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**ENERGY EXPENDITURE PLAN**

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**McKinley Elementary School**

***McKinley Elementary School***

2401 Santa Monica Boulevard

Santa Monica, CA 90404

P: (310) 828-5011

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**PREPARED FOR:**

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California Energy Commission

Energy Division

Local Assistance and Financing Office, MS-23

1516 Ninth Street

Sacramento, Ca 95814



PREPARED ON:

5/17/2017

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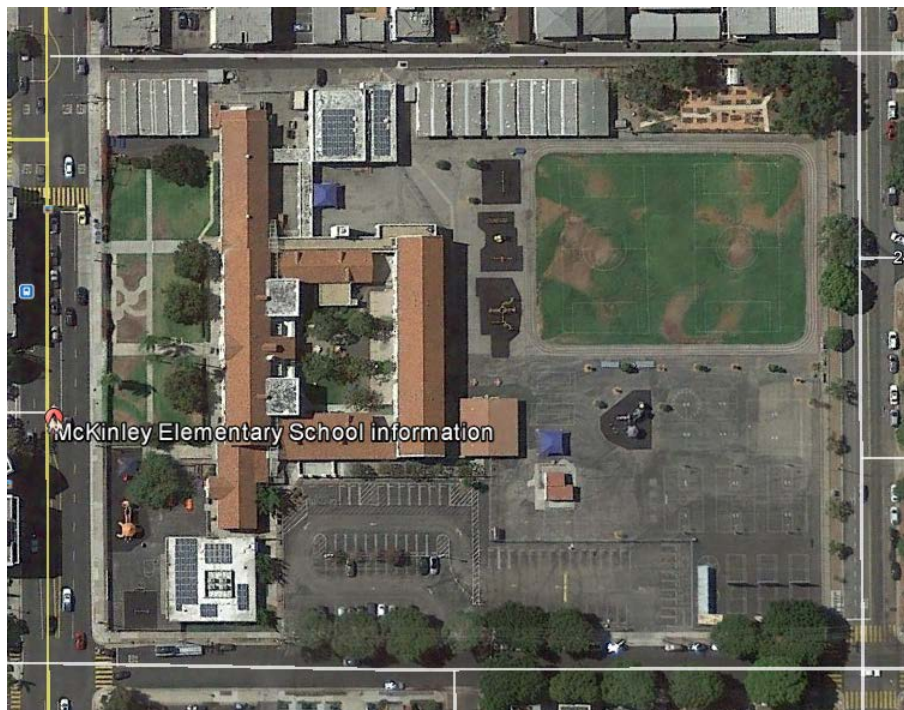
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## Section 1: Facility Background

### McKinley Elementary School

McKinley Elementary School is located at 2401 Santa Monica Boulevard in Santa Monica, CA 90404. It is an elementary school serving approximately 512 students ranging from grades K-5 and provides instruction using 7 permanent buildings and 9 portable buildings. The total amount of occupied space is 63,171 SF. For a complete map of the campus, see Appendix A.

The campus operates on an academic calendar that begins in late August and ends in late June. Winter Break is a two week break that begins at the end of December and goes to the first week of January. Spring Break is a one week break that begins in early-April. School is in session beginning at 8:30 a.m. and continuing until 3:00 p.m., Monday through Friday. For a complete academic calendar and bell schedule, refer to Appendix A.



### Utility Costs and Rate Schedules

The McKinley Elementary School facilities receive electricity services from Southern California Edison (SCE) and gas services from SoCalGas (SCG). Monthly utility data is considered separately for each utility meter and each energy type (electricity, natural gas, propane, diesel, and water).

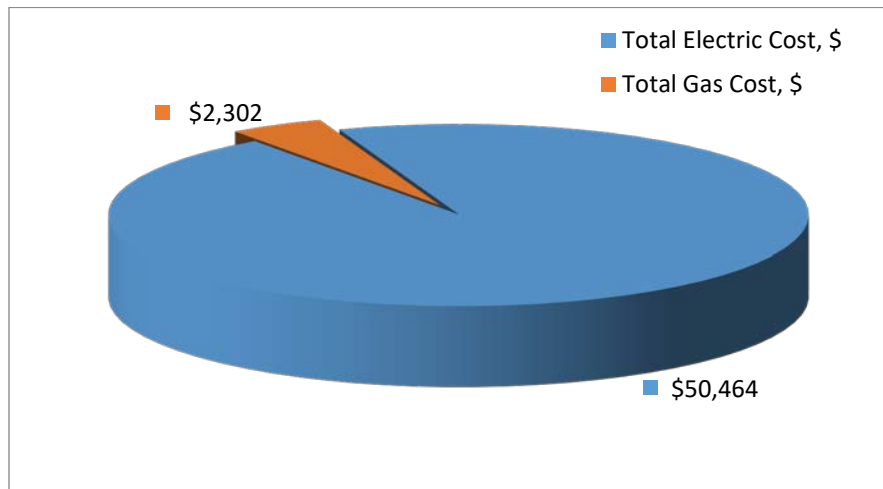
The following is a list of the meters associated with each energy type utilized at McKinley Elementary School:

Account Number	Meter Number	Rate Schedule
3-001-1511-75	223000-013086	TOU-GS-1-A
3-001-1511-74	259000-023825	TOU-GS-2-R

Account Number	Meter Number	Rate Schedule
880042100	4171393	GN-10
901042100	13540023	GN-10

Also located on site is a 90.2 kW photovoltaic array, installed in 2013, that produced 48,682kWh from July, 2015 to June, 2016.

The utility data provided uses the data recovered from each of these meters during the period of July, 2015 to June, 2016. The cost comparison of McKinley Elementary School’s gas and electricity costs can be seen in the table below:



## Benchmarking

As part of the site evaluation we determined the Energy Utilization Analysis (EUA) to provide important information about the energy usage of the school. Listed in the table below is the Benchmarking Report for McKinley Elementary School:

Energy Use Intensity Calculator					
Electricity		Natural Gas		Other Fuels	
1.27	<i>W/SF</i>	0.03	<i>Therms/SF</i>	0.00	<i>Gals/SF</i>
4.07	<i>kWh/SF</i>	\$ 0.04	<i>Cost/SF</i>	\$ 0.00	<i>Cost/SF</i>
\$ 0.80	<i>Cost/SF</i>				
Energy Costs/SF/Year		\$ 0.84	Energy Use(Kbtu)/SF/Year		47.02

The main purpose of this report is to assess the current energy usage of McKinley Elementary School. Energy consumption is analyzed compared to the site's actual weather data expressed in Cooling Degree Days (CDD) & Heating Degree Days (HDD). Graphs comparing the energy consumption to the CDD and HDD can be found in Appendix B.

The Baseline Energy Utilization Analysis (EUA) report compiles the monthly energy data from all meters on site. The EUA is useful in identifying critical energy consuming benchmarks like kWh/SF, kBtu/SF, and Cost/SF for each fuel type and individual school site. This report is a great resource to have for identifying the lowest energy performing schools. The report ranking will present the schools that consume the most energy when compared to others within the district or other comparable districts. The considered school is rated at 4.07 kWh/SF/yr.

The baseline EUA summary of all the meters for McKinley Elementary School can be found in Appendix B.

## Section 2: Energy Efficiency Measures (EEM) Summary

Energy savings are based on the difference between annual energy use under existing conditions and annual energy use under proposed conditions. These annual energy savings, and the corresponding annual energy cost savings, are used to determine the cost-effectiveness of the projects. Demand savings are calculated as the different between the electricity demand of the existing equipment and electricity demand of proposed equipment. The table below shows the Energy Efficiency Measures proposed and the corresponding savings associated with them.

EEM Number	Energy Efficiency Measure	Demand Savings (kW)	Electricity Savings (kWH/yr)	Natural Gas or Fuel Savings (therms or gal/yr)	Annual Cost Savings (\$)	Rebates and Grants (\$)	Installed Measure Cost (\$)
Lighting	Lighting – Interior Fixture Retrofit	27	49,180		\$11,902.00	\$66,000.00	\$133,467.00
Lighting	Lighting – Exterior Fixture Retrofit	8	28,434		\$6,881.00	\$35,000.00	\$72,431.00
Lighting	Lighting – Retrofit Interior Lamps to LED	0	681		\$165.00	\$1,000.00	\$1,807.00
	<b>Totals</b>	35	78,295		\$18,948.00	\$102,000.00	\$207,705.00

## Lighting Systems Retrofit

A significant portion of a facilities electrical costs comes from lighting, making lighting retrofits one of the quickest and simplest methods for reducing utility costs. In most cases the retrofits will result in improved light quality and reduced maintenance costs in addition to the estimated energy savings.

The method used for calculating energy savings is outlined below:

$$\text{Annual Saving, } \$ = \frac{(\text{Existing Watts} - \text{New Watts})}{1000} \times \text{Hours/Year} \times \text{Utility Rate} \times N$$

Where,

- Existing Watts* – Wattage rating for the existing (Baseline) light fixture
- New Watts* – New wattage rating for the existing light fixture
- Hours/Year* – Annual number of “burn-hours” (run hours for different areas; see detailed audit in Appendix C)
- Utility Rate* – Actual weighted composite utility rate, \$/kWh
- N* – Number of light fixtures of the particular type (see below & in Appendix C for the actual quantities).

The current interior lighting systems in the McKinley Elementary School buildings consist of a combination of 1<sup>st</sup> generation T-8, compact fluorescent, and incandescent lamps and fixtures. Following examination of the data collected, a full retrofit of the lighting system with LED lamps and fixtures is recommended.

The current exterior lighting systems in the McKinley Elementary School buildings consist of compact fluorescent, 1<sup>st</sup> generation T-8 and high pressure sodium lamps and fixtures. Following examination of the data collected, a full retrofit of the lighting system with LED lamps and fixtures is recommended.

This retrofit will generate more saving, electrical demand reduction and better payback than other Energy Conservation Measures such as HVAC replacements. Upon installment of the new system, the campus will conserve 35.007 kW and 78,294 kWh per year. The cost savings per year will be approximately \$18,947.23. A full detailed audit of the current lighting system implemented in the entire campus can be found in Appendix C.

## Appendix – A

### School Schedules and Maps



## Daily Bell Schedule and Academic Calendar

### Daily Schedule 2016-2017

\*Rainy day- morning recesses in classrooms. Lunch recess in auditorium/library.

- 7:45AM: All students on campus report to cafeteria; breakfast is served
- 8:10AM: Yard opens
- 8:28AM: Get ready signal
- 8:30AM: School Begins

#### *Recess Small Yard*

- 9:05-9:25AM: Preschool recess
- 9:45-10:05AM: Recess A (All Transitional Kindergarten classes)
- 10:10-10:30AM: Recess B (All Kindergarten classes )

#### *Recess Big Yard*

- 9:40-10:00AM: Recess #1 (All 1st grade classes)
- 10:05-10:25AM: Recess #2 (All 2nd and 3rd grade classes)
- 10:30-10:50AM: Recess #3 (All 4th and 5th grade classes)

#### *Lunch*

\*25 minutes allowed for cafeteria and 20 minutes outside

- 11:00-11:30AM: Preschool lunch
- 11:15AM-12:00PM: TK/K Lunch & Recess  
TK 11:15-11:30 recess and 11:30 – 12:00 lunch in the cafeteria  
Kinder 11:15 – 11:45 lunch in the cafeteria and 11:45 – 12:00 recess
- 11:35AM-12:20PM: 1st Grade lunch  
\*dismissed from café at 12:00pm
- 12:10-12:55PM: 2nd & 3rd grade lunch  
\*dismissed from café at 12:35pm
- 12:45-1:30PM: 4th & 5th grade lunch  
\*dismissed from café at 1:10pm

#### *Dismissal*

- TK/Kindergarten Dismissal: Students dismissed at 1:35pm at the front of the school on Mon., Tues., Thurs., & F  
Wed. students dismissed at 1:35pm from classrooms
- Grades 1-5 Dismissal: Students dismissed at 3pm
- 3:05PM SAP/CREST Gathering

**\*\*Wednesdays Grades K-5 dismissed at 1:35**

*Regular Schedule*

Grades TK/K hours: 8:30-1:35PM

Grades 1-5 hours: 8:30-3:00PM

Wednesday Grades K-5 dismissed at 1:35PM

**Students are expected at their designated lineup area/classroom by 8:30 - there is no grace period.**

*Minimum Day Schedule:*

TK/Kindergarten: Aug 22, 23, 30, Nov 7, 8, 9, 10, 23, Dec 23, May 25 & June 9

Grades 1 thru 5: Aug 22, 30, Sept 6, Nov 7, 8, 9, 10, 23, Dec 23, May 25

On minimum days TK & K are dismissed at 12:30pm; Grades 1-5 at 1:35pm

**SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT**  
**2016-2017 District Calendar**

Approved by the Board of Education: 3/19/15

July 2016					August 2016					September 2016				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
4	5	6	7	8	1	2	3	4	5	5	6	7	8	9
11	12	13	14	15	8	9	10	11	12	12	13	14	15	16
18	19	20	21	22	15	16	17	18	19	19	20	21	22	23
25	26	27	28	29	22	23	24	25	26	26	27	28	29	30

October 2016					November 2016					December 2016				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
4	5	6	7	8	1	2	3	4	5	5	6	7	8	9
10	11	12	13	14	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	14	15	16	17	18	19	20	21	22	23
24	25	26	27	28	21	22	23	24	25	26	27	28	29	30
31					28	29	30							

January 2017					February 2017					March 2017				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
2	3	4	5	6	1	2	3	4	5	1	2	3	4	5
10	11	12	13	14	6	7	8	9	10	6	7	8	9	10
15	16	17	18	19	13	14	15	16	17	13	14	15	16	17
23	24	25	26	27	20	21	22	23	24	20	21	22	23	24
30	31				27	28	29	30	31	27	28	29	30	31

April 2017					May 2017					June 2017				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
3	4	5	6	7	1	2	3	4	5	5	6	7	8	9
10	11	12	13	14	8	9	10	11	12	12	13	14	15	16
17	18	19	20	21	15	16	17	18	19	19	20	21	22	23
24	25	26	27	28	22	23	24	25	26	26	27	28	29	30
					29	30	31							

- Legend:**
- = First/Last Day of School
  - = Legal Holiday
  - = Local Holiday (schools/offices closed)
  - = School Recess (classes not in session)
  - = Pupil Free Day (no school for students)
  - = Elem. Pupil Free Day (no school -elem students)
  - = Sec. Pupil Free Day (no school -sec students)
  - = Minimum Day for all students
  - = Certificated Staff Development Days



**Employee Work Dates:**  
 Sept. 1, 2016-June 30, 2017: \* Classified 11-Month  
 \*must work 22 days in July/August, 2016  
 Aug. 8, 2016-June 21, 2017: Classified 10+10  
 Aug. 15, 2016-June 14, 2017: Classified 10-Month  
 Aug. 17, 2016-June 9, 2017: Certificated/184 Days  
 Aug. 18, 2016-June 9, 2017: Certif. CDS/183 Days  
 Aug. 19, 2016-June 9, 2017: Classified School Year

**Teacher Work Days: 184**  
**Student Days: 180**  
 1st Semester: Aug. 22 - Dec. 23 (84 days)  
 2nd Semester: Jan. 10 - June 9 (96 days)

**First Day of Instruction:**  
 - Monday, August 22, 2016

**Last Day of Instruction:**  
 - Friday, June 9, 2017

**Certificated Staff Development Days:**

(No Students)  
 - Wednesday, August 17, 2016  
 - Thursday, August 18, 2016

**HOLIDAYS:**

July 4: 4th of July Holiday  
 Sept. 5: Labor Day Holiday  
 Oct 3: Local Holiday  
 Oct 12: Local Holiday  
 Nov. 11: Veteran's Day Holiday  
 Nov. 24: Thanksgiving Holiday  
 Nov. 25: Legal Holiday (Admission's Day observed)  
 Dec. 26, 27: Winter Holidays  
 Dec. 30, Jan 2: New Years Holidays  
 Jan 16: Martin Luther King Jr. Holiday  
 Feb. 20: Presidents' Day Holiday  
 Apr. 7: Local Holiday

Apr. 14: Legal Holiday (Lincoln's Birthday observed)  
 May 29: Memorial Day Holiday

**SCHOOL RECESSES:**

Dec. 26 - Jan 6: Winter Recess  
 Apr 3 - Apr 14: Spring Recess

**PUPIL-FREE DAYS:**

Aug. 17: All Students  
 Aug. 18: All Students  
 Aug. 19: All Students  
 Nov. 4: **Elementary Students Only**  
 Jan. 9: **Secondary Students Only**

**MINIMUM DAYS:**

TK/Kindergarten: Aug. 22, Aug. 23, 30, Nov. 7, 8, 9, 10, 23, Dec. 23, May 25, June 9  
 Elementary: Aug. 22, 30, Sept. 6, Nov. 7, 8, 9, 10, 23, Dec. 23, May 25, June 9

Santa Monica Middle Schools: Sept. 8, Nov. 23, Dec. 23, Mar. 31, Apr. 27, June 8, June 9, +1 discretionary

Malibu MS/HS: Sept. 8, 15, Nov. 23, Dec. 21, 22, 23, March 9, June 6, 7, 8 + 1 discretionary

Samohi: Sept. 15, Dec. 20, 21, 22, 23, Mar. 9, June 5, 6, 7, 8  
 Olympic HS: Sept. 20, Nov. 23, Dec. 23, May 2, June 1, 2, 5, 6, 7, 8, 9

**Back to School Nights:**

Tues. Aug. 30 - Elem TK-2  
 Tues. Sept. 6 - Elem 3-5  
 Thurs. Sept. 8 - Middle School  
 Thurs. Sept. 15 - High School  
 Tues. Sept. 20 - Olympic HS

**Open House Nights:**

Thurs. May 25 - Elementary  
 Thurs. April 27 - SM Middle Schools  
 Thurs. March 9 - Malibu MS/HS and Samohi  
 Tues. May 2 - Olympic HS

**Promotions/Graduations:**

Wed. June 7 - Elementary  
 Fri. June 9 - Middle School  
 Thurs. June 8 - MMS 2:00 pm  
 Thurs. June 8 - Samohi 5:30 pm  
 Wed. May 31 - Olympic HS 5:30 pm

**Parent Conference Days (TK-5):**

Nov. 4 - Nov. 10, 2016

**Testing Dates:** *expected, not confirmed*

AP Testing: May 1- May 12, 2017  
 STAR: April 20 - May 18, 2017  
 SBAC: April 20 - May 29, 2017

**TK/Kindergarten Roundup:**

Jan. 30 - Feb. 10, 2017

**Final Exams:**

Malibu MS/HS: Dec. 21-23, 2016  
 June 6-8, 2017  
 Samohi: Dec. 20-23, 2016  
 June 5-8, 2017

**Summer School:**

ISS: June 19-July 14, 2017  
 Credit Recovery: June 19-Jul 21, 2017  
 ESY: June 19-July 14, 2017

**TK-5 Grading Periods:**

Conference: Nov. 4, 2016  
 Winter Grading: Feb. 10, 2017  
 Spring Grading: June 9, 2017

**6-12 Grading Periods:**

Aug. 22 - Sept. 30, 2016  
 Oct. 4 - Nov. 10, 2016  
 Nov. 14 - Dec. 23, 2016  
 Jan. 9 - Feb. 24, 2017  
 Feb. 27 - April 28, 2017  
 May 1 - June 9, 2017

Revised  
 3/5/15





## Appendix – B

### Energy Utilization Analysis

Customer Name: **Santa Monica-Malibu USD**

Facility Name: **McKinley Elementary**

Elec Utility Name: **SCE**      Natural Gas Utility Name: **SCG**

Facility Location: **2401 Santa Monica Blvd., Santa Monica, CA**

Sq. Ft. (conditioned space): **63,171**

Billing Period

FROM: **Jul-15**

TO: **Jun-16**

SCE			SCG		
Account #	Meter #	Rate Schedule	Account #	Meter #	Rate Schedule
2-07-030-4431	223000-013086	TOU-GS-1-A	6307342052	4171393	GN-10-NON-RESIDENTIAL
2-35-577-1478	259000-023825	TOU-GS-2-R	6307342052	13540023	GN-10-NON-RESIDENTIAL
0	0	0	0	0	0
0	0	0	0	0	0

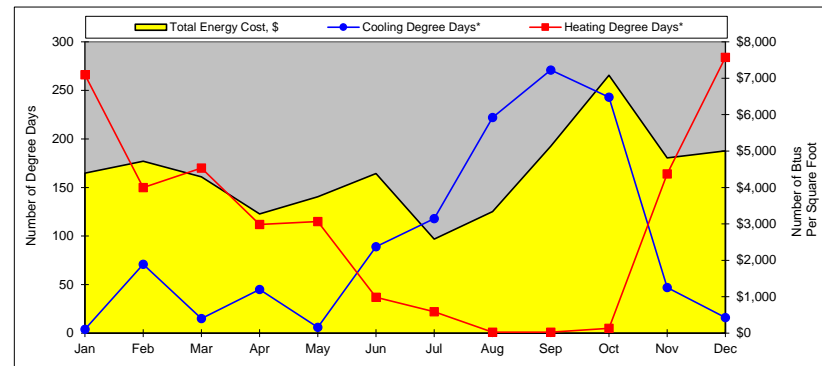
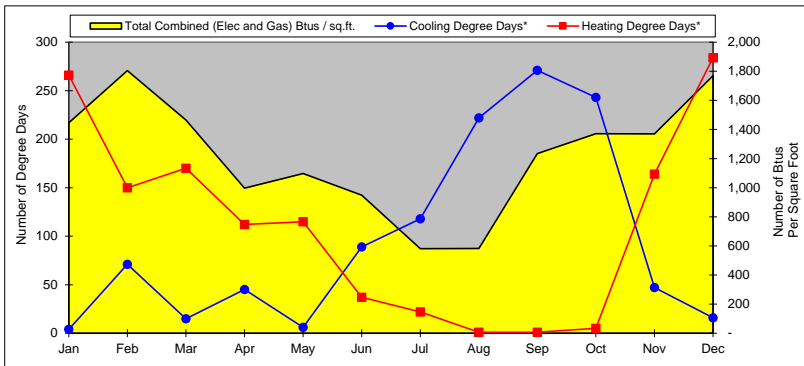
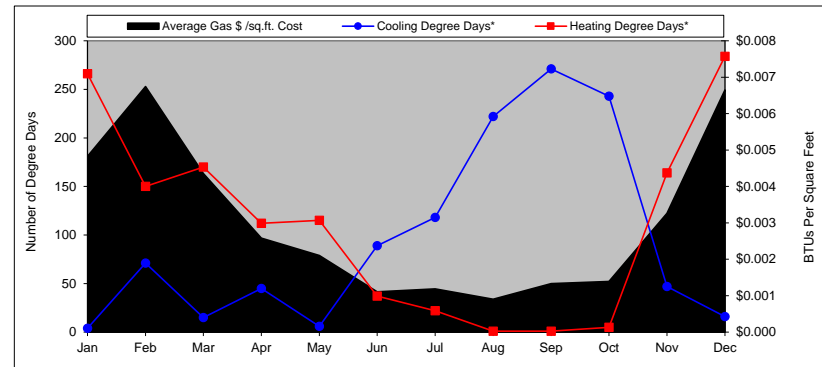
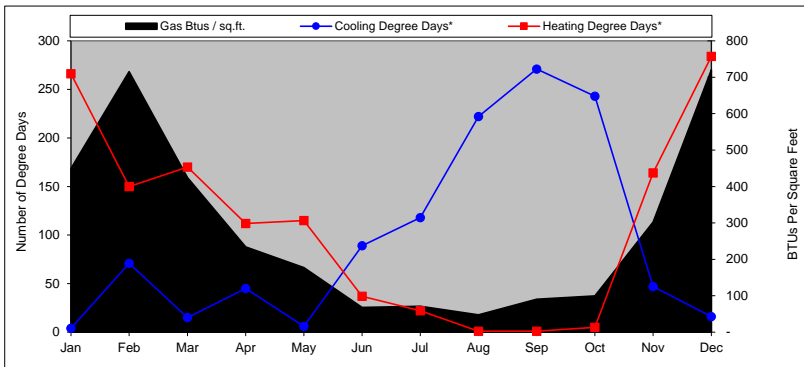
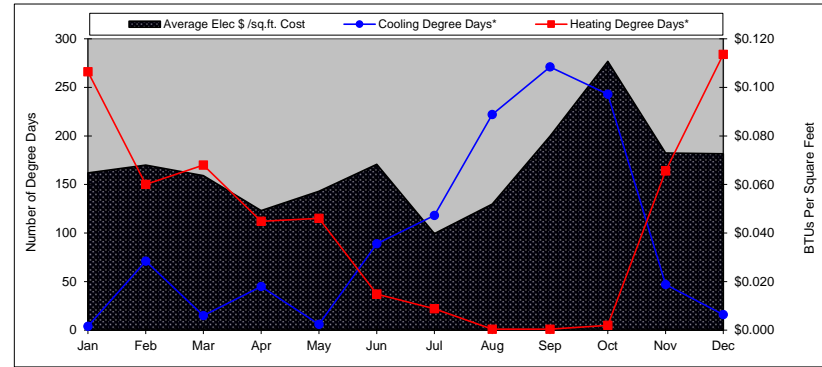
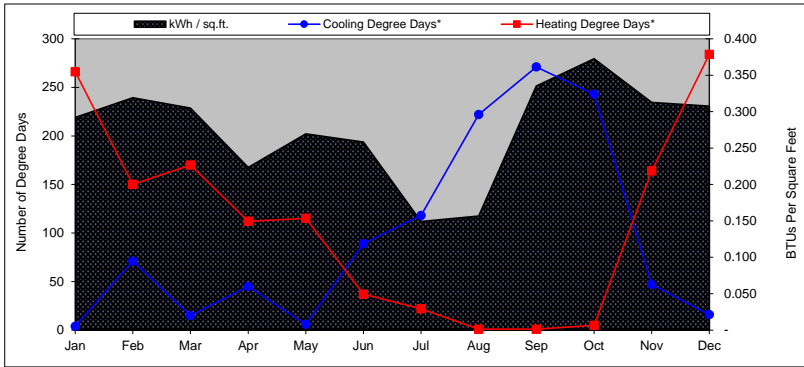
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL ANNUAL (Purchased from SCE)	TOTAL ANNUAL (Purchased from SCE and Solar Production)
Cooling Degree Days*	4	71	15	45	6	89	118	222	271	243	47	16	1,147	
Heating Degree Days*	266	150	170	112	115	37	22	1	1	5	164	284	1,327	
Days in Billing Period														
electric	29	32	30	29	32	30	29	29	32	30	33	30	365	
natural gas	35	30	29	29	30	31	32	29	30	28	32	30	365	
<b>Electric Usage</b>														
kWh per Billing Cycle	18,438	20,158	19,259	14,104	17,019	16,306	9,426	9,889	21,165	23,538	19,750	19,420	208,472	257,154
\$ for kWh Billed	\$3,200	\$3,438	\$3,288	\$2,415	\$2,940	\$3,573	\$2,171	\$2,900	\$4,201	\$6,196	\$3,910	\$3,789	\$42,021	
Max kW Billed	93	91	77	75	72	78	42	52	103	98	83	93	80	
\$ for kW Billed	\$889	\$856	\$730	\$696	\$673	\$740	\$339	\$379	\$847	\$798	\$698	\$798	\$8,443	
Total Electric Cost, \$	\$4,089	\$4,294	\$4,018	\$3,111	\$3,613	\$4,313	\$2,510	\$3,279	\$5,048	\$6,994	\$4,608	\$4,587	\$50,464	
Ave. Daily Electric Cost, \$	\$141	\$134	\$134	\$107	\$113	\$144	\$87	\$113	\$158	\$233	\$140	\$153	\$138	
Average \$/kWh Cost	\$0.222	\$0.213	\$0.209	\$0.221	\$0.212	\$0.265	\$0.266	\$0.332	\$0.239	\$0.297	\$0.233	\$0.236	\$0.242	
Average Elec \$ /sq.ft. Cost	\$0.065	\$0.068	\$0.064	\$0.049	\$0.057	\$0.068	\$0.040	\$0.052	\$0.080	\$0.111	\$0.073	\$0.073	\$0.799	
kWh / sq.ft.	0.292	0.319	0.305	0.223	0.269	0.258	0.149	0.157	0.335	0.373	0.313	0.307	3.30	4.07
<b>Natural Gas Usage</b>														
Therms per Billing Cycle	284	452	268	148	112	43	45	30	57	63	191	455	2,148	
Total Gas Cost, \$	\$305	\$426	\$275	\$163	\$133	\$70	\$75	\$57	\$84	\$88	\$206	\$420	\$2,302	
Ave. Daily Gas Cost, \$	\$9	\$14	\$9	\$6	\$4	\$2	\$2	\$2	\$3	\$3	\$6	\$14	\$6	
Average \$/therm Cost	\$1.074	\$0.942	\$1.026	\$1.101	\$1.188	\$1.628	\$1.667	\$1.900	\$1.474	\$1.397	\$1.079	\$0.923	\$1.072	
Average Gas \$ /sq.ft. Cost	\$0.005	\$0.007	\$0.004	\$0.003	\$0.002	\$0.001	\$0.001	\$0.001	\$0.001	\$0.001	\$0.001	\$0.001	\$0.036	
Gas Btus / sq.ft.	450	716	424	234	177	68	71	47	90	100	302	720	3,400	
<b>Total Energy Usage</b>														
Combined (Elec and Gas) Btus / sq.ft.	1,446	1,805	1,465	996	1,097	949	581	582	1,234	1,371	1,369	1,769	14,664	
Total Energy Cost, \$	\$4,394	\$4,720	\$4,293	\$3,274	\$3,746	\$4,383	\$2,585	\$3,336	\$5,132	\$7,082	\$4,814	\$5,007	\$52,766	
Ave. Energy \$/sq.ft./period	\$0.07	\$0.07	\$0.07	\$0.05	\$0.06	\$0.07	\$0.04	\$0.05	\$0.08	\$0.11	\$0.08	\$0.08	\$0.84	

\* Notes:

- 1) Heating degree days and cooling degree days are based on 65 F.
- 2) Heating degree days and cooling degree days are based on Santa Monica weather data.

**Customer:** Santa Monica-Malibu USD  
**Building:** McKinley Elementary

**Energy Used from:** Jul-15  
**to:** Jun-16



## Appendix – C

### Lighting Systems Audit





School Distr Santa Monica-Malibu USD - LED Option  
 Address: 0  
 0  
 School: MCKINLEY ELEMENTARY  
 School Addr: 0  
 0

cost per kwh

0.242

LED Option

71.58

36.57

151,371.99

73,077.65

78,294.34

\$ 18,947.23

ORIGINAL AUDIT ID#	INTERIOR/ EXTERIOR	SCHOOL DISTRICT	SCHOOL	ROOM	LIGHTING CODE (EXISTING)	ECM	PROPOSED FIXT QTY	EXIST WATT	PROP WATT	EXIST OPER HRS	PROP OPER HRS	EXISTING KW	PROPOSED KW	EXISTING KWH	PROPOSED KWH	SAVED KWH	ANN SAVINGS
1636	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	ADMINISTRATION	T8-U6/4'-32W-2L-EB/ISN-X-X	(LED)3L 8T8/2F/840/DIR, 97743 (1) QHE4X32UNV/ISN W/PF	6	59	32	2185	2185	0.354	0.189	773.49	412.965	360.525	\$ 87.25
1637	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	ADMINISTRATION	CF/4P-TRIP-32W-1L-EB-X-X	(LED)1L 18.5W 4 PIN LED19GX24q-H/840 HORIZONTAL (R	8	35	19	2185	2185	0.28	0.148	611.8	323.38	288.42	\$ 69.80
1638	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	ADMINISTRATION	T8-4'-32W-3L-EB/ISN-I/O-X	(LED)3L 12T8/4F/850/DIR, 97740 (1) QHE3X32UNV/ISN	4	90	48	2185	2185	0.36	0.192	786.6	419.52	367.08	\$ 88.83
1639	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	ADMINISTRATION	T8-4'-32W-3L-EB/ISN-X-X	(LED)3L 12T8/4F/850/DIR, 97740 (1) QHE3X32UNV/ISN	14	87	48	2185	2185	1.218	0.672	2661.33	1468.32	1193.01	\$ 288.71
1640	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	ADMINISTRATION	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	2	59	32	2185	2185	0.118	0.064	257.83	139.84	117.99	\$ 28.55
1641	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	ADMINISTRATION	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	1	59	32	2185	2185	0.059	0.032	128.915	69.92	58.995	\$ 14.28
1642	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	ADMINISTRATION	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	8	112	64	2185	2185	0.896	0.512	1957.76	1118.72	839.04	\$ 203.05
1643	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	ADMINISTRATION	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	6	59	32	2185	2185	0.354	0.192	773.49	419.52	353.97	\$ 85.66
1644	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	HALLWAY	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	8	59	32	2185	2185	0.472	0.256	1031.32	559.36	471.96	\$ 114.21
1645	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	20	59	32	1816	1816	1.18	0.64	2142.88	1162.24	980.64	\$ 237.31
1646	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	4	112	64	1816	1816	0.448	0.256	813.568	464.896	348.672	\$ 84.38
1647	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	2	112	64	1816	1816	0.224	0.128	406.784	232.448	174.336	\$ 42.19
1648	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	18	59	32	1816	1816	1.062	0.576	1928.592	1046.016	882.576	\$ 213.58
1649	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	19	59	32	1816	1816	1.121	0.608	2035.736	1104.128	931.608	\$ 225.45
1650	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	6	112	64	1816	1816	0.672	0.384	1220.352	697.344	523.008	\$ 126.57
1651	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	16	59	32	1816	1816	0.944	0.512	1714.304	929.792	784.512	\$ 189.85
1652	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	4	112	64	1816	1816	0.448	0.256	813.568	464.896	348.672	\$ 84.38
1653	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-3L-EB/ISN-X-X	(LED)3L 12T8/4F/850/DIR, 97740 (1) QHE3X32UNV/ISN	20	87	48	1816	1816	1.74	0.96	3159.84	1743.36	1416.48	\$ 342.79
1654	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	RESTROOMS	CF/4P-DOUB-26W-1L-EB-X-X	(LED)1L GREEN CREATIVE 4 PIN PLUG & PLAY 40820 11P	4	27	11	1816	1816	0.108	0.044	196.128	79.904	116.224	\$ 28.13
1655	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	LIBRARY	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	28	112	64	1816	1816	1.336	0.792	5694.976	3254.272	2440.704	\$ 590.65
1656	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	LIBRARY	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	8	59	32	1816	1816	0.472	0.256	857.152	464.896	392.256	\$ 94.93
1657	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	READING ROOM	T8-4'-32W-3L-EB/ISN-X-X	(LED)3L 12T8/4F/850/DIR, 97740 (1) QHE3X32UNV/ISN	12	87	48	1816	1816	1.044	0.576	1895.904	1046.016	849.888	\$ 205.67
1658	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	RESTROOM	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	4	59	32	1816	1816	0.236	0.128	428.576	232.448	196.128	\$ 47.46
1659	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	AUDITORIUM MUSIC	T8-4'-32W-3L-EB/ISN-X-X	(LED)3L 12T8/4F/850/DIR, 97740 (1) QHE3X32UNV/ISN	36	87	48	1816	1816	3.132	1.728	5687.712	3138.048	2549.664	\$ 617.02
1660	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	AUDITORIUM MUSIC	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	14	59	32	1816	1816	0.826	0.448	1500.016	813.568	686.448	\$ 166.12
1661	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	AUDITORIUM MUSIC	I/S-R38-75W-1L-NONE-X-X	(LED)1L GREEN CREATIVE 12.5PAR30GADIM940FL40, 161	6	75	13	1816	1816	0.45	0.075	817.2	136.2	681	\$ 164.80
1662	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	CAFETERIA	T8-4'-32W-3L-EB/ISN-X-X	(LED)3L 12T8/4F/850/DIR, 97740 (1) QHE3X32UNV/ISN	40	87	48	1696	1696	3.48	1.92	5902.08	3256.32	2645.76	\$ 640.27
1663	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	KITCHEN	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	2	112	64	1696	1696	0.224	0.128	379.904	217.088	162.816	\$ 39.40
1664	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	KITCHEN	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	9	59	32	1696	1696	0.531	0.288	900.576	488.448	412.128	\$ 99.73
1665	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	KITCHEN	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	5	59	32	1696	1696	0.354	0.192	600.384	325.632	274.752	\$ 66.49
1666	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	KITCHEN	CF/2P-SING-13W-2L-MB-X-X	(LED)2L GREEN CREATIVE 2PIN LED DIRect or BYPass 5.6	1	28	11	1696	1696	0.028	0.011	47.488	18.656	28.832	\$ 6.98
1667	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B4	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	10	59	32	1816	1816	0.59	0.32	1071.44	581.12	490.32	\$ 118.66
1668	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B5	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	10	59	32	1816	1816	0.59	0.32	1071.44	581.12	490.32	\$ 118.66
1669	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B6	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	10	59	32	1816	1816	0.59	0.32	1071.44	581.12	490.32	\$ 118.66
1670	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B7	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	10	59	32	1816	1816	0.59	0.32	1071.44	581.12	490.32	\$ 118.66
1671	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B8	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	10	59	32	1816	1816	0.59	0.32	1071.44	581.12	490.32	\$ 118.66
1672	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B9	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	12	59	32	1816	1816	0.708	0.384	1285.728	697.344	588.384	\$ 142.39
1673	EXTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLES EXTERIOR	CF/4P-DOUB-26W-1L-EB-X-X	(LED)NEW DECO 20W PORCHLIGHT WALLPACK D411-LE	9	27	20	3650	3650	0.243	0.18	886.95	657	229.95	\$ 55.65
1674	EXTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLES EXTERIOR	HPS-MED-150W-1L-CWA-X-X	(LED)NEW DECO MEDIUM FLOOD D211-LED-80-50-UNV-T	1	188	80	3650	3650	0.188	0.08	686.2	292	394.2	\$ 95.40
1675	EXTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLES EXTERIOR	HPS-MOG-250W-1L-CWA-X-X	(LED)NEW DECO MEDIUM FLOOD D211-LED-60-50-UNV-T	2	295	60	3650	3650	0.59	0.12	2153.5	438	1715.5	\$ 415.15
1676	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B3	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	10	59	32	1816	1816	0.59	0.32	1071.44	581.12	490.32	\$ 118.66
1677	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B2	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	10	59	32	1816	1816	0.59	0.32	1071.44	581.12	490.32	\$ 118.66
1678	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	PORTABLE B1	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	10	59	32	1816	1816	0.59	0.32	1071.44	581.12	490.32	\$ 118.66
1679	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	20	59	32	1816	1816	1.18	0.64	2142.88	1162.24	980.64	\$ 237.31
1680	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	HALLWAY	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	32	59	32	1816	1816	1.888	1.024	3428.608	1859.584	1569.024	\$ 379.70
1681	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	BASEMENT	T8-4'-32W-3L-EB/ISN-X-X	(LED)3L 12T8/4F/850/DIR, 97740 (1) QHE3X32UNV/ISN	8	87	48	1816	1816	0.696	0.384	1263.936	697.344	566.592	\$ 137.12
1682	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	BASEMENT	T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	6	59	32	1816	1816	0.354	0.192	642.864	348.672	294.192	\$ 71.19
1683	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	20	59	32	1816	1816	1.18	0.64	2142.88	1162.24	980.64	\$ 237.31
1684	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	109A	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	4	112	64	1816	1816	0.448	0.256	813.568	464.896	348.672	\$ 84.38
1685	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-2L-EB/ISN-X-X	(LED)2L 12T8/4F/850/DIR, 97740 (1) QHE2X32UNV/ISN	19	59	32	1816	1816	1.121	0.608	2035.736	1104.128	931.608	\$ 225.45
1686	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	18	112	64	1816	1816	2.016	1.152	3661.056	2092.032	1569.024	\$ 379.70
1687	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY		T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	14	112	64	1816	1816	1.568	0.896	2847.488	1627.136	1220.352	\$ 295.33
1688	INTERIOR	NTA MONICA-MALIBU	MCKINLEY ELEMENTARY	208A	T8-4'-32W-4L-EB/ISN-X-X	(LED)4L 12T8/4F/850/DIR, 97740 (1) QHE4X32UNV/ISN	5	112	64	1816	1816	0.56	0.32	1016.96	581.12	435.84	\$ 105.47
1689																	