LOCAL GOVERNMENT ENERGY AUDIT PROGRAM: ENERGY AUDIT REPORT

PREPARED FOR:

CAPE MAY COUNTY SPECIAL SERVICES SCHOOL
148 CREST HAVEN ROAD
CAPE MAY COURT HOUSE, NJ 08210
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REPORT ISSUANCE: **FINAL, OCTOBER 8, 2010**

PROJECT NO: **9C10037**

TABLE OF CONTENTS

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I. EXECUTIVE SUMMARY

This report presents the findings of the energy audit conducted for:

Cape May County
Special Services School
148 Crest Haven Road
Cape May Court House, NJ 08210

County Contact Person: Stephen O'Connor
Facility Contact Person: Charles Yahara Jr.

This audit is performed in connection with the New Jersey Clean Energy - Local Government Energy Audit Program. The energy audit is conducted to promote the mission of the office of Clean Energy, which is to use innovation and technology to solve energy and environmental problems in a way that improves the State's economy. This can be achieved through the wiser and more efficient use of energy.

The annual energy costs at this facility are as follows:

Electricity	$ 293,325
Natural Gas	$ 124,674
Total	$ 418,000

The potential annual energy cost savings for each energy conservation measure (ECM) are shown below in Table 1. Be aware that the ECM's are not additive because of the interrelation of some of the measures. This audit is consistent with an ASHRAE level 2 audit. The cost and savings for each measure is ± 20%. The evaluations are based on engineering estimations and industry standard calculation methods. More detailed analyses would require engineering simulation models, hard equipment specifications, and contractor bid pricing.

Table 1
Financial Summary Table

ENERGY CONSERVATION MEASURES (ECM's)					
ECM NO.	**DESCRIPTION**	**NET INSTALLATION COST[A]**	**ANNUAL SAVINGS[B]**	**SIMPLE PAYBACK (Yrs)**	**SIMPLE LIFETIME ROI**
ECM #37-1	High Efficiency RTUs	$58,563	$2,418	24.2	-38.1%
ECM #37-2	High Efficent Split System	$72,294	$3,494	20.7	-27.5%
ECM #37-3	Split System Replacement	$67,000	$2,653	25.3	-20.8%
ECM #37-4	Indoor Air Handling Unit Motor Replacement	$3,876	$500	7.7	93.6%
ECM #37-5	AHU NEMA Premium Efficient Motor Replacement	$10,389	$1,090	9.5	57.4%
ECM #37-6	Boiler Burner Replacement - Efficiency Upgrade	$53,200	$2,335	22.8	-34.2%
ECM #37-7	Boiler Burner Replacement	$64,000	$4,383	14.6	2.7%
ECM #37-8	Premium Pump Motor Replacement	$6,423	$392	16.4	9.9%
ECM #37-9	Lighting Upgrade	$23,820	$3,433	6.9	116.2%
ECM #37-10	Lighting Controls	$20,125	$3,580	5.6	166.9%
ECM #37-11	Demand Control Ventillation	$10,500	$678	15.5	-3.1%

Notes: A. Cost takes into consideration applicable NJ Smart StartTM incentives.
B. Savings takes into consideration applicable maintenance savings.

The estimated demand and energy savings for each ECM is shown below in Table 2. The descriptions in this table correspond to the ECM's listed in Table 1.

Table 2
Estimated Energy Savings Summary Table

ENERGY CONSERVATION MEASURES (ECM's)				
ECM NO.	DESCRIPTION	ANNUAL UTILITY REDUCTION		
		ELECTRIC DEMAND (KW)	ELECTRIC CONSUMPTION (KWH)	NATURAL GAS (THERMS)
ECM #37-1	High Efficiency RTUs	5.4	17,269.2	0.0
ECM #37-2	High Efficent Split System	7.8	24,958.0	0.0
ECM #37-3	Split System Replacement	5.9	18,953.6	0.0
ECM #37-4	Indoor Air Handling Unit Motor Replacement	0.4	3,574.0	0.0
ECM #37-5	AHU NEMA Premium Efficient Motor Replacement	0.9	7,786.0	0.0
ECM #37-6	Boiler Burner Replacement - Efficiency Upgrade	0.0	0.0	2,203.0
ECM #37-7	Boiler Burner Replacement	0.0	0.0	4,134.8
ECM #37-8	Premium Pump Motor Replacement	0.5	2,801.0	0.0
ECM #37-9	Lighting Upgrade	8.9	24,521.0	0.0
ECM #37-10	Lighting Controls	78.0	25,574.0	0.0
ECM #37-11	Demand Control Ventillation	30.0	33,630.0	1,956.6

Concord Engineering Group (CEG) recommends proceeding with the implementation of all ECM's that provide a calculated simple payback at or under ten (10) years. The following Energy Conservation Measures are recommended for the facility:

- **ECM #37-4:** Indoor Air Handling Unit Motor Replacement
- **ECM #37-5:** AHU NEMA Premium Efficient Motor Replacement
- **ECM #37-9:** Lighting Upgrade
- **ECM #37-10:** Lighting Controls

Although ECM #37-6, 37-7 and 37-8 does not provide a payback less than 10 years, it is recommended to proceed with the installation of the boiler burners and Premium efficient pump motors as suggested in ECM #37-6, 37-7 and 37-8 (or equal) for the Special Services School, since this equipment is past their expected lifespan and will pay back within the lifespan of the equipment.

ECM #37-11 does not provide a payback less than 10 years, it is recommended to proceed with the installation of the Demand Control Ventilation as suggested in ECM #37-11 (or equal) for the Special Services School, since this will pay back within the lifetime of the system and provide a considerable energy savings.

Although ECM #37-1, 37-2 and 37-3 does not provide a payback within the expected lifespan of the equipment, it is recommended that the owner consider replacing this equipment because the equipment is past their recommended lifespan and will become more prone to failure as time passes. This equipment can be maintained in the short term but should be scheduled for replacement in the short to mid-term.

Renewable Energy Measures (REMs) were not considered for Cape May Special Services School due to the orientation of the building, shading factor and the amount of HVAC equipment on the roof.

CEG also performed a Combined Heat and Power (CHP) analysis for the Crest Haven Complex which included the Special Services School as well as other large user facilities in the county complex. Results of this analysis are included in this report in the Distributed Energy Measures section. The analysis shows the financial benefits of the system as a whole. Benefits to the Special Services School include chilled and hot water for heating and cooling, and generated electricity from the plant to offset grid purchased electricity.

In addition to the ECMs, there are maintenance and operational measures that can provide significant energy savings and provide immediate benefit. The ECMs listed above represent investments that can be made to the facility which are justified by the savings seen overtime. However, the maintenance items and small operational improvements below are typically achievable with on site staff or maintenance contractors and in turn have the potential to provide substantial operational savings compared to the costs associated. The following are

recommendations which should be considered a priority in achieving an energy efficient building:

1. Chemically clean the condenser and evaporator coils periodically to optimize efficiency. Poorly maintained heat transfer surfaces can reduce efficiency 5-10%.
2. Maintain all weather stripping on entrance doors.
3. Clean all light fixtures to maximize light output.
4. Provide more frequent air filter changes to decrease overall system power usage and maintain better IAQ.
5. Confirm that outside air economizers on the rooftop units are functioning properly to take advantage of free cooling and avoid excess outside air during occupied periods.

Overall, the Special Services School appears to be operating at a low efficiency level compared to other schools in the region. With the implementation of the above recommended measures the Cape May County will realize further energy savings at the Special Services School.

Different funding options are available that can be utilized to assist the county in moving forward with achieving improved energy efficiency. The funding options are listed later in the report in section **XI Installation Funding Options**.

II. INTRODUCTION

The comprehensive energy audit covers the 172,000 SF Special Services School Building, which includes the following spaces: classrooms, offices, day care center, shipping and receiving, restrooms, Nurse's office, mechanical/electrical rooms, locker rooms, swimming pools, media center, kitchen, cafeteria, storage, building trades, auto maintenance, agriculture and a retail training area.

Electrical and natural gas utility information is collected and analyzed for one full year's energy use of the building. The utility information allows for analysis of the building's operational characteristics; calculate energy benchmarks for comparison to industry averages, estimated savings potential, and baseline usage/cost to monitor the effectiveness of implemented measures. A computer spreadsheet is used to calculate benchmarks and to graph utility information (see the utility profiles below).

The Energy Use Index (EUI) is established for the building. Energy Use Index (EUI) is expressed in British Thermal Units/square foot/year (BTU/ft^2/yr), which is used to compare energy consumption to similar building types or to track consumption from year to year in the same building. The EUI is calculated by converting the annual consumption of all energy sources to BTU's and dividing by the area (gross square footage) of the building. Blueprints (where available) are utilized to verify the gross area of the facility. The EUI is a good indicator of the relative potential for energy savings. A low EUI indicates less potential for energy savings, while a high EUI indicates poor building performance therefore a high potential for energy savings.

Existing building architectural and engineering drawings (where available) are utilized for additional background information. The building envelope, lighting systems, HVAC equipment, and controls information gathered from building drawings allow for a more accurate and detailed review of the building. The information is compared to the energy usage profiles developed from utility data. Through the review of the architectural and engineering drawings a building profile can be defined that documents building age, type, usage, major energy consuming equipment or systems, etc.

The preliminary audit information is gathered in preparation for the site survey. The site survey provides critical information in deciphering where energy is spent and opportunities exist within a facility. The entire site is surveyed to inventory the following to gain an understanding of how each facility operates:

- Building envelope (roof, windows, etc.)
- Heating, ventilation, and air conditioning equipment (HVAC)
- Lighting systems and controls
- Facility-specific equipment

The building site visit is performed to survey all major building components and systems. The site visit includes detailed inspection of energy consuming components. Summary of building occupancy schedules, operating and maintenance practices, and energy management programs

provided by the building manager are collected along with the system and components to determine a more accurate impact on energy consumption.

III. METHOD OF ANALYSIS

Post site visit work includes evaluation of the information gathered, researching possible conservation opportunities, organizing the audit into a comprehensive report, and making recommendations on HVAC, lighting and building envelope improvements. Data collected is processed using energy engineering calculations to anticipate energy usage for each of the proposed energy conservation measures (ECMs). The actual building's energy usage is entered directly from the utility bills provided by the owner. The anticipated energy usage is compared to the historical data to determine energy savings for the proposed ECMs.

It is pertinent to note, that the savings noted in this report are not additive. The savings for each recommendation is calculated as standalone energy conservation measures. Implementation of more than one ECM may in some cases affect the savings of each ECM. The savings may in some cases be relatively higher if an individual ECM is implemented in lieu of multiple recommended ECMs. For example implementing reduced operating schedules for inefficient lighting will result in a greater relative savings. Implementing reduced operating schedules for newly installed efficient lighting will result in a lower relative savings, because there is less energy to be saved. If multiple ECM's are recommended to be implemented, the combined savings is calculated and identified appropriately.

ECMs are determined by identifying the building's unique properties and deciphering the most beneficial energy saving measures available that meet the specific needs of the facility. The building construction type, function, operational schedule, existing conditions, and foreseen future plans are critical in the evaluation and final recommendations. Energy savings are calculated base on industry standard methods and engineering estimations. Energy consumption is calculated based on manufacturer's cataloged information when new equipment is proposed.

Cost savings are calculated based on the actual historical energy costs for the facility. Installation costs include labor and equipment costs to estimate the full up-front investment required to implement a change. Costs are derived from Means Cost Data, industry publications, and local contractors and equipment suppliers. The NJ Smart Start Building® program incentives savings (where applicable) are included for the appropriate ECM's and subtracted from the installed cost. Maintenance savings are calculated where applicable and added to the energy savings for each ECM. The life-time for each ECM is estimated based on the typical life of the equipment being replaced or altered. The costs and savings are applied and a simple payback, simple lifetime savings, and simple return on investment are calculated. See below for calculation methods:

ECM Calculation Equations:

$$Simple\ Payback = \left(\frac{Net\ Cost}{Yearly\ Savings} \right)$$

$$Simple\ Lifetime\ Savings = \left(Yearly\ Savings \times ECM\ \ Lifetime \right)$$

$$Simple\ Lifetime\ ROI = \frac{(Simple\ Lifetime\ Savings - Net\ Cost)}{Net\ Cost}$$

$$Lifetime\ Ma\,\mathrm{int}\,enance\ Savings = \left(Yearly\ \ Ma\,\mathrm{int}\,enance\ Savings \times ECM\ \ Lifetime \right)$$

$$Internal\ \ Rate\ of\ \ \mathrm{Re}\,turn = \sum_{n=0}^{N} \left(\frac{Cash\ \ Flow\ of\ \ Period}{\left(1 + IRR\right)^{n}} \right)$$

$$Net\ \ \mathrm{Pr}\,esent\ Value = \sum_{n=0}^{N} \left(\frac{Cash\ \ Flow\ of\ \ Period}{\left(1 + DR\right)^{n}} \right)$$

Net Present Value calculations based on Interest Rate of 3%.

IV. HISTORIC ENERGY CONSUMPTION/COST

A. Energy Usage / Tariffs

The energy usage for the facility has been tabulated and plotted in graph form as depicted within this section. Each energy source has been identified and monthly consumption and cost noted per the information provided by the Owner.

The electric usage profile represents the actual electrical usage for the facility. Atlantic City Electric distributes electricity to the facility under their Annual General Service. The facility is contracted with a Third Party Supplier (TPS) South Jersey Energy Company. The electric utility measures consumption in kilowatt-hours (KWH) and maximum demand in kilowatts (KW). One KWH usage is equivalent to 1000 watts running for one hour. One KW of electric demand is equivalent to 1000 watts running at any given time. The basic usage charges are shown as generation service and delivery charges along with several non-utility generation charges. Rates used in this report reflect the historical data received for the facility.

The gas usage profile shows the actual natural gas energy usage for the facility. South Jersey Gas provides natural gas to the facility under the Basic Gas Service Supply, General Service Gas (GSG) rate structure. The gas utility measures consumption in cubic feet x 100 (CCF), and converts the quantity into Therms of energy. One Therm is equivalent to 100,000 BTUs of energy.

The overall cost for utilities is calculated by dividing the total cost by the total usage. Based on the utility history provided, the average cost for utilities at this facility is as follows:

Description	Average
Electricity	14.0¢ / kWh
Natural Gas	$1.06 / Therm

Table 3
Electricity Billing Data

ELECTRIC USAGE SUMMARY

Utility Provider: Atlantic City Electric
Rate: Annual General Service
Meter No: 96412964
Account No. 1028 0639 9998
Third Party Utility S.J. Energy Co
TPS Meter / Acct No: 1028 0639 9998

MONTH OF USE	CONSUMPTION	DEMAND	TOTAL BILL
May-09	171,600	591.0	$22,609
Jun-09	182,700	675.0	$25,596
Jul-09	246,300	672.0	$33,583
Aug-09	205,800	762.0	$28,880
Sep-09	204,300	591.0	$28,258
Oct-09	190,800	630.0	$26,429
Nov-09	148,200	513.0	$21,059
Dec-09	177,900	459.0	$24,964
Jan-10	141,000	405.0	$20,436
Feb-10	154,200	408.0	$22,032
Mar-10	138,000	390.0	$19,869
Apr-10	135,000	465.0	$19,611
Totals	**2,095,800**	**762.0 Max**	**$293,325**

AVERAGE DEMAND 546.8 KW average

AVERAGE RATE $0.140 $/kWh

Figure 1
Electricity Usage Profile

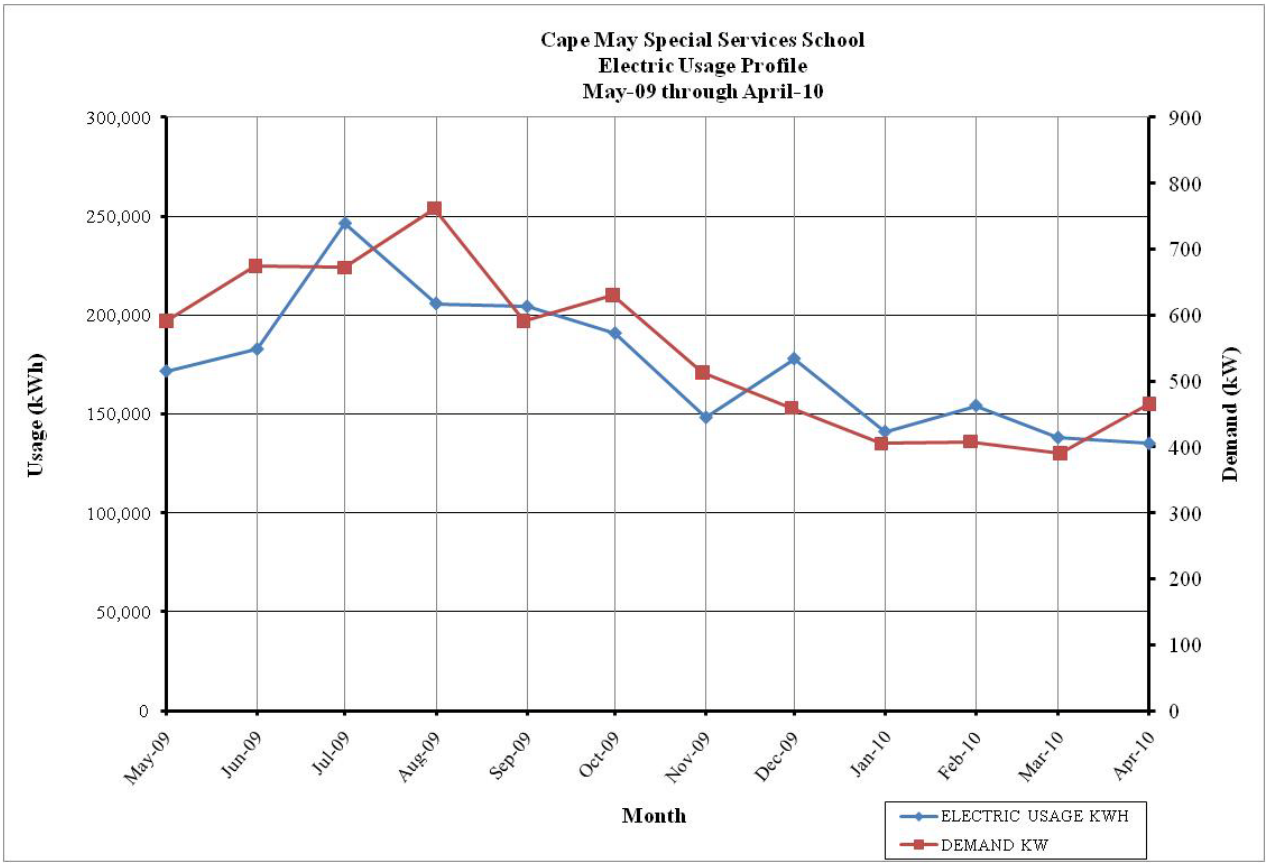
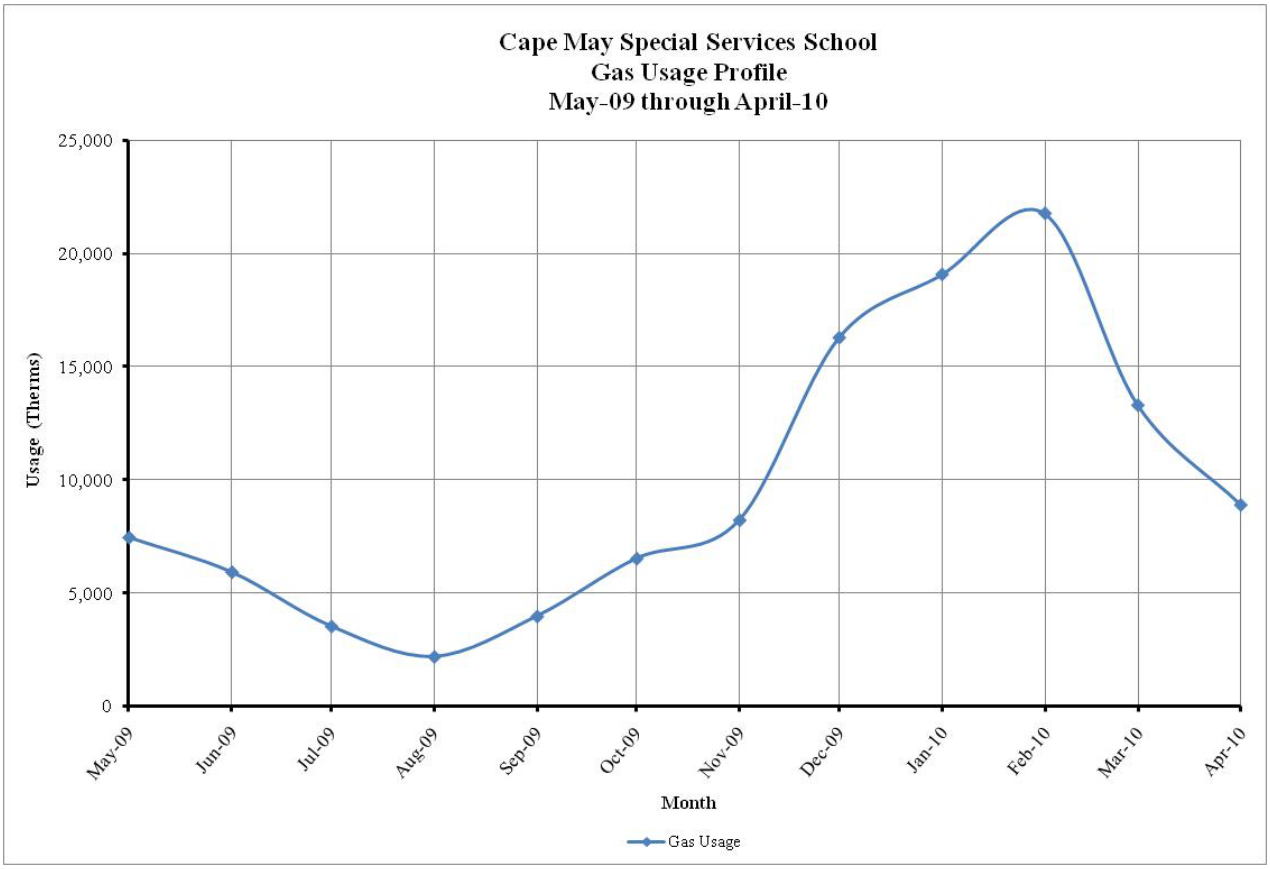


Table 4
Natural Gas Billing Data

NATURAL GAS USAGE SUMMARY		
Utility Provider:	South Jersey Gas	
Rate:	General Service Gas	
Meter No:	4267644, 467806, 350791	
Account No:	4 10 56 0014 1 9, 4 10 56 0015 0 0, 4 10 56 0016 0 9	
Third Party Utility Provider:		
TPS Meter No:		
MONTH OF USE	**CONSUMPTION (THERMS)**	**TOTAL BILL**
May-09	7,462.40	$7,087.17
Jun-09	5,932.62	$5,664.90
Jul-09	3,539.71	$3,498.95
Aug-09	2,193.84	$2,132.15
Sep-09	3,977.00	$3,535.80
Oct-09	6,529.02	$6,015.94
Nov-09	8,226.65	$8,245.30
Dec-09	16,280.01	$16,702.89
Jan-10	19,073.45	$22,343.86
Feb-10	21,764.41	$25,706.79
Mar-10	13,302.09	$14,730.74
Apr-10	8,901.57	$9,009.89
TOTALS	**117,182.77**	**$124,674.38**
AVERAGE RATE:	**$1.06**	**$/THERM**

Figure 2
Natural Gas Usage Profile



B. Energy Use Index (EUI)

Energy Use Index (EUI) is a measure of a building's annual energy utilization per square foot of building. This calculation is completed by converting all utility usage consumed by a building for one year, to British Thermal Units (BTU) and dividing this number by the building square footage. EUI is a good measure of a building's energy use and is utilized regularly for comparison of energy performance for similar building types. The Oak Ridge National Laboratory (ORNL) Buildings Technology Center under a contract with the U.S. Department of Energy maintains a Benchmarking Building Energy Performance Program. The ORNL website determines how a building's energy use compares with similar facilities throughout the U.S. and in a specific region or state.

Source use differs from site usage when comparing a building's energy consumption with the national average. Site energy use is the energy consumed by the building at the building site only. Source energy use includes the site energy use as well as all of the losses to create and distribute the energy to the building. Source energy represents the total amount of raw fuel that is required to operate the building. It incorporates all transmission, delivery, and production losses, which allows for a complete assessment of energy efficiency in a building. The type of utility purchased has a substantial impact on the source energy use of a building. The EPA has determined that source energy is the most comparable unit for evaluation purposes and overall global impact. Both the site and source EUI ratings for the building are provided to understand and compare the differences in energy use.

The site and source EUI for this facility is calculated as follows:

$$Building\ Site\ EUI = \frac{(Electric\ Usage\ in\ kBtu + Gas\ Usage\ in\ kBtu)}{Building\ Square\ Footage}$$

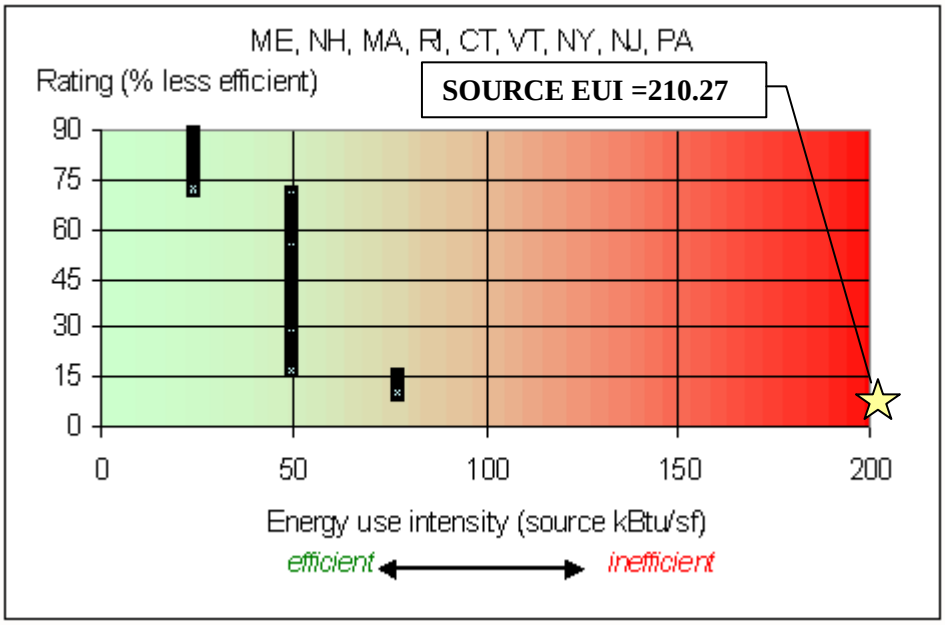
$$Building\ Source\ EUI = \frac{(Electric\ Usage\ in\ kBtu\ X\ SS\ Ratio + Gas\ Usage\ in\ kBtu\ X\ SS\ Ratio)}{Building\ Square\ Footage}$$

Table 5
Facility Energy Use Index (EUI) Calculation

ENERGY USE INTENSITY CALCULATION						
ENERGY TYPE	BUILDING USE			SITE ENERGY	SITE-SOURCE RATIO	SOURCE ENERGY
	kWh	Therms	Gallons	kBtu		kBtu
ELECTRIC	2,095,800.0	-	-	7,155,061	3.340	23,897,904
NATURAL GAS	-	117,182.8	-	11,718,277	1.047	12,269,036
FUEL OIL	-	-	0.0	0	1.010	0
TOTAL	-	-	-	18,873,338	-	36,166,940
*Site - Source Ratio data is provided by the Energy Star Performance Rating Methodology for Incorporating Source Energy Use document issued Dec 2007.						
BUILDING AREA		172,000	SQUARE FEET			
BUILDING SITE EUI		*109.73*	kBtu/SF/YR			
BUILDING SOURCE EUI		*210.27*	kBtu/SF/YR			

Figure 3 below depicts a national EUI grading for the source use of *High School Buildings*.

Figure 3
Source Energy Use Intensity Distributions: High School Buildings



C. EPA Energy Benchmarking System

The United States Environmental Protection Agency (EPA) in an effort to promote energy management has created a system for benchmarking energy use amongst various end users. The benchmarking tool utilized for this analysis is entitled Portfolio Manager. The Portfolio Manager tool allows tracking and assessment of energy consumption via the template forms located on the ENERGY STAR website (www.energystar.gov). The importance of benchmarking for local government municipalities is becoming more important as utility costs continue to increase and emphasis is being placed on carbon reduction, greenhouse gas emissions and other environmental impacts.

Based on information gathered from the ENERGY STAR website, Government agencies spend more than $10 billion a year on energy to provide public services and meet constituent needs. Furthermore, energy use in commercial buildings and industrial facilities is responsible for more than 50 percent of U.S. carbon dioxide emissions. It is vital that local government municipalities assess facility energy usage, benchmark energy usage utilizing Portfolio Manager, set priorities and goals to lessen energy usage and move forward with priorities and goals.

In accordance with the Local Government Energy Audit Program, CEG has created an ENERGY STAR account for the municipality to access and monitoring the facility's yearly energy usage as it compares to facilities of similar type. The login page for the account can be accessed at the following web address; the username and password are also listed below:

https://www.energystar.gov/istar/pmpam/index.cfm?fuseaction=login.login

User Name: capemayspecial
Password: lgeaceg2010

Security Question: What city were you born in?
Security Answer: "Cape May"

The utility bills and other information gathered during the energy audit process are entered into the Portfolio Manager. The following is a summary of the results for the facility:

Table 6
ENERGY STAR Performance Rating

ENERGY STAR PERFORMANCE RATING		
FACILITY DESCRIPTION	**ENERGY PERFORMANCE RATING**	**NATIONAL AVERAGE**
Special Services School	9	50

Refer to **Statement of Energy Performance Appendix** for the detailed energy summary.

V. FACILITY DESCRIPTION

The 172,000 SF Special Services School is a one story facility comprised of classrooms, offices, day care center, shipping and receiving, restrooms, Nurse's office, mechanical/electrical rooms, locker rooms, swimming pools, media center, kitchen, cafeteria, storage, building trades, auto Maintenance, agriculture and a retail training area. The typical hours of operation for this facility are between 8:00 am and 4:30 pm. Some areas of the school are occupied until 6:00 pm. Exterior walls are block and brick construction with minimum insulation typical of the time period. The amount of insulation within the wall is unknown. The windows throughout the facility are in good condition and appear to be maintained. Typical windows throughout the facility are double pane, ¼" clear glass with aluminum frames. Blinds are utilized through the facility per occupant comfort. The blinds are valuable because they help to reduce heat loss in the winter and reduce solar heat in the summer. The majority of the roof is a built up roof system. The amount of insulation below the roofing is unknown. The Ocean Academy and Alternative High School building was built in 1981. In 1991 the Middle School addition was built and in 2005, there was a renovation to the original building.

HVAC Systems

The original school building is occupied by the Ocean Academy and Alternative High School. It was renovated in 2005. This portion of the school is served by a four pipe heating and cooling system. The system utilizes air handling units, fan coil units and classroom unit ventilators. The chilled water system utilizes off peak ice generation and storage to reduce peak cooling demand. The Ocean Academy and Alternative High School HVAC systems are controlled by a CM3 Invensys DDC building automation system.

The Middle School Addition was built in 1991. The addition is cooled by direct expansion refrigerant unitary equipment. Split systems are primarily used with the condensing units on the roof and the evaporator coil located in mechanical room air handling units or ceiling space fan coil units. The building is heated by hot water coils in the air handling units and fan coils and perimeter radiation. Cabinet unit heaters are located at exterior doorways. The building has a separate boiler plant and is not connected to the original school.

Heating for Ocean Academy and Alternative High School is provided by two (2) Weil McLain model AH-994-W water boilers with each having 2,800 MBH natural gas input and are 83% thermal efficient. The boilers appear to be in a lead/lag configuration. The boilers are twenty-nine (29) years old, are in fair condition and have six (6) years of ASHRAE expected useful service life remaining. The boilers have a Preferred Utilities model BHE 20 3M4 natural gas/#2 oil burner with 2,740 MBH / 20 GPH input. The boilers are only operated on natural gas. The burners are twenty-nine (29) years old, in fair condition and are eleven (11) years past their ASHRAE expected useful service life.

The heating hot water is circulated by two (2) Bell & Gossett base mounted end suction pumps model 1510 with a 5 hp motor. They are rated at 160 GPM at 77 feet of head, are nineteen (19) years old, in fair to poor condition and have one (1) year of ASHRAE expected useful service life remaining. The pumps appear to be in a lead/stand-by configuration.

Cooling for the Ocean Academy and Alternative High School is provided by two (2) Trane air cooled water chiller model RTAA 0904 and they are rated at 90 Tons nominal cooling. The chillers are five (5) years old, are in good condition and have fifteen (15) years of ASHRAE expected useful service life remaining. The chilled water is circulated by three (3) Bell & Gossett base mounted end suction pumps model 1510 with a 25 hp motor. They are rated at 250 GPM at 150 feet of head. Two (2) of the pumps appear to be in a lead/stand-by configuration and the third pump is used as the ice tank pump. There are six (6) Calmac ice storage tanks model 1500CSF. The pumps and tanks are five (5) years old, are in good condition and have fifteen (15) years of ASHRAE expected useful service life remaining.

Ocean Academy and Alternative High School classroom heating and cooling is provided by thirty (30) 40UV100 American Air Filter four pipe unit ventilators with fractional horse power fan motor. The Horticulture classroom has one (1) 40UV150 American Air Filter four pipe unit ventilators with fractional horse power fan motor. The unit ventilators are five (5) years old, are in good condition and have fifteen (15) years of ASHRAE expected useful service life remaining.

The Building Trades and Auto Maintenance classrooms are conditioned by American Air Filter heat and ventilation unit model H6LPHVYA. The units are nineteen (19) years old and in fair condition. The units were retrofitted with DDC controls in 2005. The fan motors on these units have been recently replaced.

There are eight (8) air handling units that are nineteen (19) years old. These units were direct expansion systems that were retrofitted in 2005 with hot water coils, chilled water coils and DDC controls. The units range from 4 to 15 tons nominal cooling capacity and 68 to 274 MBH heating capacity. The units are in fair condition.

The mechanical room office is conditioned by a cooling only ductless split system made by EMI model SCC18 with a cooling capacity of 1.5 nominal cooling tons. The mechanical room unit runs 24/7 to cool the DDC system front end computer terminal. The unit is five (5) years old, in good condition and has ten (10) years of ASHRAE expected useful service life remaining.

The Cougar Deli is conditioned by a cooling only ductless split system made by EMI model S1CA6000 with a cooling capacity of 0.5 nominal cooling tons. The Cougar Deli unit runs to maintain space temperature during unoccupied hours when the chiller is making ice. The unit is four (4) years old, in good condition and has eleven (11) years of ASHRAE expected useful service life remaining.

Office 13, across from the large pool, is conditioned by a cooling only ductless split system made by Fujitsu model ASU9CQ with a cooling capacity of 0.75 nominal cooling tons. The Office 13 unit runs when the office is occupied to maintain setpoint. The unit is ten (10) years old, in good condition and has five (5) years of ASHRAE expected useful service life remaining.

There is a Captive Aire Systems kitchen hood make up air unit model NRTP.A-A1-D.250-G10-NCA16FA. The unit is three (3) years old, is in good condition and has twelve (12) years of ASHRAE expected useful service life remaining.

Entrance doorways are heated via recessed ceiling mounted hot water cabinet heaters. The units have fractional horsepower fan motors and are in fair condition.

Heating for the Middle School is provided by two (2) H.B. Smith model 28A-16 water boilers with each having 5,189 MBH natural gas input and are 79% efficient. The boilers appear to be in a lead/lag configuration. The boilers are nineteen (19) years old, are in good condition and have sixteen (16) years of ASHRAE expected useful service life remaining. The boilers have a Power Flame model C3-G-25B burner with 5,250 MBH natural gas input. The burners are nineteen (19) years old, in fair condition and are one (1) year past their ASHRAE expected useful service life.

The heating hot water is circulated by two (2) Armstrong base mounted end suction pumps model 4030 BF 4x3x11.5 with a 20 hp motor. They are rated at 300 GPM at 100 feet of head, are nineteen (19) years old, in fair to poor condition and have one (1) year of ASHRAE expected useful service life remaining. The pumps appear to be in a lead/stand-by configuration.

The middle school boiler plant has one (1) Lochinvar model CHN751 boiler having 750 MBH natural gas input and is 85% thermal efficient. The boiler is nineteen (19) years old, in fair condition and has five (5) years of ASHRAE expected useful service life remaining.

The large pool heating is provided by one (1) Lochinvar model CPN651 boiler having 650 MBH natural gas input and is 84% thermal efficient. The boiler is four (4) years old, in good condition and has twenty (20) years of ASHRAE expected useful service life remaining.

The Therapy pool heating is provided by one (1) Lochinvar model CSN090 boiler with having 90 MBH natural gas input and is 83% thermal efficient. The boiler is nineteen (19) years old, in fair condition and has five (5) years of ASHRAE expected useful service life remaining.

There is a circulator pump in the Therapy pool mechanical room that has an AO Smith 7.5 hp pump motor, is one (1) year old, in good condition and has nine (9) years of ASHRAE expected useful service life remaining.

There is a circulator pump in the Therapy pool mechanical room that has an AO Smith 5 hp pump motor, is four (4) year old, in good condition and has six (6) years of ASHRAE expected useful service life remaining.

There are four (4) Trane roof top packaged air conditioning units ranging from 4 to 7.5 tons nominal cooling capacity. They serve the Board room, Superintendants office and other areas in the north east wing of the building. The units are four (4) years old, in good condition and have eleven (11) years of ASHRAE expected useful service life remaining.

There are three (3) split systems serving the Gym. The Dunham-Bush air handling units are model HSC14LF71603602 and are rated at 17.5 tons nominal cooling and 114 MBH hot water heat input. The units are nineteen (19) years old, in fair condition and are four (4) years past their ASHRAE expected useful service life. The condensing units are Trane model TTA180 and are three (3) years old, in good condition and have twelve years of ASHRAE expected useful service life remaining.

The locker rooms are served by a Dunham-Bush split system with air handling unit model HSC17LF71603601 and condensing unit model AU35A is rated at 30 ton nominal cooling, 347 MBH hot water heat input. The system is nineteen (19) years old, in fair condition and is four (4) years past its ASHRAE expected useful service life.

There is a Dectron split system serving the pool area with model DS-150 condensing unit and model DS-150-43 air handling unit. It is a 37.5 ton nominal cooling/dehumidifier. The system is nineteen (19) years old, in fair condition and is four (4) years past it's ASHRAE expected useful service life.

There is a Dectron split system serving the pool area with model CLD030-9 condensing unit and model RS-120-43 air handling unit. It is a 30 ton nominal cooling/dehumidifier. There is a thermometer with air bubbles in the red fluid at this unit that has failed and should be replaced. The system is nine (9) years old, in fair condition and has six (6) years of ASHRAE expected useful service life remaining.

There are eighteen (18) Dunham-Bush split systems serving the middle school ranging from 4 to 15 tons nominal cooling. The condensing units are located on the roof and the air handling units are in the ceiling space. There are twelve (12) systems that are nineteen (19) years old, in fair to poor condition and are four (4) years past their ASHRAE expected useful service life. There are three (3) systems that are eleven years (11) years old, in fair condition and have four (4) years of ASHRAE expected useful service life remaining. There two (2) systems that are two (2) years old and one (1) three (3) year old system that is in good condition and has thirteen (13) and twelve (12) years of ASHRAE expected useful service life remaining respectively.

Exhaust System

Air is exhausted from the toilet rooms through the fractional horse power roof exhausters. The original building was upgraded with a DDC system and fans are controlled on an occupancy schedule. The 1991 Middle School addition is controlled by pneumatic ATC zones with a time clock function.

There is a Captive Aire Systems kitchen hood make up air unit that has an exhaust fan model NCA16FA. The unit is three (3) years old, is in good condition and has twelve (12) years of ASHRAE expected useful service life remaining.

The middle school boiler room has a Greenheck model TCB-1-24-30 has a 1-1/2 hp fan motor. The fan is nine (9) years old, is in good condition and has eleven (11) years of ASHRAE expected useful service life remaining.

HVAC System Controls

The Ocean Academy and Alternative High School HVAC systems are controlled by a CM3 Invensys direct digital control (DDC) building automation system (BAS). This portion of the building was originally controlled by a pneumatic control system but it was removed in 1991 as part of the retrofit. The existing equipment that remained and the new equipment that was installed during the retrofit is now controlled by DDC.

The middle school has pneumatic controls. Personnel stated that a humidity problem exists with the building. They guessed that it may be due to the Northern exposure and that these systems are ducted return and the ceiling space may be inadequately ventilated. The classrooms have been retrofitted with DDC controls, CO2 sensors. The recent equipment replacement of AC-1, 2, 3 and 4 have included a dehumidification cycle.

The middle school has twenty-two (22) fractional horsepower fans and one (1) 2 hp fan controlled on an occupancy schedule. Six (6) fractional horsepower fan and one (1) 1-1/2hp fan are controlled by manual switch.

Domestic Hot Water

Domestic hot water for the Ocean Academy and Alternative High School is provided by one (1) Lochinvar model CWN0940 water tube boilers with having 940 MBH natural gas input and is 77% thermal efficient. The boiler is nineteen (19) years old, in good condition and has five (5) years of ASHRAE expected useful service life remaining. Water is circulated between the boiler and a Richmond Engineering Co. heat exchanger by a fractional horsepower in-line pump. The heat exchanger is 4 feet in diameter x 5 feet nine inches tall, National Board number 78730, and was built in 1981.

The kitchen booster water heater is a Rheem Ruud Electric, tank type booster water heater. It has 36 KW input and a 120 gallon storage tank. It is 10 years old, in fair condition and has two years of expected useful service life remaining.

Domestic hot water for the Middle School is provided by a Lochinvar model PFN 1000 PMA with 1000 MBH natural gas input and id 88% thermal efficient. The boiler is nineteen (19) years old, in good condition and has five (5) years of ASHRAE expected useful service life remaining. Water is circulated between the boiler and an Old Dominion heat exchanger by a fractional horsepower in-line pump. The heat exchanger has a National Board number 52194 and was built in 1991.

Lighting

Typical lighting throughout building is fluorescent tube lay-in fixtures with T-8 lamps and electronic ballasts. Storage rooms and closets are lit with a mixture of incandescent lamps and compact fluorescent lamps. The parking lot is lit with light poles and high pressure sodium lamps.

VI. MAJOR EQUIPMENT LIST

The equipment list contains major energy consuming equipment that through implementation of energy conservation measures could yield substantial energy savings. The list shows the major equipment in the facility and all pertinent information utilized in energy savings calculations. An approximate age was assigned to the equipment in some cases if a manufactures date was not shown on the equipment's nameplate. The ASHRAE service life for the equipment along with the remaining useful life is also shown in the Appendix.

Refer to the **Major Equipment List Appendix** for this facility.

VII. ENERGY CONSERVATION MEASURES

ECM #37-1: High Efficiency Rooftop Units

Description:

The Special Services School has four (4) split systems that can be replaced with roof top units with a dehumidification mode. The unit's cooling efficiencies are as shown below. All of the existing units have surpassed their useful life. The units are in poor condition and in need of replacement. The efficiencies of the existing units are below today's standards for cooling efficiency. The proposed units are high efficiency units with equivalent capacity of the existing units. The owner should have a professional engineer verify heating and cooling loads prior to moving forward with this ECM.

This ECM includes installation of four (4) high efficient cooling only rooftop units. The ECM calculations are based on Trane Packaged Rooftop Units model THC or equivalent. Means Costworks software is used to estimate demolition and labor costs for a generic rooftop AC unit replacement.

Full Load Cooling Hrs = 3198 hrs/yr.
Average Cost of Electricity = $0.14/kWh

TAG	COOLING CAPACITY (TONS)	CURRENT EER	NEW EER
CU-18	3	10	13
CU-21	4	10	13
CU-23	5	10	13
CU-25	7.5	10	13

Energy Savings Calculations:
Cooling Savings for 5 Ton Unit Replacement:

$$EnergySavings = \frac{Cooling(Tons) \times 12{,}000\left(\frac{Btu}{Ton\ hr}\right)}{1000\left(\frac{Wh}{kWh}\right)} \times \left(\frac{1}{EER_{OLD}} - \frac{1}{EER_{NEW}}\right) \times Full\ Load\ Hrs.$$

$$EnergySavings = \frac{5\,(Tons)\times 12{,}000\left(\frac{Btu}{Ton\ hr}\right)}{1000\left(\frac{Wh}{kWh}\right)} \times \left(\frac{1}{10\left(\frac{Btu}{W}\right)} - \frac{1}{13.0\left(\frac{Btu}{W}\right)}\right) \times 3198\ hours$$

$$= 4{,}428\ kWh$$

$$Demand\ Savings = \frac{Energy\ Savings\ (kWh)}{Hrs\ of\ Cooling}$$

$$Demand\ Savings = \frac{4{,}428\ (kWh)}{3{,}198\ Hrs.} = 1.38\ KW$$

$$Cooling\ Cost\ Savings = 4{,}428 kWh \times 0.14\left(\frac{\$}{kWh}\right) = \$620$$

The calculations are carried out for the rest of the units and the results are tabulated in the below table.

TAG	COOLING CAPACITY (TONS)	ENERGY SAVINGS (KWH)	DEMAND SAVINGS (KW)	COOLING COSTS SAVINGS	TOTAL COSTS
CU-18	3	2,656.8	0.8	$372	$12,190
CU-21	4	3,542.4	1.1	$496	$14,050
CU-23	5	4,428.0	1.4	$620	$14,750
CU-25	7.5	6,642.0	2.1	$930	$19,270
Total	**19.5**	**17,269.2**	**5.4**	**$2,418**	**$60,260**

From the NJ Smart Start® Program appendix, the packaged unit replacement falls under the category "Electric Unitary HVAC" and warrants an incentive based on efficiency (EER) at or above 11.5. The program incentives are calculated as follows:

$$\text{Smart Start®}\ Incentive = (Cooling\ Tons \times\ \$/Ton\ Incentive)$$

Central DX AC Systems

<5.4 tons, minimum 14.0 SEER,	$92/ton
>5.4 tons to 11.25 tons, minimum 11.5 EER,	$73/ton
>11.25 tons to 20 tons, minimum 11.5 EER,	$79/ton

TAG	COOLING CAPACITY (TONS)	INCENTIVES
CU-18	3	$ 276
CU-21	4	$ 368
CU-23	5	$ 460
CU-25	7.5	$ 593

Energy Savings Summary:

ECM #37-1 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$60,260
NJ Smart Start Equipment Incentive ($):	$1,697
Net Installation Cost ($):	$58,563
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$2,418
Total Yearly Savings ($/Yr):	$2,418
Estimated ECM Lifetime (Yr):	15
Simple Payback	24.2
Simple Lifetime ROI	-38.1%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$36,270
Internal Rate of Return (IRR)	-5%
Net Present Value (NPV)	($29,697.07)

ECM #37-2: Split System Replacement

Description:

The Special Services School has eight (8) split systems with a hot water coil in the air handling unit. The unit's cooling efficiencies are as shown below. All of the existing units have surpassed their useful life. The units are in poor condition and in need of replacement. The efficiencies of the existing units are below today's standards for cooling efficiency. The proposed units are high efficiency one-for-one replacements of the existing units. The owner should have a professional engineer verify heating and cooling loads prior to moving forward with this ECM.

This ECM includes installation of eight (8) high efficient split systems air conditioners. The air handling units will have hot water coils with similar capacity to the existing units. The ECM calculations are based on Trane model series TTA and 4TTA with R-410A refrigerant or equivalent. Means Costworks software is used to estimate demolition and labor costs for a generic AC system replacement.

Full Load Cooling Hrs = 3,198 hrs/yr.
Average Cost of Electricity = $0.14/kWh

TAG	MANUF.	QTY.	MODEL #	COOLING CAPACITY (TONS)	CURRENT SEER	NEW EER
CU-10	Trane	1	TTA1180E-TWE180E	15.0	10	11
CU-12	Trane	1	4TTA3036-4TEC3F36	3.0	10	11
CU-13	Trane	1	TTA1180E-TWE180E	15.0	10	11.2
CU-14	Trane	1	4TTM3048-4TEC3F48	4.0	10	11.25
CU-16	Trane	1	TTA120E-TWE120E	10.0	10	11.2
CU-26	Trane	1	TTA120E-TWE120E	10.0	10	11.2
CU-27	Trane	1	4TTA3036-4TEC3F36	3.0	10	11
CU-32	Trane	1	4TTB3024-4TEC3F24	2.0	10	12.5

Energy Savings Calculations:
Cooling Savings for 10 Ton Unit Replacement:

$$EnergySavings = \frac{Cooling(Tons) \times 12{,}000\left(\frac{Btu}{Ton\ hr}\right)}{1000\left(\frac{Wh}{kWh}\right)} \times \left(\frac{1}{EER_{OLD}} - \frac{1}{EER_{NEW}}\right) \times Full\ Load\ Hrs.$$

$$EnergySavings = \frac{10\,(Tons)\times 12{,}000\left(\frac{Btu}{Ton\ hr}\right)}{1000\left(\frac{Wh}{kWh}\right)}\times\left(\frac{1}{10\left(\frac{Btu}{W}\right)}-\frac{1}{11.2\left(\frac{Btu}{W}\right)}\right)\times 3198\ hours$$

$$= 4{,}411.7\ kWh$$

$$Demand\ Savings = \frac{Energy\ Savings\,(kWh)}{Hrs\ of\ Cooling}$$

$$Demand\ Savings = \frac{4{,}411.7\,(kWh)}{3{,}198\ Hrs.} = 1.29\ KW$$

$$Cooling\ Cost\ Savings = 4{,}411.7kWh\times 0.16\left(\frac{\$}{kWh}\right) = \$576$$

The calculations are carried out for the rest of the units and the results are tabulated in the below table.

				COOLING					
TAG	MANUF.	QTY.	MODEL #	COOLING CAPACITY (TONS)	CURRENT SEER	NEW EER	ENERGY SAVINGS (KWH)	DEMAND SAVINGS (KW)	COOLING COSTS SAVINGS
CU-10	Trane	1	TTA1180E-TWE180E	15.0	10	11	5,233.1	1.64	$733
CU-12	Trane	1	4TTA3036-4TEC3F36	3.0	10	11	1,046.6	0.33	$147
CU-13	Trane	1	TTA1180E-TWE180E	15.0	10	11.2	6,167.6	1.93	$863
CU-14	Trane	1	4TTM3048-4TEC3F48	4.0	10	11.25	1,705.6	0.53	$239
CU-16	Trane	1	TTA120E-TWE120E	10.0	10	11.2	4,111.7	1.29	$576
CU-26	Trane	1	TTA120E-TWE120E	10.0	10	11.2	4,111.7	1.29	$576
CU-27	Trane	1	4TTA3036-4TEC3F36	3.0	10	11	1,046.6	0.33	$147
CU-32	Trane	1	4TTB3024-4TEC3F24	2.0	10	12.5	1,535.0	0.48	$215
TOTAL				62.0			24,958.0	7.80	$3,494

From the NJ Smart Start® Program appendix, the packaged unit replacement falls under the category “Electric Unitary HVAC” and warrants an incentive based on efficiency (EER) at or above 11.5. The program incentives are calculated as follows:

$$\text{Smart Start®}\ Incentive = (Cooling\ Tons \times\ \$/Ton\ Incentive)$$

Central DX AC Systems

<5.4 tons, minimum 14.0 SEER,	$92/ton
>5.4 tons to 11.25 tons, minimum 11.5 EER,	$73/ton
>11.25 tons to 20 tons, minimum 11.5 EER,	$79/ton

The units selected do not qualify for an incentive based on EER except for CU-32. CU-32 Smart Start® *Incentive* is 2 tons x $92/ton = $184.

Installation of all the proposed split systems is $89,040.

Simple Payback = cost/savings = ($89,040-$184) / $3,494 = 20.7 years

TAG	MANUF.	QTY.	MODEL #	TOTAL ENERGY SAVINGS	TOTAL INSTALLED COSTS	INCENTIVES	NET INSTALLED COST	SIMPLE PAYBACK
CU-10	Trane	1	TTA1180E-TWE180E	$733	$14,294	$0	$14,294	19.5
CU-12	Trane	1	4TTA3036-4TEC3F36	$147	$5,215	$0	$5,215	35.6
CU-13	Trane	1	TTA1180E-TWE180E	$863	$14,294	$0	$14,294	16.6
CU-14	Trane	1	4TTM3048-4TEC3F48	$239	$5,614	$0	$5,614	23.5
CU-16	Trane	1	TTA120E-TWE120E	$576	$11,480	$0	$11,480	19.9
CU-26	Trane	1	TTA120E-TWE120E	$576	$11,480	$0	$11,480	19.9
CU-27	Trane	1	4TTA3036-4TEC3F36	$147	$5,215	$0	$5,215	35.6
CU-32	Trane	1	4TTB3024-4TEC3F24	$215	$4,886	$184	$4,702	21.9
TOTAL				$3,494	$72,478	$184	$72,294	20.7

Energy Savings Summary:

ECM #37-2 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$72,478
NJ Smart Start Equipment Incentive ($):	$184
Net Installation Cost ($):	$72,294
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$3,494
Total Yearly Savings ($/Yr):	$3,494
Estimated ECM Lifetime (Yr):	15
Simple Payback	20.7
Simple Lifetime ROI	-27.5%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$52,410
Internal Rate of Return (IRR)	-4%
Net Present Value (NPV)	($30,582.85)

ECM #37-3: Split System Replacement

Description:

The Special Services School has three (3) split systems with a hot water coil in the air handling unit. The unit's cooling efficiencies are as shown below. All of the existing units have surpassed their useful life. The units are in poor condition and in need of replacement. The efficiencies of the existing units are below today's standards for cooling efficiency. The proposed units are high efficiency one-for-one replacements of the existing condensing units. The owner should have a professional engineer verify heating and cooling loads prior to moving forward with this ECM.

This ECM includes installation of three (3) split systems. The ECM calculations are based on Trane model series TTA AND RAUJ or equivalent. Means Costworks software is used to estimate demolition and labor costs for a generic AC system replacement.

Full Load Cooling Hrs = 3,198 hrs/yr.
Average Cost of Electricity = $0.14/kWh

TAG	MANUF.	QTY.	MODEL #	COOLING CAPACITY (TONS)	CURRENT SEER	NEW EER
CU-2	Trane	1	RAUJ030-PCC25	30.0	10	11.2
CU-5	Trane	1	TTA240-TWE240	17.5	9.5	10
CU-8	Trane	1	TTA090-TWE090	7.5	10	11.2

Energy Savings Calculations:
Cooling Savings for 30 Ton Unit Replacement:

$$EnergySavings = \frac{Cooling(Tons) \times 12{,}000\left(\frac{Btu}{Ton\ hr}\right)}{1000\left(\frac{Wh}{kWh}\right)} \times \left(\frac{1}{EER_{OLD}} - \frac{1}{EER_{NEW}}\right) \times Full\ Load\ Hrs.$$

$$EnergySavings = \frac{30\ (Tons) \times 12{,}000\left(\frac{Btu}{Ton\ hr}\right)}{1000\left(\frac{Wh}{kWh}\right)} \times \left(\frac{1}{10\left(\frac{Btu}{W}\right)} - \frac{1}{11.2\left(\frac{Btu}{W}\right)}\right) \times 3198\ hours$$

$$= 12{,}335.1\ kWh$$

$$Demand\ Savings = \frac{Energy\ Savings\ (kWh)}{Hrs\ of\ Cooling}$$

$$Demand\ Savings = \frac{12{,}335.1\,(kWh)}{3{,}198\ Hrs.} = 3.86\ KW$$

$$Cooling\ Cost\ Savings = 12{,}335.1 kWh \times 0.14\left(\frac{\$}{kWh}\right) = \$1{,}727$$

The calculations are carried out for the rest of the units and the results are tabulated in the below table.

				COOLING					
TAG	MANUF.	QTY.	MODEL #	COOLING CAPACITY (TONS)	CURRENT SEER	NEW EER	ENERGY SAVINGS (KWH)	DEMAND SAVINGS (KW)	COOLING COSTS SAVINGS
CU-2	Trane	1	RAUJ030-PCC25	30.0	10	11.2	12,335.1	3.86	$1,727
CU-5	Trane	1	TTA240-TWE240	17.5	9.5	10	3,534.6	1.11	$495
CU-8	Trane	1	TTA090-TWE090	7.5	10	11.2	3,083.8	0.96	$432
TOTAL				55.0			18,953.6	5.93	$2,653

From the NJ Smart Start® Program appendix, the packaged unit replacement falls under the category "Electric Unitary HVAC" and warrants an incentive based on efficiency (EER) at or above 11.5. The program incentives are calculated as follows:

$$\text{Smart Start®}\ Incentive = (Cooling\ Tons \times\ \$ / Ton\ Incentive)$$

Central DX AC Systems

<5.4 tons, minimum 14.0 SEER,	$92/ton
>5.4 tons to 11.25 tons, minimum 11.5 EER,	$73/ton
>11.25 tons to 20 tons, minimum 11.5 EER,	$79/ton

The 20 Ton and 7.5 Ton units selected do not qualify for an incentive based on EER. The 30 Ton unit Smart Start® *Incentive* $79/tons x 30 tons = $2,370.

Installation of all the proposed split systems is $69,370.

Simple Payback = cost/savings = ($69,370-$2,370) / $2,653 = 25.2 years

TAG	MANUF.	QTY.	MODEL #	TOTAL ENERGY SAVINGS	TOTAL INSTALLED COSTS	INCENTIVES	NET INSTALLED COST	SIMPLE PAYBACK
CU-2	Trane	1	RAUJ030-PCC25	$1,727	$44,170	$2,370	$41,800	24.2
CU-5	Trane	1	TTA240-TWE240	$495	$16,590	$0	$16,590	33.5
CU-8	Trane	1	TTA090-TWE090	$432	$8,610	$0	$8,610	19.9
TOTAL				$2,653	$69,370	$2,370	$67,000	25.2

Energy Savings Summary:

ECM #37-3 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$69,370
NJ Smart Start Equipment Incentive ($):	$2,370
Net Installation Cost ($):	$67,000
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$2,653
Total Yearly Savings ($/Yr):	$2,653
Estimated ECM Lifetime (Yr):	20
Simple Payback	25.3
Simple Lifetime ROI	-20.8%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$53,060
Internal Rate of Return (IRR)	-2%
Net Present Value (NPV)	($27,530.06)

ECM #37-4: Indoor Air handling Unit Motor Replacement

Description:

The Dectron indoor air handling units (AHUs) with hot water heating coils and direct expansion cooling coil has surpassed its expected service life of fifteen (15) years as outlined in Chapter 36 of the 2007 ASHRAE Applications Handbook. This unit appears to be 1991 vintage, and is excellent candidate for replacement. Due to escalating owning and maintenance costs, this unit should be replaced. This unit contains a hot water heating section and savings can we yielded from year round operation. The unit is 13,500 CFM (cubic feet per minute) capacity.

This energy conservation measure would replace air handling unit fan motors with fan motors equal to or greater than 1 HP with new air handling units having NEMA Premium® Efficient Motors. NEMA Premium® is the most efficient motor designation in the marketplace today. Baldor motors or equivalents were utilized as a basis of design. Because many units operate 40-80 hours per week, even small increases in efficiency can yield substantial energy and dollar savings.

Energy Savings Calculations:

Existing: AHU-1 serving the Pool Area, has a supply air fan motor with the following characteristics:

Existing Motor Efficiency = 85.7%
Existing motor HP = 10 HP
Annual Hours of Operations = 8,367 (Average)
1 HP = 0.746 Watt
Load Factor = 75%
Cost of electricity = $0.14 / kWh

Existing AHU Motor Operating Cost =
{0.746 Watt/HP x Motor HP x Load Factor x Hours of Operation x Cost of Electricity] ÷ Motor Efficiency
= [0.746 x 10x 0.75 x 8,367 x 0.14] ÷ 0.857 = $7,647 / Year

New AHU with NEMA Premium Motor Efficiency = 91.7%

New AHU with NEMA Premium Efficiency Motor Operating Cost =
{0.746 x 10 x 0.75 x 8,367 x 0.14} ÷ 0.91.7 = $7,147 / Year

Savings = $7,647 - $7,147 = $500 / Year

Installed Cost of a 10 HP NEMA Premium® Efficiency Motor = $3,976
The SmartStart Building® incentive of 10hp is $100/motor x 1 motor = $100
Net installed Cost = $3,976 - $100 = $3,876.

Simple Payback = $3,976 / $500 = 7.9 Years

kWh saved = $500.38/ $0.14/kWh = 3,574.1 kWh
kW saved = 3,574.1 kWh / 8,367 hrs./yr. = 0.43 kW

ROOF TOP AHU MOTOR REPLACEMENT							
Equipment Tag	**CFM**	**Motor HP**	**Existing Efficiency**	**NEMA Premium Efficiency**	**kW Savings**	**kWh Savings**	**Savings**
AHU-1, S/A	17,260	10	85.7%	91.7%	0.43	3,574	$500.4
Total Savings					**0.4**	**3,574**	**$500**

MOTOR REPLACEMENT PLAN							
Motor HP	**QTY**	**ENCL. TYPE**	**No. of POLEs**	**INSTALLED Cost ****	**TOTAL COST**	**TOTAL SAVINGS**	**Simple Payback**
10	1	TEFC	4	$3,976	$3,976	$500.38	7.9
				Totals:	*$3,976*	*$500*	*7.9*

NEMA PREMIUM EFFICIENT - INCENTIVE				
Equipment Tag	**Motor HP**	**NEMA Premium Efficiency**	**Type**	**Incentive**
AHU-1, S/A	10	91.7%	TEFC	100
Total Savings				**$100**

Energy Savings Summary:

ECM #37-4 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$3,976
NJ Smart Start Equipment Incentive ($):	$100
Net Installation Cost ($):	$3,876
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$500
Total Yearly Savings ($/Yr):	$500
Estimated ECM Lifetime (Yr):	15
Simple Payback	7.7
Simple Lifetime ROI	93.6%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$7,506
Internal Rate of Return (IRR)	10%
Net Present Value (NPV)	$2,097.50

ECM #37-5: Indoor Air handling Unit Motor Replacement

Description:

Four (4) indoor air handling units (AHUs) with hot water heating coils and direct expansion cooling coils have surpassed there expected service life of fifteen (15) years as outlined in Chapter 36 of the 2007 ASHRAE Applications Handbook. These units appear to be 1991 vintage, and are excellent candidates for replacement. Due to escalating owning and maintenance costs, these units should be replaced. Each of these units contains a hot water heating section and savings can we yielded from year round operation. The units range from 6600 CFM (cubic feet per minute) to 7,300 cfm capacity.

This energy conservation measure would replace air handling unit fan motors with fan motors equal to or greater than 1 HP with new air handling units having NEMA Premium® Efficient Motors. NEMA Premium® is the most efficient motor designation in the marketplace today. Baldor motors or equivalents were utilized as a basis of design. Because many units operate 40-80 hours per week, even small increases in efficiency can yield substantial energy and dollar savings.

Energy Savings Calculations:

Existing: AHU-2 serving the Locker Area, has a supply air fan motor with the following characteristics:

Existing Motor Efficiency = 83.3%
Existing motor HP = 5 HP
Annual Hours of Operations = 8,367 (Average)
1 HP = 0.746 Watt
Load Factor = 75%
Cost of electricity = $0.14 / kWh

Existing AHU Motor Operating Cost =
{0.746 Watt/HP x Motor HP x Load Factor x Hours of Operation x Cost of Electricity] ÷ Motor Efficiency
= [0.746 x 5 x 0.75 x 8,367 x 0.14] ÷ 0.833 = $3,934 / Year

New AHU with NEMA Premium Motor Efficiency = 89.5%

New AHU with NEMA Premium Efficiency Motor Operating Cost =
{0.746 x 5 x 0.75 x 8,367 x 0.14} ÷ 0.895 = $3,661 / Year

Savings = $3,934 - $3,661 = $273 / Year

Installed Cost of a 5 HP NEMA Premium® Efficiency Motor = $2,657
The SmartStart Building® incentive of 5hp x $60/motor is $60
Net installed Cost = $2,657 - $60 = $2,597.

Simple Payback = $2,597 / $273 = 9.5 Years

kWh saved = $273/ $0.14/kWh = 1,950 kWh
kW saved = 1,950 kWh / 8,367 hrs./yr. = 0.23 kW

ROOF TOP AHU MOTOR REPLACEMENT							
Equipment Tag	**CFM**	**Motor HP**	**Existing Efficiency**	**NEMA Premium Efficiency**	**kW Savings**	**kWh Savings**	**Savings**
AHU-2, S/A	17,260	5	83.3%	89.5%	0.23	1,947	$272.5
AHU-3, S/A	11,465	5	83.3%	89.5%	0.23	1,947	$272.5
AHU-4, S/A	11,315	5	83.3%	89.5%	0.23	1,947	$272.5
AHU-5, S/A	18,870	5	83.3%	89.5%	0.23	1,947	$272.5
Total Savings					**0.9**	**7,786**	**$1,090**

MOTOR REPLACEMENT PLAN							
Motor HP	**QTY**	**ENCL. TYPE**	**No. of POLEs**	**INSTALLED Cost ****	**TOTAL COST**	**TOTAL SAVINGS**	**Simple Payback**
5	1	TEFC	4	$2,657	$2,657	$272.52	9.8
5	1	TEFC	4	$2,657	$2,657	$272.52	9.8
5	1	TEFC	4	$2,657	$2,657	$272.52	9.8
5	1	TEFC	4	$2,657	$2,657	$272.52	9.8
				Totals:	*$10,629*	*$1,090*	*9.8*

NEMA PREMIUM EFFICIENT - INCENTIVE				
Equipment Tag	**Motor HP**	**NEMA Premium Efficiency**	**Type**	**Incentive**
AHU-2, S/A	5	89.5%	TEFC	60
AHU-3, S/A	5	89.5%	TEFC	60
AHU-4, S/A	5	89.5%	TEFC	60
AHU-5, S/A	5	89.5%	TEFC	60
Total Savings				**$240**

Energy Savings Summary:

ECM #37-5 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$10,629
NJ Smart Start Equipment Incentive ($):	$240
Net Installation Cost ($):	$10,389
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$1,090
Total Yearly Savings ($/Yr):	$1,090
Estimated ECM Lifetime (Yr):	15
Simple Payback	9.5
Simple Lifetime ROI	57.4%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$16,350
Internal Rate of Return (IRR)	6%
Net Present Value (NPV)	$2,623.35

ECM #37-6: Boiler Burner Replacement – Efficiency Upgrade

Description:

Special Services School has two boiler plants which provide hot water to the entire facility. Within the original building the burner in the Weil McLain AH-994-W is functioning properly but the burner is worn and old. The current burner has a combustion efficiency of 80% but the age of this burner in conjunction with radiation losses has brought the efficiency down to approximately 75%. This burner is 29 years old and has just surpasses its ASHRAE useful service life.

This energy conservation measure will replace the gas/oil fired burners serving the original facility. Calculation is based on the following equipment: Weil McLain WCR-3-GO-20 CSD_1 Full modulating Burner or equivalent. The existing burner will be replaced with a higher energy efficient unit with capacity typical of the existing unit.

Energy Savings Calculations:

Existing Gas/Oil Fired Burner:

Rated Capacity = 2,740 MBh Nat. Gas/ 20 GPH oil Max Input
Combustion Efficiency = 80%
Age & Radiation Losses = 5%
Thermal Efficiency = 75%

Replacement Weil McLain Gas/Oil Fired Burner:

Rated Capacity = 2,740 MBh Nat. Gas/ 20 GPH oil Max Input
Combustion Efficiency = 81%
Radiation Losses = 0.5%
Thermal Efficiency = 80.5%

Natural Gas Equipment List - Estimated Annual Usage per unit

Concord Engineering Group

Cape May Special Services School

Manufacturer	Qty.	Model #	Input (MBh)	% of Total Input	Estimated Annual Therms
Weil-McLain	**1**	**AH-994-W, Series 2**	**2,800**	**13.76%**	**16,125.01**
Weil-McLain	**1**	**AH-994-W, Series 2**	**2,800**	**13.76%**	**16,125.01**
Lochinvar	1	CWN0940	940	4.62%	5,413.40
H.B. Smith Co.	1	Series 28A-16	5,189	25.50%	29,883.10
H.B. Smith Co.	1	Series 28A-16	5,189	25.50%	29,883.10
Lochinvar	1	CHN751	750	3.69%	4,319.20
Lochinvar	1	CPN651	650	3.19%	3,743.31
Lochinvar	1	CSN090	90	0.44%	518.30
Lochinvar	1	CWN0940	940	4.62%	5,413.40
Lochinvar	1	PFN 1000 PMA	1,000	4.91%	5,758.93
		Total Input MBH	**20,348**	**1.00**	**117,182.77**
		Total Input Therms	**203.5**		
Total Gas Consumption Therms / yr.			**117182.77**		

Operating Data:

Heating Season Fuel Consumption = 32,250 Therms/yr

$$Heating\ Energy\ Savings = Fuel\ Consumption \times (New\ Boiler\ Efficiency - Old\ Boiler\ Efficiency)$$

Heating Energy Savings = 32,250 Therms x ((80.5% - 75%) / (80.5%)) = 2,203 Therms

Total Heating Cost savings

Heating Energy Cost Savings = Annual Energy Savings x $/Therm

Heating Energy Cost Savings = (2,203 Therms) x $1.06/Therm = $2,335/ yr.

Installed cost of (2) two new Weil McLain 2,740MBH input gas/ 20 GPH oil fired burner and installation is $53,200.

Energy Savings Summary:

ECM #37-6 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$53,200
NJ Smart Start Equipment Incentive ($):	$0
Net Installation Cost ($):	$53,200
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$2,335
Total Yearly Savings ($/Yr):	$2,335
Estimated ECM Lifetime (Yr):	15
Simple Payback	22.8
Simple Lifetime ROI	-34.2%
Simple Lifetime Maintenance Savings	0
Simple Lifetime Savings	$35,025
Internal Rate of Return (IRR)	-5%
Net Present Value (NPV)	($25,324.92)

ECM #37-7: Boiler Burner Replacement – Efficiency Upgrade

Description:

Special Services School has two boiler plants which provide hot water to the entire facility. Within the 1981 addition the burner in the two (2) HB Smith Series 28A-16, are functioning properly but the burners are worn and old. The current burner has a combustion efficiency of 79% but the age of this burner in conjunction with radiation losses has brought the efficiency down to approximately 74%. This burners are 29 years old and has just surpasses its ASHRAE useful service life.

This energy conservation measure will replace the natural gas fired burners serving the original facility. Calculation is based on the following equipment: Power Flame C3-G-25B Burner or equivalent. The existing burner will be replaced with a higher energy efficient unit with capacity typical of the existing unit.

Energy Savings Calculations:

Existing Gas Fired Burner:

Rated Capacity = 5,250 MBh Nat. Gas Max Input
Combustion Efficiency = 79%
Age & Radiation Losses = 5%
Thermal Efficiency = 74%

Replacement Power Flame Natural Gas Fired Burner:

Rated Capacity = 5,250 MBh Nat. Gas Max Input
Combustion Efficiency = 80%
Radiation Losses = 0.5%
Thermal Efficiency = 79.5%

Natural Gas Equipment List - Estimated Annual Usage per unit

Concord Engineering Group

Cape May Special Services School

Manufacturer	Qty.	Model #	Input (MBh)	% of Total Input	Estimated Annual Therms
Weil-McLain	1	AH-994-W, Series 2	2,800	13.76%	16,125.01
Weil-McLain	1	AH-994-W, Series 2	2,800	13.76%	16,125.01
Lochinvar	1	CWN0940	940	4.62%	5,413.40
H.B. Smith Co.	**1**	**Series 28A-16**	**5,189**	**25.50%**	**29,883.10**
H.B. Smith Co.	**1**	**Series 28A-16**	**5,189**	**25.50%**	**29,883.10**
Lochinvar	1	CHN751	750	3.69%	4,319.20
Lochinvar	1	CPN651	650	3.19%	3,743.31
Lochinvar	1	CSN090	90	0.44%	518.30
Lochinvar	1	CWN0940	940	4.62%	5,413.40
Lochinvar	1	PFN 1000 PMA	1,000	4.91%	5,758.93
		Total Input MBH	**20,348**	**1.00**	**117,182.77**
		Total Input Therms	**203.5**		
Total Gas Consumption Therms / yr.			**117182.77**		

Operating Data:

Heating Season Fuel Consumption = 59,766.2 Therms/yr

$$Heating\ Energy\ Savings = Fuel\ Consumption \times (New\ Boiler\ Efficiency - Old\ Boiler\ Efficiency)$$

Heating Energy Savings = 59,766.2 Therms/yr x ((79.5% - 74%) / (79.5%)) = 4,134.8 Therms

Total Heating Cost savings

Heating Energy Cost Savings = Annual Energy Savings x $/Therm

Heating Energy Cost Savings = (4,134.8 Therms) x $1.06/Therm = $4,383/ yr.

Installed cost of (2) two new Power Flame 5,189 MBH input natural gas fired burners is $53,200.

Energy Savings Summary:

ECM #37-7 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$64,000
NJ Smart Start Equipment Incentive ($):	$0
Net Installation Cost ($):	$64,000
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$4,383
Total Yearly Savings ($/Yr):	$4,383
Estimated ECM Lifetime (Yr):	15
Simple Payback	14.6
Simple Lifetime ROI	2.7%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$65,745
Internal Rate of Return (IRR)	0%
Net Present Value (NPV)	($11,676.03)

ECM #37-8: Install NEMA Premium Efficient Pump Motor

Description:

Replacing the HWP-2 and P-2 pump motors with new premium efficient motors is a simple change that can provide substantial savings.

Existing electric motors equal to or greater than one horsepower ranged from 78 to 93% efficient. The improved efficiency of the NEMA premium efficient motors is primarily due to better designs with use of better materials to reduce losses. Surprisingly, the electricity used to power a motor represents 95 % of its total lifetime operating cost. Because many motors operate 40-80 hours per week, even small increases in efficiency can yield substantial energy and dollar savings.

This energy conservation measure would replace all motors equal to or greater than 1 HP with NEMA Premium® Efficient Motors. NEMA Premium® is the most efficient motor designation in the marketplace today. Using MotorMaster+, Version 4, the energy & cost savings were calculated for the fan/pump motors in this facility that are greater than or equal to 1 HP.

Energy Savings Calculations:

Existing: A 20 HP system circulation pump Motor with the following characteristics:
Existing Motor Efficiency = 89.5%
Annual Hours of Operations = 5169 (Average)
1 HP = 0.746 Watt
Load Factor = 75%
Cost of electricity = $0.14 / kWh

Existing 20HP Motor Operating Cost =
{0.746 Watt/HP x Motor HP x Load Factor x Hours of Operation x Cost of Electricity] ÷ Motor Efficiency
= [0.746 x 20 x 0.75 x 5,169 x 0.14] ÷ 0.895 = $9,048 / Year

New NEMA Premium Motor Efficiency = 93%

New NEMA Premium Efficiency Motor Operating Cost =
{0.746 x 20 x 0.75 x 5,169 x 0.14} ÷ 0.93 = $8,707 / Year

Savings = $9,048 - $8,707 = $341 / Year

Installed Cost of a 20 HP NEMA Premium® Efficiency Motor = $4,710 minus the SmartStart Building® incentive of 20hp x $125/motor is $4,585.

Simple Payback = $4,585 / $341 = 13.4 Years

kWh saved = $341 / $0.14/kWh = 2,435.7 kWh

kW saved = 2,435.7 kWh / 5,169 hrs./yr. = 0.47 kW

A summary of calculation results is in the table below.

NEMA Premium Efficient Motor Replacement						
Equipment Tag	**Motor HP**	**Existing Efficiency**	**NEMA Premium Efficiency**	**kW Savings**	**kWh Savings**	**Cost Savings**
HWP-2	5	87.5%	89.5%	0.07	369	$52
P-2	20	89.5%	93.0%	0.47	2,432	$341
Total Savings				**0.5**	**2,801**	**$392**

The following table outlines the motor replacement plan for this facility:

MOTOR REPLACEMENT PLAN							
Motor HP	**QTY**	**ENCL. TYPE**	**No. of POLEs**	**INSTALLED Cost ****	**TOTAL COST**	**TOTAL SAVINGS**	**Simple Payback**
5	1	TEFC	4-Pole	$1,838	$1,838	$51.70	35.6
20	1	TEFC	4-Pole	$4,585	$4,585	$340.51	13.5
				Totals:	*$6,423*	*$392*	*16.4*

**** Net Cost after the SmartStart Buildings® incentive is applied.**

Energy Savings Summary:

ECM #37-8 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$6,608
NJ Smart Start Equipment Incentive ($):	$185
Net Installation Cost ($):	$6,423
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$392
Total Yearly Savings ($/Yr):	$392
Estimated ECM Lifetime (Yr):	18
Simple Payback	16.4
Simple Lifetime ROI	9.9%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$7,056
Internal Rate of Return (IRR)	1%
Net Present Value (NPV)	($1,031.62)

ECM #37-9: LIGHTING UPGRADES

Description:

New fluorescent lamps and ballasts are available as direct replacements for the existing lamps and ballasts. A simple change from the old to the new can provide substantial savings. A typical drop-ceiling lay in fixture with four, 4-foot lamps (40 Watt lamps) has a total wattage of about 188 Watts. By retrofitting with new lamps, reflector and electronic ballasts the total wattage would be reduced to 91 Watts per fixture and the space light levels and light quality would increase by about 15% and 35%, respectively.

CEG recommends a replacement of the existing fixtures containing T12 lamps and magnetic ballasts with fixtures containing T8 lamps and electronic ballasts. The new energy efficient, T8 fixtures will provide adequate lighting and will save the Owner on electrical costs due to the better performance of the electronic ballasts. In addition to functional cost savings, the fixture replacement will also provide operational cost savings. The operational cost savings will be realized through the lesser number of lamps that will be required to be replaced per year. The expected lamp life of a T8 lamp, approximately 30,000 burn-hours, in comparison to the existing T12 lamps, approximately 20,000 burn-hours, will provide the Owner with fewer lamps to replace per year. Based on the operating hours of this facility, the owner will be changing approximately 33% less lamps per year.

Compact fluorescent lamps (CFL's) were created to be direct replacements for the standard incandescent lamps which are common to table lamps, spot lights, hi-hats, bathroom vanity lighting, etc. The light output of the CFL has been designed to resemble the incandescent lamp. The color rendering index (CRI) of the CFL is much higher than standard fluorescent lighting, and therefore provides a much "truer" light. The CFL is available in a myriad of shapes and sizes depending on the specific application. Typical replacements are: a 13-Watt CFL for a 40-Watt incandescent lamp, a 15-Watt CFL for a 60-Watt incandescent lamp, an 18-Watt CFL for a 75-Watt incandescent lamp, and a 23-Watt CFL for a 100-Watt incandescent lamp.

The CFL is also available for a number of "brightness colors" that is indicated by the Kelvin rating. A 2700K CFL is the "warmest" color available and is closest in color to the incandescent lamp. CFL's are also available in 3000K, 3500K, and 4100K. The 4100K would be the "brightest" or "coolest" output. A CFL can be chosen to screw right into your existing fixtures, or hardwired into your existing fixtures.

This ECM shall replace all remaining T12 fixtures throughout the facility with new T8 fixtures, in addition to de-lamping some of the T8 fixtures in areas that are over-lit. In addition, this ECM also replaces all incandescent lamps with their compact fluorescent equivalents.

Energy Savings Calculations:

The detailed **Investment Grade Lighting Audit Appendix** outlines the proposed retrofits, costs, savings, and payback periods.

Energy Savings Summary:

ECM #37-9 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$23,820
NJ Smart Start Equipment Incentive ($):	$0
Net Installation Cost ($):	$23,820
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$3,433
Total Yearly Savings ($/Yr):	$3,433
Estimated ECM Lifetime (Yr):	15
Simple Payback	6.9
Simple Lifetime ROI	116.2%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$51,495
Internal Rate of Return (IRR)	12%
Net Present Value (NPV)	$17,162.93

ECM #37-10: LIGHTING CONTROLS

Description:

In some areas the lighting is left on unnecessarily. In many cases the lights are left on because of the inconvenience to manually switch lights off when a room is left or on when a room is first occupied. This is common in rooms that are occupied for only short periods and only a few times per day. In some instances lights are left on due to the misconception that it is better to keep the lights on rather than to continuously switch lights on and off. Although increased switching reduces lamp life, the energy savings outweigh the lamp replacement costs. The payback timeframe for when to turn the lights off is approximately two minutes. If the lights are expected to be off for at least a two minute interval, then it pays to shut them off.

Lighting controls come in many forms. Sometimes an additional switch is adequate to provide reduced lighting levels when full light output is not needed. Occupancy sensors detect motion and will switch the lights on when the room is occupied. Occupancy sensors can either be mounted in place of a current wall switch, or on the ceiling to cover large areas.

The U.S. Department of Energy sponsored a study to analyze energy savings achieved through various types of building system controls. The referenced savings is based on the "Advanced Sensors and Controls for Building Applications: Market Assessment and Potential R&D Pathways," document posted for public use April 2005. The study has found that commercial buildings have the potential to achieve significant energy savings through the use of building controls. The average energy savings are as follows based on the report:

- Occupancy Sensors for Lighting Control 10% - 20% energy savings.

Savings resulting from the implementation of this ECM for energy management controls are estimated to be 10% of the total light energy controlled by occupancy sensors and 10% to 20% of the total light energy controlled by daylight or combination of control technologies (savings vary depending on space type and conditions surveyed in the field. The majority of the savings is expected to be after school hours when rooms are left with lights on.

This ECM includes replacement of standard wall switches with sensors wall switches for all individual offices, classrooms, large bathrooms, and libraries. Sensors shall be manufactured by Sensorswitch, Watt Stopper or equivalent.

The **Investment Grade Lighting Audit Appendix** of this report includes the summary of lighting controls implemented in this ECM and outlines the proposed controls, costs, savings, and payback periods. The calculations adjust the lighting power usage by the applicable percent savings for each area that includes lighting controls.

Energy Savings Calculations:

$$Energy\ Savings = \left(10\% \times Occuapancy\ Sensored\ Light\ Energy\ \left(kWh/Yr\right)\right)$$

$$Savings. = Energy\ Savings\ (kWh) \times Ave\ Elec\ Cost\left(\frac{\$}{kWh}\right)$$

Installation cost per dual-technology sensors (Basis: Sensor switch or equivalent) are as follows:

Wall Mounted Sensor = $160/unit including material and labor.
2 Pole Power Pack w/Dual Tech. Occupancy Sensor = $225/unit including material and labor.
Daylight Sensor/Dimming Ballast = $280/Unit including material and labor.

See the **Investment Grade Lighting Audit Appendix** for details.

From the **NJ Smart Start® Program Incentives Appendix**, the installation of a lighting control device warrants the following incentive:

Occupancy Sensor Wall Mounted (existing facility only) = $20 per sensor.
Occupancy Sensor Remote Mounted (existing facility only) = $35 per sensor

$$\text{Smart Start®}\ Incentive = (\#\ of\ \ wall\ mount \times\ \$\ 20) + (\#\ of\ ceiling\ mount \times 35)$$
$$= (70 \times \$35) + (32 \times \$20) = \$3{,}090$$

Energy Savings Summary:

ECM #37-10 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$23,215
NJ Smart Start Equipment Incentive ($):	$3,090
Net Installation Cost ($):	$20,125
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$3,580
Total Yearly Savings ($/Yr):	$3,580
Estimated ECM Lifetime (Yr):	15
Simple Payback	5.6
Simple Lifetime ROI	166.9%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$53,705
Internal Rate of Return (IRR)	16%
Net Present Value (NPV)	$22,616.63

ECM #37-11: Demand Control Ventilation

Description:

The existing air handling units AHU-13 and AHU-26 condition their individual spaces with direct expansion refrigerant and are equipped with hot water coils. The outside air is set to a minimum damper position to provide outside air to the space whenever the supply fan is set to run (in occupied mode). Exhaust fans serving each space exhaust an air quantity equal to the outside air quantity introduced by the air handling unit. AHU-13 and EF-9 are on the DDC system and are interlocked so the fan is energized when the unit is in occupied mode and the outside air damper opens. In unoccupied mode, the outside air dampers shut and the exhaust fan de-energizes. AHU-26 and EF-12 are on a pneumatic control system and need to be upgraded to DDC control so the fan can be interlocked with the air handling unit. This operation is typical for the majority of the systems throughout the building. The outside air volume is typically based on the maximum occupancy of the space conditioned. When a given space is not fully occupied the outside air quantity delivered to the space is greater than the amount needed for adequate ventilation.

This ECM includes the installation of CO_2 sensors integrated into a demand control ventilation system, for all air handling units serving the facility. This system allows the air handling unit to respond to changes in occupancy and therefore reduce the amount of outside air that has to be conditioned. Outside air accounts for a large portion of the energy consumption in the HVAC system, especially in high occupancy spaces. The U.S. Department of Energy sponsored a study to analyze energy savings achieved through various types of building system controls. The referenced savings is based on the "Advanced Sensors and Controls for Building Applications: Market Assessment and Potential R&D Pathways," document posted for public use April 2005. The study has found that commercial buildings have the potential to achieve significant energy savings through the use of building controls. The average energy savings are as follows based on the report:

- Demand Control Ventilation - 10%-15%.

Energy savings achieved through "Demand Control Ventilation" average 10%-15%. Savings resulting from the implementation of this ECM for energy management controls are estimated to be 10% of the total HVAC energy cost for the facility.

The components included to install a demand control ventilation system include controllers, software programming, and CO_2 sensors. Each occupied zone would require a CO_2 sensor installed to monitor occupancy levels. This ECM is based on wireless sensors to minimize on installation cost. Savings from the implementation of this ECM will be achieved through reduced gas consumption from reduced heating energy as well as reduced electric consumption from reduced air conditioning energy.

Cost of Demand Control Ventilation System Controls = ($1.50/SF x 5,067 SF) = $7,600.
Cost of CO2 Sensors for all spaces = ($450/Sensor x 2 Sensors) = $900

Upgrade AHU-26 and EF-12 to DDC control/interlock = $2,000
Total = $10,500

Total Cooling Capacity	= 25 tons
Total HW Coil input (H_L)	= 274.9 MBH
Full Load Cooling Hours	= 1,121 hours
Heating Degree Days Base Temperature 65°F	= 5,169 $°F \cdot day / yr$
Average Cooling Equipment EER	= 10.0 EER
Average Heating Efficiency	= 83%
Average Cost of Electricity	= $0.140/kWh
Average Cost of Gas	= $1.06/Therm

Energy Savings Calculations:

Heating Savings Calculations

$$Heating\ Energy\ Used = \frac{H_L \times HDD \times Hrs}{\Delta t \times Eff \times V}$$

Where:

HDD65 = number of Heating Degree Days as Specified Base Temperature 65°F
Hrs = Hours per Day
Δt = Design temperature difference, º F (Warm Air = 70 º F)
Eff = Efficiency of Energy Utilization (Existing NG Boiler = 0.83)
V = Heating value of fuel, BTU/Therm (Natural Gas = 100,000 Btu = 1 Therm)

Estimated Energy Consumption of Blower Coils:

$$Heating\ Energy\ Used = \frac{(274{,}900 Btu/h) \times (5{,}169°F \cdot day/yr.) \times 8h/day}{70°F \times 83\% \times 100{,}000 Btu/Therm} = 1{,}956.6 Therms/Year$$

$$Savings. = Heating\ Input(Therms) \times 10\%\ Savings \times Avg\ Cost(\$/Therm)$$

$$Savings. = 1{,}956.6\ (Therm) \times 10\% \times 1.06\ (\$/Therm) = \$207$$

Cooling Savings Calculations

$$Est\ Cool\ Cons. = \frac{Cool\ Load\ (Tons) \times 12{,}000 \left(\frac{Btu}{Ton\ Hr} \right) \times Full\ Load\ Cooling\ Hrs.}{Ave\ Energy\ Efficiency\ Ratio \left(\frac{Btu}{Wh} \right) \times 1000 \left(\frac{Wh}{kWh} \right)}$$

$$Est\ Cool\ Cons. = \frac{25\ (Tons) \times 12{,}000 \left(\frac{Btu}{Ton\ Hr} \right) \times 1{,}121\ Hrs.}{10.0\ EER \times 1000 \left(\frac{Wh}{kWh} \right)} = 33{,}630\ (kWh)$$

kW saved = 33,630 kWh / 1,121 hrs./yr. = 30 kW

$$Savings. = Cool\ Cons.(kWh) \times 10\%\ Savings \times Ave\ Elec\ Cost \left(\frac{\$}{kWh} \right)$$

$$Savings. = 33{,}630\ (kWh) \times 10\% \times 0.140 \left(\frac{\$}{kWh} \right) = \$471$$

$$Total\ ECM\ \ Savings = \$207 + \$471 = \$678$$

There are currently no Smart Start® *Incentives* available for a Demand Control Ventilation System.

$$Simple\ \mathrm{Re}turn = \$10{,}500 \div \$678 = 15.5\ years$$

Energy Savings Summary:

ECM #37-11 - ENERGY SAVINGS SUMMARY	
Installation Cost ($):	$10,500
NJ Smart Start Equipment Incentive ($):	$0
Net Installation Cost ($):	$10,500
Maintenance Savings ($/Yr):	$0
Energy Savings ($/Yr):	$678
Total Yearly Savings ($/Yr):	$678
Estimated ECM Lifetime (Yr):	15
Simple Payback	15.5
Simple Lifetime ROI	-3.1%
Simple Lifetime Maintenance Savings	$0
Simple Lifetime Savings	$10,170
Internal Rate of Return (IRR)	0%
Net Present Value (NPV)	($2,406.08)

VIII. CARBON FOOTPRINT IMPACT

CEG was tasked with developing a baseline and revised Carbon footprint based on collected utility data and the recommended energy conservation measures. The "baseline" carbon footprint will indicate the current state of the Special Services School's energy usage as it pertains to carbon production and the "revised" carbon footprint will calculate the estimated future decrease in carbon production based on the implementation of the recommended energy conservation measures.

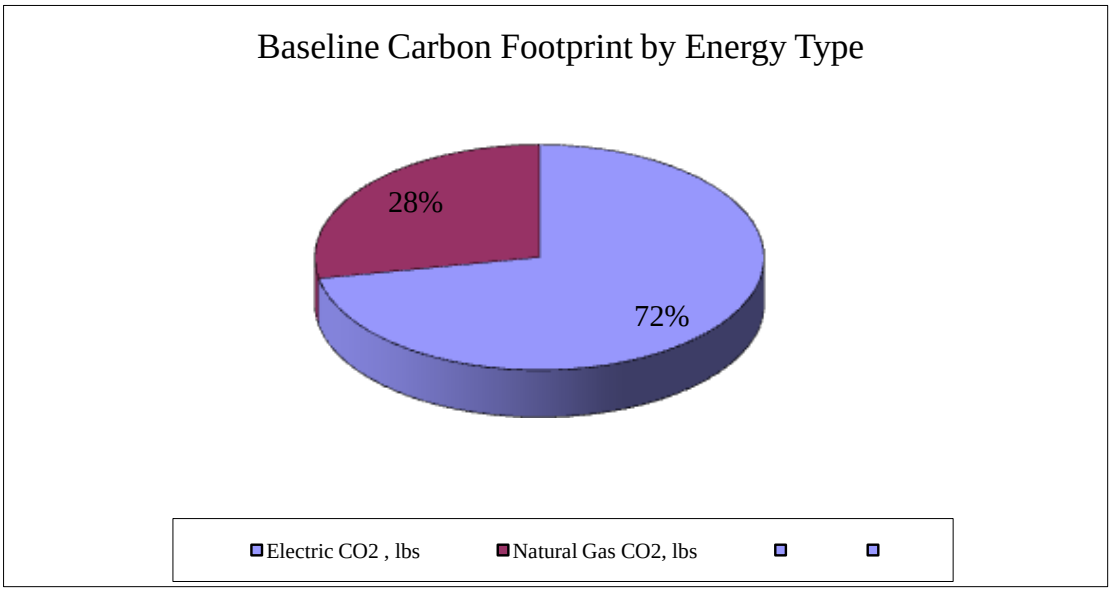
The Carbon Emissions were calculated based on emissions factor data published by the U.S. Environmental Protection Agency (EPA). These factors show equivalent pounds (or metric tons) of Carbon Dioxide per unit of fuel usage. The following table of factors were use to calculate the baseline and revised Carbon Footprints.

Table 7
EPA Emissions Factors

Energy Type	Emissions Factor	
Electricity	1.583	lbs CO_2 / kWh
Natural Gas	11.023	lbs CO_2 / therm
Fuel Oil	22.200	lbs CO_2 / gallon
Propane	13.440	lbs CO_2 / gallon

Baseline Carbon Footprint

No.	Building/Source	Electric CO2 Emissions, lbs	Natural Gas CO2, lbs	Total CO2 Emissions, lbs
37	Special Services School	3,317,481.7	1,291,718.2	4,609,199.9



Energy Conservation Measures Carbon Reduction

No.	Building/Source	Electric CO2 Emissions, lbs	Natural Gas CO2, lbs	Total CO2 Emissions, lbs
ECM #37-1	High Efficiency RTUs	27,335.7	0.0	27,335.7
ECM #37-2	High Efficent Split System	39,506.5	0.0	39,506.5
ECM #37-3	Split System Replacement	30,002.0	0.0	30,002.0
ECM #37-4	Indoor Air Handling Unit Motor Replacement	5,657.4	0.0	5,657.4
ECM #37-5	AHU NEMA Premium Efficient Motor Replacement	12,324.6	0.0	12,324.6
ECM #37-6	Boiler Burner Replacement - Efficiency Upgrade	0.0	24,283.9	24,283.9
ECM #37-7	Boiler Burner Replacement	0.0	45,578.4	45,578.4
ECM #37-8	Premium Pump Motor Replacement	4,433.8	0.0	4,433.8
ECM #37-9	Lighting Upgrade	38,814.8	0.0	38,814.8
ECM #37-10	Lighting Controls	40,481.6	0.0	40,481.6
ECM #37-11	Demand Control Ventillation			
	TOTAL CARBON REDUCTION	198,556.3	69,862.3	268,418.6
	TOTAL RECOMMENDED	**97,278.3**	**0.0**	**97,278.3**

Revised Carbon Footprint –Recommended Options

No.	Building/Source	Electric CO2 Emissions, lbs	Natural Gas CO2, lbs	Total CO2 Emissions, lbs
37	Special Services School	3,220,203.4	1,291,718.2	4,511,921.6

IX. DISTRIBUTED ENERGY MEASURES

Background

CEG evaluated the existing Crest Haven Complex for the feasibility of installing a new CHP system. Through the analysis of the CMC campus energy usage and generation systems, it was determined that the construction of a distributed generation plant to serve only the larger buildings at the Crest Haven Complex would be more beneficial. This concept reduced the distribution cost and improved the balance between the electrical and the thermal energy profile. These buildings were the Nursing Home, the Correctional Center, the Health Department, the Special Education School, the Technical High School, and the Administration building. These buildings together accounted for 80 % of the energy consumed for the entire complex. The simple payback analysis shows a simple payback of about 9.9 years with an annual energy savings of about $710,000 per year.

Current Energy Consumption and Cost

CMC has provided the energy invoice data for a period from 2005 to 2008 (partial year) which is summarized as follows:

		Gas Cost (per therm)	Electric Cost (per KWhr)
2005	Unit Price	$1.14382	$0.14905
	Total Cost	$650,354	$1,260,936
2006	Unit Price	$1.52168	$0.16293
	Total Cost	$335,444	$1,449,783
2007	Unit Price	$1.68452	$0.15773
	Total Cost	$519,080	$1,652,527
2008	Unit Price	$1.58056	$0.16875
	Total Cost	$246,895	$1,003,725 (part year cost)

It must be noted that the average electrical unit cost data above is skewed by a large number of meters with low electrical consumption. In the case of these meters the lump sum meter charge is a large portion of the cost, resulting in the average electrical unit cost being much higher than the actual electrical energy charge. In 2007 the central facility buildings (large loads) had the following electrical consumption and average cost:

Maximum Demand	3,071 KW
Average Load	1,571 KW
Average Unit Cost	$0.1371 per KWhr

In addition the average natural gas consumption was 4.027 MMBtu/hr.

As expected the electrical and natural gas consumption coincides with ambient temperature and activity in the facility buildings which are not continuously occupied. As a result the peak

electrical and natural gas (heating) consumptions are not coincident. It is expected that the near term future building additions and modifications will provide an additional summer time chilling load. The new building additions and modifications will also increase the thermal heating load which will improve the shoulder month (spring and fall) thermal energy load profile. In order to further improve the coincidental thermal and electrical loads for a CHP installation, the engine exhaust heat can be used to generate chilled water in an absorption chiller configuration,

As stated above the cost of electricity for the major loads was about $0.1371/KWhr in 2007. For the purpose of this CHP Opinion it has been assumed that electricity has continued to escalate in accordance with the national averages and a rate of $0.15/KWhr has been used. It may be possible to take credit for demand charge savings and obtain additional project income from the PJM Demand Response Program with the addition of a demand response generator, or over sizing the proposed CHP engine. This CHP Option could be explored during the more detailed Conceptual Design Phase. For this CHP Opinion it has been assumed that CMC would receive a onetime Demand Response Program payment for the new CHP plant.

This CHP Opinion is based on reasonable natural gas fuel prices and hot water efficiencies which would be applicable for CHP systems of this nature. This natural gas rate has been set to $9.00 per MMBtu based on the average NYMEX Henry Hub rate over the past ten years. This rate is significantly lower than the rate that CMC is paying for their building services. In addition this CHP Opinion has also utilized the CHP natural gas rate. State of New Jersey has passed bill A3339 which eliminates the sales and use tax (about 7%) on natural gas being used for CHP.

Combined Heat and Power

Combined heat and power, or cogeneration is the simultaneous production of two useful forms of energy (electricity and thermal) from a single fuel source. The standard CHP system is comprised of a prime mover (reciprocating engine or turbine generator) and a heat recovery unit. The heat recovery unit utilizes the waste and exhaust heat from the prime mover to produce hot water or steam. The hot water or steam can in turn be utilized to produce chilled water. In some cases the prime mover exhaust can be directly vented into an absorption chiller, which will produce chilled water without the need for a heat recovery unit.

Depending on the design and application, CHP systems can have total efficiencies of 70% to 90%. This is much higher than the traditional utility grid generation with simple cycle generators (25% to 45%) and combined cycle power plants (50% to 60%) due to the more complete utilization of the exhaust and/or waste heat from the prime mover. The higher efficiency of CHP can result in significant energy cost savings. In addition, the higher fuel efficiency results in lower emissions per unit of power produced compared to traditional electrical and steam generating units.

The efficiency and cost savings of CHP systems depend on the complete use of the exhaust thermal energy from the prime mover. The economics of CHP are very sensitive to the thermal energy production and consumption. If the prime mover exhaust thermal energy cannot be completely used, the system efficiency is reduced, which will negatively impact the project lifecycle cost and payback. Therefore when examining a potential CHP system it is important to consider the thermal load profiles first and then review the electrical profiles.

CHP Opportunity Analysis

The normal CHP heat/electrical "rule of thumb" relationship between non-supplementary fired heat recovery and electrical generation is 4 to 6 MMbtu/hr for gas turbine prime movers and 2 to 4 MMbtu/hr for gas reciprocating engine prime movers per 1 MW of electric generation. Based on this CHP heat/electrical relationship, the average thermal load is low compared to the electrical average load for the CMC campus. Due to the mismatch of thermal and electrical loads, a CHP configuration designed to generate the full electrical load will not be economically feasible since it will generate more heat than can be used on a regular basis.

Based on the CMC electrical and thermal loads this CHP Opinion has evaluated a 1.4 MW reciprocating engine generator with exhaust heat recovery for the generation of hot and chilled water. The engine generator electrical capacity is slightly less than the average electrical load and therefore will operate continuously throughout the year in a base or high part load mode. The engine generator will operate in parallel with the local utility, with the utility supplying the peak electrical requirements.

For the current evaluation it has been assumed that engine waste heat recovery (about 2 MMBtu/hr net) is from the engine exhaust only, however additional lube oil and jacket water heat recovery may be possible which may improve the overall project economics. The advantage of this system is that it will produce the base load thermal and electrical requirements for the facility; however the peak electrical and thermal loads will have to be generated on site or purchased from the grid. The disadvantage is that the reciprocating engine is only available with natural gas combustion and cannot run on liquid fuel.

The reciprocating engine will require post combustion emission controls to comply with the current NJ DEP air permit requirements. This system will reduce green house gas emissions over the current steam boilers, or in comparison with a new central utility plant without CHP and grid supplied electrical power.

The installed capital cost budget for this CHP Opinion is based upon standard commercial construction (equipment and material specifications, and labor costs) in a new facility in a suburban environment. Operation and maintenance costs are based upon industry standard rates and equipment vendor technical specifications and recommendations. Due to the nature of the equipment and power generation market, there is limited opportunity to specify multiple vendors for specific engine sizes and characteristics, and, in some cases only a single manufacture exists for a particular engine size and type.

The capital cost estimates include the engine generator sets, heat recovery equipment, new building, and associated balance of plant equipment to form a complete combined heat and power system. The capital cost does not include an offsetting credit for existing boiler replacements, new hot water generators or standby power generators that may be avoided as a result of the installation of the CHP system. However, the new building would include adequate space to install backup boilers and chillers required to service the new addition to the Correctional Center, which will allow for more usable space within the Center itself. In addition the CHP system will function as redundancy for the boilers and chillers for the Correctional Center thus reducing the amount of boiler and chiller capacity required.

The new CHP system and interconnection to the CMC facilities could be expected to have the following capital cost:

Equipment	$1,833,000
Power Island	
Mechanical	
Electrical & Controls	
Construction	$2,209,000
Building	
Labor and Materials	
Construction Management	
Mechanical & Electrical Interconnection	$1,343,000
Engineering and Project Management	$747,000
Contingency	$919,000
Total	$7,051,000

The CHP proforma is based on the following basic assumptions:

Boiler Fuel (natural gas)	$9.00 per MMBtu
CHP Fuel (natural gas less sales & use tax)	$8.63 per MMBtu
Offset Boiler Efficiency	75%
Electricity (energy and supply)	$0.15 per KWhr
CHP System Availability	92%
Thermal Heat Recovery (annual average)	75%
System Heat Recovery Thermal Loss	7%
Power Island Parasitic Electrical Load	2%

Based on the examined configuration, and the assumptions above, the CHP proforma should be expected to be as follows:

Average Electrical Gen	1,428	KW
Average Heat Recovery	2.163	MBtu/hr
Average Heat Rate (HHV)	9,456	Btu/KWhr
Annual Electrical Generated	11,278,367	KWhr
Annual Thermal Generated	17,428,286	MBtu
Offset Electrical Cost	$1,583,483	
Offset Thermal Cost	$209,139	
Total Annual Offset	$1,792,622	
CHP Fuel Consumption	$910,858	
CHP Maintenance	$169,176	
Total CHP Annual Cost	$1,080,034	
Annual Savings	$712,588	
Simple Payback	9.89	

The simple payback can be further reduced by the current grant and capital offsets as follows:

Initial Capital Cost	$7,051,000
NJ BPU Grant ($450/KW installed)	($642,000)
One Time Demand Response Payment	($120,000)
New Equipment Offset (boilers & chillers)	($678,000)
Net Capital Cost	$5,611,000
Simple Payback	7.78 years

Conclusions and Recommendations

The CHP system appears to have a reasonable simple payback, based upon the configuration assumptions noted above. Any additional waste heat thermal energy being used by CMC will be offsetting much higher energy costs than shown in the pro forma, which should result in higher cost savings.

In order to reduce operations cost and maximize the thermal consumption this system should be located adjacent to the major facility buildings with a thermal and electrical connection to the CMC facility. Further, the new CHP plant could be designed and operated in conjunction with the other boiler facilities in order to reduce or eliminate and additional operator manpower costs. Based on the basic proforma in this letter it is our opinion that CHP does make sense and that it should be pursued in more detail with a full feasibility study.

If the option to use a third party is considered the inclusion of additional overhead and profit will reduce the payback slightly from what is shown above. However, the third party owner operator, would allow the 10% Federal Investment Tax Credit and five (5) year Accelerated Depreciation for CHP projects to be monetized back to CMC, offsetting some of these fees.

It should be noted this project is consistent with the State of New Jersey Energy Master Plan Study and is eligible for a number of potential Federal and State grants, rebates and other incentives.

X. ENERGY PURCHASING AND PROCUREMENT STRATEGY

Load Profile:

Load Profile analysis was performed to determine the seasonal energy usage of the facility. Irregularities in the load profile will indicate potential problems within the facility. Consequently based on the profile a recommendation will be made to remedy the irregularity in energy usage. For this report, the facility's energy consumption data was gathered in table format and plotted in graph form to create the load profile. Refer to The Electric and Natural Gas Usage Profiles included within this report to reference the respective electricity and natural gas usage load profiles.

Electricity:

The electricity usage profile demonstrates a typical summer cooling and domestic water load profile. Historical usage is relatively steady throughout the year with an average monthly usage for the facility of 174,650 kWh and an average monthly demand of 547 kW. Largest consumption months were June – October and December.

The historical usage profile is beneficial and will allow for more competitive energy prices when shopping for alternative suppliers mainly due to the relatively steady year-long load profile. Third Party Supplier (TPS) electric commodity contracts that offer's a firm, fixed price for 100% of the facilities electric requirements and are lower than the Atlantic City Electric's BGS-FP default rate are recommended.

Natural Gas:

The Natural Gas Usage Profile demonstrates a very typical natural gas (heat load) profile. A base-load shaping (flat) will secure more competitive energy prices when procuring through an alternative energy source.

This load profile will yield less favorable natural gas pricing when shopping for alternative suppliers. This is because the higher winter month consumption will yield higher pricing which will not be offset by similar summer month consumption. Nymex commodity pricing is generally higher in the winter months of November – March and lower in the summer months of April – October. Obtaining a flat load profile, (usage is similar each month), will yield optimum natural gas pricing when shopping for alternative suppliers. Third Party Supplier (TPS) natural gas commodity contracts that offer a firm, fixed price for 100% of the facilities natural gas requirements are recommended.

Tariff Analysis:

Electricity:

The facilities receive electric distribution service through Atlantic City Electric (AECO) on rate schedule AGS (Annual General Service). The facilities are currently contracted with a Third

Party Supplier (TPS) to provide electric commodity service. For electric supply (generation) service, the client has a choice to either use AECO's default service rate BGS-FP or contract with a Third Party Supplier (TPS) to supply electric.

Each year since 2002, the four New Jersey Electric Distribution Companies (EDCs) - Public Service Gas & Electric Company (PSE&G), Atlantic City Electric Company (ACE), Jersey Central Power & Light Company (JCP&L), and Rockland Electric Company (RECO) - have procured several billion dollars of electric supply to serve their Basic Generation Service (BGS) customers through a statewide auction process held in February.

BGS refers to the service of customers who are not served by a third party supplier or competitive retailer. This service is sometimes known as Standard Offer Service, Default Service, or Provider of Last Resort Service.

The Auction Process has consisted of two auctions that are held concurrently, one for larger customers on an hourly price plan (BGS-CIEP) and one for smaller commercial and residential customers on a fixed-price plan (BGS-FP). This facility's rate structure is based on the fixed-price plan (BGS-FP).

The current BGS-FP average price to compare for AECO's AGS rate schedule is $0.1144/kWh. Based upon the current third party supplier electric rate $0.1053/kWh billed thru March 2010 by South Jersey Energy, these facilities are currently experiencing a savings over the BGS-FP default rate with AECO.

The utility, AECO will continue to be responsible for maintaining the existing network of wires, pipes and poles that make up the delivery system, which will serve all consumers, regardless of whom they choose to purchase their electricity from. AECO's delivery service rate includes the following charges: Customer Service Charge, Distribution Charge, Market Transition, Transition Bond Charge, Non Utility Generation Charge, Societal Benefits Charge (SBC), Infrastructure Investment Charge, System Control Charge, Regulatory Assets Recovery Charge, and Regional Greenhouse Gas Initiative Charge.

Natural Gas:

The facilities currently receive natural gas distribution service through South Jersey Gas (SJG) on rate schedule GSG (General Service Gas). These sites are currently receiving natural gas commodity supply from the utility, SJG on Basic Gas Supply Service (BGSS).

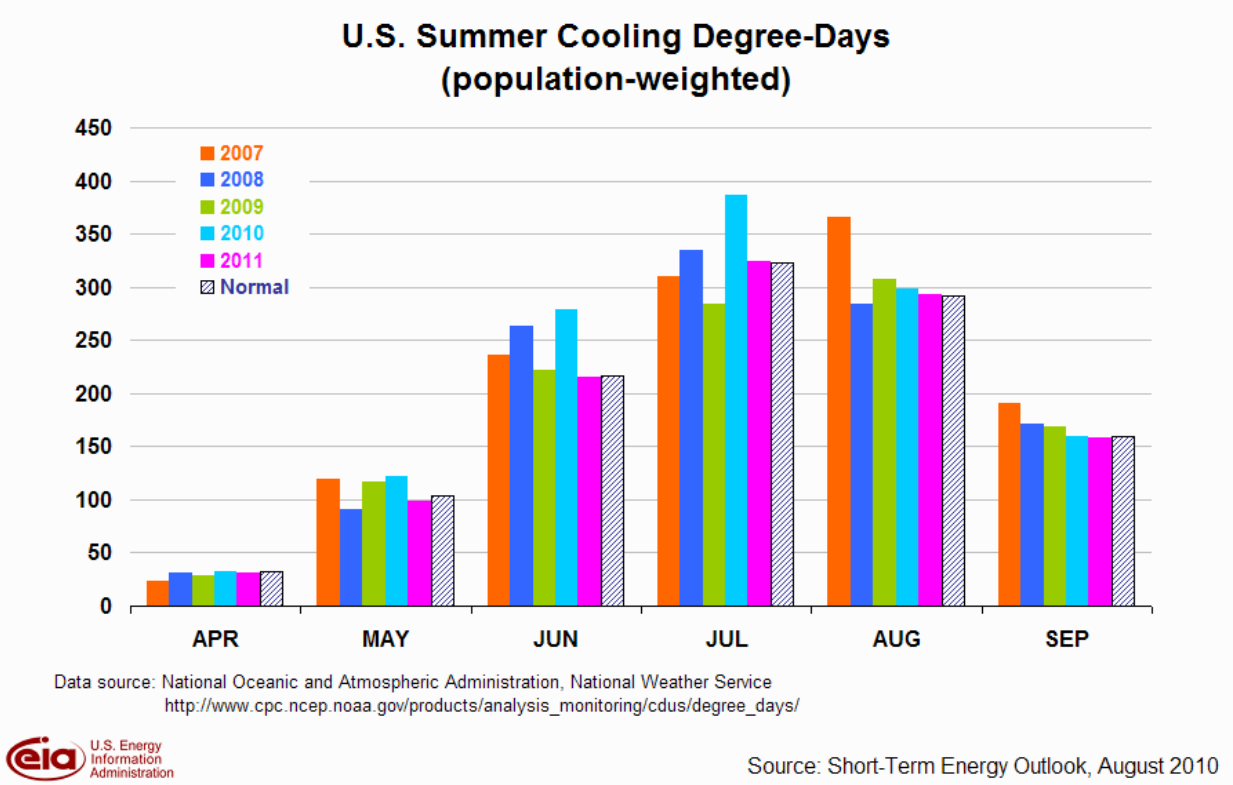
SJG provides basic gas supply service (BGSS) to customers who choose not to shop from a Third Party Supplier (TPS) for natural gas commodity. The option is essential to protect the reliability of service to consumers as well as protecting consumers if a third party supplier defaults or fails to provide commodity service. Please refer to the link below for a recap of monthly natural gas BGSS charges from SJG.
http://www.southjerseygas.com/108/tariff/bgssrates.pdf

The utility, SJG is responsible for maintaining the existing network of underground pipes that make up the delivery system, which will serve all consumers, regardless of whom they choose to purchase their natural gas from. SJG's delivery service rates includes the following charges: Customer Service Charge, Delivery Charge, Line Loss, and Applicable Riders that include: Societal Benefits Charge (SBC), Balancing Service Clause, Temperature Adjustment Clause, Conservation Incentive Program and Energy Efficient Tracker.

Electric and Natural Gas Commodities Market Overview:

Current electricity and natural gas market pricing has remained relatively stable over the last year. Commodity pricing in 2008 marked historical highs in both natural gas and electricity commodity. Commodity pricing commencing spring of 2009 continuing through 2010, has decreased dramatically over 2008 historic highs and continues to be favorable for locking in long term (2-5 year) contracts with 3rd Party Supplier's for both natural gas and electricity supply requirements.

It is important to note that both natural gas and electric commodity market prices are moved by supply and demand, political conditions, market technicals and trader sentiment. This market is continuously changing Energy commodity pricing is also correlated to weather forecasts. Because weather forecasts are dependable only in the short-term, prolonged temperature extremes can really cause extreme price swings.



Short Term Energy Outlook - US Energy Information Administration (8/10/2010):

> ***U.S. Natural Gas Prices.*** *The Henry Hub spot price averaged $4.63 per MMBtu in July, $0.17 per MMBtu lower than the average spot price in June.). The forecast price for the second half of 2010 averages $4.66 per MMBtu, about the same as last month's Outlook. A small decline in U.S. production and increased consumption are projected to lead to higher prices in 2011, when the projected Henry Hub spot price averages $4.98 per MMBtu.*
>
> *Uncertainty over future natural gas prices is lower this year compared with last year at this time. Natural gas futures for October 2010 delivery for the 5-day period ending August 5 averaged $4.74 per MMBtu, and the average implied volatility over the same period was 51 percent. This produced lower and upper bounds for the 95-percent confidence interval of $3.26 and $6.89 per MMBtu, respectively. At this time last year the natural gas October 2009 futures contract averaged $4.16 per MMBtu and implied volatility averaged 80 percent. The corresponding lower and upper limits of the 95-percent confidence interval were $2.32 and $7.47 per MMBtu.*
>
> ***U.S. Electricity Consumption.*** *Temperatures during this year's summer season continue to be well above normal in sharp contrast to the mild summer of 2009. Weather has been particularly hot in the Northeast during June and July. Total cooling degree-days during the last 2 months were 54 percent higher than normal in the Mid-Atlantic region and 73 percent higher than normal in New England (U.S. Summer Cooling Degree Days). EIA projects that total consumption of electricity will grow by 4 percent during 2010. Growth is expected to slow to a rate of 0.4 percent in 2011 as summer temperatures are assumed to return to more normal levels.*
>
> ***U.S. Electricity Retail Prices****. EIA estimates that residential retail electricity prices during the first half of 2010 were about the same as in the first half of 2009. However, rising fuel costs for natural gas and coal are likely to push up retail prices later this year, causing prices over the entire year to grow by about 0.6 percent. Increased fuel costs are expected to push residential prices higher by about 2.9 percent during 2011.*

Recommendations:

1. CEG recommends an aggregated approach for 3rd party commodity supply procurement strategies for both electric and natural gas supply service. Currently some county facilities to include the Special Services School are procuring electric supply from a TPS, however by aggregating all sites in the county for electricity and natural gas procurement, the County could see a significant reduction in energy supply costs. Energy commodities are among the most volatile of all commodities, however at this point and time, energy is extremely competitive. Cape May County could realize up to a 20% reduction in energy

supply costs for both electricity and natural gas, if it were to aggregate usage and take advantage of these current market prices quickly, before energy increases.

The below recommendations presented by CEG are based on current information provided by the county for its utility usage, any savings presented with these recommendations are estimates only based on that information. It is recommended that further analysis and review of more recent utility data and any current 3rd party supply contracts be performed prior to performing any of the presented recommendations.

Overall, after review of the utility consumption, billing, and current commodity pricing outlook, CEG recommends that the County Facilities in conjunction with the Bridge Commission, Library's, Technical High School and Special Services School utilize the advisement of 3rd party unbiased Energy Consulting Firm experienced in the aggregation of facilities and procurement of retail natural gas and electricity commodity. The Energy Consulting Firm should incorporate a rational, defensible strategy for purchasing commodity in volatile markets based upon the following:

- Budgets that reflect sound market intelligence
- An understanding of historical prices and trends
- Awareness of seasonal opportunities (e.g. shoulder months)
- Negotiation of fair contractual terms
- An aggressive, market based price

2. CEG recommends that the county schedule a meeting with the current natural gas utility provider to review the facilities current rate tariff's and site locations in an effort to Master Bill contiguous properties for natural gas distribution service. This meeting would provide insight regarding opportunities that are currently available to reduce individual metered customer service charges.

3. CEG recommends that the County consider utilizing a third party utility billing-auditing service to further analyze historical utility invoices such as water, sewer, electric and natural gas for incorrect billings and rate tariff optimization services. This service could provide refunds on potential over billings experienced by the County.

4. CEG recommends that the County explore Demand Response Programs that may be available in aggregate for its facilities. Demand response is the action of end users lowering their demand for electric (reducing consumption) in order to help balance supply and demand on the electric grid and ensure stability. The greatest need for demand response typically occurs during times of peak electricity demand, between the hours of 11 am and 6 pm, when extra strain is placed on the grid from situations such as increased air conditioning use on hot days or downed power lines resulting from a storm. Significant incentives are available for clients enrolled in demand response programs. It is strongly recommended that the County utilize an experienced 3rd party unbiased energy consulting firm prior to initiating any demand response programs. This is recommended due to the potential conflicts with existing and/or future electric supply service

agreements and transparency created by the evaluation of current programs and incentives available.

XI. INSTALLATION FUNDING OPTIONS

CEG has reviewed various funding options for the facility owner to utilize in subsidizing the costs for installing the energy conservation measures noted within this report. Below are a few alternative funding methods:

i. *Energy Savings Improvement Program (ESIP)* – Public Law 2009, Chapter 4 authorizes government entities to make energy related improvements to their facilities and par for the costs using the value of energy savings that result from the improvements. The "Energy Savings Improvement Program (ESIP)" law provides a flexible approach that can allow all government agencies in New Jersey to improve and reduce energy usage with minimal expenditure of new financial resources.

ii. *Municipal Bonds* – Municipal bonds are a bond issued by a city or other local government, or their agencies. Potential issuers of municipal bonds include cities, counties, redevelopment agencies, school districts, publicly owned airports and seaports, and any other governmental entity (or group of governments) below the state level. Municipal bonds may be general obligations of the issuer or secured by specified revenues. Interest income received by holders of municipal bonds is often exempt from the federal income tax and from the income tax of the state in which they are issued, although municipal bonds issued for certain purposes may not be tax exempt.

iii. *Power Purchase Agreement* – Public Law 2008, Chapter 3 authorizes contractor of up to fifteen (15) years for contracts commonly known as "power purchase agreements." These are programs where the contracting unit (Owner) procures a contract for, in most cases, a third party to install, maintain, and own a renewable energy system. These renewable energy systems are typically solar panels, windmills or other systems that create renewable energy. In exchange for the third party's work of installing, maintaining and owning the renewable energy system, the contracting unit (Owner) agrees to purchase the power generated by the renewable energy system from the third party at agreed upon energy rates.

iv. *Pay For Performance* – The New Jersey Smart Start Pay for Performance program includes incentives based on savings resulted from implemented ECMs. The program is available for all buildings that were audited as part of the NJ Clean Energy's Local Government Energy Audit Program. The facility's participation in the program is assisted by an approved program partner. An "Energy Reduction Plan" is created with the facility and approved partner to shown at least 15% reduction in the building's current energy use. Multiple energy conservation measures implemented together are applicable toward the total savings of at least 15%. No more than 50% of the total energy savings can result from lighting upgrades / changes.

Total incentive is capped at 50% of the project cost. The program savings is broken down into three benchmarks; Energy Reduction Plan, Project Implementation, and Measurement and Verification. Each step provides additional incentives as the energy reduction project continues. The benchmark incentives are as follows:

1. Energy Reduction Plan – Upon completion of an energy reduction plan by an approved program partner, the incentive will grant $0.10 per square foot between $5,000 and $50,000, and not to exceed 50% of the facility's annual energy expense. (Benchmark #1 is not provided in addition to the local government energy audit program incentive.)

2. Project Implementation – Upon installation of the recommended measures along with the "Substantial Completion Construction Report," the incentive will grant savings per KWH or Therm based on the program's rates. Minimum saving must be 15%. (Example $0.11 / kWh for 15% savings, $0.12/ kWh for 17% savings, … and $1.10 / Therm for 15% savings, $1.20 / Therm for 17% saving, …) Increased incentives result from projected savings above 15%.

3. Measurement and Verification – Upon verification 12 months after implementation of all recommended measures, that actual savings have been achieved, based on a completed verification report, the incentive will grant additional savings per kWh or Therm based on the program's rates. Minimum savings must be 15%. (Example $0.07 / kWh for 15% savings, $0.08/ kWh for 17% savings, … and $0.70 / Therm for 15% savings, $0.80 / Therm for 17% saving, …) Increased incentives result from verified savings above 15%.

CEG recommends the Owner review the use of the above-listed funding options in addition to utilizing their standard method of financing for facilities upgrades in order to fund the proposed energy conservation measures.

The following table provides an outline of the potential applicability of the available funding options to each energy conservation measure proposed in the report. This table should be used as a guideline only and further review of these program funds should be verified with their respective administrators.

ECM No.	Description	I ESIP	II Municipal Bonds	III PPA	IV Pay for Performance
ECM #37-1	High Efficiency RTUs	X	X		X
ECM #37-2	High Efficent Split System	X	X		X
ECM #37-3	**Split System Replacement**	X	X		X
ECM #37-4	Indoor Air Handling Unit Motor Replacement	X	X		X
ECM #37-5	**AHU NEMA Premium Efficient Motor Replacement**	X	X		X
ECM #37-6	**Boiler Burner Replacement - Efficiency Upgrade**	X	X		X
ECM #37-7	Boiler Burner Replacement	X	X		X
ECM #37-8	Premium Pump Motor Replacement	X	X		X
ECM #37-9	Lighting Upgrade	X	X		X
ECM #37-10	Lighting Controls	X	X		X
ECM #37-11	Demand Control Ventillation	X	X		X

XII. ADDITIONAL RECOMMENDATIONS

The following recommendations include no cost/low cost measures, Operation & Maintenance (O&M) items, and water conservation measures with attractive paybacks. These measures are not eligible for the Smart Start Buildings incentives from the office of Clean Energy but save energy none the less.

A. Chemically clean the condenser and evaporator coils periodically to optimize efficiency. Poorly maintained heat transfer surfaces can reduce efficiency 5-10%.

B. Maintain all weather stripping on windows and doors.

C. Clean all light fixtures to maximize light output.

D. Provide more frequent air filter changes to decrease overall system power usage and maintain better IAQ.

E. Confirm that outside air economizers on the rooftop units are functioning properly to take advantage of free cooling and avoid excess outside air during occupied periods.

XIII. ENERGY AUDIT ASSUMPTIONS

The assumptions utilized in this energy audit include but are not limited to following:

A. Cost Estimates noted within this report are based on industry accepted costing data such as RS Means™ Cost Data, contractor pricing and engineering estimates. All cost estimates for this level of auditing are +/- 20%. Prevailing wage rates for the specified region has been utilized to calculate installation costs. The cost estimates indicated within this audit should be utilized by the owner for prioritizing further project development post the energy audit. Project development would include investment grade auditing and detailed engineering.
B. Energy savings noted within this audit are calculated utilizing industry standard procedures and accepted engineering assumptions. For this level of auditing, energy savings are not guaranteed.
C. Information gathering for each facility is strongly based on interviews with operations personnel. Information dependent on verbal feedback is used for calculation assumptions including but not limited to the following:
    a. operating hours
    b. equipment type
    c. control strategies
    d. scheduling
D. Information contained within the major equipment list is based on the existing owner documentation where available (drawings, O&M manuals, etc.). If existing owner documentation is not available, catalog information is utilized to populate the required information.
E. Equipment incentives and energy credits are based on current pricing and status of rebate programs. Rebate availability is dependent on the individual program funding and applicability.
F. Equipment (HVAC, Plumbing, Electrical, & Lighting) noted within an ECM recommendation is strictly noted as a **basis for calculation** of energy savings. The owner should use this equipment information as a benchmark when pursuing further investment grade project development and detailed engineering for specific energy conservation measures.

Utility bill annual averages are utilized for calculation of all energy costs unless otherwise noted. Accuracy of the utility energy usage and costs are based on the information provided. Utility information including usage and costs is estimated where incomplete data is provided.

ECM COST & SAVINGS BREAKDOWN

CONCORD ENGINEERING GROUP

Special Services School

ECM ENERGY AND FINANCIAL COSTS AND SAVINGS SUMMARY

ECM NO.	DESCRIPTION	INSTALLATION COST				YEARLY SAVINGS			ECM LIFETIME	LIFETIME ENERGY SAVINGS	LIFETIME MAINTENANCE SAVINGS	LIFETIME ROI	SIMPLE PAYBACK	INTERNAL RATE OF RETURN (IRR)	NET PRESENT VALUE (NPV)
		MATERIAL	LABOR	REBATES, INCENTIVES	NET INSTALLATION COST	ENERGY	MAINT. / SREC	TOTAL		(Yearly Saving * ECM Lifetime)	(Yearly Maint Svaing * ECM Lifetime)	(Lifetime Savings - Net Cost) / (Net Cost)	(Net cost / Yearly Savings)	$\sum_{n=0}^{N} \frac{C_n}{(1+IRR)^n}$	$\sum_{n=0}^{N} \frac{C_n}{(1+DR)^n}$
		($)	($)	($)	($)	($/Yr)	($/Yr)	($/Yr)	(Yr)	($)	($)	(%)	(Yr)	($)	($)
ECM #37-1	High Efficiency RTUs	$60,260	$0	$1,697	$58,563	$2,418	$0	$2,418	15	$36,270	$0	-38.1%	24.2	-5.47%	($29,697.07)
ECM #37-2	High Efficent Split System	$72,478	$0	$184	$72,294	$3,494	$0	$3,494	15	$52,410	$0	-27.5%	20.7	-3.78%	($30,582.85)
ECM #37-3	Split System Replacement	$69,370	$0	$2,370	$67,000	$2,653	$0	$2,653	20	$53,060	$0	-20.8%	25.3	-2.13%	($27,530.06)
ECM #37-4	Indoor Air Handling Unit Motor Replacement	$3,976	$0	$100	$3,876	$500	$0	$500	15	$7,506	$0	93.6%	7.7	9.68%	$2,097.50
ECM #37-5	AHU NEMA Premium Efficient Motor Replacement	$10,629	$0	$240	$10,389	$1,090	$0	$1,090	15	$16,350	$0	57.4%	9.5	6.29%	$2,623.35
ECM #37-6	Boiler Burner Replacement - Efficiency Upgrade	$32,200	$21,000	$0	$53,200	$2,335	$0	$2,335	15	$35,025	$0	-34.2%	22.8	-4.82%	($25,324.92)
ECM #37-7	Boiler Burner Replacement	$42,000	$22,000	$0	$64,000	$4,383	$0	$4,383	15	$65,745	$0	2.7%	14.6	0.34%	($11,676.03)
ECM #37-8	Premium Pump Motor Replacement	$6,608	$0	$185	$6,423	$392	$0	$392	18	$7,056	$0	9.9%	16.4	1.01%	($1,031.62)
ECM #37-9	Lighting Upgrade	$23,820	$0	$0	$23,820	$3,433	$0	$3,433	15	$51,495	$0	116.2%	6.9	11.65%	$17,162.93
ECM #37-10	Lighting Controls	$23,215	$0	$3,090	$20,125	$3,580	$0	$3,580	15	$53,705	$0	166.9%	5.6	15.83%	$22,616.63
ECM #37-11	Demand Control Ventillation	$10,500	$0	$0	$10,500	$678	$0	$678	15	$10,170	$0	-3.1%	15.5	-0.40%	($2,406.08)

Notes: 1) The variable Cn in the formulas for Internal Rate of Return and Net Present Value stands for the cash flow during each period.
2) The variable DR in the NPV equation stands for Discount Rate
3) For NPV and IRR calculations: From n=0 to N periods where N is the *lifetime of ECM* and Cn is the *cash flow during each period* .

Concord Engineering Group, Inc.

520 BURNT MILL ROAD
VOORHEES, NEW JERSEY 08043
PHONE: (856) 427-0200
FAX: (856) 427-6508

SmartStart Building Incentives

The NJ SmartStart Buildings Program offers financial incentives on a wide variety of building system equipment. The incentives were developed to help offset the initial cost of energy-efficient equipment. The following tables show the current available incentives as of February, 2010:

Electric Chillers

Water-Cooled Chillers	$12 - $170 per ton
Air-Cooled Chillers	$8 - $52 per ton

Energy Efficiency must comply with ASHRAE 90.1-2004

Gas Cooling

Gas Absorption Chillers	$185 - $400 per ton
Gas Engine-Driven Chillers	Calculated through custom measure path)

Desiccant Systems

$1.00 per cfm – gas or electric

Electric Unitary HVAC

Unitary AC and Split Systems	$73 - $93 per ton
Air-to-Air Heat Pumps	$73 - $92 per ton
Water-Source Heat Pumps	$81 per ton
Packaged Terminal AC & HP	$65 per ton
Central DX AC Systems	$40- $72 per ton
Dual Enthalpy Economizer Controls	$250
Occupancy Controlled Thermostat (Hospitality & Institutional Facility)	$75 per thermostat

Energy Efficiency must comply with ASHRAE 90.1-2004

Ground Source Heat Pumps

Closed Loop & Open Loop	$450 per ton, EER ≥ 16 $600 per ton, EER ≥ 18 $750 per ton, EER ≥ 20

Energy Efficiency must comply with ASHRAE 90.1-2004

Gas Heating

Gas Fired Boilers < 300 MBH	$300 per unit
Gas Fired Boilers ≥ 300 - 1500 MBH	$1.75 per MBH
Gas Fired Boilers ≥1500 - ≤ 4000 MBH	$1.00 per MBH
Gas Fired Boilers > 4000 MBH	(Calculated through Custom Measure Path)
Gas Furnaces	$300 - $400 per unit, AFUE ≥ 92%

Variable Frequency Drives

Variable Air Volume	$65 - $155 per hp
Chilled-Water Pumps	$60 per hp
Compressors	$5,250 to $12,500 per drive

Natural Gas Water Heating

Gas Water Heaters ≤ 50 gallons	$50 per unit
Gas-Fired Water Heaters > 50 gallons	$1.00 - $2.00 per MBH
Gas-Fired Booster Water Heaters	$17 - $35 per MBH
Gas Fired Tankless Water Heaters	$300 per unit

Prescriptive Lighting

Retro fit of T12 to T-5 or T-8 Lamps w/Electronic Ballast in Existing Facilities	$10 per fixture (1-4 lamps)
Replacement of T12 with new T-5 or T-8 Lamps w/Electronic Ballast in Existing Facilities	$25 per fixture (1-2 lamps) $30 per fixture (3-4 lamps)
Replacement of incandescent with screw-in PAR 38 or PAR 30 (CFL) bulb	$7 per bulb
T-8 reduced Wattage (28w/25w 4', 1-4 lamps) Lamp & ballast replacement	$10 per fixture
Hard-Wired Compact Fluorescent	$25 - $30 per fixture
Metal Halide w/Pulse Start	$25 per fixture
LED Exit Signs	$10 - $20 per fixture
T-5 and T-8 High Bay Fixtures	$16 - $284 per fixture
HID ≥ 100w Retrofit with induction lamp, power coupler and generator (must be 30% less watts/fixture than HID system)	$50 per fixture
HID ≥ 100w Replacement with new HID ≥ 100w	$70 per fixture
LED Refrigerator/Freezer case lighting replacement of fluorescent in medium and low temperature display case	$42 per 5 foot $65 per 6 foot

Lighting Controls – Occupancy Sensors

Wall Mounted	$20 per control
Remote Mounted	$35 per control
Daylight Dimmers	$25 per fixture
Occupancy Controlled hi-low Fluorescent Controls	$25 per fixture controlled

Lighting Controls – HID or Fluorescent Hi-Bay Controls

Occupancy hi-low	$75 per fixture controlled
Daylight Dimming	$75 per fixture controlled
Daylight Dimming - office	$50 per fixture controlled

Premium Motors

Three-Phase Motors	$45 - $700 per motor
Fractional HP Motors Electronic Communicated Motors (replacing shaded pole motors in refrigerator/freezer cases)	$40 per electronic communicated motor

Other Equipment Incentives

Performance Lighting	$1.00 per watt per SF below program incentive threshold, currently 5% more energy efficient than ASHRAE 90.1-2004 for New Construction and Complete Renovation
Custom Electric and Gas Equipment Incentives	not prescriptive
Custom Measures	$0.16 KWh and $1.60/Therm of 1st year savings, or a buy down to a 1 year payback on estimated savings. Minimum required savings of 75,000 KWh or 1,500 Therms and a IRR of at least 10%.
Multi Measures Bonus	15%

STATEMENT OF ENERGY PERFORMANCE
04.37 Special Services School

Building ID: 2405468
For 12-month Period Ending: April 30, 2010[1]
Date SEP becomes ineligible: N/A
Date SEP Generated: September 03, 2010

Facility
04.37 Special Services School
148 Crest Haven Road
Cape May Court House, NJ 08210

Facility Owner
Cape May County
4 Moore Road
Cape May Court House, NJ 08210

Primary Contact for this Facility
AnnMarie McMahon
4 Moore Road
Cape May Court House, NJ 08210

Year Built: 1970
Gross Floor Area (ft²): 172,000

Energy Performance Rating[2] (1-100) 9

Site Energy Use Summary[3]

Electricity - Grid Purchase(kBtu)	7,150,870
Natural Gas (kBtu)[4]	11,718,277
Total Energy (kBtu)	18,869,147

Energy Intensity[5]

Site (kBtu/ft²/yr)	110
Source (kBtu/ft²/yr)	210

Emissions (based on site energy use)

Greenhouse Gas Emissions ($MtCO_2e$/year)	1,712

Electric Distribution Utility
Pepco - Atlantic City Electric Co

National Average Comparison

National Average Site EUI	70
National Average Source EUI	135
% Difference from National Average Source EUI	56%
Building Type	K-12 School

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Meets Industry Standards[6] **for Indoor Environmental Conditions:**

Ventilation for Acceptable Indoor Air Quality	**N/A**
Acceptable Thermal Environmental Conditions	**N/A**
Adequate Illumination	**N/A**

Certifying Professional
Michael Fischette
520 South Burnt Mill Road
Voorhees, NJ 08043

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Natural Gas values in units of volume (e.g. cubic feet) are converted to kBtu with adjustments made for elevation based on Facility zip code.
5. Values represent energy intensity, annualized to a 12-month period.
6. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

ENERGY STAR® Data Checklist for Commercial Buildings

In order for a building to qualify for the ENERGY STAR, a Professional Engineer (PE) or a Registered Architect (RA) must validate the accuracy of the data underlying the building's energy performance rating. This checklist is designed to provide an at-a-glance summary of a property's physical and operating characteristics, as well as its total energy consumption, to assist the PE or RA in double-checking the information that the building owner or operator has entered into Portfolio Manager.

Please complete and sign this checklist and include it with the stamped, signed Statement of Energy Performance.
NOTE: You must check each box to indicate that each value is correct, OR include a note.

CRITERION	VALUE AS ENTERED IN PORTFOLIO MANAGER	VERIFICATION QUESTIONS	NOTES	☑
Building Name	04.37 Special Services School	Is this the official building name to be displayed in the ENERGY STAR Registry of Labeled Buildings?		☐
Type	K-12 School	Is this an accurate description of the space in question?		☐
Location	148 Crest Haven Road, Cape May Court House, NJ 08210	Is this address accurate and complete? Correct weather normalization requires an accurate zip code.		☐
Single Structure	Single Facility	Does this SEP represent a single structure? SEPs cannot be submitted for multiple-building campuses (with the exception of acute care or children's hospitals) nor can they be submitted as representing only a portion of a building		☐
Special Services School (K-12 School)				
CRITERION	**VALUE AS ENTERED IN PORTFOLIO MANAGER**	**VERIFICATION QUESTIONS**	**NOTES**	☑
Gross Floor Area	172,000 Sq. Ft.	Does this square footage include all supporting functions such as kitchens and break rooms used by staff, storage areas, administrative areas, elevators, stairwells, atria, vent shafts, etc. Also note that existing atriums should only include the base floor area that it occupies. Interstitial (plenum) space between floors should not be included in the total. Finally gross floor area is not the same as leasable space. Leasable space is a subset of gross floor area.		☐
Open Weekends?	No	Is this building normally open at all on the weekends? This includes activities beyond the work conducted by maintenance, cleaning, and security personnel. Weekend activity could include any time when the space is used for classes, performances or other school or community activities. If the building is open on the weekend as part of the standard schedule during one or more seasons, the building should select ?yes? for open weekends. The ?yes? response should apply whether the building is open for one or both of the weekend days.		☐
Number of PCs	301 (Default)	Is this the number of personal computers in the K12 School?		☐
Number of walk-in refrigeration/freezer units	3	Is this the total number of commercial walk-in type freezers and coolers? These units are typically found in storage and receiving areas.		☐
Presence of cooking facilities	Yes	Does this school have a dedicated space in which food is prepared and served to students? If the school has space in which food for students is only kept warm and/or served to students, or has only a galley that is used by teachers and staff then the answer is "no".		☐
Percent Cooled	100 %	Is this the percentage of the total floor space within the facility that is served by mechanical cooling equipment?		☐
Percent Heated	100 %	Is this the percentage of the total floor space within the facility that is served by mechanical heating equipment?		☐
Months	12(Optional)	Is this school in operation for at least 8 months of the year?		☐

High School?	Yes	Is this building a high school (teaching grades 10, 11, and/or 12)? If the building teaches to high school students at all, the user should check 'yes' to 'high school'. For example, if the school teaches to grades K-12 (elementary/middle and high school), the user should check 'yes' to 'high school'.		

ENERGY STAR® Data Checklist for Commercial Buildings

Energy Consumption

Power Generation Plant or Distribution Utility: Pepco - Atlantic City Electric Co

Fuel Type: Electricity

Meter: Electric (kWh (thousand Watt-hours))
Space(s): Special Services School
Generation Method: Grid Purchase

Start Date	End Date	Energy Use (kWh (thousand Watt-hours))
04/01/2010	04/30/2010	135,000.00
03/01/2010	03/31/2010	138,000.00
02/01/2010	02/28/2010	154,200.00
01/01/2010	01/31/2010	141,000.00
12/01/2009	12/31/2009	177,900.00
11/01/2009	11/30/2009	148,200.00
10/01/2009	10/31/2009	190,800.00
09/01/2009	09/30/2009	204,300.00
08/01/2009	08/31/2009	205,800.00
07/01/2009	07/31/2009	246,300.00
06/01/2009	06/30/2009	182,700.00
05/01/2009	05/31/2009	171,600.00
Electric Consumption (kWh (thousand Watt-hours))		**2,095,800.00**
Electric Consumption (kBtu (thousand Btu))		**7,150,869.60**
Total Electricity (Grid Purchase) Consumption (kBtu (thousand Btu))		**7,150,869.60**
Is this the total Electricity (Grid Purchase) consumption at this building including all Electricity meters?		☐

Fuel Type: Natural Gas

Meter: Natural Gas (therms)
Space(s): Special Services School

Start Date	End Date	Energy Use (therms)
04/01/2010	04/30/2010	8,901.57
03/01/2010	03/31/2010	13,302.09
02/01/2010	02/28/2010	21,764.41
01/01/2010	01/31/2010	19,073.45
12/01/2009	12/31/2009	16,280.01
11/01/2009	11/30/2009	8,226.65
10/01/2009	10/31/2009	6,529.02
09/01/2009	09/30/2009	3,977.00
08/01/2009	08/31/2009	2,193.84
07/01/2009	07/31/2009	3,539.71

06/01/2009	06/30/2009	5,932.62
05/01/2009	05/31/2009	7,462.40
Natural Gas Consumption (therms)		**117,182.77**
Natural Gas Consumption (kBtu (thousand Btu))		**11,718,277.00**
Total Natural Gas Consumption (kBtu (thousand Btu))		**11,718,277.00**
Is this the total Natural Gas consumption at this building including all Natural Gas meters?		☐

Additional Fuels	
Do the fuel consumption totals shown above represent the total energy use of this building? Please confirm there are no additional fuels (district energy, generator fuel oil) used in this facility.	☐

On-Site Solar and Wind Energy	
Do the fuel consumption totals shown above include all on-site solar and/or wind power located at your facility? Please confirm that no on-site solar or wind installations have been omitted from this list. All on-site systems must be reported.	☐

Certifying Professional

(When applying for the ENERGY STAR, the Certifying Professional must be the same PE or RA that signed and stamped the SEP.)

Name: _____ Date: _____

Signature: _____

Signature is required when applying for the ENERGY STAR.

FOR YOUR RECORDS ONLY. DO NOT SUBMIT TO EPA.

Please keep this Facility Summary for your own records; do not submit it to EPA. Only the Statement of Energy Performance (SEP), Data Checklist and Letter of Agreement need to be submitted to EPA when applying for the ENERGY STAR.

Facility
04.37 Special Services School
148 Crest Haven Road
Cape May Court House, NJ 08210

Facility Owner
Cape May County
4 Moore Road
Cape May Court House, NJ 08210

Primary Contact for this Facility
AnnMarie McMahon
4 Moore Road
Cape May Court House, NJ 08210

General Information

04.37 Special Services School	
Gross Floor Area Excluding Parking: (ft^2)	172,000
Year Built	1970
For 12-month Evaluation Period Ending Date:	April 30, 2010

Facility Space Use Summary

Special Services School	
Space Type	K-12 School
Gross Floor Area(ft^2)	172,000
Open Weekends?	No
Number of PCs[d]	301
Number of walk-in refrigeration/freezer units	3
Presence of cooking facilities	Yes
Percent Cooled	100
Percent Heated	100
Months[o]	12
High School?	Yes
School District[o]	Cape May

Energy Performance Comparison

	Evaluation Periods		Comparisons		
Performance Metrics	**Current** (Ending Date 04/30/2010)	**Baseline** (Ending Date 04/30/2010)	**Rating of 75**	**Target**	**National Average**
Energy Performance Rating	9	9	75	N/A	50
Energy Intensity					
Site (kBtu/ft^2)	110	110	55	N/A	70
Source (kBtu/ft^2)	210	210	105	N/A	135
Energy Cost					
$/year	$ 418,000.38	$ 418,000.38	$ 209,686.06	N/A	$ 268,137.53
$/$ft^2$/year	$ 2.43	$ 2.43	$ 1.22	N/A	$ 1.56
Greenhouse Gas Emissions					
$MtCO_2e$/year	1,712	1,712	859	N/A	1,098
$kgCO_2e/ft^2$/year	10	10	5	N/A	6

More than 50% of your building is defined as K-12 School. Please note that your rating accounts for all of the spaces listed. The National Average column presents energy performance data your building would have if your building had an average rating of 50.

Notes:
o - This attribute is optional.
d - A default value has been supplied by Portfolio Manager.

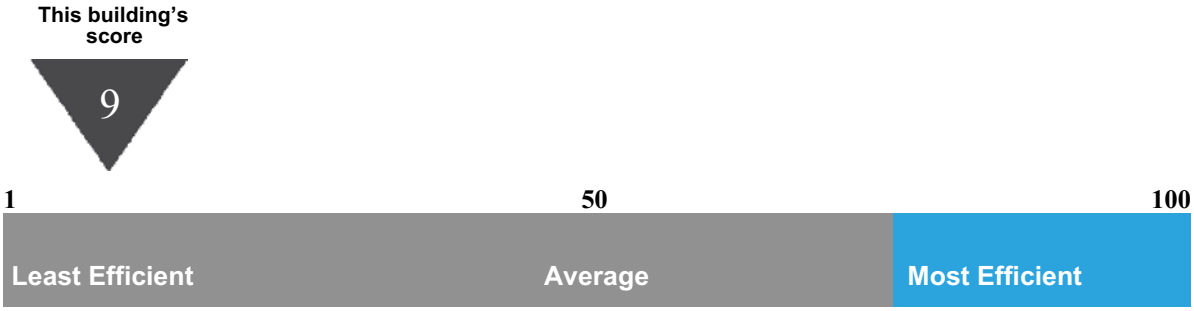
Statement of Energy Performance

2010

04.37 Special Services School
148 Crest Haven Road
Cape May Court House, NJ 08210

Portfolio Manager Building ID: 2405468

The energy use of this building has been measured and compared to other similar buildings using the Environmental Protection Agency's (EPA's) Energy Performance Scale of 1–100, with 1 being the least energy efficient and 100 the most energy efficient. For more information, visit energystar.gov/benchmark.



This building uses 210 kBtu per square foot per year.*

*Based on source energy intensity for the 12 month period ending April 2010

Buildings with a score of 75 or higher may qualify for EPA's ENERGY STAR.

I certify that the information contained within this statement is accurate and in accordance with U.S. Environmental Protection Agency's measurement standards, found at energystar.gov

Date of certification

EPA United States Environmental Protection Agency

Date Generated: 09/03/2010

MAJOR EQUIPMENT LIST

Concord Engineering Group

Cape May Special School

Rooftop / AC Units

Tag	AC-2	CU-21	AC-3
Unit Type	Packaged Roof Top A/C Unit	Split System Condensing Unit	Packaged Roof Top A/C Unit
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	Board Room	AHU-21 Rooms 155, 158, 161, 162, 166	Supt Off 160, 167
Manufacturer	Trane	Rheem	Trane
Model #	**THC092A4**R0A1CF0B00000**B**000	RACC-048DAS	THC043A4R0A1TH0B00002B000
Serial #	523101122L	3995 M2591 8721	627102270L
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	7.5	4.0	4.1
Cooling Efficiency (SEER/EER)	13	10	13
Heating Type	-	-	-
Heating Input (MBH)	-	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	5	19	4
ASHRAE Service Life	15	15	15
Remaining Life	10	(4)	11
Comments	460/3/60, Hot Gas Reheat, dual compressor	460/3/60	460/3/60, Hot Gas Reheat, dual compressor

Rooftop / AC Units

Tag	CU-23	AC-4	AC-1
Unit Type	Split System Condensing Unit	Packaged Roof Top A/C Unit	Packaged Roof Top A/C Unit
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	AHU-23 Early Interv. Interior		
Manufacturer	Rheem	Trane	Trane
Model #	RACC-056DAS	THC043A4R0A0TH0B00002B000	THC092A4R0A1CF0B00000B000
Serial #	4148 M2591 6701	627102194L	523100825L
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	5.0	4.1	7.5
Cooling Efficiency (SEER/EER)	10	13	13
Heating Type	-	-	-
Heating Input (MBH)	-	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	19	4	5
ASHRAE Service Life	15	15	15
Remaining Life	(4)	11	10
Comments	460/3/60	460/3/60, hot gas reheat	460/3/60, Hot Gas Reheat, dual compressor

Rooftop / AC Units

Tag	CU-25	CU-18	CU-17
Unit Type	Split System Condensing Unit	Split System Condensing Unit	Split System Condensing Unit
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	Time Out	In-School Suspension	Shipping & Receiving
Manufacturer	Rheem	Rheem	Rheem
Model #	RAWB-075DAS	RACC-024JAS	RAKA-042DAS
Serial #	3311 G2291 3398	3114 M2691 3914	4982 M0999 06366
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	7.5	2.0	3.0
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	-	-	-
Heating Input (MBH)	-	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	19	19	11
ASHRAE Service Life	15	15	15
Remaining Life	(4)	(4)	4
Comments	460V, 3PH, 60Hz	208/230V, 1PH, 60Hz	460V, 3PH, 60Hz

Rooftop / AC Units

Tag	CU-16, 26	CU-14	CU-15
Unit Type	Split System Condensing Unit	Split System Condensing Unit	Split System Condensing Unit
Qty	2	1	1
Location	Roof	Roof	Roof
Area Served	Principal	Faculty Lounge	Nurse
Manufacturer	Rheem	Rheem	Rheem
Model #	RAWB-100DAS	RACC-048DAS	RAGC-056DAS
Serial #	9399 G2291 3458	3995 M2591 6723	4148 M2591 6700
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	10	4	5
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	HW	-	-
Heating Input (MBH)	82.1, 135.4	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	19	19	11
ASHRAE Service Life	15	15	15
Remaining Life	(4)	(4)	4
Comments	460V, 3PH, 60Hz	208/230V, 1PH, 60Hz	460V, 3PH, 60Hz

Rooftop / AC Units

Tag	CU-12	CU-13	CU-11
Unit Type	Split System Condensing Unit	Split System Condensing Unit	Split System Condensing Unit
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	Corridor	Cafeteria	Corridor
Manufacturer	Rheem	Rheem	Rheem
Model #	RACC-036DAS	RAVE-150D1V	RAVE-150D1V
Serial #	3532 M2591 6724	3078 G2291 0393	3078 G2291 0392
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	3	15	15
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	-	HW	-
Heating Input (MBH)	-	139.5	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	19	19	11
ASHRAE Service Life	15	15	15
Remaining Life	(4)	(4)	4
Comments	460V, 3PH, 60Hz	460V, 3PH, 60Hz	460V, 3PH, 60Hz

Rooftop / AC Units

Tag	CU-10	CU-9	CU-1
Unit Type	Split System Condensing Unit	Split System Condensing Unit	Split System Condensing Unit
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	Child Study Speech Interior	Child Study Speech Exterior	Pool
Manufacturer	Rheem	Rheem	Dectron
Model #	RAVE-150D1V	RAND-060DAZ	DS-150
Serial #	3078 G2291 0392	7306 M2208 09355	-
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	15.0	5.0	37.5
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	-	-	-
Heating Input (MBH)	-	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	19	2	19
ASHRAE Service Life	15	15	15
Remaining Life	(4)	13	(4)
Comments	460V, 3PH, 60Hz	460V, 3PH, 60Hz	460V, 3PH, 60Hz

Rooftop / AC Units

Tag	CU-3	CU-2	CU-4
Unit Type	Split System Condensing Unit	Split System Condensing Unit	Split System Condensing Unit
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	Gym	Lockers	Gym
Manufacturer	Trane	Dunham-Bush	Trane
Model #	TTA180C400GA	AU35A	TTA180C400GA
Serial #	7325M6NAD	71599501A91G	7304346AD
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	17.5	30	17.5
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	-	HW	-
Heating Input (MBH)	-	346.9	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	3	19	3
ASHRAE Service Life	15	15	15
Remaining Life	12	(4)	12
Comments	460V, 3PH, 60Hz	7300 CFM, 3000 CFM OA, 460/3/60, Not used.	460V, 3PH, 60Hz

Rooftop / AC Units

Tag	CU-5	CU-27	CU-32
Unit Type	Split System Condensing Unit	Split System Condensing Unit	Split System Condensing Unit
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	Gym	Weight Room	Connecting Link
Manufacturer	Dunham-Bush	Rheem	Rheem
Model #	-	RACC-036DAS	RACC-024
Serial #	-	3532	-
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	17.5	3	2.0
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	HW	-	-
Heating Input (MBH)	140	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	19	19	19
ASHRAE Service Life	15	15	15
Remaining Life	(4)	(4)	(4)
Comments	6600 CFM, 300 CFM OA, 460V, 3PH, 60Hz	460V, 3PH, 60Hz	208/230V, 1PH, 60Hz

Rooftop / AC Units

Tag	AHU-1	AHU-3	AHU-2
Unit Type	Indoor	Indoor	Indoor
Qty	1	1	1
Location	Mezz	Mezz	Mezz
Area Served	Pool	Gym	Lockers
Manufacturer	Dectron	Dunham-Bush	Dunham-Bush
Model #	DS-150-43	HCS14LF71603602	HCS17LF71603601
Serial #	4098-2	716036-02A91G	716036-01A91G
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	37.5	17.5	30
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	HWC	HWC	HWC
Heating Input (MBH)	308.9	114	346.9
Efficiency	-	-	-
Fuel	Hot Water	Hot Water	Hot Water
Approx Age	19	19	19
ASHRAE Service Life	15	15	15
Remaining Life	(4)	(4)	(4)
Comments	NB2648	5 HP Motor, 460V, 3PH, 60Hz	5 HP Motor (Model: H-51-1BF, Serial: 91C5BB) 460V, 3PH, 60Hz

Rooftop / AC Units

Tag	AHU-4	AHU-5	CU-Dectron
Unit Type	Indoor	Indoor	Split System Condensing Unit
Qty	1	1	1
Location	Mezz	Mezz	Roof
Area Served	Gym	Gym	Pool
Manufacturer	Dunham-Bush	Dunham-Bush	Dectron
Model #	HCS14LF71603602	HCS14LF71603602	Type: CCB030-9 Model: CLD030-9
Serial #	716036-02B91G	716036-02C91G	D 2001090159
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	17.5	17.5	30
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	HWC	HWC	-
Heating Input (MBH)	114	114	-
Efficiency	-	-	-
Fuel	Hot Water	Hot Water	-
Approx Age	19	19	9
ASHRAE Service Life	15	15	15
Remaining Life	(4)	(4)	6
Comments	5 HP Motor, 460V, 3PH, 60Hz	5 HP Motor, 460V, 3PH, 60Hz	1 HP Motor, 480/3/60, 400 PSIG

Rooftop / AC Units

Tag	CU-8	CU-7	AHU-Dectron
Unit Type	Split System Condensing Unit	Split System Condensing Unit	Outdoor
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	Corridor	Occupational Therapy	Pool
Manufacturer	Rheem	Rheem	Dectron
Model #	RAWB-075DAS	RAND-060DAZ	RS-120-43
Serial #	3311 G2291 3397	7306 M2208 09358	A2001080056
Cooling Type	DX, R-22	DX, R-22	DX, R-22
Cooling Capacity (Tons)	7.5	5	12
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	HW	-	-
Heating Input (MBH)	39.6	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	19	2	9
ASHRAE Service Life	15	15	15
Remaining Life	(4)	13	6
Comments	3000 CFM, To be replaced by Rheem AC Model RAWD-076DAZ, Serial 6417F270311702	-	7.5 HP Motor, 460V, 3PH, 60Hz.

Rooftop / AC Units

Tag	-	-	-
Unit Type	Kitchen MAU	Upblast centrifugal	Split System Condensing Unit
Qty	1	1	1
Location	Roof	Roof	Roof
Area Served	Kitchen Cooking hood	Kitchen Cooking exhaust	Mech Office DSS-1
Manufacturer	Captive-Aire Systems	Captive-Aire Systems	EMI
Model #	NRTP.A-A1-D.250-G10-NCA16FA	NCA16FA	SCC18DF0000AA0B
Serial #	550117	597279	1-05F-2141-24
Cooling Type	-	-	DX, R-22
Cooling Capacity (Tons)	-	-	1.5
Cooling Efficiency (SEER/EER)	-	-	10
Heating Type	-	-	-
Heating Input (MBH)	-	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	3	3	5
ASHRAE Service Life	15	15	15
Remaining Life	12	12	10
Comments	1HP Motor, 208V, 1PH, 60Hz	1HP Motor, 208V, 1PH, 60Hz	.125HP Motor, 208/230V, 1PH, 60Hz, DCU-1 Ceiling Cassette in Mech Office

Rooftop / AC Units

Tag	EF-1	AHU-36 (4)	HV-1
Unit Type	Exhaust Fan	Draw-Thru Climate Changer	Indoor Heat & Vent
Qty	1	1	1
Location	Pool Roof	Mechanical Rm	Auto Maintenance
Area Served	Boiler room	Student Dining	Auto Maintenance
Manufacturer	Greenheck	Trane	American Air Filter
Model #	TCB-1-24-30	CCDB06ALBA	H6LPHVYA
Serial #	1101482	-	306143-01
Cooling Type	-	ChW	-
Cooling Capacity (Tons)	-	15	-
Cooling Efficiency (SEER/EER)	-	-	-
Heating Type	-	HW	HW
Heating Input (MBH)	-	274.6	
Efficiency		-	-
Fuel	-	HW	HW
Approx Age	9	15	19
ASHRAE Service Life	20	15	20
Remaining Life	11	0	1
Comments	-	Retrofitted in 2005 for HW and ChW and DDC,	Motor recently replaced

Rooftop / AC Units

Tag	HV-2	-	AHU-35 (3)
Unit Type	Indoor Heat & Vent	Split System Condensing Unit	Draw-Thru Climate Changer
Qty	1	1	1
Location	Building Trades	Grade, Cougar Deli	Mechanical Rm
Area Served	Building Trades	Cougar Deli	Classroom 322, 324, Speech Testing
Manufacturer	American Air Filter	EMI	Trane
Model #	H6LPHVYA	S1CA6000D00	CCDB06ALBA
Serial #	306143-02	1-06-L-7034-43	K81A18431
Cooling Type	-	DX, R-22	ChW
Cooling Capacity (Tons)	-	0.5	6
Cooling Efficiency (SEER/EER)	-	10	-
Heating Type	HW	-	HW
Heating Input (MBH)		-	77.2
Efficiency	-	-	-
Fuel	HW	-	HW
Approx Age	19	4	19
ASHRAE Service Life	20	15	15
Remaining Life	1	11	(4)
Comments	Motor recently replaced	208/230V, 1PH, 60Hz, Fan motor has 0.33HP, Clg. Cassette in Cougar Deli	Retrofitted in 2005 for HW and ChW and DDC, Fan Motor has .5HP, 460V, 3PH, 60Hz.

Rooftop / AC Units

Tag	AHU-31	AHU-30	AHU-28
Unit Type	Indoor	Indoor	Indoor
Qty	1	1	1
Location	Mech Rm	Mech Rm	Mech Rm
Area Served	Resource Media Interior	Resource Media Low Bay	Faculty Dining
Manufacturer	Dunham-Bush	Dunham-Bush	Dunham-Bush
Model #	HCS06MF71603621	HCS06MF71603620	HCS06MF71603618
Serial #	716036-21A91H	716036-20A91H	716036-18A91H
Cooling Type	ChW	ChW	ChW
Cooling Capacity (Tons)	4	5	6
Cooling Efficiency (SEER/EER)	10	10	10
Heating Type	HW	HW	HW
Heating Input (MBH)	73.3	68.8	137.5
Efficiency	-	-	-
Fuel	HW	HW	HW
Approx Age	19	19	19
ASHRAE Service Life	15	15	15
Remaining Life	(4)	(4)	(4)
Comments	Retrofitted in 2005 for HW and ChW and DDC, Motor has 1.5HP, 460V, 3PH, 60Hz.	Retrofitted in 2005 for HW and ChW and DDC, Motor has 2HP, 460V, 3PH, 60Hz.	Retrofitted in 2005 for HW and ChW and DDC, Motor has 1.5HP, 460V, 3PH, 60Hz.

Rooftop / AC Units

Tag	AHU-29	AHU-42	AHU-41
Unit Type	Indoor	Draw-Thru Climate Changer	Draw-Thru Climate Changer
Qty	1	1	1
Location	Mech Rm	Mech Rm	Mech Rm
Area Served	Resource Media High Bay	-	-
Manufacturer	Dunham-Bush	Trane	Trane
Model #	HCS08MF71603619	CCDB06ALBA	CCDB06ALBA
Serial #	716036-19A91H	K81A18430	K81A18432
Cooling Type	ChW	ChW	ChW
Cooling Capacity (Tons)	8.4	-	-
Cooling Efficiency (SEER/EER)	-	-	-
Heating Type	HW	HW	HW
Heating Input (MBH)	220	-	-
Efficiency	-	-	-
Fuel	HW	HW	HW
Approx Age	19	19	19
ASHRAE Service Life	15	15	15
Remaining Life	(4)	(4)	(4)
Comments	Retrofitted in 2005 for HW and ChW and DDC, Motor has 3HP, 460V, 3PH, 60Hz.	Retrofitted in 2005 for HW and ChW and DDC, Motor has 2HP, 460V, 3PH, 60Hz.	Retrofitted in 2005 for HW and ChW and DDC, Motor has 2HP, 460V, 3PH, 60Hz.

Rooftop / AC Units

Tag	**-**	**-**	**-**
Unit Type	Split Type Air Conditioner	-	-
Qty	1	-	-
Location	Office 13 Across from Pool	-	-
Area Served	Office 13	-	-
Manufacturer	Fujitsu	-	-
Model #	ASU9CQ	-	-
Serial #	BCA005372	-	-
Cooling Type	DX, R-22	-	-
Cooling Capacity (Tons)		-	-
Cooling Efficiency (SEER/EER)	10	-	-
Heating Type	-	-	-
Heating Input (MBH)	-	-	-
Efficiency	-	-	-
Fuel	-	-	-
Approx Age	10	-	-
ASHRAE Service Life	15	-	-
Remaining Life	5	-	-
Comments	Outdoor Unit: AOU9CQ	-	-

MAJOR EQUIPMENT LIST

Concord Engineering Group

Cape May Special School

Boilers

Tag	B-1	-	B-2
Unit Type	Cast Iron Boiler	Boiler Burner	Cast Iron Boiler
Qty	1	1	1
Location	Mech Rm	Mech Rm	Mech Rm
Area Served	Ocean Academy and Alt. HS	B-1	Ocean Academy and Alt. HS
Manufacturer	Weil-McLain	Perferred Utilities	Weil-McLain
Model #	AH-994-W, Series 2	BHE 20 3M4	AH-994-W, Series 2
Serial #	82-1200-H 703997	29202	82-1201-H HSB-06297
Input Capacity (MBH / GPH)	2,800	2740 / 20	2,800
Rated Output Capacity (MBH)	2,320	2,192	2,320
Approx. Efficiency %	83%	-	83%
Fuel	Natural Gas / #2 Oil	Natural Gas / #2 Oil	Natural Gas / #2 Oil
Approx Age	29	29	29
ASHRAE Service Life	35	18	35
Remaining Life	6	(11)	6
Comments	-	2HP motor, FR: 145T, 230/460V, 3450 RPM	-

Boilers

Tag	-	B-3	B1
Unit Type	Boiler Burner	Watertube	Cast Iron Sectional
Qty	1	1	1
Location	Mech Rm	Mech Rm	Pool Mech Rm
Area Served	B-2	Ocean Academy and Alt. HS	Pool Wing
Manufacturer	Perferred Utilities	Lochinvar	H.B. Smith Co.
Model #	BHE 20 3M4	CWN0940	Series 28A-16
Serial #	29200	G912941	N91 183
Input Capacity (MBH)	2740 / 20	940	5,189
Rated Output Capacity (MBH)	2,192	723.8	3,562
Approx. Efficiency %	-	77%	79%
Fuel	Natural Gas / #2 Oil	Natural Gas	Natural Gas
Approx Age	29	19	19
ASHRAE Service Life	18	24	35
Remaining Life	(11)	5	16
Comments	2HP motor, FR: 145T, 230/460V, 3450 RPM	NB21932	-

Boilers

Tag	-	B2	-
Unit Type	Boiler Burner	Cast Iron Sectional	Boiler Burner
Qty	1	1	1
Location	Pool Mech Rm	Pool Mech Rm	Pool Mech Rm
Area Served	B1	Pool Wing	B2
Manufacturer	Power Flame	H.B. Smith Co.	Power Flame
Model #	C3-G-25B	Series 28A-16	C3-G-25B
Serial #	099W55480	N91 184	099W55480
Input Capacity (MBH)	5,250	5,189	5,250
Rated Output Capacity (MBH)	-	3,562	-
Approx. Efficiency %	-	79%	-
Fuel	Natural Gas	Natural Gas	Natural Gas
Approx Age	19	19	19
ASHRAE Service Life	18	35	18
Remaining Life	(1)	16	(1)
Comments	Baldor VM3138F, 1 hp, 82.5%	-	Baldor VM3138F, 1 hp, 82.5%

Boilers

Tag	B3	-	TPNH-1
Unit Type	Gas-Fired Water Boiler	Gas-Fired Water Boiler	Gas-Fired Water Boiler
Qty	1	1	1
Location	Pool Mech Rm	Therapy Pool Mech Rm	Therapy Pool Mech Rm
Area Served	Pool Wing	Pool HEATER	
Manufacturer	Lochinvar	Lochinvar	Lochinvar
Model #	CHN751	CPN651	CSN090
Serial #	C014498	B06H00183941	A925623
Input Capacity (MBH)	750	650	90
Rated Output Capacity (MBH)	637.5	546	75
Approx. Efficiency %	85%	84%	83%
Fuel	Natural Gas	Natural Gas	Natural Gas
Approx Age	19	4	19
Ashrae Service Life	24	24	24
Remaining Life	5	20	5
Comments	NB 126574	NB 00183941	NB 24565

MAJOR EQUIPMENT LIST

Concord Engineering Group

Cape May Special School

Chiller

Tag	WC-1	WC-2	-
Unit Type	Air Cooled Water Chiller	Air Cooled Water Chiller	-
Qty	1	1	-
Location	Roof	Roof	-
Area Served	Ocean Academy and Alt. HS.	Ocean Academy and Alt. HS.	-
Manufacturer	Trane	Trane	-
Model #	RTAA 0904 YR03 A3L0 GMNB FC	RTAA 0904 YR03 A3L0 GMNB FC	-
Serial #	U05F02614	U05F02615	-
Refrigerant	DX, R-22	DX, R-22	-
Cooling Capacity (Tons)	90	90	-
Cooling Efficiency (KW/Ton)	9.9	9.9	-
Volts / Phase / Hz	-	-	-
Fuel	-	-	-
Chilled Water GPM / ΔT	-	-	-
Condenser Water GPM / ΔT	Electric	Electric	-
Approx Age	5	5	-
ASHRAE Service Life	20	20	-
Remaining Life	15	15	-
Comments	460V, 3PH, 60Hz	460V, 3PH, 60Hz	-

MAJOR EQUIPMENT LIST

Concord Engineering Group

Cape May Special School

Domestic Water Heaters

Tag	WH-1	-	-
Unit Type	Electric	Watertube Boiler	Natural Gas
Qty	1	1	1
Location	Mech Rm	Mech Rm	Pool Mech Rm
Area Served	Kitchen Booster	Ocean Academy and Alt. HS Dom Water	Pool Wing
Manufacturer	Rheem Ruud	Lochinvar	Lochinvar
Model #	ES120-36-G	CWN0940	PFN 1000 PMA
Serial #	RR 0402E00446	G912941	G912853
Size (Gallons)	120	940	-
Input Capacity (MBH/KW)	36 KW	723.8	1000
Recovery (Gal/Hr)	147 GPH @ 100°F	868 GPH @ 100°F	1056 GPH @ 100°F
Efficiency %	98%	77%	88.00%
Fuel	Electric	Natural Gas	Natural Gas
Approx Age	10	19	19
ASHRAE Service Life	12	24	24
Remaining Life	2	5	5
Comments	-	NB21932	-

MAJOR EQUIPMENT LIST

Concord Engineering Group

Cape May Special School

Pumps

Tag	P-1A	P-1B	P-2
Unit Type	Base Mtd. End Suction	Base Mtd. End Suction	Base Mtd. End Suction
Qty	1	1	1
Location	Pump Rm	Pump Rm	Pump Rm
Area Served	WC-2	-	WC-1
Manufacturer	Bell & Gossett	Bell & Gossett	Bell & Gossett
Model #	1510 3C BF 12.375	1510 3C BF 12.375	1510 3C BF 12.375
Serial #	C003049-02 G50	C003049-03 G50	C003049-01 G50
Horse Power	25	25	25
Flow	250 GPM @ 150 FT HD	250 GPM @ 150 FT HD	250 GPM @ 150 FT HD
Motor Info	CAT#; D25P2B, Frame 284T	CAT#; D25P2B, Frame 284T	GPM: 250, FT: 150
Electrical Power	460-3-60	460-3-60	460-3-60
RPM	1780	1780	1800
Motor Efficiency %	93.0%	93.0%	93.0%
Approx Age	5	5	5
ASHRAE Service Life	20	20	20
Remaining Life	15	15	15
Comments	-	-	-

Pumps

Tag	HWP-1	HWP-2	P-1
Unit Type	Base Mtd. End Suction	Base Mtd. End Suction	Base Mtd. End Suction
Qty	1	1	1
Location	Mech Rm	Mech Rm	Pool Mech Rm
Area Served	Heating HW, Ocean Academy and Alt. HS	Heating HW, Ocean Academy and Alt. HS	Pool Wing Heating HW
Manufacturer	Bell & Gossett	Bell & Gossett	Armstrong Pumps
Model #	1510 2BC 8.75BF	1510 2BB 8-3/4 BF	4030 BF 4x3x11.5
Serial #	06-1663	1062288	168022
Horse Power	5	5	20
Flow	160 GPM @ 77 FT HD	160 GPM @ 77 FT HD	300 GPM @ 100 Ft Hd.
Motor Info	Baldor Model: 36G548T139 , S/N: F0508033073	GE Model No.: 5KE184SC205B, S/N: 3261010018	TEFC, Frame: 256T
Electrical Power	230/460	230/460	230/460V, 3PH
RPM	1750	1750	1765
Motor Efficiency %	89.5%	87.5%	93.0%
Approx Age	19	19	19
ASHRAE Service Life	20	20	20
Remaining Life	1	1	1
Comments	184T, Super E	184T, Severe Duty	Motor Manufacture: Confirm Motor/disconn tag.

Pumps

Tag	P-2	-	-
Unit Type	Base Mtd. End Suction	in-line	In-line
Qty	1	1	1
Location	Pool Mech Rm	Pool Equip Rm 5	Pool Equip Rm 5
Area Served	Pool Wing Heating HW	Therapy Pool	Therapy Pool
Manufacturer	Armstrong Pumps	AO Smith	AO Smith
Model #	4030 BF 4x3x11.5	Cat R237	-
Serial #	158021	0420 96M	220086M
Horse Power	20	5	7.5
Flow	300 GPM @ 100 Ft Hd.	-	-
Motor Info	GE Motor 5KS256BCT205Frame:	E182T	S184TY
Electrical Power	230/460V, 3PH	-	-
RPM	1765	1760	1760
Motor Efficiency %	89.5%	93.0%	93.0%
Approx Age	19	4	1
ASHRAE Service Life	20	10	10
Remaining Life	1	6	9
Comments	Motor Manufacture: Confirm Motor/disconn tag.	-	-

Investment Grade Lighting Audit

CEG Job #: 9C10037

Project: CMC Education Center — **Special Services School** — **KWH COST: $0.140**

148 Crest Haven Road

Cape May Court House, NJ 08210

ECM #1: Lighting Upgrade - General

EXISTING LIGHTING										PROPOSED LIGHTING									SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly $ Cost	No. Fixts	No. Lamps	Retro-Unit Description	Watts Used	Total kW	kWh/Yr Fixtures	Yearly $ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly $ Savings	Yearly Simple Payback
222.21	Cougar Deli	2600	20	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.16	3,016.0	$422.24	20	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.44	Attic/Stock Room	800	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	58	0.12	92.8	$12.99	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Restroom	1300	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	75.4	$10.56	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	309 Auto Shop	2600	43	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	2.49	6,484.4	$907.82	43	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
211.11	Auto Shop Locker Room	260	2	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	30	0.06	15.6	$2.18	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
211.11	Storage	800	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	30	0.03	24.0	$3.36	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Auto Office	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.31	308 Horticulture	2600	16	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.93	2,412.8	$337.79	16	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	1	1	8' 59w T8, Wall Mnt., No Lens	64	0.06	166.4	$23.30	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
9	Greenhouse	2600	6	1	Pendant Mnt., 100w A19 Lamp	100	0.60	1,560.0	$218.40	6	1	(1) 26w CFL Lamp	26	0.16	405.6	$56.78	$20.00	$120.00	0.44	1154.4	$161.62	0.74
221.21	305 Classroom	2600	24	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.39	3,619.2	$506.69	24	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	305 Restroom	1300	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	75.4	$10.56	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
211.41		1300	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	30	0.03	39.0	$5.46	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	305 Prep Room	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	303 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	304 Wood Shop	2600	34	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	1.97	5,127.2	$717.81	34	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

221.11	302 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	301 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Resourse Officer	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Conf. Room	2600	8	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.46	1,206.4	$168.90	8	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Main Office	2600	7	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.41	1,055.6	$147.78	7	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21		2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Break Room	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
9	Closet	800	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	80.0	$11.20	1	1	(1) 26w CFL Lamp	26	0.03	20.8	$2.91	$20.00	$20.00	0.07	59.2	$8.29	2.41
242.21	Men's Restroom	1300	2	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.21	270.4	$37.86	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.21	Women's Restroom	1300	2	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.21	270.4	$37.86	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
821.21		1300	1	2	Recessed Down Light, (2) 26w PL Lamp	54	0.05	70.2	$9.83	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	321 Classroom	2600	12	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.70	1,809.6	$253.34	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	323 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	325 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
9	Cust. Closet	1300	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	130.0	$18.20	1	1	(1) 26w CFL Lamp	26	0.03	33.8	$4.73	$20.00	$20.00	0.07	96.2	$13.47	1.49
242.21	Classroom	2600	10	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	1.04	2,704.0	$378.56	10	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	327 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

221.21	329 Classroom	2600	20	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.16	3,016.0	$422.24	20	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	328 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	326 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	320 Office	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
227.21	318 Nurse	2600	4	2	2x2, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
3520		2600		2	Ceiling Mnt., 15" Rnd White Globe, (2) 60w A19	120	0.00	0.0	$0.00	0	2	13w CFL Lamp	26	0.00	0	$0.00	$20.00	$0.00	0.00	0	$0.00	0.00
9	Cust. Closet	1300	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	130.0	$18.20	1	1	(1) 26w CFL Lamp	26	0.03	33.8	$4.73	$20.00	$20.00	0.07	96.2	$13.47	1.49
221.21	Kitchen - Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	322 Café	2600	21	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.22	3,166.8	$443.35	21	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.44	Mech./Elec. Room	800	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	58	0.12	92.8	$12.99	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21	Alt. Dining Room	2600	24	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	1.44	3,744.0	$524.16	24	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Staff Dining	2600	12	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.70	1,809.6	$253.34	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21		2600	6	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.36	936.0	$131.04	6	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.15	Kitchen	2600	30	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., No Lens	58	1.74	4,524.0	$633.36	30	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
617		2600	5	1	Hood Light w/Globe & Cage, 100w A19 Lamp	100	0.50	1,300.0	$182.00	5	1	(1) 26w CFL Lamp	26	0.13	338	$47.32	$20.00	$100.00	0.37	962	$134.68	0.74
247.21	Walk-in Box Area	2600	4	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.24	624.0	$87.36	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Women's Restroom	1300	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21	OA Dining	2600	24	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	1.44	3,744.0	$524.16	24	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
211.11	Boiler Room	4200	8	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	30	0.24	1,008.0	$141.12	8	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

211.11	Elec. Room	4200	2	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	30	0.06	252.0	$35.28	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.21	Mech. Room	4200	2	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.21	873.6	$122.30	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Staff - Men's Restroom	1300	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21		1300	1	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.06	78.0	$10.92	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
9	Storage	800	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	80.0	$11.20	1	1	(1) 26w CFL Lamp	26	0.03	20.8	$2.91	$20.00	$20.00	0.07	59.2	$8.29	2.41
242.21	Food Services	2600	5	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.52	1,352.0	$189.28	5	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Girl's Restroom	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
9	Cust. Closet	800	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	80.0	$11.20	1	1	(1) 26w CFL Lamp	26	0.03	20.8	$2.91	$20.00	$20.00	0.07	59.2	$8.29	2.41
222.21	Boy's Restroom	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
211.41		2600	2	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	30	0.06	156.0	$21.84	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	123 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	125 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	127 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	129 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	128 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	126 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	124 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Counseling Center	2600	10	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.58	1,508.0	$211.12	10	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

9	Cust. Closet	1300	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	130.0	$18.20	1	1	(1) 26w CFL Lamp	26	0.03	33.8	$4.73	$20.00	$20.00	0.07	96.2	$13.47	1.49
222.21	122 Crisis Intervention	2600	9	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1,357.2	$190.01	9	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	120 Classroom	2600	12	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.70	1,809.6	$253.34	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Food Closet	2600	6	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.35	904.8	$126.67	6	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21		2600	4	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.24	624.0	$87.36	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Main Office	2600	18	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21		2600	1	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.06	156.0	$21.84	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Conf. Room	2600	6	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.35	904.8	$126.67	6	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Related Services	2600	10	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.58	1,508.0	$211.12	10	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Speech	2600	8	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.46	1,206.4	$168.90	8	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Speech	2600	8	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.46	1,206.4	$168.90	8	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	1	1	8' 59w T8, Wall Mnt., No Lens	64	0.06	166.4	$23.30	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Nurse	2600	5	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.29	754.0	$105.56	5	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	104 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	106 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	108 Classroom	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2,111.2	$295.57	14	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	108 Restroom	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	110 Classroom	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2,111.2	$295.57	14	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

221.21	111 Classroom	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2,111.2	$295.57	14	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	109 Classroom	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2,111.2	$295.57	14	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
550	Observation	2600	1	1	Recessed Down Light, 60w A19 Lamp	60	0.06	156.0	$21.84	1	1	26w CFL Lamp	26	0.03	67.6	$9.46	$20.00	$20.00	0.03	88.4	$12.38	1.62
221.21	107 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	105 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	103 Classroom	2600	13	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.75	1,960.4	$274.46	13	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	1	1	8' 59w T8, Wall Mnt., No Lens	64	0.06	166.4	$23.30	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Prep Room	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	101 Classroom	2600	13	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.75	1,960.4	$274.46	13	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
8		2600	1	1	8' 59w T8, Wall Mnt., No Lens	64	0.06	166.4	$23.30	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
9	Cust. Closet	1300	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	130.0	$18.20	1	1	(1) 26w CFL Lamp	26	0.03	33.8	$4.73	$20.00	$20.00	0.07	96.2	$13.47	1.49
222.21	Time Out	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Time Out	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Women's Restroom	1300	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.44	Mech. Room	800	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	58	0.12	92.8	$12.99	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Media Center	2600	62	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	6.45	16,764.8	$2,347.07	62	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	5.33	13863.2	$1,940.85	$85.00	$5,270.00	1.12	2901.6	$406.22	12.97
247.21		2600	9	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.54	1,404.0	$196.56	9	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Media Center Office	2600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.42	1,081.6	$151.42	4	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.34	894.4	$125.22	$85.00	$340.00	0.07	187.2	$26.21	12.97
242.221	AV Room	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1,622.4	$227.14	6	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.52	1341.6	$187.82	$85.00	$510.00	0.11	280.8	$39.31	12.97

Investment Grade Lighting Audit

6	Connecting Corridor	3600	12	2	4', 2 Lamp, 32w T8, Elect. Ballast, Baffeled Lens	58	0.70	2,505.6	$350.78	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31		3600	4	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.23	835.2	$116.93	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Physical Therapy	2600	12	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.70	1,809.6	$253.34	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Office	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Restroom	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Office	2600	6	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.35	904.8	$126.67	6	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
3	Therapy Pool	2600	3	2	Recessed Down Light, (2) 26w PL Lamp	54	0.16	421.2	$58.97	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
737		2600	16	1	175w MH Down Light, Surface Mnt., Polycarb Lens	210	3.36	8,736.0	$1,223.04	16	2	1x4, 2 lamp, 54w T5HO Vapor Tight Fixture	122	1.95	5075.2	$710.53	$200.00	$3,200.00	1.41	3660.8	$512.51	6.24
221.34	Pump Room	2600	6	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.35	904.8	$126.67	6	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Pool Restroom	1300	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Pool Sign Up	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
770	Lap Pool	3600	18	1	400w MH, Prismatic Lens	465	8.37	30,132.0	$4,218.48	18	6	2x4 54w T5HO 6 Lamp w/Reflecter	354	6.37	22939.2	$3,211.49	$240.00	$4,320.00	2.00	7192.8	$1,006.99	4.29
222.21	Girl's Locker Room	2600	9	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1,357.2	$190.01	9	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Pool Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Boy's Locker Room	2600	9	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1,357.2	$190.01	9	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.34	Boiler Room	4200	10	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.58	2,436.0	$341.04	10	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Related Services	2600	18	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21		2600	26	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	1.56	4,056.0	$567.84	26	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
3		2600	3	2	Recessed Down Light, (2) 26w PL Lamp	54	0.16	421.2	$58.97	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

222.21	Women's Restroom	1300	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	226.2	$31.67	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		1300	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.06	75.4	$10.56	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Men's Restroom	1300	3	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	226.2	$31.67	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		1300	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.06	75.4	$10.56	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
211.44	Cust. Closet	80	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	30	0.03	2.4	$0.34	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Phys Ed Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Phys Ed Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.211	Pool Lobby	3600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.42	1,497.6	$209.66	4	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.34	1238.4	$173.38	$85.00	$340.00	0.07	259.2	$36.29	9.37
222.21	Gym Storage	800	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	185.6	$25.98	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.34	Mech. Mezzanine	800	16	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.93	742.4	$103.94	16	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.44		800	3	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	58	0.17	139.2	$19.49	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Weight Room	2600	6	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.35	904.8	$126.67	6	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
362.34	ABC Gym	3600	32	6	2x4, 6 Lamp, 54w T5HO Fixture w/Occupancy Sensor	354	11.33	40,780.8	$5,709.31	32	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	401 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	402 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	406 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	406 Office	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	405 Art	2600	12	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.70	1,809.6	$253.34	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

221.31	404 Music	2600	12	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.70	1,809.6	$253.34	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	403 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.37	231 Classroom	2600	24	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Indirect	58	1.39	3,619.2	$506.69	24	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21		2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Nurse	2600	14	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2,111.2	$295.57	14	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
6919		1300	1	1	Recessed Shower Light, 100w A19	100	0.10	130.0	$18.20	1	1	26w CFL Lamp	26	0.03	33.8	$4.73	$20.00	$20.00	0.07	96.2	$13.47	1.49
602		8760	1	2	Incandescent Exit Sign	20	0.02	175.2	$24.53	1	1	LED Exit Sign	5	0.01	43.8	$6.13	$65.00	$65.00	0.02	131.4	$18.40	3.53
242.211	Time Out	2600	3	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.31	811.2	$113.57	3	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.26	670.8	$93.91	$85.00	$255.00	0.05	140.4	$19.66	12.97
242.221	Conf. Room	2600	9	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.94	2,433.6	$340.70	9	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.77	2012.4	$281.74	$85.00	$765.00	0.16	421.2	$58.97	12.97
247.22	M/S Office Hall	2600	8	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.48	1,248.0	$174.72	8	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Transportation Coordinator	2600	3	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.31	811.2	$113.57	3	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.26	670.8	$93.91	$85.00	$255.00	0.05	140.4	$19.66	12.97
242.221	Ed. Tech. Supervisor	2600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.42	1,081.6	$151.42	4	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.34	894.4	$125.22	$85.00	$340.00	0.07	187.2	$26.21	12.97
242.221	Side Offices	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1,622.4	$227.14	6	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.52	1341.6	$187.82	$85.00	$510.00	0.11	280.8	$39.31	12.97
242.221	M/S Office	2600	8	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.83	2,163.2	$302.85	8	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.69	1788.8	$250.43	$85.00	$680.00	0.14	374.4	$52.42	12.97
221.31	202 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	203 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	201 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Restroom	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

221.41	Women's Restroom	1300	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Staff Lounge	2600	7	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.41	1,055.6	$147.78	7	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41	Staff Restroom	1300	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.211	Cafeteria	2600	15	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	1.56	4,056.0	$567.84	15	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	1.29	3354	$469.56	$85.00	$1,275.00	0.27	702	$98.28	12.97
222.21	Kitchen	2600	9	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1,357.2	$190.01	9	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Boy's Restroom	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	224 Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.37	223 Classroom	2600	27	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Indirect	58	1.57	4,071.6	$570.02	27	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	223 Restroom	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.31	222 Classroom	2600	18	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.31	221 Classroom	2600	18	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
745	220 Shop	2600	9	1	250w MH Down Light w/Prismatic Lens	295	2.66	6,903.0	$966.42	9	6	2x4, 6 Lamp, 32w T8, Elect. Ballast, Lo Bay	168	1.51	3931.2	$550.37	$220.00	$1,980.00	1.14	2971.8	$416.05	4.76
221.34	Elec. Room	800	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.12	92.8	$12.99	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.211	Sensory Room	2600	7	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.73	1,892.8	$264.99	7	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.60	1565.2	$219.13	$85.00	$595.00	0.13	327.6	$45.86	12.97
221.31	Elec. Room	800	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.06	46.4	$6.50	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	205 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

221.37	207 Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Indirect	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.21		2600	9	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1,357.2	$190.01	9	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	207 Restroom	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Boy's Restroom	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
211.44	Cust. Closet	800	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	30	0.03	24.0	$3.36	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Girl's Restroom	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	213 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	215 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.14	Records	2600	4	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., No Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Time Out	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	216 Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	214 Classroom	2600	8	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.46	1,206.4	$168.90	8	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	212 Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2,714.4	$380.02	18	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	210 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2,262.0	$316.68	15	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312.0	$43.68	4	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Day Care	2600	16	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.93	2,412.8	$337.79	16	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00

Investment Grade Lighting Audit

222.21	Over 21 Program	2600	12	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.70	1,809.6	$253.34	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.22		2600	22	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	58	1.28	3,317.6	$464.46	22	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Restroom	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Board Office	2600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.42	1,081.6	$151.42	4	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.34	894.4	$125.22	$85.00	$340.00	0.07	187.2	$26.21	12.97
242.221	BA Office	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1,622.4	$227.14	6	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.52	1341.6	$187.82	$85.00	$510.00	0.11	280.8	$39.31	12.97
242.221	BA Office	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1,622.4	$227.14	6	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.52	1341.6	$187.82	$85.00	$510.00	0.11	280.8	$39.31	12.97
242.221	Conf. Room	2600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.42	1,081.6	$151.42	4	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.34	894.4	$125.22	$85.00	$340.00	0.07	187.2	$26.21	12.97
222.211	BA Office	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	BA Office	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Superintendent's Office	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1,622.4	$227.14	6	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.52	1341.6	$187.82	$85.00	$510.00	0.11	280.8	$39.31	12.97
242.221	Superintendent's Office	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1,622.4	$227.14	6	3	Remove 1 Lamp - Install Specular Reflector - No Ballast Change Required	86	0.52	1341.6	$187.82	$85.00	$510.00	0.11	280.8	$39.31	12.97
3	Board Meeting Room	2600	12	2	Recessed Down Light, (2) 26w PL Lamp	54	0.65	1,684.8	$235.87	12	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31		2600	11	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.64	1,658.8	$232.23	11	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.34	Maintenance	4200	16	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.93	3,897.6	$545.66	16	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
706	Exterior	2200	66	1	70w HPS Wallpack	92	6.07	13,358.4	$1,870.18	66	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
725		2200	27	1	150w HPS Wallpack	188	5.08	11,167.2	$1,563.41	27	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
760		2200	28	1	400w HPS "Shoebox"	465	13.02	28,644.0	$4,010.16	28	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21	Corridors - Ocean Academy	3600	87	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	5.22	18,792.0	$2,630.88	87	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
222.21		3600	5	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.29	1,044.0	$146.16	5	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
3	Corridors - MS	3600	56	2	Recessed Down Light, (2) 26w PL Lamp	54	3.02	10,886.4	$1,524.10	56	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
6		3600	247	2	4', 2 Lamp, 32w T8, Elect. Ballast, Baffeled Lens	58	14.33	51,573.6	$7,220.30	247	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.34		3600	8	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.46	1,670.4	$233.86	8	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
221.31		3600	34	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.97	7,099.2	$993.89	34	0	No Change	0	0.00	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
	Totals		2,552	537			193.66	536,291	$75,081	2,552	82			24.4	69,823	$9,775		$23,820	8.9	24,521	$3,433	6.94

CEG Job #: 9C10037
Project: CMC Education Center
Address: 148 Crest Haven Road
Cape May Court House, NJ 08210
Building SF: 172,000

Special Services School

KWH COST: $0.140

ECM #2: Lighting Controls

EXISTING LIGHTING										PROPOSED LIGHTING CONTROLS											SAVINGS			
CEG Type	Fixture Location	Yearly Usage	No. Fixts	No. Lamps	Fixture Type	Fixt Watts	Total kW	kWh/Yr Fixtures	Yearly $ Cost	No. Fixts	No. Cont.	Controls Description	Watts Used	Total kW	Reduction (%)	kWh/Yr Fixtures	Yearly $ Cost	Unit Cost (INSTALLED)	Total Cost	kW Savings	kWh/Yr Savings	Yearly $ Savings	Yearly Simple Payback
222.21	Cougar Deli	2600	20	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.16	3016	$422.24	20	0	No Change	58	0.23	0%	3016	$422.24	$0.00	$0.00	0.00	0	$0.00	0.00
221.44	Attic/Stock Room	800	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	58	0.12	92.8	$12.99	2	0	No Change	58	0.02	0%	92.8	$12.99	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Restroom	1300	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	75.4	$10.56	1	0	No Change	58	0.01	0%	75.4	$10.56	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	309 Auto Shop	2600	43	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	2.49	6484.4	$907.82	43	2	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.50	10%	5835.96	$817.03	$225.00	$450.00	2.00	648.44	$90.78	4.96
211.11	Auto Shop Locker Room	260	2	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	30	0.06	15.6	$2.18	2	0	No Change	30	0.01	0%	15.6	$2.18	$0.00	$0.00	0.00	0	$0.00	0.00
211.11	Storage	800	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	30	0.03	24	$3.36	1	0	No Change	30	0.01	0%	24	$3.36	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Auto Office	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
222.31	308 Horticulture	2600	16	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.93	2412.8	$337.79	16	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.19	10%	2171.52	$304.01	$225.00	$225.00	0.74	241.28	$33.78	6.66
8		2600	1	1	8' 59w T8, Wall Mnt., No Lens	64	0.06	166.4	$23.30	1	0	No Change	64	0.01	0%	166.4	$23.30	$0.00	$0.00	0.00	0	$0.00	0.00
9	Greenhouse	2600	6	1	Pendant Mnt., 100w A19 Lamp	100	0.60	1560	$218.40	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	100	0.12	10%	1404	$196.56	$160.00	$160.00	0.48	156	$21.84	7.33
221.21	305 Classroom	2600	24	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.39	3619.2	$506.69	24	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.28	10%	3257.28	$456.02	$225.00	$225.00	1.11	361.92	$50.67	4.44
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	305 Restroom	1300	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	75.4	$10.56	1	0	No Change	58	0.01	0%	75.4	$10.56	$0.00	$0.00	0.00	0	$0.00	0.00
211.41		1300	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	30	0.03	39	$5.46	1	0	No Change	30	0.01	0%	39	$5.46	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	305 Prep Room	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	303 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00

221.11	304 Wood Shop	2600	34	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	1.97	5127.2	$717.81	34	2	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.39	10%	4614.48	$646.03	$225.00	$450.00	1.58	512.72	$71.78	6.27
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	302 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	301 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Resourse Officer	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Conf. Room	2600	8	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.46	1206.4	$168.90	8	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.09	10%	1085.76	$152.01	$160.00	$160.00	0.37	120.64	$16.89	9.47
222.21	Main Office	2600	7	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.41	1055.6	$147.78	7	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.08	10%	950.04	$133.01	$225.00	$225.00	0.32	105.56	$14.78	15.22
222.21		2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	58	0.03	0%	452.4	$63.34	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Break Room	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
9	Closet	800	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	80	$11.20	1	0	No Change	100	0.02	0%	80	$11.20	$0.00	$0.00	0.00	0	$0.00	0.00
242.21	Men's Restroom	1300	2	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.21	270.4	$37.86	2	0	No Change	104	0.04	0%	270.4	$37.86	$0.00	$0.00	0.00	0	$0.00	0.00
242.21	Women's Restroom	1300	2	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.21	270.4	$37.86	2	0	No Change	104	0.04	0%	270.4	$37.86	$0.00	$0.00	0.00	0	$0.00	0.00
821.21		1300	1	2	Recessed Down Light, (2) 26w PL Lamp	54	0.05	70.2	$9.83	1	0	No Change	54	0.01	0%	70.2	$9.83	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	321 Classroom	2600	12	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.70	1809.6	$253.34	12	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.14	10%	1628.64	$228.01	$225.00	$225.00	0.56	180.96	$25.33	8.88
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	323 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00

221.11	325 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
9	Cust. Closet	1300	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	130	$18.20	1	0	No Change	100	0.02	0%	130	$18.20	$0.00	$0.00	0.00	0	$0.00	0.00
242.21	Classroom	2600	10	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	1.04	2704	$378.56	10	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	104	0.21	10%	2433.6	$340.70	$225.00	$225.00	0.83	270.4	$37.86	5.94
221.21	327 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	329 Classroom	2600	20	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.16	3016	$422.24	20	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.23	10%	2714.4	$380.02	$225.00	$225.00	0.93	301.6	$42.22	5.33
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	328 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	326 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	320 Office	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	58	0.03	0%	452.4	$63.34	$0.00	$0.00	0.00	0	$0.00	0.00
227.21	318 Nurse	2600	4	2	2x2, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.05	10%	542.88	$76.00	$160.00	$160.00	0.19	60.32	$8.44	18.95
3520		2600	0	2	Ceiling Mnt., 15" Rnd White Globe, (2) 60w A19	120	0.00	0	$0.00	0	0	No Change	120	0.00	0%	0	$0.00	$0.00	$0.00	0.00	0	$0.00	0.00
9	Cust. Closet	1300	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	130	$18.20	1	0	No Change	100	0.02	0%	130	$18.20	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Kitchen - Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.04	2714.4	$380.02	18	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.21	10%	2442.96	$342.01	$225.00	$225.00	0.84	271.44	$38.00	5.92
221.21	322 Café	2600	21	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.22	3166.8	$443.35	21	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.24	10%	2850.12	$399.02	$225.00	$225.00	0.97	316.68	$44.34	5.07
222.21	Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.05	10%	542.88	$76.00	$160.00	$160.00	0.19	60.32	$8.44	18.95
221.44	Mech./Elec. Room	800	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	58	0.12	92.8	$12.99	2	0	No Change	58	0.02	0%	92.8	$12.99	$0.00	$0.00	0.00	0	$0.00	0.00
247.21	Alt. Dining Room	2600	24	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	1.44	3744	$524.16	24	2	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	60	0.29	10%	3369.6	$471.74	$225.00	$450.00	1.15	374.4	$52.42	8.59

222.21	Staff Dining	2600	12	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.70	1809.6	$253.34	12	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.14	10%	1628.64	$228.01	$225.00	$225.00	0.56	180.96	$25.33	8.88
247.21		2600	6	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.36	936	$131.04	6	0	No Change	60	0.07	10%	842.4	$117.94	$0.00	$0.00	0.00	93.6	$13.10	0.00
221.15	Kitchen	2600	30	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., No Lens	58	1.74	4524	$633.36	30	2	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.35	10%	4071.6	$570.02	$225.00	$450.00	1.39	452.4	$63.34	7.10
617		2600	5	1	Hood Light w/Globe & Cage, 100w A19 Lamp	100	0.50	1300	$182.00	5	0	No Change	100	0.10	0%	1300	$182.00	$0.00	$0.00	0.00	0	$0.00	0.00
247.21	Walk-in Box Area	2600	4	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.24	624	$87.36	4	0	No Change	60	0.05	0%	624	$87.36	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Women's Restroom	1300	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	58	0.02	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
247.21	OA Dining	2600	24	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	1.44	3744	$524.16	24	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	60	0.29	10%	3369.6	$471.74	$225.00	$225.00	1.15	374.4	$52.42	4.29
211.11	Boiler Room	4200	8	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	30	0.24	1008	$141.12	8	0	No Change	30	0.05	0%	1008	$141.12	$0.00	$0.00	0.00	0	$0.00	0.00
211.11	Elec. Room	4200	2	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	30	0.06	252	$35.28	2	0	No Change	30	0.01	0%	252	$35.28	$0.00	$0.00	0.00	0	$0.00	0.00
242.21	Mech. Room	4200	2	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.21	873.6	$122.30	2	0	No Change	104	0.04	0%	873.6	$122.30	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Staff - Men's Restroom	1300	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	58	0.02	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
247.21		1300	1	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.06	78	$10.92	1	0	No Change	60	0.01	0%	78	$10.92	$0.00	$0.00	0.00	0	$0.00	0.00
9	Storage	800	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	80	$11.20	1	0	No Change	100	0.02	0%	80	$11.20	$0.00	$0.00	0.00	0	$0.00	0.00
242.21	Food Services	2600	5	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.52	1352	$189.28	5	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.10	10%	1216.8	$170.35	$160.00	$160.00	0.42	135.2	$18.93	8.45
222.21	Girl's Restroom	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	58	0.01	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
9	Cust. Closet	800	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	80	$11.20	1	0	No Change	100	0.02	0%	80	$11.20	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Boy's Restroom	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	58	0.01	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
211.41		2600	2	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	30	0.06	156	$21.84	2	0	No Change	30	0.01	0%	156	$21.84	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	123 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
221.31	125 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10

8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	127 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	129 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	128 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	126 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	124 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Counseling Center	2600	10	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.58	1508	$211.12	10	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.12	10%	1357.2	$190.01	$225.00	$225.00	0.46	150.8	$21.11	10.66
9	Cust. Closet	1300	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	130	$18.20	1	0	No Change	100	0.02	0%	130	$18.20	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	122 Crisis Intervention	2600	9	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1357.2	$190.01	9	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.10	10%	1221.48	$171.01	$225.00	$225.00	0.42	135.72	$19.00	11.84
222.21	120 Classroom	2600	12	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.70	1809.6	$253.34	12	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.14	10%	1628.64	$228.01	$225.00	$225.00	0.56	180.96	$25.33	8.88
222.21	Food Closet	2600	6	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.35	904.8	$126.67	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.07	10%	814.32	$114.00	$160.00	$160.00	0.28	90.48	$12.67	12.63
247.21		2600	4	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.24	624	$87.36	4	0	No Change	60	0.05	0%	624	$87.36	$0.00	$0.00	0.00	0	$0.00	0.00

222.21	Main Office	2600	18	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.04	2714.4	$380.02	18	0	No Change	58	0.21	0%	2714.4	$380.02	$0.00	$0.00	0.00	0	$0.00	0.00
247.21		2600	1	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.06	156	$21.84	1	0	No Change	60	0.01	0%	156	$21.84	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Conf. Room	2600	6	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.35	904.8	$126.67	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.07	10%	814.32	$114.00	$160.00	$160.00	0.28	90.48	$12.67	12.63
222.21	Related Services	2600	10	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.58	1508	$211.12	10	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.12	10%	1357.2	$190.01	$160.00	$160.00	0.46	150.8	$21.11	7.58
221.21	Speech	2600	8	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.46	1206.4	$168.90	8	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.09	10%	1085.76	$152.01	$160.00	$160.00	0.37	120.64	$16.89	9.47
221.21	Speech	2600	8	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.46	1206.4	$168.90	8	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.09	10%	1085.76	$152.01	$160.00	$160.00	0.37	120.64	$16.89	9.47
8		2600	1	1	8' 59w T8, Wall Mnt., No Lens	64	0.06	166.4	$23.30	1	0	No Change	64	0.01	0%	166.4	$23.30	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Nurse	2600	5	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.29	754	$105.56	5	0	No Change	58	0.06	0%	754	$105.56	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	104 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	106 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	108 Classroom	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2111.2	$295.57	14	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.16	10%	1900.08	$266.01	$225.00	$225.00	0.65	211.12	$29.56	7.61
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	108 Restroom	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	110 Classroom	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2111.2	$295.57	14	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.16	10%	1900.08	$266.01	$225.00	$225.00	0.65	211.12	$29.56	7.61
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	111 Classroom	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2111.2	$295.57	14	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.16	10%	1900.08	$266.01	$225.00	$225.00	0.65	211.12	$29.56	7.61
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	109 Classroom	2600	14	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2111.2	$295.57	14	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.16	10%	1900.08	$266.01	$225.00	$225.00	0.65	211.12	$29.56	7.61
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00

550	Observation	2600	1	1	Recessed Down Light, 60w A19 Lamp	60	0.06	156	$21.84	1	0	No Change	60	0.01	0%	156	$21.84	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	107 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	105 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
8		2600	2	1	8' 59w T8, Wall Mnt., No Lens	64	0.13	332.8	$46.59	2	0	No Change	64	0.03	0%	332.8	$46.59	$0.00	$0.00	0.00	0	$0.00	0.00
221.11	103 Classroom	2600	13	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., Prismatic Lens	58	0.75	1960.4	$274.46	13	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.15	10%	1764.36	$247.01	$225.00	$225.00	0.60	196.04	$27.45	8.20
8		2600	1	1	8' 59w T8, Wall Mnt., No Lens	64	0.06	166.4	$23.30	1	0	No Change	64	0.01	0%	166.4	$23.30	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Prep Room	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	101 Classroom	2600	13	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.75	1960.4	$274.46	13	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.15	10%	1764.36	$247.01	$225.00	$225.00	0.60	196.04	$27.45	8.20
8		2600	1	1	8' 59w T8, Wall Mnt., No Lens	64	0.06	166.4	$23.30	1	0	No Change	64	0.01	0%	166.4	$23.30	$0.00	$0.00	0.00	0	$0.00	0.00
9	Cust. Closet	1300	1	1	Pendant Mnt., 100w A19 Lamp	100	0.10	130	$18.20	1	0	No Change	100	0.02	0%	130	$18.20	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Time Out	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Time Out	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Women's Restroom	1300	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	58	0.02	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
221.44	Mech. Room	800	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	58	0.12	92.8	$12.99	2	0	No Change	58	0.02	0%	92.8	$12.99	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Media Center	2600	62	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	6.45	16764.8	$2,347.07	62	3	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	104	1.29	10%	15088.32	$2,112.36	$225.00	$675.00	5.16	1676.48	$234.71	2.88
247.21		2600	9	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.54	1404	$196.56	9	0	No Change	60	0.11	0%	1404	$196.56	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Media Center Office	2600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.42	1081.6	$151.42	4	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.08	10%	973.44	$136.28	$160.00	$160.00	0.33	108.16	$15.14	10.57
242.221	AV Room	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1622.4	$227.14	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.12	10%	1460.16	$204.42	$160.00	$160.00	0.50	162.24	$22.71	7.04
6	Connecting Corridor	3600	12	2	4', 2 Lamp, 32w T8, Elect. Ballast, Baffeled Lens	58	0.70	2505.6	$350.78	12	0	No Change	58	0.14	0%	2505.6	$350.78	$0.00	$0.00	0.00	0	$0.00	0.00
221.31		3600	4	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.23	835.2	$116.93	4	1	Daylight Sensor (Sensorswitch PP-20 & CM-PC or equal)	58	0.05	20%	668.16	$93.54	$160.00	$160.00	0.19	167.04	$23.39	6.84

222.21	Physical Therapy	2600	12	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.70	1809.6	$253.34	12	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.14	10%	1628.64	$228.01	$225.00	$225.00	0.56	180.96	$25.33	8.88
222.21	Office	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	58	0.01	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Restroom	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	58	0.01	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	58	0.05	0%	603.2	$84.45	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Office	2600	6	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.35	904.8	$126.67	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.07	10%	814.32	$114.00	$160.00	$160.00	0.28	90.48	$12.67	12.63
3	Therapy Pool	2600	3	2	Recessed Down Light, (2) 26w PL Lamp	54	0.16	421.2	$58.97	3	0	No Change	54	0.03	0%	421.2	$58.97	$0.00	$0.00	0.00	0	$0.00	0.00
737		2600	16	1	175w MH Down Light, Surface Mnt., Polycarb Lens	210	3.36	8736	$1,223.04	16	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	210	0.67	10%	7862.4	$1,100.74	$225.00	$225.00	2.69	873.6	$122.30	1.84
221.34	Pump Room	2600	6	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.35	904.8	$126.67	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.07	10%	814.32	$114.00	$160.00	$160.00	0.28	90.48	$12.67	12.63
222.21	Pool Restroom	1300	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	58	0.02	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Pool Sign Up	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	58	0.01	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
770	Lap Pool	3600	18	1	400w MH, Prismatic Lens	465	8.37	30132	$4,218.48	18	0	No Change	465	1.67	0%	30132	$4,218.48	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Girl's Locker Room	2600	9	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1357.2	$190.01	9	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.10	10%	1221.48	$171.01	$160.00	$160.00	0.42	135.72	$19.00	8.42
222.21	Pool Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	58	0.05	0%	603.2	$84.45	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Boy's Locker Room	2600	9	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1357.2	$190.01	9	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.10	10%	1221.48	$171.01	$160.00	$160.00	0.42	135.72	$19.00	8.42
221.34	Boiler Room	4200	10	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.58	2436	$341.04	10	0	No Change	58	0.12	0%	2436	$341.04	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Related Services	2600	18	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	1.04	2714.4	$380.02	18	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.21	10%	2442.96	$342.01	$225.00	$225.00	0.84	271.44	$38.00	5.92
247.21		2600	26	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	1.56	4056	$567.84	26	0	No Change	60	0.31	0%	4056	$567.84	$0.00	$0.00	0.00	0	$0.00	0.00
3		2600	3	2	Recessed Down Light, (2) 26w PL Lamp	54	0.16	421.2	$58.97	3	0	No Change	54	0.03	0%	421.2	$58.97	$0.00	$0.00	0.00	0	$0.00	0.00

222.21	Women's Restroom	1300	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	226.2	$31.67	3	0	No Change	58	0.03	0%	226.2	$31.67	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		1300	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.06	75.4	$10.56	1	0	No Change	58	0.01	0%	75.4	$10.56	$0.00	$0.00	0.00	0	$0.00	0.00
221.21	Men's Restroom	1300	3	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	226.2	$31.67	3	0	No Change	58	0.03	0%	226.2	$31.67	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		1300	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.06	75.4	$10.56	1	0	No Change	58	0.01	0%	75.4	$10.56	$0.00	$0.00	0.00	0	$0.00	0.00
211.44	Cust. Closet	80	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	30	0.03	2.4	$0.34	1	0	No Change	30	0.01	0%	2.4	$0.34	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Phys Ed Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	58	0.05	0%	603.2	$84.45	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Phys Ed Office	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	58	0.05	0%	603.2	$84.45	$0.00	$0.00	0.00	0	$0.00	0.00
242.211	Pool Lobby	3600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.42	1497.6	$209.66	4	0	No Change	104	0.08	0%	1497.6	$209.66	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Gym Storage	800	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	185.6	$25.98	4	0	No Change	58	0.05	0%	185.6	$25.98	$0.00	$0.00	0.00	0	$0.00	0.00
221.34	Mech. Mezzanine	800	16	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.93	742.4	$103.94	16	0	No Change	58	0.19	0%	742.4	$103.94	$0.00	$0.00	0.00	0	$0.00	0.00
221.44		800	3	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., No Lens	58	0.17	139.2	$19.49	3	0	No Change	58	0.03	0%	139.2	$19.49	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Weight Room	2600	6	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.35	904.8	$126.67	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.07	10%	814.32	$114.00	$160.00	$160.00	0.28	90.48	$12.67	12.63
362.34	ABC Gym	3600	32	6	2x4, 6 Lamp, 54w T5HO Fixture w/Occupancy Sensor	354	11.33	40780.8	$5,709.31	32	0	No Change	354	2.27	0%	40780.8	$5,709.31	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	401 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	402 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	406 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	406 Office	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	58	0.03	0%	452.4	$63.34	$0.00	$0.00	0.00	0	$0.00	0.00

221.31	405 Art	2600	12	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.70	1809.6	$253.34	12	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.14	10%	1628.64	$228.01	$225.00	$225.00	0.56	180.96	$25.33	8.88
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	404 Music	2600	12	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.70	1809.6	$253.34	12	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.14	10%	1628.64	$228.01	$225.00	$225.00	0.56	180.96	$25.33	8.88
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	403 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.37	231 Classroom	2600	24	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Indirect	58	1.39	3619.2	$506.69	24	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.28	10%	3257.28	$456.02	$225.00	$225.00	1.11	361.92	$50.67	4.44
222.21		2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	58	0.05	0%	603.2	$84.45	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Nurse	2600	14	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.81	2111.2	$295.57	14	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.16	10%	1900.08	$266.01	$225.00	$225.00	0.65	211.12	$29.56	7.61
221.41		2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	58	0.01	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
6919		1300	1	1	Recessed Shower Light, 100w A19	100	0.10	130	$18.20	1	0	No Change	100	0.02	0%	130	$18.20	$0.00	$0.00	0.00	0	$0.00	0.00
602		8760	1	2	Incandescent Exit Sign	20	0.02	175.2	$24.53	1	0	No Change	20	0.00	0%	175.2	$24.53	$0.00	$0.00	0.00	0	$0.00	0.00
242.211	Time Out	2600	3	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.31	811.2	$113.57	3	0	No Change	104	0.06	0%	811.2	$113.57	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Conf. Room	2600	9	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.94	2433.6	$340.70	9	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.19	10%	2190.24	$306.63	$160.00	$160.00	0.75	243.36	$34.07	4.70
247.22	M/S Office Hall	2600	8	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	0.48	1248	$174.72	8	0	No Change	60	0.10	0%	1248	$174.72	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Transportation Coordinator	2600	3	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.31	811.2	$113.57	3	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.06	10%	730.08	$102.21	$160.00	$160.00	0.25	81.12	$11.36	14.09
242.221	Ed. Tech. Supervisor	2600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.42	1081.6	$151.42	4	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.08	10%	973.44	$136.28	$160.00	$160.00	0.33	108.16	$15.14	10.57
242.221	Side Offices	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1622.4	$227.14	6	0	No Change	104	0.12	0%	1622.4	$227.14	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	M/S Office	2600	8	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.83	2163.2	$302.85	8	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.17	10%	1946.88	$272.56	$160.00	$160.00	0.67	216.32	$30.28	5.28
221.31	202 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00

221.31	203 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	201 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Restroom	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	58	0.05	0%	603.2	$84.45	$0.00	$0.00	0.00	0	$0.00	0.00
221.41	Women's Restroom	1300	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	58	0.02	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Staff Lounge	2600	7	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.41	1055.6	$147.78	7	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.08	10%	950.04	$133.01	$160.00	$160.00	0.32	105.56	$14.78	10.83
221.41	Staff Restroom	1300	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	150.8	$21.11	2	0	No Change	58	0.02	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
242.211	Cafeteria	2600	15	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	1.56	4056	$567.84	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	104	0.31	10%	3650.4	$511.06	$225.00	$225.00	1.25	405.6	$56.78	3.96
222.21	Kitchen	2600	9	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1357.2	$190.01	9	0	No Change	58	0.10	0%	1357.2	$190.01	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Boy's Restroom	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	58	0.03	0%	452.4	$63.34	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	224 Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2714.4	$380.02	18	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.21	10%	2442.96	$342.01	$225.00	$225.00	0.84	271.44	$38.00	5.92
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.37	223 Classroom	2600	27	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Indirect	58	1.57	4071.6	$570.02	27	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.31	10%	3664.44	$513.02	$225.00	$225.00	1.25	407.16	$57.00	3.95
222.21	223 Restroom	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
222.31	222 Classroom	2600	18	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2714.4	$380.02	18	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.21	10%	2442.96	$342.01	$225.00	$225.00	0.84	271.44	$38.00	5.92
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
222.31	221 Classroom	2600	18	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2714.4	$380.02	18	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.21	10%	2442.96	$342.01	$225.00	$225.00	0.84	271.44	$38.00	5.92
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00

745	220 Shop	2600	9	1	250w MH Down Light w/Prismatic Lens	295	2.66	6903	$966.42	9	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	295	0.53	10%	6212.7	$869.78	$160.00	$160.00	2.12	690.3	$96.64	1.66
221.34	Elec. Room	800	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.12	92.8	$12.99	2	0	No Change	58	0.02	0%	92.8	$12.99	$0.00	$0.00	0.00	0	$0.00	0.00
242.211	Sensory Room	2600	7	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	104	0.73	1892.8	$264.99	7	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.15	10%	1703.52	$238.49	$160.00	$160.00	0.58	189.28	$26.50	6.04
221.31	Elec. Room	800	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.06	46.4	$6.50	1	0	No Change	58	0.01	0%	46.4	$6.50	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	205 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.37	207 Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Indirect	58	1.04	2714.4	$380.02	18	2	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.21	10%	2442.96	$342.01	$225.00	$450.00	0.84	271.44	$38.00	11.84
221.21		2600	9	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.52	1357.2	$190.01	9	0	No Change	58	0.10	0%	1357.2	$190.01	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	207 Restroom	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	1	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	58	0.01	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Boy's Restroom	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	58	0.03	0%	452.4	$63.34	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
211.44	Cust. Closet	800	1	1	1x4, 1 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	30	0.03	24	$3.36	1	0	No Change	30	0.01	0%	24	$3.36	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Girl's Restroom	2600	3	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.17	452.4	$63.34	3	0	No Change	58	0.03	0%	452.4	$63.34	$0.00	$0.00	0.00	0	$0.00	0.00
221.41		2600	2	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Wall Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	213 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	215 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.14	Records	2600	4	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Surface Mnt., No Lens	58	0.23	603.2	$84.45	4	0	No Change	58	0.05	0%	603.2	$84.45	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Time Out	2600	4	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.23	603.2	$84.45	4	0	No Change	58	0.05	0%	603.2	$84.45	$0.00	$0.00	0.00	0	$0.00	0.00

221.31	216 Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2714.4	$380.02	18	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.21	10%	2442.96	$342.01	$225.00	$225.00	0.84	271.44	$38.00	5.92
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00

222.21	214 Classroom	2600	8	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.46	1206.4	$168.90	8	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.09	10%	1085.76	$152.01	$160.00	$160.00	0.37	120.64	$16.89	9.47
221.31	212 Classroom	2600	18	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.04	2714.4	$380.02	18	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.21	10%	2442.96	$342.01	$225.00	$225.00	0.84	271.44	$38.00	5.92
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
221.31	210 Classroom	2600	15	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.87	2262	$316.68	15	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.17	10%	2035.8	$285.01	$225.00	$225.00	0.70	226.2	$31.67	7.10
4		2600	4	1	4' 32w T8, Wall Mnt., No Lens	30	0.12	312	$43.68	4	0	No Change	30	0.02	0%	312	$43.68	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	Day Care	2600	16	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.93	2412.8	$337.79	16	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.19	10%	2171.52	$304.01	$225.00	$225.00	0.74	241.28	$33.78	6.66
222.21	Over 21 Program	2600	12	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.70	1809.6	$253.34	12	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.14	10%	1628.64	$228.01	$160.00	$160.00	0.56	180.96	$25.33	6.32
222.22		2600	22	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	58	1.28	3317.6	$464.46	22	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	58	0.26	10%	2985.84	$418.02	$225.00	$225.00	1.02	331.76	$46.45	4.84
222.21	Restroom	2600	1	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.06	150.8	$21.11	1	0	No Change	58	0.01	0%	150.8	$21.11	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Board Office	2600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.42	1081.6	$151.42	4	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.08	10%	973.44	$136.28	$160.00	$160.00	0.33	108.16	$15.14	10.57
242.221	BA Office	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1622.4	$227.14	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.12	10%	1460.16	$204.42	$160.00	$160.00	0.50	162.24	$22.71	7.04
242.221	BA Office	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1622.4	$227.14	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.12	10%	1460.16	$204.42	$160.00	$160.00	0.50	162.24	$22.71	7.04
242.221	Conf. Room	2600	4	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.42	1081.6	$151.42	4	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.08	10%	973.44	$136.28	$160.00	$160.00	0.33	108.16	$15.14	10.57
222.211	BA Office	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
222.21	BA Office	2600	2	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.12	301.6	$42.22	2	0	No Change	58	0.02	0%	301.6	$42.22	$0.00	$0.00	0.00	0	$0.00	0.00
242.221	Superintendent's Office	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1622.4	$227.14	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.12	10%	1460.16	$204.42	$160.00	$160.00	0.50	162.24	$22.71	7.04
242.221	Superintendent's Office	2600	6	4	2x4, 4 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Parabolic Lens	104	0.62	1622.4	$227.14	6	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	104	0.12	10%	1460.16	$204.42	$160.00	$160.00	0.50	162.24	$22.71	7.04
3	Board Meeting Room	2600	12	2	Recessed Down Light, (2) 26w PL Lamp	54	0.65	1684.8	$235.87	12	1	2 Pole Power Pack w/Dual Tech. Occupancy Sensor (Sensorswitch or equal)	54	0.13	10%	1516.32	$212.28	$225.00	$225.00	0.52	168.48	$23.59	9.54
221.31		2600	11	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	0.64	1658.8	$232.23	11	0	No Change	58	0.13	0%	1658.8	$232.23	$0.00	$0.00	0.00	0	$0.00	0.00

221.34	Maintenance	4200	16	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.93	3897.6	$545.66	16	1	Dual Technology Occupancy Sensor (Sensorswitch or equal)	58	0.19	10%	3507.84	$491.10	$160.00	$160.00	0.74	389.76	$54.57	2.93

706	Exterior	2200	66	1	70w HPS Wallpack	92	6.07	13358.4	$1,870.18	66	0	No Change	92	1.21	0%	13358.4	$1,870.18	$0.00	$0.00	0.00	0	$0.00	0.00
725		2200	27	1	150w HPS Wallpack	188	5.08	11167.2	$1,563.41	27	0	No Change	188	1.02	0%	11167.2	$1,563.41	$0.00	$0.00	0.00	0	$0.00	0.00
760		2200	28	1	400w HPS "Shoebox"	465	13.02	28644	$4,010.16	28	0	No Change	465	2.60	0%	28644	$4,010.16	$0.00	$0.00	0.00	0	$0.00	0.00
247.21	Corridors - Ocean Academy	3600	87	4	2x2, 4 Lamp, 17w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	60	5.22	18792	$2,630.88	87	0	No Change	60	1.04	0%	18792	$2,630.88	$0.00	$0.00	0.00	0	$0.00	0.00
222.21		3600	5	2	2x4, 2 Lamp, 32w T8, Elect. Ballast, Recessed Mnt., Prismatic Lens	58	0.29	1044	$146.16	5	0	No Change	58	0.06	0%	1044	$146.16	$0.00	$0.00	0.00	0	$0.00	0.00
3	Corridors - MS	3600	56	2	Recessed Down Light, (2) 26w PL Lamp	54	3.02	10886.4	$1,524.10	56	0	No Change	54	0.60	0%	10886.4	$1,524.10	$0.00	$0.00	0.00	0	$0.00	0.00
6		3600	247	2	4', 2 Lamp, 32w T8, Elect. Ballast, Baffeled Lens	58	14.33	51573.6	$7,220.30	247	0	No Change	58	2.87	0%	51573.6	$7,220.30	$0.00	$0.00	0.00	0	$0.00	0.00
221.34		3600	8	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., No Lens	58	0.46	1670.4	$233.86	8	0	No Change	58	0.09	0%	1670.4	$233.86	$0.00	$0.00	0.00	0	$0.00	0.00
221.31		3600	34	2	1x4, 2 Lamp, 32w T8, Elect. Ballast, Pendant Mnt., Prismatic Lens	58	1.97	7099.2	$993.89	34	0	No Change	58	0.39	0%	7099.2	$993.89	$0.00	$0.00	0.00	0	$0.00	0.00
	Totals		2,552	537			193.66	536,291	$75,081	2,552	113			38.7	11	$510,718	$71,500		23215.0	78	$25,574	3580.32	6.48