

City of Anaheim
Dad Miller Golf Course Water-Energy Budget

Irrigation Upgrades

Project Elements	Unit Price	Unit	Quantity (Units)	Total Project Costs	Requested Grant Funding	Cost Share
1 Personnel Services						
Not Applicable						
Subtotal Task 1				0	0	0
2 Land/Easement Acquisition						
Not Applicable						
Subtotal Task 2				0	0	0
3 Grantee Expenses (costs directly associated with the project; limited to 5% of total proposal costs)						
Not Applicable						
Subtotal Task 3				0	0	0
4 Professional and Consultant Services						
4.1 Pre-Design (0.6% of total project cost)				12,000	12,000	
Site Survey plus aerial mapping (0.75% of total						
4.2 project cost)				15,000	15,000	
Designs, Plans, and Specifications (3.75% of total						
4.3 project cost)				75,000	75,000	
Subtotal Task 4				102,000	102,000	0
5 Construction/Implementation Costs						
5.1 Materials (piping, valves, wiring, etc.)				1,000,000	1,000,000	
5.2 Contractor fee/installation/connection/labor				800,000	800,000	
5.3 Equipment				25,000	25,000	
5.4 Sand/fill material - off site				8,000	8,000	
5.5 Upgrading electrical efficiency				15,000	15,000	
Subtotal				1,848,000	1,848,000	
5.6 Contingency (2.7% of construction cost)				50,000	50,000	
Subtotal Task 5				1,898,000	1,898,000	0
6 Other						
Not Applicable						
Subtotal Task 6				0	0	0
Grand Total				2,000,000	2,000,000	0
Percentage of Total Project Cost					100%	0%

City of Anaheim
Dad Miller Golf Course Water-Energy Budget

Lighting Upgrades

Project Elements	Unit Price	Unit	Quantity (Units)	Total Project Costs	Requested Grant Funding	Cost Share
1 Personnel Services						
<i>Not Applicable</i>						
Subtotal Task 1				0	0	0
2 Land/Easement Acquisition						
<i>Not Applicable</i>						
Subtotal Task 2				0	0	0
3 Grantee Expenses (costs directly associated with the project; limited to 5% of total proposal costs)						
Plan Check Fees				10,000	10,000	
				0	0	
Subtotal Task 3				10,000	10,000	0
4 Professional and Consultant Services						
Pre-Design (0.6% of total project cost)				2,500	2,500	
Site Survey (0.6% of total project cost)				2,500	2,500	
Designs, Plans, and Specifications (4.2% of total project cost)				17,500	17,500	
Subtotal Task 4				22,500	22,500	0
5 Construction/Implementation Costs						
Materials (light fixtures, wiring, etc)				164,000	164,000	
Contractor fee/installation/connection/labor				156,500	156,500	
Equipment				25,000	25,000	
Hazardous Waste/Material - off site				6,500	6,500	
Subtotal				352,000	352,000	
Construction Contingency (7% of Construction Subtotal)				25,000	25,000	
Subtotal Task 5				377,000	377,000	0
6 Other						
Grant Writing Fee (costs incurred October, November, and December 2014)				7,400	7,400	
Subtotal Task 6				7,400	7,400	0
Grand Total				416,900	416,900	0
Percentage of Total Project Cost					100%	0%

Budget Narrative

Anaheim: Dad Miller Golf Course

Water-Energy Grant Program

BUDGET NARRATIVE

Table 1 Budget Summary		
Item	Irrigation Upgrades	Lighting Upgrades
1. Personnel	\$0	\$0
2. Land/Easement	\$	\$
3. Grantee Expenses	\$	\$10,000
4. Professional/Consultant Services	\$102,000	\$22,500
5. Construction & Implementation	\$1,898,000	\$377,000
6. Other	\$0	\$7,400
Totals	\$2,000,000	\$416,900
Grand Total	\$2,416,900	

Irrigation Upgrades, \$2,000,000

The budget for the proposed irrigation upgrades was developed by experienced staff at the Dad Miller Golf Course in partnership with Brent Harvey Consulting (BHC). BHC is a regional vendor, a member of the American Society of Irrigation Consultants, and has extensive experience specializing in replacing existing irrigation systems at golf courses. The costs proposed in the budget are based on Mr. Harvey's experience with retrofitting a 75-acre golf course and the costs are deemed reliable based on industry standards. A more detailed cost estimate will be developed by the successful design consultant and the costs attributed to each line item may shift slightly.

All costs associated with the irrigation project are assigned to two categories: 1) Professional and Consultant Services, and 2) Construction/Implementation Costs. The City of Anaheim proposes to utilize the services of qualified consultants and contractors to accomplish all of the work. The time for City personnel to support the project is deemed minimal and therefore not included in the budget.

The numbering below corresponds to the numbering in the budget document.

- 1. Personnel Services**, Not Applicable
- 2. Land/Easement Acquisition**, Not Applicable
- 3. Grantee Expenses**, Not Applicable
- 4. Professional and Consultant Services**, \$102,000

Budget Narrative

Anaheim: Dad Miller Golf Course

Water-Energy Grant Program

4.1 Pre-Design, \$12,000

Pre-design work is calculated at 0.6% of the total project cost ($\$12,000 / \$2,000,000 = 0.6\%$). Pre-design work includes meeting with golf course staff members, walking the golf course site, and reviewing system maps (see Work Plan for copy of existing system maps).

4.2 Site Survey, \$15,000

Site survey work is calculated at 0.75% of the total project cost ($\$15,000 / \$2,000,000 = 0.75\%$). This work includes an aerial mapping effort and traditional site survey work.

4.3 Designs, Plans, and Specifications, \$75,000

Design, plans, and specifications is calculated at 3.75% of the total project cost ($\$75,000 / \$2,000,000 = 3.75\%$). This work includes all 30%, 60%, and 100% design work including detailed cost estimates and construction drawings.

5. Construction/Implementation, \$1,898,000

In a typical golf course irrigation project, there are two primary factors driving the cost of the project: 1) materials, and 2) labor. An industry "rule of thumb" is that approximately 50% of the cost will be for materials and 50% will be for labor.

5.1 Material, \$1,000,000

Materials represent 50% of the total project cost of \$2 million. Materials to be acquired to accomplish the irrigation upgrade include sprinkler heads, controllers, piping, wiring, valves, and valve boxes. The specific quantity and specifications will be developed during the design phase. Again, this preliminary estimate was confirmed reliable by BHC.

5.2 Contractor Fee/Installation/Connection/Labor, \$800,000

The successful contractor responsible for installation of the new irrigation system will be selected as a result of a competitive request for proposal process. Golf course builders and contracting firms specializing in golf course construction, golf course installation, or golf course irrigation replacements will be invited to bid on the project. Based on industry experience by BHC, the installation crew will most likely be a 13 to 20 person crew that will include an on-site Superintendent, 1-2 foremen, 2-3 equipment operators, pipe fitters, wiremen, and approximately 5 laborers. The City will ensure that all labor laws are complied with including Davis Bacon and State Prevailing Wage Laws, if required.

5.3 Equipment, \$25,000

Equipment that will be necessary to complete the installation includes trenching equipment, excavator, and a mini-excavator. This line item will offset the cost of equipment rental fees. Monthly rental fees will be negotiated by the successful contractor. Based on industry standards the monthly rental fee for an excavator should be negotiated anywhere between

\$3,000 to \$7,000 per month. Trenching rentals cost considerably less per month (approximately \$1,000 to \$3,000 per month depending on size). These costs were confirmed using Internet search engines for daily and monthly rental fees for large, construction equipment.

5.4 Sand/fill material, \$8,000

Sand and fill material will be required to ensure the irrigation system drains properly. Golf courses are most effective when there is a 10- to 12-inch sand layer over native soil without a gravel layer. During the irrigation upgrade, the project will disturb areas that will require additional sand and fill material in order to ensure a healthy golf course and drainage system, including proper air and water infiltration and percolation. Sand has a high infiltration rate and aeration porosity but can contribute to lower water retention; therefore, organic amendments may be incorporated into the sand to increase water retention including peat, inorganic porous ceramics, and zeolites.

5.5 Upgrading Electrical Efficiency, 15,000

Most golf course irrigation upgrade projects include the need to upgrade the system's power transformer, service meter, or pump station. Because the design and construction drawings will be developed after the grant award, a \$15,000 line item is being included in the budget as a contingency should these types of upgrades be necessary. The cost for upgrades was provided by the City of Anaheim Public Utilities Department.

5.6 Contingency, \$50,000

A small \$50,000 contingency is included in the construction budget. The contingency was based on 2.7% of the construction phase ($\$1,848,000 \times 2.7\%$). This is well below a standard 10 to 15 percent contingency for a construction project; however, given the experience with golf course retrofits and the assumptions presented above, this contingency is deemed adequate.

6. Other, Not Applicable

Lighting Upgrades, \$416,900

The proposed lighting upgrades are for the entire Dad Miller Golf Course complex. The complex includes a shop building, cafe building, a banquet area, cart charging basement, clubhouse, parking lot, various other outdoor lighting fixtures, and a lighted driving range. The project cost estimates were calculated in partnership with the Anaheim Public Utilities (APU) Department staff specialists (specifically Mr. Manny Gonzalez and Mr. Phil Hayes), golf course staff members, and a local vendor who assisted with preliminary price quotes. The pricing effort began with a comprehensive inventory of all lighting fixtures at the golf course. This work was accomplished on December 11, 2014, by members of the APU. APU staff utilized their standard Lighting Incentive Program worksheets that are for the City's lighting rebate program (see attached document) and then the local vendor and golf course staff members enhanced this work by providing price quotes.

The City of Anaheim proposes to utilize the services of qualified consultants and contractors to accomplish all of the lighting work. The time for City personnel to support the project is deemed minimal and therefore not included in the budget.

The numbering below corresponds to the numbering in the budget document.

1. Personnel Services, Not Applicable

2. Land/Easement Acquisition, Not Applicable

3. Grantee Expenses, \$10,000

The City of Anaheim will require that the lighting retrofit project be submitted to the City's Planning Department for "plan check." Despite the golf course being a city-owned facility, the Planning Department will charge the golf course for the plan check fee, which is estimated to be \$10,000. *(Please note that the plan check process will not be required for the irrigation upgrade so there is no plan check fee line item in the irrigation budget).*

4. Professional and Consultant Services, \$17,500

4.1 Pre-Design, \$2,500

Pre-design work is calculated at 0.6% of the total project cost ($\$2,500 / \$416,900 = 0.6\%$). Pre-design work includes meeting with golf course staff members, walking the golf course facility, and reviewing system maps (see Work Plan for copy of existing system maps).

4.2 Site Survey, \$2,500

Site survey work is calculated at 0.6% of the total project cost ($\$2,500 / \$416,900 = 0.6\%$). This work includes validating the survey work completed the Anaheim Public Utilities Department staff on December 11, 2014, and reviewing the existing system maps (see attachment to Work

Budget Narrative

Anaheim: Dad Miller Golf Course

Water-Energy Grant Program

Plan for system maps) As stated above, a site survey/walk through and tabulation of lighting fixtures was already completed by APU staff in order to prepare this grant application. This work will need to be validated prior to installation.

4.3 Designs, Plans, and Specifications, \$17,500

Design, plans, and specifications is calculated at 4.2% of the total project cost (\$17,500 / \$416,900= 4.2%). This work includes all 30%, 60%, and 100% design work including detailed cost estimates and installation drawings.

5. Construction/Implementation, \$377,000

5.1 Materials, 164,000

The materials budget was calculated by a third party vendor with APU assistance. The total estimate cost for light fixtures (lamps, bulbs, fixtures) is \$142,185 and the total estimate cost for wiring and other materials is \$21,815 for a total materials budget of \$164,000. The lighting fixtures detail is as follows:

Table 2			
Lighting Fixture Detail (lamps, bulbs, fixtures)			
Product	Quantity	Estimated Price (each)	Total Cost
7w LED	237	\$20	\$4,740
9w LED	25	\$25	\$625
10w LED	15	\$25	\$375
12w LED	2	\$25	\$50
15w LED	37	\$30	\$1,110
30w LED	18	\$150	\$2,700
30w LED	14	\$200	\$2,800
40w LED	2	\$100	\$200
40w LED Troffer	47	\$400	\$18,800
50w LED Troffer	23	\$450	\$10,350
85w LED Fixture	14	\$420	\$5,880
Driving Range	30	\$3,152	\$94,555
TOTALS	450		\$142,185
Add Additional Materials			\$21,815
Grand Total			\$164,000

5.2 Contractor Fee/Installation/Connection/Labor, \$156,500

The labor fee is based on a staffing plan including a Master Electrician who must be licensed in the State of California with a minimum of 10 years of experience, 2-3 Journeyman Electricians, and 1-3 apprentices. This line item will also pay for all design work necessary to begin the installation process and identify areas within the complex that will require retrofitting before installation. The City of Anaheim proposes to use a design/build model for the lighting project to minimize delays. The City will ensure that all labor laws are complied with including Davis Bacon and State Prevailing Wage Laws, if required.

5.4 Equipment, \$25,000

This line item will help offset the cost of equipment necessary for the installation. The major equipment element will be to rent a large boom truck to inspect, retrofit, and install new lights on the driving range. The driving range poles are approximately 90 feet high. Equipment costs were confirmed using Internet search engines for daily and monthly rental fees for large, construction equipment.

5.5 Hazardous Waste/Material, \$6,500

This line item will help offset the cost of hazardous waste tipping fees and waste disposal fees, as required for disposing of the old lighting systems. The City of Anaheim will recycle, to the extent possible, all waste products.

5.6 Contingency, \$25,000

A small \$25,000 contingency is included in the lighting budget. The contingency was based on 7% of the installation phase (\$377,000 x 7%). This is well below a standard 10 to 15 percent contingency for a construction project; however, given the experience with lighting retrofits and the assumptions presented above, this contingency is deemed adequate.

6. Other, \$7,400

The City utilized the services of Blais & Associates, Inc. to prepare the Water-Energy grant application. The cost for the services is estimated at \$7,400. B&A provided a cost estimate for their work and the final invoice will be provided to the City in January 2015. The \$7,400 price is a not-to-exceed estimate.

Pre & Post Installation Inspections are Required to Qualify for Rebate



Pre- Inspection: Date: _____
 Post- Inspection: Date: _____

Customer Rebate Application Package	
Required Documents	Check with an "X"
Lighting Incentive Application	
Customized Incentive Application	
Excel Application Emailed	
Incentive Form (Signed & Dated)	
Signed Proposal/Contract	
Product(s) Specs	
Savings & Incentive Calcs	
Signed W-9 Tax Form	
Signed 590 Tax Form	
Final PAID Invoice with Proof	

Application Issue Date: 12/12/2014 Exp. Date: 2/10/2015

Customer's Information: Fill Out Yellow Highlighted Areas		Facility Type:	
Account number:			
Account Name:		Hours/Day:	13
Business Name:	Dad Miller	Days/Week:	7
Customer Contact:	Thad Kintigh	Weeks/Year:	52
Title:	Golf Course Superintendent	Annual Hours:	4,732
Phone Number	714.637.06683 Extension:	Total Sq Ft:	
Installation Address:	430 N. Gilbert St	Conditioned:	
City/State/Zip	Anaheim CA 9280	kW (Peak):	
Customer's Email		Year Built:	
Federal Tax I.D./SS#			
Federal Tax I.D./SS# Name			
Rate Schedule:	MS		

Customer's Mailing Address for Rebate Check: If Different from Installation Address			
The Rebate Check Will Be Sent Directly to the Customer, No 3rd Party Checks Will Be Issued			
Name of Payee:			
Mailing Address:			
City:	State:	Zip:	

Vendor/ Contractor Information:			
Company's Name:			
Address:			
Contact Name:			
Contractor's License #:			
Office Phone #:	Wireless #:		
Fax #:	Email:		

FOR DEPARTMENT USE ONLY			
CI Cpn#	14150020	Customized Incentive	
Lgt Cpn#	14150010	Lighting	

LIGHTING WORKSHEET

ANAHEIM PUBLIC UTILITIES

LIGHTING PROJECT WORKSHEET

Anaheim - Rebate Programs	July 1, 2014 - June, 30 2015
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Customer Name: **0**
 Business Name: **Dad Miller**
 Account Number: **0 0**
 Contact Name: **Thad Kintigh**
 Phone Number: **714.637.06683**
 Installation Address: **430 N. Gilbert St 9280**
 Federal Tax I.D.: **0**
 Rate Schedule: **MS**

	Vendor Company: 0
x Controlled by Sensor	Contact Name: 0
	Office Phone #: 0
Pre-I Date: _____	Wireless #: 0
Post-I Date: _____	Work Fax: 0

E Existing Sensor
 D Dimmer control
 x Add Sensor
 DLH Daylighting Harvesting

Space/ Location	Motion Sensor	Existing Fixture Type	Watts/ Fixt.	No. Fixtures	Hours/ Day	Days/ wk	Hrs/ year	Exist. kW	Exist. kWh	New Fixture Type	Watts/ Fixt.	No. Fixtures	New kW	New kWh	kW Saved	kWh Saved
430 Bldg.																
Shop Bldg.																
Main Shop Track		40W Inca.	40	32	14	7	5,096	1.3	6,523	7W LED	7	32.00	0.2	1,142	1.1	5,381
Main Shop cans		40W Inca.	40	19	14	7	5,096	0.8	3,873	7W LED	7	19.00	0.1	678	0.6	3,195
Hall		40W Inca.	40	1	6	7	2,184	0.0	87	7W LED	7	1.00	0.0	15	0.0	72
Golf Rm	x	1x4x2T12 w/ T8 Bal.	60	2	14	7	5,096	0.1	612	40W LED	7	2.00	0.0	71	0.1	540
Storage		75W Inca.	75	1	4	7	1,456	0.1	109	10W LED	10	1.00	0.0	15	0.1	95
Office	x	2x4x2T12F40(34W)/std	82	2	14	7	5,096	0.2	836	40W LED Troffer	40	2.00	0.1	408	0.1	428
Cafe Bldg.																
Exterior Hall																
Hall		14W CFL	14	1	8	7	2,912	0.0	41	7W LED	7	1.00	0.0	20	0.0	20
Men's RRm		27W CFL	27	3	14	7	5,096	0.1	413	15W LED	15	3.00	0.0	229	0.0	183
Men's RRm		1x4x2T8F032/elec	59	4	14	7	5,096	0.2	1,192	40W LED Troffer	40	4.00	0.2	815	0.1	377
Women's RRm		27W CFL	27	3	14	7	5,096	0.1	413	15W LED	15	3.00	0.0	229	0.0	183
Women's RRm		1x4x2T8F032/elec	59	4	14	7	5,096	0.2	1,192	40W LED Troffer	40	4.00	0.2	815	0.1	377
West RRm Men	E	2x4x4T8F032/elec	110	1	6	7	2,184	0.1	240	50W LED Troffer	50	1.00	0.1	109	0.1	131
West RRm Women	E	2x4x4T8F032/elec	110	1	6	7	2,184	0.1	240	50W LED Troffer	50	1.00	0.1	109	0.1	131
South RRm Women	E	2x4x4T8F032/elec	110	1	3	7	1,092	0.1	120	50W LED Troffer	50	1.00	0.1	55	0.1	66
South RRm Men	E	2x4x4T8F032/elec	110	1	3	7	1,092	0.1	120	50W LED Troffer	50	1.00	0.1	55	0.1	66
Dining Area																
Bar Area		65W Flood	65	8	14	7	5,096	0.5	2,650	9W LED	9	8.00	0.1	367	0.4	2,283
Dining Area		65W Flood	65	13	14	7	5,096	0.8	4,306	9W LED	9	13.00	0.1	596	0.7	3,710
Chandelier	D	40W Inca. x 15	40	15	6	7	2,184	0.60	1,310	7W LED	7.00	15.00	0.1	229	0.50	1,081
Banquet Area average use 4 times per month																
Ceiling	D	45W Inca.	45	17	10	2	1,040	0.8	796	7W LED	7	17.00	0.1	124	0.6	672
Sconces	D	45W Inca.	45	1	10	2	1,040	0.0	47	7W LED	7	1.00	0.0	7	0.0	40
Sconces	D	14W CFL	14	2	10	2	1,040	0.0	29	7W LED	7	2.00	0.0	15	0.0	15
Chandelier	D	45W Inca.	45	120	10	2	1,040	5.4	5,616	7W LED	7	120.00	0.8	874	4.6	4,742
Back Cashier		14W CFL	14	3	6	7	2,184	0.0	92	7W LED	7	3.00	0.0	46	0.0	46

LIGHTING WORKSHEET

ANAHEIM PUBLIC UTILITIES

LIGHTING PROJECT WORKSHEET

Anaheim - Rebate Programs		July 1, 2014 - June, 30 2015	
Customer Name: 0		Vendor Company:	0
Business Name: Dad Miller	x	Contact Name:	0
Account Number: 0 0		Office Phone #:	0
Contact Name: Thad Kintigh		Wireless #:	0
Phone Number: 714.637.06683		Work Fax:	0
Installation Address: 430 N. Gilbert St 9280			

Federal Tax I.D. **0**
Rate Schedule: **MS**

Pre-I Date: _____
Post-I Date: _____
E Existing Sensor
D Dimmer control
x Add Sensor
DLH Daylighting Harvesting

Space/ Location	Motion Sensor	Existing Fixture Type	Watts/ Fixt.	No. Fixtures	Hours/ Day	Days/ wk	Hrs/ year	Exist. kW	Exist. kWh	New Fixture Type	Watts/ Fixt.	No. Fixtures	New kW	New kWh	kW Saved	kWh Saved
Back Cashier		65W Flood	65	3	6	7	2,184	0.2	426	9W LED	9	3.00	0.0	59	0.2	367
Storage	x	1x4x2T8F032/elec	59	2	10	7	3,640	0.1	426	40W LED Troffer	40	2.00	0.1	291	0.0	135
Janitorial		65W Flood	65	1	5	7	1,820	0.1	118	9W LED	9	1.00	0.0	16	0.1	102
Kitchen Area																
Liquor Rm	x	20W CFL	20	1	14	7	5,096	0.0	102	12W LED	12	1.00	0.0	61	0.0	41
Storage	x	20W CFL	20	1	14	7	5,096	0.0	102	12W LED	12	1.00	0.0	61	0.0	41
Dishwasher Area		2x4x4T8F032/elec	110	2	14	7	5,096	0.2	1,121	50W LED Troffer	50	2.00	0.1	510	0.1	612
Kitchen Area		2x4x4T8F032/elec	110	8	14	7	5,096	0.9	4,484	50W LED Troffer	50	8.00	0.4	2,038	0.5	2,446
Kitchen Area		14W CFL	14	1	14	7	5,096	0.0	71	7W LED	7	1.00	0.0	36	0.0	36
Kitchen Hood		75W Inca.	75	3	14	7	5,096	0.2	1,147	10W LED	10	3.00	0.0	153	0.2	994
Supplies Rm	x	2x4x4T8F032/elec	110	2	14	7	5,096	0.2	1,121	50W LED Troffer	50	2.00	0.1	510	0.1	612
Office	x	2x4x4T8F032/elec	110	4	10	7	3,640	0.4	1,602	50W LED Troffer	50	4.00	0.2	728	0.2	874
Supplies Rm	x	2x4x4T8F032/elec	110	2	14	7	5,096	0.2	1,121	50W LED Troffer	50	2.00	0.1	510	0.1	612
Window Cashier		2x4x4T8F032/elec	110	1	10	7	3,640	0.1	400	50W LED Troffer	50	1.00	0.1	182	0.1	218
Beer WIC		45W Inca.	45	1	4	7	1,456	0.0	66	7W LED	7	1.00	0.0	10	0.0	55
WIC/WIF		14W CFL	14	2	4	7	1,456	0.0	41	7W LED	7	2.00	0.0	20	0.0	20
Cart Charging Basement																
Entrance Area		100W HPS	138	4	24	7	8,736	0.6	4,822	30W LED	30	4.00	0.1	1,048	0.4	3,774
Cart Area		(2)1x4x1T12F40(34W)	82	20	14	7	5,096	1.6	8,357	40W LED Troffer	40	20.00	0.8	4,077	0.8	4,281
Cart Area		1x4x2T12F40(34W)	82	4	14	7	5,096	0.3	1,671	40W LED Troffer	40	4.00	0.2	815	0.2	856
Storage		1x4x2T12F40(34W)	82	2	3	7	1,092	0.2	179	40W LED Troffer	40	2.00	0.1	87	0.1	92
							-	-	-				-	-	-	-
449 Range																
Club House																
Storage	x	1x4x2T8F032/elec	59	4	5	7	1,820	0.2	426	40W LED Troffer	40	4.00	0.2	291	0.1	135
Front Area	x	2x4x3T8F032/elec	89	3	5	7	1,820	0.3	485	40W LED Troffer	40	3.00	0.1	218	0.1	267
Men's RRm		2x4x3T8F032/elec	89	1	5	7	1,820	0.1	162	40W LED Troffer	40	1.00	0.0	73	0.0	89
Women's RRm		2x4x3T8F032/elec	89	1	5	7	1,820	0.1	162	40W LED Troffer	40	1.00	0.0	73	0.0	89

LIGHTING WORKSHEET

ANAHEIM PUBLIC UTILITIES

LIGHTING PROJECT WORKSHEET

Customer Name: **0**
 Business Name: **Dad Miller**
 Account Number: **0 0**
 Contact Name: **Thad Kintigh**
 Phone Number: **714.637.06683**
 Installation Address: **430 N. Gilbert St 9280**
 Federal Tax I.D.: **0**
 Rate Schedule: **MS**

Anaheim - Rebate Programs

July 1, 2014 - June, 30 2015

x Controlled by Sensor

Pre-I Date: _____

Post-I Date: _____

Vendor Company: 0

Contact Name: 0

Office Phone #: 0

Wireless #: 0

Work Fax: 0

E Existing Sensor

D Dimmer control

x Add Sensor

DLH Daylighting Harvesting

Space/ Location	Motion Sensor	Existing Fixture Type	Watts/ Fixt.	No. Fixtures	Hours/ Day	Days/ wk	Hrs/ year	Exist. kW	Exist. kWh	New Fixture Type	Watts/ Fixt.	No. Fixtures	New kW	New kWh	kW Saved	kWh Saved
Indoor Total				328				17.9	59,470			328	5.0	18,891	13	40,579
Outdoors (Off Peak)																
Space/ Location	Motion Sensor	Existing Fixture Type	Watts/ Fixt.	No. Fixtures	Hours/ Day	Days/ wk	Hrs/ year	Exist. kW	Exist. kWh	New Fixture Type	Watts/ Fixt.	No. Fixtures	New kW	New kWh	kW Saved	kWh Saved
430 Bldg.																
Parking Lot		250W HPS x 2 x 3 units	295	6.00	11.00	7.00	4,004	1.77	7,087	85W LED Fixture	85.00	6.00	0.5	2,042	1.26	5,045
Parking Lot		250W HPS x 1 units	295	6.00	11.00	7.00	4,004	1.77	7,087	85W LED Fixture	85.00	6.00	0.5	2,042	1.26	5,045
Golf Shop Bldg.																
Main Entrance		14W CFL	14	15.00	11.00	7.00	4,004	0.21	841	7W LED	7.00	15.00	0.1	420	0.11	420
Wall Sconces		14W CFL	14	1.00	11.00	7.00	4,004	0.01	56	7W LED	7.00	1.00	0.0	28	0.01	28
Exterior Wall		250W MH	245	2.00	11.00	7.00	4,004	0.49	1,962	85W LEED Fixture	85.00	2.00	0.2	681	0.32	1,281
Land Scene		28W CFL	28	2.00	11.00	7.00	4,004	0.06	224	15W LED	15.00	2.00	0.0	120	0.03	104
Entrance Stairs Pole		75W HPS	95	5.00	11.00	7.00	4,004	0.48	1,902	30W LED	30.00	5.00	0.2	601	0.33	1,301
Café Bldg.																
Wall Sconces		14W CFL	14	6.00	11.00	7.00	4,004	0.08	336	7W LED	7.00	6.00	0.0	168	0.04	168
West Wall		32 W Circ. Flour.	35	1.00	11.00	7.00	4,004	0.04	140	15W LED Fixture	15.00	1.00	0.0	60	0.02	80
Exterior Ceiling		28W CFL	28	2.00	6.00	7.00	2,184	0.06	122	15W LED	15.00	2.00	0.0	66	0.03	57
Exterior Ceiling		75W Flood	75	4.00	6.00	7.00	2,184	0.30	655	10W LED	10.00	4.00	0.0	87	0.26	568
Exterior Dining		28W CFL	28	26.00	6.00	7.00	2,184	0.73	1,590	15W LED	15.00	26.00	0.4	852	0.34	738
Exterior Dining		75W Inca.	75	7.00	6.00	7.00	2,184	0.53	1,147	10W LED	10.00	7.00	0.1	153	0.46	994
Cart drive way																
2Ft Pole		75W HPS	95	9.00	11.00	7.00	4,004	0.86	3,423	30W LED	30.00	9.00	0.3	1,081	0.59	2,342
449 Range																
Front of Range Pole 1		1500W MH x 7 units	1,610	7.00	3.00	7.00	1,092	11.27	12,307	Estimated Fixture	1,046.50	7.00	7.3	7,999	3.94	4,307
Front of Range Pole 2		1500W MH x 5 units	1,610	5.00	3.00	7.00	1,092	8.05	8,791	Estimated Fixture	1,046.50	5.00	5.2	5,714	2.82	3,077
Northside Pole 3-5		1500W MH x 3 units x3	1,610	9.00	3.00	7.00	1,092	14.49	15,823	Estimated Fixture	1,046.50	9.00	9.4	10,285	5.07	5,538
Southside Pole 6-8		1500W MH x 3 units x3	1,610	9.00	3.00	7.00	1,092	14.49	15,823	Estimated Fixture	1,046.50	9.00	9.4	10,285	5.07	5,538

LIGHTING WORKSHEET

ANAHEIM PUBLIC UTILITIES

LIGHTING PROJECT WORKSHEET

Anaheim - Rebate Programs	July 1, 2014 - June, 30 2015
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Customer Name: **0**
 Business Name: **Dad Miller**
 Account Number: **0 0**
 Contact Name: **Thad Kintigh**
 Phone Number: **714.637.06683**
 Installation Address: **430 N. Gilbert St 9280**
 Federal Tax I.D.: **0**
 Rate Schedule: **MS**

x Controlled by Sensor Pre-I Date: _____ Post-I Date: _____	Vendor Company: 0 Contact Name: 0 Office Phone #: 0 Wireless #: 0 Work Fax: 0
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E Existing Sensor
 D Dimmer control
 x Add Sensor
 DLH Daylighting Harvesting

Space/ Location	Motion Sensor	Existing Fixture Type	Watts/ Fixt.	No. Fixtures	Hours/ Day	Days/ wk	Hrs/ year	Exist. kW	Exist. kWh	New Fixture Type	Watts/ Fixt.	No. Fixtures	New kW	New kWh	kW Saved	kWh Saved
Outdoor Total				122				56	79,317			122	33.7	42,684	22	36,633
In / Outdoor Total				450				73.6	138,787			450	38.8	61,575	35	77,212

LIGHTING REBATE		Sensors/Photo Cell REBATE IF APPLICABLE		
Annual kW Savings	12.90			
Annual kWh Savings	77,211.81	3,149		
kW Incentive	\$ 2,580.30	25%	of kWh	787
kWh Incentive	\$ 5,790.89	\$ 59.05		
Project Cost	\$ -	\$ -		
Max. Incentive	\$ 5,790.89	\$ 50,000.00		
Incen. Based on Usage	\$ 5,790.89	\$ -		
Final Rebate	\$ -	\$ -		

Peak (Indoor)
Peak + Off Peak (Indoor + Outdoor)
 kW Savings x \$ 200
 kWh Savings x \$ 0.075
 Sum Of The Invoices
 Max. Compared w/ Invoices \$ 50,000

Invoice Amounts	Date Paid
Total Project Cost:	\$ -

Rebates are based on (Greater of kW or kWh savings) , Max Incentive \$50,000 or 50% of Project Cost

Sample Final Rebate calculations if:

Max Incentive	(50%) Project Cost	Energy Rebate	Final Rebate	
\$ 50,000.00	\$ 70,000.00	\$ 23,000.00	\$ 23,000.00	Based on energy savings
\$ 50,000.00	\$ 88,000.00	\$ 70,000.00	\$ 44,000.00	Based on 50% Project cost
\$ 50,000.00	\$ 120,000.00	\$ 80,000.00	\$ 50,000.00	Based on Max Incentive

Note: For estimate purposes it is assumed that the scope of work is 100% as stated above; however, if the scope of work changes this will result in a lower or higher Rebate based on the changes made. The Final Rebate will be based on the final inspection, final installed equipment and final "Paid Invoice".