$	-
Snyder Bend Park	All	1664	\$	4,160	\$	4,992	\$	5,824
Midway Park	Outhouse		\$	-	\$	-	\$	-
Fowler Forest Preserve	RR's	450	\$	1,125	\$	1,350	\$	1,575
Southwood Conservation Area	All	7427	\$	18,568	\$	22,281	\$	25,995
Little Sioux Park	All	17380	\$	43,450	\$	52,140	\$	60,830
	Sub Total		\$	-	\$	-	\$	-
All Buildings		442741	\$	1,106,853	\$	1,328,223	\$	1,549,594

Total by Category
\$ 2.50 \$ 3.00 \$ 3.50

\$ 834,135 \$ 1,000,962 \$ 1,167,789

\$ 166,875 \$ 200,250 \$ 233,625

\$ 105,843	\$ 127,011	\$ 148,180
\$ 1,106,853	\$ 1,328,223	\$ 1,549,594