ENERGY SAVINGS IMPROVEMENT PROGRAM

ROCHELLE PARK BOARD OF EDUCATION

ENERGY SAVINGS PLAN

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Voorhees, New Jersey 08043

Project No. 1C14498

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I. Executive Summary

Concord Engineering has been tasked with providing the Rochelle Park Board of Education with an Energy Savings Plan (ESP) that will be utilized to implement an Energy Savings Improvement Program (ESIP) in accordance with NJ Public Law 2009, Chapter 4. The Energy Savings Plan is a multi-faceted report that contains a multitude of information in order to aid the District in making implementation decisions. The basics of the ESP consist of the calculated energy conservation measures, their respective construction costs and the cash flow analysis over the fifteen year term as allowed by the ESIP legislation. Additionally, items such as design and compliance issues, maintenance requirements, greenhouse gas reduction, etc., are also included in the plan.

Prior to implementing an ESP, the Rochelle Park BOE needed to have an initial energy audit conducted. This audit was conducted by Concord Engineering in January 2014 and encompassed the District's Midland School #1. The energy audit report is on file with the District and includes the facility specific building descriptions, major equipment lists, etc., to be used for reference to this document. The results of the initial energy audit are utilized as the framework for the ESP. Rochelle Parks' initial energy goals were to implement the lighting measures as outlined in the Energy Audit Report. Some enhancements to the initial measure scope have been made based on the designing of the lighting in the spaces, and the incorporation of the Direct Install Program into the overall project.

In order to complete the ultimate goal of the ESP, to provide a project that can show energy cost savings that will pay for the costs to implement the project in a 15 year term, a baseline energy usage profile needs to be created for each facility in the District. Concord Engineering analyzed the utility usage and cost for the District utilizing the most recent baseline period of January 2014 to December 2014. The summarized District-wide baseline energy consumption and cost data are as follows:

	2013	**2014**
Total District Electric Usage:	511,848	507,380
Total District Natural Gas Usage:	59,999	62,531
Total District Utility Cost:	$127,916	$138,152

The baseline energy data for the District was then utilized to prepare the energy conservation measure calculations noted above and included in **Section V** and to help prepare recommended scenarios for implementation as outlined in **Section IX** and **Appendix A**.

The resultant projected cash flows will enable the District to fund all of the projects within the Energy Savings Plan scope of work for a Net Project Cost of $238,229 with $125,000 in Direct Install incentives and a annual savings of $20,254 or 15% annual cost reduction.

Overall, Concord Engineering is pleased to provide the District with the ESP results and believes the District is in a great position to implement a program that provides much needed upgrades to their facilities' equipment.

II. Introduction

The New Jersey State Legislature approved Assembly Bill Number A1185 and A2313 & 2564 that allows certain local public entities to enter into contracts for up to 15 years for energy conservation or provisions of renewable energy production at buildings owned by such entities. Furthermore, this allows government agencies to make these energy related improvements to their facilities and pay for the costs using the energy savings value that result. The enacted Chapter 4 of the Laws of 2009, the "Energy Savings Improvement Program" (ESIP), provides all government agencies in New Jersey with a flexible tool to improve and reduce energy usage with minimal expenditure of new financial resources. Guidelines for implementation of this program have been provided through the Department of Community Affairs Local Finance Notice 2009-11, and subsequent protocols provided by the Board of Public Utilities Docket No. EO09020128 dated 2/24/2009 for computing energy costs savings.

The first step, (after having completed an Energy Audit) to implementing an Energy Savings Improvement Program is creation of the Energy Savings Plan (ESP). The plan is created to bridge the gap between what is outlined in the energy audit report to a more detailed scope of work with more refined cost estimates and energy savings to provide the owner with a cash flow analysis over the life of the contract. The ESP identifies and describes each energy conservation measure that will comprise the ESIP, an estimate of greenhouse gas reductions from the resultant savings, identification of all design and compliance issues, maintenance requirements necessary to ensure continued savings, identification of eligibility for PJM demand response and curtailable service programs, and an assessment of any risks associated with implementation of the plan. The plan is used as a reference document to provide information to the local entity for the purposes of soliciting proposals from qualified Energy Services Companies (ESCO) to implement the project or they can choose to self-implement and use the plan to secure funding and move into construction services.

III. Energy Audit Results

The Rochelle Park Board of Education had an energy audit performed by Concord Engineering that encompassed the District's Midland School #1. The audit was performed in January 2014.

The report was consistent with the Board of Public Utilities Local Government Energy Audit Program guidelines. The audit provided a basic list of energy conservations measures for each facility that ranged from small low/no cost measures to more capital intensive measures. Each of the measures was evaluated and assigned an estimated construction cost and a projected energy savings using industry standard practices and engineering judgment.

The energy audit provided a list of recommended energy efficiency upgrades that were used as a base for developing the Energy Savings Plan. These recommendations were further analyzed, along with new recommendations developed through further analysis of the facilities and District's operating characteristics. In addition, the energy audit report provided valuable information regarding building occupancy, operating hours, and utility data which was utilized for creating the baseline building profile. The energy audit reports were used in developing the Energy Savings Plan, but not directly referenced and as such not included as an attachment to this report.

The energy audit reports are on file with the School District and include the facility specific building descriptions, major equipment lists, etc., to be used for reference to this document.

IV. Historic Energy Consumption and Costs

The District facilities are currently delivered electricity from Public Service Electric and Gas under Large Power & Lighting Secondary rate tariff. Natural Gas is provided by Public Service Electric and Gas under Large Volume Gas rate tariff. The District also utilizes a third party supplier, Direct Energy, for electricity commodity purchasing, and Hess, for natural gas commodity purchasing. The utility data provided by the District represents more than two calendar years from October 2012 to December 2014, with utilization of a baseline period from January 2014 to December 2014.

Table 1: Baseline Energy Cost Rates

ELECTRIC UTILITY RATE INFORMATION							
FACILITY	UTILITY CO.	RATE CLASS	SUPPLY COST ($/KWH)	WINTER DELIVERY		SUMMER DELIVERY	
				DEMAND ($/KW)	USAGE ($/KWH)	DEMAND ($/KW)	USAGE ($/KWH)
Midland School #1	PSEG	LPLS	$0.0956	$3.599	$0.02696	$12.162	$0.02696

NATURAL GAS UTILITY RATE INFORMATION							
FACILITY	UTILITY CO.	RATE CLASS	SUPPLY COST ($/Therm)	WINTER DELIVERY		SUMMER DELIVERY	
				DEMAND ($/D-Therm)	USAGE ($/Therm)	DEMAND ($/D-Therm)	USAGE ($/Therm)
Midland School #1	PSEG	LVG	$0.5358	$3.787	$0.19817	$0.000	$0.13618

The Electric and Natural Gas utility charges are based on most recent published rates from PSE&G as of January 2015. The Supply costs are based on the most recent third party billing information.

The baseline utility usage period was used as the basis for each building in order to calculate energy savings. The usage information along with collected building information such as lighting, mechanical equipment, and occupancy profiles; and industry standard practices and assumptions were used in creating the energy profile.

Table 2: Electric Consumption Summary

ELECTRIC USAGE SUMMARY

Utility Provider: PSE&G
Rate: LPLS / BPL
Meter No: 778013039 / unmetered
Account No: 42 003 139 01 / 67 334 238 04
Third Party Utility Provider: Champion Energy Services / Direct Energy
TPS Meter / Acct No: 5412041561 / 1243104

MONTH OF USE	CONSUMPTION KWH	DEMAND KW	TOTAL BILL
Oct-12	43,181	158.4	$5,452
Nov-12	30,953	136.0	$4,063
Dec-12	46,833	140.8	$5,713
Jan-13	43,960	142.4	$5,644
Feb-13	42,400	147.2	$5,490
Mar-13	47,107	142.4	$5,918
Apr-13	43,419	142.4	$5,580
May-13	42,059	171.2	$5,531
Jun-13	49,291	182.4	$8,853
Jul-13	39,245	128.0	$6,960
Aug-13	26,899	94.4	$4,989
Sep-13	45,308	187.2	$8,434
Oct-13	42,560	169.6	$6,370
Nov-13	43,200	144.0	$6,362
Dec-13	46,400	0.0	$6,101
Jan-14	43,200	142.4	$6,316
Feb-14	42,400	145.6	$6,370
Mar-14	46,080	147.2	$6,893
Apr-14	43,840	150.4	$6,612
May-14	38,240	140.8	$5,850
Jun-14	47,840	169.6	$8,568
Jul-14	39,520	121.6	$6,919
Aug-14	26,240	136.0	$4,790
Sep-14	54,403	99.4	$9,972
Oct-14	43,660	0.0	$6,483
Nov-14	37,894	121.8	$5,663
Dec-14	44,063	128.5	$7,465
Totals	**1,140,195**	**187.2 Max**	**$173,359**

AVERAGE DEMAND **133.0 KW average**
AVERAGE RATE **$0.152 $/kWh**

Figure 1: Electric Usage Profile

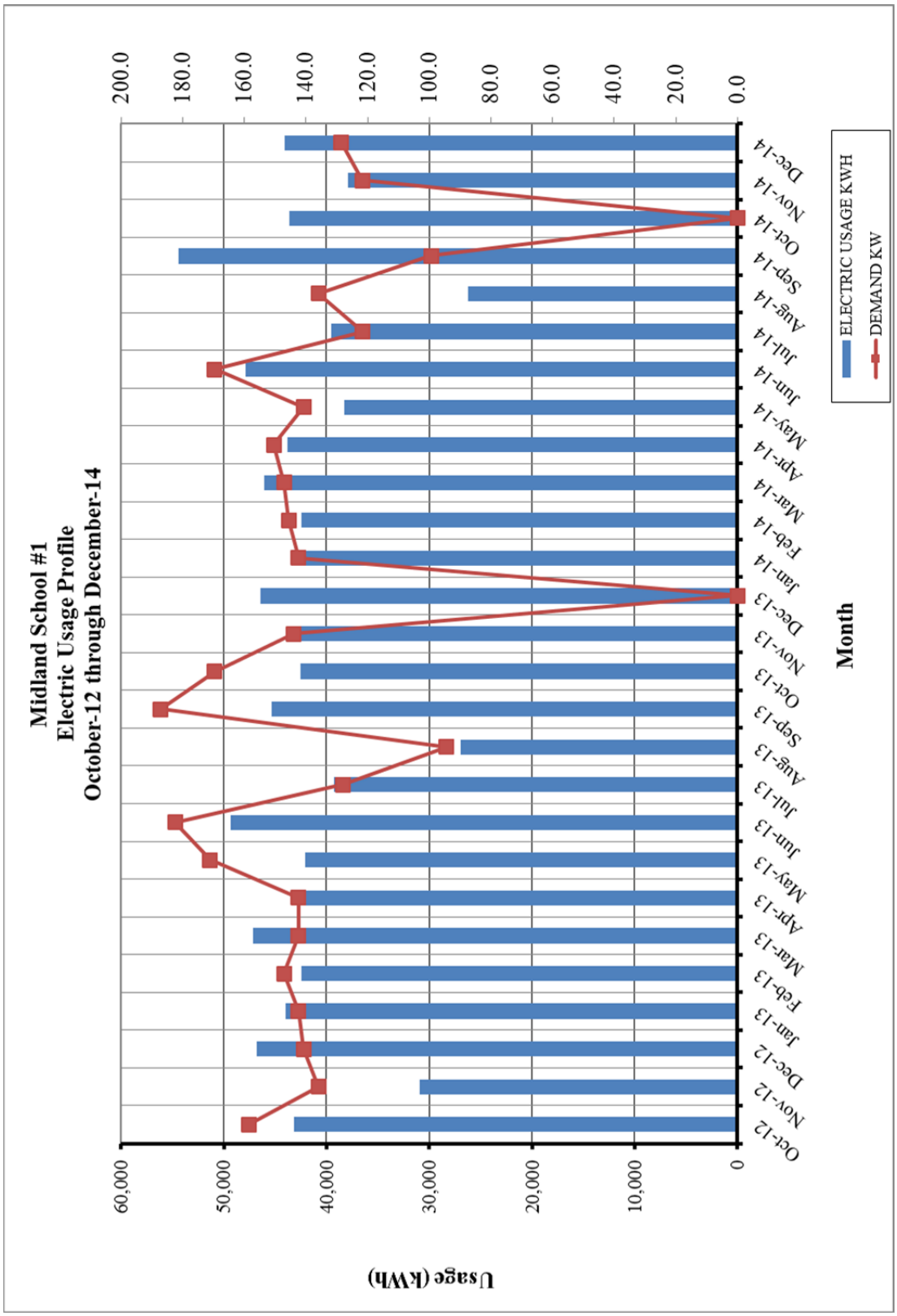


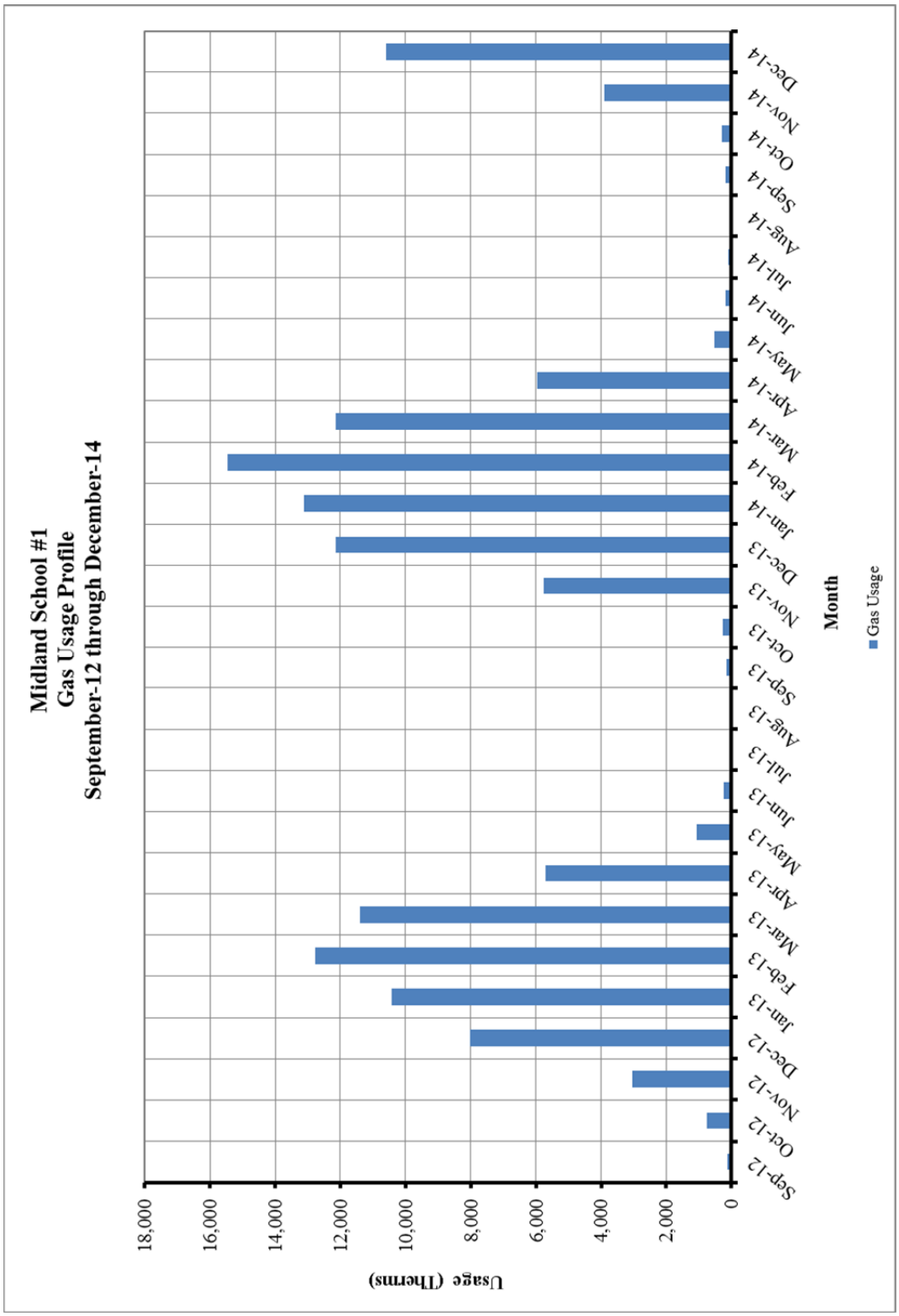
Table 3: Natural Gas Consumption Summary

NATURAL GAS USAGE SUMMARY

Utility Provider: PSE&G
Rate: LVG
Meter No: 2917582
Account No: 42 003 139 01
Third Party Utility Provider: Hess
TPS Meter No: 397495/397540

MONTH OF USE	CONSUMPTION (THERMS)	TOTAL BILL
Sep-12	126.30	$96.67
Oct-12	745.33	$519.56
Nov-12	3,042.49	$3,502.34
Dec-12	8,010.97	$7,237.39
Jan-13	10,412.68	$8,970.11
Feb-13	12,785.31	$10,751.28
Mar-13	11,385.45	$10,074.55
Apr-13	5,701.14	$3,829.04
May-13	1,059.85	$861.61
Jun-13	236.09	$275.79
Jul-13	50.66	$139.42
Aug-13	53.98	$139.99
Sep-13	151.63	$204.47
Oct-13	273.86	$284.23
Nov-13	5,748.55	$5,838.66
Dec-13	12,139.60	$10,315.72
Jan-14	13,107.42	$11,796.01
Feb-14	15,453.30	$14,637.41
Mar-14	12,151.12	$11,736.98
Apr-14	5,951.46	$4,390.34
May-14	530.40	$511.49
Jun-14	188.33	$247.43
Jul-14	84.42	$156.27
Aug-14	67.81	$141.54
Sep-14	175.94	$205.28
Oct-14	303.21	$259.57
Nov-14	3,908.68	$3,379.08
Dec-14	10,608.66	$8,790.96
TOTALS	**134,454.64**	**$119,293.19**
AVERAGE RATE:	**$0.89**	**$/THERM**

Figure 2: Natural Gas Usage Profile



V. Energy Conservation Measures (ECM)

Energy Conservation Measures (ECM) were developed specifically for the District's facilities based on the preliminary framework set by the initial energy audit conducted by Dome-Tech and expanded upon based on Concord Engineering's follow-up field surveys, measurements and further investigation. Tables 4 & 5 below provide a summary of the associated utility cost savings and energy savings for each energy conservation measure calculated for the District. Immediately following the summary tables are the actual description and calculations per ECM.

Table 4: Energy Cost Savings Summary

TABLE 2: ENERGY COST SAVINGS					
ECM NO.	BUILDING	DESCRIPTION	ANNUAL UTILITY COST SAVINGS		
			ELECTRIC SAVINGS	NATURAL GAS SAVINGS	TOTAL SAVINGS
ECM #1	Midland School	Lighting Upgrade - Interior	$10,491	$0	$10,491
ECM #2	Midland School	Lighting Upgrade - Exterior	($128)	$0	($128)
ECM #3	Midland School	Lighting Upgrade - Gym Addition	$1,995	$0	$1,995
ECM #4	Midland School	Lighting Controls	$1,167	$0	$1,167
ECM #5	Midland School	Rooftop Unit Replacement	$2,493	$0	$2,493
ECM #6	Midland School	RTU Dual Enthalpy Economizer	$2,705	$0	$2,705
ECM #7	Midland School	Fuel Use Economizers	$910	$0	$910
ECM #8	Midland School	Water Efficiency	$0	$621	$621
TOTAL		**ALL MEASURES SAVINGS**	**$19,634**	**$621**	**$20,254**

Table 5: Energy Usage Savings Summary

TABLE 3: ENERGY CONSUMPTION SAVINGS					
ECM NO.	BUILDING	DESCRIPTION	ANNUAL UTILITY REDUCTION		
			ELECTRIC DEMAND (KW)	ELECTRIC CONS. (KWH)	NATURAL GAS (THERMS)
ECM #1	Midland School	Lighting Upgrade - Interior	27.6	68,124	0
ECM #2	Midland School	Lighting Upgrade - Exterior	-0.2	(904)	0
ECM #3	Midland School	Lighting Upgrade - Gym Addition	3.5	11,354	0
ECM #4	Midland School	Lighting Controls	0.0	9,519	0
ECM #5	Midland School	Rooftop Unit Replacement	9.7	16,374	0
ECM #6	Midland School	RTU Dual Enthalpy Economizer	4.5	20,125	0
ECM #7	Midland School	Fuel Use Economizers	0.0	7,372	0
ECM #8	Midland School	Water Efficiency	0.0	0	697
TOTAL		**ALL MEASURES SAVINGS**	**45.1**	**131,964**	**697**

ECM #1: Lighting Upgrade – Interior Main

Description:

Lighting throughout Midland School is comprised of a variety of fixture types being older linear fixtures with 32 Watt T-8 lamps, incandescent/CFL down lights, and some 34 watt T-12 lamps.

This ECM includes the following:

- Replacement / Retrofit of all Classrooms, Hallway, Offices, Boiler Room, and Media Center Lighting over the three floors in the main building section.
- New lighting will consist of pendant mounted linear LED type fixtures in four and eight foot length.
- Retrofitted fixtures will; have new 4 foot and 2 foot LED Tubes.
- Most of the lighting is being performed under Direct Install, with some remaining areas being completed separately such as the Media Center.

The existing and proposed lighting retrofits are shown per space in the **Investment Grade Lighting Audit Appendix** of this analysis.

Description of Scope:

Preliminary Scope

- Bid proposals requested from contractors
- Fixture, Lamp and Ballast submittals
- Direct Install Work Scope and NJOCE Final Sign Off.

Construction Scope

Construction scope includes:

- Remove existing fixtures in proposed areas.
- Install new fixture and electrical connections as required
- Recycling of all disposed lamps and ballasts.
- Test operation of all new light fixtures.
- Completion of Direct Install work by appropriate contractor (Lime Energy)

Energy Savings Calculations / Results:

The energy savings have been tabulated based on occupancy profiles recorded through data loggers installed through various spaces in the facility. The information includes total burn hours for each space measured as well as total occupied burn hours for each space measured. The total measured burn hours were used to calculate the existing lighting energy. The total measured occupied burn hours were used to calculate the proposed lighting energy. The proposed lighting energy is based on the installation of all proposed fixture retrofits, as well as installation of

occupancy sensors for all proposed areas. All areas proposed for a retrofit or sensor installation are shown in the **Investment Grade Lighting Audit Appendix**.

Energy savings calculations are based on the difference between the existing and proposed facility energy use.

LIGHTING UPGRADE CALCULATIONS - INTERIOR MAIN				
ECM INPUTS		**EXISTING**	**PROPOSED**	**SAVINGS**
Building	**Parameter**	Existing Lighting System	Lighting Upgrade	
Midland School	Electric Demand (kW)	67.4	39.8	27.6
	Electric Consumption (kWh)	151,852	83,729	68,124
	Electric Cost ($)	$23,841	$13,350	$10,491
ENERGY SAVINGS CALCULATIONS				
ECM RESULTS		**EXISTING**	**PROPOSED**	**SAVINGS**
Total Demand (kW)		67.4	39.8	27.6
Total Energy (kWh)		151,852	83,729	68,124
Energy Cost ($)		$23,841	$13,350	$10,491
COMMENTS:	Hours of operation are based on logged hours.			

Project Cost Estimate:

PROJECT COST ESTIMATE	
Description	**$**
Gross Project Cost	$168,872
Anticipated Direct Install Incentive	$46,571
Net Project Cost	$122,301

Note: Direct Install incentive is only for value of work being covered under their proposal.

ECM #2: Lighting Upgrade – Exterior

Description:

Lighting on the exterior at Midland School is comprised of mainly older generation metal halide high intensity discharge type lamps and fixtures, and high pressure sodium lamps and fixtures.

This ECM includes the following:

- Replacement of all building mounted exterior lighting.
- New LED wall pack type units will be installed around the building perimeter.
- The exterior lighting was redesigned with a new lighting layout to maximize light levels.
- The lighting redesign was completed by Environetics, and is the source of the overall retrofit strategy.

The existing and proposed lighting retrofits are shown per space in the **Investment Grade Lighting Audit Appendix** of this analysis.

Description of Scope:

Preliminary Scope

- Bid proposals requested from contractors
- Fixture, Lamp and Ballast submittals

Construction Scope

Construction scope includes:

- Remove existing fixtures in proposed areas.
- Install new fixture and electrical connections as required
- Recycling of all disposed lamps and ballasts.
- Test operation of all new light fixtures.

Energy Savings Calculations / Results:

The energy savings have been tabulated based on occupancy profiles recorded through data loggers installed through various spaces in the facility. The information includes total burn hours for each space measured as well as total occupied burn hours for each space measured. The total measured burn hours were used to calculate the existing lighting energy. The total measured occupied burn hours were used to calculate the proposed lighting energy. The proposed lighting energy is based on the installation of all proposed fixture retrofits, as well as installation of occupancy sensors for all proposed areas. All areas proposed for a retrofit or sensor installation are shown in the **Investment Grade Lighting Audit Appendix**.

Energy savings calculations are based on the difference between the existing and proposed facility energy use.

LIGHTING EXTERIOR UPGRADE CALCULATIONS				
ECM INPUTS		**EXISTING**	**PROPOSED**	**SAVINGS**
Building	**Parameter**	Existing Lighting System	Lighting Upgrade	
Midland School	Electric Demand (kW)	3.2	3.4	(0.2)
	Electric Consumption (kWh)	12,756	13,660	-904
	Electric Cost ($)	$1,811	$1,939	($128)
ENERGY SAVINGS CALCULATIONS				
ECM RESULTS		**EXISTING**	**PROPOSED**	**SAVINGS**
Total Demand (kW)		3.2	3.4	(0.2)
Total Energy (kWh)		12,756	13,660	-904
Energy Cost ($)		$1,811	$1,939	-$128
COMMENTS:	Hours of operation are based on logged hours.			

Project Cost Estimate:

PROJECT COST ESTIMATE	
Description	**$**
Gross Project Cost	$22,150
Anticipated NJ OCE Incentive	$0
Net Project Cost	$22,150

ECM #3: Lighting Upgrade – Gym Addition

Description:

Lighting throughout the Midland School Gymnasium Addition is comprised of metal halide high bay light fixtures and fluorescent T8 lay-in fixtures in the locker room areas.

This ECM includes the following:

- Replacement of all existing HID light fixtures. New 125 watt LED High Bay type fixtures will be installed.
- Recessed lay-in fixture will be retrofitted with 4' and 2' LED tube lamps
- Retrofit of Gym Entry Lobby Recessed Can fixtures with LED Retrofit Kits.

The existing and proposed lighting retrofits are shown per space in the **Investment Grade Lighting Audit Appendix** of this analysis.

Description of Scope:

Preliminary Scope

- Being Completed by Direct Install Contractor.
- Direct Install Work Scope and NJOCE Final Sign Off.

Construction Scope

Construction scope includes:

- Remove existing fixtures where replacement fixtures are proposed.
- Install new fixture and electrical connections as required
- Install new fixture retrofit kit where applicable
- Remove and dispose of existing lamps and install new lamps where re-lamping fixtures are proposed.
- Recycling of all disposed lamps and ballasts.
- Test operation of all new light fixtures.
- Completion of all Direct Install work by qualified contractor. (Lime Energy)

Energy Savings Calculations / Results:

The energy savings have been tabulated based on occupancy profiles recorded through data loggers installed through various spaces in the facility. The information includes total burn hours for each space measured as well as total occupied burn hours for each space measured. The total measured burn hours were used to calculate the existing lighting energy. The total measured occupied burn hours were used to calculate the proposed lighting energy. The proposed lighting energy is based on the installation of all proposed fixture retrofits, as well as installation of

occupancy sensors for all proposed areas. All areas proposed for a retrofit or sensor installation are shown in the **Investment Grade Lighting Audit Appendix**.

Energy savings calculations are based on the difference between the existing and proposed facility energy use.

LIGHTING GYMNASIUM ADDITION UPGRADE CALCULATIONS				
ECM INPUTS		**EXISTING**	**PROPOSED**	**SAVINGS**
Building	**Parameter**	Existing Lighting System	Lighting Upgrade	
Midland School	Electric Demand (kW)	8.3	4.2	4.1
	Electric Consumption (kWh)	27,228	13,535	13,693
	Electric Cost ($)	$3,977	$1,982	$1,995
ENERGY SAVINGS CALCULATIONS				
ECM RESULTS		**EXISTING**	**PROPOSED**	**SAVINGS**
Total Demand (kW)		8.3	4.2	4.1
Total Energy (kWh)		27,228	13,535	13,693
Energy Cost ($)		$3,977	$1,982	$1,995
COMMENTS:	Hours of operation are based on logged hours.			

Project Cost Estimate:

PROJECT COST ESTIMATE	
Description	**$**
Gross Project Cost	$16,916
Anticipated Direct Install Incentive	$6,462
Net Project Cost	$10,454

Note: Direct Install incentive is only for value of work being covered under their proposal.

ECM #4: Lighting Controls

Description:

The lighting controls required within this facility extend to classrooms, restrooms, offices and work rooms. The lighting is primarily controlled by manual wall switches. This ECM includes the installation of dual technology occupancy/vacancy sensors for all applicable spaces in the school.

This ECM includes replacement of existing wall mounted switches with dual technology wall and remote mounted occupancy/vacancy sensors. The existing and proposed lighting retrofits and lighting controls are shown per space in the **Investment Grade Lighting Audit Appendix** of this analysis.

Description of Scope:

Preliminary Scope

- Bid proposals requested from contractors
- Lighting Controls submittals

Construction Scope

Construction scope includes:

- Remove existing wall switch for wall mount occupancy/vacancy sensor locations.
- Install new dual technology occupancy/vacancy sensor in wall switch electrical box.
- Install ceiling mounted occupancy/vacancy sensors where indicated on the lighting appendix or where wall mounted occupancy sensor coverage is not adequate.
- Install additional occupancy/vacancy sensors for additional coverage as needed per the manufacturer's installation instructions.
- Install remote power packs as needed to accommodate existing switching scheme and quantity.
- Test operation of all new occupancy controls.

Energy Savings Calculations / Results:

The energy savings have been tabulated based on occupancy profiles recorded through data loggers installed through various spaces in the facility. The information includes total burn hours for each space measured as well as total occupied burn hours for each space measured. The total measured burn hours were used to calculate the existing lighting energy. The total measured occupied burn hours were used to calculate the proposed lighting energy. The proposed lighting energy is based on the installation of all proposed fixture retrofits, as well as installation of occupancy sensors for all proposed areas. All areas proposed for a retrofit or sensor installation are shown in the **Investment Grade Lighting Audit Appendix**.

Energy savings calculations are based on the difference between the existing and proposed facility energy use.

LIGHTING CONTROLS CALCULATIONS				
ECM INPUTS		PROPOSED	PROPOSED	SAVINGS
Building	Parameter	Lighting Upgrade	Lighting Controls	
Midland School	Electric Demand (kW)	78.9	78.9	0.0
	Electric Consumption (kWh)	191,836	182,317	9,519
	Electric Cost ($)	$29,629	$28,462	$1,167
ENERGY SAVINGS CALCULATIONS				
ECM RESULTS		PROPOSED	PROPOSED	SAVINGS
Total Demand (kW)		78.9	78.9	0.0
Total Energy (kWh)		191,836	182,317	9,519
Energy Cost ($)		$29,629	$28,462	$1,167
COMMENTS:	Lighting Controls Savings based on lighting upgrade reduction			

Project Cost Estimate:

PROJECT COST ESTIMATE	
Description	**$**
Gross Project Cost	$32,500
Anticipated NJ OCE Incentive	$0
Net Project Cost	$32,500

ECM #5: Rooftop Units Replacement

Description:

The school has four aging rooftops that serve the cafeteria, media center, and gymnasium. These units are at the end of their useful life and could be replaced with more efficient units. The existing unit cooling capacities are one 12.5 ton, one 15 ton, and two 20 ton units.

These units will be replaced with new high efficiency units under the Direct Install scope of work being completed.

Description of Scope:

Preliminary Scope

- Direct Install contractor visits site and verifies existing conditions.
- Direct Install contractor submits scope of work to owner and Office of Clean Energy for approval.

Construction Scope

Construction scope includes:

- Remove existing rooftop units.
- Install new rooftop units in place of old units.
- Reconnect existing supply and return duct connections.
- As necessary install adapter curbs.
- Reconnect electrical wiring to new unit.

Energy Savings Calculations / Results:

The energy savings calculations have been performed in accordance with the NJBPU Protocol to Measure Resource Savings dated March 2014. Equipment information is based on existing conditions and proposed units to be installed under Direct Install.

$$\text{Demand Savings (kW)} = \left(\frac{\text{Btu}}{\text{h}} \times \frac{1\ \text{kW}}{1{,}000\ \text{W}}\right) \times \left(\frac{1}{\text{EER}_\text{E}} - \frac{1}{\text{EER}_\text{P}}\right) \times \text{CF}$$

$$\text{Energy Savings (kWh)} = \left(\frac{\text{Btu}}{\text{h}} \times \frac{1\ \text{kW}}{1{,}000\ \text{W}}\right) \times \left(\frac{1}{\text{EER}_\text{E}} - \frac{1}{\text{EER}_\text{P}}\right) \times \text{EFLH}$$

ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	9.70	
Electric Energy Savings (kWh)	16,374	
Demand Cost Savings	$472	
Energy Cost Savings	$2,022	
Total Cost Savings	$2,493	

Unit #1

HVAC REPLACEMENT SAVINGS ANALYSIS		
Description	**Existing**	**Proposed**
Quantity of Units	1	1
Cooling Capacity (tons)	12.5	12.5
Cooling Capacity (Btu/h)	150,000	150,000
Cooling Efficiency EER	9.8	12.0
Calculation Parameters		
Equivalent Full Load Hours	1,131	
Coincidence Factor (CF)	0.67	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	1.88	
Electric Energy Savings (kWh)	3,174	
Demand Cost Savings	$91.47	
Energy Cost Savings	$391.84	
Total Cost Savings	$483.30	

Unit #2

HVAC REPLACEMENT SAVINGS ANALYSIS		
Description	**Existing**	**Proposed**
Quantity of Units	1	1
Cooling Capacity (tons)	15.0	15.0
Cooling Capacity (Btu/h)	180,000	180,000
Cooling Efficiency EER	9.1	12.0
Calculation Parameters		
Equivalent Full Load Hours	1,131	
Coincidence Factor (CF)	0.67	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	3.20	
Electric Energy Savings (kWh)	5,406	
Demand Cost Savings	$155.81	
Energy Cost Savings	$667.49	
Total Cost Savings	$823.31	

Unit #3 & 4

HVAC REPLACEMENT SAVINGS ANALYSIS		
Description	**Existing**	**Proposed**
Quantity of Units	2	2
Cooling Capacity (tons)	20.0	20.0
Cooling Capacity (Btu/h)	240,000	240,000
Cooling Efficiency EER	9.2	10.6
Calculation Parameters		
Equivalent Full Load Hours	1,131	
Coincidence Factor (CF)	0.67	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	4.62	
Electric Energy Savings (kWh)	7,794	
Demand Cost Savings	$224.61	
Energy Cost Savings	$962.22	
Total Cost Savings	$1,186.83	

Project Cost Estimate:

PROJECT COST ESTIMATE	
Description	**$**
Gross Project Cost	$117,845
Anticipated Direct Install Incentive	$63,125
Net Project Cost	$54,720

Note: Direct Install incentive is only for value of work being covered under their proposal.

ECM #6: Dual Enthalpy Economizer Controls

Description:

The school has four aging rooftops that serve the cafeteria, media center, and gymnasium. These units are at the end of their useful life and could be replaced with more efficient units. The existing unit cooling capacities are one 12.5 ton, one 15 ton, and two 20 ton units. As part of the replacement project these units will be outfitted with dual enthalpy economizer controls to provide free cooling.

The new high efficiency units being replaced under the Direct Install scope of work will include installation of new dual enthalpy economizer controls.

Description of Scope:

Preliminary Scope

- Direct Install contractor visits site and verifies existing conditions.
- Direct Install contractor submits scope of work to owner and Office of Clean Energy for approval.

Construction Scope

Construction scope includes:

- Install Dual Enthalpy Economizer controls per manufacturer's recommendations. (Potentially order new rooftop units with it already incorporated)

Energy Savings Calculations / Results:

The energy savings calculations have been performed in accordance with the NJBPU Protocol to Measure Resource Savings dated March 2014. Equipment information is based on the proposed units to be installed under Direct Install.

$$\text{Demand Savings (kW)} = \text{Energy Savings} \div \text{Operating Hours}$$

$$\text{Energy Savings (kWh)} = \text{Operational Testing Factor} \times \text{Savings Factor} \times \text{Cooling Capacity (tons)} \times \frac{1}{EER}$$

ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	4.53	
Electric Energy Savings (kWh)	20,125	
Demand Cost Savings	$221	
Energy Cost Savings	$2,485	
Total Cost Savings	$2,705	

Unit #1

DUAL ENTHALPY SAVINGS ANALYSIS		
Description	**Proposed**	
Quantity of Units	1	
Cooling Capacity (tons)	12.5	
Cooling Capacity (Btu/h)	150,000	
Cooling Efficiency EER	12.0	
Calculation Parameters		
Operational Testing Factor	1.0	
Savings Factor (SF)	3,318	
Operating Hours	4,438	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	0.78	
Electric Energy Savings (kWh)	3,456	
Demand Cost Savings	$37.89	
Energy Cost Savings	$426.72	
Total Cost Savings	$464.61	

Unit #2

DUAL ENTHALPY SAVINGS ANALYSIS		
Description	**Proposed**	
Quantity of Units	1	
Cooling Capacity (tons)	15.0	
Cooling Capacity (Btu/h)	180,000	
Cooling Efficiency EER	12.0	
Calculation Parameters		
Operational Testing Factor	1.0	
Savings Factor (SF)	3,318	
Operating Hours	4,438	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	0.93	
Electric Energy Savings (kWh)	4,148	
Demand Cost Savings	$45.47	
Energy Cost Savings	$512.06	
Total Cost Savings	$557.53	

Unit #3 & 4

DUAL ENTHALPY SAVINGS ANALYSIS		
Description	**Proposed**	
Quantity of Units	2	
Cooling Capacity (tons)	20.0	
Cooling Capacity (Btu/h)	240,000	
Cooling Efficiency EER	10.6	
Calculation Parameters		
Operational Testing Factor	1.0	
Savings Factor (SF)	3,318	
Operating Hours	4,438	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	2.82	
Electric Energy Savings (kWh)	12,521	
Demand Cost Savings	$137.25	
Energy Cost Savings	$1,545.85	
Total Cost Savings	$1,683.10	

Project Cost Estimate:

PROJECT COST ESTIMATE	
Description	**$**
Gross Project Cost	$6,598
Anticipated Direct Install Incentive	$4,618
Net Project Cost	$1,979

ECM #7: Fuel Use Economizer Controls

Description:

The school has four aging rooftops that serve the cafeteria, media center, and gymnasium. These units are at the end of their useful life and could be replaced with more efficient units. The existing unit cooling capacities are one 12.5 ton, one 15 ton, and two 20 ton units. As part of the replacement project these units will be outfitted with fuel use economizer controls help modulate the cooling and heating provided by the units.

The new high efficiency units being replaced under the Direct Install scope of work will include installation of new fuel use economizer controls.

Description of Scope:

Preliminary Scope

- Direct Install contractor visits site and verifies existing conditions.
- Direct Install contractor submits scope of work to owner and Office of Clean Energy for approval.

Construction Scope

Construction scope includes:

- Install Fuel Use Economizer controls per manufacturer's recommendations.

Energy Savings Calculations / Results:

The energy savings calculations have been performed in accordance with the NJBPU Protocol to Measure Resource Savings dated March 2014. Equipment information is based on the proposed units to be installed under Direct Install.

$$\text{Electric Savings (kWh)} = \text{Cooling Capacity } \left(\frac{\text{Btu}}{\text{h}}\right) \times \frac{1\text{ kW}}{1{,}000\ W} \times \frac{1}{EER} \times \text{Annual Run Time} \times \text{Savinga Factor}$$

ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	0.00	
Electric Energy Savings (kWh)	7,372	
Demand Cost Savings	$0.00	
Energy Cost Savings	$910.21	
Total Cost Savings	$910.21	

Unit #1

FUEL USE ECONOMIZER (AC) SAVINGS ANALYSIS		
Description	**Proposed**	
Quantity of Units	1	
Cooling Capacity (tons)	12.5	
Cooling Efficiency EER	12.0	
Input Power (kW)	12.5	
Calculation Parameters		
Energy Savings Factor	0.13	
Annual Run Time (hours)	1,131	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	0.00	
Electric Energy Savings (kWh)	1,838	
Demand Cost Savings	$0.00	
Energy Cost Savings	$226.91	
Total Cost Savings	$226.91	

Unit #2

FUEL USE ECONOMIZER (AC) SAVINGS ANALYSIS		
Description	**Proposed**	
Quantity of Units	1	
Cooling Capacity (tons)	15.0	
Cooling Efficiency EER	12.0	
Input Power (kW)	15.0	
Calculation Parameters		
Energy Savings Factor	0.13	
Annual Run Time (hours)	1,131	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	0.00	
Electric Energy Savings (kWh)	2,205	
Demand Cost Savings	$0.00	
Energy Cost Savings	$272.29	
Total Cost Savings	$272.29	

Unit #2 & 3

FUEL USE ECONOMIZER (AC) SAVINGS ANALYSIS		
Description	**Proposed**	
Quantity of Units	2	
Cooling Capacity (tons)	20.0	
Cooling Efficiency EER	10.6	
Input Power (kW)	22.6	
Calculation Parameters		
Energy Savings Factor	0.13	
Annual Run Time (hours)	1,131	
Electric Demand Cost ($/kW)	$48.65	
Electric Usage Cost ($/kWh)	$0.123	
ENERGY SAVINGS SUMMARY		
Electric Demand Savings (kW)	0.00	
Electric Energy Savings (kWh)	3,329	
Demand Cost Savings	$0.00	
Energy Cost Savings	$411.01	
Total Cost Savings	$411.01	

Project Cost Estimate:

PROJECT COST ESTIMATE	
Description	**$**
Gross Project Cost	$4,654
Anticipated Direct Install Incentive	$3,258
Net Project Cost	$1,396

ECM #8: Water Efficiency

Description:

The bathrooms sinks through the facility are only rated at 2.2 gallons per minute and could be retrofitted with a low flow aerator device to not only save water, but also water heating energy. The kitchen sink in the facility is rated at 3.0 gallons per minute and could be retrofitted with a low flow aerator to save water and water heating energy.

As part of the Direct Install scope of work these twenty lavatory sinks and one kitchen sink will be retrofitted with low flow aerators rated at 1.0 GPM or lower and 2.2 GPM or lower.

Description of Scope:

Preliminary Scope

- Direct Install contractor visits site and verifies existing conditions.
- Direct Install contractor submits scope of work to owner and Office of Clean Energy for approval.

Construction Scope

Construction scope includes:

- Install new lavatory faucet aerators. (1.0 GPM or better)
- Install new kitchen faucet aerator. (2.2 GPM or better)

Energy Savings Calculations / Results:

The energy savings calculations have been performed in accordance with the NJBPU Protocol to Measure Resource Savings dated March 2014. Equipment information is based on existing observations and proposed units to be installed under Direct Install.

$$\text{Water Savings (gallons)} = \text{Qty of Faucets} \times 60\ \frac{\text{Min}}{\text{Hr}} \times \text{Hours Per Day Operation} \times \text{Days per Year} \times (F_{Base} - F_{New})$$

$$\text{Energy Savings} = \text{Water Savings} \times 8.33 \times \Delta T \times \left(\frac{1}{\text{Efficiency}}\right) \times \frac{1}{\text{Conversion Factor}}$$

ENERGY SAVINGS SUMMARY		
Electric Energy Savings (kWh)	0	
Natural Gas Savings (therm)	697	
Water Use Savings (Gallons)	133,920	
Electric Cost Savings	$0.00	
Gas Cost Savings	$620.53	
Total Cost Savings	$620.53	

Lavatory Faucets

WATER EFFICIENCY SAVINGS ANALYSIS		
Description	**Existing**	**Proposed**
Type of Fixtures	Lavatory Faucet	Lavatory Faucet
Number of Fixtures	20	20
Device Flow Rate (GPM)	2.2	1.0
Calculation Parameters		
Hours per Day Device Usage	0.5	
Days per Year Facility Operation	180	
Water Heater Type	Gas	
Water Heater Efficiency	80%	
Conversion Factor	100,000	
Temperature Diffeence (^{o}F)	50.0	
Electric Usage Cost ($/kWh)	$0.123	
Natural Gas Cost ($/therm)	$0.890	
ENERGY SAVINGS SUMMARY		
Electric Energy Savings (kWh)	0	
Natural Gas Savings (therm)	675	
Water Use Savings (Gallons)	129,600	
Electric Cost Savings	$0.00	
Gas Cost Savings	$600.51	
Total Cost Savings	$600.51	

Kitchen Faucet

WATER EFFICIENCY SAVINGS ANALYSIS		
Description	**Existing**	**Proposed**
Type of Fixtures	Kitchen Faucet	Kitchen Faucet
Number of Fixtures	1	1
Device Flow Rate (GPM)	3.0	2.2
Calculation Parameters		
Hours per Day Device Usage	0.5	
Days per Year Facility Operation	180	
Water Heater Type	Gas	
Water Heater Efficiency	80%	
Conversion Factor	100,000	
Temperature Diffeence (^{o}F)	50.0	
Electric Usage Cost ($/kWh)	$0.123	
Natural Gas Cost ($/therm)	$0.890	
ENERGY SAVINGS SUMMARY		
Electric Energy Savings (kWh)	0	
Natural Gas Savings (therm)	22	
Water Use Savings (Gallons)	4,320	
Electric Cost Savings	$0.00	
Gas Cost Savings	$20.02	
Total Cost Savings	$20.02	

Project Cost Estimate:

PROJECT COST ESTIMATE	
Description	**$**
Gross Project Cost	$1,379
Anticipated Direct Install Incentive	$965
Net Project Cost	$414

VI. Energy Conservation Measures Not Recommended

The following measures were investigated by Concord, but were removed from the overall project due cost constraints, technical feasibility, and/or owner's recommendation not to proceed.

Additional energy savings measures are being completed at the school; however these items are being funded under a larger improvement project. This includes replacement of the existing heating boiler systems and unit ventilator system.

VII. Design and Compliance, Maintenance Impacts, and Risks

Design and Compliance Issues:

As part of the ESP development Concord Engineering has licensed professional engineers on staff to ensure that all design and compliance issues are encompassed in the Plan and that recommended measures will meet all applicable State of New Jersey Codes. In addition the District's project architect and engineer reviewed all design and compliance issues for the recommendations.

Maintenance Impacts:

The District will realize maintenance and operational savings through the installation of LED lighting fixtures over the existing lighting system. These savings have been calculated based on the amount of material required for replacement of the lighting system components. The calculations are based on replacements of T8 fixtures every 3 years, Electronic Ballasts every 5 years, HID lamps and ballasts every 5 years, and Halogen and incandescent lamps every 2 years. The table below shows the material only cost per unit for each type.

MAINTENANCE COST VALUES		
Material Type	**Replacement Frequency**	**Cost per Unit**
T8 Fluorescent Lamp	3 years	$5.00
Electronic Ballast	5 years	$25.00
HID Lamp	5 years	$25.00
HID Ballast	5 years	$75.00
Halogen, PARs, BRs	2 years	$10.00
Incandescent, CFLs, MRs	2 years	$2.00

Utilizing this information maintenance savings were accounted for only the first 5 years of the ESIP project, to be conservative. Based on the frequency of replacement, annualized maintenance cost savings were calculated for the T8 Lamps, Ballasts, and HID Lamps and Ballasts. The following table summarizes the calculated cost savings.

MAINTENANCE COST SAVINGS CALCULATIONS					
DESCRIPTION	**QUANTITY**	**COST PER REPLACEMENT**	**# REPLACEMENTS OVER 1ST 5 YEARS**	**TOTAL 5 YR COST SAVINGS**	**ANNUALIZED COST**
T8 Fluorescent Lamp	2480	$12,400	1.67	$20,667	$4,133.33
Electronic Ballast	893	$22,325	1.00	$22,325	$4,465
HID Lamp	12	$300	1.00	$300	$60
HID Ballast	12	$900	1.00	$900	$180
Total					$8,838

Risks:

The installation of the recommended measures will provide the District with new equipment to replace existing equipment nearing and at the end of its useful life, therefore reducing the risk for a near term capital replacement project cost. The measures also present minimal to no risk in affecting current facility comfort conditions, and will likely improve these conditions through better equipment performance.

VIII. PJM Demand Response & Curtailable Service Programs

The regional transmission organization PJM oversees the electricity grid in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. PJM currently offers various demand response programs to end users on the grid an opportunity to generate revenue through curtailing electric load in their facility from the grid. There are various levels of commitment that can be accepted by the end user to participate in the program. Three of the most common programs offered by PJM currently are the Emergency Load Response Program, Economic Load Response Program, and Synchronized Reserves Market. The Emergency Response Program allows end-users to receive financial incentives through agreeing to reduce a set amount of electricity consumption during system emergencies on the grid. The Economic Load Response Program allows end users to receive financial incentives for voluntarily reducing electricity consumption during times of high wholesale prices. The Synchronized Reserves Market allows end users to receive financial incentives for reducing electricity consumption on short notice in case of an unexpected emergency event. Each of these programs has stipulations in order participate such as number of events one must participate, amount of load to be curtailed, and response time.

The estimated demand reduction at the Midland School is minimal and would not qualify for additional demand response dollars.

IX. ESIP Cash Flow Summary

Financing an Energy Savings Improvement Program is based on the principle that the cost of the improvements will be paid through the value of the reduced operating costs. Entities are able to finance these ESIP projects for a period not to exceed fifteen (15) years. The Board of Public Utilities has provided protocols in order to ensure with which to ensure these projects will cash flow within the project term. These protocols provide fixed values for energy cost escalation and discount rate, as well as methods for calculating the Participant Net Benefit, and Cost Benefit ratio. These guidelines are published in Board of Public Utilities Docket No. EO09020128 dated 2/24/2009. The proceeding Table 4 shows the Cash Flow Summary for the District's Energy Savings Projects pursuant to the protocol's guidelines.

For this project, a 5.0% interest rate was utilized with a 2.2% electric and 2.4% natural gas utility escalation rated. Maintenance Costs were escalated at 2.0% per year. The interest rate will be subject to revision once financing is finalized. At that point, the project cash flow analysis can be further refined.

Table 4: ESIP Cash Flow Summary

ENERGY SAVINGS IMPROVEMENT PROGRAM ECONOMIC ANALYSIS

Gross Construction Cost	$341,079	Electric Cost Savings	$19,634	Electric Escalation Rate	2.4%
Direct Install Incentive	$125,000	Natural Gas Cost Savings	$621	Natural Gas Escaltion Rate	2.2%
Gross Project Cost	$238,229	Maintenance Cost Savings	$8,838	Maintenance Escalation	2.0%
		Other Cost Savings	$0	Discount Rate	8.0%
		Total Annual Savings	$29,093		
Financing Term (Years)	15				
Interest / Bond Rate	5.000%				

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Energy Cost Savings																	
Electric Cost Savings	-	$20,105	$20,587	$21,081	$21,587	$22,106	$22,636	$23,179	$23,736	$24,305	$24,889	$25,486	$26,098	$26,724	$27,365	$28,022	
Natural Gas Cost Savings	-	$634	$648	$662	$677	$692	$707	$723	$739	$755	$771	$788	$806	$823	$842	$860	
Total Annual Energy Savings		$20,739	$21,236	$21,744	$22,264	$22,797	$23,343	$23,902	$24,474	$25,060	$25,660	$26,274	$26,903	$27,547	$28,207	$28,882	$369,034
Maintenance/Other Cost Savings																	
Maintenance Cost Savings	-	$8,838	$9,015	$9,195	$9,379	$9,567											
Other Cost Savings	-	$0															
Total Annual Maint/Other Savings		$8,838	$9,015	$9,195	$9,379	$9,567	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Net Annual Operating Savings		**$29,577**	$30,251	$30,939	$31,644	$32,364	$23,343	$23,902	$24,474	$25,060	$25,660	$26,274	$26,903	$27,547	$28,207	$28,882	$415,029
Project Costs																	
Received NJOCE Incentive		$0	$0	$0													$0
Additional Capital Outlay	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Gross Financed Amount	$238,229																
Interest Expense		($11,911)	($11,359)	($10,780)	($10,171)	($9,532)	($8,861)	($8,157)	($7,417)	($6,640)	($5,825)	($4,968)	($4,069)	($3,125)	($2,134)	($1,093)	($106,044)
Principle Payment		($11,040)	($11,592)	($12,172)	($12,780)	($13,419)	($14,090)	($14,795)	($15,535)	($16,311)	($17,127)	($17,983)	($18,882)	($19,826)	($20,818)	($21,859)	($238,229)
Total Payment		($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($22,952)	($344,274)
Net Cashflow	$0	$6,626	$7,299	$7,988	$8,692	$9,413	$392	$950	$1,523	$2,109	$2,708	$3,323	$3,952	$4,596	$5,255	$5,931	$70,755
Cumulative Cashflow		$6,626	$13,925	$21,913	$30,605	$40,017	$40,409	$41,359	$42,882	$44,991	$47,699	$51,022	$54,974	$59,569	$64,825	$70,755	

Simple Payback, yrs*:	**8.05**
Net Present Value (15 Yr):	**$40,560**
Internal Rate of Return:	**-**

COMMENTS:

1. Simple payback is calculated based on Year 1 operating savings only.
2. Year 1 Ssvings have been escalated to account for the increase in energy costs of when the savings will be realized after implementation.

X. Greenhouse Gas Reductions

An additional goal beyond merely saving energy is the reduction of greenhouse gas emissions. A reduction in these emissions is important as they have impact on the environment around us. The Carbon Emissions Reductions were calculated based on emissions factor data published by the New Jersey Department of Environmental Protection. These factors show equivalent pounds of Carbon Dioxide per unit of fuel usage based on system average air emissions for March 2014 to present. The following Tables show the emission factors and greenhouse gas emissions reductions for the conservation measures.

Table 7: NJDEP Emissions Factors

EMISSIONS FACTORS		
ENERGY TYPE	**CONVERSION FACTOR**	
Electricity	1.1179	lbs CO_2 / kWh
Natural Gas	11.7	lbs CO_2 / therm

Figure 3
Pre & Post Measure Emissions

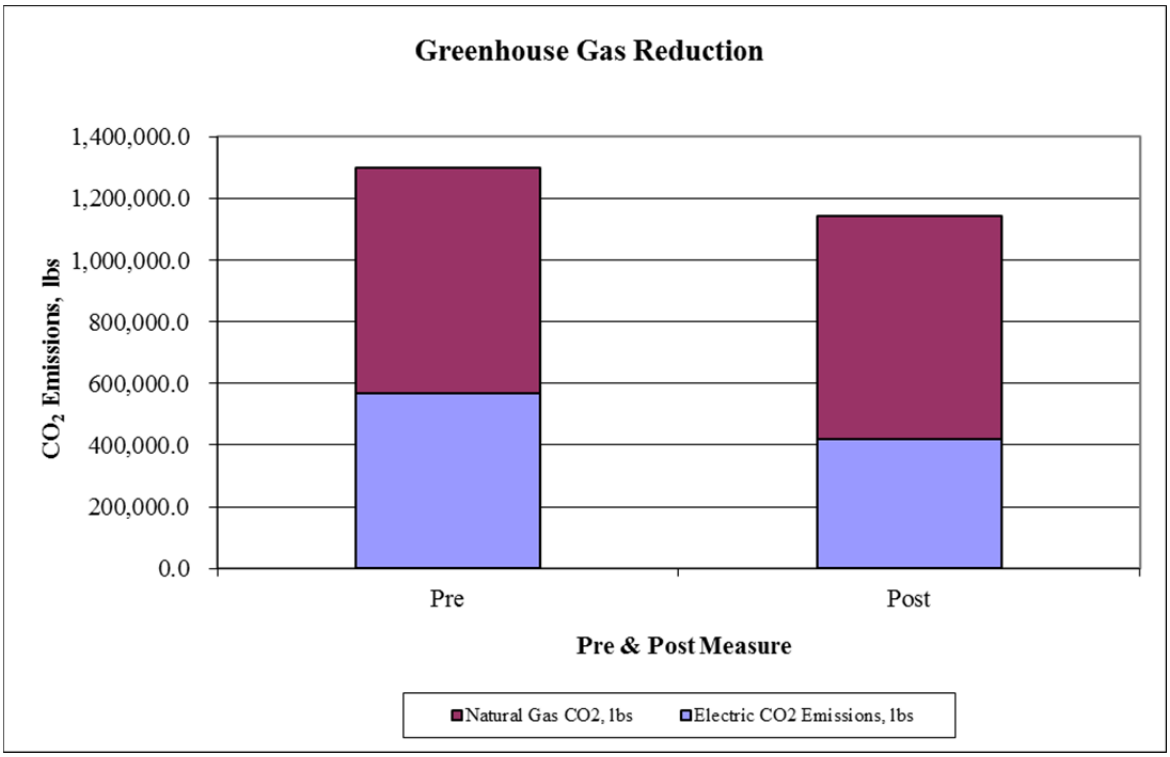


Table 8: Emission Reductions per Measure

CO_2/GREENHOUSE GAS REDUCTION					
ECM NO.	**BUILDING**	**DESCRIPTION**	**Electric CO2, lbs**	**Natural Gas CO2, lbs**	**Total CO2 Emissions, lbs**
ECM #1	Midland School	Lighting Upgrade - Interior	76,155.5	0.0	76,155.5
ECM #2	Midland School	Lighting Upgrade - Exterior	(1,010.6)	0.0	(1,010.6)
ECM #3	Midland School	Lighting Upgrade - Gym Addition	12,692.7	0.0	12,692.7
ECM #4	Midland School	Lighting Controls	10,641.6	0.0	10,641.6
ECM #5	Midland School	Rooftop Unit Replacement	18,304.2	0.0	18,304.2
ECM #6	Midland School	RTU Dual Enthalpy Economizer	22,497.2	0.0	22,497.2
ECM #7	Midland School	Fuel Use Economizers	8,241.5	0.0	8,241.5
ECM #8	Midland School	Water Efficiency	0.0	8,154.9	8,154.9
TOTAL		**ALL MEASURES SAVINGS**	**147,522**	**8,155**	**155,677**

XI. Measurement & Verification

The primary purpose of Measurement and Verification (M&V) is to validate performance of energy efficiency upgrades and payments made towards these upgrades. M&V should not be used to derive a precise energy savings for every project, but to assess whether or not the properly installed projects are reasonable close to the projected savings. Careful consideration should be taken in selecting an M&V plan based on risk and cost benefit to the District for the proposed projects. The U.S. Department of Energy has produced and published Measurement and Verification Guidelines for Federal Energy Projects. These guidelines have been used as a base reference for this report and a full copy of the U.S. DOE guidelines are available at www.eere.energy.gov/femp.

The following Table outlines the four most common approaches for Measurement and Verification.

Table 9: Measurement and Verification Approach

MEASUREMENT AND VERIFICATION APPROACH		
M&V OPTION	**PERFORMANCE & USAGE FACTORS MEASUREMENTS**	**SAVINGS CALCULATION METHODOLOGY**
Option A – Retrofit Isolation with Key Parameter Measurement	This option is based on a combination of measured and estimated factors when variations in factors are not expected. Measurements are spot or short-term and are taken at the component or system level, both in the baseline and post-installation cases. Measurements should include the key performance parameter(s) which define the energy use of the ECM. Estimated factors are supported by historical or manufacturer's data. Savings are determined by means of engineering calculations of baseline and post-installation energy use based on measured and estimated values.	Direct measurements and estimated values, engineering calculations and/or component or system models often developed through regression analysis Adjustments to models are not typically required.
Option B – Retrofit Isolation with All Parameter Measurement	This option is based on periodic or continuous measurements of energy use taken at the component or system level when variations in factors are expected. Energy or proxies of energy use are measured continuously. Periodic spot or short-term measurements may suffice when variations in factors are not expected. Savings are determined from analysis of baseline and reporting period energy use or proxies of energy use.	Direct measurements, engineering calculations, and/or component or system models often developed through regression analysis Adjustments to models may be required.

Option C – Utility Data Analysis	This option is based on long-term, continuous, whole-building utility meter, facility level, or sub-meter energy (or water) data. Savings are determined from analysis of baseline and reporting period energy data. Typically, regression analysis is conducted to correlate with and adjust energy use to independent variables such as weather, but simple comparisons may also be used.	Based on regression analysis of utility meter data to account for factors that drive energy use Adjustments to models are typically required.
Option D – Calibrated Computer Simulation	Computer simulation software is used to model energy performance of a whole-facility (or sub-facility). Models must be calibrated with actual hourly or monthly billing data from the facility. Implementation of simulation modeling requires engineering expertise. Inputs to the model include facility characteristics; performance specifications of new and existing equipment or systems; engineering estimates, spot-, short-term, or long-term measurements of system components; and long-term whole-building utility meter data. After the model has been calibrated, savings are determined by comparing a simulation of the baseline with either a simulation of the performance period or actual utility data.	Based on computer simulation model (such as eQUEST or Trane Trace 700) calibrated with whole-building or end-use metered data or both. Adjustments to models are required.

Each of the above approaches can be used for a wide array of energy efficiency upgrades, and each has different costs and complexities associated with it. When selecting an M&V approach the following general rules of thumb can be applied.

- **Option A** - Retrofit Isolation with Key Parameter Measurement
    - When magnitude of savings is low for the entire project or a portion of the project.
    - The risk for not achieving savings is low.
- **Option B** - Retrofit Isolation with All Parameter Measurement
    - For simple equipment replacement projects.
    - When energy savings values per individual measure are desired.
    - When interactive effects are to be ignored or are estimated using estimating methods that do not involve long term measurements.
    - When independent variables that affect energy use are not complex and excessively difficult or expensive to monitor.
    - When sub meters already existing that record the energy use of subsystems under consideration.

- **Option C** - Utility Data Analysis

    - For complex equipment replacement and controls projects.
    - When predicted energy savings are in excess of 10 to 20 percent as compared with the record energy use.
    - When energy savings per individual measure are not desired.
    - When interactive effects are to be included.
    - When the independent variables that affect energy use are complex and excessively difficult or expensive to monitor.

- **Option D** - Calibrated Computer Simulation

    - When new construction projects are involved.
    - When energy savings values per measure are desired.
    - When Option C tools cannot cost effectively evaluate particular measures or their interactions with the building.
    - When complex baseline adjustments are anticipated.

Overall, Measurement and Verification is the key to realizing actual savings from the implementation of any energy conservation measure or renewable energy measure. Combined with a detailed construction management plan, the Owner will be able to benefit fully from the energy and cost savings associated with their commitment to saving energy and reducing greenhouse gases. The proceeding section provides recommended M&V option scopes of work that the commission should consider for each measure.

Measurement & Verification Recommended Scopes of Work:

Scope 1: (Option A)

Measurement and Verification of this ECM can be provided upon request. Pre and post watt measurements on a sample size of fixtures that will verify the reduction in energy consumption. Post implementation measurement and verification of occupancy sensor operation can be provided through the use of occupancy sensor data loggers to ensure lighting energy savings is achieved and proper operation of occupancy sensors is verified. Operation of new rooftop units and controls can be done through operational testing to verify savings can be achieved.

Post implementation measurement and verification is recommended through comparison of utility usage data and the historical baseline normalized through outside factors, such as the changes in weather or occupancy. Alternatively, this can be achieved through the use of inputting utility data into Energy Star Portfolio Manager for pre and post installation periods to track changes in energy performance.

MEASUREMENT AND VERIFICATION PLAN					
ECM NO.	**DESCRIPTION**	**OPTION A**	**OPTION B**	**OPTION C**	**OPTION D**
ECM #1	Lighting Upgrade - Interior	X			
ECM #2	Lighting Upgrade - Exterior	X			
ECM #3	Lighting Upgrade - Gym Addition	X			
ECM #4	Lighting Controls	X			
ECM #5	Rooftop Unit Replacement	X			
ECM #6	RTU Dual Enthalpy Economizer	X			
ECM #7	Fuel Use Economizers	X			
ECM #8	Water Efficiency	X			

XII. Energy Savings Plan Assumptions

The assumptions utilized in this energy savings plan 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. Prevailing wage rates for the specified region has been utilized to calculate installation costs.
B. Energy savings noted within this audit are calculated utilizing New Jersey Board of Public Utilities Protocols to Measure Resource Savings, industry standard procedures, and accepted engineering assumptions.
C. The Energy Savings Plan does not constitute an Energy Savings Guarantee.
D. Information gathering for each facility is strongly based on the energy audit and 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
E. 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.
F. Equipment incentives and energy credits are based on current pricing and levels of the 2015 NJ Clean Energy Program Incentives. Incentive availability is dependent on the individual program funding and applicability. In the event project implementation occurs post 2015, incentive levels may change.
G. Energy Cost savings are calculated based on provided utility billing information from the owner and current posted Utility Company Tariff rates.

APPENDIX A

PROPOSED ENERGY CONSERVATION MEASURES (ECM's)																
			ANNUAL UTILITY REDUCTION			ANNUAL UTILITY COST SAVINGS										
ECM NO.	BUILDING	DESCRIPTION	ELECTRIC DEMAND (KW)	ELECTRIC CONS. (KWH)	NATURAL GAS (THERMS)	ELECTRIC DEMAND SAVINGS	ELECTRIC COST SAVINGS	NATURAL GAS COST SAVINGS	TOTAL COST SAVINGS	PJM REVENUE	MAINT. COST SAVINGS	PROJECT COST	REBATES, INCENTIVES	TOTAL PROJECT COST	SIMPLE PAYBACK (YRS)	INCLUDE (Y/N)
ECM #1	Midland School	Lighting Upgrade - Interior	27.6	68,124	0	$2,139	$8,352	$0	$10,491	$0	$8,598	$114,616	$0	$114,616	6.0	Y
ECM #2	Midland School	Lighting Upgrade - Exterior	(0.2)	(904)	0	($18)	($111)	$0	($128)	$0	$0	$22,150	$0	$22,150	-172.6	Y
ECM #3	Midland School	Lighting Upgrade - Gym Addition	3.5	11,354	0	$316	$1,679	$0	$1,995	$0	$240	$10,454	$0	$10,454	4.7	Y
ECM #4	Midland School	Lighting Controls	0.0	9,519	0	$0	$1,167	$0	$1,167	$0	$0	$32,500	$0	$32,500	27.8	Y
ECM #5	Midland School	Rooftop Unit Replacement	9.7	16,374	0	$472	$2,022	$0	$2,493	$0	$0	$54,720	$0	$54,720	21.9	Y
ECM #6	Midland School	RTU Dual Enthalpy Economizer	4.5	20,125	0	$221	$2,485	$0	$2,705	$0	$0	$1,979	$0	$1,979	0.7	Y
ECM #7	Midland School	Fuel Use Economizers	0.0	7,372	0	$0	$910	$0	$910	$0	$0	$1,396	$0	$1,396	1.5	Y
ECM #8	Midland School	Water Efficiency	0.0	0	697	$0	$0	$621	$621	$0	$0	$414	$0	$414	0.7	Y
TOTAL			**45.1**	**131,964**	**697**	**$3,130**	**$16,503**	**$621**	**$20,254**	**$0**	**$8,838**	**$238,229**	**$0**	**$238,229**	**8.2**	

APPENDIX B

CEG Project #: 1C13211
Facility Name: Midland School #1
Address: 300 Rochelle Avenue
City, State, Zip Rochelle Park, NJ 07662

			EXISTING FIXTURES						PROPOSED FIXTURE RETROFIT								RETROFIT ENERGY SAVINGS			PROPOSED LIGHTING CONTROLS					
Fixture Reference #	Location	Average Burn Hours	Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Fixture Reference New #	Work Description	Equipment Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Energy Savings, kW	Energy Savings, kWh	Energy Savings, $	Control Ref #	Controls Description	Qty of Controls	Hour Reduction %	Energy Savings, kWh	Energy Savings, $
1	Office 308	2187	2-Lamp 32w T8 1x4 Surface	2	58	2	0.12	254	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	166	0.04	87	$14	6	Dual Technology Occupancy Sensor - Switch Mnt.	1	27.0%	45	$6
1	Attic Entry 312	2187	2-Lamp 32w T8 1x4 Surface	2	58	1	0.06	127	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	1	0.04	83	0.02	44	$7	0	No New Controls	0	0.0%	0	$0
2	Xerox Room 322	2187	2-Lamp 20w T12 2x2 Surface	2	57	1	0.06	125	S1	Retrofit Fixture (DI)	2-Lamp - 2-Foot LED	2	22	1	0.02	48	0.04	77	$12	0	No New Controls	0	0.0%	0	$0
3	Faculty Toilet 322	800	4-Lamp 20w T12 2x2 Recessed	4	94	1	0.09	75	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	1	0.04	30	0.06	45	$10	0	No New Controls	0	0.0%	0	$0
4	Office 309	2187	3-Lamp 32w T8 2x4 Recessed	3	82	4	0.33	717	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	4	0.23	499	0.10	219	$35	5	Dual Technology Occupancy Sensor - Remote Mnt.	1	27.0%	135	$17
4	Classroom 307	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
5	Classroom 305	1709	4-Lamp 32w T8 2x4 Recessed	4	109	8	0.87	1,490	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	8	0.61	1,039	0.26	451	$76	8	Vacancy Sensor Remote Mount	2	13.0%	135	$17
4	Classroom 303	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
4	Classroom 301	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
6	Stair #3 3rd Flr	2432	2-Lamp 32w T8 2x4 Recessed	2	58	4	0.23	564	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	272	0.12	292	$45	0	No New Controls	0	0.0%	0	$0
4	Hallway 3-3	3809	3-Lamp 32w T8 2x4 Recessed	3	82	8	0.66	2,499	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	11	0.42	1,613	0.23	886	$127	0	No New Controls	0	0.0%	0	$0
5	Hallway 3-2	3809	4-Lamp 32w T8 2x4 Recessed	4	109	6	0.65	2,491	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	5	0.19	733	0.46	1,758	$251	0	No New Controls	0	0.0%	0	$0
4	Classroom 311	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
6		1709	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	198	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	130	0.04	68	$11	0	No New Controls	0	0.0%	0	$0
7	Closet Class 311	1500	2-Lamp 32w T8 1x4 Recessed	2	58	2	0.12	174	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	3	0.11	171	0.00	3	$1	0	No New Controls	0	0.0%	0	$0
6	Girl's Restroom 3rd Floor	3384	2-Lamp 32w T8 2x4 Recessed	2	58	4	0.23	785	Z	-	-	0	58	0	0.23	785	0.00	0	$0	5	Dual Technology Occupancy Sensor - Remote Mnt.	1	48.0%	377	$46
8	Stair #2 3rd Floor	2432	2-Lamp 17w T8 2x2 Surface	2	34	1	0.03	83	Y	Fixture Removed	0	0	0	0	0.00	0	0.03	83	$13	0	No New Controls	0	0.0%	0	$0
9	Stair #2 3rd Floor	2432	1-Lamp 32w T8 1x4 Surface	1	28	2	0.06	136	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	272	(0.06)	(136)	($21)	0	No New Controls	0	0.0%	0	$0
4	Classroom 313	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
7	Closet Class 313	1500	2-Lamp 32w T8 1x4 Recessed	2	58	3	0.17	261	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	3	0.11	171	0.06	90	$16	0	No New Controls	0	0.0%	0	$0

			EXISTING FIXTURES						PROPOSED FIXTURE RETROFIT								RETROFIT ENERGY SAVINGS			PROPOSED LIGHTING CONTROLS					
Fixture Reference #	Location	Average Burn Hours	Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Fixture Reference New #	Work Description	Equipment Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Energy Savings, kW	Energy Savings, kWh	Energy Savings, $	Control Ref #	Controls Description	Qty of Controls	Hour Reduction %	Energy Savings, kWh	Energy Savings, $
4	Classroom 315	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
7	Closet Class 315	1500	2-Lamp 32w T8 1x4 Recessed	2	58	3	0.17	261	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	3	0.11	171	0.06	90	$16	0	No New Controls	0	0.0%	0	$0
4	Classroom 317	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
7	Closet Class 317	1500	2-Lamp 32w T8 1x4 Recessed	2	58	3	0.17	261	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	3	0.11	171	0.06	90	$16	0	No New Controls	0	0.0%	0	$0
4	Classroom 319	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	12	0.46	779	0.53	902	$151	8	Vacancy Sensor Remote Mount	2	13.0%	101	$12
7		1709	2-Lamp 32w T8 1x4 Recessed	2	58	2	0.12	198	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	2	0.11	195	0.00	3	$1	8	Vacancy Sensor Remote Mount	0	13.0%	25	$3
7	Closet Class 319	1500	2-Lamp 32w T8 1x4 Recessed	2	58	3	0.17	261	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	3	0.11	171	0.06	90	$16	0	No New Controls	0	0.0%	0	$0
6	Boy's Restroom 3rd Floor	3384	2-Lamp 32w T8 2x4 Recessed	2	58	4	0.23	785	Z	-	-	0	58	0	0.23	785	0.00	0	$0	5	Dual Technology Occupancy Sensor - Remote Mnt.	1	48.0%	377	$46
5	BOE Office 316	2937	4-Lamp 32w T8 2x4 Recessed	4	109	9	0.98	2,881	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	10	0.76	2,232	0.22	649	$97	0	No New Controls	0	0.0%	0	$0
5	Superintendent's Office 318	2937	4-Lamp 32w T8 2x4 Recessed	4	109	9	0.98	2,881	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	9	0.68	2,009	0.30	872	$130	5	Dual Technology Occupancy Sensor - Remote Mnt.	2	21.0%	422	$52
2	Superintendent's Bath 318	800	2-Lamp 20w T12 2x2 Surface	2	57	1	0.06	46	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	1	0.04	31	0.02	15	$3	6	Dual Technology Occupancy Sensor - Switch Mnt.	1	20.0%	6	$1
4	Classroom 320	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
7	Closet Class 320	1709	2-Lamp 32w T8 1x4 Recessed	2	58	5	0.29	496	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	3	0.11	195	0.18	301	$50	0	No New Controls	0	0.0%	0	$0
8	Stair #1 3rd Floor	2432	2-Lamp 17w T8 2x2 Surface	2	34	1	0.03	83	Y	Fixture Removed	0	0	0	0	0.00	0	0.03	83	$13	0	No New Controls	0	0.0%	0	$0
9	Stair #1 3rd Floor	2432	1-Lamp 32w T8 1x4 Surface	1	28	2	0.06	136	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	272	(0.06)	(136)	($21)	0	No New Controls	0	0.0%	0	$0
5	Hall 3-1	3809	4-Lamp 32w T8 2x4 Recessed	4	109	19	2.07	7,888	A2	New Fixture	2x2 Focal Point LED FARL-22AC-LL2-35K	1	36.2	15	0.54	2,068	1.53	5,820	$832	0	No New Controls	0	0.0%	0	$0
8	Stair #1 2nd Floor	2432	2-Lamp 17w T8 2x2 Surface	2	34	1	0.03	83	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	272	(0.08)	(190)	($29)	0	No New Controls	0	0.0%	0	$0
5	Classroom 220	1709	4-Lamp 32w T8 2x4 Recessed	4	109	9	0.98	1,677	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	9	0.68	1,169	0.30	508	$85	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
7	Closet Class 220	1500	2-Lamp 32w T8 1x4 Recessed	2	58	3	0.17	261	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	3	0.11	171	0.06	90	$16	0	No New Controls	0	0.0%	0	$0
4	Classroom 221	1709	3-Lamp 32w T8 2x4 Recessed	3	82	1	0.08	140	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	1	0.06	97	0.03	43	$7	0	No New Controls	0	0.0%	0	$0
5		1709	4-Lamp 32w T8 2x4 Recessed	4	109	9	0.98	1,677	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	9	0.68	1,169	0.30	508	$85	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
7	Closet Class 220	1500	2-Lamp 32w T8 1x4 Recessed	2	58	2	0.12	174	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	3	0.11	171	0.00	3	$1	0	No New Controls	0	0.0%	0	$0

			EXISTING FIXTURES						PROPOSED FIXTURE RETROFIT							RETROFIT ENERGY SAVINGS			PROPOSED LIGHTING CONTROLS					
Fixture Reference #	Location	Average Burn Hours	Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Fixture Reference New #	Work Description	Equipment Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Energy Savings, kW	Energy Savings, kWh	Energy Savings, $	Control Ref #	Controls Description	Qty of Controls	Hour Reduction %	Energy Savings, kWh	Energy Savings, $
10	Nurse 206	2187	2-Lamp 31w T8 U 2x2 Recessed	2	62	8	0.50	1,085	S4	Retrofit Fixture (DI)	3-Lamp - 2-Foot LED	3	33	8	0.26	577	0.23	507	$80	0	No New Controls	0	0.0%	0	$0
5	Nurse Patient 206	2187	4-Lamp 32w T8 2x4 Recessed	4	109	1	0.11	238	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	1	0.08	166	0.03	72	$11	0	No New Controls	0	0.0%	0	$0
6	Nurse Restroom 206	2187	2-Lamp 32w T8 2x4 Recessed	2	58	1	0.06	127	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	1	0.04	83	0.02	44	$7	0	No New Controls	0	0.0%	0	$0
11	Print / Storage 230	1500	150w Medium Base Flood	1	150	1	0.15	225	R3	Retrofit Fixture (DI)	1x4	0	0	1	0.00	0	0.15	225	$39	0	No New Controls	0	0.0%	0	$0
5	Classroom 219	1709	4-Lamp 32w T8 2x4 Recessed	4	109	9	0.98	1,677	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	9	0.68	1,169	0.30	508	$85	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
6	Closet Class 219	1500	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	174	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	114	0.04	60	$10	0	No New Controls	0	0.0%	0	$0
5	Guidance Office 217	2187	4-Lamp 32w T8 2x4 Recessed	4	109	6	0.65	1,430	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	6	0.46	997	0.20	433	$68	8	Vacancy Sensor Remote Mount	2	27.0%	269	$33
5	Front Entry Stair	3809	4-Lamp 32w T8 2x4 Recessed	4	109	1	0.11	415	G	0	0	0	0	1	0.00	0	0.11	415	$59	0	No New Controls	0	0.0%	0	$0
4	Office 215	2187	3-Lamp 32w T8 2x4 Recessed	3	82	5	0.41	897	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	5	0.29	623	0.13	273	$43	8	Vacancy Sensor Remote Mount	2	27.0%	168	$21
5	Classroom 213	1709	4-Lamp 32w T8 2x4 Recessed	4	109	9	0.98	1,677	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	9	0.68	1,169	0.30	508	$85	8	Vacancy Sensor Remote Mount	0	13.0%	152	$19
6	Closet Class 213	1500	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	174	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	114	0.04	60	$10	0	No New Controls	0	0.0%	0	$0
4	Classroom 211	1709	3-Lamp 32w T8 2x4 Recessed	3	82	1	0.08	140	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	1	0.06	97	0.03	43	$7	0	No New Controls	1	0.0%	0	$0
5		1709	4-Lamp 32w T8 2x4 Recessed	4	109	9	0.98	1,677	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	9	0.68	1,169	0.30	508	$85	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
6	Closet Class 211	1500	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	174	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	114	0.04	60	$10	0	No New Controls	0	0.0%	0	$0
7	Girl's Restroom 2nd Floor (#235)	3384	2-Lamp 32w T8 1x4 Recessed	2	58	4	0.23	785	Z	-	-	0	58	0	0.23	785	0.00	0	$0	5	Dual Technology Occupancy Sensor - Remote Mnt.	1	48.0%	377	$46
5	Hall 2-1 (Corridor #233)	3809	4-Lamp 32w T8 2x4 Recessed	4	109	19	2.07	7,888	A2	New Fixture	2x2 Focal Point LED FARL-22AC-LL2-35K	1	36.2	16	0.58	2,206	1.49	5,682	$812	0	No New Controls	0	0.0%	0	$0
8	Stair #2 2nd Floor	3809	2-Lamp 17w T8 2x2 Surface	2	34	1	0.03	130	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	427	(0.08)	(297)	($42)	0	No New Controls	0	0.0%	0	$0
5	ESL #210	1709	4-Lamp 32w T8 2x4 Recessed	4	109	4	0.44	745	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	4	0.30	520	0.13	226	$38	8	Vacancy Sensor Remote Mount	2	13.0%	68	$8
10		1709	2-Lamp 31w T8 U 2x2 Recessed	2	62	1	0.06	106	S1	Retrofit Fixture (DI)	2-Lamp - 2-Foot LED	2	22	1	0.02	38	0.04	68	$11	6	Dual Technology Occupancy Sensor - Switch Mnt.	0	13.0%	5	$1
4	Classroom #209	1709	3-Lamp 32w T8 2x4 Recessed	3	82	4	0.33	561	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	4	0.23	390	0.10	171	$29	6	Dual Technology Occupancy Sensor - Switch Mnt.	1	13.0%	51	$6
0		1709	-	0	0	0	0.00	0	Z	-	-	0	0	0	0.00	0	0.00	0	$0	6	Dual Technology Occupancy Sensor - Switch Mnt.	0	13.0%	0	$0
9	Class Toilet #209	1500	1-Lamp 32w T8 1x4 Surface	1	28	1	0.03	42	S6	Retrofit Fixture (DI)	1-Lamp - 4-Foot LED	1	19	1	0.02	29	0.01	14	$2	0	No New Controls	0	0.0%	0	$0

			EXISTING FIXTURES						PROPOSED FIXTURE RETROFIT								RETROFIT ENERGY SAVINGS			PROPOSED LIGHTING CONTROLS					
Fixture Reference #	Location	Average Burn Hours	Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Fixture Reference New #	Work Description	Equipment Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Energy Savings, kW	Energy Savings, kWh	Energy Savings, $	Control Ref #	Controls Description	Qty of Controls	Hour Reduction %	Energy Savings, kWh	Energy Savings, $
5	Classroom #228	1709	4-Lamp 32w T8 2x4 Recessed	4	109	4	0.44	745	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	4	0.30	520	0.13	226	$38	5	Dual Technology Occupancy Sensor - Remote Mnt.	2	13.0%	68	$8
5	Classroom #222	1709	4-Lamp 32w T8 2x4 Recessed	4	109	2	0.22	373	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	2	0.15	260	0.07	113	$19	5	Dual Technology Occupancy Sensor - Remote Mnt.	2	13.0%	34	$4
5	Hall 2-2	3809	4-Lamp 32w T8 2x4 Recessed	4	109	4	0.44	1,661	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	4	0.15	587	0.28	1,074	$153	0	No New Controls	0	0.0%	0	$0
4	Classroom #224	1709	3-Lamp 32w T8 2x4 Recessed	3	82	6	0.49	841	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	6	0.34	584	0.15	256	$43	8	Vacancy Sensor Remote Mount	2	13.0%	76	$9
5	Classroom #207	1709	4-Lamp 32w T8 2x4 Recessed	4	109	9	0.98	1,677	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	9	0.68	1,169	0.30	508	$85	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
5	Classroom #205	1709	4-Lamp 32w T8 2x4 Recessed	4	109	8	0.87	1,490	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	8	0.61	1,039	0.26	451	$76	8	Vacancy Sensor Remote Mount	2	13.0%	135	$17
4	Classroom #225	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
4	Classroom #203	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
4	Classroom #226	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
4	Classroom #201	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
4	Classroom #227	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	12	0.68	1,169	0.30	513	$86	8	Vacancy Sensor Remote Mount	2	13.0%	152	$19
8	Stair #3 2nd Floor	2432	2-Lamp 17w T8 2x2 Surface	2	34	1	0.03	83	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	272	(0.08)	(190)	($29)	0	No New Controls	0	0.0%	0	$0
12	Hall 2-3	3809	4-Lamp 32w T8 2x4 Surface	4	109	8	0.87	3,321	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	10	0.39	1,466	0.49	1,855	$265	0	No New Controls	0	0.0%	0	$0
4	Main Office #204	2187	3-Lamp 32w T8 2x4 Recessed	3	82	6	0.49	1,076	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	6	0.34	748	0.15	328	$52	0	No New Controls	0	0.0%	0	$0
4	Principal Office #213	2187	3-Lamp 32w T8 2x4 Recessed	3	82	4	0.33	717	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	4	0.23	499	0.10	219	$35	8	Vacancy Sensor Remote Mount	2	27.0%	135	$17
10	Corridor #202	3809	2-Lamp 31w T8 U 2x2 Recessed	2	62	5	0.31	1,181	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	5	0.19	733	0.12	448	$64	0	No New Controls	0	0.0%	0	$0
13		3809	2-Lamp Recessed Can 24w CFL	2	48	2	0.10	366	Y	Fixture Removed	0	0	0	0	0.00	0	0.10	366	$52	0	No New Controls	0	0.0%	0	$0
14	Media Center #216	3145	5-Lamp 40w Biax 2x2 Recessed	5	186	34	6.32	19,889	R3	Retrofit Fixture (DI)	1x4	0	0	34	0.00	0	6.32	19,889	$2,927	0	No New Controls	0	0.0%	0	$0
0		3145	-	0	0	0	0.00	0	Z	-	-	0	0	0	0.00	0	0.00	0	$0	0	No New Controls	0	0.0%	0	$0
6	Media Center Server Room #216	3145	2-Lamp 32w T8 2x4 Recessed	2	58	1	0.06	182	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	1	0.04	120	0.02	63	$9	0	No New Controls	0	0.0%	0	$0
8	Stair #1 1st floor	2432	2-Lamp 17w T8 2x2 Surface	2	34	2	0.07	165	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	272	(0.04)	(107)	($17)	0	No New Controls	0	0.0%	0	$0
17		2432	1-Lamp 34w T12 1x4 Surface	1	50	1	0.05	122	Y	Fixture Removed	0	0	0	0	0.00	0	0.05	122	$19	0	No New Controls	0	0.0%	0	$0

			EXISTING FIXTURES						PROPOSED FIXTURE RETROFIT								RETROFIT ENERGY SAVINGS			PROPOSED LIGHTING CONTROLS					
Fixture Reference #	Location	Average Burn Hours	Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Fixture Reference New #	Work Description	Equipment Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Energy Savings, kW	Energy Savings, kWh	Energy Savings, $	Control Ref #	Controls Description	Qty of Controls	Hour Reduction %	Energy Savings, kWh	Energy Savings, $
6	Men's Faculty Restroom #127	3384	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	393	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	257	0.04	135	$20	5	Dual Technology Occupancy Sensor - Remote Mnt.	1	48.0%	123	$15
18	Supply Room #124	1500	1-Lamp 32w FC12 Circle Line	1	35	2	0.07	105	D	New Fixture	LSI Industries WNA10-LED-SS-WW-UE	1	33	3	0.10	149	(0.03)	(44)	($8)	0	No New Controls	0	0.0%	0	$0
4	Classroom #115	1709	3-Lamp 32w T8 2x4 Recessed	3	82	13	1.07	1,822	E4	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-4'	1	46	4	0.18	314	0.88	1,507	$253	8	Vacancy Sensor Remote Mount	2	13.0%	41	$5
7		1709	2-Lamp 32w T8 1x4 Recessed	2	58	10	0.58	991	E8	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-8'	1	92	5	0.46	786	0.12	205	$34	8	Vacancy Sensor Remote Mount	1	13.0%	102	$13
0		1709	-	0	0	0	0.00	0	F	New Fixture	Focal Point FL6d-RO-20LED-35K-1C-120V-LD1-T/L6-RN-DN-CO-WP	1	29	4	0.12	198	(0.12)	(198)	($33)	0	No New Controls	0	0.0%	0	$0
0		1709	-	0	0	0	0.00	0	D	New Fixture	LSI Industries WNA10-LED-SS-WW-UE	1	33	2	0.07	113	(0.07)	(113)	($19)	0	No New Controls	0	0.0%	0	$0
6	Closet Class #115	1500	2-Lamp 32w T8 2x4 Recessed	2	58	1	0.06	87	R	Retrofit Fixture (DI)	2x4	0	0	1	0.00	0	0.06	87	$15	0	No New Controls	0	0.0%	0	$0
4	Classroom #113	1709	3-Lamp 32w T8 2x4 Recessed	3	82	13	1.07	1,822	E8	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-8'	1	92	10	0.92	1,572	0.15	250	$42	8	Vacancy Sensor Remote Mount	2	13.0%	204	$25
7		1709	2-Lamp 32w T8 1x4 Recessed	2	58	10	0.58	991	Y	Fixture Removed	0	0	0	0	0.00	0	0.58	991	$166	8	Vacancy Sensor Remote Mount	1	13.0%	0	$0
19	Utility Room #123	1500	2-Lamp 34w T12 1x4 Surface	1	80	2	0.16	240	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	114	0.08	126	$22	0	No New Controls	0	0.0%	0	$0
1	Elevator Room #112	1500	2-Lamp 32w T8 1x4 Surface	2	58	1	0.06	87	D	New Fixture	LSI Industries WNA10-LED-SS-WW-UE	1	33	1	0.03	50	0.03	38	$7	0	No New Controls	0	0.0%	0	$0
5	Special Ed #111	1709	4-Lamp 32w T8 2x4 Recessed	4	109	3	0.33	559	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	3	0.23	390	0.10	169	$28	8	Vacancy Sensor Remote Mount	2	13.0%	51	$6
4	Cafeteria	2594	3-Lamp 32w T8 2x4 Recessed	3	82	30	2.46	6,381	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	30	1.71	4,436	0.75	1,946	$297	0	No New Controls	0	0.0%	0	$0
13		2594	2-Lamp Recessed Can 24w CFL	2	48	6	0.29	747	S7	Retrofit Fixture (DI)	LED Recessed Downlights	0	0	6	0.00	0	0.29	747	$114	0	No New Controls	0	0.0%	0	$0
4	Kitchen	2594	3-Lamp 32w T8 2x4 Recessed	3	82	6	0.49	1,276	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	6	0.34	887	0.15	389	$59	0	No New Controls	0	0.0%	0	$0
20		2594	3-Lamp 17w T8 2x2 Surface	3	47	4	0.19	488	S4	Retrofit Fixture (DI)	3-Lamp - 2-Foot LED	3	33	4	0.13	342	0.06	145	$22	0	No New Controls	0	0.0%	0	$0
1	Kitchen Storage #116	2594	2-Lamp 32w T8 1x4 Surface	2	58	3	0.17	451	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	0	0.00	0	0.17	451	$69	0	No New Controls	0	0.0%	0	$0
6	Café Kitchen Hood	2594	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	301	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	0	0.00	0	0.12	301	$46	0	No New Controls	0	0.0%	0	$0
1	Boiler Room #118	1500	2-Lamp 32w T8 1x4 Surface	2	58	6	0.35	522	D	New Fixture	LSI Industries WNA10-LED-SS-WW-UE	1	33	7	0.23	347	0.12	176	$31	0	No New Controls	0	0.0%	0	$0
1	Custodian Room #150	1500	2-Lamp 32w T8 1x4 Surface	2	58	3	0.17	261	D	New Fixture	LSI Industries WNA10-LED-SS-WW-UE	1	33	5	0.17	248	0.01	14	$2	0	No New Controls	0	0.0%	0	$0
1	Utility Room #122	1500	2-Lamp 32w T8 1x4 Surface	2	58	1	0.06	87	D	New Fixture	LSI Industries WNA10-LED-SS-WW-UE	1	33	2	0.07	99	(0.01)	(12)	($2)	0	No New Controls	0	0.0%	0	$0
5	S/C #109	1709	4-Lamp 32w T8 2x4 Recessed	4	109	4	0.44	745	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	4	0.30	520	0.13	226	$38	8	Vacancy Sensor Remote Mount	2	13.0%	68	$8

			EXISTING FIXTURES						PROPOSED FIXTURE RETROFIT							RETROFIT ENERGY SAVINGS			PROPOSED LIGHTING CONTROLS					
Fixture Reference #	Location	Average Burn Hours	Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Fixture Reference New #	Work Description	Equipment Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Energy Savings, kW	Energy Savings, kWh	Energy Savings, $	Control Ref #	Controls Description	Qty of Controls	Hour Reduction %	Energy Savings, kWh	Energy Savings, $
5	Conference Room #148	2187	4-Lamp 32w T8 2x4 Recessed	4	109	4	0.44	954	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	4	0.30	665	0.13	289	$46	8	Vacancy Sensor Remote Mount	2	27.0%	180	$22
4	Child Study #107	2187	3-Lamp 32w T8 2x4 Recessed	3	82	7	0.57	1,255	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	5	0.29	623	0.29	632	$100	8	Vacancy Sensor Remote Mount	3	27.0%	168	$21
21		2187	3-Lamp 31w T8 U 2x2 Recessed	3	92	4	0.37	805	S4	Retrofit Fixture (DI)	3-Lamp - 2-Foot LED	3	33	4	0.13	289	0.24	516	$82	6	Dual Technology Occupancy Sensor - Switch Mnt.	1	27.0%	78	$10
4	Faculty Lounge #121	2187	3-Lamp 32w T8 2x4 Recessed	3	82	9	0.74	1,614	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	9	0.51	1,122	0.23	492	$78	8	Vacancy Sensor Remote Mount	1	27.0%	303	$37
6		2187	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	254	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	2	0.11	249	0.00	4	$1	0	No New Controls	0	0.0%	0	$0
10		2187	2-Lamp 31w T8 U 2x2 Recessed	2	62	1	0.06	136	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	1	0.04	84	0.02	51	$8	0	No New Controls	0	0.0%	0	$0
8	Stair #2 1st Floor	2432	2-Lamp 17w T8 2x2 Surface	2	34	2	0.07	165	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	272	(0.04)	(107)	($17)	0	No New Controls	0	0.0%	0	$0
6	Women's Faculty #119	3384	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	393	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	257	0.04	135	$20	6	Dual Technology Occupancy Sensor - Switch Mnt.	1	48.0%	123	$15
4	Computer Lab #105	1709	3-Lamp 32w T8 2x4 Recessed	3	82	12	0.98	1,682	E8	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-8'	1	92	10	0.92	1,572	0.06	109	$18	0	No New Controls	0	0.0%	0	$0
7		1709	2-Lamp 32w T8 1x4 Recessed	2	58	17	0.99	1,685	Y	Fixture Removed	0	0	0	0	0.00	0	0.99	1,685	$283	8	Vacancy Sensor Remote Mount	0	13.0%	0	$0
10	Girl's Retroom #110	3384	2-Lamp 31w T8 U 2x2 Recessed	2	62	2	0.12	420	S4	Retrofit Fixture (DI)	3-Lamp - 2-Foot LED	3	33	2	0.07	223	0.06	196	$29	5	Dual Technology Occupancy Sensor - Remote Mnt.	1	48.0%	107	$13
7		3384	2-Lamp 32w T8 1x4 Recessed	2	58	5	0.29	981	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	5	0.19	643	0.10	338	$49	5	Dual Technology Occupancy Sensor - Remote Mnt.	0	48.0%	309	$38
10	Boy's Restroom #108	3384	2-Lamp 31w T8 U 2x2 Recessed	2	62	2	0.12	420	S4	Retrofit Fixture (DI)	3-Lamp - 2-Foot LED	3	33	2	0.07	223	0.06	196	$29	5	Dual Technology Occupancy Sensor - Remote Mnt.	1	48.0%	107	$13
7		3384	2-Lamp 32w T8 1x4 Recessed	2	58	5	0.29	981	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	5	0.19	643	0.10	338	$49	5	Dual Technology Occupancy Sensor - Remote Mnt.	0	48.0%	309	$38
18	Corridor #144	3809	1-Lamp 32w FC12 Circle Line	1	35	3	0.11	400	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	3	0.12	440	(0.01)	(40)	($6)	0	No New Controls	0	0.0%	0	$0
9	Corridor #145	3809	1-Lamp 32w T8 1x4 Surface	1	28	14	0.39	1,493	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	14	0.54	2,053	(0.15)	(560)	($80)	0	No New Controls	0	0.0%	0	$0
0	Corridor #146	3809	-	0	0	0	0.00	0	A2	New Fixture	2x2 Focal Point LED FARL-22AC-LL2-35K	1	36.2	15	0.54	2,068	(0.54)	(2,068)	($296)	0	No New Controls	0	0.0%	0	$0
5	Science #103	1709	4-Lamp 32w T8 2x4 Recessed	4	109	14	1.53	2,608	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	14	1.06	1,818	0.46	790	$133	0	No New Controls	0	0.0%	0	$0
9		1709	1-Lamp 32w T8 1x4 Surface	1	28	1	0.03	48	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	1	0.04	65	(0.01)	(17)	($3)	8	Vacancy Sensor Remote Mount	1	13.0%	8	$1
0		1709	-	0	0	0	0.00	0	Z	-	-	0	0	0	0.00	0	0.00	0	$0	0	No New Controls	0	0.0%	0	$0
22	Toilet Science Room #103	800	2-Lamp 13w CFL Surface	2	26	1	0.03	21	Z	-	-	0	26	1	0.03	21	0.00	0	$0	0	No New Controls	0	0.0%	0	$0
1	Classroom #106	1709	2-Lamp 32w T8 1x4 Surface	2	58	14	0.81	1,388	E8	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-8'	1	92	7	0.64	1,101	0.17	287	$48	8	Vacancy Sensor Remote Mount	2	13.0%	143	$18

			EXISTING FIXTURES						PROPOSED FIXTURE RETROFIT								RETROFIT ENERGY SAVINGS			PROPOSED LIGHTING CONTROLS					
Fixture Reference #	Location	Average Burn Hours	Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Fixture Reference New #	Work Description	Equipment Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Energy Savings, kW	Energy Savings, kWh	Energy Savings, $	Control Ref #	Controls Description	Qty of Controls	Hour Reduction %	Energy Savings, kWh	Energy Savings, $
0	Classroom #106	1709	-	0	0	0	0.00	0	E4	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-4'	1	46	1	0.05	79	(0.05)	(79)	($13)	8	Vacancy Sensor Remote Mount	0	13.0%	10	$1
10	Class Toilet #106	800	2-Lamp 31w T8 U 2x2 Recessed	2	62	1	0.06	50	A1	New Fixture	2x2 Focal Point LED FARL-22AC-LL1-35K	1	38.5	1	0.04	31	0.02	19	$4	0	No New Controls	0	0.0%	0	$0
1	Classroom #104	1709	2-Lamp 32w T8 1x4 Surface	2	58	14	0.81	1,388	E8	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-8'	1	92	7	0.64	1,101	0.17	287	$48	8	Vacancy Sensor Remote Mount	2	13.0%	143	$18
0		1709	-	0	0	0	0.00	0	E4	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-4'	1	46	1	0.05	79	(0.05)	(79)	($13)	8	Vacancy Sensor Remote Mount	0	13.0%	10	$1
6	Class Toilet #104	800	2-Lamp 32w T8 2x4 Recessed	2	58	1	0.06	46	Z	-	-	0	58	0	0.06	46	0.00	0	$0	0	No New Controls	0	0.0%	0	$0
1	Classroom #102	1709	2-Lamp 32w T8 1x4 Surface	2	58	16	0.93	1,586	E8	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-8'	1	92	7	0.64	1,101	0.28	485	$81	8	Vacancy Sensor Remote Mount	2	13.0%	143	$18
0		1709	-	0	0	16	0.00	0	E4	New Fixture	Focal Point FTWLS-MG-1250F-35K-1C-VOLTS-LD1-J24-4'	1	46	1	0.05	79	(0.05)	(79)	($13)	8	Vacancy Sensor Remote Mount	0	13.0%	10	$1
4	Classroom #101	1709	3-Lamp 32w T8 2x4 Recessed	3	82	18	1.48	2,522	S3	Retrofit Fixture (DI)	3-Lamp - 4-Foot LED	3	57	18	1.03	1,753	0.45	769	$129	8	Vacancy Sensor Remote Mount	2	13.0%	228	$28
0		1709	-	0	0	0	0.00	0	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	1	0.04	65	(0.04)	(65)	($11)	8	Vacancy Sensor Remote Mount	0	13.0%	8	$1
6	Class Toilet & Closet #101	800	2-Lamp 32w T8 2x4 Recessed	2	58	2	0.12	93	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	61	0.04	32	$7	0	No New Controls	0	0.0%	0	$0
8	Stair #3 1st Floor	2432	2-Lamp 17w T8 2x2 Surface	2	34	3	0.10	248	C	New Fixture	Luminaire Surface Mount VPF8-4-56W HP-3500K-VOLTS-OP-WHT-EMB722	1	56	2	0.11	272	(0.01)	(24)	($4)	0	No New Controls	0	0.0%	0	$0
23	Sub Basement Boiler Room	1500	150w A-Lamp Medium Base	1	150	5	0.75	1,125	Z	-	-	0	150	0	0.75	1,125	0.00	0	$0	0	No New Controls	0	0.0%	0	$0
5	Basement/1st Fl 125 Safe	1500	4-Lamp 32w T8 2x4 Recessed	4	109	1	0.11	164	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	0	0.00	0	0.11	164	$28	0	No New Controls	0	0.0%	0	$0
19	Elevators	3809	2-Lamp 34w T12 1x4 Surface	1	80	2	0.16	609	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	2	0.08	289	0.08	320	$46	0	No New Controls	0	0.0%	0	$0
	GYM ADDITION																								
10	Gym Entry Lobby / Hallway	3809	2-Lamp 31w T8 U 2x2 Recessed	2	62	18	1.12	4,251	S4	Retrofit Fixture (DI)	3-Lamp - 2-Foot LED	3	33	18	0.59	2,263	0.52	1,988	$284	0	No New Controls	0	0.0%	0	$0
13		3809	2-Lamp Recessed Can 24w CFL	2	48	27	1.30	4,936	R4	Retrofit Fixture	Recessed LED Can Retrofit Kit	1	26	27	0.70	2,674	0.59	2,263	$323	0	No New Controls	0	0.0%	0	$0
15		3809	2-Lamp Recessed Can 18w CFL	2	36	2	0.07	274	R4	Retrofit Fixture	Recessed LED Can Retrofit Kit	1	26	2	0.05	198	0.02	76	$11	0	No New Controls	0	0.0%	0	$0
16	Gymnasium	3368	250w Metal Halide High Bay	1	295	12	3.54	11,923	S2	Retrofit Fixture (DI)	LED High/Low Bay Fixtures	1	125	12	1.50	5,052	2.04	6,871	$1,000	0	No New Controls	0	0.0%	0	$0
6	Gym Storage #128	3368	2-Lamp 32w T8 2x4 Recessed	2	58	1	0.06	195	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	1	0.04	128	0.02	67	$10	0	No New Controls	0	0.0%	0	$0
10	Boy's Locker Room	3274	2-Lamp 31w T8 U 2x2 Recessed	2	62	1	0.06	203	S4	Retrofit Fixture (DI)	3-Lamp - 2-Foot LED	3	33	1	0.03	108	0.03	95	$14	0	No New Controls	0	0.0%	0	$0
6		3274	2-Lamp 32w T8 2x4 Recessed	2	58	6	0.35	1,139	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	4	0.15	498	0.20	642	$94	0	No New Controls	0	0.0%	0	$0

			EXISTING FIXTURES						PROPOSED FIXTURE RETROFIT								RETROFIT ENERGY SAVINGS			PROPOSED LIGHTING CONTROLS					
Fixture Reference #	Location	Average Burn Hours	Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Fixture Reference New #	Work Description	Equipment Description	Lamps per Fixture	Watts per Fixture	Qty of Fixtures	Total kW	Usage kWh/Yr	Energy Savings, kW	Energy Savings, kWh	Energy Savings, $	Control Ref #	Controls Description	Qty of Controls	Hour Reduction %	Energy Savings, kWh	Energy Savings, $
5	Boy's Locker Office #134	3274	4-Lamp 32w T8 2x4 Recessed	4	109	2	0.22	714	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	2	0.15	498	0.07	216	$32	8	Vacancy Sensor Remote Mount	1	65.0%	323	$40
10	Girl's Locker Room	3274	2-Lamp 31w T8 U 2x2 Recessed	2	62	1	0.06	203	S4	Retrofit Fixture (DI)	3-Lamp - 2-Foot LED	3	33	1	0.03	108	0.03	95	$14	0	No New Controls	0	0.0%	0	$0
6		3274	2-Lamp 32w T8 2x4 Recessed	2	58	6	0.35	1,139	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	4	0.15	498	0.20	642	$94	0	No New Controls	0	0.0%	0	$0
5	Girl's Locker Office	3274	4-Lamp 32w T8 2x4 Recessed	4	109	2	0.22	714	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	2	0.15	498	0.07	216	$32	8	Vacancy Sensor Remote Mount	1	65.0%	323	$40
6	Gym Storage #129	3368	2-Lamp 32w T8 2x4 Recessed	2	58	4	0.23	781	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	4	0.15	512	0.08	269	$39	0	No New Controls	0	0.0%	0	$0
1	Stage	1000	2-Lamp 32w T8 1x4 Surface	2	58	4	0.23	232	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	4	0.15	152	0.08	80	$16	0	No New Controls	0	0.0%	0	$0
1	Gym Add't Utility Room	1500	2-Lamp 32w T8 1x4 Surface	2	58	4	0.23	348	S	Retrofit Fixture (DI)	2-Lamp - 4-Foot LED	2	38	4	0.15	228	0.08	120	$21	0	No New Controls	0	0.0%	0	$0
5	Restroom #141	800	4-Lamp 32w T8 2x4 Recessed	4	109	1	0.11	87	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	1	0.08	61	0.03	26	$6	0	No New Controls	0	0.0%	0	$0
5	Restroom #142	800	4-Lamp 32w T8 2x4 Recessed	4	109	1	0.11	87	S5	Retrofit Fixture (DI)	4-Lamp - 4-Foot LED	4	76	1	0.08	61	0.03	26	$6	0	No New Controls	0	0.0%	0	$0
24	Exterior	4000	70w Metal Halide Wall Pack	1	94	10	0.94	3,760	EXT-1	New Fixture	Luminaire LED SPC8-24-4OF-28W HP-4100K	1	28	12	0.34	1,344	0.60	2,416	$343	0	No New Controls	0	0.0%	0	$0
25		4000	150 w HPS Spot	1	173	2	0.35	1,384	EXT-2	New Fixture	LSI Industries PWM-LED-S-LED-HO=NW-UE	1	56	21	1.18	4,704	(0.83)	(3,320)	($471)	0	No New Controls	0	0.0%	0	$0
26	Exterior Parking Lot	4000	150w MH HID Shoebox Pole Lights	1	173	11	1.90	7,612	Z	-	-	0	173		1.90	7,612	0.00	0	$0	0	No New Controls	0	0.0%	0	$0
	TOTAL					**928**	**79**	**191,836**						**846**	**47**	**110,923**	**31**	**80,913**	**$12,355**			**98**	**14**	**9,519**	**$1,167**

APPENDIX C

New Jersey Office of Clean Energy
Direct Install Program
Energy Assessment Tool (ver. 8.5)

TRC Energy Services

General Project Information

Participating Customer:	Rochelle Pk Bd of Ed		Facility Type:	Other School
Contractor / Project #:	Lime Energy	LM09116	Total Facility Square Footage:	80,000
Facility Name:	Rochelle Park Midland School		Avg Weekly Hrs of Operation:	45
Street Address:	300 Rochelle Ave BOE		# of Full-Time Employees:	40
City / Zip Code:	Rochelle Park	07662	Year Constructed:	1908
Will the project receive EECBG funding?:		N	Tax Exempt?:	Y
Is this facility publicly owned?:		Y		

ELECTRIC UTILITY INFORMATION

Electric Provider:	PSE&G
Service Class:	LPLS
Account #:	42-003-139-01
Billing Period Start Date:	03/24/15
Billing Period End Date:	04/22/15
Billing Period kWh Consumption:	38,183
Billing Period Total Cost:	$5,912.31
Total Taxes + Fees on Bill:	$372.11

GAS UTILITY INFORMATION

Gas Provider:	PSE&G
Service Class:	LVG
Account #:	42-003-139-01
Billing Period Start Date:	03/23/15
Billing Period End Date:	04/22/15
Billing Period Therm Consumption:	3,876
Billing Period Total Cost:	$4,000.00
Total Taxes + Fees on Bill:	$103.31

Project Summary

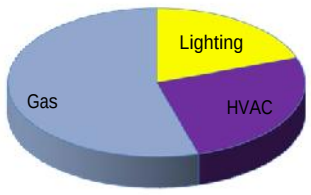
Electric - Average Cost ($/kWh): $0.145

Gas - Average Cost ($/Therm): $1.01

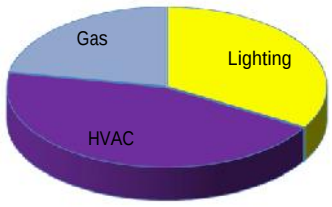
	kWh Saved per Year	Annual Savings	Total Measure Cost	Estimated Incentive Amount	Total Cost to Customer	Simple Payback (Yrs)
Lighting Measures Total:	65,304	$ 9,475.35	$ 75,761.26	$ 53,032.88	$ 22,728.38	2.40
Motors & VFD Measures Total:	-	$ -	$ -	$ -	$ -	0.00
HVAC Electric Measures Total:	86,609	$ 12,566.64	$ 113,796.78	$ 79,657.75	$ 34,139.03	2.72
Refrigeration Measures Total:	-	$ -	$ -	$ -	$ -	0.00
TOTAL ELECTRIC MEASURES:	151,913	$ 22,041.99	$ 189,558.04	$ 132,690.63	$ 56,867.41	2.58
	Therms /yr.					
TOTAL GAS MEASURES:	6,207	$ 6,240.18	$ 4,679.41	$ 3,275.58	$ 1,403.82	0.22
	Gallons/yr.					
TOTAL OIL MEASURES:	-	$ -	$ -	$ -	$ -	0.00
	Oil Gallons/yr.	Gas Therms/yr.				
CONVERSION MEASURES: (OIL TO GAS)	-	-	$ -	$ -	$ -	0.00
	Gallons/yr.					
TOTAL PROPANE MEASURES:	-	$ -	$ -	$ -	$ -	0.00
COMBINED PROJECT TOTALS:		$ 28,282.16	$ 194,237.45	$ 125,000.00	$ 69,237.45	2.45

PROJECT TRC TEST: 1.02

Projected Energy Savings Per Measure Category



Projected Dollar Savings Per Measure Category



Estimated Reduction in Total Energy Consumption

DIRECT INSTALL PROGRAM

PARTICIPATION AGREEMENT

SCOPE OF WORK ATTACHMENT

LM09116

"Parties":

Participating Customer*:	**Rochelle Pk Bd of Ed**			
Participating Contractor*:	**Lime Energy**			
Facility Name*:	**Rochelle Park Midland School**			
Facility Address:	**300 Rochelle Ave BOE**	**Rochelle Park,**	**NJ**	**07662**
	Street	City		Zip

*as listed on Application

When fully signed, this Scope of Work Attachment ("Attachment") shall become part of the Direct Install Program Participation Agreement ("Participation Agreement") previously executed by the Parties in connection with the installation of energy efficiency retrofit Measures to be performed by the Participating Contractor (or "Contractor") at the above listed Facility. This Attachment, together with the Participation Agreement shall constitute the full Agreement between the Parties. Terms capitalized herein are defined in the Participation Agreement.

The Participating Customer (or "Customer") agrees to have Contractor perform retrofit work in connection with the Measures listed on page 2 of this form (attached). In consideration of the Contractor's performance of such work, Customer agrees to pay Contractor based on the measure costs listed below under Customer Unit Cost for the number of completed units for each Measure upon receipt of invoice; provided the Contractor may collect a deposit from Customer prior to performing such work, in which case the final invoice shall be net of such deposit. Customer and Contractor understand that conditions discovered during installation may require that some measures identified in the energy assessment cannot be installed, or some areas may require additional measures/quantities to be installed. Should conditions in the field dictate that the Estimated Program Total Cost shown on page 2 increase by more than 10%, Contractor must obtain both Market Manager and Customer written approval in the form of an amended Scope of Work Attachment before proceeding with such additional work.

By signing below, the Parties agree the above listed Measures shall be installed by the Contractor. The Customer shall pay the Contractor as described herein following Completion and Acceptance of Measures. Customer certifies that he/she has the authority to contract for retrofit work in the Facility in connection with the Measures listed and, if the Customer does not own the Facility, the Owner has granted permission to Customer for performance of such work.

Participating Customer Date

Participating Contractor Date

Page 2
Scope of Work

The work to be performed by the Participating Contractor in connection with the Project shall be comprised of the below listed Measures in the estimated quantities listed:

Measure Description / Location	Quantity To Be Installed	Total Measure Cost	Estimated Customer Total Cost	Estimated Incentive Amount
Plug & Play LED - 2-Lamp - 2-Foot / Elevator	1	$ 79.47	$ 23.84	$ 55.63
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Utility Room #123	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 2-Lamp - 2-Foot / 3rd Flr #322 Copy Room	1	$ 79.47	$ 23.84	$ 55.63
LED High/Low-Bay Fixtures - 125W / Gym	12	$ 6,516.73	$ 1,955.02	$ 4,561.71
Plug & Play LED - 2-Lamp - 4-Foot / Elevator	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 2-Lamp - 4-Foot / Mens Restroom #127 on North Stairs	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 3-Lamp - 4-Foot / Basement/1st Floor Café	30	$ 3,681.84	$ 1,104.55	$ 2,577.29
LED Recessed Downlights - 8" - 26W / Basement/1st Floor Café	6	$ 1,562.21	$ 468.66	$ 1,093.54
Plug & Play LED - 3-Lamp - 2-Foot / Basement/1st Floor Café Counter	4	$ 458.77	$ 137.63	$ 321.14
Plug & Play LED - 3-Lamp - 4-Foot / Basement/1st Floor Café Kitchen	6	$ 736.37	$ 220.91	$ 515.46
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Café Kitchen Office	3	$ 260.56	$ 78.17	$ 182.39
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Café Kitchen Hood	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 4-Lamp - 4-Foot / Basement/1st Floor Classroom #103	14	$ 2,220.43	$ 666.13	$ 1,554.30
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Classroom #103	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 3-Lamp - 4-Foot / Basement/1st Floor Classroom #101	18	$ 2,209.11	$ 662.73	$ 1,546.37
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Classroom #101	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Classroom #101 Restroom	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Classroom #101 Closet	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 3-Lamp - 2-Foot / Basement/1st Floor Girls Restroom	2	$ 229.38	$ 68.81	$ 160.57
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Girls Restroom	5	$ 434.27	$ 130.28	$ 303.99
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Boys Restroom	5	$ 434.27	$ 130.28	$ 303.99
Plug & Play LED - 3-Lamp - 2-Foot / Basement/1st Floor Boys Restroom	2	$ 229.38	$ 68.81	$ 160.57
Plug & Play LED - 3-Lamp - 4-Foot / Basement/1st Floor #121 Faculty Lounge	9	$ 1,104.55	$ 331.37	$ 773.19
Plug & Play LED - 3-Lamp - 4-Foot / Basement/1st Floor #121 Faculty Lounge Copy Room	2	$ 245.46	$ 73.64	$ 171.82
Plug & Play LED - 3-Lamp - 2-Foot / Basement/1st Floor #107 CST	4	$ 458.77	$ 137.63	$ 321.14
Plug & Play LED - 3-Lamp - 4-Foot / Basement/1st Floor #107 CST	5	$ 613.64	$ 184.09	$ 429.55
Plug & Play LED - 3-Lamp - 4-Foot / Basement/1st Floor #149	2	$ 245.46	$ 73.64	$ 171.82
Plug & Play LED - 4-Lamp - 4-Foot / Basement/1st Floor #148 Conference Room	4	$ 634.41	$ 190.32	$ 444.09
Plug & Play LED - 4-Lamp - 4-Foot / Basement/1st Floor #109 (locked)	4	$ 634.41	$ 190.32	$ 444.09
Plug & Play LED - 4-Lamp - 4-Foot / Basement/1st Floor #111 Music	3	$ 475.81	$ 142.74	$ 333.07
Plug & Play LED - 4-Lamp - 4-Foot / Basement/1st Floor #125 Safe	1	$ 158.60	$ 47.58	$ 111.02
Plug & Play LED - 2-Lamp - 4-Foot / Basement/1st Floor Classroom # Storage Closet	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #320	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 2-Lamp - 4-Foot / 3rd Floor Classroom #320 Hall	5	$ 434.27	$ 130.28	$ 303.99
Plug & Play LED - 2-Lamp - 4-Foot / 3rd Floor Classroom #319 Hall	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #319	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 2-Lamp - 4-Foot / 3rd Floor Classroom #319 Hall	3	$ 260.56	$ 78.17	$ 182.39
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #317	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 2-Lamp - 4-Foot / 3rd Floor Classroom #317 Hall	3	$ 260.56	$ 78.17	$ 182.39
Plug & Play LED - 4-Lamp - 4-Foot / 3rd Floor BOE Office	10	$ 1,586.02	$ 475.81	$ 1,110.22
Plug & Play LED - 4-Lamp - 4-Foot / 3rd Floor Superintendent's Office 318	9	$ 1,427.42	$ 428.23	$ 999.20
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #315	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #313	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 2-Lamp - 4-Foot / 3rd Floor Classroom #311 Hall	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #311	12	$ 1,472.74	$ 441.82	$ 1,030.92

Plug & Play LED - 2-Lamp - 4-Foot / 3rd Floor Classroom #311 Hall	3	$ 260.56	$ 78.17	$ 182.39
Plug & Play LED - 2-Lamp - 4-Foot / Womens Restroom #119 on South Stairs	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor #309 Office	4	$ 490.91	$ 147.27	$ 343.64
Plug & Play LED - 2-Lamp - 4-Foot / 3rd Floor #312	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #307	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 2-Lamp - 4-Foot / 3rd Floor #308 Tech Support	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 4-Lamp - 4-Foot / 3rd Floor Classroom #305	8	$ 1,268.82	$ 380.65	$ 888.17
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #303	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 3-Lamp - 4-Foot / 3rd Floor Classroom #301	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #211 Hall	1	$ 122.73	$ 36.82	$ 85.91
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor Classroom #211	9	$ 1,427.42	$ 428.23	$ 999.20
Plug & Play LED - 2-Lamp - 4-Foot / 2nd Floor Classroom #211 Hall	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor Classroom #213	9	$ 1,427.42	$ 428.23	$ 999.20
Plug & Play LED - 2-Lamp - 4-Foot / 2nd Floor Classroom #213 Hall	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #215	5	$ 613.64	$ 184.09	$ 429.55
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor Main Entrance	1	$ 166.48	$ 49.94	$ 116.54
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor Classroom #219	9	$ 1,427.42	$ 428.23	$ 999.20
Plug & Play LED - 2-Lamp - 4-Foot / 2nd Floor Classroom #219 Hall	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #221 Hall	1	$ 122.73	$ 36.82	$ 85.91
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor Classroom #221	9	$ 1,427.42	$ 428.23	$ 999.20
Plug & Play LED - 2-Lamp - 4-Foot / 2nd Floor Classroom #221 Hall	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor Classroom #220	9	$ 1,427.42	$ 428.23	$ 999.20
Plug & Play LED - 2-Lamp - 4-Foot / 2nd Floor Classroom #220 Hall	3	$ 260.56	$ 78.17	$ 182.39
Plug & Play LED - 3-Lamp - 2-Foot / 2nd Floor #206 Nurses Office	8	$ 917.53	$ 275.26	$ 642.27
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor #206 Nurses Office Exam	1	$ 158.60	$ 47.58	$ 111.02
Plug & Play LED - 2-Lamp - 4-Foot / 2nd Floor #206 Nurses Office Exam Restroom	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor #217 Guidance	6	$ 951.61	$ 285.48	$ 666.13
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Main Office	6	$ 736.37	$ 220.91	$ 515.46
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor #236 Principal	4	$ 490.91	$ 147.27	$ 343.64
Plug & Play LED - 2-Lamp - 4-Foot / 2nd Floor Library Server Room	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 2-Lamp - 2-Foot / 2nd Floor #210 ESL	1	$ 79.47	$ 23.84	$ 55.63
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor #210 ESL	4	$ 634.41	$ 190.32	$ 444.09
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #209	4	$ 490.91	$ 147.27	$ 343.64
Plug & Play LED - 1-Lamp - 4-Foot / 2nd Floor Classroom #209 Restroom	1	$ 50.98	$ 15.29	$ 35.69
Plug & Play LED - 2-Lamp - 4-Foot / 2nd Floor Classroom #207	9	$ 781.68	$ 234.51	$ 547.18
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor #228	4	$ 634.41	$ 190.32	$ 444.09
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor #222 Speech	2	$ 317.20	$ 95.16	$ 222.04
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #224	6	$ 736.37	$ 220.91	$ 515.46
Plug & Play LED - 4-Lamp - 4-Foot / 2nd Floor Classroom #205	8	$ 1,268.82	$ 380.65	$ 888.17
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #225	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #203	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #226	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #201	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 3-Lamp - 4-Foot / 2nd Floor Classroom #227	12	$ 1,472.74	$ 441.82	$ 1,030.92
Plug & Play LED - 3-Lamp - 2-Foot / Hall/Stairs to Gym	8	$ 917.53	$ 275.26	$ 642.27
Plug & Play LED - 3-Lamp - 2-Foot / Hall/Stairs to Gym	7	$ 836.44	$ 250.93	$ 585.51
Plug & Play LED - 3-Lamp - 2-Foot / Hall/Stairs to Gym	3	$ 344.07	$ 103.22	$ 240.85
Plug & Play LED - 2-Lamp - 4-Foot / Gym Storage Room #128	1	$ 86.85	$ 26.06	$ 60.80
Plug & Play LED - 3-Lamp - 2-Foot / Boys Locker Room #114	1	$ 114.69	$ 34.41	$ 80.28
Plug & Play LED - 2-Lamp - 4-Foot / Boys Locker Room #114	4	$ 347.42	$ 104.22	$ 243.19
Plug & Play LED - 2-Lamp - 4-Foot / Boys Restroom	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 4-Lamp - 4-Foot / Gym Office	2	$ 317.20	$ 95.16	$ 222.04
Plug & Play LED - 3-Lamp - 2-Foot / Girls Locker Room	1	$ 114.69	$ 34.41	$ 80.28

Savings values are estimates. Actual savings will vary.
Incentives and participation subject to program rules and Participation Agreement.

Plug & Play LED - 2-Lamp - 4-Foot / Girls Locker Room	4	$ 347.42	$ 104.22	$ 243.19
Plug & Play LED - 2-Lamp - 4-Foot / Girls Restroom	2	$ 173.71	$ 52.11	$ 121.60
Plug & Play LED - 4-Lamp - 4-Foot / Office #137	2	$ 317.20	$ 95.16	$ 222.04
Plug & Play LED - 2-Lamp - 4-Foot / Stage	4	$ 374.22	$ 112.26	$ 261.95
Plug & Play LED - 2-Lamp - 4-Foot / Gym Storage Room #129	4	$ 374.22	$ 112.26	$ 261.95
Plug & Play LED - 2-Lamp - 4-Foot / Gym Storage Room #139 (exterior entrance)	4	$ 347.42	$ 104.22	$ 243.19
Plug & Play LED - 2-Lamp - 4-Foot / Closet Class 313	3	$ 260.56	$ 78.17	$ 182.39
Plug & Play LED - 2-Lamp - 4-Foot / Closet Class 315	3	$ 260.56	$ 78.17	$ 182.39
Plug & Play LED - 4-Lamp - 4-Foot / Exterior Entrance Restroom 141	1	$ 158.60	$ 47.58	$ 111.02
Plug & Play LED - 4-Lamp - 4-Foot / Exterior Entrance Restroom 142	1	$ 158.60	$ 47.58	$ 111.02
LED: A-Lamp (12W) / Ext Entrance Elevator Mach Rm 138	1	$ 60.34	$ 18.10	$ 42.24
20-Ton Packaged Unit (Elec. AC/Gas Heat) / gym roof (note 1) 2 units	2	$ 66,612.83	$ 19,983.85	$ 46,628.98
12.5-Ton Packaged Unit (Elec. AC/Gas Heat) / high roof-library R15102180D	1	$ 17,742.20	$ 5,322.66	$ 12,419.54
15-Ton Packaged Unit (Elec. AC/Gas Heat) / ground for cafeteria R15102250D	1	$ 20,600.13	$ 6,180.04	$ 14,420.09
Dual Enthalpy Economizers / high roof-library R15102180D	1	$ 1,649.45	$ 494.84	$ 1,154.62
Dual Enthalpy Economizers / ground for cafeteria R15102250D	1	$ 1,649.45	$ 494.84	$ 1,154.62
Dual Enthalpy Economizers / gym roof (note 1) 2 units	2	$ 3,298.90	$ 989.67	$ 2,309.23
Electronic Fuel-Use Economizers (for AC) / high roof-library R15102180D	1	$ 560.95	$ 168.29	$ 392.67
Electronic Fuel-Use Economizers (for AC) / ground for cafeteria R15102250D	1	$ 560.95	$ 168.29	$ 392.67
Electronic Fuel-Use Economizers (for AC) / Gym Roof	2	$ 1,121.90	$ 336.57	$ 785.33
Electronic Fuel-Use Economizers (for Forced Air Heat) / high roof-library R15102180D	1	$ 602.67	$ 180.80	$ 421.87
Electronic Fuel-Use Economizers (for Forced Air Heat) / ground for cafeteria R15102250D	1	$ 602.67	$ 180.80	$ 421.87
Electronic Fuel-Use Economizers (for Forced Air Heat) / Gym Roof	2	$ 1,205.33	$ 361.60	$ 843.73
Programmable Thermostats / Office	4	$ 890.14	$ 267.04	$ 623.10
Faucet Aerators (lavatory) / Restrooms, Nurse	20	$ 1,312.95	$ 393.89	$ 919.07
Faucet Aerators (kitchen) / Kitchen (outside threads), Faculty Rm	1	$ 65.65	$ 19.69	$ 45.95
TOTALS**		$ 194,237.45	$ 69,237.45	$ 125,000.00

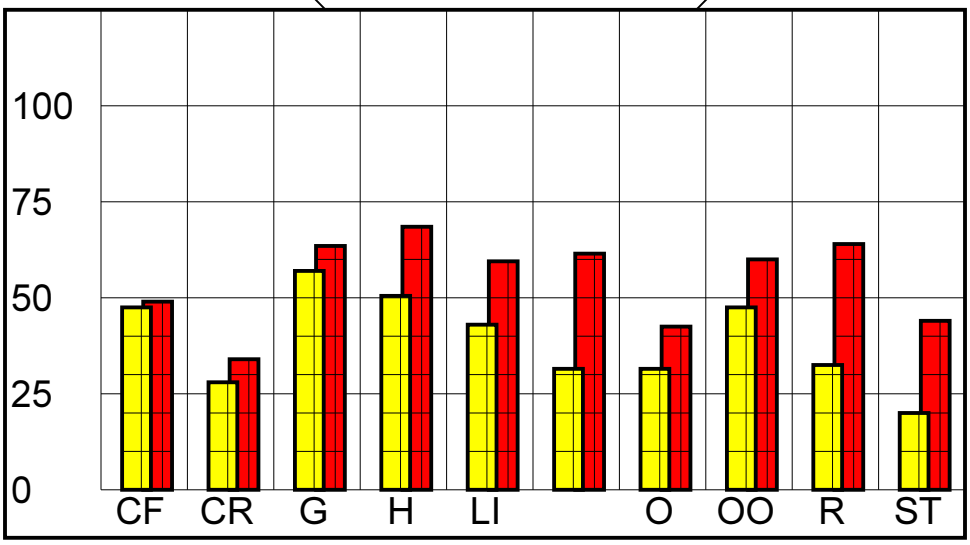
**Maximum incentive amount per project is $125,000. Measures that would qualify the project for funding through the State Energy Program (SEP) are identified above with an 'S'. If any "SEP measures" are included then the total incentive amount for all measures will be paid with SEP funds, otherwise the total incentive amount will come from NJ Clean Energy funds.

APPENDIX D

Data Logger Analysis Report

Contractor: 912 Company: Concord Engineering, Project Rochelle BOE
Area Type Averages

Area Type Averages				Normalized Weekly Lights On					Normalized Weekly Occupied					
Area Type		Qty	Watts	Peak	Off	Shldr 1	Shldr 2	Total	Peak	Off	Shldr 1	Shldr 2	Total	% sav
Cafeteria	CF	2	100	49.17	0.00	0.00	0.00	49.17	47.84	0.00	0.00	0.00	47.84	2.70
Classroom	CR	4	100	34.50	0.00	0.00	0.00	34.50	28.27	0.00	0.00	0.00	28.27	18.06
Gym	G	2	100	63.68	0.00	0.00	0.00	63.68	57.33	0.00	0.00	0.00	57.33	9.98
Hallway	H	2	100	68.61	0.00	0.00	0.00	68.61	50.66	0.00	0.00	0.00	50.66	26.17
Library	LI	1	100	59.69	0.00	0.00	0.00	59.69	43.39	0.00	0.00	0.00	43.39	27.31
Locker Rm		1	100	61.83	0.00	0.00	0.00	61.83	31.73	0.00	0.00	0.00	31.73	48.69
Office	O	6	100	42.97	0.00	0.00	0.00	42.97	31.62	0.00	0.00	0.00	31.62	26.43
Open Office	OO	1	100	60.36	0.00	0.00	0.00	60.36	47.97	0.00	0.00	0.00	47.97	20.54
Restroom	R	2	100	64.33	0.00	0.00	0.00	64.33	32.89	0.00	0.00	0.00	32.89	48.87
Stairwell	ST	1	100	44.22	0.00	0.00	0.00	44.22	20.14	0.00	0.00	0.00	20.14	54.46
Building Average for 22 rooms			100	47.23	0.00	0.00	0.00	47.23	35.58	0.00	0.00	0.00	35.58	24.68



Hours per Week for each Area Type.

Data Logger Detail

for Concord Engineering, Rochelle BOE

All Loggers Listed			Hours Installed							Lights On					Occupied				
Logger	Room Location	Ty	Total	Peak	Off	Shldr 1	Shldr 2	Installed	Removed	Peak	Off	Shldr 1	Shldr 2	Total	Peak	Off	Shldr 1	Shldr 2	Total
0000F43D	Cafeteria	CF	815.35	815.35	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	238.85	0.00	0.00	0.00	238.85	231.98	0.00	0.00	0.00	231.98
000053E8	Cafeteria	CF	814.85	814.85	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	238.23	0.00	0.00	0.00	238.23	232.20	0.00	0.00	0.00	232.20
000051AF	Art Room 115	CR	814.72	814.72	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	172.48	0.00	0.00	0.00	172.48	164.58	0.00	0.00	0.00	164.58
0000EDA3	Science Rm 103	CR	814.48	814.48	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	124.53	0.00	0.00	0.00	124.53	111.40	0.00	0.00	0.00	111.40
00005007	SGI Class 215	CR	815.72	815.72	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	175.82	0.00	0.00	0.00	175.82	154.55	0.00	0.00	0.00	154.55
0000EFF4	GYM	G	815.38	815.38	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	308.77	0.00	0.00	0.00	308.77	278.30	0.00	0.00	0.00	278.30
0000EDE8	GYM	G	815.35	815.35	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	309.38	0.00	0.00	0.00	309.38	278.18	0.00	0.00	0.00	278.18
00005361	Corridor 202	H	815.95	815.95	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	308.80	0.00	0.00	0.00	308.80	245.47	0.00	0.00	0.00	245.47
0000EF6C	Hallway 3-1	H	815.70	815.70	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	357.60	0.00	0.00	0.00	357.60	246.57	0.00	0.00	0.00	246.57
0000EE5A	Media Center	LI	815.90	815.90	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	289.90	0.00	0.00	0.00	289.90	210.73	0.00	0.00	0.00	210.73
00005180	Boys Locker Rm 132		815.32	815.32	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	300.07	0.00	0.00	0.00	300.07	153.97	0.00	0.00	0.00	153.97
000051F7	Athletic Office 134	O	815.32	815.32	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	214.17	0.00	0.00	0.00	214.17	81.33	0.00	0.00	0.00	81.33
0000DD3E	Custodian Office	O	815.35	815.35	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	157.68	0.00	0.00	0.00	157.68	127.72	0.00	0.00	0.00	127.72
0000EE4C	Main Office 204	O	837.95	837.95	0.00	0.00	0.00	01/07/15 12:00 AM	02/11/15 12:00 AM	286.05	0.00	0.00	0.00	286.05	235.78	0.00	0.00	0.00	235.78
0000EF58	Nurse Office 206	O	354.77	354.77	0.00	0.00	0.00	01/07/15 12:00 AM	01/22/15 12:00 AM	98.17	0.00	0.00	0.00	98.17	92.13	0.00	0.00	0.00	92.13
0000DF0D	Principal Office 236	O	815.75	815.75	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	160.85	0.00	0.00	0.00	160.85	131.22	0.00	0.00	0.00	131.22
0000F590	Superintendent's Office	O	176.08	176.08	0.00	0.00	0.00	01/15/15 12:00 AM	01/22/15 12:00 AM	58.97	0.00	0.00	0.00	58.97	49.80	0.00	0.00	0.00	49.80
0000EFFA	BOE Offices Rm 316	OO	815.68	815.68	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	293.08	0.00	0.00	0.00	293.08	232.88	0.00	0.00	0.00	232.88
000052F5	Boys Restroom 108	R	815.58	815.58	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	313.22	0.00	0.00	0.00	313.22	161.42	0.00	0.00	0.00	161.42
0000542E	Boys Restroom 223	R	816.73	816.73	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	311.87	0.00	0.00	0.00	311.87	158.17	0.00	0.00	0.00	158.17
0000545C	Stairwell 3	ST	815.75	815.75	0.00	0.00	0.00	01/07/15 12:00 AM	02/10/15 12:00 AM	214.73	0.00	0.00	0.00	214.73	97.80	0.00	0.00	0.00	97.80
643	Classroom		5942.60	5942.60	0.00	0.00	0.00	01/07/15 12:00 AM	02/11/15 12:00 AM	1249.57	0.00	0.00	0.00	1249.57	980.73	0.00	0.00	0.00	980.73

Normalized Data Logger Detail

for Concord Engineering, Rochelle BOE

All Loggers Listed			Load	Normalized Weekly Hours of Use					Normalized Weekly Hours of Occupancy				
Logger	Room Location	Ty	Watts	Peak	Off	Shldr 1	Shldr 2	Total	Peak	Off	Shldr 1	Shldr 2	Total
0000F43D	Cafeteria	CF	100	49.21	0.00	0.00	0.00	49.21	47.80	0.00	0.00	0.00	47.80
000053E8	Cafeteria	CF	100	49.12	0.00	0.00	0.00	49.12	47.87	0.00	0.00	0.00	47.87
000051AF	Art Room 11	CR	100	35.57	0.00	0.00	0.00	35.57	33.94	0.00	0.00	0.00	33.94
0000EDA3	Science Rm 10	CR	100	25.69	0.00	0.00	0.00	25.69	22.98	0.00	0.00	0.00	22.98
00005007	SGI Class 21	CR	100	36.21	0.00	0.00	0.00	36.21	31.83	0.00	0.00	0.00	31.83
0000EFF4	GYM	G	100	63.62	0.00	0.00	0.00	63.62	57.34	0.00	0.00	0.00	57.34
0000EDE8	GYM	G	100	63.75	0.00	0.00	0.00	63.75	57.32	0.00	0.00	0.00	57.32
00005361	Corridor 20	H	100	63.58	0.00	0.00	0.00	63.58	50.54	0.00	0.00	0.00	50.54
0000EF6C	Hallway 3-1	H	100	73.65	0.00	0.00	0.00	73.65	50.78	0.00	0.00	0.00	50.78
0000EE5A	Media Cente	LI	100	59.69	0.00	0.00	0.00	59.69	43.39	0.00	0.00	0.00	43.39
00005180	Boys Locker Rm 13		100	61.83	0.00	0.00	0.00	61.83	31.73	0.00	0.00	0.00	31.73
000051F7	Athletic Office 134	O	100	44.13	0.00	0.00	0.00	44.13	16.76	0.00	0.00	0.00	16.76
0000DD3E	Custodian Offic	O	100	32.49	0.00	0.00	0.00	32.49	26.32	0.00	0.00	0.00	26.32
0000EE4C	Main Office 20	O	100	57.35	0.00	0.00	0.00	57.35	47.27	0.00	0.00	0.00	47.27
0000EF58	Nurse Office 206	O	100	46.49	0.00	0.00	0.00	46.49	43.63	0.00	0.00	0.00	43.63
0000DF0D	Principal Office 23	O	100	33.13	0.00	0.00	0.00	33.13	27.02	0.00	0.00	0.00	27.02
0000F590	Superintendent's Offic	O	100	56.26	0.00	0.00	0.00	56.26	47.51	0.00	0.00	0.00	47.51
0000EFFA	BOE Offices Rm 31	OO	100	60.36	0.00	0.00	0.00	60.36	47.97	0.00	0.00	0.00	47.97
000052F5	Boys Restroom 10	R	100	64.52	0.00	0.00	0.00	64.52	33.25	0.00	0.00	0.00	33.25
0000542E	Boys Restroom 22	R	100	64.15	0.00	0.00	0.00	64.15	32.53	0.00	0.00	0.00	32.53
0000545C	Stairwell 3	ST	100	44.22	0.00	0.00	0.00	44.22	20.14	0.00	0.00	0.00	20.14
643	Classroo		100	35.33	0.00	0.00	0.00	35.33	27.73	0.00	0.00	0.00	27.73

Building Summary Totals

for Concord Engineering, Rochelle BOE

Building Summary Totals				Lights On KWHR					Occupied KWHR				
Area Type		Qty	Watts	Peak	Off	Shldr 1	Shldr 2	Total	Peak	Off	Shldr 1	Shldr 2	Total
Cafeteria	CF	2	200	9.83	0.00	0.00	0.00	9.83	9.57	0.00	0.00	0.00	9.57
Classroom	CR	4	400	13.80	0.00	0.00	0.00	13.80	11.31	0.00	0.00	0.00	11.31
Gym	G	2	200	12.74	0.00	0.00	0.00	12.74	11.47	0.00	0.00	0.00	11.47
Hallway	H	2	200	13.72	0.00	0.00	0.00	13.72	10.13	0.00	0.00	0.00	10.13
Library	LI	1	100	5.97	0.00	0.00	0.00	5.97	4.34	0.00	0.00	0.00	4.34
Locker Rm		1	100	6.18	0.00	0.00	0.00	6.18	3.17	0.00	0.00	0.00	3.17
Office	O	6	600	25.78	0.00	0.00	0.00	25.78	18.97	0.00	0.00	0.00	18.97
Open Office	OO	1	100	6.04	0.00	0.00	0.00	6.04	4.80	0.00	0.00	0.00	4.80
Restroom	R	2	200	12.87	0.00	0.00	0.00	12.87	6.58	0.00	0.00	0.00	6.58
Stairwell	ST	1	100	4.42	0.00	0.00	0.00	4.42	2.01	0.00	0.00	0.00	2.01
Building Totals for 22 rooms			2200	103.92	0.00	0.00	0.00	103.92	78.27	0.00	0.00	0.00	78.27

Cafeteria

Area Type: Cafeteria, Logger: 0000F43D, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	30.267	6.053	27.700	5.540
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**30.267**	**6.053**	**27.700**	**5.540**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.883	24.000	42.967	9.217	42.333	9.081
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.883**	**24.000**	**42.967**	**9.217**	**42.333**	**9.081**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.467	24.000	47.267	10.964	46.367	10.755
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.467**	**24.000**	**47.267**	**10.964**	**46.367**	**10.755**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	58.233	11.647	56.600	11.320
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**58.233**	**11.647**	**56.600**	**11.320**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	60.117	12.023	58.983	11.797
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**60.117**	**12.023**	**58.983**	**11.797**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

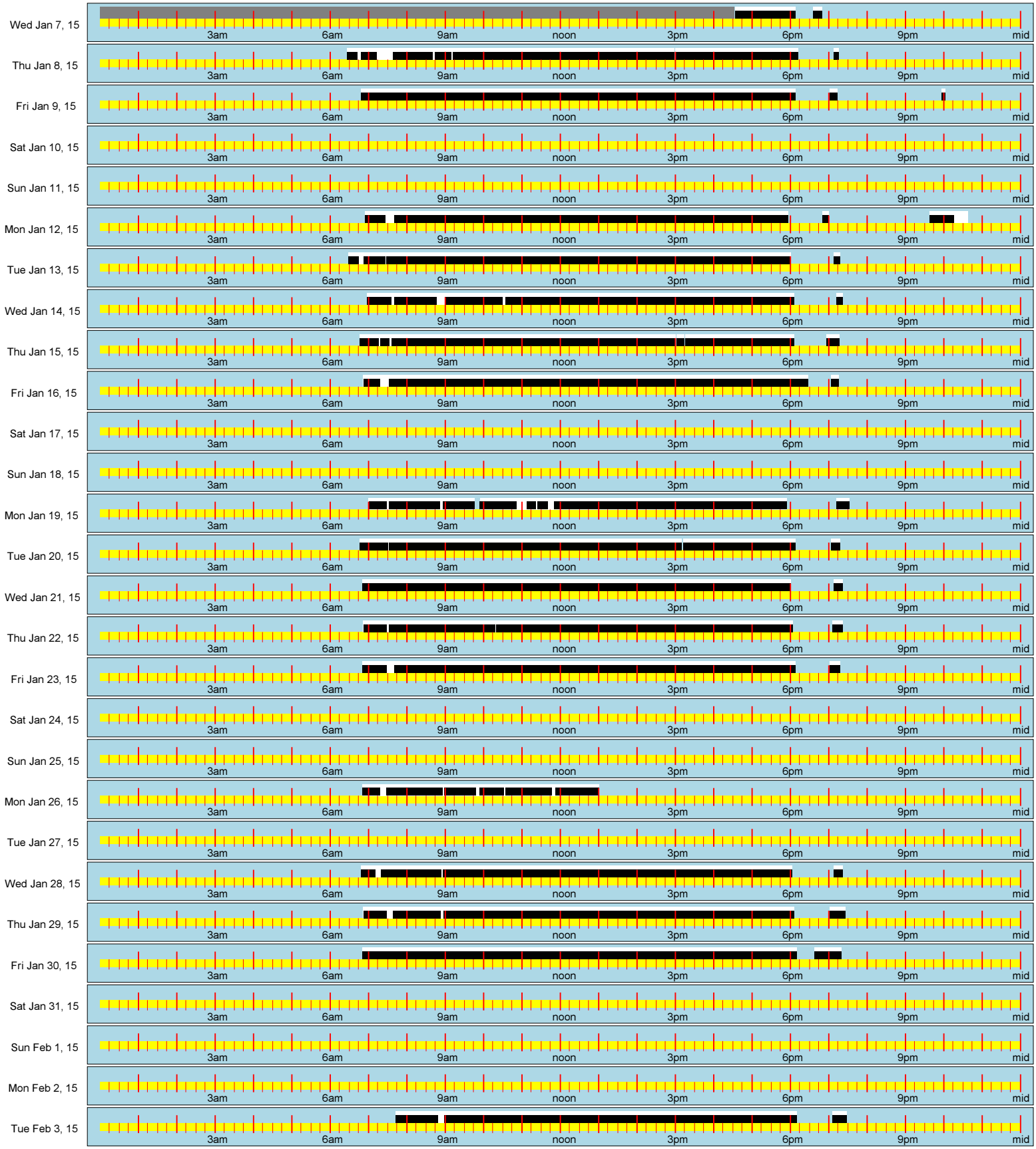
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	6.053	5.540	9.217	9.081	10.964	10.755	11.647	11.320	12.023	11.797	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**6.053**	**5.540**	**9.217**	**9.081**	**10.964**	**10.755**	**11.647**	**11.320**	**12.023**	**11.797**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	238.850	231.983	815.350		49.214	47.799	2.875
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**238.850**	**231.983**	**815.350**		**49.214**	**47.799**	**2.875**

Cafeteria

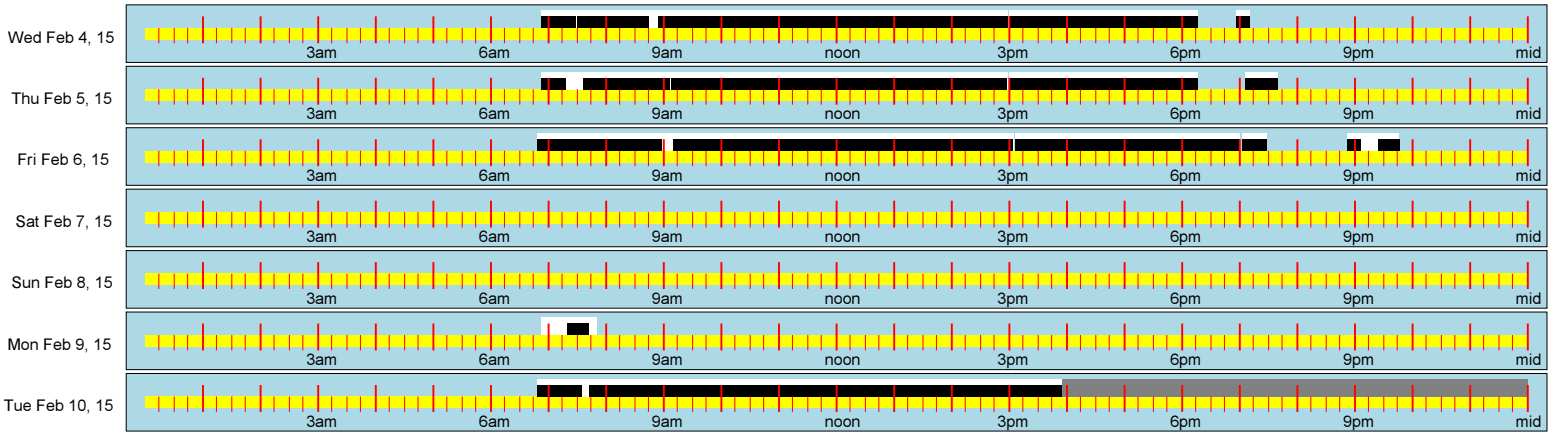
Area Type: Cafeteria, Logger: 0000F43D, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Cafeteria

Area Type: Cafeteria, Logger: 0000F43D, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Cafeteria

Area Type: Cafeteria, Logger: 000053E8, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	30.200	6.040	28.167	5.633
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**30.200**	**6.040**	**28.167**	**5.633**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.367	24.000	42.333	9.123	41.467	8.936
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.367**	**24.000**	**42.333**	**9.123**	**41.467**	**8.936**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.483	24.000	47.233	10.954	46.833	10.862
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.483**	**24.000**	**47.233**	**10.954**	**46.833**	**10.862**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	58.400	11.680	57.300	11.460
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**58.400**	**11.680**	**57.300**	**11.460**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	60.067	12.013	58.433	11.687
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**60.067**	**12.013**	**58.433**	**11.687**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

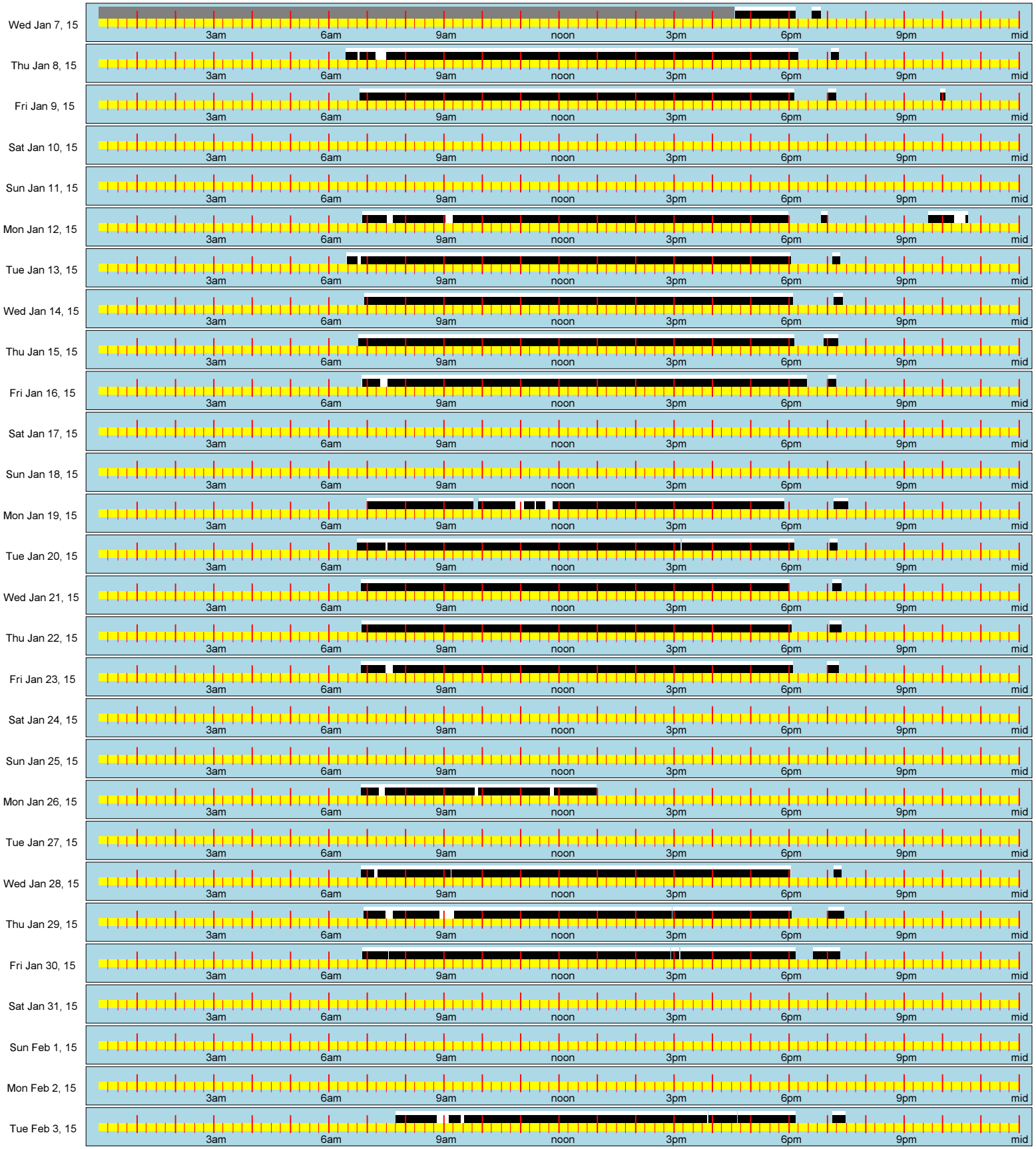
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	6.040	5.633	9.123	8.936	10.954	10.862	11.680	11.460	12.013	11.687	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**6.040**	**5.633**	**9.123**	**8.936**	**10.954**	**10.862**	**11.680**	**11.460**	**12.013**	**11.687**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	238.233	232.200	814.850		49.117	47.873	2.533
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**238.233**	**232.200**	**814.850**		**49.117**	**47.873**	**2.533**

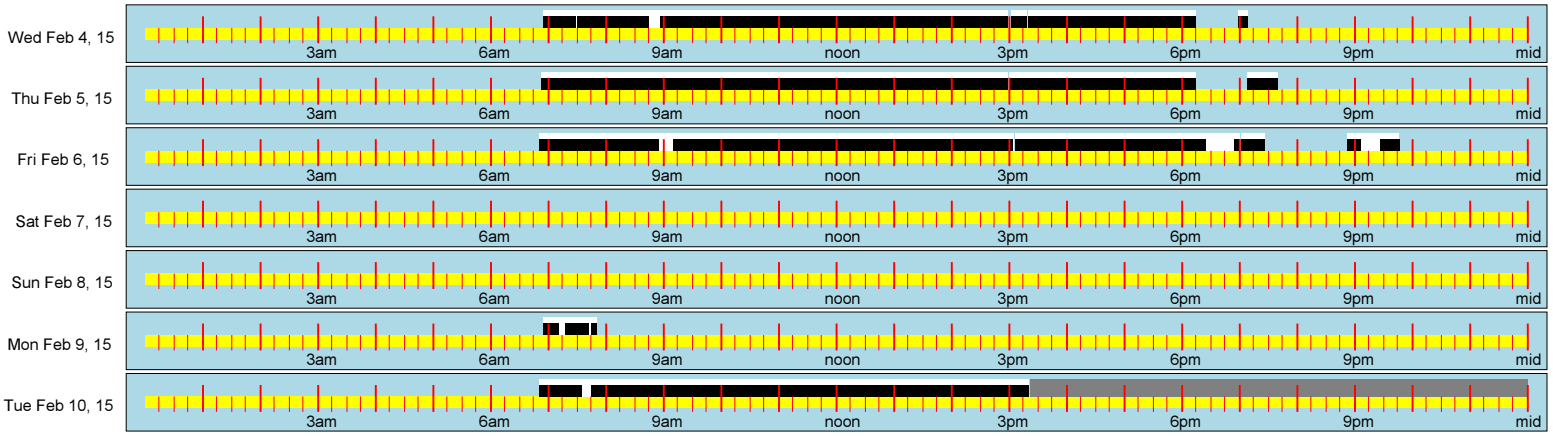
Cafeteria

Area Type: Cafeteria, Logger: 000053E8, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Cafeteria

Area Type: Cafeteria, Logger: 000053E8, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Art Room 115

Area Type: Classroom, Logger: 000051AF, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	20.600	4.120	19.400	3.880
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**20.600**	**4.120**	**19.400**	**3.880**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.300	24.000	32.767	7.066	32.267	6.958
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.300**	**24.000**	**32.767**	**7.066**	**32.267**	**6.958**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.417	24.000	35.617	8.266	33.217	7.709
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.417**	**24.000**	**35.617**	**8.266**	**33.217**	**7.709**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	44.900	8.980	41.567	8.313
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**44.900**	**8.980**	**41.567**	**8.313**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	38.600	7.720	38.133	7.627
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**38.600**	**7.720**	**38.133**	**7.627**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

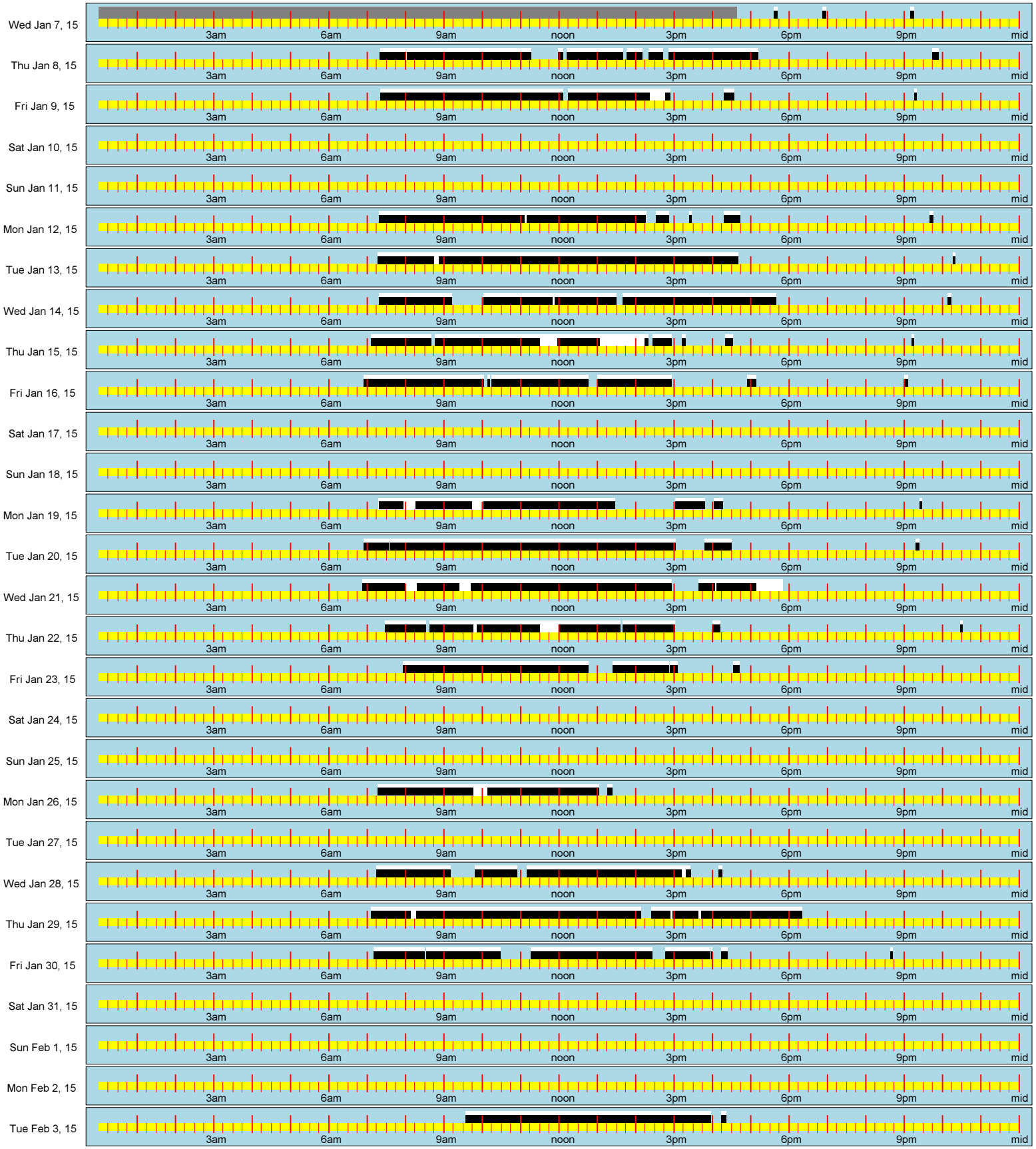
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	4.120	3.880	7.066	6.958	8.266	7.709	8.980	8.313	7.720	7.627	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**4.120**	**3.880**	**7.066**	**6.958**	**8.266**	**7.709**	**8.980**	**8.313**	**7.720**	**7.627**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	172.483	164.583	814.717		35.567	33.938	4.580
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**172.483**	**164.583**	**814.717**		**35.567**	**33.938**	**4.580**

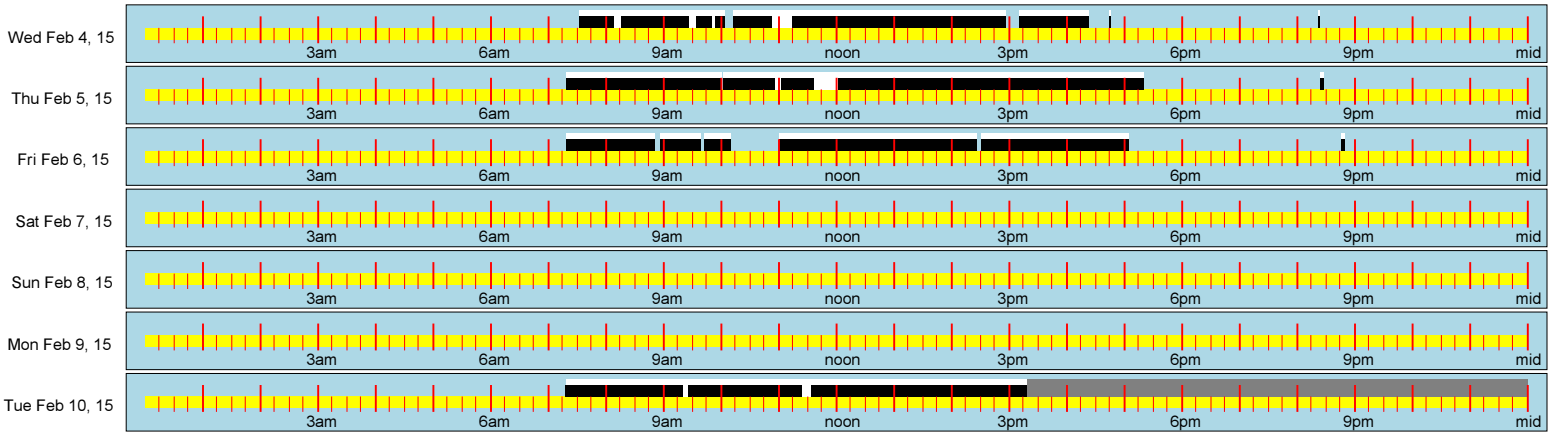
Art Room 115

Area Type: Classroom, Logger: 000051AF, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Art Room 115

Area Type: Classroom, Logger: 000051AF, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Science Rm 103

Area Type: Classroom, Logger: 0000EDA3, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	16.067	3.213	13.867	2.773
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**16.067**	**3.213**	**13.867**	**2.773**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	110.883	24.000	23.700	5.130	20.367	4.408
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**110.883**	**24.000**	**23.700**	**5.130**	**20.367**	**4.408**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.600	24.000	22.867	5.297	22.500	5.212
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.600**	**24.000**	**22.867**	**5.297**	**22.500**	**5.212**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	29.867	5.973	26.933	5.387
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**29.867**	**5.973**	**26.933**	**5.387**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	32.033	6.407	27.733	5.547
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**32.033**	**6.407**	**27.733**	**5.547**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

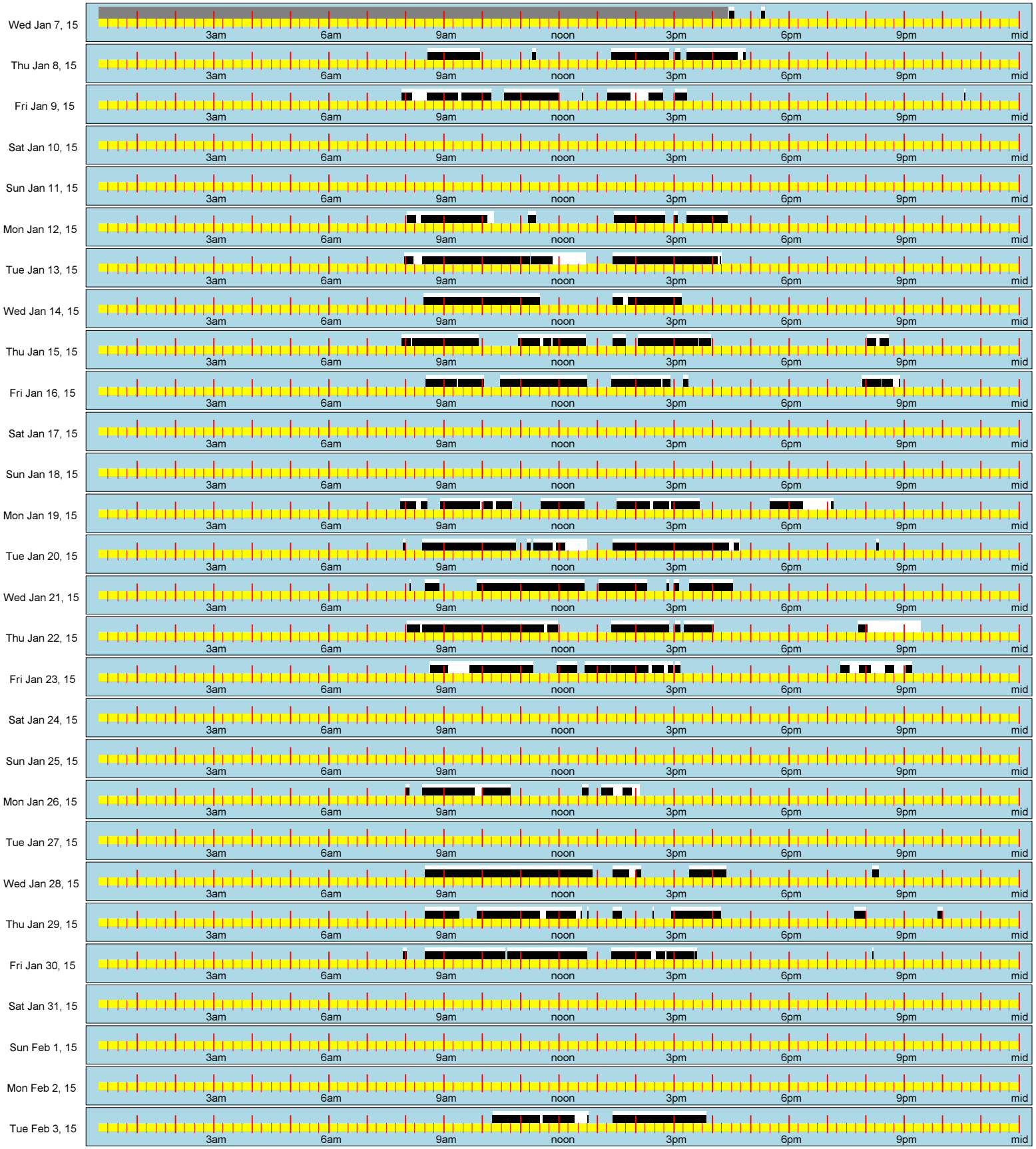
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	3.213	2.773	5.130	4.408	5.297	5.212	5.973	5.387	6.407	5.547	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**3.213**	**2.773**	**5.130**	**4.408**	**5.297**	**5.212**	**5.973**	**5.387**	**6.407**	**5.547**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	124.533	111.400	814.483		25.687	22.978	10.546
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**124.533**	**111.400**	**814.483**		**25.687**	**22.978**	**10.546**

Science Rm 103

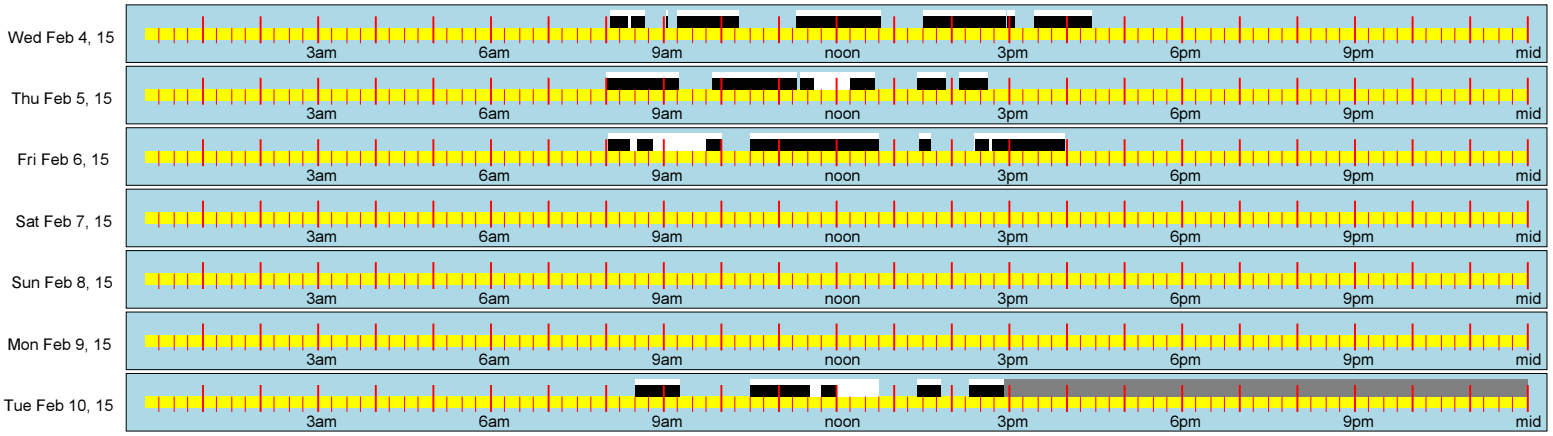
Area Type: Classroom, Logger: 0000EDA3, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Science Rm 103

Area Type: Classroom, Logger: 0000EDA3, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



SGI Class 215

Area Type: Classroom, Logger: 00005007, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	18.033	3.607	17.567	3.513
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**18.033**	**3.607**	**17.567**	**3.513**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.200	24.000	33.833	7.302	30.900	6.669
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.200**	**24.000**	**33.833**	**7.302**	**30.900**	**6.669**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	104.517	24.000	31.583	7.252	29.717	6.824
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**104.517**	**24.000**	**31.583**	**7.252**	**29.717**	**6.824**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	42.500	8.500	39.667	7.933
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**42.500**	**8.500**	**39.667**	**7.933**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	49.867	9.973	36.700	7.340
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**49.867**	**9.973**	**36.700**	**7.340**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

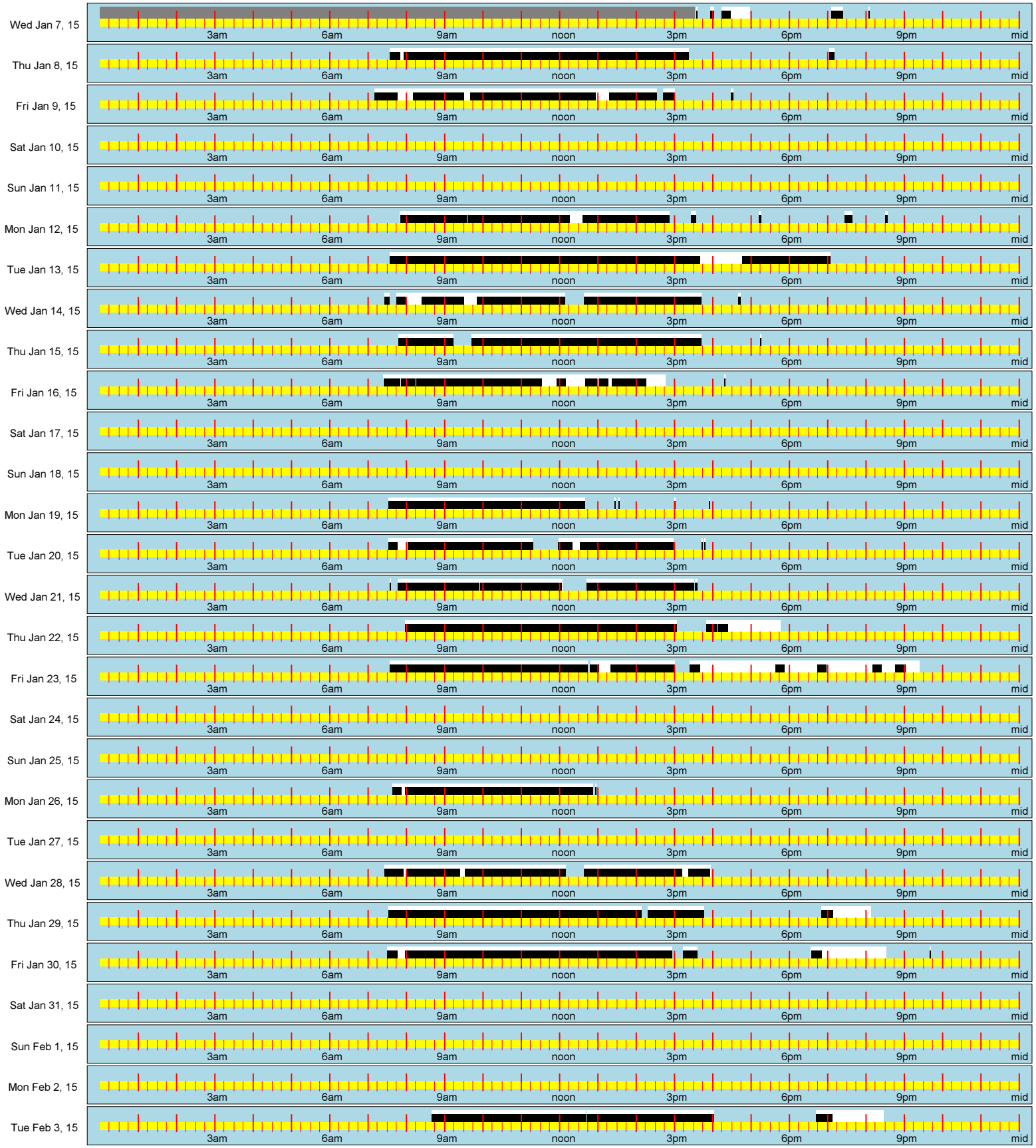
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	3.607	3.513	7.302	6.669	7.252	6.824	8.500	7.933	9.973	7.340	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**3.607**	**3.513**	**7.302**	**6.669**	**7.252**	**6.824**	**8.500**	**7.933**	**9.973**	**7.340**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	175.817	154.550	815.717		36.210	31.830	12.096
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**175.817**	**154.550**	**815.717**		**36.210**	**31.830**	**12.096**

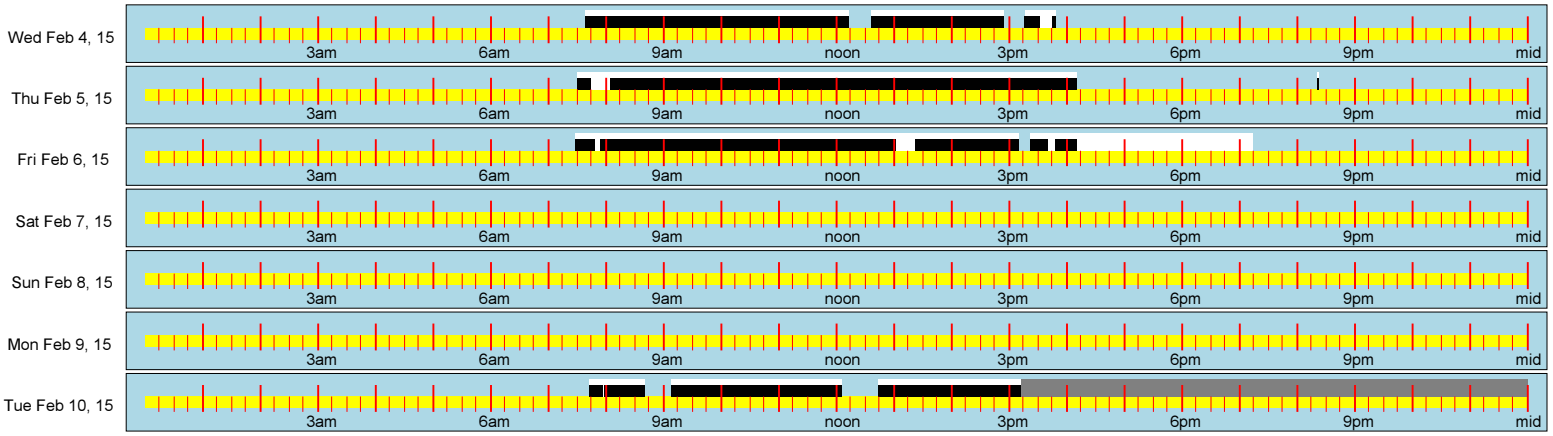
SGI Class 215

Area Type: Classroom, Logger: 00005007, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



SGI Class 215

Area Type: Classroom, Logger: 00005007, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



GYM

Area Type: Gym, Logger: 0000EFF4, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	40.167	8.033	30.733	6.147
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**40.167**	**8.033**	**30.733**	**6.147**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	112.233	24.000	54.300	11.612	50.700	10.842
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**112.233**	**24.000**	**54.300**	**11.612**	**50.700**	**10.842**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.150	24.000	65.300	15.193	61.667	14.348
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.150**	**24.000**	**65.300**	**15.193**	**61.667**	**14.348**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	74.267	14.853	68.633	13.727
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**74.267**	**14.853**	**68.633**	**13.727**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	68.700	13.740	64.033	12.807
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**68.700**	**13.740**	**64.033**	**12.807**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	6.033	1.207	2.533	0.507
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**6.033**	**1.207**	**2.533**	**0.507**

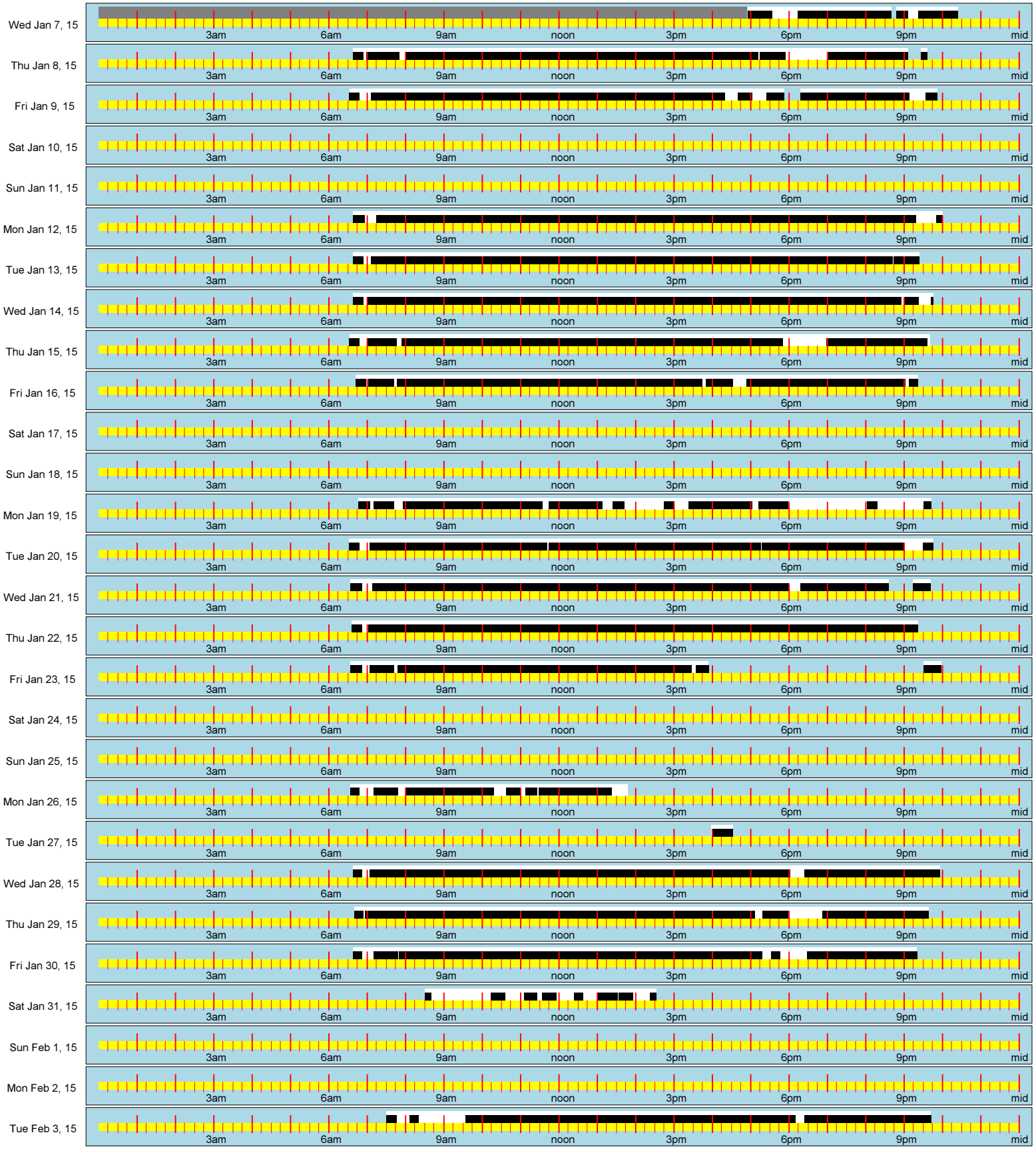
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	8.033	6.147	11.612	10.842	15.193	14.348	14.853	13.727	13.740	12.807	1.207	0.507
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**8.033**	**6.147**	**11.612**	**10.842**	**15.193**	**14.348**	**14.853**	**13.727**	**13.740**	**12.807**	**1.207**	**0.507**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	308.767	278.300	815.383		63.618	57.340	9.867
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**308.767**	**278.300**	**815.383**		**63.618**	**57.340**	**9.867**

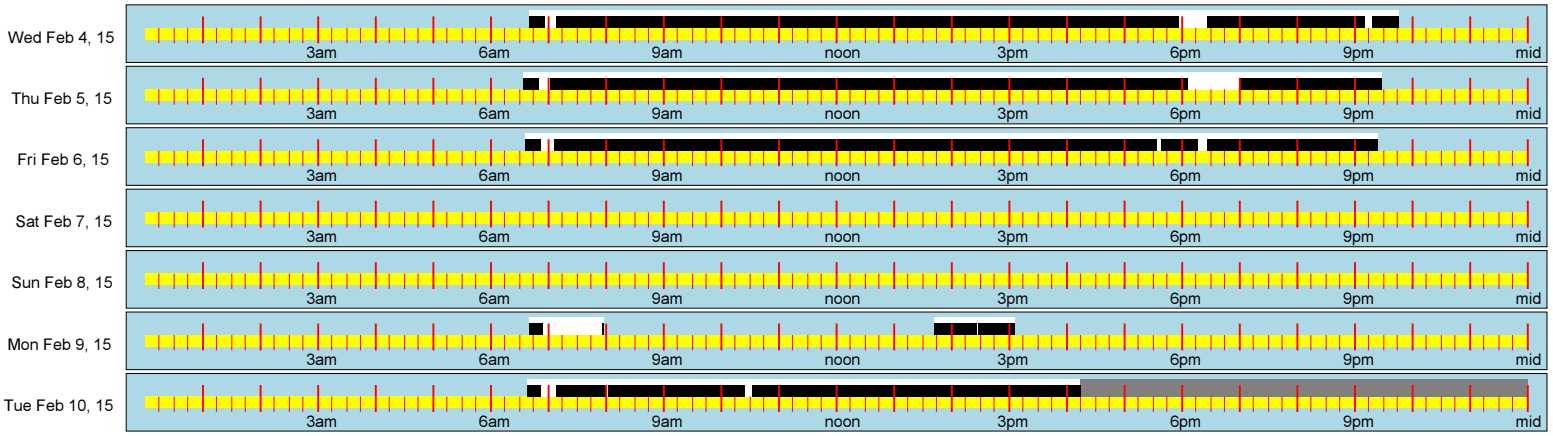
GYM

Area Type: Gym, Logger: 0000EFF4, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



GYM

Area Type: Gym, Logger: 0000EFF4, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



GYM

Area Type: Gym, Logger: 0000EDE8, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	40.133	8.027	31.033	6.207
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**40.133**	**8.027**	**31.033**	**6.207**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	112.217	24.000	54.300	11.613	50.567	10.815
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**112.217**	**24.000**	**54.300**	**11.613**	**50.567**	**10.815**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.133	24.000	65.317	15.200	61.583	14.331
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.133**	**24.000**	**65.317**	**15.200**	**61.583**	**14.331**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	74.300	14.860	68.900	13.780
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**74.300**	**14.860**	**68.900**	**13.780**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	69.333	13.867	64.067	12.813
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**69.333**	**13.867**	**64.067**	**12.813**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	6.000	1.200	2.033	0.407
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**6.000**	**1.200**	**2.033**	**0.407**

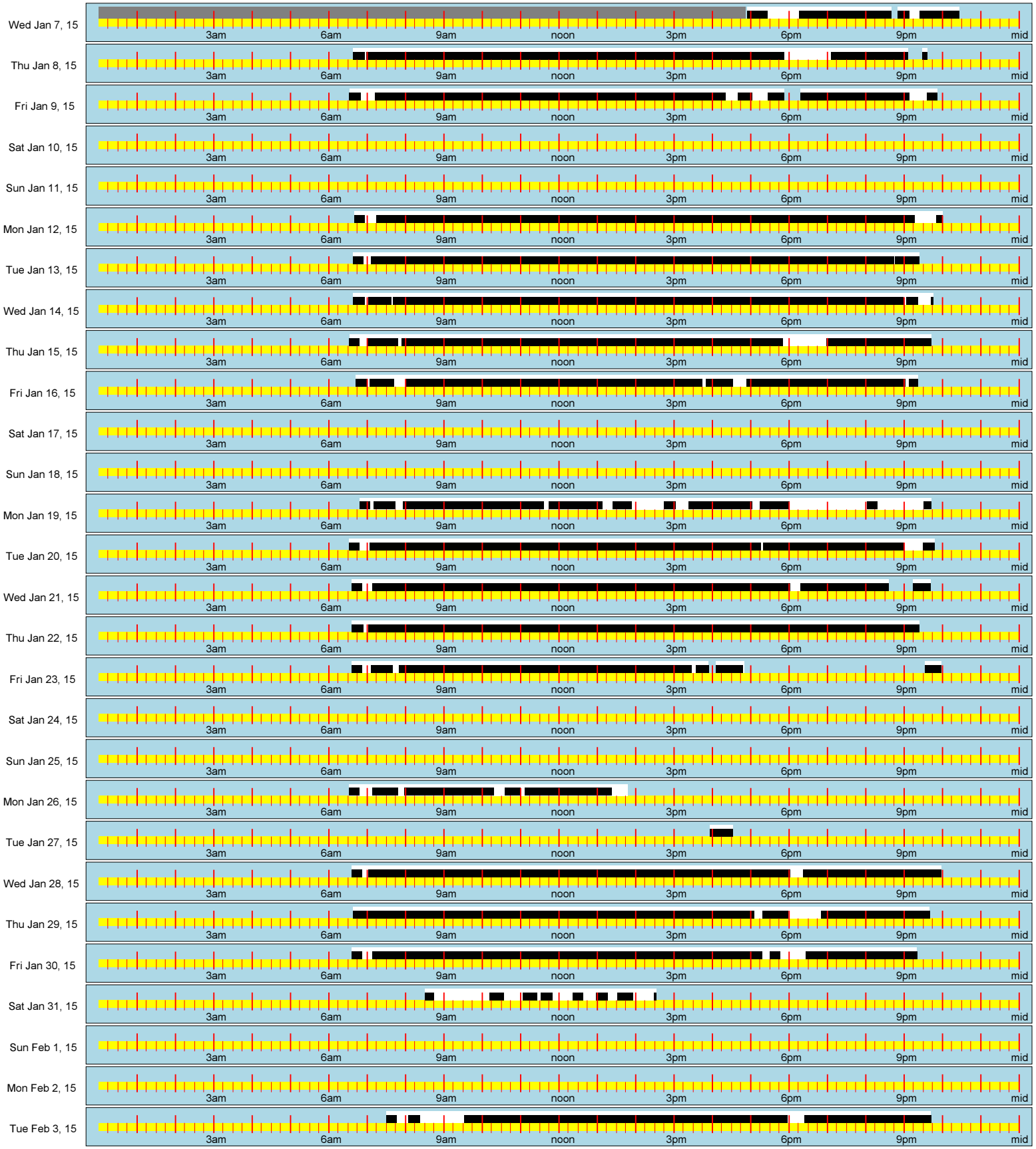
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	8.027	6.207	11.613	10.815	15.200	14.331	14.860	13.780	13.867	12.813	1.200	0.407
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**8.027**	**6.207**	**11.613**	**10.815**	**15.200**	**14.331**	**14.860**	**13.780**	**13.867**	**12.813**	**1.200**	**0.407**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	309.383	278.183	815.350		63.747	57.319	10.085
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**309.383**	**278.183**	**815.350**		**63.747**	**57.319**	**10.085**

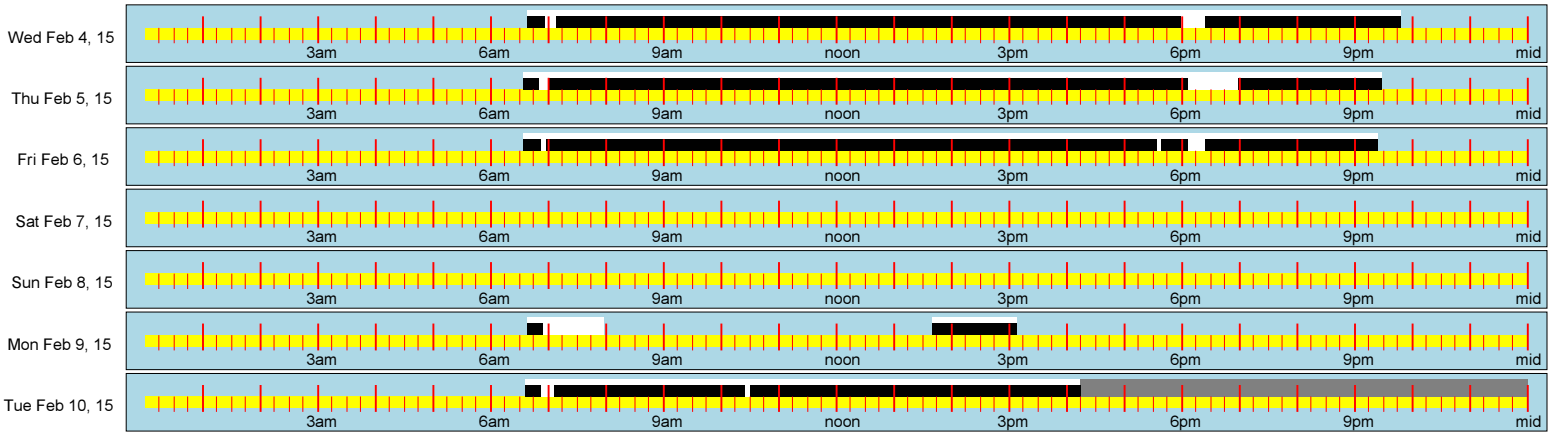
GYM

Area Type: Gym, Logger: 0000EDE8, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



GYM

Area Type: Gym, Logger: 0000EDE8, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Corridor 202

Area Type: Hallway, Logger: 00005361, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	40.167	8.033	29.600	5.920
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**40.167**	**8.033**	**29.600**	**5.920**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.167	24.000	51.233	11.061	42.533	9.183
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.167**	**24.000**	**51.233**	**11.061**	**42.533**	**9.183**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	104.783	24.000	64.600	14.796	56.133	12.857
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**104.783**	**24.000**	**64.600**	**14.796**	**56.133**	**12.857**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	74.033	14.807	61.533	12.307
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**74.033**	**14.807**	**61.533**	**12.307**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	72.533	14.507	53.400	10.680
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**72.533**	**14.507**	**53.400**	**10.680**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	6.233	1.247	2.267	0.453
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**6.233**	**1.247**	**2.267**	**0.453**

Normalized Data

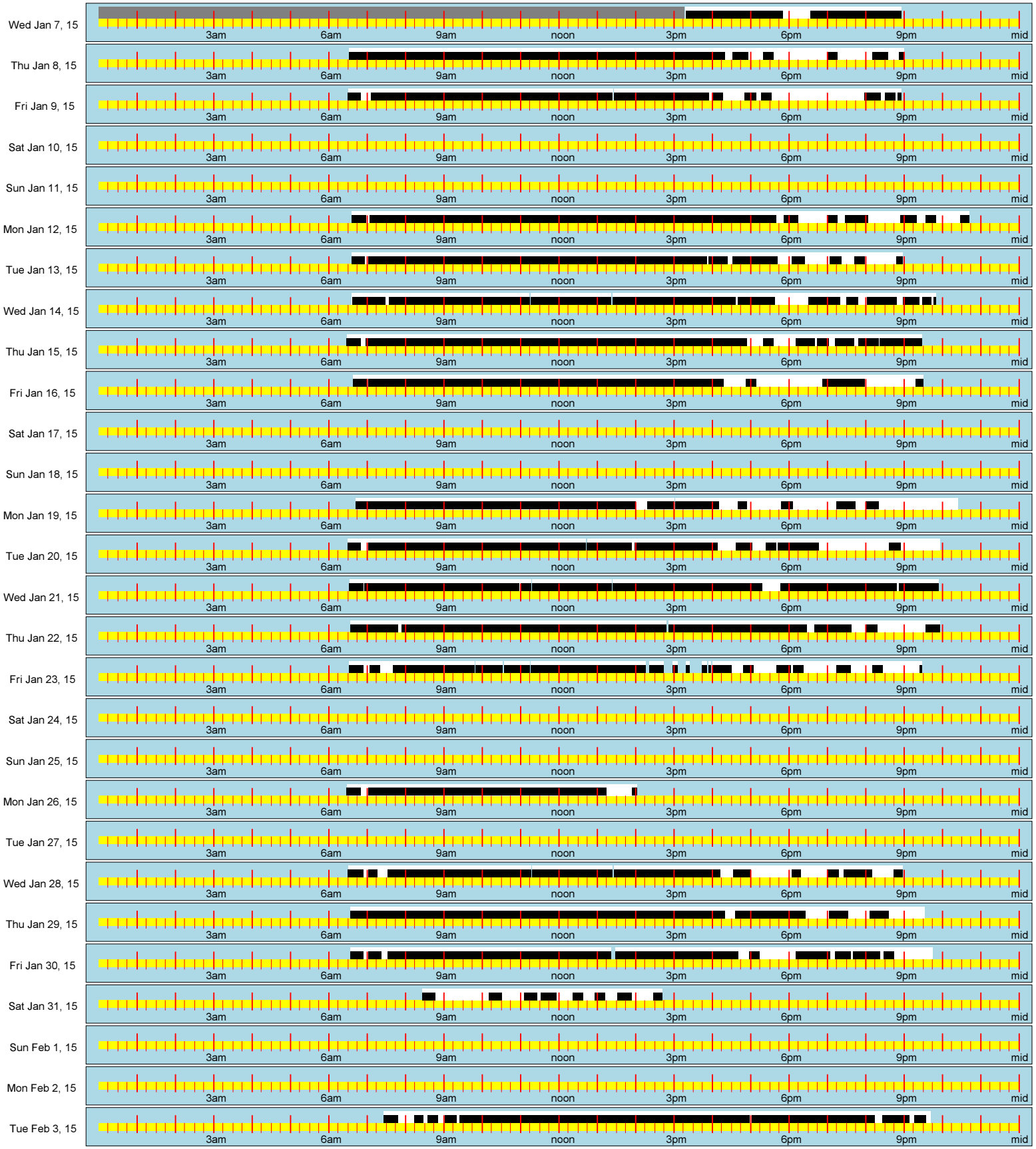
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	8.033	5.920	11.061	9.183	14.796	12.857	14.807	12.307	14.507	10.680	1.247	0.453
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**8.033**	**5.920**	**11.061**	**9.183**	**14.796**	**12.857**	**14.807**	**12.307**	**14.507**	**10.680**	**1.247**	**0.453**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	308.800	245.467	815.950		63.580	50.540	20.509
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**308.800**	**245.467**	**815.950**		**63.580**	**50.540**	**20.509**

Corridor 202

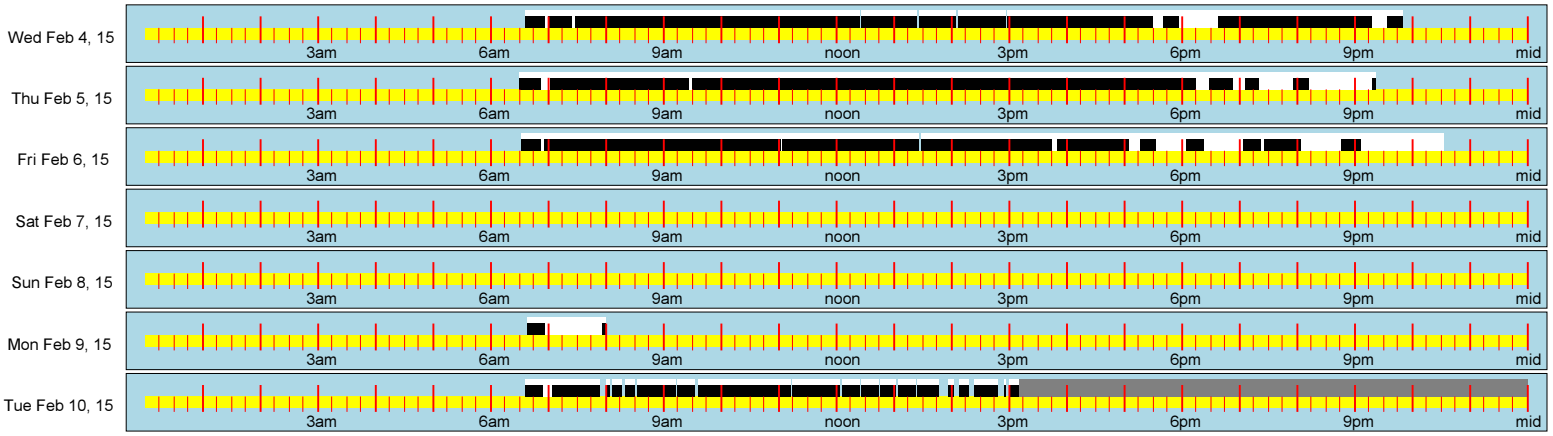
Area Type: Hallway, Logger: 00005361, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Corridor 202

Area Type: Hallway, Logger: 00005361, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Hallway 3-1

Area Type: Hallway, Logger: 0000EF6C, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	56.600	11.320	32.467	6.493
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**56.600**	**11.320**	**32.467**	**6.493**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.617	24.000	62.150	13.364	40.350	8.676
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.617**	**24.000**	**62.150**	**13.364**	**40.350**	**8.676**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	104.083	24.000	71.483	16.483	52.717	12.156
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**104.083**	**24.000**	**71.483**	**16.483**	**52.717**	**12.156**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	80.800	16.160	60.133	12.027
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**80.800**	**16.160**	**60.133**	**12.027**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	80.400	16.080	57.867	11.573
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**80.400**	**16.080**	**57.867**	**11.573**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	6.167	1.233	3.033	0.607
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**6.167**	**1.233**	**3.033**	**0.607**

Normalized Data

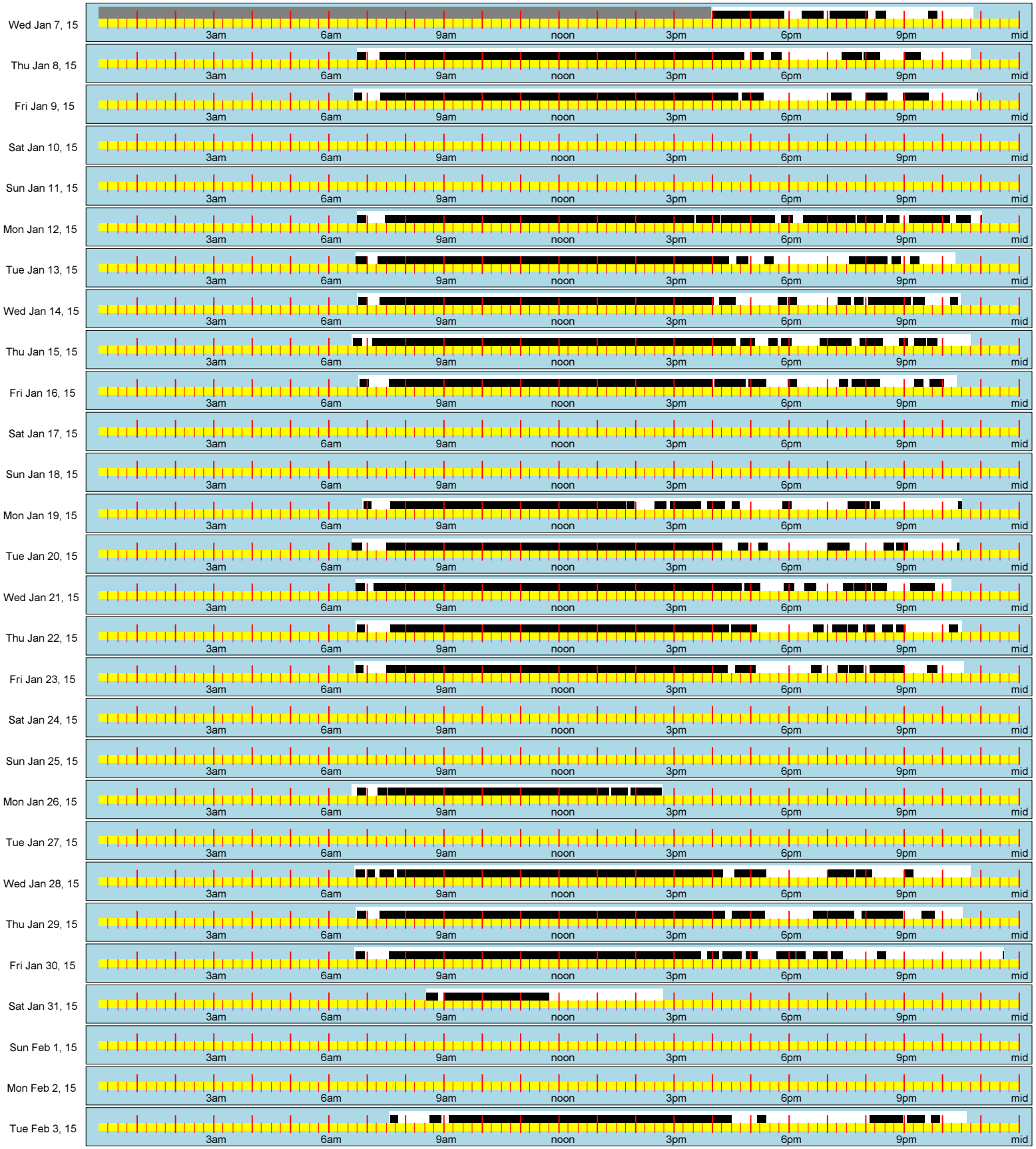
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	11.320	6.493	13.364	8.676	16.483	12.156	16.160	12.027	16.080	11.573	1.233	0.607
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**11.320**	**6.493**	**13.364**	**8.676**	**16.483**	**12.156**	**16.160**	**12.027**	**16.080**	**11.573**	**1.233**	**0.607**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	357.600	246.567	815.700		73.651	50.782	31.050
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**357.600**	**246.567**	**815.700**		**73.651**	**50.782**	**31.050**

Hallway 3-1

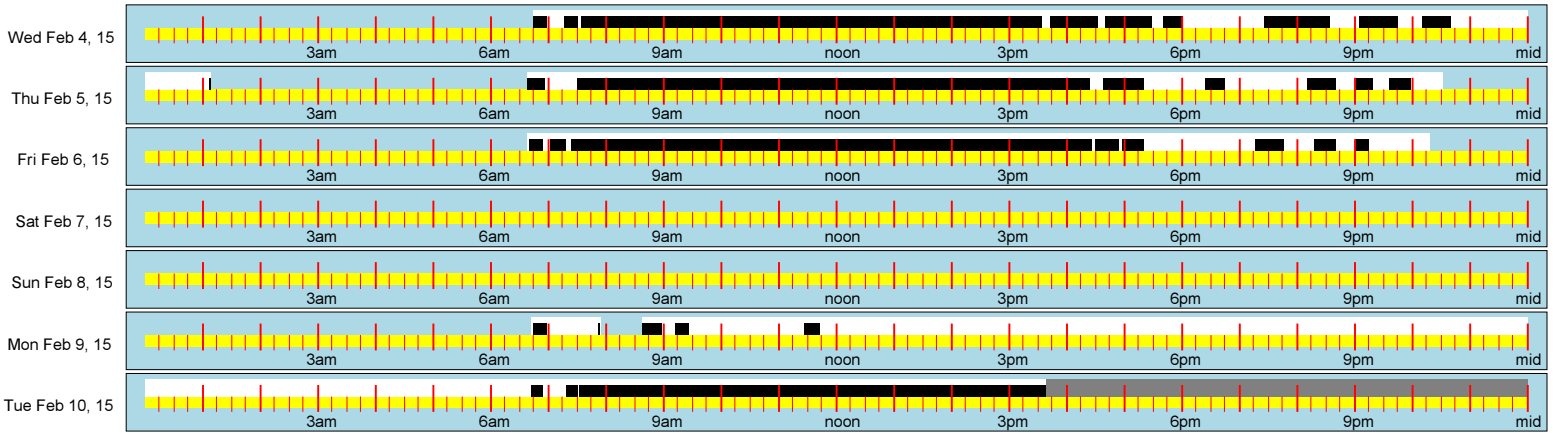
Area Type: Hallway, Logger: 0000EF6C, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Hallway 3-1

Area Type: Hallway, Logger: 0000EF6C, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Media Center

Area Type: Library, Logger: 0000EE5A, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	36.467	7.293	25.400	5.080
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**36.467**	**7.293**	**25.400**	**5.080**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.000	24.000	48.483	10.483	37.017	8.004
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.000**	**24.000**	**48.483**	**10.483**	**37.017**	**8.004**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	104.900	24.000	64.450	14.745	52.650	12.046
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**104.900**	**24.000**	**64.450**	**14.745**	**52.650**	**12.046**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	70.467	14.093	48.100	9.620
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**70.467**	**14.093**	**48.100**	**9.620**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	70.033	14.007	47.567	9.513
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**70.033**	**14.007**	**47.567**	**9.513**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

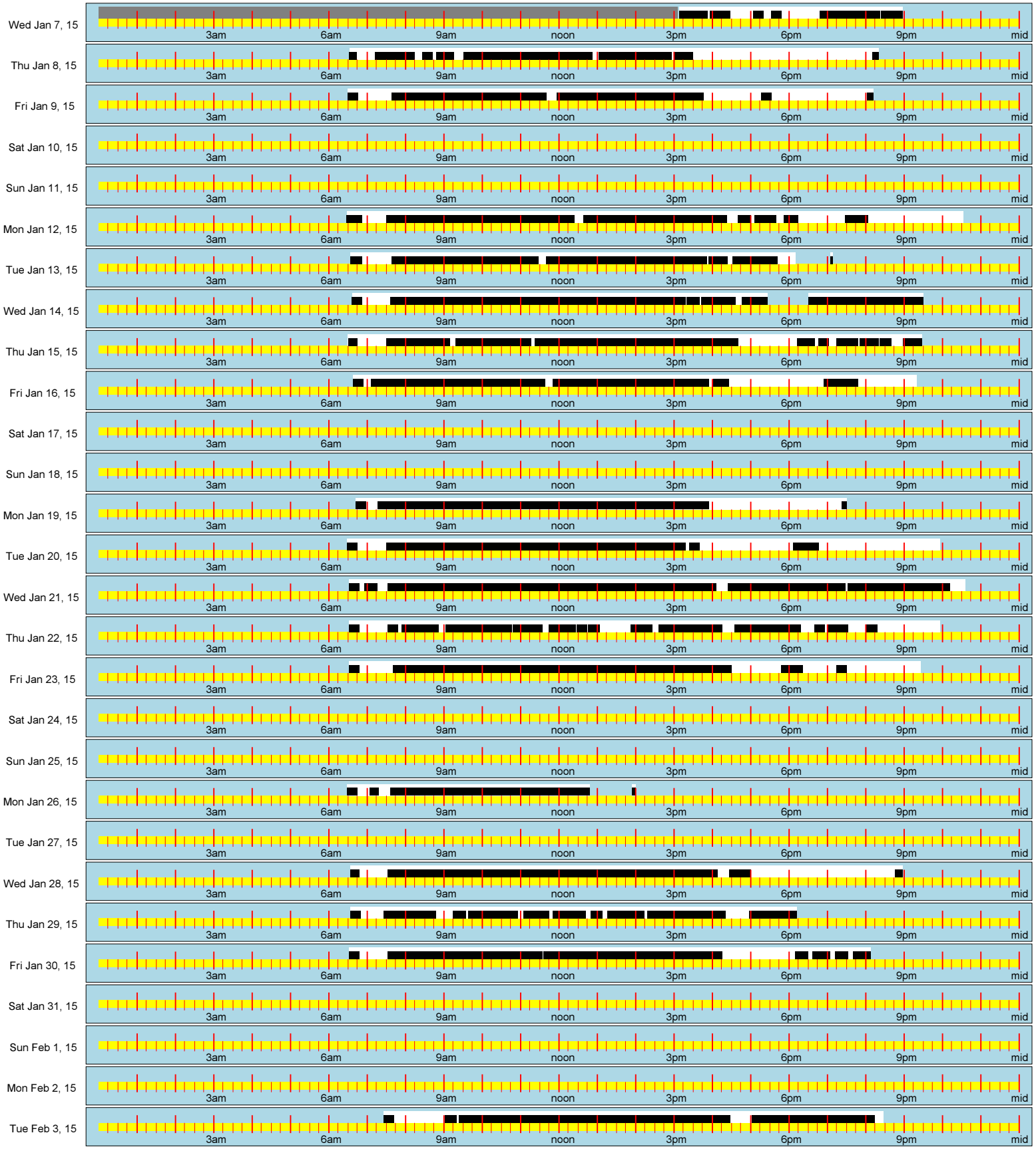
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	7.293	5.080	10.483	8.004	14.745	12.046	14.093	9.620	14.007	9.513	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**7.293**	**5.080**	**10.483**	**8.004**	**14.745**	**12.046**	**14.093**	**9.620**	**14.007**	**9.513**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	289.900	210.733	815.900		59.693	43.392	27.308
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**289.900**	**210.733**	**815.900**		**59.693**	**43.392**	**27.308**

Media Center

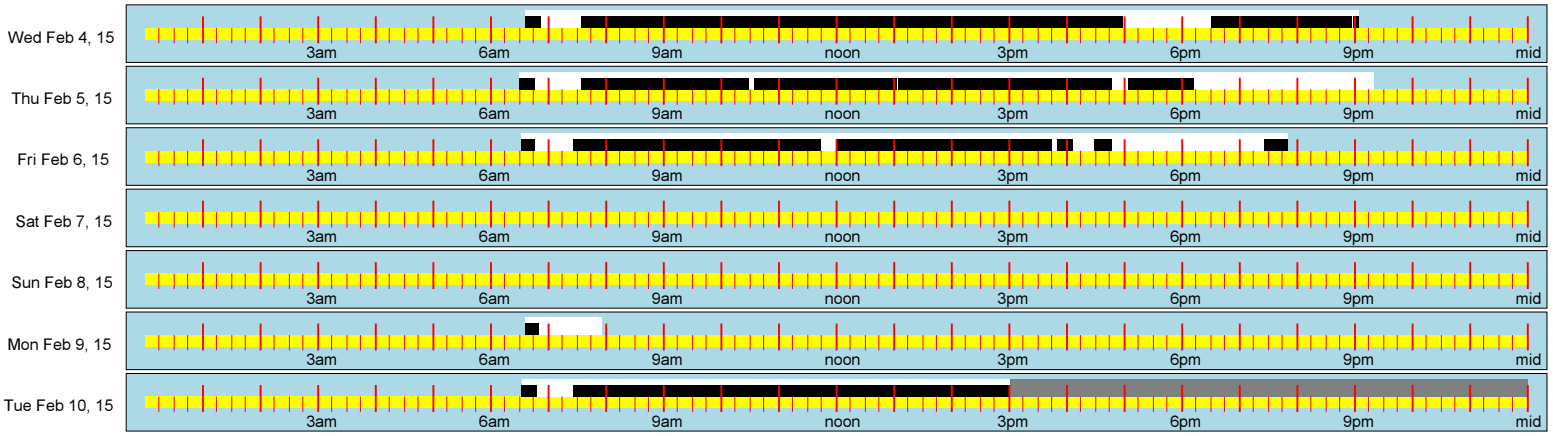
Area Type: Library, Logger: 0000EE5A, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Media Center

Area Type: Library, Logger: 0000EE5A, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Boys Locker Rm 132

Area Type: Locker Rm, Logger: 00005180, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	39.100	7.820	14.967	2.993
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**39.100**	**7.820**	**14.967**	**2.993**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	112.267	24.000	53.100	11.352	27.900	5.964
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**112.267**	**24.000**	**53.100**	**11.352**	**27.900**	**5.964**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.050	24.000	64.500	15.022	32.600	7.592
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.050**	**24.000**	**64.500**	**15.022**	**32.600**	**7.592**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	74.400	14.880	40.567	8.113
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**74.400**	**14.880**	**40.567**	**8.113**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	68.967	13.793	37.933	7.587
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**68.967**	**13.793**	**37.933**	**7.587**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

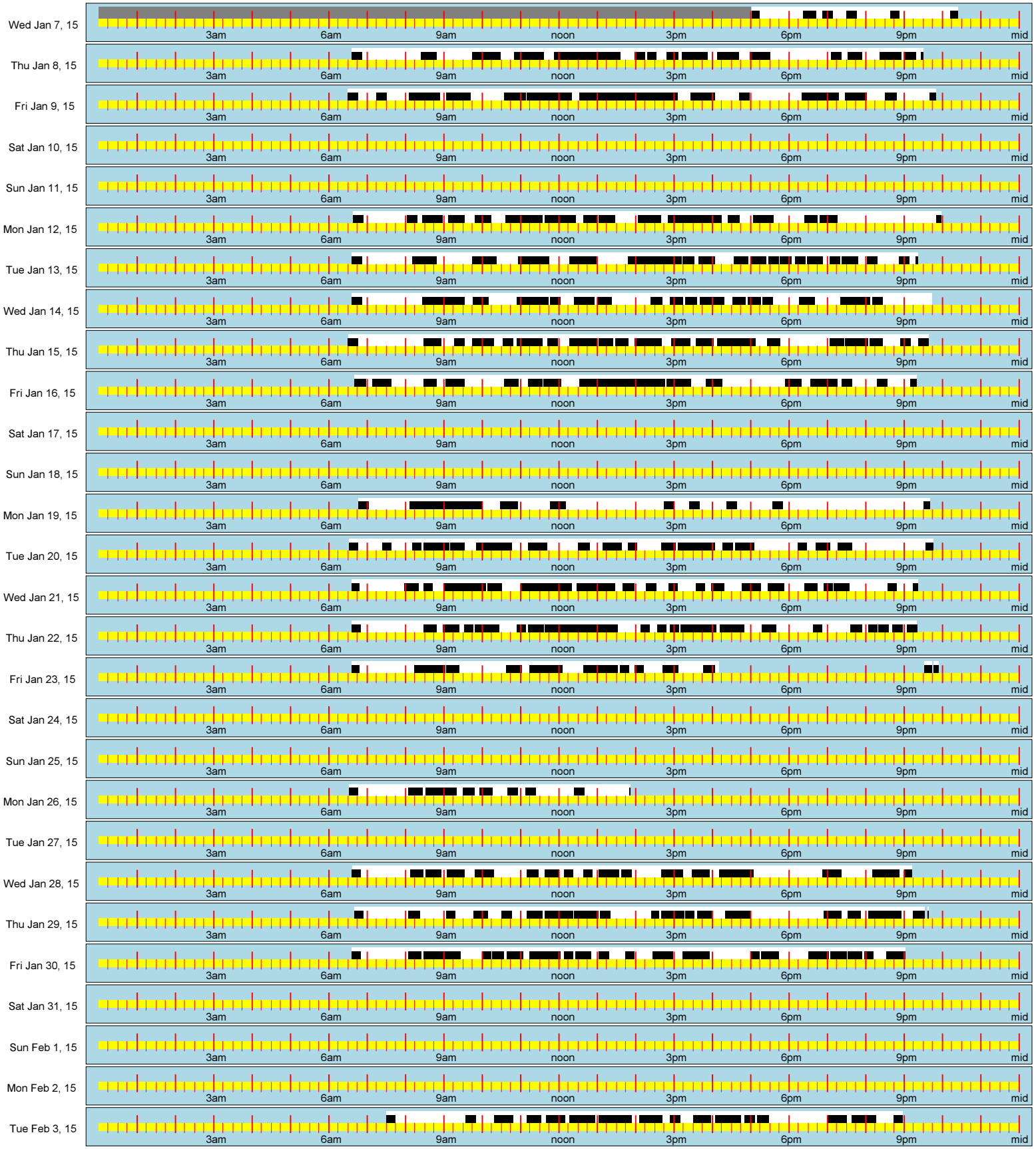
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	7.820	2.993	11.352	5.964	15.022	7.592	14.880	8.113	13.793	7.587	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**7.820**	**2.993**	**11.352**	**5.964**	**15.022**	**7.592**	**14.880**	**8.113**	**13.793**	**7.587**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	300.067	153.967	815.317		61.830	31.726	48.689
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**300.067**	**153.967**	**815.317**		**61.830**	**31.726**	**48.689**

Boys Locker Rm 132

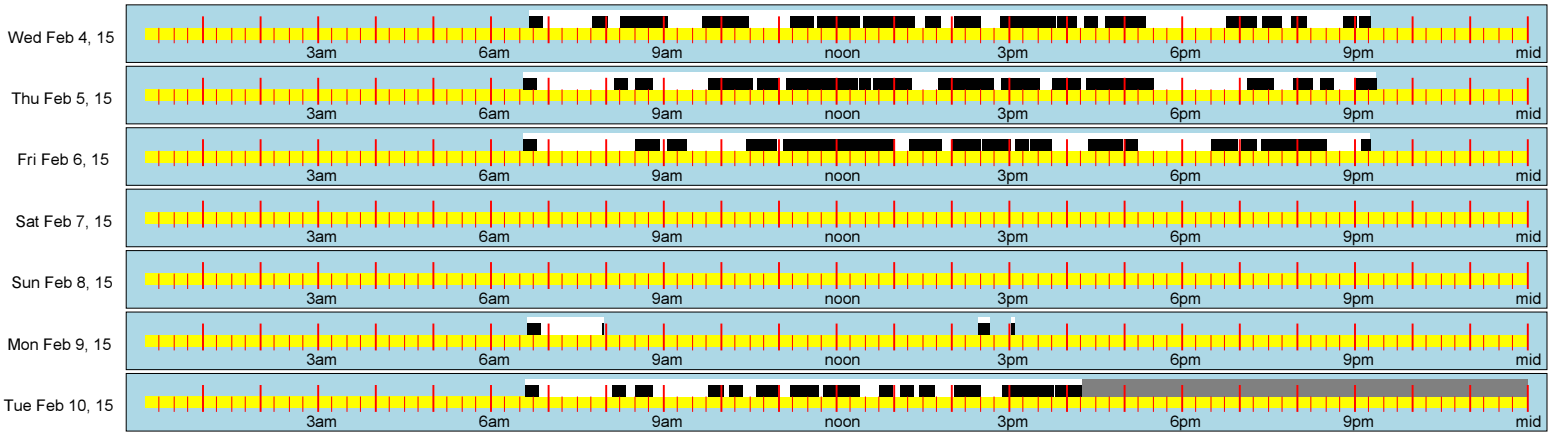
Area Type: Locker Rm, Logger: 00005180, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Boys Locker Rm 132

Area Type: Locker Rm, Logger: 00005180, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Athletic Office 134

Area Type: Office, Logger: 000051F7, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	28.667	5.733	8.833	1.767
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**28.667**	**5.733**	**8.833**	**1.767**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	112.283	24.000	41.067	8.778	17.467	3.733
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**112.283**	**24.000**	**41.067**	**8.778**	**17.467**	**3.733**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.033	24.000	43.133	10.047	17.567	4.092
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.033**	**24.000**	**43.133**	**10.047**	**17.567**	**4.092**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	53.333	10.667	21.267	4.253
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**53.333**	**10.667**	**21.267**	**4.253**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	47.967	9.593	16.200	3.240
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**47.967**	**9.593**	**16.200**	**3.240**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

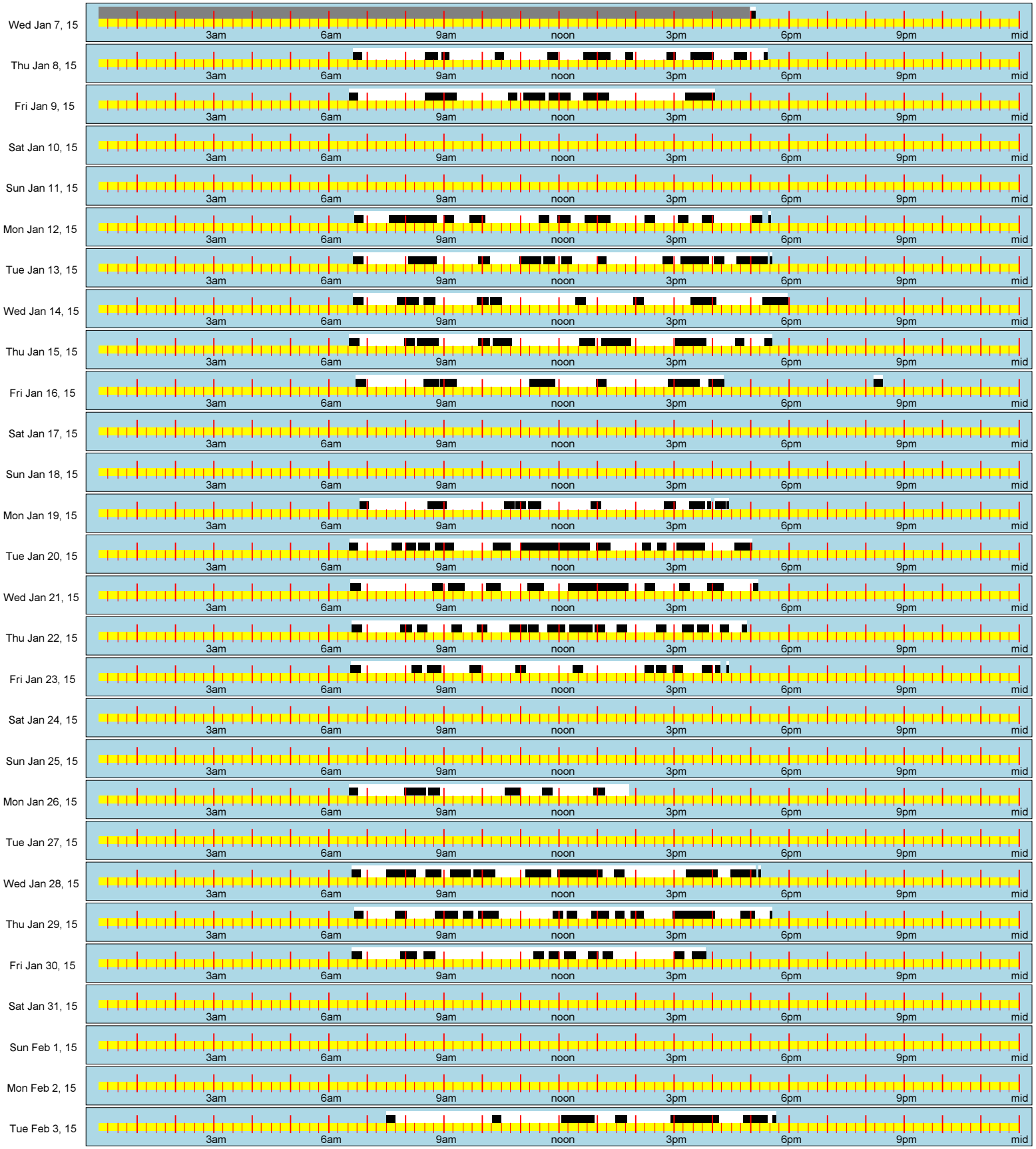
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	5.733	1.767	8.778	3.733	10.047	4.092	10.667	4.253	9.593	3.240	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**5.733**	**1.767**	**8.778**	**3.733**	**10.047**	**4.092**	**10.667**	**4.253**	**9.593**	**3.240**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	214.167	81.333	815.317		44.130	16.759	62.023
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**214.167**	**81.333**	**815.317**		**44.130**	**16.759**	**62.023**

Athletic Office 134

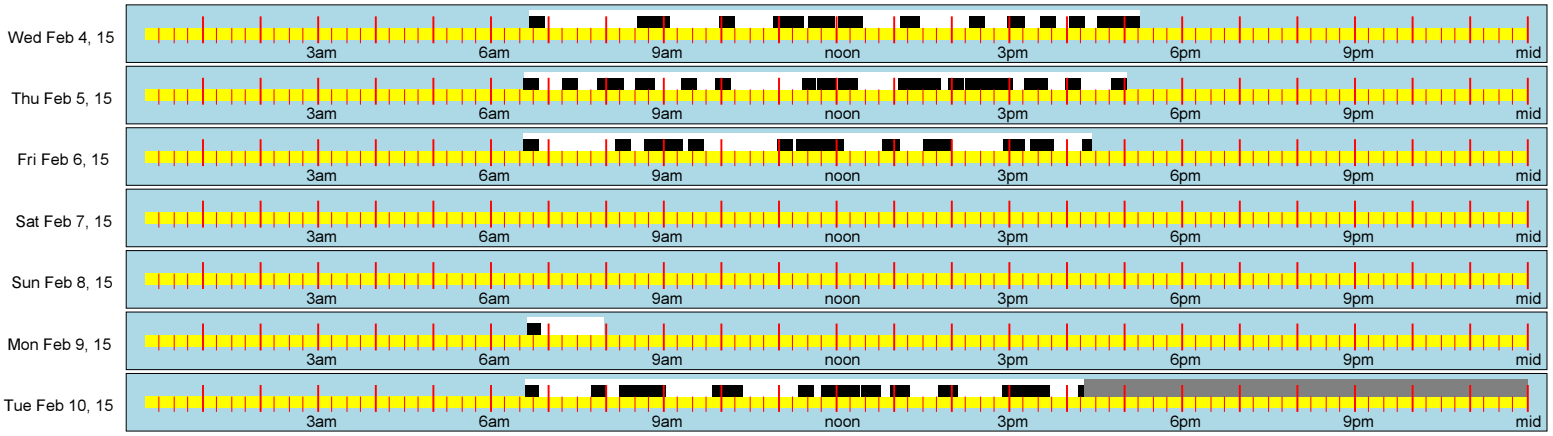
Area Type: Office, Logger: 000051F7, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Athletic Office 134

Area Type: Office, Logger: 000051F7, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Custodian Office

Area Type: Office, Logger: 0000DD3E, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	24.700	4.940	20.400	4.080
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**24.700**	**4.940**	**20.400**	**4.080**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	112.017	24.000	26.400	5.656	21.933	4.699
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**112.017**	**24.000**	**26.400**	**5.656**	**21.933**	**4.699**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.333	24.000	32.783	7.614	25.750	5.981
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.333**	**24.000**	**32.783**	**7.614**	**25.750**	**5.981**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	31.800	6.360	27.000	5.400
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**31.800**	**6.360**	**27.000**	**5.400**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	36.133	7.227	27.833	5.567
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**36.133**	**7.227**	**27.833**	**5.567**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	5.867	1.173	4.800	0.960
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**5.867**	**1.173**	**4.800**	**0.960**

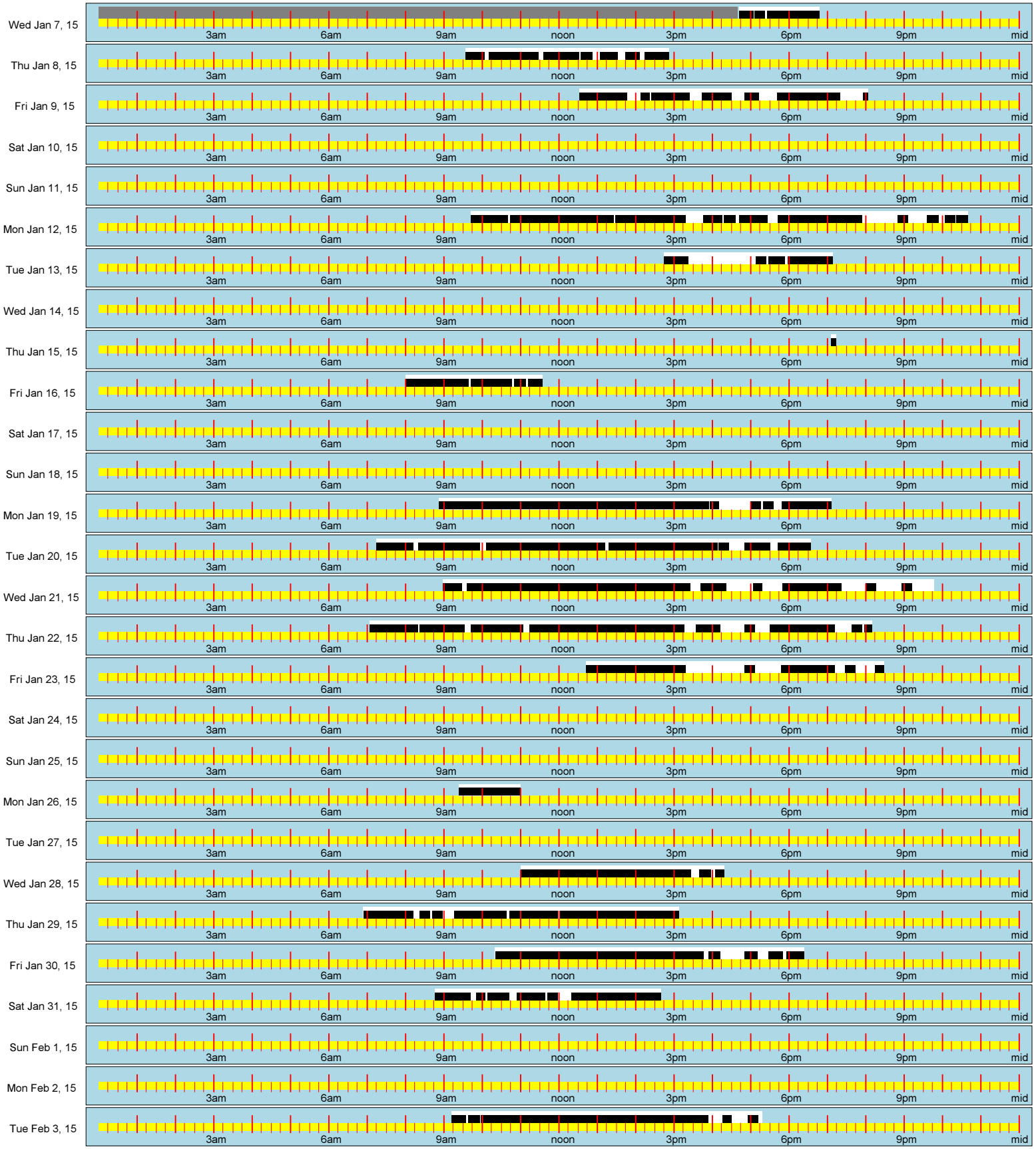
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	4.940	4.080	5.656	4.699	7.614	5.981	6.360	5.400	7.227	5.567	1.173	0.960
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**4.940**	**4.080**	**5.656**	**4.699**	**7.614**	**5.981**	**6.360**	**5.400**	**7.227**	**5.567**	**1.173**	**0.960**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	157.683	127.717	815.350		32.490	26.316	19.004
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**157.683**	**127.717**	**815.350**		**32.490**	**26.316**	**19.004**

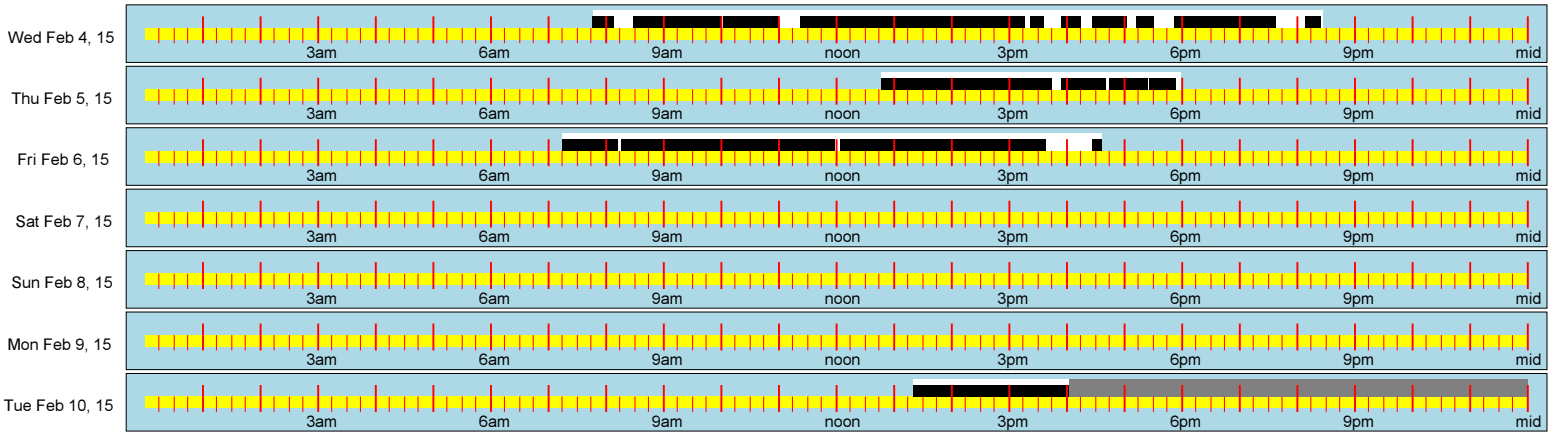
Custodian Office

Area Type: Office, Logger: 0000DD3E, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Custodian Office

Area Type: Office, Logger: 0000DD3E, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Main Office 204

Area Type: Office, Logger: 0000EE4C, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	35.900	7.180	25.767	5.153
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**35.900**	**7.180**	**25.767**	**5.153**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	51.133	10.227	46.867	9.373
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**51.133**	**10.227**	**46.867**	**9.373**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	117.950	24.000	65.017	13.229	58.217	11.846
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**117.950**	**24.000**	**65.017**	**13.229**	**58.217**	**11.846**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	69.233	13.847	54.567	10.913
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**69.233**	**13.847**	**54.567**	**10.913**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	64.767	12.953	50.367	10.073
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**64.767**	**12.953**	**50.367**	**10.073**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

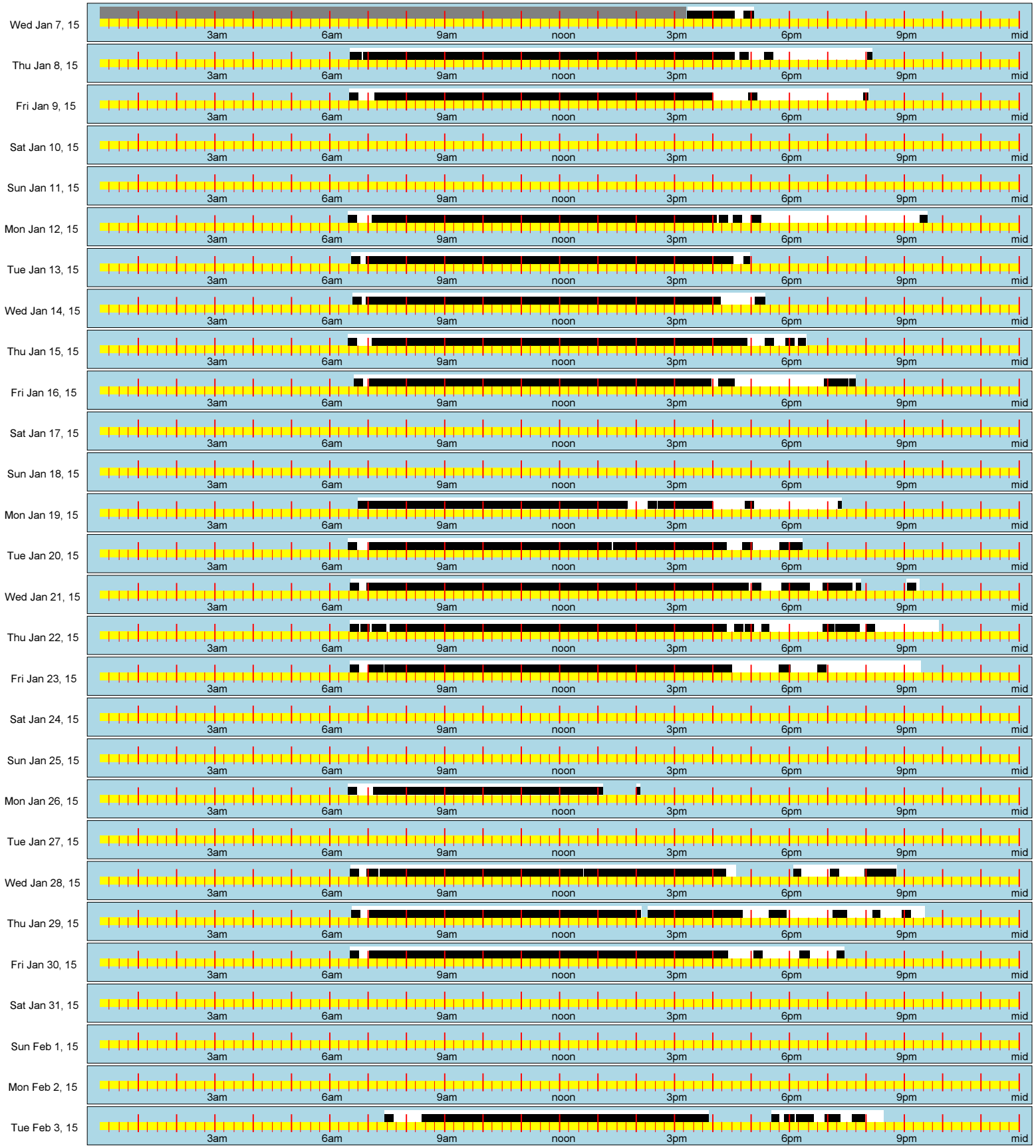
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	7.180	5.153	10.227	9.373	13.229	11.846	13.847	10.913	12.953	10.073	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**7.180**	**5.153**	**10.227**	**9.373**	**13.229**	**11.846**	**13.847**	**10.913**	**12.953**	**10.073**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	286.050	235.783	837.950		57.350	47.272	17.573
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**286.050**	**235.783**	**837.950**		**57.350**	**47.272**	**17.573**

Main Office 204

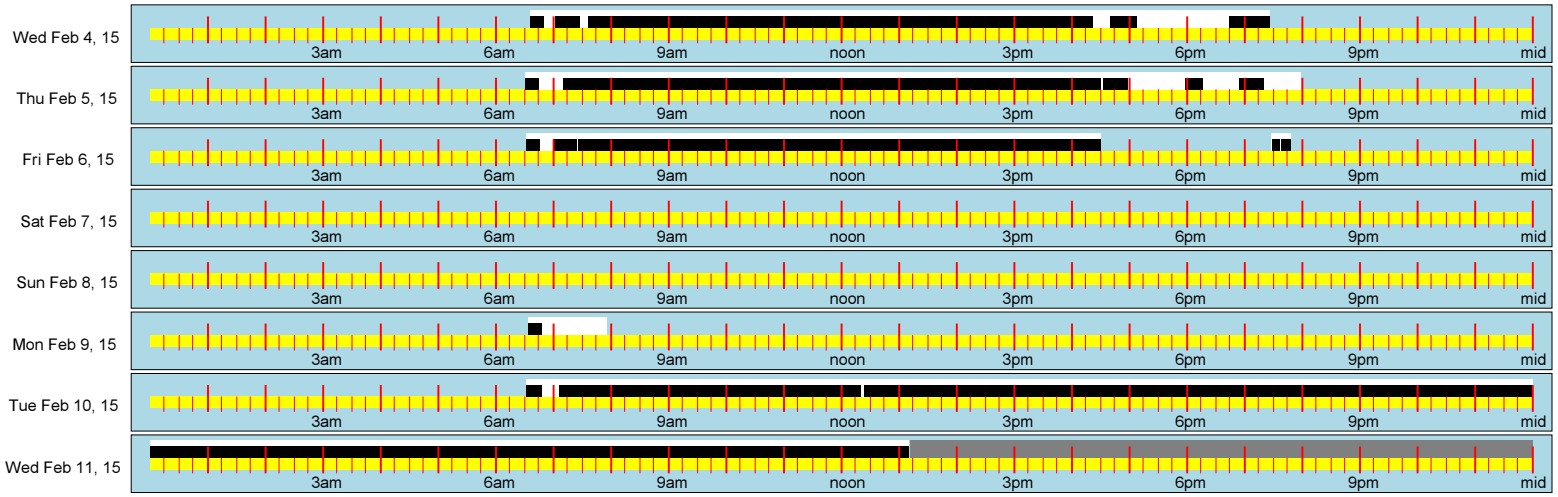
Area Type: Office, Logger: 0000EE4C, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Main Office 204

Area Type: Office, Logger: 0000EE4C, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Nurse Office 206

Area Type: Office, Logger: 0000EF58, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	48.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**48.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	48.000	24.000	17.400	8.700	16.200	8.100
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**48.000**	**24.000**	**17.400**	**8.700**	**16.200**	**8.100**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	48.000	24.000	17.867	8.933	17.167	8.583
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**48.000**	**24.000**	**17.867**	**8.933**	**17.167**	**8.583**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	56.617	24.000	19.300	8.181	18.333	7.772
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**56.617**	**24.000**	**19.300**	**8.181**	**18.333**	**7.772**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	58.150	24.000	20.967	8.653	20.700	8.543
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**58.150**	**24.000**	**20.967**	**8.653**	**20.700**	**8.543**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	48.000	24.000	22.633	11.317	19.733	9.867
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**48.000**	**24.000**	**22.633**	**11.317**	**19.733**	**9.867**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	48.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**48.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

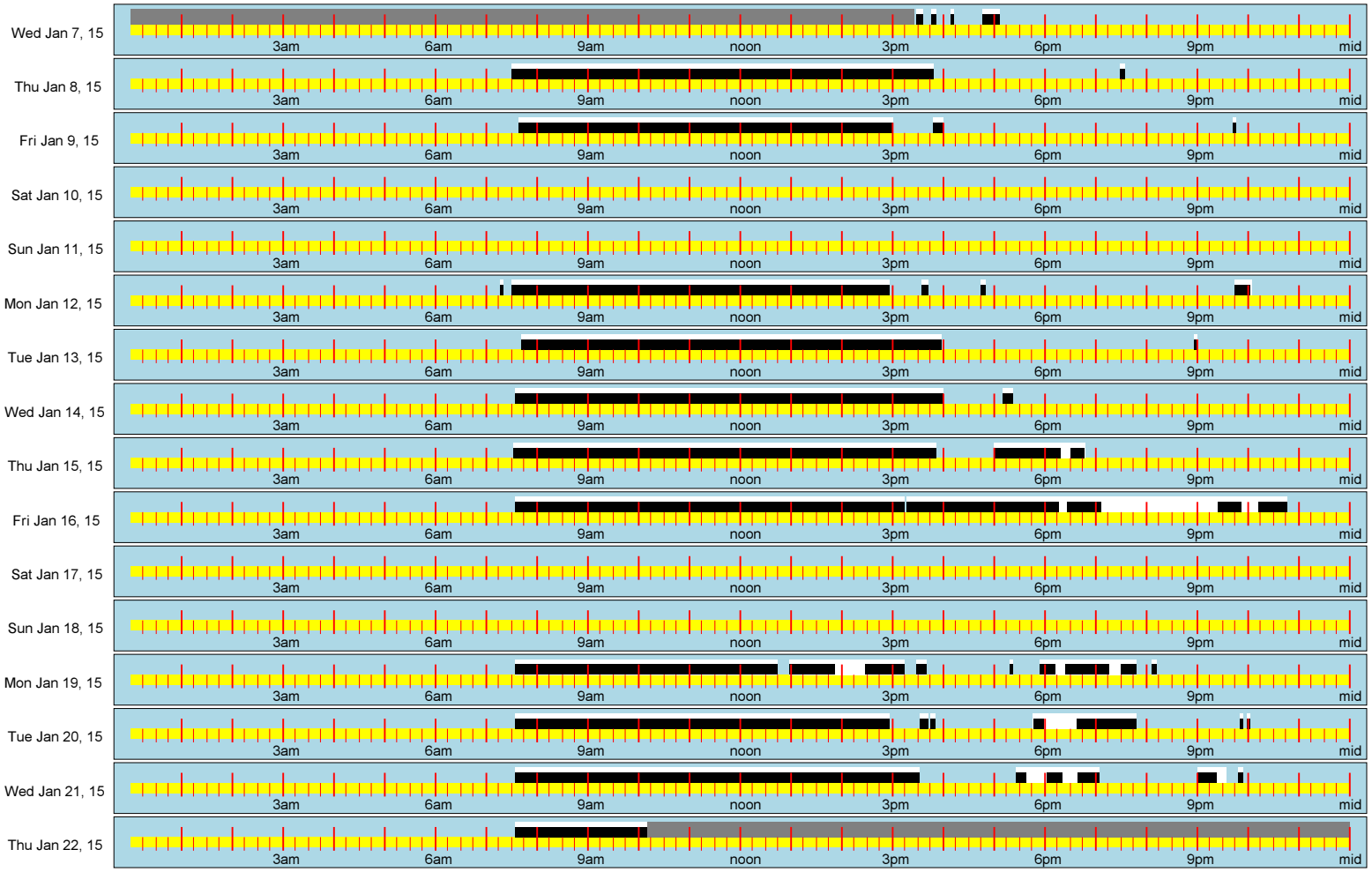
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	8.700	8.100	8.933	8.583	8.181	7.772	8.653	8.543	11.317	9.867	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**8.700**	**8.100**	**8.933**	**8.583**	**8.181**	**7.772**	**8.653**	**8.543**	**11.317**	**9.867**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	98.167	92.133	354.767		46.487	43.630	6.146
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**98.167**	**92.133**	**354.767**		**46.487**	**43.630**	**6.146**

Nurse Office 206

Area Type: Office, Logger: 0000EF58, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Principal Office 236

Area Type: Office, Logger: 0000DF0D, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	21.617	4.323	18.550	3.710
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**21.617**	**4.323**	**18.550**	**3.710**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.067	24.000	30.567	6.605	25.733	5.561
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.067**	**24.000**	**30.567**	**6.605**	**25.733**	**5.561**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	104.683	24.000	34.200	7.841	28.400	6.511
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**104.683**	**24.000**	**34.200**	**7.841**	**28.400**	**6.511**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	39.267	7.853	30.867	6.173
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**39.267**	**7.853**	**30.867**	**6.173**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	35.200	7.040	27.667	5.533
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**35.200**	**7.040**	**27.667**	**5.533**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

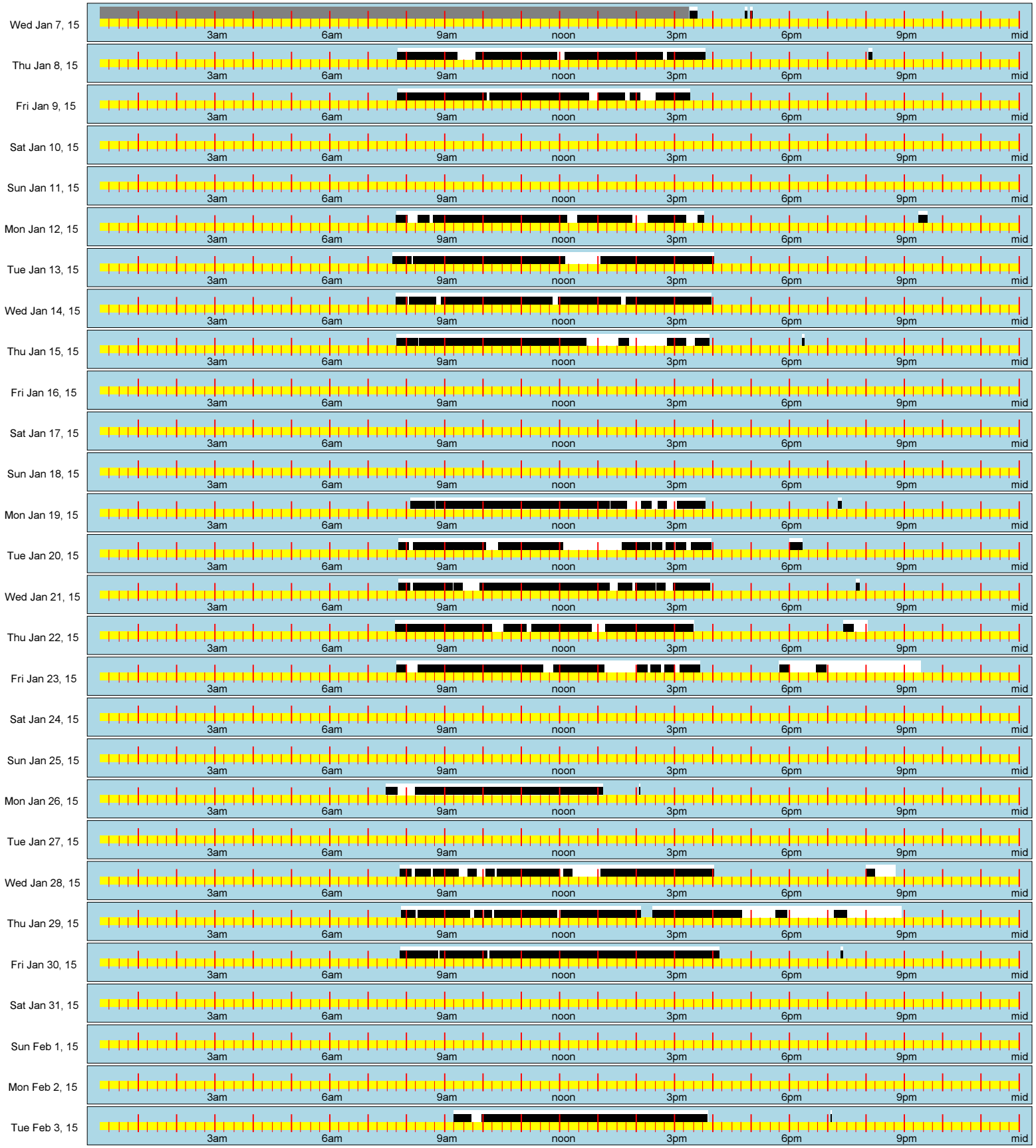
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	4.323	3.710	6.605	5.561	7.841	6.511	7.853	6.173	7.040	5.533	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**4.323**	**3.710**	**6.605**	**5.561**	**7.841**	**6.511**	**7.853**	**6.173**	**7.040**	**5.533**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	160.850	131.217	815.750		33.126	27.023	18.423
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**160.850**	**131.217**	**815.750**		**33.126**	**27.023**	**18.423**

Principal Office 236

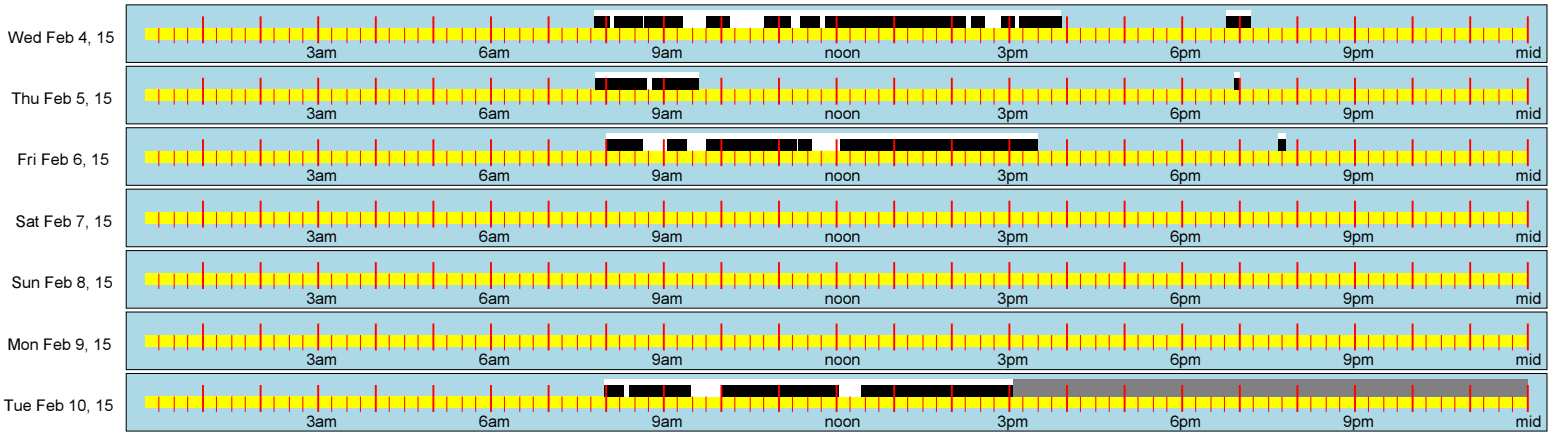
Area Type: Office, Logger: 0000DF0D, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Principal Office 236

Area Type: Office, Logger: 0000DF0D, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Superintendent's Office

Area Type: Office, Logger: 0000F590, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	24.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**24.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	24.000	24.000	9.300	9.300	6.867	6.867
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**24.000**	**24.000**	**9.300**	**9.300**	**6.867**	**6.867**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	24.000	24.000	9.800	9.800	9.433	9.433
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**24.000**	**24.000**	**9.800**	**9.800**	**9.433**	**9.433**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	24.000	24.000	9.400	9.400	8.133	8.133
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**24.000**	**24.000**	**9.400**	**9.400**	**8.133**	**8.133**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	32.083	24.000	21.433	16.033	17.000	12.717
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**32.083**	**24.000**	**21.433**	**16.033**	**17.000**	**12.717**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	24.000	24.000	9.033	9.033	8.367	8.367
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**24.000**	**24.000**	**9.033**	**9.033**	**8.367**	**8.367**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	24.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**24.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

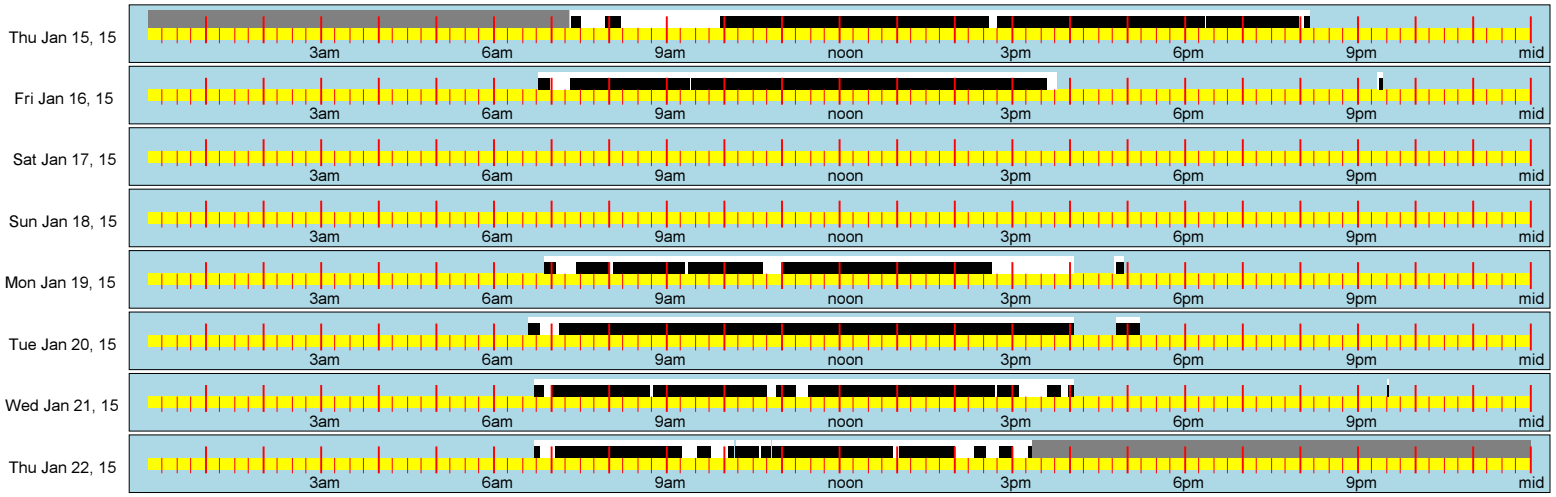
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	9.300	6.867	9.800	9.433	9.400	8.133	16.033	12.717	9.033	8.367	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**9.300**	**6.867**	**9.800**	**9.433**	**9.400**	**8.133**	**16.033**	**12.717**	**9.033**	**8.367**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	58.967	49.800	176.083		56.260	47.514	15.546
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**58.967**	**49.800**	**176.083**		**56.260**	**47.514**	**15.546**

Superintendent's Office

Area Type: Office, Logger: 0000F590, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



BOE Offices Rm 316

Area Type: Open Office, Logger: 0000EFFA, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	37.800	7.560	31.900	6.380
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**37.800**	**7.560**	**31.900**	**6.380**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.633	24.000	42.900	9.223	35.733	7.682
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.633**	**24.000**	**42.900**	**9.223**	**35.733**	**7.682**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	104.050	24.000	65.017	14.997	49.450	11.406
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**104.050**	**24.000**	**65.017**	**14.997**	**49.450**	**11.406**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	69.300	13.860	56.367	11.273
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**69.300**	**13.860**	**56.367**	**11.273**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	73.400	14.680	55.200	11.040
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**73.400**	**14.680**	**55.200**	**11.040**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	4.667	0.933	4.233	0.847
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**4.667**	**0.933**	**4.233**	**0.847**

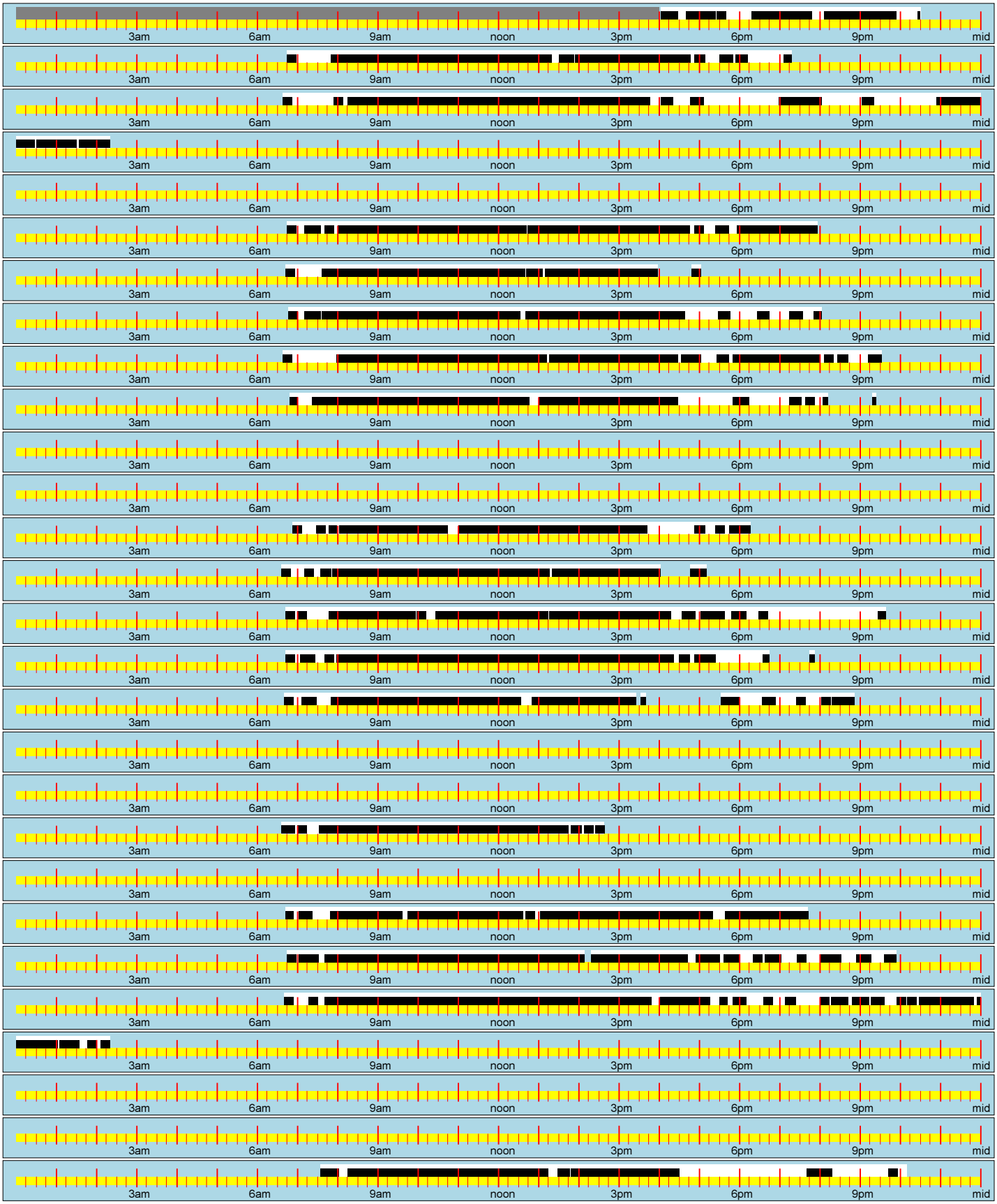
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	7.560	6.380	9.223	7.682	14.997	11.406	13.860	11.273	14.680	11.040	0.933	0.847
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**7.560**	**6.380**	**9.223**	**7.682**	**14.997**	**11.406**	**13.860**	**11.273**	**14.680**	**11.040**	**0.933**	**0.847**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	293.083	232.883	815.683		60.364	47.965	20.540
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**293.083**	**232.883**	**815.683**		**60.364**	**47.965**	**20.540**

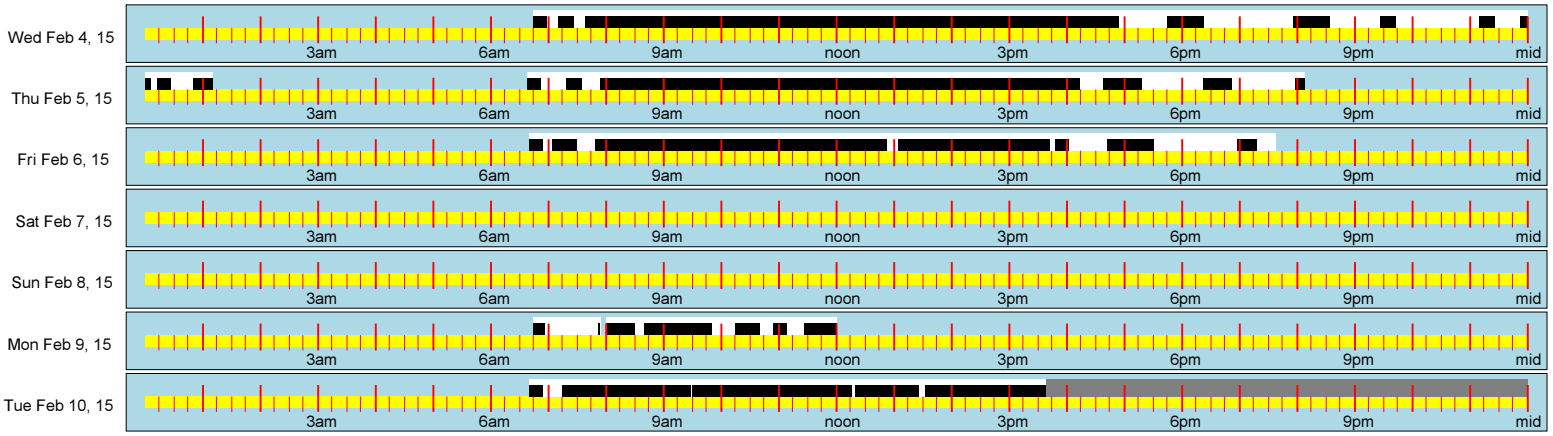
BOE Offices Rm 316

Area Type: Open Office, Logger: 0000EFFA, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



BOE Offices Rm 316

Area Type: Open Office, Logger: 0000EFFA, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Boys Restroom 108

Area Type: Restroom, Logger: 000052F5, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	39.133	7.827	18.300	3.660
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**39.133**	**7.827**	**18.300**	**3.660**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	112.067	24.000	54.683	11.711	27.283	5.843
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**112.067**	**24.000**	**54.683**	**11.711**	**27.283**	**5.843**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	103.517	24.000	66.100	15.325	31.933	7.404
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**103.517**	**24.000**	**66.100**	**15.325**	**31.933**	**7.404**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	77.200	15.440	44.333	8.867
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**77.200**	**15.440**	**44.333**	**8.867**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	76.100	15.220	39.567	7.913
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**76.100**	**15.220**	**39.567**	**7.913**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

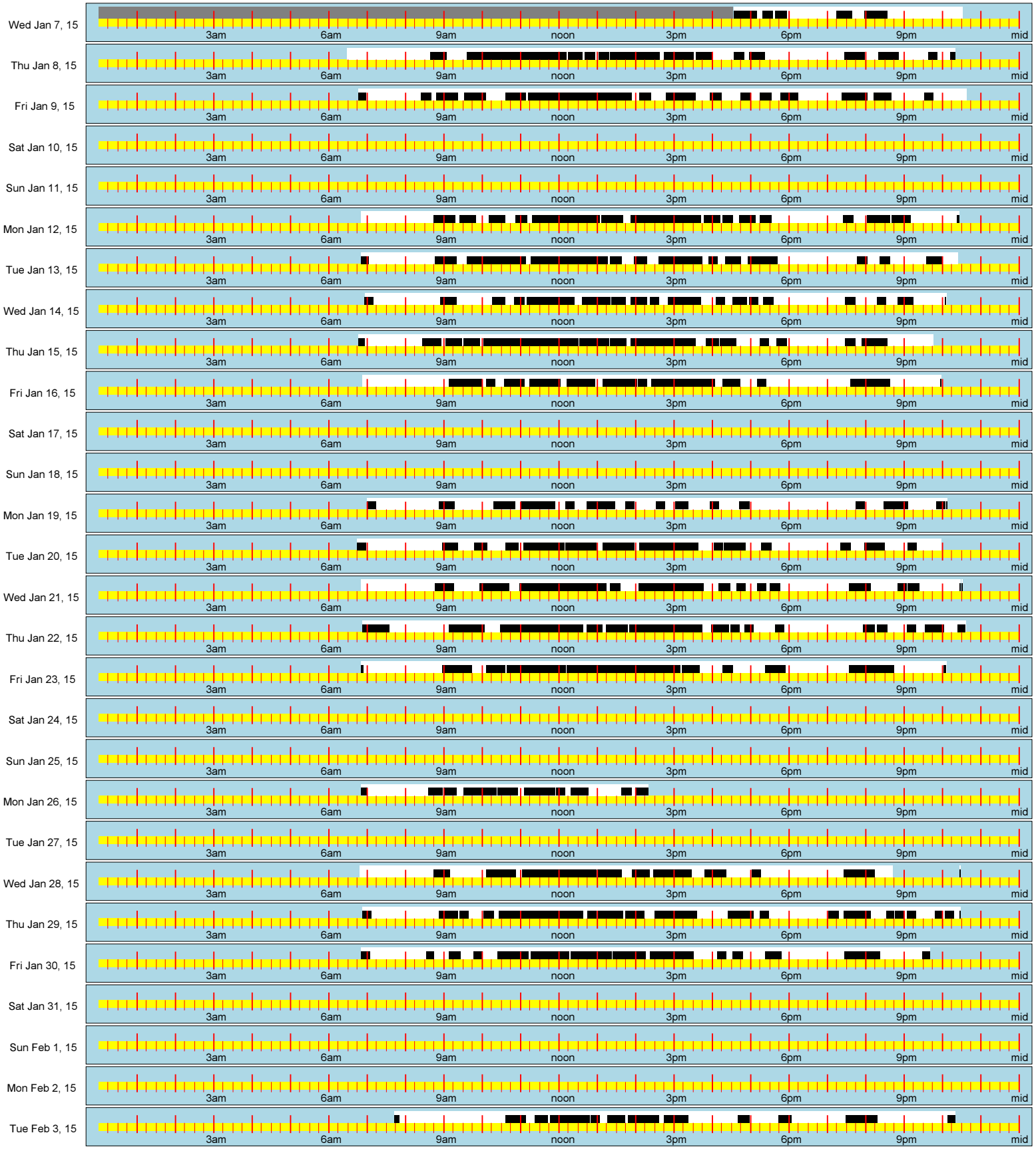
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	7.827	3.660	11.711	5.843	15.325	7.404	15.440	8.867	15.220	7.913	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**7.827**	**3.660**	**11.711**	**5.843**	**15.325**	**7.404**	**15.440**	**8.867**	**15.220**	**7.913**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	313.217	161.417	815.583		64.519	33.250	48.465
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**313.217**	**161.417**	**815.583**		**64.519**	**33.250**	**48.465**

Boys Restroom 108

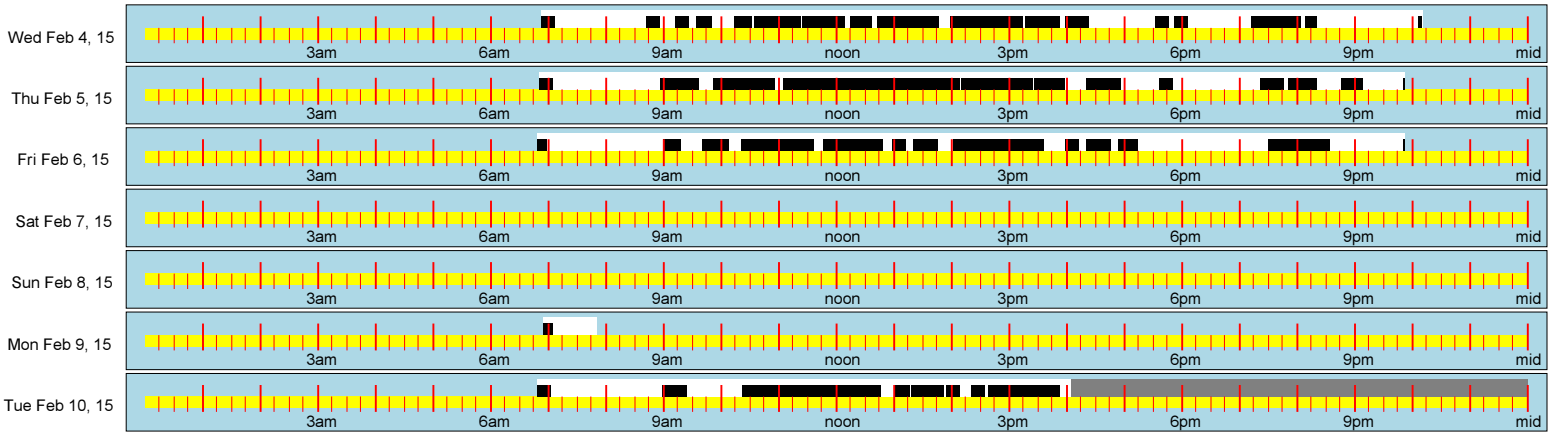
Area Type: Restroom, Logger: 000052F5, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Boys Restroom 108

Area Type: Restroom, Logger: 000052F5, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Boys Restroom 223

Area Type: Restroom, Logger: 0000542E, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	39.600	7.920	18.033	3.607
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**39.600**	**7.920**	**18.033**	**3.607**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	112.167	24.000	50.667	10.841	28.900	6.184
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**112.167**	**24.000**	**50.667**	**10.841**	**28.900**	**6.184**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	104.567	24.000	63.767	14.636	33.400	7.666
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**104.567**	**24.000**	**63.767**	**14.636**	**33.400**	**7.666**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	76.533	15.307	39.800	7.960
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**76.533**	**15.307**	**39.800**	**7.960**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	81.300	16.260	38.033	7.607
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**81.300**	**16.260**	**38.033**	**7.607**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

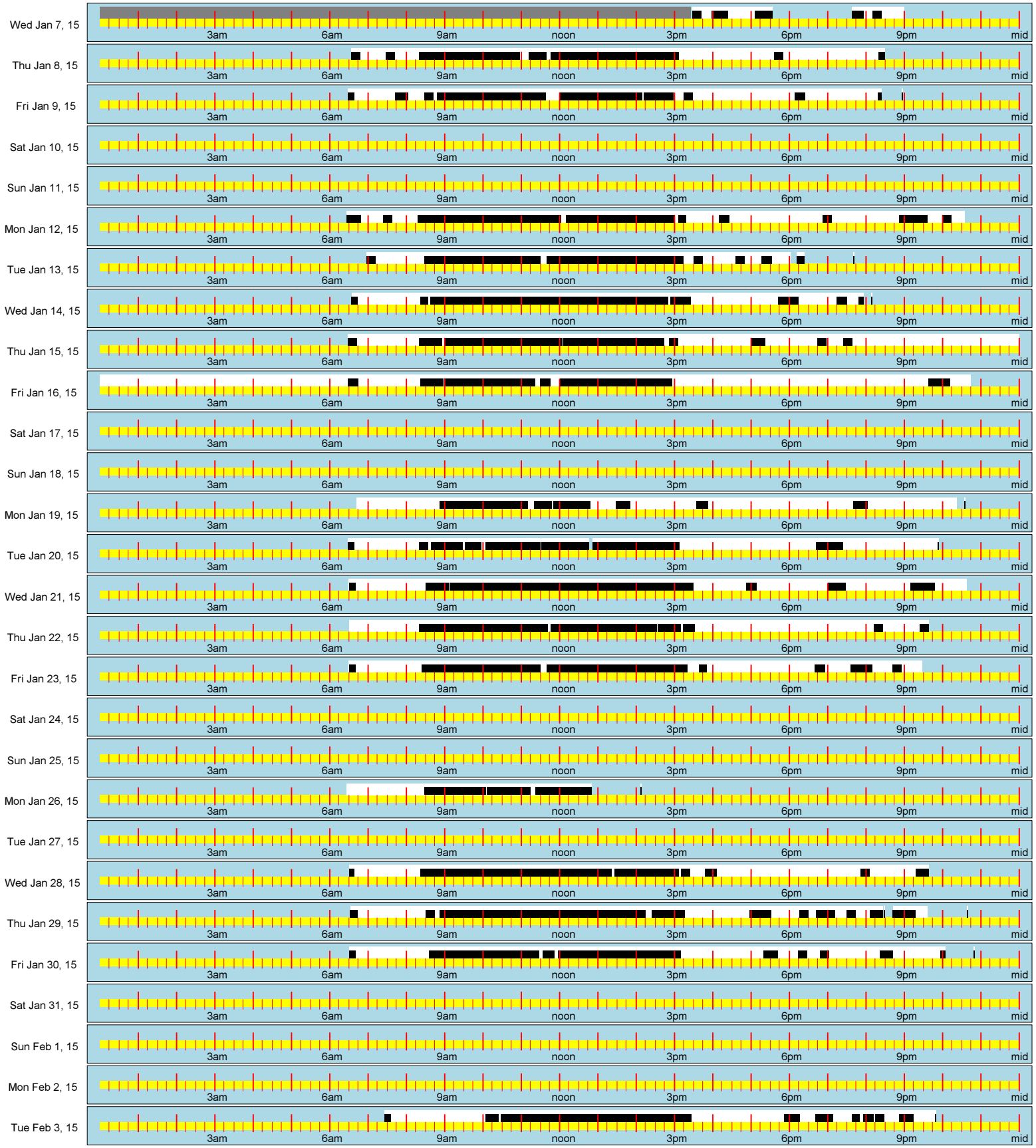
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	7.920	3.607	10.841	6.184	14.636	7.666	15.307	7.960	16.260	7.607	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**7.920**	**3.607**	**10.841**	**6.184**	**14.636**	**7.666**	**15.307**	**7.960**	**16.260**	**7.607**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	311.867	158.167	816.733		64.150	32.534	49.284
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**311.867**	**158.167**	**816.733**		**64.150**	**32.534**	**49.284**

Boys Restroom 223

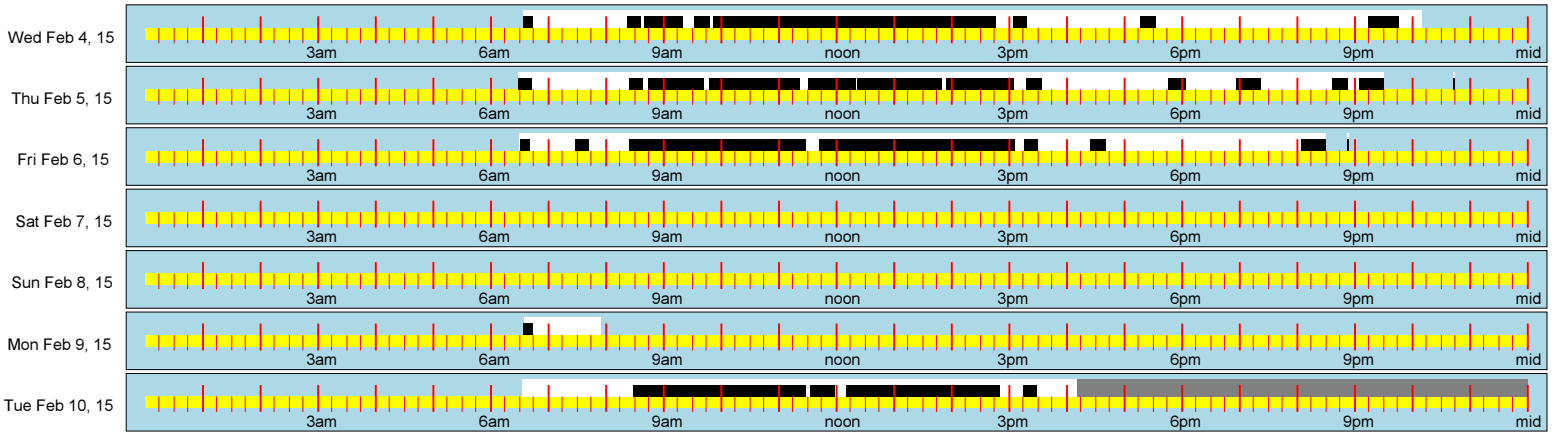
Area Type: Restroom, Logger: 0000542E, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



Boys Restroom 223

Area Type: Restroom, Logger: 0000542E, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Stairwell 3

Area Type: Stairwell, Logger: 0000545C, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	26.900	5.380	10.967	2.193
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**26.900**	**5.380**	**10.967**	**2.193**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	111.483	24.000	38.167	8.216	18.500	3.983
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**111.483**	**24.000**	**38.167**	**8.216**	**18.500**	**3.983**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	104.267	24.000	43.167	9.936	19.633	4.519
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**104.267**	**24.000**	**43.167**	**9.936**	**19.633**	**4.519**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	51.633	10.327	24.667	4.933
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**51.633**	**10.327**	**24.667**	**4.933**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	54.867	10.973	24.033	4.807
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**54.867**	**10.973**	**24.033**	**4.807**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	120.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**120.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

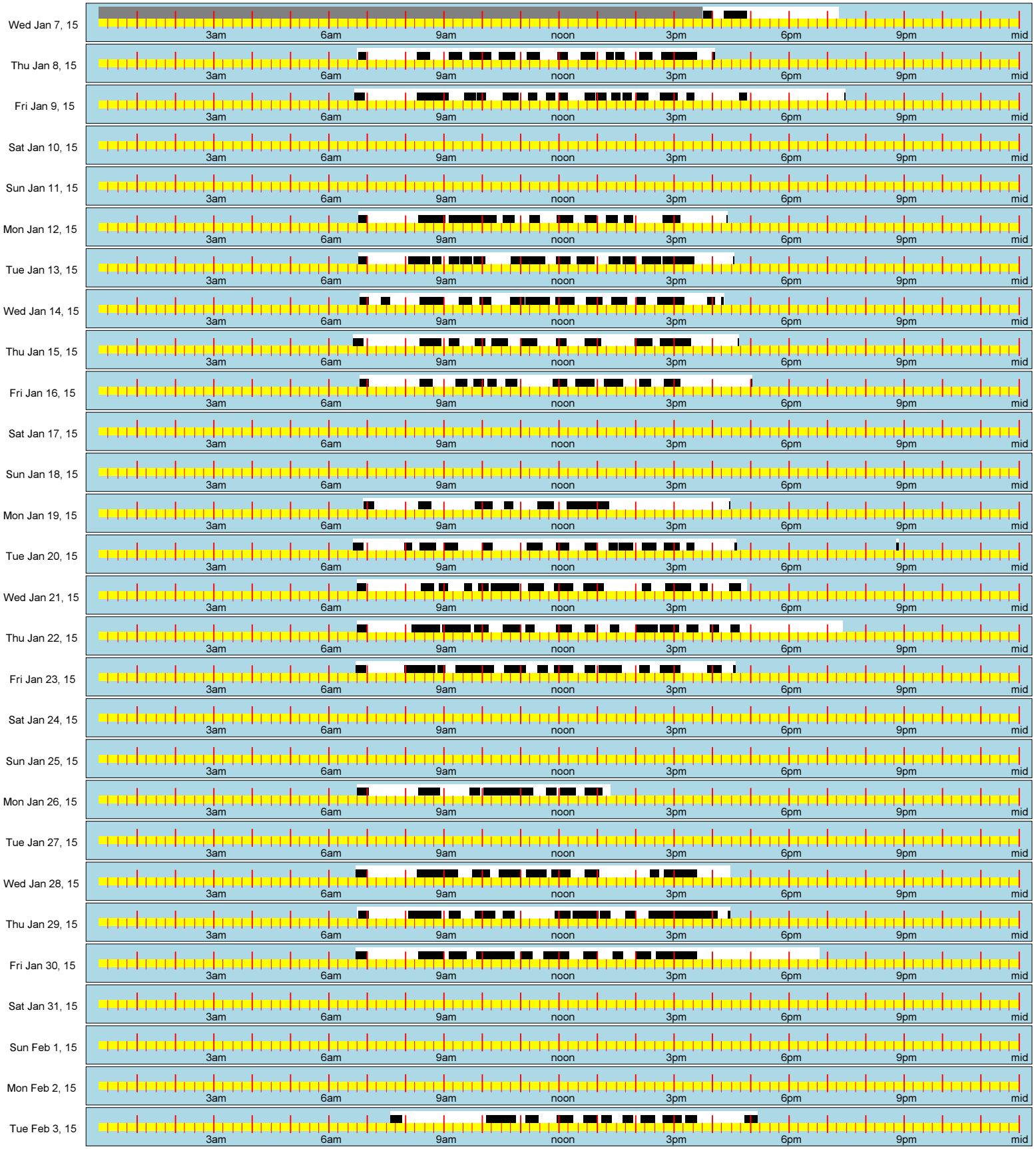
Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	5.380	2.193	8.216	3.983	9.936	4.519	10.327	4.933	10.973	4.807	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**5.380**	**2.193**	**8.216**	**3.983**	**9.936**	**4.519**	**10.327**	**4.933**	**10.973**	**4.807**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	214.733	97.800	815.750		44.223	20.141	54.455
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**214.733**	**97.800**	**815.750**		**44.223**	**20.141**	**54.455**

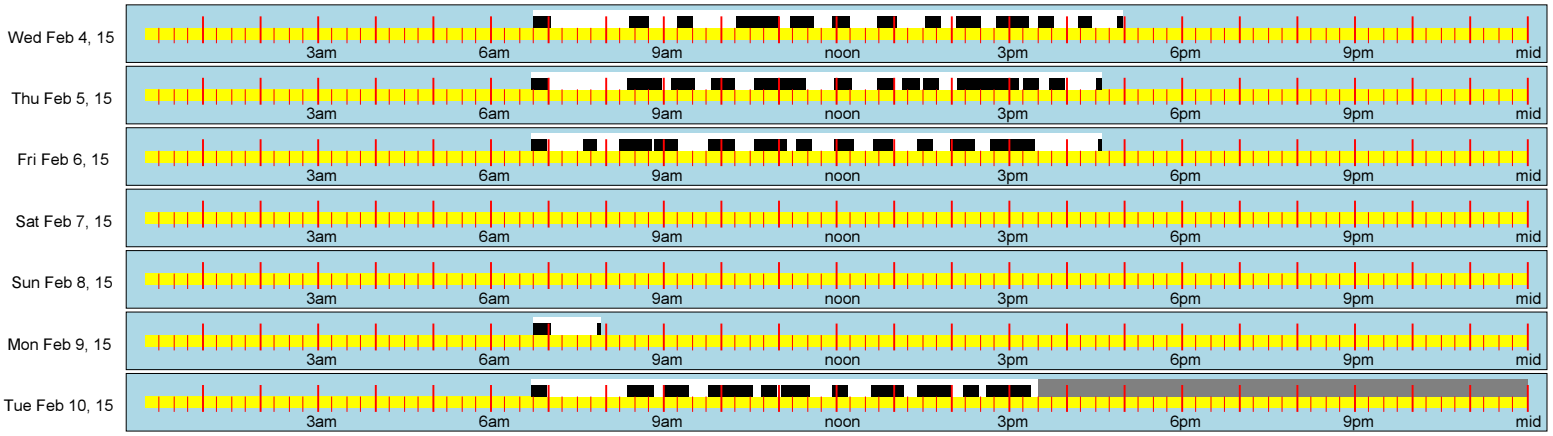
Stairwell 3

Area Type: Stairwell, Logger: 0000545C, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Stairwell 3

Area Type: Stairwell, Logger: 0000545C, Time Delay: 10 minutes
Concord Engineering, Rochelle BOE



Classroom

Area Type: Classroom, Group: 643, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE

Energy Analysis

Data By Day of Week

Sunday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	864.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**864.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Monday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	864.000	24.000	137.200	3.811	117.467	3.263
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**864.000**	**24.000**	**137.200**	**3.811**	**117.467**	**3.263**

Tuesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	821.017	24.000	222.433	6.502	175.700	5.136
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**821.017**	**24.000**	**222.433**	**6.502**	**175.700**	**5.136**

Wednesday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	788.417	24.000	265.767	8.090	209.067	6.364
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**788.417**	**24.000**	**265.767**	**8.090**	**209.067**	**6.364**

Thursday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	877.167	24.000	330.800	9.051	253.367	6.932
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**877.167**	**24.000**	**330.800**	**9.051**	**253.367**	**6.932**

Friday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	864.000	24.000	293.367	8.149	225.133	6.254
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**864.000**	**24.000**	**293.367**	**8.149**	**225.133**	**6.254**

Saturday

	Total Log Time	Hours /Day	Logged Lights On	Normalized Lights On per Day	Logged Occ	Normalized Occ Per Day
Peak	864.000	24.000	0.000	0.000	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	**864.000**	**24.000**	**0.000**	**0.000**	**0.000**	**0.000**

Normalized Data

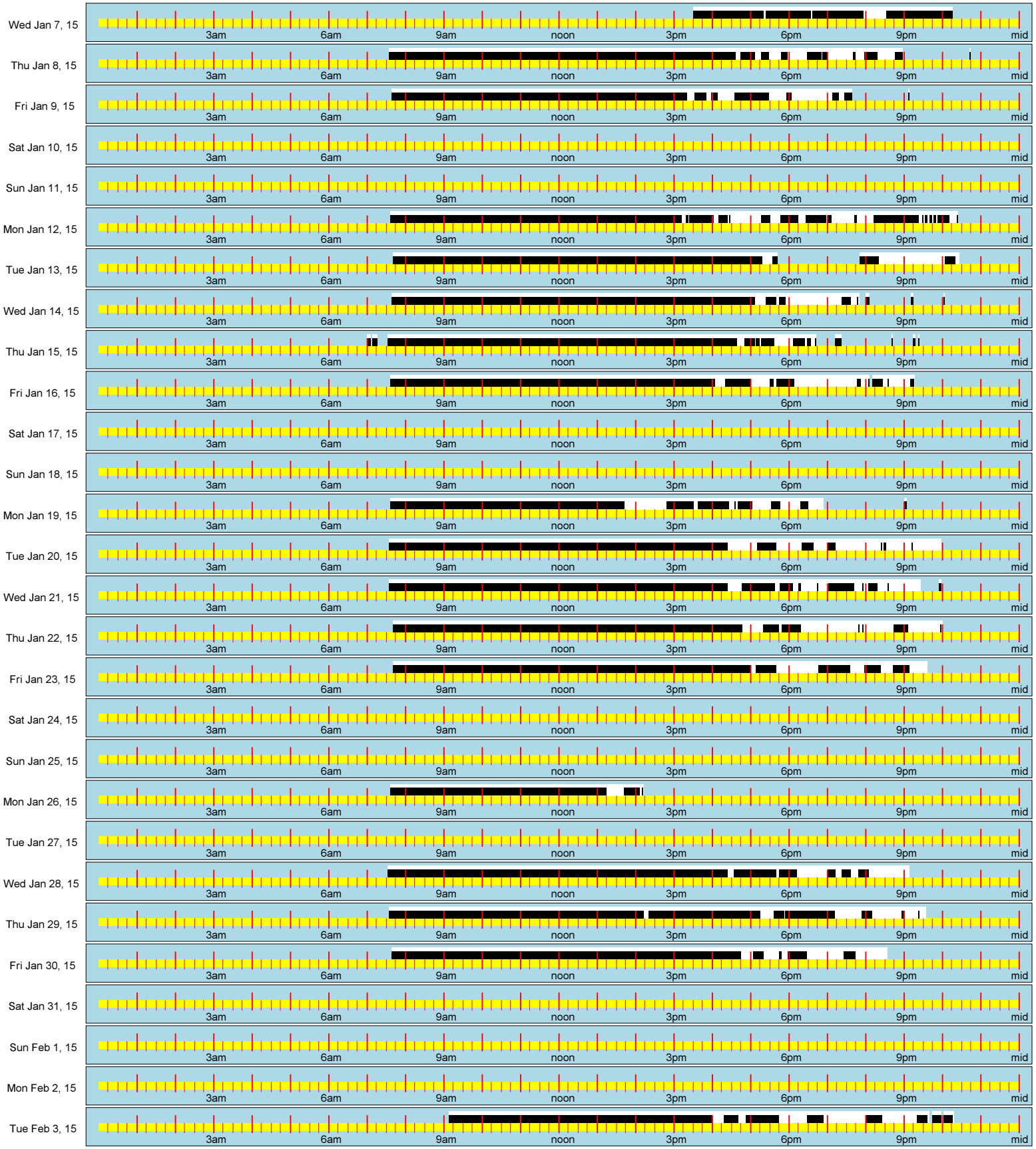
	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**	**LO**	**Occ**
Peak	0.000	0.000	3.811	3.263	6.502	5.136	8.090	6.364	9.051	6.932	8.149	6.254	0.000	0.000
Off	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.000**	**0.000**	**3.811**	**3.263**	**6.502**	**5.136**	**8.090**	**6.364**	**9.051**	**6.932**	**8.149**	**6.254**	**0.000**	**0.000**

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lights On	**Occupied**	**Logged**		**Lights on**	**Occupied**	**% Savings**
Peak	1249.567	980.733	5942.600		35.326	27.726	21.514
Off	0.000	0.000	0.000		0.000	0.000	0.000
Sh 1	0.000	0.000	0.000		0.000	0.000	0.000
Sh 2	0.000	0.000	0.000		0.000	0.000	0.000
Totals	**1249.567**	**980.733**	**5942.600**		**35.326**	**27.726**	**21.514**

Classroom

Area Type: Classroom, Group: 643, Time Delay: 10 minutes

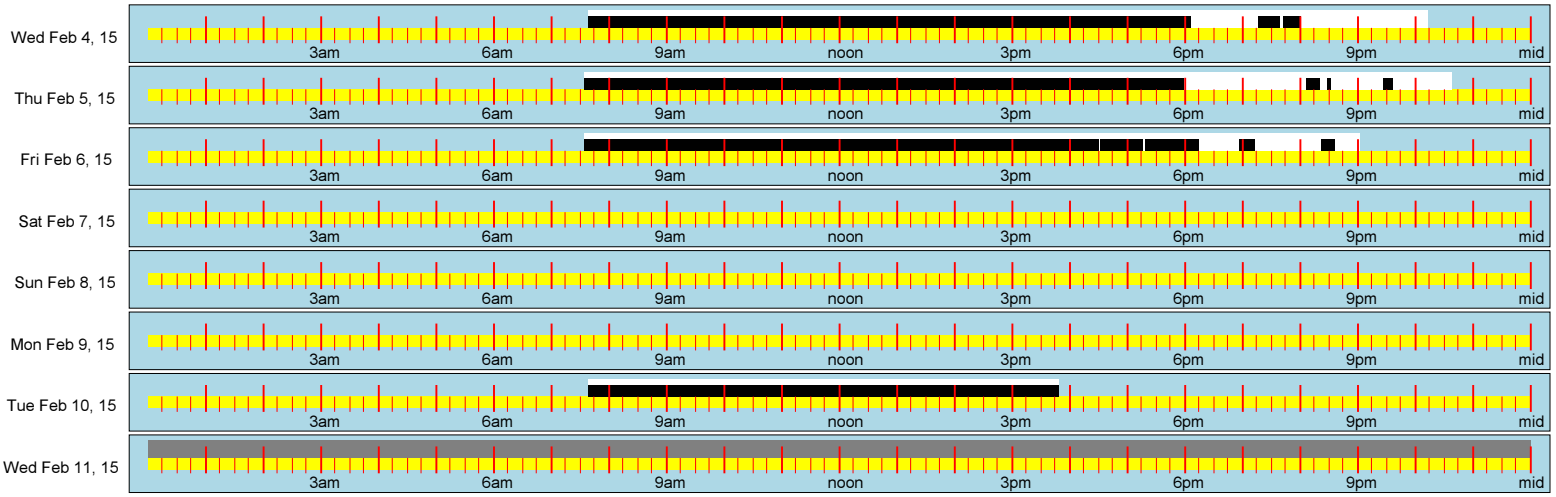
Concord Engineering, Rochelle BOE



Classroom

Area Type: Classroom, Group: 643, Time Delay: 10 minutes

Concord Engineering, Rochelle BOE



APPENDIX E

MEMO

DATE: August 12, 2015

TO: Charles L. Koch (Environetics)
CC: Kevin Blankenbuehler (Concord Engineering), Project No. 30532
FROM: Michael K. Tsakaloyannis (CHA)
RE: Rochelle Park BOE – ESP 3rd Party Review

Background:

CHA Companies, Inc. (CHA) has been contracted by Environetics to conduct a third-party review of the draft Energy Savings Plan (ESP) prepared by Concord Engineering (dated July 9, 2015) for the Rochelle Park Board of Education. This memo summarizes our preliminary findings on the calculation methods employed by Concord Engineering in their development of the ESP for the Rochelle Park BOE building listed below:

Building Name	Address	Square Feet
Midland School #1	300 Rochelle Avenue Rochelle Park, NJ 07662	89,500

This review was prepared in accordance with the requirements set forth in Chapter 4 of the New Jersey Board of Public Utilities (NJBPU) Laws of 2009 "Energy Savings Improvement Program" and Local Finance Notice 2009-11 and 2011-17, including amendments to P.L. 2009, Chapter 4 included in P.L. 2012, Chapter 55.

Overall CHA's review of the Concord draft ESP did not find any major issues. The following items are provided for the ESP development team's consideration as you finalize the ESP.

General Items:

The following comments and questions are intended to assist the ESP development team (Concord, Environetics and Rochelle Park BOE) limit any comments from NJBPU's ESIP Coordinator.

1. Page 8 – The baseline period is stated to be January 2014 through December 2014 (on pages 6 and 7). Tables 2 and 3 show the average electric and gas rates for the entire 2 years of available utility data. Concord may want to also show the totals and rates for the baseline period.
   a. **Concord:** Utility Rate Structure used for calculating energy cost savings is shown on page 7 under Table 1.

2. It appears that ECMs 1 – 3 use a blended electric rate of $0.152/kWh to calculate dollar savings, while ECMs 4 – 8 use $48.65/kW and $0.123/kWh.
   a. CHA did not have enough information to reproduce the demand unit cost ($/kW)

and electric unit cost ($/kWh) used in the calculations. Concord may want to include the detailed utility analysis tables for the 12-month baseline period such that NJBPU can cross check the dollar savings.

b. Also, Concord may want to use the actual $/kW and $/kWh for the dollar savings calculations in ECMs 1 – 3.

c. **Concord:** Demand Cost Savings and Usage Cost Savings were calculated for each lighting measure. A breakout of each value is shown in Appendix A Project Summary and Appendix B Lighting Room by Room.

3. Page 38 – In the past, NJBPU's ESIP Coordinator has not approved ESIP projects to use 5 years for maintenance savings. This may have changed.

a. **Concord**: Maintenance savings are based on recent guidance from BPU on term allowed for each component.

4. Page 41 – Concord may want to include the basis of the 5% interest rate in the final ESP that is submitted to NJBPU (note, the ESP says it will be revised once financing is finalized).

a. **Concord:** 5% interest rate was used, as this is the base rate stipulated by BPU for evaluation of ESCO proposals. Once the district finalizes there financing this number can be updated to that value, which is expected to be less than 5% given current rates.

5. Page 41 – Concord may want to specify that the basis of the 2.2% electric and 2.4% natural gas escalation rates is NJBPU Protocol.

a. **Concord:** Source of energy escalation values are provided in first paragraph of section IX on page 41.

6. Appendix A – The Project Summary Table does not specifically show Direct Install incentives, while the rest of the report (i.e., ECMs 1 – 8 and Cash Flow Analysis) do. It appears this is because the Project Summary Table shows net project costs (which include incentives) vs. gross project costs. Concord may want to change the Project Costs and Incentives shown in Appendix A to match the rest of the report (gross costs and incentives).

a. **Concord:** As DI incentives are not reimbursed to the owner as other incentives / rebate programs we thought it best to show the owner the net out of pock expense in the Project Summary Table, as this will be the value they are required to secure financing for. The DI incentive is show in the cash-flow summary for reference, as well as in the measure descriptions in the report.

7. Appendix C – Per standard NJCEP procedure, the New Jersey's Clean Energy Program (NJCEP) typically issues an incentive commitment letter upon approval of the Direct Install application, which can then be included as a reference in the ESP Cash Flow Analysis. In the past, the NJBPU ESIP Coordinator has required this documentation prior to accepting the Cash Flow Analysis, but this may have changed.

a. **Concord:** At the time the draft report was published final signed documentation was not available, only the submitted scope of work to the program manager. Final documentation has been signed by the owner and submitted. Once the commitment letter is received we will incorporate into Appendix C.

Midland School #1 ECMs (recommended):

ECM #1 Lighting Upgrade – Interior Main

1. The lighting calculations do not appear to include coincidence factor (CF) and interactive factor (IF).
2. Same comments for ECM#2, #3 and #4
    a. **Concord:** Lighting burn hours of operation were logged at the facility, utilizing the interactive factor would result in overstating hours compared to field measurements. A coincidence factor was not taken into account for the lighting as the project will result in a direct reduction in input watts per fixture, thereby lowering the monthly demand component.

ECM #5 Rooftop Units Replacement

1. The LGEA report mentioned that the two RTUs serving the gymnasium are equipped with SEMCO energy recovery wheels to pre-condition the outdoor air from conditioned exhaust air. However, the energy calculations in the ESP for replacing these two units use the same methodology as for RTUs without energy recovery. The energy savings for the RTUs serving the gymnasium may be over-estimated by excluding the energy recovery wheels in the calculations. Please clarify.
    a. **Concord:** Original Rooftop units serving this area were designed with energy recovery and therefore the unit full load cooling capacity should already be discounted based on this fact. Therefore, the rooftop should be operating at its designed capacity similar to assumptions stated in the protocols.
2. Is the EER of the proposed RTUs provided by the Direct Install Contractor?
    a. **Concord:** DI contractor is responsible for specifying the new rooftop equipment; stated EER's are based on their stipulated values.

ECM #6 Dual Enthalpy Economizer Controls

1. The two RTUs serving the gymnasium are equipped with energy recovery wheels. Therefore, they are required to have outdoor air bypass in order to take full advantage of economizer operation. Please note that in the report or provide equipment spec sheet to verify that.
    a. **Concord:** DI contractor is responsible for specifying the new rooftop equipment, and as such shall include the bypass capability.

ECM #8 Water Efficiency

1. The LGEA report states that domestic hot water is provided by the steam boilers which have 70% efficiency during winter season. However, the ESP calculations show that the heater has efficiency of 80%. Please verify that the average domestic hot water efficiency is 80%.
    a. **Concord:** The school is undergoing a separate renovation project that will remove the steam system from the building. As such a standard 80% efficient water heater was used to calculate savings.

Plan Components – Submitted Energy Savings Plan

The table below details the specific required elements of the ESP and whether they were addressed satisfactorily in the draft ESP.

Plan Component	Included in Plan (Yes or No)	Location in the report	Comments
Energy Audit Results	Yes	Section	
ECM Descriptions	Yes	Section V	ECMs 1 – 8
GHG Calculations	Yes	Section X	
Design and Compliance Issues	Yes	Section VII	
Implementation Risk Assessment	Yes	Section VII	May want to mention that there is no guarantee with the DIY path.
Demand Response Program	Yes	Section VIII	
Curtailable Energy Services	Yes	Section VIII	
Implementation Cost	Yes	Section V	
Projected Energy Savings	Yes	Section V	
Maintenance Requirements	Yes	Section VII	
ESCO Savings Guarantee Info	No	Not Required	

DISCLAIMER

CHA Consulting, Inc. (CHA) was contracted to provide third-party review services for the above mentioned ESP, and has provided our professional opinion in the review of the energy saving calculations, ESP and any other supporting documentation presented by the client and/or ESP development team. This assessment is not a guarantee that the savings and assumptions stated in the ESP are valid or correct. CHA will not be responsible for any failure in achieving the predicted energy and cost savings detailed in the ESP.

CHA's scope of work focused on completing our due diligence in verifying the energy saving calculations were prepared in accordance with NJBPU protocols. A walkthrough of the building was not performed by CHA. Unless otherwise stated, model, efficiency, and capacity information included in the ESP were assumed to be accurately collected by the ESP development team. In addition, operation and scheduling information were assumed to be representative of field conditions