Leopardo Energy







ENERGY CONSERVATION REPORT

City of Cleveland, Ohio

May 20, 2025

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May 20th, 2025

To Whom It May Concern,

The following report includes cost reduction measures and savings information designed to assist the City of Cleveland in meeting long-range plans for reducing energy use and operational costs and to improve the facilities through increased environmental stewardship. We appreciate the opportunity to collaborate with the City of Cleveland and look forward to implementing a comprehensive project to maximize efficiency and savings.

This report has been generated through analysis of the City of Cleveland's existing operational cost and energy data, as well as information collected during several facility surveys. From this data, energy baselines and analytics were established for each facility. High-level energy savings were calculated for each conservation recommendation listed for each facility below. I certify the calculations utilized to generate the Investment Grade Audit report are accurate and are compliant with modern engineering practices and standards, in accordance with the requirements of Ohio Revised Code 717.02 (B) (7).

Auditing Engineer


A team of experts from Leopardo worked with The City of Cleveland personnel to conduct a utility and field audit at the following locations:

1. 1st District Police
2. 3rd District Police
3. 5th District Police
4. 2nd District Police
5. 4th District Police

Our energy survey focused on several building systems, which include but are not limited to the following:

- Interior Lighting
- Exterior and Parking Lot Lighting
- Elevators
- Plumbing
- Windows
- Building Automation
- Entry Doors
- HVAC
- Roofing
- Renewables

1 EXECUTIVE SUMMARY

Leopardo Companies, Inc. and Leopardo Energy ("Leopardo") is pleased to submit this Energy Conservation Report to the City of Cleveland. Leopardo takes the prospect of gaining your business seriously and considers our ability to deliver you a turn-key project important. To fully understand the requirements of this project, our team of experts has spent numerous hours looking for low-cost, high return, operational expense reductions, with the goal of maximizing the net economic impact for the City of Cleveland.

Leopardo has prepared a solution specifically designed to meet the immediate needs for the City. With the help of staff and administrators, we have built a program that addresses your priorities, and at the same time will take your infrastructure assets well into the future.

Below is a highlight of the discovery items which led to the development of this comprehensive proposal and next steps. We are confident this project delivers an economic benefit to the City of Cleveland and a result the constituents will be proud of:

PROJECT ECONOMICS

Guaranteed Total Savings: **$47,983,381** (20-years)
Total Net Positive Cash Flow: **$18,919,309**
Project Investment**: $20,455,887**

DISCOVERY

215,550-SF of Facilities Surveyed
280 Utility Bills Analyzed
22 Utility Accounts Analyzed
85 Budget Line Items Reviewed
22 Budget Line Items Targeted

SCOPE

HVAC Upgrades
Building Automation Controls Upgrades
Solar Installations
Window Replacements
Roof Replacements
Interior Retrofits
General Construction
Lighting Upgrades

NEXT STEPS

Deliver Final Proposal
Council Approval of Project and Project Financing
Contract Signed and Executed
Project Financing Closed
Construction Begins

Local Partnership – Cleveland Building and Construction Trades Council

Leopardo understands the importance of participation with local contractors on construction projects ranging from constructing new buildings to existing building renovations. Leopardo completes over 400 projects every year, and we specialize in utilizing local talent for those projects. Leopardo has developed a partnership with the Cleveland Building and Construction Trades Council, to ensure all local labor will be utilized for the implementation of this project. By utilizing local contractors, this project will inject tax dollars into the local economy.

JOBS CREATED
376

TAX GENERATED
$1,085,062

PROJECTED ECONOMIC STIMULUS
$55,230,895 - $80,368,443

1 EXECUTIVE SUMMARY

Financials

The guaranteed savings this program will generate not only pays for this project but gives the City of Cleveland the flexibility to address capital projects and create a positive cash flow over twenty years. One of the City's goals with this project was to develop a self-funding project. We are pleased and excited that we are able to meet that goal.

Current Building Asset Infrastructure Condition

The City of Cleveland has a total of **$17,398,269** in building asset infrastructure that is past its useful life, creating a potential for catastrophic failures if it is not addressed. This would require significant capital from the CIP budget to address the failures. The approach since then has been repair or replace as it fails. This approach has created the deferred maintenance backlog the City is currently challenged with.

70% Mechanical Systems Past Their Useful Life
30% Roofing Systems Past Their Useful Life
10% Envelope Systems Past Their Useful Life
80% Controls Systems Past Their Useful Life
90% Lighting System are Obsolete

Guaranteed Fixed Pricing/Turn-Key – No Change Orders

Leopardo undertakes the entire responsibility from design through completion and commissioning. Our guaranteed fixed pricing process ensures the City receives the same price at the end of the project that was agreed upon at the beginning of the project. Leopardo provides a no change order guarantee in which we commit no cost additions to the project unless the City adds scope. Leopardo assumes the financial, schedule, cost, savings and construction risk. Any changes and adjustments during the implementation of the project fall under the responsibility of Leopardo.

This turnkey procurement method, a direct alternative to the traditional "low-bid" plan/spec delivery method, provides the City of Cleveland a financial solution to upgrade five (5) facilities, improve the community, and save money through guaranteed savings. With this procurement method the City will receive guaranteed results, pre-qualified trades, and no change orders, in addition to the services listed below.

Included in this Energy Conservation Report (ECR)

- ☐ Energy Engineering
- ☐ Design Engineering
- ☐ Project Management
- ☐ Measurement and Verification

Facilities Included in ECR

- ☐ 1st Police District
- ☐ 2nd Police District
- ☐ 3rd Police District
- ☐ 4th Police District
- ☐ 5th Police District

2 BASELINE & SAVINGS OVERVIEW

TOTAL PROJECT SAVINGS SUMMARY
Our discovery process included review and analysis of the following data:

- 215,550-SF of Facilities Surveyed
- 280 Utility Bills Analyzed
- 85 Budget Line Items Reviewed
- 22 Budget Line Items Targeted

The largest contributors to the savings identified in this section come from the following scope items:

- Renewable Energy Upgrades
- Procurement Solutions

The table below summarizes the total predicted savings identified during the energy conservation report.

Predicted Annual Cost & Savings			
Spend Category	**Budgeted Spend**	**Predicted Spend**	**Annual Predicted Savings**
Utilities	$1,411,368	$1,099,909	$311,459
Maintenance	$5,364,039	$5,085,527	$278,512
Operations & Supplies	$10,579,728	$8,473,881	$2,105,847
Total	**$17,355,135**	**$14,659,317**	**$2,695,818**

To ensure the savings for the project will be met, Leopardo applies several factors of safety to the predicted savings values. This adjusted savings will be the Guaranteed Savings used for the funding model of the project. The table below shows the total Guaranteed Savings. A detailed approach to Leopardo's savings guarantee can be found in **Appendix 5.c M&V Language** and the detailed approach to baseline savings can be found in **Appendix 5.d Energy Methodology.**

Guaranteed Annual Cost & Savings			
Spend Category	**Budgeted Spend**	**Guaranteed Spend**	**Annual Guaranteed Savings**
Utilities	$1,411,368	$1,162,200	$249,168
Maintenance	$5,364,039	$5,141,230	$222,809
Operations & Supplies	$10,579,728	$9,105,635	$1,474,093
Total	**$17,355,135**	**$15,409,065**	**$1,946,070**

Additionally, savings from avoided capital cost shall be realized from preventive replacement of assets through this program. The table below summarizes the avoided capital cost annually over 7 years. More information on this calculation can be found in **Appendix 6.i Avoided Capital Cost**.

Avoided Capital Cost Savings Over 7 Years	**$444,225**

The renewable energy upgrades proposed in this project will not only result in annual savings but also provide substantial federal incentives, as outlined below:

Total Rebates & Incentives	**$1,207,013**

3 ADDITIONAL PROGRAM BENEFITS

a. Local Economic Stimulus

LOCAL ECONOMIC IMPACT

The City of Cleveland and Leopardo set a goal to utilize 100% local labor for this project. Leopardo has executed a project labor agreement with the Cleveland Building and Construction Trades Council as part of a comprehensive qualification process to identify multiple contractors by utilizing the local trades. There are many benefits to utilizing localized labor. Local labor keeps project costs down by reducing travel and increasing construction efficiency. In many cases, local labor and contractors are already familiar with the City, are sometimes residents, and provide better service in the future. An important benefit to capture is the economic impact a construction project can have on the local economy. Studies have shown that three to four dollars are generated for every dollar spent on green infrastructure construction projects.



The table below shows the projected impact this project can have on the local economy:

LOCAL ECONOMIC STIMULUS[1]	
PROJECT VOLUME	$20,455,887
PROJECTED JOBS CREATED (FTE)	376
PROJECTED LOCAL / STATE TAX GENERATED	$1,085,062
PROJECTED ECONOMIC STIMULUS	$55,230,895 -$80,368,443

1 - Economic impact figures based on third party studies by California State University and Cleveland State University

3 ADDITIONAL PROGRAM BENEFITS

b. Environmental Impact – Sustainability

The utility savings outlined in Section 2 – Baseline and Savings equates to an environmental impact in terms of pounds of CO2 reduced, passenger cars removed, and smartphones charged annually.

ENVIRONMENTAL IMPACT

Pounds of CO2



1,959,200

Passenger Cars Removed



207

Number of Smartphones Charged



77,876,942

As part of this project, Leopardo will produce marketing material to help the City showcase its environmental stewardship to the community.

Leopardo Energy



APPENDIX

City of Cleveland, Ohio

May 20, 2025

5 APPENDICES

Disclaimer

This version of the Energy Conservation Report contains confidential and proprietary information of Leopardo and is protected by trade secrets and other State and Federal laws and shall not be disclosed without the written authorization of Leopardo.

5 APPENDICES

a. Facility Descriptions

FACILITY DESCRIPTIONS

The following section describes the survey findings in each facility.

First District Police Building

3895 West 130th Street | Cleveland, OH



Year Built:	1974
Renovations:	1990s
Square Footage:	33,400
# of Stories:	3
Occupancy:	Varies
Energy Source:	Natural Gas and Electric
Hours of Operation:	24/7

Current Building Conditions

Lighting

- The building interior consists of a mixture of 4-foot T8 bulbs, there are minimal automatic lighting controls
- Garage lighting consists of High Bay Halogen lighting
- The exterior lighting consists of a mix of compact florescent can lights decorative compact fluorescent lighting.

Building Automation Controls

- The existing BAS controls are pneumatic and are at the end of their useful life.

HVAC

- The building is conditioned by (2) two hot deck / cold deck multi zone and (1) one single zone air handling units that are in poor condition
- Cooling is supplied by one (1) air cooled chiller with remote barrel, is at end of its useful life.
- Heating is supplied by two (2) Boilers that are past their useful life
- There are nine (9) VAV boxes that are past their useful life
- There are several fin tube radiators supplying perimeter heating to the building.
- Various hot water and chilled water pumps that are past their useful life

Building Envelope

- The building windows are double pane and are in fair condition.
- It is unknow how much insulation is contained in the exterior walls
- The roof construction is membrane roof and is in far condition
- The exterior of the building is brick and is in fair condition. Some man doors are in poor conditions.

First District Police Building (Continued)
3895 West 130th Street | Cleveland, OH

Site Photos



Air Handling Unit



T8 Lighting



Multi Zone Air Handling Unit



Roofing



Exterior Façade



Exterior Door

5 APPENDICES

a. Facility Descriptions

Second District Police Building
3481 Fulton Road | Cleveland, OH



Year Built:	1975
Renovations:	1990's
Square Footage:	46,450
# of Stories:	3
Occupancy:	Varies
Energy Source:	Natural Gas and Electric
Hours of Operation:	24/7

Current Building Conditions

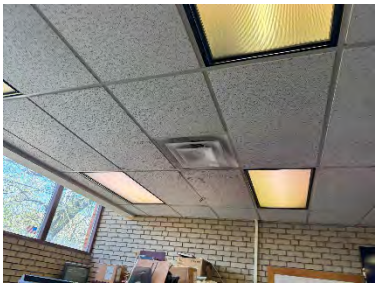
Lighting
- The building interior consists of a mixture of 4-foot T8 bulbs, there are minimal automatic lighting controls.
- The exterior lighting consists of mix of compact florescent can lights decorative compact fluorescent lighting.

Building Automation Controls
- The existing BAS controls are pneumatic and are at the end of their useful life.

HVAC
- The building is conditioned by (2) two hot deck / cold deck multi zone and (1) one single zone air handling units that are in good condition.
- (1) One air cooled chiller with remote barrel, is in good condition.
- (2) Two Boilers that are in good condition.
- There are a number of fin tube radiators supplying premier heating to the building.
- Various hot water pumps that are in good condition.

Building Envelope
- The building windows are double-pane and are in fair condition.
- It is unknow how much insulation is contained in the exterior walls
- The roof construction is membrane roof and is in fair condition
- The exterior of the building is brick and is in fair condition. Some man doors are in poor conditions
- The eves and overhands on the building are damaged and in need of repair

Second District Police Building (Continued)
3481 Fulton Road | Cleveland, OH
Site Photos



T8 Lighting



Parking Structure Lighting



Roof and Exterior Façade



Electrical Pannel



Exterior Façade and Garage Door



Exterior Lighting

5 APPENDICES

a. Facility Descriptions

Third District Police Building
4501 Chester Ave. | Cleveland, OH



Year Built:	2006
Square Footage:	61,400
# of Stories:	3
Occupancy:	Varies
Energy Source:	Natural Gas and Electric
Hours of Operation:	24/7

Current Building Conditions

Lighting
- The building interior consists of 4-foot T5 bulbs, there are minimal automatic lighting controls.
- The exterior lighting consists of halogen wall packs and decorative compact fluorescent lighting.

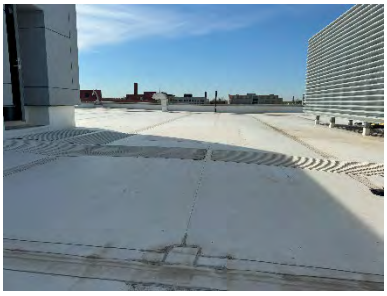
Building Automation Controls
- The existing BAS controls are DDC and in fair condition.

HVAC
- The building is conditioned by four (5) split systems with natural gas furnaces and DX condensing units. These units have an AFUE of 90% and are in poor condition.
- Two (2) natural gas hot water boiler in fair condition.
- The apparatus bay is heated by tube heaters. This equipment is in fair condition.
- Two (2) natural gas-fired water heaters serve the facility and are in good condition.

Building Envelope
- The building has double-paned windows that are in good condition.
- The roof is original to the building and is membrane. The roof is in fair condition.
- The man doors and roll-up garage doors are original to the building and are in fair condition.
- It is unknown how much, if any, insulation is in the walls and roof of the building.

Third District Police Building (Continued)
4501 Chester Ave. | Cleveland, OH

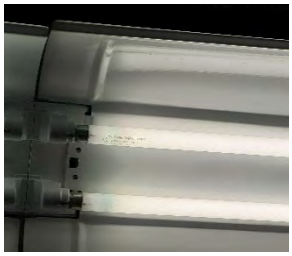
Site Photos



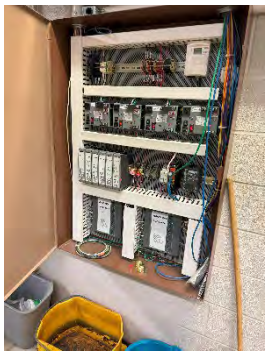
Roofing



High Efficiency Boilers



LED Lighting



Digital Controls



Exterior Lighting



Exterior Façade and Windows

5 APPENDICES
a. Facility Descriptions

Fourth Police District Building
9333 Kinsman Road | Cleveland, OH



Year Built:	1975
Renovations:	1990's
Square Footage:	33,400
# of Stories:	3
Occupancy:	Varies
Energy Source:	Natural Gas and Electric
Hours of Operation:	24/7

Current Building Conditions

Lighting
- The building interior consists of a mixture of 4-foot T8 bulbs, there are minimal automatic lighting controls
- Garage lighting consists of High Bay Halogen lighting
- The exterior lighting consists of a mix of compact florescent can lights decorative compact fluorescent lighting.

Building Automation Controls
- The existing BAS controls are pneumatic and are at the end of their useful life.

HVAC
- The building is conditioned by one (1) multizone hot/chilled water air handling unit, two (2) hot/chilled water single zone air handling units and one (1) hot water air handling unit in poor condition
- (1) One air cooled chiller with remote barrel, is at end of its useful life.
- (2) Two Boilers that are past their useful life
- (9) Nine VAV boxes that are past their useful life
- There are a number of fin tube radiators supplying premier heating to the building.
- Various hot water and chilled water pumps that are past their useful life

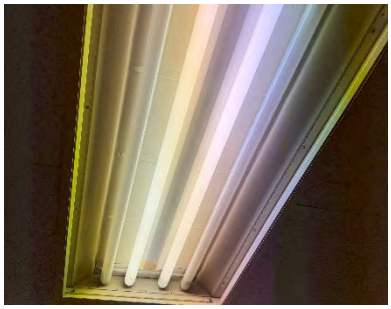
Building Envelope
- The building windows are double pane and are in fair condition.
- It is unknown how much insulation is contained in the exterior walls
- The roof construction is membrane roof and is in fair condition
- The exterior of the building is brick and is in poor condition. Some man doors are in poor condition.

Fourth Police District Building (Continued)
9333 Kinsman Road | Cleveland, OH

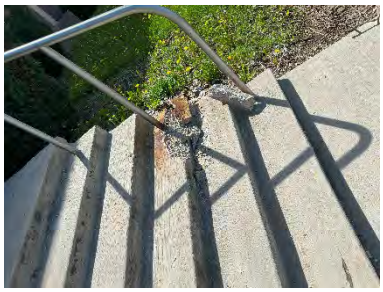
Site Photos



Multi Zone Air Handling Unit



T8 Lighting



Exterior Steps



Chiller Compressors



Roof



Man Door and Façade

5 APPENDICES

a. Facility Descriptions

Fifth Police District Building
881 East 152 Street | Cleveland, OH



Year Built:	1969
Renovations:	1990's
Square Footage:	40,900
# of Stories:	3
Occupancy:	Varies
Energy Source:	Natural Gas and Electric
Hours of Operation:	24/7

Current Building Conditions

Lighting
- The building interior consists of a mixture of 4-foot T8 bulbs, there are minimal automatic lighting controls
- Garage lighting consists of High Bay Halogen lighting
- The exterior lighting consists of a mix of compact florescent can lights decorative compact fluorescent lighting

Building Automation Controls
- The existing BAS controls are pneumatic and are at the end of their useful life.

HVAC
- The building is conditioned by one (1) multizone hot/chilled water air handling unit, two (2) hot/chilled water single zone air handling units and one (1) hot water air handling unit in poor condition
- Cooling is provided by One (1) water cooled chiller with open-cell cooling tower in poor condition
- Heating is provided by two 2100 MBH boilers in poor condition
- There are eleven (11) VAV boxes that are past their useful life
- There are several fin tube radiators supplying perimeter heating to the building.
- Various hot water and chilled water pumps that are past their useful life

Building Envelope
- The building windows are double pane and are in fair condition.
- It is unknow how much insulation is contained in the exterior walls
- The roof construction is a built-up roof consisting of hot tar and gravel. The roof is in poor condition
- The exterior of the building is brick and is in fair condition. Some man doors are in poor conditions

Fifth Police District Building (Continued)
881 East 152 Street | Cleveland, OH

Site Photos



Roof



Exterior Facade



Generator Switch Gear



Exterior Man Door



Remote Chiller Barrel



Exterior Parking Lot Lighting

5 APPENDICES
b. Scope Language

STANDARD TO ALL SCOPE:

All work to be performed during normal working hours, Monday - Friday 7:30 AM to 4:30 PM excluding holidays except as noted.

General Notes and Assumptions

- Good house-keeping practices will be followed on job sites.
- Internet access and static IP address to be provided by Owner for DDC control system.
- Owner responsible for internal moves and relocations (i.e. desks, electronic equipment, furniture, window treatments, etc.)
- Final patching, painting, or woodwork / trim finishes are excluded unless specifically listed in the Scope of Work below.
- Contractor will be responsible for disposal of old equipment removed or replaced.
- This proposal does not include any obligation of Contractor or its subcontractors to identify or remove any hazardous materials unless noted below.
- Existing systems and components such as fire alarm, life safety, building automation controls, or other such associated systems and components are assumed to be in working order and are excluded for upgrades, repairs, changes or service unless specifically listed in this Scope of Work.
- Lighting retrofits and upgrades are planned as like for like replacements unless specific light measurements and modifications are defined in this agreement.
- Contractor to provide owner operations and maintenance materials at the end of implementation.
- This proposal does not include additional costs required for code upgrade outside of contract scope of work.
- This proposal does not include additional costs deemed necessary for historical preservation.

MECHANICAL AND BUILDING AUTOMATION SYSTEM IMPROVEMENTS

The following HVAC, Ventilation and Building Automation improvements will be made in each associated building. Where noted, changes in the HVAC systems shall be incorporated with associated building automation scope. All electrical work required for new systems is included. System engineering, performance test and balance shall be included with each new mechanical piece of equipment.

HVAC Replacement

City of Cleveland Police District 1

The building was originally constructed in the early 1970's and is comprised of three (3) levels: Basement, First Floor, and Second Floor. The following list, items 1 through 11, are the current mechanical/plumbing systems to be removed from the facility:

1. One (1) air-cooled CH with split condenser and compressor sections and one (1) base-mounted end suction CHW pump.
2. One (1) VAV-MZ CHW/HHW AHU (AHU-1) with individual zone dampers located off the AHU supply discharge.
3. Two (2) CV-SZ CHW/HHW AHU's (AHU-2, AHU-3).
4. One (1) CV-SZ HHW AHU (AHU-4).

5. Eleven (11) fans with varying duties.
6. Nine (9) HHW UH.
7. Fin-Tube Radiators, floor mounted. Quantity to be determined.
8. One (1) 380 MBH DHW Boiler and one (1) in-line recirculation pump.
9. One (1) insulated DHW storage tank. Size to be determined
10. Two (2) 2100 MBH HHW Boilers and two (2) base-mounted end suction HHW pumps.
11. Pneumatic control system. Cap air lines in a neat, clean manner.

The Scope of work is as follows:

1. CH-1: One (1) 75-ton air-cooled CH. CH shall be split condenser/compressor section (outside) with evaporator and refrigerant/water HX section (inside). Utilize 'wye-delta' or soft starter for unit where available. Additional refrigerant piping and chilled water piping modifications are to be expected. Two (2) base-mounted end suction chilled water pumps. Pumps shall operate in lead/standby configuration. Re-use existing feeder/raceway and OCPD where possible, NEMA 3R disconnect for outdoor condenser. Refer to Appendix, Detail Sheets for more information. Similar to Trane CCAR75 with matching Trane CAUJ exterior condensing unit.

2. AHU-1: One (1) MZ VAV AHU. Unit shall be double-walled construction, return air damper and outside air damper mounted in air mixing section, MERV 13 filtration, CHW coil, direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Unit shall be directly ducted from mechanical room wall/floor to AHU (no separate return air fan). Provide new feeder/raceway and OCPD. Similar to Trane Performance Climate Changer.

3. VAV Boxes: Add nine (9) single-duct, double-walled construction, HHW coil (with hydronic accessories from factory). Units shall have a step-down transformer for controls operation. Similar to Trane VCWF. Provide (1) 120V circuit on each floor. Refer to Appendix, Detail Sheets for more information.

4. AHU-2: One (1) SZ VAV AHU. Unit shall be double-walled construction, return air damper and outside air damper mounted in air mixing section, MERV 13 filtration, CHW coil, HHW coil (re-heat position), direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Unit shall be directly ducted from mechanical room wall/floor to AHU (no separate return air fan). Similar to Trane Performance Climate Changer. Re-use existing feeder/raceway and OCPD where possible.

5. AHU-3: Unit shall not be replaced. Its airflow quantity and area served shall be added to AHU-1. Remove all electrical equipment and appurtenances related to unit.

6. AHU-4: One (1) SZ CAV AHU. Unit shall be double-walled construction, outside air damper mounted in air mixing section, MERV 8 filtration, HHW coil, direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Re-use existing feeder/raceway and OCPD where possible.

7. EF-1 through EF-10: Refer to Appendix, Existing Drawings, for unit type and operating parameters. Re-use existing feeder/raceway and OCPD where possible. Provide new controller for each exhaust fan.

8. UH-1 through UH-9: Refer to Appendix, Existing Drawings, for unit operating parameters. Similar to Modine Lodronic, Low Temperature Hydronic Heater (HCH). Re-use existing feeder/raceway and OCPD where possible.

9. DHW Boiler: One (1) 300 MBH (input) DHW condensing boiler with on-board recirculation pump. Unit shall operate using natural gas as fuel. Similar to Raypak XFiire, 96% efficient.

10. DHW Storage Tank: One (1) or more DHW storage tank(s). Total storage capacity is approximately 750 gallons. Tank shall be insulated by manufacturer (R-12 min.).

11. HHW Boilers: Two (2) 2000 MBH (input) HHW condensing boilers. Units shall operate using natural gas as fuel. Similar to Raypak XTherm 2005A, 96% efficient. Two (2) base-mounted end suction heating hot water pumps. Pumps shall operate in lead/standby configuration. Refer to Appendix, Detail Sheet M-50X, for more information.

12. Direct Digital Controls (DDC): Provide a fully operational control system with front-end graphical display. This includes but not limited to; low voltage wiring, conduits, actuators/sensors, programming, etc. All equipment shown to be added/replaced shall be viewable and controllable on the front-end display

City of Cleveland Police District 4

The building was originally constructed in the early 1970's and is comprised of three (3) levels: Basement, First Floor, and Second Floor. The following list, items 1 through 11, are the current mechanical/plumbing systems to be removed from the facility:

1. One (1) air-cooled CH with split condenser and compressor sections and one (1) base-mounted end suction CHW pump.

2. One (1) VAV-MZ CHW/HHW AHU with individual zone dampers located off the AHU supply discharge.

3. Two (2) CV-SZ CHW/HHW AHU's.

4. One (1) CV-SZ HHW AHU.

5. Eleven (11) fans with varying duties.

6. Nine (9) HHW UH.

7. Fin-Tube Radiators, floor mounted. Quantity to be determined.

8. One (1) 380 MBH DHW Boiler and one (1) in-line recirculation pump.

9. One (1) insulated DHW storage tank. Size to be determined.

10. Two (2) 2100 MBH HHW Boilers and two (2) base-mounted end suction HHW pumps.

11. Pneumatic control system. Cap air lines in a neat, clean manner.

Scope of Work:

5 APPENDICES
b. Scope Language

1. CH-1: One (1) 75-ton air-cooled CH. CH shall be split condenser/compressor section (outside) with evaporator and refrigerant/water HX section (inside). Utilize 'wye-delta' or soft starter for unit where available. Additional refrigerant piping and chilled water piping modifications are to be expected. Two (2) base-mounted end suction chilled water pumps. Pumps shall operate in lead/standby configuration. Re-use existing feeder/raceway and OCPD where possible, NEMA 3R disconnect for outdoor condenser. Similar to Trane CCAR75 with matching Trane CAUJ exterior condensing unit.

2. AHU-1: One (1) MZ VAV AHU. Unit shall be double-walled construction, return air damper and outside air damper mounted in air mixing section, MERV 13 filtration, CHW coil, direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Unit shall be directly ducted from mechanical room wall/floor to AHU (no separate return air fan). Provide new feeder/raceway and OCPD. Similar to Trane Performance Climate Changer.

3. VAV Boxes: Add nine (9) single-duct, double-walled construction, HHW coil (with hydronic accessories from factory). Units shall have a step-down transformer for controls operation. Similar to Trane VCWF. Provide (1) 120V circuit on each floor.

4. AHU-2: One (1) SZ VAV AHU. Unit shall be double-walled construction, return air damper and outside air damper mounted in air mixing section, MERV 13 filtration, CHW coil, HHW coil (re-heat position), direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Unit shall be directly ducted from mechanical room wall/floor to AHU (no separate return air fan). Similar to Trane Performance Climate Changer. Re-use existing feeder/raceway and OCPD where possible.

5. AHU-3: Unit shall not be replaced. Its airflow quantity and area served shall be added to AHU-1. Remove all electrical equipment and appurtenances related to unit.

6. AHU-4: One (1) SZ CAV AHU. Unit shall be double-walled construction, outside air damper mounted in air mixing section, MERV 8 filtration, HHW coil, direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Re-use existing feeder/raceway and OCPD where possible.

7. EF-1 through EF-10: Re-use existing feeder/raceway and OCPD where possible. Provide new controller for each exhaust fan.

8. UH-1 through UH-9: Refer to Appendix, Existing Drawings, for unit operating parameters. Similar to Modine Lodronic, Low Temperature Hydronic Heater (HCH). Re-use existing feeder/raceway and OCPD where possible.

9. DHW Boiler: One (1) 300 MBH (input) DHW condensing boiler with on-board recirculation pump. Unit shall operate using natural gas as fuel. Similar to Raypak XFiire, 96% efficient.

10. DHW Storage Tank: One (1) or more DHW storage tank(s). Total storage capacity is approximately 750 gallons. Tank shall be insulated by manufacturer (R-12 min.).

11. HHW Boilers: Two (2) 2000 MBH (input) HHW condensing boilers. Units shall operate using natural gas as fuel. Similar to Raypak XTherm 2005A, 96% efficient. Two (2) base-mounted end suction heating hot water pumps. Pumps shall operate in lead/standby configuration. Refer to Appendix, Detail Sheet M-50X, for more information.

12. Direct Digital Controls (DDC): Provide a fully operational control system with front-end graphical display. This includes but not limited to; low voltage wiring, conduits, actuators/sensors, programming, etc. All equipment shown to be added/replaced shall be viewable and controllable on the front-end display.

City of Cleveland Police District 5

The building is comprised of three (3) levels: Basement, First Floor, and Second Floor. The following list, items 1 through 11, are the current mechanical/plumbing systems to be removed from the facility.

1. One (1) water-cooled CH with open-cell cooling tower, one (1) base-mounted end suction CHW pump, and one (1) base-mounted end suction CW pump.

2. One (1) VAV-MultiZone CHW/HHW AHU with individual zone dampers located off the AHU supply discharge.

3. Two (2) CV-SingleZone CHW/HHW AHU's.

4. One (1) CV-SZ HHW AHU.

5. Eleven (11) fans with varying duties.

6. Nine (9) HHW UH.

7. Fin-Tube Radiators, floor mounted. Quantity to be determined.

8. One (1) 380 MBH DHW Boiler and one (1) in-line recirculation pump.

9. One (1) insulated DHW storage tank. Size to be determined.

10. Two (2) 2100 MBH HHW Boilers and two (2) base-mounted end suction HHW pumps.

11. Pneumatic control system. Cap air lines in a neat, clean manner.

Scope of work:

1. CH-1: One (1) 75-ton water-cooled CH. Outdoor cooling tower is not to be replaced. Additional condenser water and chilled water piping modifications are to be expected. Two (2) base-mounted end suction chilled water pumps, two (2) base-mounted end suction condenser water pumps. Pumps shall operate in lead/standby configuration. Similar to Trane CGWR75.

2. AHU-1: One (1) MZ VAV AHU. Unit shall be double-walled construction, return air damper and outside air damper mounted in air mixing section, MERV 13 filtration, CHW coil, direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Unit shall be directly ducted from mechanical room wall/floor to AHU (no separate return air fan). Provide new feeder/raceway and OCPD. Similar to Trane Performance Climate Changer.

3. VAV Boxes: Add nine (9) single-duct, double-walled construction, HHW coil (with hydronic accessories from factory). Units shall have a step-down transformer for controls operation. Similar to Trane VCWF. Provide (1) 120V circuit on each floor. Refer to Appendix, Detail Sheets for more information.

4. AHU-2: One (1) SZ VAV AHU. Unit shall be double-walled construction, return air damper and outside air damper mounted in air mixing section, MERV 13 filtration, CHW coil, HHW coil (re-heat position), direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Unit shall be directly ducted from mechanical room wall/floor to AHU (no separate return air fan). Similar to Trane Performance Climate Changer. Re-use existing feeder/raceway and OCPD where possible.

5. AHU-3: Unit shall not be replaced. Its airflow quantity and area served shall be added to AHU-1. Remove all electrical equipment and appurtenances related to unit.

6. AHU-4: One (1) SZ CAV AHU. Unit shall be double-walled construction, outside air damper mounted in air mixing section, MERV 8 filtration, HHW coil, direct drive plenum fan(s) section. Unit shall be shipped with appropriate splits for ease of installation. Re-use existing feeder/raceway and OCPD where possible.

7. EF-1 through EF-10: Replace existing with new of same size. Re-use existing feeder/raceway and OCPD where possible. Provide new controller for each exhaust fan.

8. UH-1 through UH-9: Replace existing with new of same size. Similar to Modine Lodronic, Low Temperature Hydronic Heater (HCH). Re-use existing feeder/raceway and OCPD where possible.

10. DHW Storage Tank: One (1) or more DHW storage tank(s). Total storage capacity is approximately 750 gallons. Tank shall be insulated by manufacturer (R-12 min.).

11. HHW Boilers: Two (2) 2000 MBH (input) HHW condensing boilers. Units shall operate using natural gas as fuel. Similar to Raypak XTherm 2005A, 96% efficient. Two (2) base-mounted end suction heating hot water pumps. Pumps shall operate in lead/standby configuration. Refer to Appendix, Detail Sheet M-50X, for more information.

12. Direct Digital Controls (DDC): Provide a fully operational control system with front-end graphical display. This includes but not limited to; low voltage wiring, conduits, actuators/sensors, programming, etc. All equipment shown to be added/replaced shall be viewable and controllable on the front-end display.

Lighting Fixture Replacement

All Districts

1. Project Overview

This Scope of Work (SOW) details the requirements for the removal of existing lay-in fluorescent lighting fixtures and the supply and installation of new LED panel troffer type light fixtures in the designated areas at the specified project location(s). This SOW includes all associated electrical work, demolition, and disposal as detailed herein.

2. New LED Panel Troffer Specifications

Type: Lay-in LED Panel Troffer

- Size(s): (e.g., 2'x2', 2'x4', 1'x4' – to match existing fixture sizes)
- Wattage/Lumen Output: (e.g., 30W, 3500 lumens; or specify desired foot-candle levels for the space)
- Color Temperature (CCT): (e.g., 3500K, 4000K, 5000K)
- Voltage: (To match existing building voltage, e.g., 120V, 277V)
- Certifications: (e.g., UL Listed, DLC Qualified)
- Lens Type: (e.g., Frosted, Prismatic)
- Warranty: (5 years)

3. Detailed Scope of Work

3.1. Preparation and Protection

* 3.1.1. Site Assessment: Contractor to survey existing conditions, verify fixture counts, sizes, and existing wiring methods prior to commencement of work.

* 3.1.2. Protection: Contractor shall protect all existing walls, floors, ceilings (if not being replaced under a separate SOW), fixtures, furniture, equipment, and any items designated to remain from dust, debris, and damage during all demolition and installation activities. This includes providing and installing temporary dust barriers, floor protection, and covering sensitive items as necessary.

* 3.1.3. Access: Contractor to coordinate access to all work areas. This may involve working around existing furniture and equipment.

3.2. Demolition and Removal of Existing Fluorescent Lighting Fixtures

* 3.2.1. De-energize Circuits: Safely de-energize electrical circuits supplying power to the fixtures being removed. Lock-out/Tag-out (LOTO) procedures shall be strictly followed.

* 3.2.2. Fixture Removal: Carefully remove existing lay-in fluorescent light fixtures from the ceiling grid.

* 3.2.3. Lamp and Ballast Handling:

* Remove fluorescent lamps and ballasts from the fixtures.

* Fluorescent lamps and ballasts (especially older magnetic or PCB-containing ballasts) may be classified as hazardous waste or universal waste. Contractor shall handle, package, transport, and dispose of/recycle all lamps and ballasts in strict accordance with all applicable local, state, and federal environmental regulations (e.g., EPA Universal Waste Rule).

* Contractor to provide Client/Owner with certificates of proper disposal/recycling for all lamps and ballasts.

* 3.2.4. Fixture Body Disposal: Legally transport and dispose of the empty fluorescent fixture housings and other associated debris off-site.

* 3.2.5. Existing Wiring: Existing branch circuit wiring serving the fixtures shall be made safe. If wiring is to be reused for new LED fixtures, it must be inspected for suitability and compliance with current electrical codes. Any deficiencies in existing wiring (e.g., damaged insulation, improper connections not related to the fixture itself) shall be reported to the Client/Owner. Repair of such pre-existing deficiencies is outside this SOW unless explicitly stated.

3.3. Supply and Installation of New LED Panel Troffer Fixtures

* 3.3.1. Material Handling: Receive, inspect, and properly store new LED fixtures prior to installation.

* 3.3.2. Fixture Installation:

* Install new LED panel troffer fixtures into the existing or new ceiling grid (coordinate with ceiling SOW).

* Ensure fixtures are properly seated and secured within the T-bar grid system.

* 3.3.3. Electrical Connection:

* Connect new LED fixtures to existing branch circuit wiring. This includes making code-compliant connections within fixture junction boxes or using approved fixture whips.

* If existing wiring is deemed unsuitable or insufficient by the Contractor, replacement or extension of branch circuit wiring will be addressed.

* If dimming is specified and dimming controls are part of this scope: Install and connect low-voltage dimming control wiring from fixtures to new or existing compatible dimmers/control systems. (Scope of dimming system itself needs to be clearly defined if included).

* 3.3.4. Grounding: Ensure all new fixtures are properly grounded in accordance with the National Electrical Code (NEC) and manufacturer's instructions.

3.4. Testing and Commissioning

* 3.4.1. Circuit Energization: After installation and inspection, safely re-energize circuits.

* 3.4.2. Functional Testing: Test each newly installed LED fixture for proper operation (illumination, dimming function if applicable).

* 3.4.3. Site Cleanup: Remove all tools, equipment, materials, and debris from the work areas. Leave work areas in a clean, broom-swept condition.

3.5. Areas of Work

- All existing ceilings that are not currently planned for renovation (ie. District 2 Detective’s Office.

4. Materials to be Supplied by Contractor

5 APPENDICES
b. Scope Language

The Contractor shall furnish all labor, materials, tools, equipment, and supervision necessary for the complete execution of the work, including but not limited to:

- New LED panel troffer fixtures as specified in Section 2.
- Wire connectors, fixture whips (if needed), and miscellaneous electrical materials for connection.
- Seismic support wires (if required by code).
- Materials for proper packaging and transport of old lamps/ballasts for recycling/disposal.
- Protective coverings (plastic sheeting, drop cloths, etc.).

5. Installation Requirements

- All electrical work shall be performed by licensed electricians in accordance with the National Electrical Code (NEC), local codes, and manufacturer's installation instructions.
- All work shall be performed in a neat, workmanlike manner.
- Contractor is responsible for field verification of existing conditions, including fixture counts and ceiling grid compatibility, prior to ordering materials and commencing installation.
- Contractor to maintain a clean work site daily and perform a thorough cleanup of all work areas upon completion.

6. Warranties

- Contractor shall provide the Client/Owner with standard manufacturer's warranties for the new LED fixtures (as specified in Section 2).
- Contractor shall provide a minimum 1-Year warranty on workmanship and installation labor.

Plumbing Fixture Replacement

Districts 1, 2, 4, 5

Provide labor, material and equipment to complete the following plumbing scope of work.

- Remove existing plumbing fixtures (Water closets, lavs, urinals, shower valves).
- Furnish and install new plumbing fixtures in replacement of demoed out plumbing fixtures, including Kitchen sink, lavatories, urinals, and water closets.
- We have not included any rework of existing plumbing inside the walls.
- We have included standard american standard china, manual regal flush valves, moen faucets and valves.

Back-up Generator Replacement

District 1 and District 5:

1. Overview

This Scope of Work (SOW) details the requirements for the removal and disposal of an existing standby diesel generator and the supply, installation, and commissioning of a new 400 kW, 208V, 3-phase natural gas standby generator system.

5 APPENDICES
b. Scope Language

The new generator will provide backup power to the entire facility. This SOW includes all associated electrical, mechanical (gas piping), and civil/structural work as detailed herein.

2. Detailed Scope of Work

2.1. Demolition and Removal of Existing Diesel Generator System

* 2.1.1. Decommissioning: Safely decommission the existing diesel generator, including disconnecting all electrical, fuel, exhaust, and control wiring.

* 2.1.2. Fluid Removal: Drain and properly dispose of all fluids (diesel fuel, oil, coolant) from the existing generator and associated day tank (if applicable) in accordance with all environmental regulations. Provide documentation of proper disposal.

* 2.1.3. Removal: Rig and remove the existing diesel generator, associated muffler/exhaust components, day tank (if applicable), and any other ancillary equipment designated for removal by the Client/Owner.

* 2.1.4. Existing Concrete Pad:

* Existing concrete pad to be demolished and removed.

* 2.1.5. Disposal: Legally transport and dispose of the removed generator and associated components off-site. If the generator has salvage value, this should be discussed and agreed upon with the Client/Owner.

* 2.1.6. Site Cleanup: Ensure the area is left clean and free of debris following demolition.

2.2. Supply and Installation of New Natural Gas Generator System

* 2.2.1. Generator Specifications:

* Capacity: 400 kW standby rated

* Voltage: 208V, 3-Phase, 60 Hz

* Fuel Type: Natural Gas

* Enclosure: Weatherproof, sound-attenuated enclosure (level to be specified by Client/Owner, e.g., Level 2).

* Alternator: Sized appropriately for facility loads, including motor starting requirements.

* Engine: EPA certified natural gas engine.

* Controller: Microprocessor-based digital controller with remote monitoring capabilities (specific features to be agreed upon).

* Accessories: Include block heater, battery charger, starting batteries, critical grade silencer (or as specified).

* 2.2.2. Concrete Pad (If Option B from 2.1.4 or new pad required):

* Design and construct a new reinforced concrete pad appropriately sized and engineered for the new 400 kW generator, meeting manufacturer's specifications and local code requirements. Include vibration isolators as recommended by the generator manufacturer.

* 2.2.3. Rigging and Setting: Rig, transport, and set the new generator onto the prepared concrete pad. Securely anchor the generator.

* 2.2.4. Exhaust System: Supply and install a new exhaust system, including muffler (critical grade or as specified), flexible connector, thimble, rain cap, and insulated piping as required, routed to a safe exterior location in compliance with codes and manufacturer recommendations.

* 2.2.5. Fuel System (Natural Gas):

* Supply and install new natural gas piping from the existing gas meter/main supply point to the new generator. Piping to be appropriately sized for the generator's full load demand, including regulator(s) as required.

* Include manual shut-off valve(s), flexible gas connector, and all necessary fittings.

* All gas piping work to be performed by a licensed gas fitter and pressure tested per code requirements.

* Coordination with the local gas utility company for meter upgrades or service modifications (if required) is the responsibility of the Client/Owner, with Contractor support for technical information.

* 2.2.6. Electrical System:

* Supply and install new power conductors (sized per NEC and generator output) from the new generator output terminals to the Automatic Transfer Switch (ATS).

* Supply and install new control wiring between the generator controller and the ATS.

* Supply and install AC and DC power wiring for generator accessories (block heater, battery charger).

* Grounding: Provide new grounding system for the generator per manufacturer's requirements and NEC.

* All electrical work to be performed by licensed electricians and in compliance with the National Electrical Code (NEC) and local codes.

* 2.2.7. Automatic Transfer Switch (ATS):

Supply and install a new 4-pole (if applicable for separately derived system) Automatic Transfer Switch appropriately sized for the facility's full load and the new generator (e.g., 1200A or 1600A at 208V, service entrance rated if required). New ATS to include necessary controls for generator operation, load shedding capabilities (if specified), and remote annunciation.

* Location of ATS to be confirmed. If a new ATS is installed, this includes mounting, wiring, and integration with building electrical distribution.

2.3. Permitting and Inspections

* 2.3.1. Contractor Assistance: Contractor shall provide all necessary technical documentation, drawings, and specifications required for the Client/Owner to obtain all required permits (electrical, mechanical, building, environmental, air quality, etc.).

* 2.3.2. Permit Responsibility: The Client/Owner is typically responsible for obtaining and paying for all permits. This should be clearly defined in the contract.

* 2.3.3. Inspections: Contractor shall coordinate with local authorities having jurisdiction (AHJs) for all required inspections and ensure all work passes inspection.

2.4. Commissioning and Testing

* 2.4.1. Pre-Start Checks: Perform all manufacturer-recommended pre-start checks.

* 2.4.2. Start-up: Perform initial start-up of the new generator system by a factory-authorized technician.

* 2.4.3. Load Bank Testing (Recommended):

* Perform a resistive load bank test for a minimum of two (2) to four (4) hours at varying load steps (e.g., 25%, 50%, 75%, 100% of rated capacity) to verify generator performance and stability. Client/Owner to confirm if load bank testing is required and for what duration.

* 2.4.4. ATS Testing: Test the functionality of the Automatic Transfer Switch, including automatic start of the generator upon simulated utility power failure, automatic transfer of load, and automatic re-transfer and generator cooldown/shutdown upon utility power restoration.

* 2.4.5. Facility Load Test: Conduct a full building load test (if feasible and approved by Client/Owner) to demonstrate the generator's ability to carry the entire facility load.

* 2.4.6. Documentation: Provide copies of all start-up reports, test results, and commissioning checklists to the Client/Owner.

2.5. Training

* Provide operational and basic maintenance training for Client/Owner personnel on the new generator system and ATS. Training duration and content to be agreed upon.

3. Materials to be Supplied by Contractor

The Contractor shall furnish all labor, materials, tools, equipment, and supervision necessary for the complete execution of the work, including but not limited to:

- New 400 kW natural gas generator set with specified accessories and enclosure.
- New Automatic Transfer Switch.
- Concrete, rebar, and formwork for new pad.
- Exhaust system components (muffler, piping, insulation, etc.).
- Natural gas piping, regulators, valves, and fittings.
- Electrical conductors, conduits, fittings, control wiring, grounding materials.
- Batteries, battery charger, block heater.
- All necessary fasteners, anchors, and installation accessories.

4. Installation Requirements

- All work shall be performed in a neat, workmanlike manner by qualified and licensed tradespeople.
- Installation shall comply with manufacturer's written installation instructions, approved shop drawings/submittals, industry best practices, and all applicable local, state, and federal codes and regulations (NEC, NFPA, EPA, etc.).
- Contractor is responsible for field verification of all dimensions, existing conditions, and utility connection points prior to fabrication and installation.
- Contractor to maintain a clean and safe work site daily and perform a thorough cleanup upon project completion.

5. Warranties

Contractor shall provide the Client/Owner with all manufacturer's standard warranties and a contractor's workmanship warranty. Minimum warranties include:

- **Generator Set: Standard manufacturer's warranty (typically 1-2 years comprehensive, with longer options available for major components – to be specified by manufacturer).**
- **Automatic Transfer Switch (if new): Standard manufacturer's warranty.**
- **Contractor's Workmanship: Minimum 1-Year warranty covering defects in installation labor.**

Acoustical Ceiling Replacement:

Districts 1, 2 4, and 5

1. Project Overview

This Scope of Work (SOW) details the requirements for the removal of the existing lay-in acoustical ceiling tile system and the supply and installation of a new lay-in acoustical ceiling tile system in the designated areas at the specified project location(s). The new system will utilize CertainTeed Sand Micro acoustical panels and a 15/16" EZ Stab Classic Suspension System as detailed below.

2. Product Specification Confirmation

Contractor acknowledges that no specific basis-of-design manufacturer or product was explicitly detailed in Client-provided drawings and specifications prior to this SOW. The following products have been specified for this project:

- Product A: CertainTeed Sand Micro #SHM-157
  - Size: 24” x 24”
  - Edge: Square
- Product B: CertainTeed Sand Micro #SHM-197
  - Size: 24” x 48”
  - Edge: Square
- Suspension System (for both products): CertainTeed 15/16” EZ Stab Classic System (or compatible, to be confirmed by Contractor to meet manufacturer's requirements for specified tiles).

Client/Owner is requested to confirm these product selections. Contractor to advise if these selections are suitable for the intended application and if any discrepancies or concerns are noted.

3. Detailed Scope of Work

3.1. Demolition and Removal of Existing Ceiling System

* 3.1.1. Protection: Contractor shall protect all existing walls, floors, fixtures, furniture, equipment, and any items designated to remain from dust, debris, and damage during all demolition and installation activities. This includes providing and installing temporary dust barriers, floor protection, and covering sensitive items as necessary.

* 3.1.2. Removal: Carefully remove and dismantle the existing lay-in acoustical ceiling tiles, suspension grid (main tees, cross tees), and associated hanger wires within the designated work areas.

* 3.1.3. Fixture Handling:

* Existing light fixtures, HVAC diffusers/grilles, sprinkler heads, speakers, and any other ceiling-mounted utilities/devices are to be carefully supported during grid removal and reinstalled into the new ceiling grid system, unless otherwise specified by the Client/Owner.

* Contractor to coordinate with relevant trades (electrical, mechanical) if disconnection/reconnection of these utilities is required. Such coordination and any associated costs are outside this SOW unless explicitly stated.

* 3.1.4. Debris Disposal: Legally transport and dispose of all demolished ceiling materials and construction debris off-site in accordance with all applicable local, state, and federal regulations. Work areas are to be broom-swept clean daily.

3.2. Supply and Installation of New Lay-In Acoustical Ceiling Tile System

* 3.2.1. Suspension System Installation:

* Install new CertainTeed 15/16” EZ Stab Classic Suspension System (or approved compatible system) according to manufacturer’s written installation instructions, CISCA (Ceilings & Interior Systems Construction Association) guidelines, and applicable building codes.

* System to be installed level and square, securely attached to the building structure using appropriate hanger wires (typically 12-gauge galvanized steel wire, or as required by code and structural conditions) and fasteners.

* Layout of main tees and cross tees to accommodate the specified 24”x24” and 24”x48” tile sizes and to ensure a balanced and aesthetically pleasing appearance. Contractor to confirm layout with Client/Owner prior to installation, especially in areas with irregular shapes or numerous penetrations.

* Install wall angle/moldings around the perimeter of all areas receiving new ceilings.

* 3.2.2. Acoustical Tile Installation:

* Install new CertainTeed Sand Micro #SHM-157 (24”x24”) acoustical ceiling tiles in designated areas.

* Install new CertainTeed Sand Micro #SHM-197 (24”x48”) acoustical ceiling tiles in designated areas.

* Tiles to be installed free of chips, cracks, soiling, or other damage. Handle tiles with clean hands or gloves to prevent smudging.

* Cut tiles neatly and accurately to fit around perimeter moldings, columns, and any ceiling penetrations (light fixtures, diffusers, sprinklers, etc.).

* 3.2.3. Reinstallation of Fixtures: Carefully reinstall sprinkler escutcheons/trim rings, speakers, and other ceiling-mounted utilities into the new grid system, ensuring proper fit and support. Sprinkler heads must maintain their required clearances and operational characteristics as per NFPA and local fire codes. Lighting and diffusers will be installed new by others.

3.3. Areas of Work

* (Client/Owner to provide a detailed list of rooms, areas, or square footage for each tile type if applicable. For example: "All offices on 2nd Floor: SHM-157 (approx. X SF)"; "Corridors on 2nd Floor: SHM-197 (approx. Y SF)")

4. Materials to be Supplied by Contractor

The Contractor shall furnish all labor, materials, tools, equipment, and supervision necessary for the complete execution of the work, including but not limited to:

- CertainTeed Sand Micro #SHM-157 (24”x24”, Square Edge) acoustical ceiling tiles.
- CertainTeed Sand Micro #SHM-197 (24”x48”, Square Edge) acoustical ceiling tiles.
- CertainTeed 15/16” EZ Stab Classic Suspension System (main tees, cross tees, wall angle/molding).
- Hanger wires, fasteners, and all necessary installation accessories.
- Protective coverings (plastic sheeting, drop cloths, etc.).

5. Installation Requirements

- All work shall be performed in a neat, workmanlike manner by installers experienced in commercial acoustical ceiling system installation.
- Installation shall comply with the ceiling tile and suspension system manufacturer’s written installation instructions, CISCA guidelines, and all applicable local building codes and regulations, including seismic requirements if applicable to the project location.

- Contractor is responsible for field verification of all dimensions and site conditions prior to ordering materials and commencing installation.
- Contractor to maintain a clean work site daily and perform a thorough cleanup of all work areas upon completion.

6. Warranties

- Contractor shall provide the Client/Owner with standard manufacturer's warranties for the acoustical ceiling tiles and suspension system.
- Contractor shall provide a minimum 1-Year warranty on workmanship and installation**.**

Building Envelope Improvement:

Roof Repair and Replacement

District 3

Repair upper roof membrane. Install new roof on lower portion per specifications of District 5 roof.

District 5

Roofing replacement scope includes replacement of entire multi-level roof as follows:

- **Site Inspection:** Conduct a thorough inspection to assess the existing roof condition, including substrate, drainage systems, and insulation.
- **Permitting:** Obtain all necessary permits and inspections from local authorities.
- **Material Procurement:** Order materials needed for the roofing system, including insulation, waterproofing membranes, and fasteners.
- **Site Preparation:** Set up safety measures such as barriers, scaffolding, and fall protection, as per OSHA guidelines.

Demolition/Removal

- **Roof Tear-Off:** Remove the existing roof system, including the membrane, insulation, and all accessories. Properly dispose of debris in accordance with local regulations. All heli-pad materials will be removed as it is no longer in use.
- **Inspection of Roof Deck:** Examine the roof deck for damage, including rotting or rusted areas. Perform necessary repairs to ensure structural integrity.

Installation of New Roof System

- **Deck Preparation:** Clean and prepare the roof deck for new roofing material installation.
- **Install Insulation:** Install energy-efficient insulation with the R-30 value.
- **Install Roofing Membrane:**

  - Modified Membrane
  - Fully adhere the roofing membrane as per the manufacturer's specifications.
- **Flashing and Edge Metal Installation:** Install proper flashing around all roof penetrations (vents, HVAC, skylights) and at roof edges to ensure a watertight system.
- **30 Year Warranty**

Post-Installation

- **Final Inspection:** Perform a detailed inspection with the client to confirm all work meets industry standards and building codes.
- **Cleanup:** Remove all debris and materials from the site and restore the property to a clean condition.
- **Final Documentation:** Provide warranty information, as-built drawings, and maintenance recommendations.

Building Façade Repair

District #1

1. Caulk all control joints at masonry and concrete on entire building. (approx.3063')

2. Caulk windows , doors and louvers.

3. Tuck point misc. area's around building (approx.622').

4. Patch spalled concrete around building. (122sf)

5. Clean entire building and apply siloxane sealer to the brick.

6. Apply two 11 mil coats of acrylic elastomeric coating to the concrete .

District #2

1. Tuck point misc. area's around building (557sf).

2. Replace approx. 3000 brick at north west corner of building , including wall That is falling in and brick above entire beam . Brick at beam should be Removed at least 3 courses, steel cleaned some places replaced then flash And reinstall brick. Rust inhibitor will also be applied . On the inside a temporary Wall should be built.

3. Caulk control joints (547').

4. Caulk steel and stone three walls at main entrance.

5. Clean and Seal building.

District #4

1. Caulk control joints at masonry and concrete.
2. Caulk windows, doors and louvers.
3. Tuck point brick. (90')
4. Patch spalled concrete. (92sf)
5. Clean entire building and seal brick.
6. Apply two 11mil coats of acrylic elastomeric coating to the concrete.

District #5

1. Caulk stone walls, panels and copings.(5242')
2. Clean and seal building.
3. Clean and seal stone walls at front of building.
4. Reset treads at two sets of steps in front of building, and a wall stone and cap at garden wall next to lower steps.
5. Tuck point brick most is on chimney. (181sf)
6. Caulk windows ,doors and louvers.
7. Repair stone . (14sf)

Window and Door Replacement

Police Districts #1, #2, #4, and #5

1. Project Overview
This Scope of Work (SOW) outlines the requirements for the removal and replacement of existing storefront windows and entrance doors at four (4) Police District locations: #1, #2, #4, and #5. The project includes the supply and installation of new thermally improved storefront systems, aluminum entrance doors, glazing, sealants, flashing, aluminum infill panels, and includes all associated demolition, disposal, and staging equipment as detailed herein.

2. Detailed Scope of Work
2.1. Storefront Window System

* Basis of Design: OldCastle Building Envelope's FG3000T Center Set, Thermal storefront system.

* Sightlines: 2 inches

* System Depth: 4-1/2 inches

* Approximate Total Area: 5,500 square feet of total storefront window openings distributed between the four (4) specified Police District locations.

* Window Type: All units are to be fixed (non-operable) storefront windows.

* Finish: Dark Bronze.

* Finish Warranty: 1 Year (Manufacturer's standard).

* System Manufacturer's Warranty: 1 Year (Manufacturer's standard).

2.2. Entrance Door System

* Basis of Design: Oldcastle Building Envelope's medium stile standard aluminum entrance doors.

* Quantity and Configuration:

* Total Entrances to be Replaced: Six (6)

* Configuration:

* Four (4) pairs of swing doors

* Two (2) single swing doors

* (Total of ten (10) door leaves)

* Finish: Dark Bronze (to match storefront window system).

* Manufacturer's Warranty: Standard 2 years (Manufacturer's standard).

* Door Hardware:

* An allowance of $30,000.00 is included for the supply and installation of new door hardware for the ten (10) door leaves.

* Hardware selection to be coordinated with and approved by the Client/Owner prior to procurement. Contractor to submit a detailed hardware schedule.

* Hardware to include, but not be limited to: hinges, closers, panic devices/exit devices, push/pull handles, locksets, cylinders, thresholds, weatherstripping, and all necessary mounting hardware for complete and functional entrances compliant with applicable codes.

2.3. Glazing

* Type: 1-inch Insulated Glass Units (IGUs).

* Composition: Bronze over clear tempered glass unit.

* Low-E Coating: Low-Emissivity (Low-E) coating on the #2 surface of the IGU.

* Glass Allowance: An allowance of $15.50 per square foot is included for the supply and installation of glass.

2.4. Sealants

* Exterior Sealant: Dow 795 (or Client/Owner-approved equal) in Bronze color. To be applied between new storefront/door frames and adjacent construction.

* Interior Sealant: Tremco 834 (or Client/Owner-approved equal) in White color. To be applied between new storefront/door frames and adjacent construction.

* Application: All joints are to be properly prepared, cleaned, primed (if required by manufacturer), and tooled to provide a continuous, watertight, and airtight seal in accordance with sealant manufacturer's written instructions and industry best practices.

2.5. Flashing

* Sill Flashing:

* Locations: Police District #1, Police District #4, and Police District #5.

* District #2: Existing sill and head flashing to remain. Contractor to inspect and report on the condition of existing flashing at District #2; any necessary repairs or replacement of existing flashing at District #2 will be addressed via change order.

* Material: .040 inch aluminum.

* Finish: Dark Bronze anodized finish (to match storefront system).

* Installation: To be properly integrated with the building envelope, storefront system, and weather-resistive barrier to ensure a continuous watertight installation.

* Column Flashing:

* Location: Police District #2, to cover existing steel columns located between ribbon window openings.

* Material: .040 inch aluminum.

* Finish: Dark Bronze anodized finish (to match storefront system).

2.6. Aluminum Infill Panels

* Location: Police District #5, at various locations, similar to existing conditions or as directed by Client/Owner.

* Material: Aluminum infill panels, insulated as required or specified.

* Finish: Dark Bronze anodized finish (to match storefront system).

2.7. Demolition and Disposal

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* Scope: Contractor shall perform the careful removal of all existing storefront window units and entrance doors designated for replacement at the four (4) Police District locations.

* Protection: Contractor shall protect adjacent areas, finishes, equipment, and building components not included in this scope of work from damage during demolition and construction activities.

* Disposal: Contractor shall legally and properly dispose of all demolished materials, debris, and construction waste off-site in accordance with all applicable local, state, and federal regulations.

2.8. Staging and Equipment

* Scope: Contractor shall furnish, erect, maintain, and remove all necessary staging, scaffolding, lifts, tools, and equipment required for the safe and efficient execution of all work described herein.

* Site Logistics: Contractor to coordinate staging areas, site access, and work hours with Client/Owner for each Police District location to minimize disruption to ongoing operations and ensure public safety.

3. Materials and Workmanship

- All materials shall be new and of the quality specified.
- All work shall be performed in a professional, workmanlike manner by qualified installers experienced in commercial storefront and door installation.
- Installation shall comply with manufacturer's written installation instructions, approved shop drawings, industry best practices (e.g., AAMA, ASTM standards), and all applicable local, state, and federal building codes and regulations.
- Contractor is responsible for all field measurements and verification of existing conditions prior to fabrication and installation. Any discrepancies or conditions that may adversely affect the work shall be reported in writing to the Client/Owner prior to proceeding.
- All new systems shall be installed plumb, level, square, and securely anchored to the building structure.

4. Warranties

Contractor shall provide the Client/Owner with all manufacturer's warranties and a contractor's workmanship warranty. Minimum warranties include:

- Storefront System Finish: 1 Year (Manufacturer).
- Storefront System Materials: 1 Year (Manufacturer).
- Entrance Door Materials: 2 Years (Manufacturer).
- Insulated Glass Units: Standard manufacturer warranty against seal failure (typically 5-10 years, to be confirmed by manufacturer).
- Contractor's Workmanship: Minimum 1-Year warranty covering defects in installation labor.

5 APPENDICES
b. Scope Language

Rooftop Solar Array System Installation

1. Project Overview

This Scope of Work (SOW) details the requirements for the design, furnishing, installation, and commissioning of a new DC (Direct Current) photovoltaic (PV) solar array systems at all 5 Police District Buildings. Four of the five buildings will be on an existing rooftop that is concurrently receiving a new roof. This SOW includes all associated structural assessments, electrical work, racking system installation, module installation, inverter installation, interconnection with the building's electrical system and utility grid (if applicable), monitoring system setup, and all related components as detailed herein. **Critical coordination with the roofing contractor responsible for the new roof installation is required throughout this project.**

2. Solar Array System Specifications (To be finalized based on site conditions and Client/Owner requirements)

- System Size (DC): Aray Approximate size is as follows:
    - District 1 = 140 kW STC (Standard Test Conditions).
    - District 2 = 125 kW STC
    - District 3 = 104 kW STC
    - District 4 = 115 kW STC
    - District 5 = 165 kW STC

- Mounting Type: Rooftop-mounted, non-penetrating or minimally penetrating ballasted system, or mechanically attached system, compatible with the new roofing system and warranty. Final mounting method to be determined after structural assessment and in coordination with roofing contractor and new roof warranty requirements.
- Solar Modules (Panels):
    - Type: High-efficiency monocrystalline or polycrystalline PV modules.
    - Wattage: (e.g., 400W+, to be specified).
    - Certifications: UL Listed, IEC certified.
    - Warranty: Minimum 25-year linear power output warranty and 10-12 year product warranty.
    - Manufacturer/Model: (To be proposed by Contractor and approved by Client/Owner).
- Inverter(s):
    - Type: String inverters, central inverter, or microinverters/DC optimizers (to be specified).
    - Efficiency: High efficiency (e.g., 97%+ CEC weighted efficiency).
    - Voltage: Compatible with building service voltage (e.g., 208V, 480V 3-Phase).
    - Certifications: UL 1741 SA/SB listed, IEEE 1547 compliant.
    - Warranty: Minimum 10-year manufacturer's warranty.
    - Manufacturer/Model: (To be proposed by Contractor and approved by Client/Owner).
- Racking System:
    - Type: Engineered solar racking system suitable for the specified roof type, slope, and local wind/snow load requirements.
    - Material: Corrosion-resistant materials (e.g., aluminum, stainless steel).
    - Warranty: Minimum 10-20 year manufacturer's warranty.
    - Manufacturer/Model: (To be proposed by Contractor and approved by Client/Owner).
- Monitoring System:

    - Web-based or local monitoring system providing real-time and historical energy production data, system status, and fault alerts.
    - Revenue-grade metering if required for SRECs or specific utility programs.
- Estimated Annual Energy Production: (To be provided by Contractor based on final design and local solar irradiance data).

3. Detailed Scope of Work

3.1. Design and Engineering

* 3.1.1. Site Assessment: Conduct a comprehensive site assessment, including roof survey (dimensions, obstructions, shading analysis), structural evaluation of the existing roof structure to confirm capacity for the new solar array and new roofing system loads, and electrical system evaluation.

* 3.1.2. System Design: Develop a complete solar array system design, including array layout, electrical single-line diagrams, racking plan, and interconnection details. Design to maximize energy production while adhering to all applicable codes, standards, and manufacturer requirements.

* 3.1.3. Engineering Documentation: Provide detailed engineering drawings and calculations stamped by a Professional Engineer licensed in the State of Ohio, as required for permitting and construction. This includes structural engineering for the racking system and its attachment to the roof.

* 3.1.4. Coordination with Roofing Contractor:

* CRITICAL: Contractor shall closely coordinate all design and installation activities with the Client/Owner’s designated roofing contractor responsible for the new roof installation.

* Obtain specifications and warranty requirements for the new roofing system to ensure compatibility of the solar mounting system.

* Coordinate the installation schedule for racking stanchions/flashings (if any) with the roofing installation to maintain roofing system integrity and warranty.

3.2. Permitting and Utility Interconnection

* 3.2.1. Permitting: Contractor shall prepare and submit all necessary applications and documentation to the local Authority Having Jurisdiction (AHJ) to obtain all required permits (e.g., building, electrical). Cost of permits to be handled as per contract agreement (typically by Client/Owner or as a direct reimbursable cost).

* 3.2.2. Utility Interconnection Agreement: Contractor shall prepare and submit the interconnection application and supporting documentation to the local electric utility company. Contractor to guide Client/Owner through the interconnection process. Client/Owner is responsible for signing utility agreements and paying any utility application/study/upgrade fees.

3.3. Material Procurement and Delivery

* Procure all specified and approved solar modules, inverters, racking, wiring, conduit, disconnects, monitoring hardware, and miscellaneous components.

* Coordinate delivery and on-site storage of materials in a safe and secure manner.

3.4. Installation

* 3.4.1. Safety: Adhere to all OSHA safety standards and site-specific safety plans. Provide all necessary safety equipment for workers.

* 3.4.2. Coordination with Roofing Contractor (Installation Phase):

* Install racking system stanchions, flashings, or attachment points in direct coordination with the roofing contractor during the new roof installation process to ensure watertight integrity and preserve the new roof warranty.

* Sequence work to align with roofing progress.

* 3.4.3. Racking System Installation: Install the solar racking system according to the engineered design and manufacturer's specifications.

* 3.4.4. Solar Module Installation: Install solar modules onto the racking system, ensuring proper torque settings and wire management.

* 3.4.5. Electrical Wiring (DC Side): Install DC conduit, wiring, combiners (if applicable), and disconnects between solar modules and inverters, per NEC and local codes.

* 3.4.6. Inverter Installation: Install inverter(s) at an agreed-upon location (e.g., rooftop, electrical room), ensuring proper ventilation and clearances.

* 3.4.7. Electrical Wiring (AC Side): Install AC conduit, wiring, and disconnects from the inverter(s) to the point of interconnection with the building's electrical system (e.g., dedicated breaker in an existing panel, new distribution panel, or line-side tap).

* 3.4.8. Point of Interconnection (POI): Make final AC interconnection to the building's electrical system as per approved design and utility requirements. This may involve a scheduled power outage coordinated with the Client/Owner.

* 3.4.9. Grounding System: Install equipment grounding conductors and bonding for all metallic components of the solar array system per NEC requirements.

* 3.4.10. Monitoring System Installation: Install monitoring system hardware, sensors, and communication wiring. Configure the monitoring system and provide Client/Owner with access credentials.

3.5. System Commissioning and Inspection

* 3.5.1. Pre-Commissioning Checks: Perform all manufacturer-recommended pre-commissioning checks on modules, inverters, and wiring. Conduct insulation resistance testing, string voltage/current checks, and torque verification.

* 3.5.2. AHJ Inspections: Schedule and facilitate all required inspections by the local AHJ (electrical, building, etc.). Correct any deficiencies identified by inspectors.

* 3.5.3. Utility Witness Test: Schedule and facilitate any witness test or commissioning verification required by the electric utility company for interconnection approval.

* 3.5.4. System Energization: Upon receipt of Permission to Operate (PTO) from the utility and AHJ final approval, safely energize the solar PV system.

* 3.5.5. Performance Verification: Verify system is operating as designed and production levels are consistent with expected output under current weather conditions.

3.6. Client Training and Documentation

* 3.6.1. Training: Provide operational and basic safety training to Client/Owner personnel on the solar PV system, including system shutdown procedures and how to interpret monitoring data.

* 3.6.2. Documentation Package: Provide a complete documentation package including:

* As-built drawings (electrical and structural).

* Manufacturer’s datasheets and warranty documents for all major components (modules, inverters, racking).

* Operation and Maintenance (O&M) manual.

* Commissioning reports and test results.

* Copies of all permits and inspection approvals.

* Monitoring system login information.

4. Materials to be Supplied by Contractor

The Contractor shall furnish all labor, materials, tools, equipment, and supervision necessary for the complete execution of the work, including but not limited to:

- Solar PV modules.
- Inverter(s).
- Rooftop racking system and mounting hardware.
- DC and AC wiring, conduit, fittings, and connectors.
- Combiner boxes (if applicable).
- AC and DC disconnect switches.
- Grounding equipment.
- Monitoring system hardware and software.
- System labeling per NEC requirements.
- Sealants and flashings compatible with the new roofing system.

5. Installation Requirements

- All work shall be performed by qualified and certified solar installers and licensed electricians in accordance with the National Electrical Code (NEC), local codes, manufacturer's installation instructions, and industry best practices.
- Contractor to maintain a clean and safe work site daily and perform a thorough cleanup upon project completion.
- All penetrations (if any) of the new roof for stanchions or conduit must be flashed and sealed strictly according to the roofing manufacturer's specifications and warranty requirements, in coordination with the roofing contractor.

6. Warranties

- Contractor shall provide Client/Owner with all pass-through manufacturer's warranties for major components (modules, inverters, racking) as specified in Section 2.
- Contractor shall provide a minimum 5-Year warranty on workmanship and installation labor, including a roof penetration warranty covering any leaks at points of attachment made by the solar Contractor (coordinated with new roof warranty).

District 2 Flooring replacement

Scope of Work: Commercial Tile Floor Replacement

1. Project Overview

This Scope of Work (SOW) details the requirements for the removal of an existing tile floor system and the supply and installation of a new commercial-grade tile floor system in the designated areas at the specified project location(s). This SOW includes all associated demolition, subfloor preparation, material supply, installation, and finishing work as detailed herein.

2. New Tile Flooring Specifications

- Tile Type: Composition Tile (VCT)
- Tile Size(s): TBD (e.g., 12"x12", 12"x24", 6"x24", etc.)
- Tile Manufacturer/Model/Color/Pattern: (To be specified)
- Finish: Slip-resistant meeting specific DCOF rating
- Grout Type & Color: (e.g., Cementitious, Epoxy, Urethane; Color to be selected by Client/Owner)
- Setting Materials: (e.g., Thin-set mortar type, adhesive type – appropriate for tile and substrate)
- Underlayment/Membrane (if required): (e.g., Cement backer board, uncoupling membrane, waterproofing membrane, sound control underlayment – specify type and manufacturer)
- Cove Base/Transition Strips:
    - Type: (e.g., Rubber, Vinyl, Tile, Wood, Metal)
    - Height: (e.g., 4", 6")
    - Manufacturer/Model/Color: (To be specified)
- Sealer (if applicable for tile or grout): (Specify type and manufacturer)
- Warranty: (Specify minimum acceptable manufacturer's warranty for tile and setting materials)

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b. Scope Language

3. Detailed Scope of Work

3.1. Preparation and Protection

* 3.1.1. Site Assessment: Contractor to survey existing conditions, verify area measurements, assess subfloor condition, and identify any potential issues prior to commencement of work.

* 3.1.2. Protection: Contractor shall protect all existing walls, doors, fixtures, furniture, equipment, and any items designated to remain from dust, debris, and damage during all demolition and installation activities. This includes providing and installing temporary dust barriers, protection for vertical surfaces, and covering sensitive items as necessary.

* 3.1.3. Furniture/Fixture Moving:

Client/Owner is responsible for removing all furniture, equipment, and stored items from the work area prior to Contractor's arrival.

3.1.4. Access: Contractor to coordinate access to all work areas.

3.2. Demolition and Removal of Existing Flooring

* 3.2.1. Existing Flooring Removal: Carefully remove existing tile flooring, grout, setting materials, underlayment (if any), and existing cove base/transitions within the designated work areas.

* 3.2.2. Subfloor Cleaning: Thoroughly clean the exposed subfloor of all dust, debris, old adhesive, and loose materials.

* 3.2.3. Debris Disposal: Legally transport and dispose of all demolished flooring materials and construction debris off-site in accordance with all applicable local, state, and federal regulations. Work areas are to be broom-swept clean daily during demolition.

3.3. Subfloor Preparation

* 3.3.1. Inspection: Inspect the cleaned subfloor (e.g., concrete slab, wood) for levelness, soundness, moisture content, and any defects that could affect the new tile installation. Report any adverse conditions to the Client/Owner.

* 3.3.2. Surface Repair (Basic): Minor patching, leveling, or grinding of the subfloor to meet tile manufacturer's flatness/levelness tolerances (e.g., typically 1/4" in 10 feet for large format tile) is included.

* 3.3.3. Extensive Subfloor Correction (Exclusion/Change Order): Significant subfloor repairs, extensive leveling with self-leveling underlayment, moisture mitigation systems, or structural repairs are excluded and will be addressed via change order if found necessary after assessment.

* 3.3.4. Underlayment/Membrane Installation (if specified in Section 2): Install specified cement backer board, uncoupling membrane, waterproofing membrane, or sound control underlayment according to manufacturer's instructions.

3.4. Supply and Installation of New Tile Flooring System

* 3.4.1. Material Acclimation: Acclimate all tile, setting materials, and grout to site conditions for the period recommended by the manufacturers prior to installation.

* 3.4.2. Layout: Establish control lines and layout for tile installation. Contractor to review proposed layout, pattern, and grout joint size with Client/Owner for approval prior to starting installation, especially for patterns (e.g., offset, herringbone) or areas with complex geometry.

* 3.4.3. Tile Installation: Install new tile using specified setting materials in accordance with tile manufacturer's instructions, ANSI standards (e.g., ANSI A108/A118/A136 series), and TCNA (Tile Council of North America) Handbook recommendations. Ensure full mortar coverage and proper bedding.

* 3.4.4. Cutting: Make clean, accurate cuts to tiles to fit around perimeters, columns, door jambs, and any penetrations.

* 3.4.5. Grouting: After tile is set and cured per manufacturer's recommendations, apply specified grout. Ensure grout joints are uniformly filled, tooled for a consistent appearance, and cleaned of excess grout from tile surfaces.

* 3.4.6. Expansion Joints: Install expansion joints/movement joints as required by TCNA guidelines (e.g., at perimeters, over changes in substrate, at specified intervals for large areas) using appropriate flexible sealant.

* 3.4.7. Cove Base/Transition Strip Installation: Install specified cove base along designated walls and transition strips at doorways or changes in flooring material. Miter corners neatly.

* 3.4.8. Sealing (if specified in Section 2): Apply specified sealer to tile and/or grout according to manufacturer's instructions after proper curing.

3.5. Site Cleanup and Waste Management

* 3.5.1. Daily Cleanup: Maintain a clean and organized work area throughout the project.

* 3.5.2. Final Cleanup: Upon completion, remove all tools, equipment, unused materials, and construction debris. Clean new tile floor surfaces according to manufacturer's recommendations, removing any haze or residue.

3.6. Areas of Work

- Reporting Room Floor

4. Materials to be Supplied by Contractor

The Contractor shall furnish all labor, materials, tools, equipment, and supervision necessary for the complete execution of the work, including but not limited to:

- New commercial tile as specified in Section 2.
- Setting materials (mortar, adhesive).
- Grout.

- Underlayment/Membranes (if specified).
- Cove base and/or transition strips.
- Sealer (if specified).
- Expansion joint sealant.
- All necessary fasteners, shims, and installation accessories.
- Protective coverings (plastic sheeting, drop cloths, etc.).

5. Installation Requirements

- All work shall be performed in a neat, workmanlike manner by installers experienced in commercial tile flooring installation.
- Installation shall comply with the tile and material manufacturer’s written installation instructions, current ANSI standards, and TCNA Handbook recommendations.
- Contractor is responsible for field verification of all dimensions and site conditions prior to ordering materials and commencing installation.
- Moisture testing of concrete subfloors shall be performed as required by flooring and adhesive manufacturers. Results to be reported to Client/Owner.

6. Warranties

- Contractor shall provide the Client/Owner with standard manufacturer's warranties for the tile, setting materials, grout, and any other specified products.
- Contractor shall provide a minimum 1-Year warranty on workmanship and installation labor.

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c. M&V Language

MEASUREMENT AND VERIFICATION PROGRAM

Measurement and Verification (M&V) is the process of demonstrating that our owner will achieve (or has achieved) agreed upon utility and operational savings.

Leopardo Companies' approach to (M&V) of cost reduction measures (from energy saving projects) focuses on applying accepted, sound engineering principles coupled with suitable risk-management strategies. M&V plans are customized for each project and approved in writing before construction begins. The energy savings program official start date is after complete project installation.

M&V PROCESS

Measurement and verification is a necessary component of any contract that involves guaranteed or shared savings. However, M&V is not something that happens, or starts, after the capital creation measures (CCMs) are installed and construction is complete.

Although each M&V plan is project specific, M&V approaches can be grouped into three categories:

- Calculated or stipulated savings, where the engineering assumptions and calculations, as developed jointly by the owner and Leopardo, become the contractual savings throughout the contract term. This is the M&V program used for this project.
- One-time, or short term, performance measurements are conducted post-installation. Savings projections are verified via the specific M&V plan, adjusted if required, and then become the contractual savings throughout the contract term.
- On-going post-installation measurements and monitoring in accordance with the specific M&V plan throughout the contract term. Data collection and analysis is continuous with quarterly reporting and annual savings reconciliation.

All M&V processes and procedures are adopted and adhered to the International Performance Measurement and Verification Protocol (IPMVP).

Below we provided a general discussion of the key components Leopardo addresses in developing and executing M&V for our customers: Establishing baseline conditions, analyzing savings, managing risk, and collection/processing data.

BASELINE CONDITIONS

Energy use and cost baselines, which define existing conditions and operations, are developed for each CCM. These baseline conditions for a specific CCM are established using a combination of direct measurements, historical data (such as operational logs, production reports, financial records, etc.), facility operators' knowledge and appropriate engineering calculations and/or simulations.

The specific method used to determine baseline conditions varies depending on the nature of the CCM as well as the cost, complexity, and magnitude of savings. In all cases, it is necessary to define the baseline conditions used to calculate savings during the term of the contract and to determine which party, if any, has control or responsibility for associated fundamental variables. Variables such as operating hours, production levels, occupancy, etc., which are not within Leopardo Companies' control, are mutually determined and stipulated throughout the contract term. In some cases, unforeseen changes in a facility may have a significant impact on the operation of the measure. In these situations, the conditions prior to the change are used to calculate savings.

Specifically for Procurement Solutions, the baseline will be established in a variety of methods depending upon what product or service is being evaluated. Leopardo Companies may use one or more of the following methods:

1. Previous year's budget for goods or services
2. Most recent vendor invoices
3. Most recent pricing index, such as a recent quoted price from a vendor or state contract

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Throughout any year it is a common practice for product manufacturers to periodically review and pass through increases to offset changes in raw material costs, etc., which tend to be generally in line with consumer pricing index changes. When that occurs, it is also common for the product distributors to then pass the price increases on to their owners in order to maintain the distributors' operating margins. The Baseline Prices on items that experienced price increases shall be adjusted accordingly to match the latest performance period prices.

Owner agrees that baseline spend per consumable or service may be adjusted during the performance period to account for unexpected changes in market demand and conditions. Total annual baseline spend may be adjusted if quantity of purchases varies significantly from 2024 purchase quantity. Contractor will provide detailed reasoning for all baseline adjustments prior to acceptance of any Annual Measurement & Verification reports.

The owner and Leopardo review the baselines for each CCM and agree on the baseline profiles to be used in the projected savings calculations and the performance guarantees.

ENGINEERING METHODOLOGY FOR PROJECTING SAVINGS

Project savings, by definition, is the difference between the baseline conditions and the post-implementation conditions. Once the baseline conditions, profiles, and use are defined, the post-installation conditions are projected based on the performance impact of the proposed project. The same engineering techniques are used in estimating post-installation conditions as in establishing baseline conditions. The difference between the two is the projected savings. Techniques used for the determination of savings include a combination of engineering calculations, metering and monitoring information, computer simulations and agree-to stipulations. As the project is installed, the CCMs potential to perform and generate savings is verified through prudent commissioning procedures to ensure that the systems were installed and are operating as intended.

Assigning dollar values to savings will be accomplished by using an average cost per unit of energy. Charges for fuel adjustments, base services, transmission tariffs, and distributions will be included to ensure an apples-to-apples comparison. This method also allows for updating savings calculations with changing rate schedules. In the event of a utility decrease, the utility rate(s) used to assign dollar cost will not drop below that of the base year. In this project, savings have been guaranteed in dollars, not units of energy, therefore a lower limit, or floor, must be set to that of the base year rate schedules.

The savings guarantee is the total savings dollar amount using utility rates in affect during the time of this energy savings agreement. Also note that no individual Capital Creation Measure (CCM) is guaranteed as a stand-alone amount but as the total amount across all CCMs and facilities.

DATA COLLECTION AND PROCESSING

During the development of specific M&V plans for those projects which require ongoing performance measurement, the measurement and data collection methods are defined, along with the algorithms for analyzing the data and calculating the savings. Depending on the specific design and operational details of the project, the data collection and analytics processing system may vary from a completely stand-alone system to one that is integral with the project itself, such as a new control system. In conjunction with the data collection means at the owner site, Leopardo Companies utilizes a custom, central M&V database and analytical reporting system which converts the raw operational data from the site into the resulting cost savings figures through project specific algorithms. The site data collection system is set up to transfer the data electronically to the M&V system, where reports are generated and sent to the owner for evaluation. All the algorithms and analysis methods used in the owner's M&V program are available for the owner's review.

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MEASUREMENT & VERIFICATION PROGRAM PARAMETERS

Annual Savings Guarantee

As part of the City of Cleveland ESPC agreement, Leopardo Companies guarantees that the City will realize guaranteed savings amount across the term of the financing. If the Actual Annual Project Savings (as defined in Attachment 3 of the ESPC Agreement) does not equal or exceed the guaranteed annual project savings in any annual performance period, contractor shall pay a shortfall payment to the Owner equal to the difference between the guaranteed annual project payment amount and the actual annual project savings.

The actual annual project savings is in aggregate and is not on a per building or per CCM basis, notwithstanding the presentation of actual savings in the agreement, M&V Workbook or M&V Reports. The year one annual savings period begins at the substantial completion of the project scope of work and extends through the immediately following twelve-month period.

If the actual annual project savings in any annual performance period exceeds the guaranteed annual project savings, the surplus savings may be carried forward and applied to any future project phases. This amount can also be utilized against any possible savings shortfall in previous or subsequent annual performance periods. If Contractor makes one or more shortfall payments to the Owner and an unapplied surplus accrues in future annual performance periods, the Contractor may invoice the Owner for the sum of the unapplied surplus.

M&V Program Duration

One (3) year of measurement and verification would be included as part of the ESPC Agreement. During annual performance periods, Leopardo will measure, collect, and analyze data for the purpose of verifying and reporting energy savings associated with the project scope of work. As part of the M&V program, Leopardo Companies will provide a Project M&V Workbook and One-Year M&V Report.

In the event of meeting or exceeding the projected savings amount during the initial annual performance period, the City of Cleveland may elect to declare the goals of the ESPC Agreement met and deemed mutually acceptable for the years of the guaranteed savings period. This effectively stipulates the remaining years of the guaranteed savings period acceptable per International Performance Measurement and Verification Protocol (IPMVP) guidelines with no further measurement and verification.

M&V Program Extension

The City of Cleveland may elect to extend the Measurement & Verification Program for an additional annual savings period at an additional cost. The City may continue the Measurement and Verification Program for the subsequent years of the guaranteed savings period at a cost to be negotiated separately.

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c. M&V Language

MEASUREMENT & VERIFICATION DELIVERABLES

M&V Workbook

As part of the Energy Savings Project, Leopardo Companies will provide an IPMVP-adherent M&V Plan in the form of the M&V Workbook. This project-specific workbook will detail all energy cost savings derived from the Energy Conservation Measures pertaining to the project scope of work and will outline the M&V approaches that will be used to verify project energy savings.

Annual M&V Report

As part of the Energy Savings Project, Leopardo Companies will provide the City with an Annual Project M&V Report for the initial annual performance period. This report will disclose any shortfall or surplus between the guaranteed annual savings and the actual annual savings incurred during the annual performance period. If the City elects to extend the M&V Program, Leopardo Companies will produce additional M&V reports for the corresponding additional annual performance periods.

Owner Responsibilities

The following items must be maintained by the City and are relied upon by the Leopardo in order to properly administer the savings program utilizing the M&V Protocol listed under the IPMVP guidelines:

- Copy of all Project Site monthly utility bills within thirty (30) days of receipt of bills
- Copy of building maintenance expenditures for any project site
- Notification of all purchases above >$5,000 requiring procurement within the categories of the contract scope
- City's authorization for Leopardo and its partners to work directly with vendors on the City's behalf.
- Changes in operating hours, usages, and/or occupancy schedules of any Project Site from those identified in Attachment C of ESPC Agreement
- Changes to temperature set-points, schedule changes, and/or changes in ventilation rates at any Project Site from those identified in Attachment C of ESPC Agreement.
- Reporting of any Equipment not currently operating
- Reporting of an Equipment break-downs/malfunctions immediately upon discovery of the problem
- Monthly identification of any added energy consuming equipment (including computers, kitchen equipment, refrigeration equipment, etc.) with schedules of use for any Project Site
- If the City is performing maintenance and repair of the Equipment in-house, such maintenance and repair shall be performed consistent with the manufacturer's recommended preventive maintenance applicable to the equipment. During the term of the contract Leopardo Energy may request to inspect the Equipment.

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c. M&V Language

ADDITIONAL IDENTIFIED SAVINGS

Pre-Performance Period

Energy and operational savings that are achieved by the upgrades and modifications in the agreement prior to completion of the entire project will be added to the first year's actual annual savings. Such savings may include any utility rebates or other incentives earned as a direct result of the installed energy conservation measures provided by the Leopardo and will be accounted for and applied toward all savings shortfalls before any payment is required. A detailed pre-performance savings summary for the City of Cleveland Energy Savings Project can be found in the M&V Workbook.

Other Savings Opportunities

Leopardo Companies may identify other energy and operational savings opportunities during the construction period or during any guarantee year. Additional energy and operational savings that can be demonstrated as a result of efforts by Leopardo that result in no additional costs to the Owner beyond the costs identified in this agreement will be included in the annual M&V Report.

Energy Savings

Measured Savings

The annual energy savings associated with the City of Cleveland Energy Savings Project will be measured and verified during the M&V Program using the following IPMVP-adherent M&V Options.

The following table details the possible M&V Options provided by IPMVP.

IPMVP Option Definitions			
IPMVP Option	**Definition**	**Savings Determination**	**Typical Applications**
Option A	Key Parameter Measurement	Engineering calculation of baseline and reporting period energy from measurement of key parameter and estimated values	Utilized when savings measure is independent of building's total energy usage. Key parameter is measured, and others are estimated based on survey data collection and information received from the City.
Option B	All Parameter Measurement	Full parameter measurement of energy consumption and demand of CCM affected system	Utilized when savings is independent of building's total energy usage. All parameters are measured (ex. installation of variable speed drive and controls to adjust pump flow).
Option C	Whole Facility Measurement	Measuring energy consumption and demand at whole facility utility meter level.	Utilized where multiple savings streams are measured by a single utility meter (ex. HVAC replacement, lighting retrofit, and envelope improvements at same facility).
Option D	Calibrated Simulation	Model simulation of energy consumption and demand in baseline and reporting period.	Utilized when multiple CCMs are implemented in a facility where no meter data is available for baseline period.

Custom-Measured Savings

When energy related savings cannot be measured by any of the IPMVP M&V Options, savings can be measured by a custom-developed program. The program varies on a CCM by CCM basis to accurately measure and verify savings.

Non-Measured Savings

In some situations, there are no economical or viable IPMVP M&V Options to measure savings. In these cases, savings will be considered non-measured. When non-measured savings are selected, the Owner agrees that the savings presented in the agreement are a true and accurate representation of annual savings and no further measurement and verification is required.

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c. M&V Language

Operational Savings

The annual operational savings associated with the City of Cleveland energy savings project will be verified during the M&V Program using the custom verification options created for each operational savings measure. The following table details the possible verification methods.

Operational Savings Verification Methods			
Method	**Definition**	**Savings Determination**	**Typical Applications**
Method 1	Stipulated	Engineering calculations based on actual data provided by the owner. Savings are pre-determined in the contract with no further verification required.	Operational savings situations where it is not feasible or economical to gather necessary detailed post project data.
Method 2	Modeled Verification	Key variables are monitored and compared with calculated baseline savings model generated from actual data provided by owner.	Operational savings situations where the normalization of the data is a better reflection of the actual baseline and projected savings. Applicable to large data sets where the volatility of the variables requires pre-determination (ex. Fleet leasing).
Method 3	Line-item Verification	All variables are monitored without utilization of pre-calculated data and compared to the actual baseline.	Savings are fully dependent on individual data points and associated direct costs. Categorization and normalization of data is not possible and would not forecast future costs and/or savings (ex. Procurement Solutions).

Calculation Methodology

Energy savings will be measured by comparing the performance period's total energy consumption and demand to the total energy consumption and demand for the same area in the base year period by utilizing energy meter data. Base year energy and demand will be adjusted for differences in weather, length of billing periods, and facility operational conditions in order to estimate how much energy would have been used in the performance period if energy conservation measures had not been implemented. Energy savings are defined as the difference between the adjusted base year consumption and demand (Baseline) and the performance period consumption and demand. This process will be included for each utility type involved in the guarantee.

The following equations are utilized to determine the difference in energy usage from the baseline period and performance period.

Equation 1 – Energy Consumption Savings

$$E_{Savings} = E_{Baseline} - E_{Performance}$$

Where:

$E_{Savings}$ = Energy Savings
$E_{Baseline}$ = Base year energy usage adjusted for normalization
$E_{Performance}$ = Performance Period energy usage

Equation 2 – Baseline Energy Usage

Baseline energy usage is determined by first analyzing the relationship between base year utility usage and the base year weather and/or other independent variables (i.e. occupancy, production volume). If the relationship between an independent variable is found to be statistically significant through linear regression analysis, the baseline is adjusted

using a fit line equation. This equation allows for the accurate comparison of base year utility consumption and performance period utility consumption by routinely adjusting the baseline to mimic the conditions present in the performance period.

The following equation is utilized for each meter present within the performance guarantee. Once the degree day balance point temperatures and the coefficients for heating degree days, cooling degree days, and all other applicable variables have been obtained by regression, they remain fixed and are used to derive baseline consumption for the performance period. Specific coefficients per meter can be found in the project M&V Workbook.

$$Pi = [D + (D_h * \Delta T_{BH,i}) + (D_c * \Delta T_{BC,i}) + (D_1 * U_{1,i}) + (D_2 * U_{2,i}) + (D_3 * U_{3,i})] * BM_{m,i} + BM_{o,i}$$

Where:

i	= index for N utility bills (i=1..N);
Pi	= Best Fit to utility bill demands [Utility Demand Units, e.g., kW];
D	= Baseload demand (Utility Units, e.g., kW);
D_h, D_c	= Coefficients for Heating and Cooling ΔT (Utility Demand Units/ ºF or ºC);
$\Delta T_{BH,i}$	= Heating ΔT, (Balance Point Temperature T_{BH}- low temperature $t_{Lo,i}$) (ºF or ºC);
$\Delta T_{CH,i}$	= Cooling ΔT, (high temperature $T_{Hi,i}$- Balance Point Temperature t_{BC}) (ºF or ºC);
D_1, D_2, D_3	= Coefficients for other independent variables, k_1, k_2, and k_3;
$U_{1,i}, U_{2,i}, U_{3,i}$	= Values of other independent variables, k_1, k_2, and k_3;
$BM_{m,I}$	= Baseline Modification, multiplier;
$BM_{o,I}$	= Baseline Modification, absolute offset.

For operational savings such as procurement solutions and rebate generation will be measured and verified by utilizing Method 3 – Line by Line Verification. Within Method 3, savings are calculated by direct comparison of base period spend and actual spend for the associated line items during the performance period. In calculating the baseline value of facility management & city operation savings, the Contractor analyzed Owner's invoices from the baseline calendar year.

Annual Facility Management & City Operation Savings will be calculated as Baseline Spend per consumable minus the corresponding actual Performance Period spend.

Equation 3: Performance Period Savings

$$M\&V_{Savings} = \sum_{i=1}^{n} \$_{BL} \pm \$_{Adj} - \$_{Perf}$$

Where:

n	= Line Items processed in Performance Period
$\$_{BL}$	= Baseline Spend
$\$_{Adj}$	= Baseline Adjustment for market demand and conditions
$\$_{Perf}$	= Performance Period Spend

Other equations detailing the savings methodology for all savings and revenue generation will be found in the attachments of the construction contract.

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c. M&V Language

PROJECT MEASUREMENT & VERIFICATION OPTION SUMMARY

The following table sets forth the M&V Option used for energy and operational savings in the City of Cleveland energy savings project. Specific M&V methodologies and measurement strategies are detailed in the subsequent Appendix of the M&V Workbook.

Energy CCM Savings	IPMVP Option
Facility Energy Savings	Option C

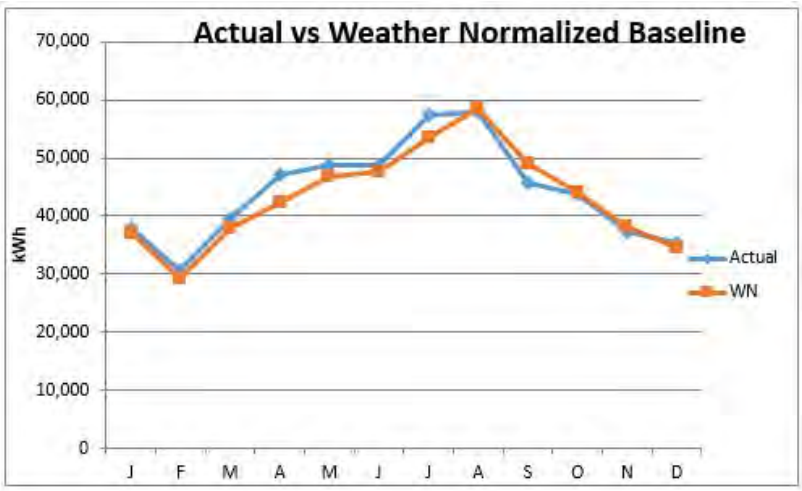
Operational Savings	Verification Method
Facility Maintenance Savings	Method 1
O&M Procurement Savings	Method 3
Virtual Debit Card Revenue Generation	Method 2
Budget Variance Savings	Method 1
Avoided Capital Cost	Method 1

5 APPENDICES
d. Energy Methodology

SAVINGS CALCULATION METHODOLOGY AND INTERVAL DATA

During the investment-grade audit, a 24-month history of utility data (electricity and natural gas) was gathered of each meter for each facility. Leopardo uses industry-proven methodologies to accurately calculate Energy Conservation Measures (ECMs). Savings are calculated by taking the difference between a building's baseline energy usage and the post-project energy usage. Having an accurate representation of the utility baseline is very important to better define and calculate the ECMs.

Leopardo starts by Weather Normalizing every baseline for all applicable utilities (Electric, Natural gas, etc.), for every building in the project. The purpose of Weather Normalizing a baseline is to adjust the baseline to account for uncommon weather that reflects in a building's utility usage. For example, an unusually hot summer will show a utility baseline with higher electric usage in the summer to account for the additional cooling needed. Weather Normalizing will adjust the higher electric usage down to reflect an energy usage if the local weather was a 'typical year'. This is done by analyzing NOAA's (National Oceanic and Atmospheric Administration – part of the U.S. Department of Energy) TMY Weather Database (Typical Meteorological Year). This database holds 30-Year Average weather for thousands of cities.



Weather Normalized Electric Baseline

Weather Normalizing is important because it eliminates the chances of skewed savings numbers due to weather conditions. From the example above, in a building with a chiller that has a baseline utility usage that had an unusually hot summer, our potential savings for replacing a chiller could be falsely inflated.

Once we have the baselines for all applicable utilities for all buildings set, the ECMs are calculated. Leopardo utilized a standardized methodology to accurately calculate savings across all buildings. The methodology used was Trace 3D Plus (a computerized hourly energy analysis program). Trace 3D Plus runs each subsequent ECM off the results of the previous ECM to account for ECM interaction. ECM Interaction is when the results of an ECM impacts another ECM's performance.

Trace 3D Plus is a computerized program that is an hourly, whole-building simulation program. It receives user-defined inputs such as building characteristics, lighting, equipment, occupancy, heating and cooling systems, and weather data. The simulation output is a monthly summation of energy usage in terms of electricity and natural gas.

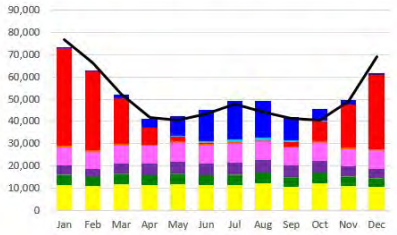
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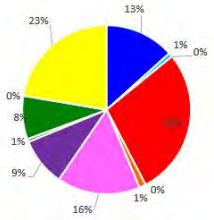
d. Energy Methodology

The monthly simulation output is compared to the utility baseline. Calibration of the model to the utility baseline is performed through an iterative process by modifying the model inputs and repeating the simulation process. Once the model output data follows closely with the baseline utility data, energy conservation measures can then be simulated.

Electric - kWh

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	340	490	1,850	4,060	8,680	14,090	17,180	16,510	10,610	5,380	2,030	750	**81,970**	Space Cool
	0	0	30	140	450	890	1,230	1,220	690	230	30	10	**4,920**	Heat Reject.
	0	0	0	0	0	0	0	0	0	0	0	0	**0**	Refrigeration
	43,890	35,380	20,360	7,460	2,220	350	200	60	1,930	8,960	19,290	33,510	**173,610**	Space Heat
	0	0	0	0	0	0	0	0	0	0	0	0	**0**	HP Supp.
	710	700	770	730	700	620	580	600	500	620	590	580	**7,700**	Hot Water
	8,420	7,570	8,230	7,940	8,300	8,140	8,480	8,490	8,070	8,220	7,960	8,310	**98,130**	Vent. Fans
	3,890	3,610	4,350	4,990	5,370	5,190	5,360	5,360	5,200	5,010	4,170	3,990	**56,490**	Pumps & Aux.
	320	290	320	310	320	310	320	320	310	320	310	320	**3,770**	Ext. Usage
	4,280	4,000	4,410	4,230	4,410	4,230	4,280	4,540	3,970	4,540	4,090	3,880	**50,860**	Misc. Equip.
	0	0	0	0	0	0	0	0	0	0	0	0	**0**	Task Lights
	11,550	10,800	11,910	11,420	11,910	11,420	11,550	12,270	10,710	12,270	11,060	10,480	**137,350**	Area Lights
Total Model:	**73,400**	**62,840**	**52,230**	**41,280**	**42,360**	**45,240**	**49,180**	**49,370**	**41,990**	**45,550**	**49,530**	**61,830**	**614,800**	
Total Utility:	**76,630**	**66,499**	**52,219**	**41,655**	**40,373**	**43,332**	**47,654**	**44,376**	**41,222**	**40,504**	**49,205**	**69,263**	**612,932**	
% Error:	-4%	-6%	0%	-1%	5%	4%	3%	11%	2%	12%	1%	-11%	0%	





Trace 3D Plus Model Calibration

Energy conservation measures are simulated by targeting and modifying certain parameters, then re-running the simulation. The model results are then compared to the results of the baseline run in order to calculate the difference in energy usage. The figure to the above depicts an example calibration. The black line is the building's actual electric baseline, and the colored vertical bars depict the modeled usage broken down by end use.

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d. Energy Methodology

SECTION OUTLINE AND GRAPH DESCRIPTIONS

This section covers the weather normalization graphs for each utility meter, modeled baseline calibration graphs, and ECM savings graphs. This is done for each building, broken out in to separate sections by building. Each building section will have (1) 'Savings Totals' graphic, (4) 'Weather Normalization' graphics per meter, (3) 'Baseline Calibration' graphics per utility type, and (3) 'ECM Savings' graphics per utility type, per ECM. A description of each graphic can be found below.

Savings Totals

Total Baseline and Project Savings – Baseline utility usage, post project utility usage, and % savings – broken out in terms of EUI (kBTU/sf).

Baseline Determination (Weatherization)

Utility Baseline in Correlation to Weather - Actual utility baseline, divided in to monthly usage/Day to see correlation between Actual Weather and the 30-year average weather.

Weather Normalization - A graphical depiction of the 'Utility Baseline in Correlation to Weather' table – shows utility usage per day against 'weather' per day (HDD/day or CDD/day) and the associated Best Fit Line that establishes the relationship between energy consumption and weather.

Usage vs Outside Air - A graphical depiction of utility usage per day against outside air temperature. Can see weather dependencies here (e.g. as temperature increases, so does kWh – showing a weather dependency (mechanical cooling)).

Weather-Normalized Utility Baseline - Shows actual prorated baseline and new weather-normalized utility baseline used for model calibration. Actual utility baselines are first prorated (shifting all billed read-dates to the end of the month), and then weather-normalized.

Baseline Utility Data and Calibration by Building

kWh, kW, and Fuel Calibration Graphs and Tables

Modeled Calibration by End Use – Monthly modeled energy consumption, broken out by end use. Total monthly modeled usage in comparison to weather-normalized utility baseline at the bottom for calibration.

Baseline Graph – A graphical depiction of the 'Modeled Calibration by End Use' table. Vertical colored bars is the modeled energy usage by end use, and the solid black line is the weather-normalized utility baseline.

Utility Breakdown Graph – Pie chart showing the percentage of usage by end use.

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d. Energy Methodology

Energy Savings Data, by Building per ECM

ECM kWh, kW, and Fuel Savings Graphs and Tables

Post ECM End Use Energy – Tabular and graphical representation of energy after the conservation measure is applied.

Savings by End Use – Monthly energy savings by end use after the conservation measure is applied.

% Savings by End Use – % energy savings by end use after the conservation measure is applied.

Other Definitions

kWh – Unit of electric Consumption

kW – Unit of electric Demand

CCF – Unit of natural gas Consumption

EUI – 'Energy Usage Intensity'. Normalizes all energy consumption to a kBTU per square footage of building (kBTU/sf)

HDD – 'Heating Degree Day' is a measurement to quantify the demand for energy needed to heat a building. It is the number of degrees a day's average temperature is below 65°F.

CDD - 'Cooling Degree Day' is a measurement to quantify the demand for energy needed to cool a building. It is the number of degrees a day's average temperature is above 65°F.

R-value – Shown on the 'Weather Normalization' graphs. The R^2 value shows the statistical relationship between the utility usage and the associated Best Fit Line. Tells if the utility meter has a dependency on weather. It is desirable to have a value $R^2 > 0.75$ to be a good application for weather normalization.

Cleveland Police 1st District Utility Baseline Determination (Weatherization)

Utility Baseline in Correlation to Weather

Electricity: kWh			Actual Weather		TMY3 Weather		
Read Date	kWh	kWh/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
11/30/2022	30,611						
12/31/2022	30,138	972	21	0	24	0	x
1/31/2023	32,838	1,059	19	0	29	0	x
2/28/2023	29,166	1,042	18	0	29	0	x
3/31/2023	29,735	959	16	0	19	1	x
4/30/2023	31,654	1,055	6	3	9	3	x
5/31/2023	30,533	985	2	6	1	7	x
6/30/2023	34,735	1,158	0	13	0	15	x
7/31/2023	51,320	1,655	0	19	0	20	x
8/31/2023	45,333	1,462	0	16	0	16	x
9/30/2023	45,902	1,530	0	12	0	9	
10/31/2023	37,764	1,218	3	4	4	2	x
11/30/2023	31,881	1,063	12	0	13	0	x
12/31/2023	32,421	1,046	13	0	24	0	x
1/31/2024	32,960	1,063	25	0	29	0	x
2/28/2024	30,080	1,074	17	0	29	0	x
3/31/2024	31,840	995	12	0	19	1	x
4/30/2024	31,200	1,040	4	4	9	3	x
5/31/2024	28,960	934	0	11	1	7	
6/30/2024	35,360	1,179	0	18	0	15	
7/31/2024	45,280	1,461	0	20	0	20	x
8/31/2024	43,040	1,388	0	18	0	16	x
9/30/2024	37,280	1,243	0	14	0	9	x
10/31/2024	31,840	1,027	2	5	4	2	x
11/30/2024	29,920	997	8	1	13	0	x
12/31/2024	30,880	996	19	0	24	0	x

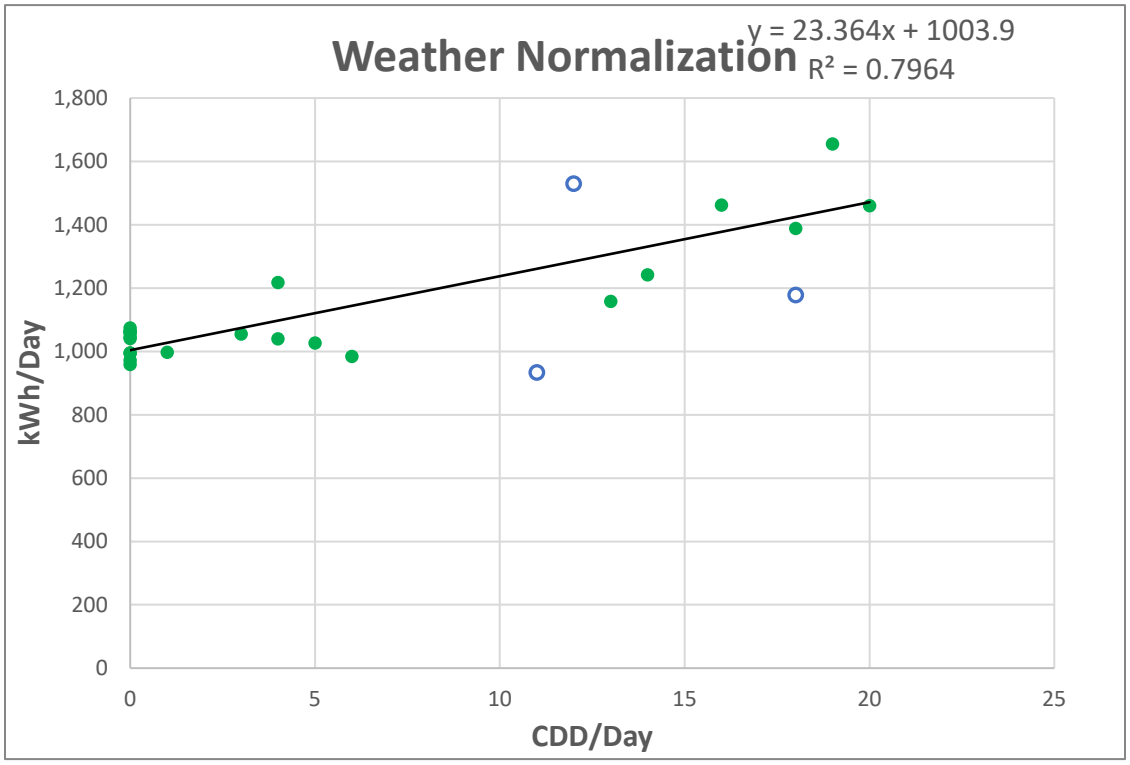
Cleveland Police 1st District Utility Baseline Determination (Weatherization)

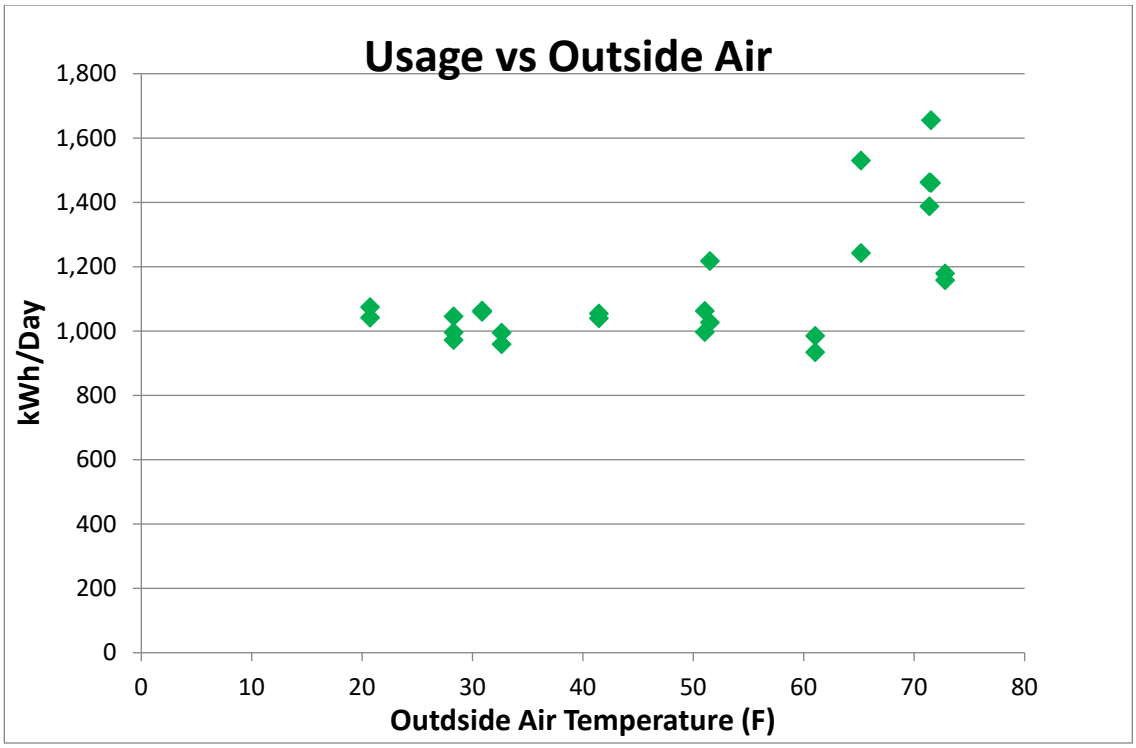
Meter 2 - Consumption

Meter: 11399014

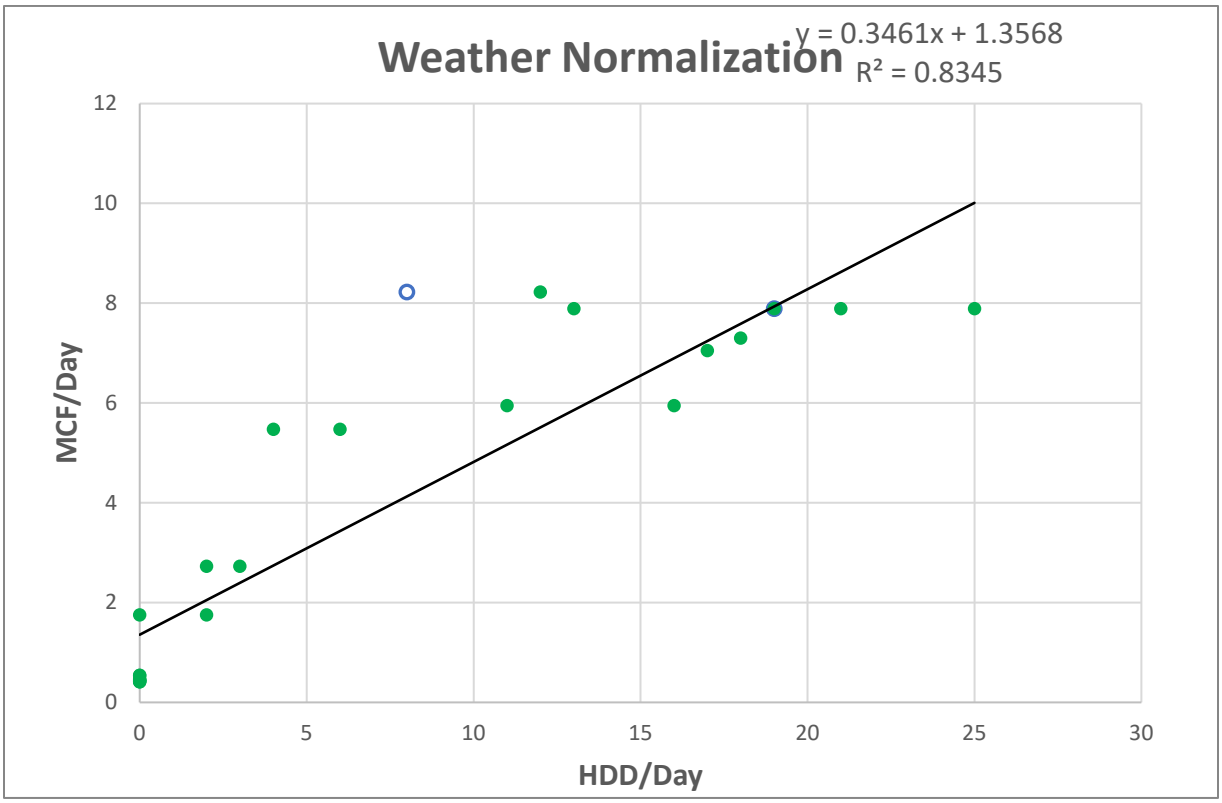
Natural Gas: MCF			Actual Weather		TMY3 Weather		
Read Date	MCF	MCF/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
11/30/2022	247						
12/31/2022	245	8	21	0	24	0	x
1/31/2023	245	8	19	0	29	0	x
2/28/2023	204	7	18	0	29	0	x
3/31/2023	184	6	16	0	19	1	x
4/30/2023	164	5	6	3	9	3	x
5/31/2023	54	2	2	6	1	7	x
6/30/2023	16	1	0	13	0	15	x
7/31/2023	14	0	0	19	0	20	x
8/31/2023	13	0	0	16	0	16	x
9/30/2023	14	0	0	12	0	9	x
10/31/2023	85	3	3	4	4	2	x
11/30/2023	247	8	12	0	13	0	x
12/31/2023	245	8	13	0	24	0	x
1/31/2024	245	8	25	0	29	0	x
2/29/2024	204	7	17	0	29	0	x
3/31/2024	184	6	11	0	18	1	x
4/30/2024	164	5	4	4	9	3	x
5/31/2024	54	2	0	11	1	7	x
6/30/2024	16	1	0	18	0	15	x
7/31/2024	14	0	0	20	0	20	x
8/31/2024	13	0	0	18	0	16	x
9/30/2024	14	0	0	14	0	9	x
10/31/2024	85	3	2	5	4	2	x
11/30/2024	247	8	8	1	13	0	
12/31/2024	245	8	19	0	24	0	

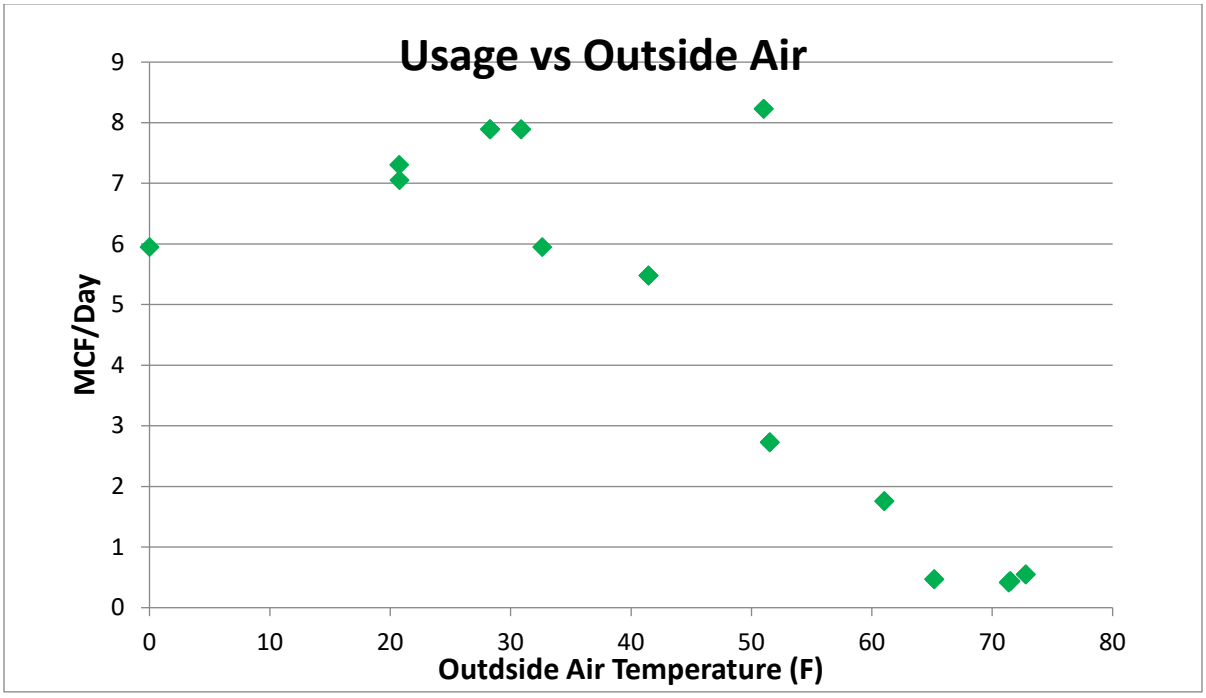
Cleveland Police 1st District Utility Baseline Determination (Weatherization)





Cleveland Police 1st District Utility Baseline Determination (Weatherization)





Cleveland Police 1st District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	23.4	1003.9	0.796	
	Actual	-	WN	**WN**
	w Equation	Offset	w Equation	**Usage**
12/31/2022	31,121	-983	31,121	30,138
1/31/2023	31,121	1,717	31,121	32,838
2/28/2023	28,109	1,056	28,109	29,166
3/31/2023	31,121	-1,386	31,682	30,296
4/30/2023	32,220	-565	31,939	31,374
5/31/2023	35,467	-4,934	36,378	31,444
6/30/2023	39,229	-4,494	40,584	36,090
7/31/2023	44,882	6,437	45,770	52,207
8/31/2023	42,709	2,623	42,663	45,286
9/30/2023	38,528	7,374	36,636	44,009
10/31/2023	34,018	3,746	32,523	36,268
11/30/2023	30,117	1,764	30,164	31,928
12/31/2023	31,121	1,300	31,121	32,421
1/31/2024	31,121	1,839	31,121	32,960
2/28/2024	28,109	1,971	28,109	30,080
3/31/2024	32,125	-285	32,685	32,401
4/30/2024	32,921	-1,721	31,939	30,219
5/31/2024	39,088	-10,128	36,378	26,250
6/30/2024	42,734	-7,374	40,584	33,210
7/31/2024	45,607	-327	45,770	45,444
8/31/2024	44,158	-1,118	42,663	41,545
9/30/2024	39,930	-2,650	36,636	33,986
10/31/2024	34,742	-2,902	32,523	29,620
11/30/2024	30,818	-898	30,164	29,266
12/31/2024	31,121	-241	31,121	30,880

Cleveland Police 1st District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	0.3	1.4	0.834	
	Actual		WN	**WN**
	w Equation	Offset	w Equation	**Usage**
12/31/2022	267	-23	301	279
1/31/2023	246	-1	352	351
2/28/2023	212	-8	322	314
3/31/2023	214	-29	247	218
4/30/2023	103	61	129	190
5/31/2023	64	-9	53	44
6/30/2023	41	-24	41	16
7/31/2023	42	-28	42	14
8/31/2023	42	-29	42	13
9/30/2023	41	-27	45	19
10/31/2023	74	10	85	95
11/30/2023	165	81	173	254
12/31/2023	182	63	301	364
1/31/2024	310	-66	352	287
2/29/2024	210	-6	333	327
3/31/2024	160	24	238	262
4/30/2024	82	82	129	211
5/31/2024	42	12	53	65
6/30/2024	41	-24	41	16
7/31/2024	42	-28	42	14
8/31/2024	42	-29	42	13
9/30/2024	41	-27	45	19
10/31/2024	64	21	85	106
11/30/2024	124	123	173	296
12/31/2024	246	-1	301	300

Cleveland Police 2nd District Utility Baseline Determination (Weatherization)

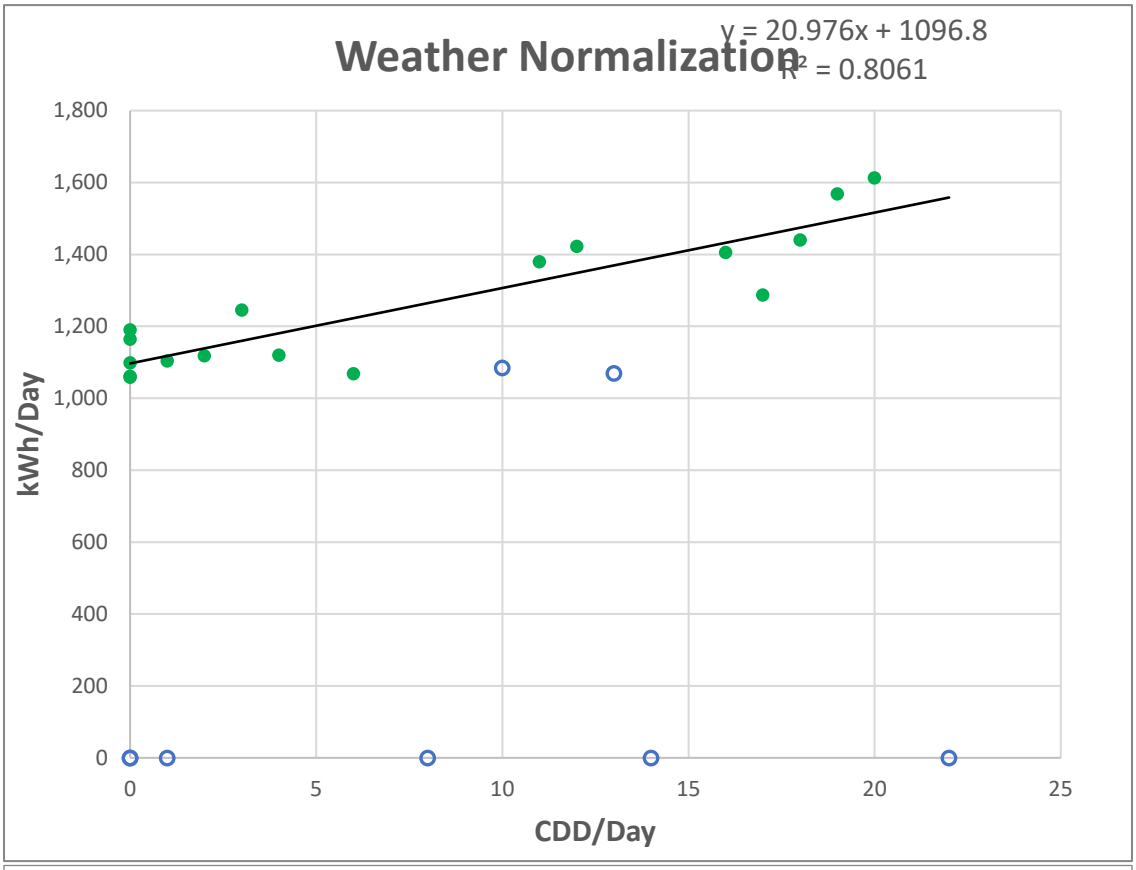
Utility Baseline in Correlation to Weather

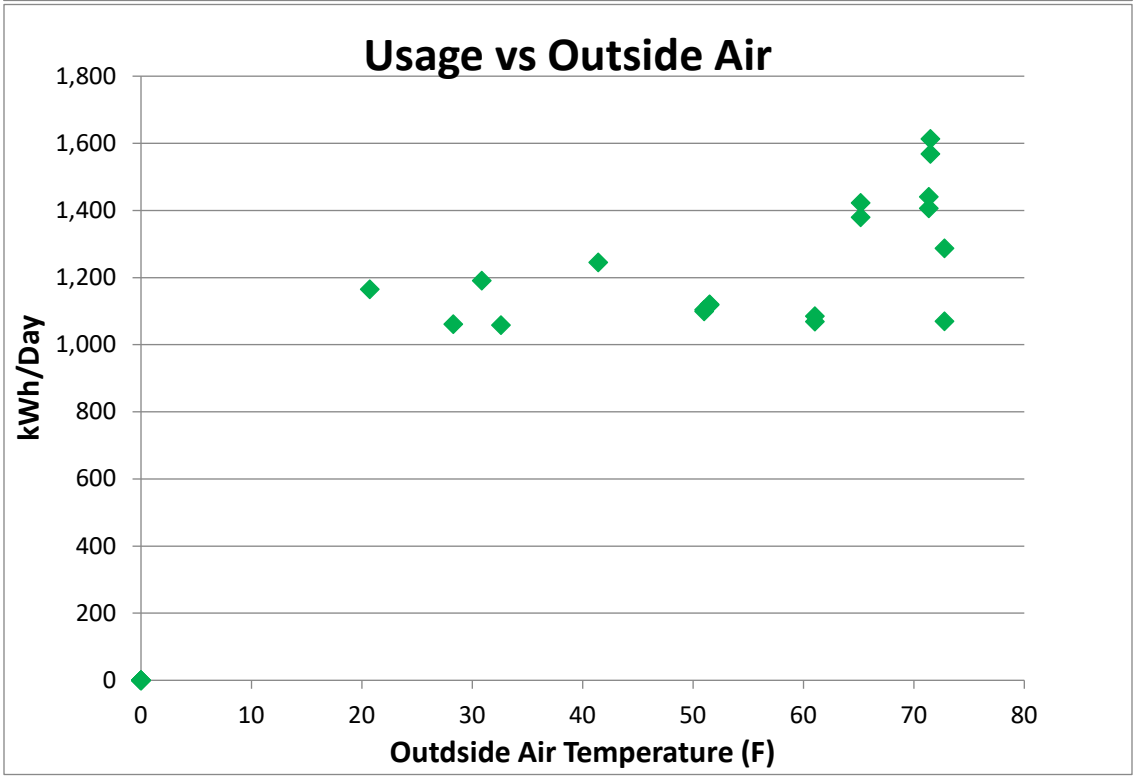
Electricity: kWh			Actual Weather		TMY3 Weather		
Read Date	kWh	kWh/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
4/30/2022	31,787						
5/31/2022	33,637	1,085	1	10	1	7	
6/30/2022	38,623	1,287	0	17	0	15	x
7/31/2022	50,020	1,614	0	20	0	20	x
8/31/2022	44,672	1,441	0	18	0	16	x
9/30/2022	41,390	1,380	0	11	0	9	x
10/31/2022	34,686	1,119	3	2	4	2	x
11/30/2022	33,132	1,104	11	1	13	0	x
12/31/2022	32,908	1,062	21	0	24	0	x
1/31/2023	36,908	1,191	19	0	29	0	x
2/28/2023	32,614	1,165	18	0	29	0	x
3/31/2023	32,812	1,058	16	0	19	1	x
4/30/2023	37,370	1,246	6	3	9	3	x
5/31/2023	33,124	1,069	2	6	1	7	x
6/30/2023	32,085	1,069	0	13	0	15	
7/31/2023	48,629	1,569	0	19	0	20	x
8/31/2023	43,597	1,406	0	16	0	16	x
9/30/2023	42,690	1,423	0	12	0	9	x
10/31/2023	34,733	1,120	3	4	4	2	x
11/30/2023	32,977	1,099	12	0	13	0	x

Cleveland Police 2nd District Utility Baseline Determination (Weatherization)

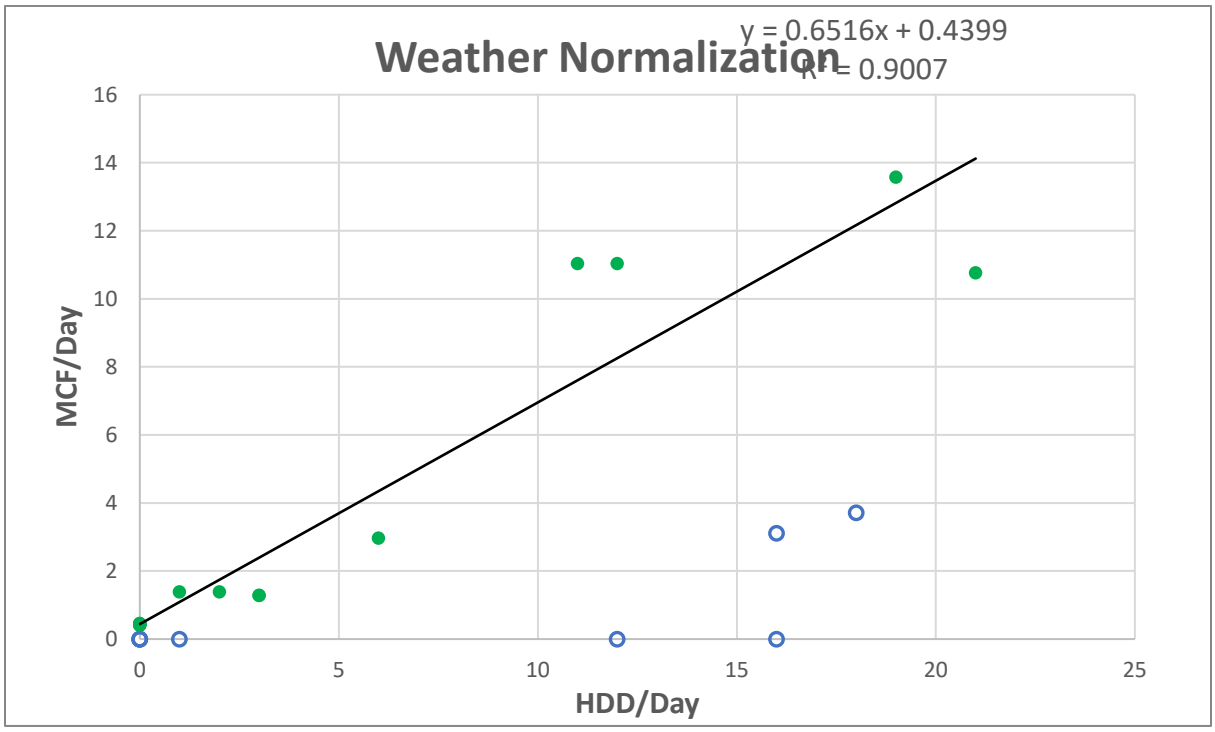
Natural Gas: MCF			Actual Weather		TMY3 Weather		
Read Date	MCF	MCF/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
4/30/2022	89						
5/31/2022	43	1	1	10	1	7	x
6/30/2022	14	0	0	17	0	15	x
7/31/2022	14	0	0	20	0	20	x
8/31/2022	13	0	0	18	0	16	x
9/30/2022	13	0	0	11	0	9	x
10/31/2022	40	1	3	2	4	2	x
11/30/2022	331	11	11	1	13	0	x
12/31/2022	334	11	21	0	24	0	x
1/31/2023	421	14	19	0	29	0	x
2/28/2023	104	4	18	0	29	0	
3/31/2023	97	3	16	0	19	1	
4/30/2023	89	3	6	3	9	3	x
5/31/2023	43	1	2	6	1	7	x
6/30/2023	14	0	0	13	0	15	x
7/31/2023	14	0	0	19	0	20	x
8/31/2023	13	0	0	16	0	16	x
9/30/2023	13	0	0	12	0	9	x
10/31/2023	40	1	3	4	4	2	x
11/30/2023	331	11	12	0	13	0	x

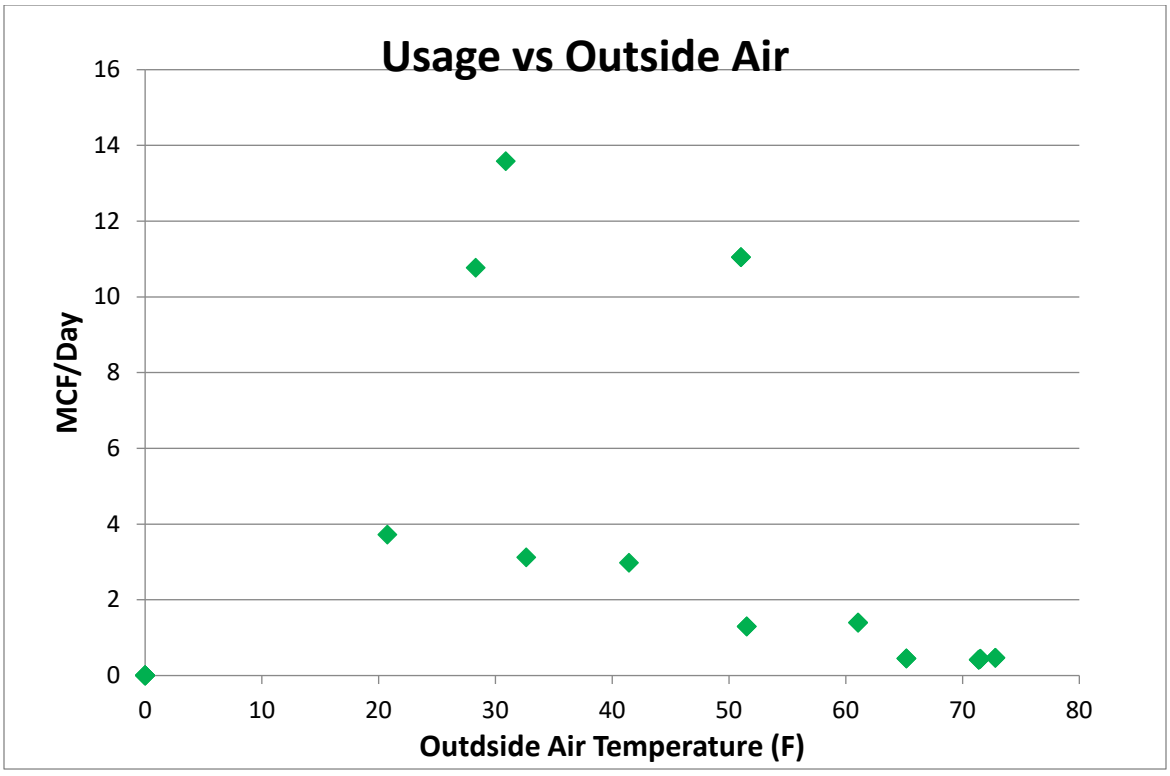
Cleveland Police 2nd District Utility Baseline Determination (Weatherization)





Cleveland Police 2nd District Utility Baseline Determination (Weatherization)





Cleveland Police 2nd District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	21.0	1096.8	0.806	
	Actual	-	WN	**WN**
	w Equation	Offset	w Equation	**Usage**
5/31/2022	40,505	-6,868	38,722	31,854
6/30/2022	43,603	-4,981	42,303	37,322
7/31/2022	47,007	3,013	47,154	50,167
8/31/2022	45,707	-1,034	44,364	43,330
9/30/2022	39,827	1,563	38,758	40,320
10/31/2022	35,303	-617	35,261	34,644
11/30/2022	33,535	-402	32,947	32,545
12/31/2022	34,002	-1,094	34,002	32,908
1/31/2023	34,002	2,906	34,002	36,908
2/28/2023	30,712	1,903	30,712	32,614
3/31/2023	34,002	-1,191	34,506	33,315
4/30/2023	34,793	2,577	34,541	37,119
5/31/2023	37,904	-4,780	38,722	33,942
6/30/2023	41,086	-9,001	42,303	33,301
7/31/2023	46,357	2,271	47,154	49,426
8/31/2023	44,406	-809	44,364	43,555
9/30/2023	40,457	2,234	38,758	40,991
10/31/2023	36,603	-1,870	35,261	33,391
11/30/2023	32,905	72	32,947	33,019

Cleveland Police 2nd District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	0.7	0.4	0.901	
	Actual	-	WN	**WN**
	w Equation	Offset	w Equation	**Usage**
5/31/2022	34	9	34	44
6/30/2022	13	1	13	14
7/31/2022	14	0	14	14
8/31/2022	14	-1	14	13
9/30/2022	13	0	22	22
10/31/2022	74	-34	94	60
11/30/2022	228	103	261	365
12/31/2022	438	-104	502	398
1/31/2023	397	24	598	622
2/28/2023	341	-237	547	310
3/31/2023	337	-240	400	160
4/30/2023	130	-41	179	138
5/31/2023	54	-11	34	24
6/30/2023	13	1	13	14
7/31/2023	14	0	14	14
8/31/2023	14	-1	14	13
9/30/2023	13	0	22	22
10/31/2023	74	-34	94	60
11/30/2023	248	84	261	345

Cleveland Police 3rd District Utility Baseline Determination (Weatherization)

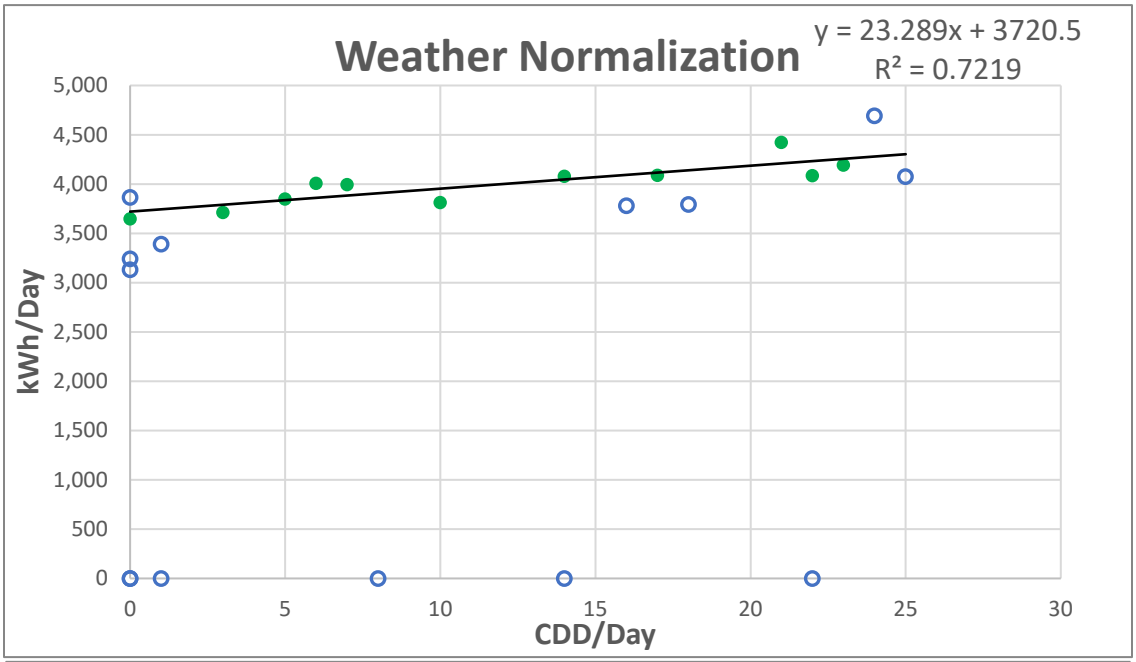
Utility Baseline in Correlation to Weather

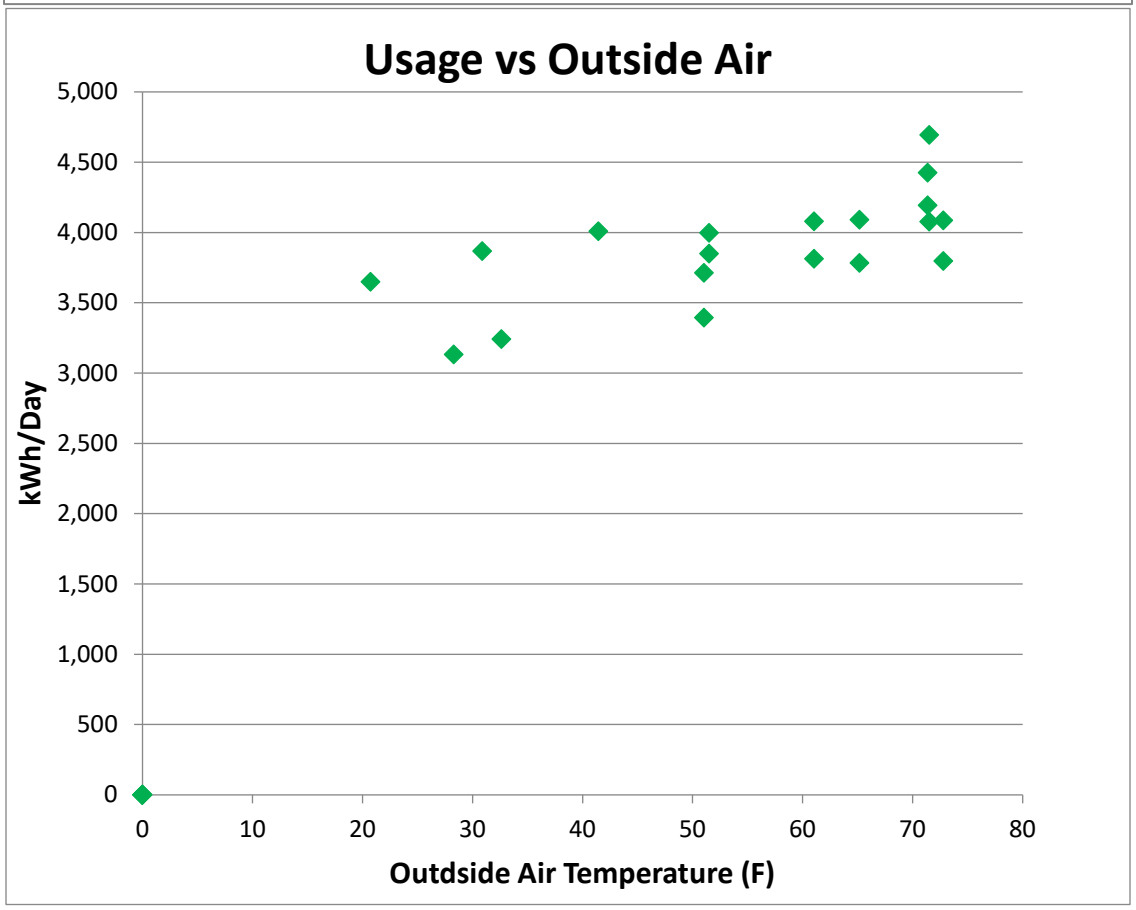
Electricity: kWh			Actual Weather		TMY3 Weather		
Read Date	kWh	kWh/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
4/30/2022	98,756						
5/31/2022	126,444	4,079	0	14	0	11	x
6/30/2022	122,600	4,087	0	22	0	20	x
7/31/2022	126,400	4,077	0	25	0	25	
8/31/2022	130,000	4,194	0	23	0	21	x
9/30/2022	113,475	3,782	0	16	0	14	
10/31/2022	119,325	3,849	1	5	2	5	x
11/30/2022	111,400	3,713	7	3	9	1	x
12/31/2022	97,133	3,133	16	0	19	0	
1/31/2023	119,867	3,867	14	0	24	0	
2/28/2023	102,200	3,650	13	0	24	0	x
3/31/2023	100,515	3,242	11	0	15	1	
4/30/2023	120,285	4,009	3	6	5	4	x
5/31/2023	118,200	3,813	1	10	0	11	x
6/30/2023	113,879	3,796	0	18	0	20	
7/31/2023	145,521	4,694	0	24	0	25	
8/31/2023	137,200	4,426	0	21	0	21	x
9/30/2023	122,698	4,090	0	17	0	14	x
10/31/2023	123,902	3,997	1	7	2	5	x
11/30/2023	101,800	3,393	7	1	9	1	

Cleveland Police 3rd District Utility Baseline Determination (Weatherization)

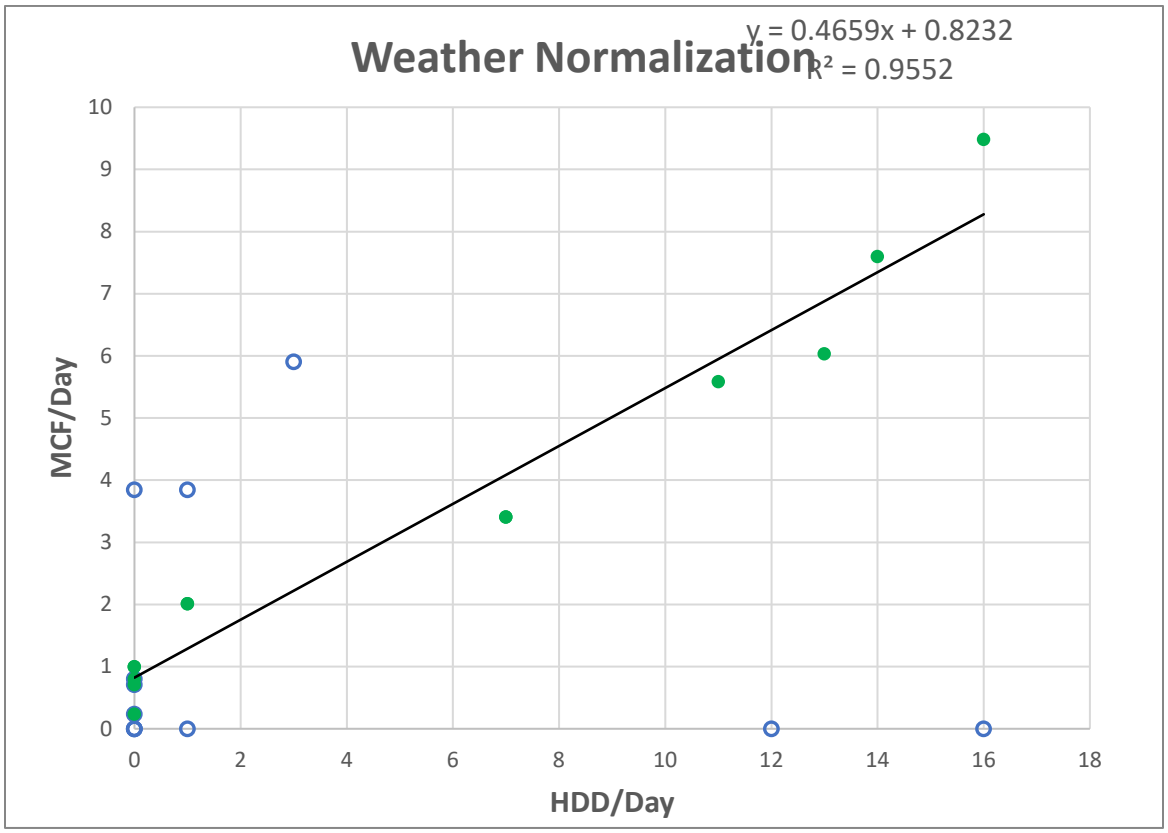
Natural Gas: MCF			Actual Weather		TMY3 Weather		
Read Date	MCF	MCF/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
4/30/2022	177						
5/31/2022	119	4	0	14	0	11	
6/30/2022	24	1	0	22	0	20	
7/31/2022	7	0	0	25	0	25	
8/31/2022	22	1	0	23	0	21	
9/30/2022	30	1	0	16	0	14	x
10/31/2022	62	2	1	5	2	5	x
11/30/2022	102	3	7	3	9	1	x
12/31/2022	294	9	16	0	19	0	x
1/31/2023	236	8	14	0	24	0	x
2/28/2023	169	6	13	0	24	0	x
3/31/2023	173	6	11	0	15	1	x
4/30/2023	177	6	3	6	5	4	
5/31/2023	119	4	1	10	0	11	
6/30/2023	24	1	0	18	0	20	x
7/31/2023	7	0	0	24	0	25	x
8/31/2023	22	1	0	21	0	21	x
9/30/2023	30	1	0	17	0	14	x
10/31/2023	62	2	1	7	2	5	x
11/30/2023	102	3	7	1	9	1	x

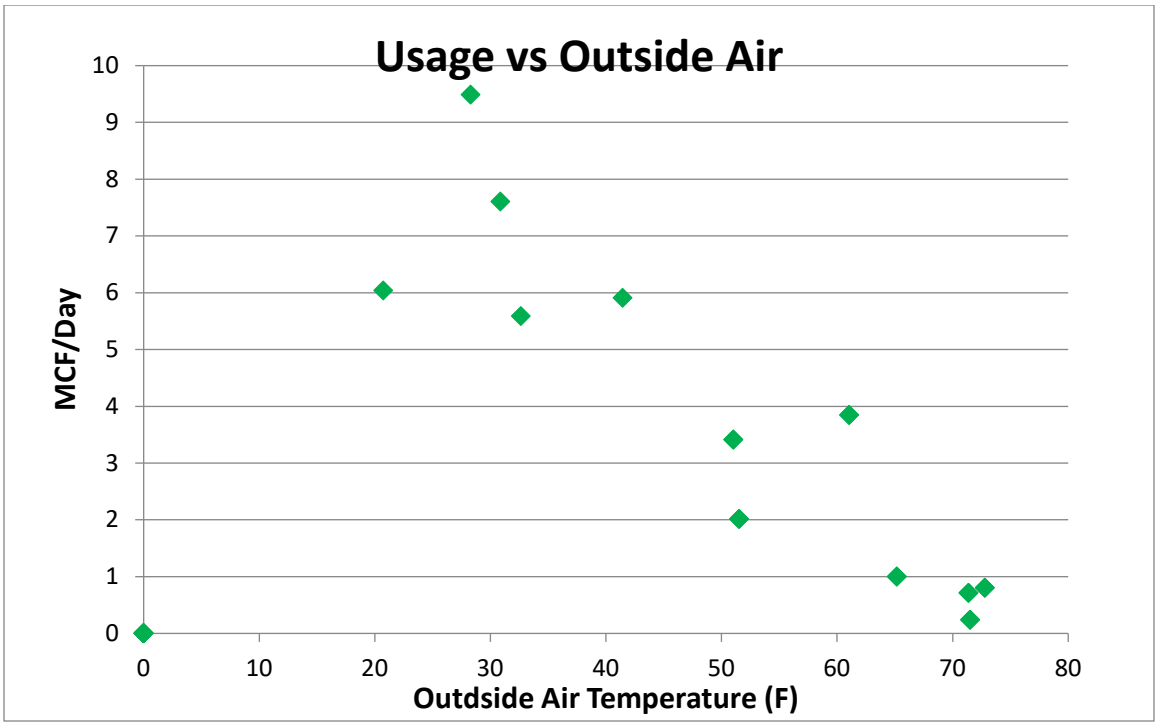
Cleveland Police 3rd District Utility Baseline Determination (Weatherization)





Cleveland Police 3rd District Utility Baseline Determination (Weatherization)





Cleveland Police 3rd District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	23.3	3720.5	0.722	
	Actual	-	WN	**WN**
	w Equation	Offset	w Equation	**Usage**
5/31/2022	125,443	1,001	123,510	124,511
6/30/2022	126,986	-4,386	125,542	121,156
7/31/2022	133,385	-6,985	133,548	126,563
8/31/2022	131,941	-1,941	130,450	128,509
9/30/2022	122,794	-9,319	121,327	112,008
10/31/2022	118,945	380	118,619	118,999
11/30/2022	113,711	-2,311	112,221	109,909
12/31/2022	115,336	-18,202	115,336	97,133
1/31/2023	115,336	4,531	115,336	119,867
2/28/2023	104,174	-1,974	104,197	102,223
3/31/2023	115,336	-14,820	116,360	101,540
4/30/2023	115,807	4,478	114,503	118,981
5/31/2023	122,555	-4,355	123,510	119,155
6/30/2023	124,191	-10,312	125,542	115,230
7/31/2023	132,663	12,858	133,548	146,406
8/31/2023	130,497	6,703	130,450	137,153
9/30/2023	123,493	-795	121,327	120,532
10/31/2023	120,389	3,513	118,619	122,132
11/30/2023	112,314	-10,514	112,221	101,707

Cleveland Police 3rd District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	0.5	0.8	0.955	
	Actual		WN	**WN**
	w Equation	Offset	w Equation	**Usage**
5/31/2022	26	94	27	121
6/30/2022	25	-1	25	24
7/31/2022	26	-18	26	7
8/31/2022	26	-3	26	22
9/30/2022	25	5	25	30
10/31/2022	40	22	48	71
11/30/2022	123	-20	144	123
12/31/2022	257	37	302	340
1/31/2023	228	8	371	379
2/28/2023	193	-24	340	317
3/31/2023	184	-11	237	225
4/30/2023	67	111	95	206
5/31/2023	40	79	27	106
6/30/2023	25	-1	25	24
7/31/2023	26	-18	26	7
8/31/2023	26	-3	26	22
9/30/2023	25	5	25	30
10/31/2023	40	22	48	71
11/30/2023	123	-20	144	123

Cleveland Police 4th District Utility Baseline Determination (Weatherization)

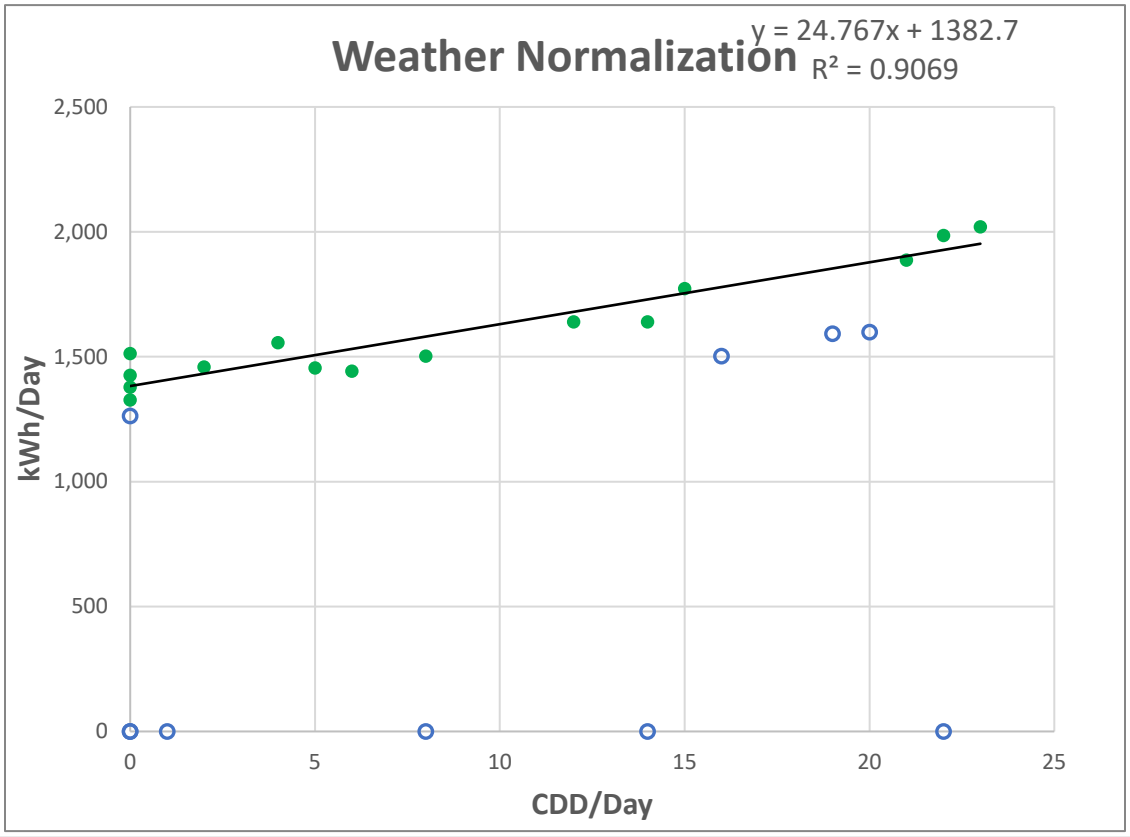
Utility Baseline in Correlation to Weather

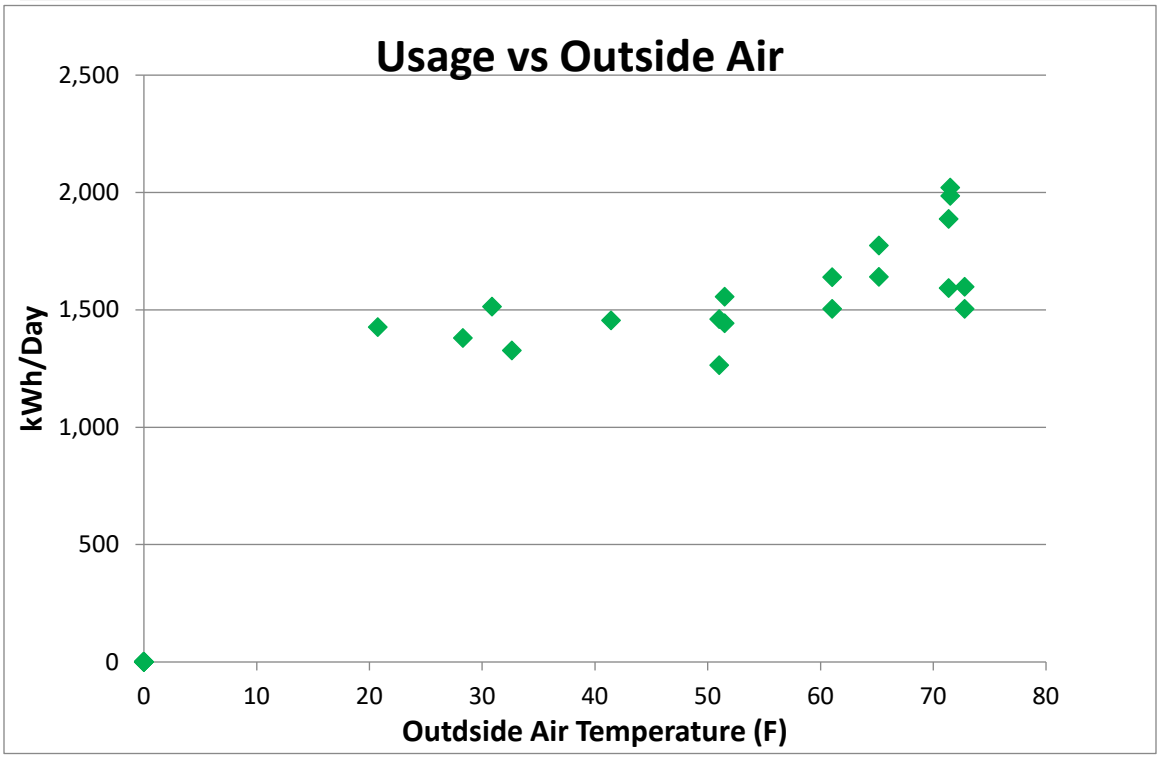
Electricity: kWh			Actual Weather		TMY3 Weather		
Read Date	kWh	kWh/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
4/30/2022	43,579						
5/31/2022	50,821	1,639	0	12	0	10	x
6/30/2022	47,953	1,598	0	20	0	18	
7/31/2022	62,619	2,020	0	23	0	23	x
8/31/2022	58,499	1,887	0	21	0	19	x
9/30/2022	49,199	1,640	0	14	0	12	x
10/31/2022	48,240	1,556	2	4	2	3	x
11/30/2022	43,796	1,460	9	2	10	0	x
12/31/2022	42,756	1,379	18	0	21	0	x
1/31/2023	46,923	1,514	16	0	26	0	x
2/28/2023	39,945	1,427	15	0	26	0	x
3/31/2023	41,132	1,327	13	0	16	1	x
4/30/2023	43,653	1,455	4	5	6	3	x
5/31/2023	46,609	1,504	1	8	0	10	x
6/30/2023	45,100	1,503	0	16	0	18	
7/31/2023	61,547	1,985	0	22	0	23	x
8/31/2023	49,361	1,592	0	19	0	19	
9/30/2023	53,206	1,774	0	15	0	12	x
10/31/2023	44,726	1,443	1	6	2	3	x
11/30/2023	37,909	1,264	9	0	10	0	

Cleveland Police 4th District Utility Baseline Determination (Weatherization)

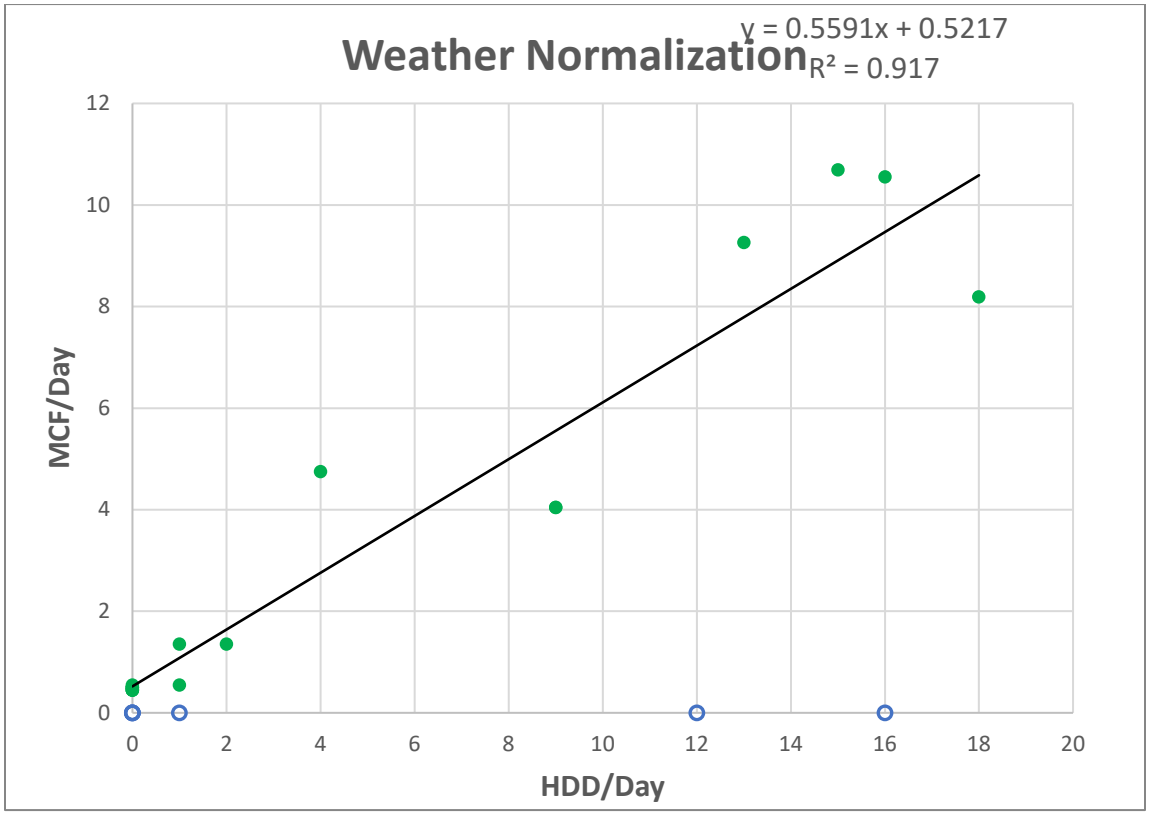
Natural Gas: MCF			Actual Weather		TMY3 Weather		
Read Date	MCF	MCF/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
4/30/2022	142						
5/31/2022	17	1	0	12	0	10	x
6/30/2022	15	0	0	20	0	18	x
7/31/2022	14	0	0	23	0	23	x
8/31/2022	14	0	0	21	0	19	x
9/30/2022	15	1	0	14	0	12	x
10/31/2022	42	1	2	4	2	3	x
11/30/2022	121	4	9	2	10	0	x
12/31/2022	254	8	18	0	21	0	x
1/31/2023	327	11	16	0	26	0	x
2/28/2023	299	11	15	0	26	0	x
3/31/2023	287	9	13	0	16	1	x
4/30/2023	142	5	4	5	6	3	x
5/31/2023	17	1	1	8	0	10	x
6/30/2023	15	0	0	16	0	18	x
7/31/2023	14	0	0	22	0	23	x
8/31/2023	14	0	0	19	0	19	x
9/30/2023	15	1	0	15	0	12	x
10/31/2023	42	1	1	6	2	3	x
11/30/2023	121	4	9	0	10	0	x

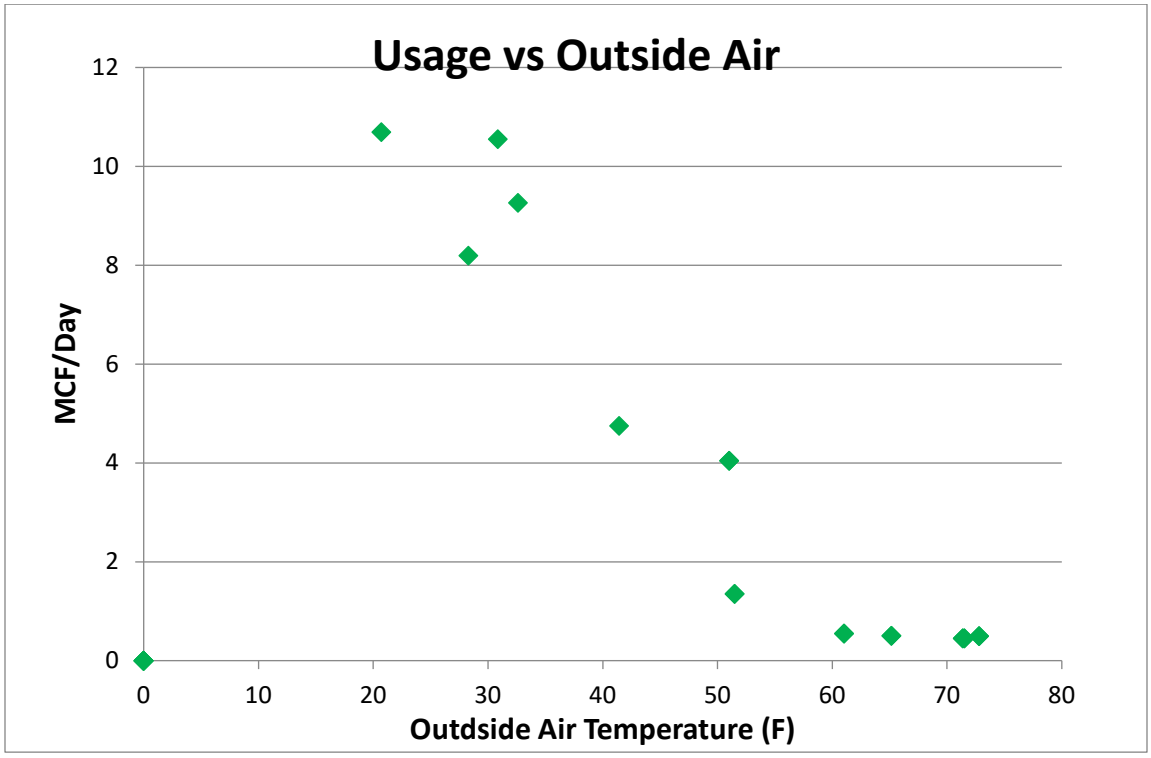
Cleveland Police 4th District Utility Baseline Determination (Weatherization)





Cleveland Police 4th District Utility Baseline Determination (Weatherization)





Cleveland Police 4th District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	24.8	1382.7	0.907	
	Actual	-	WN	**WN**
	w Equation	Offset	w Equation	**Usage**
5/31/2022	52,075	-1,254	50,218	48,964
6/30/2022	56,340	-8,386	54,804	46,418
7/31/2022	60,521	2,098	60,694	62,792
8/31/2022	58,985	-487	57,400	56,914
9/30/2022	51,882	-2,683	50,420	47,737
10/31/2022	45,933	2,307	45,487	47,794
11/30/2022	42,966	831	41,777	42,607
12/31/2022	42,862	-106	42,862	42,756
1/31/2023	42,862	4,060	42,862	46,923
2/28/2023	38,714	1,231	38,714	39,945
3/31/2023	42,862	-1,730	43,704	41,974
4/30/2023	45,195	-1,541	44,055	42,514
5/31/2023	49,004	-2,396	50,218	47,822
6/30/2023	53,368	-8,268	54,804	46,536
7/31/2023	59,753	1,794	60,694	62,488
8/31/2023	57,450	-8,088	57,400	49,312
9/30/2023	52,625	581	50,420	51,002
10/31/2023	47,469	-2,743	45,487	42,744
11/30/2023	41,480	-3,570	41,777	38,206

Cleveland Police 5th District Utility Baseline Determination (Weatherization)

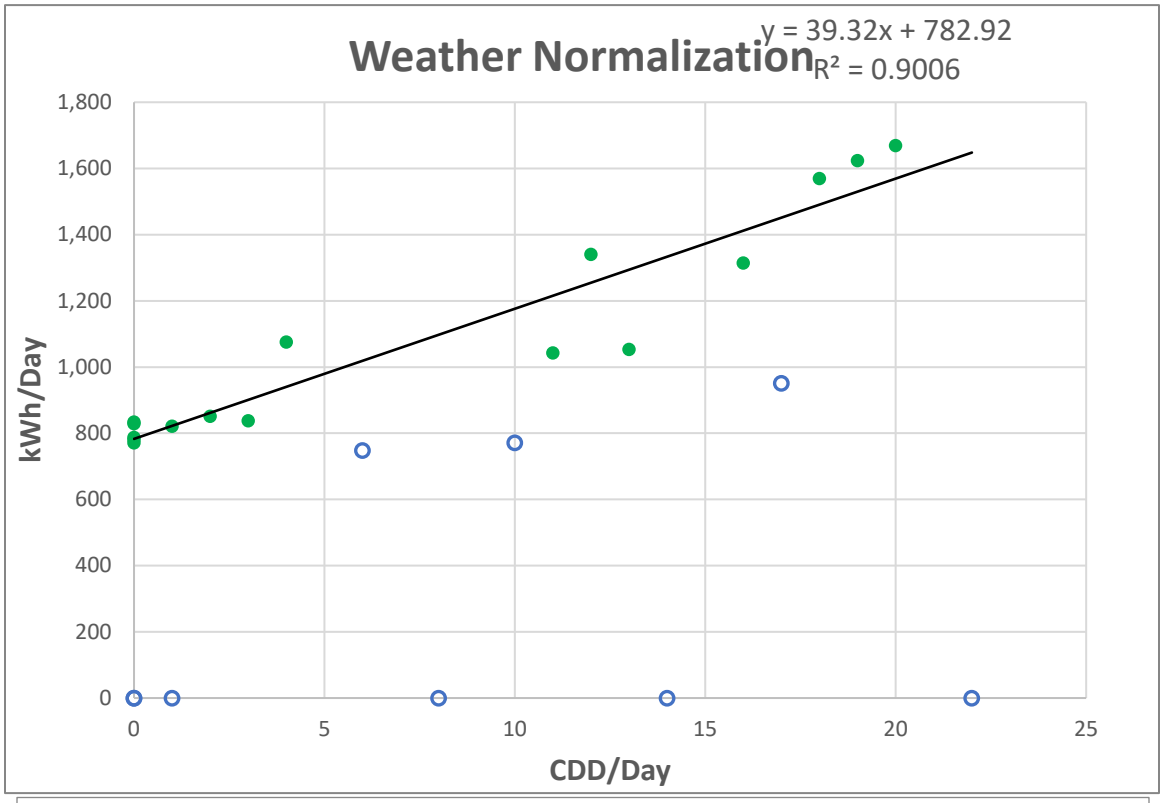
Utility Baseline in Correlation to Weather

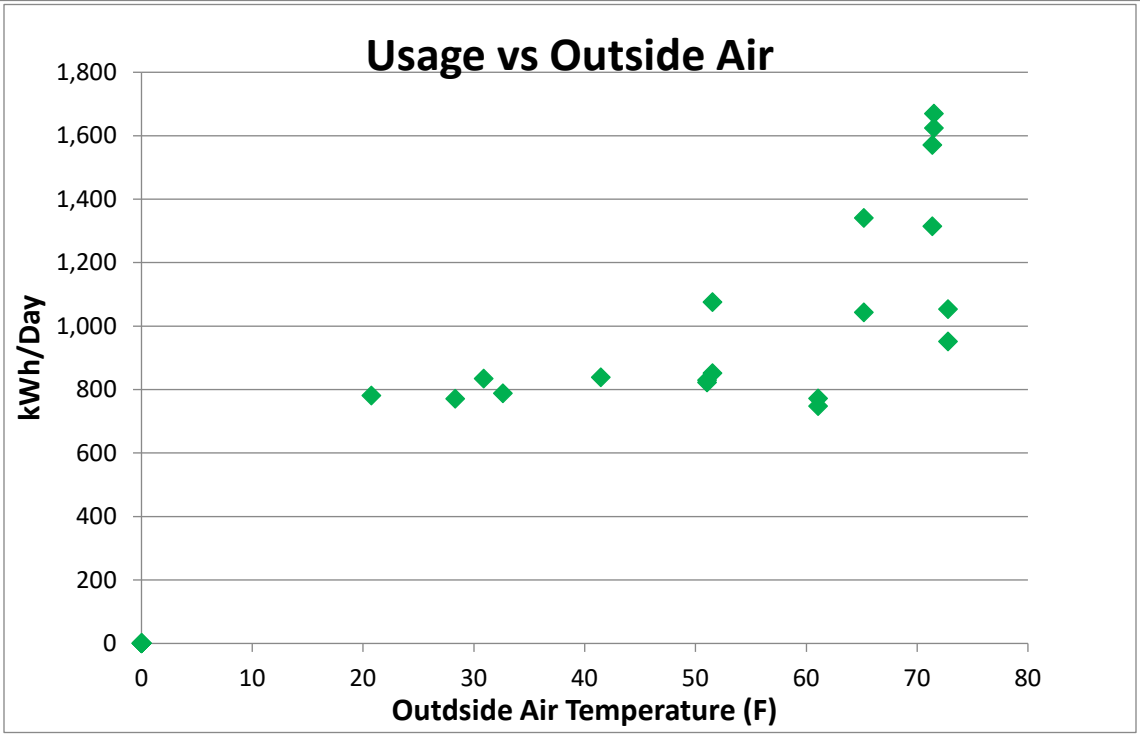
Electricity: kWh			Actual Weather		TMY3 Weather		
Read Date	kWh	kWh/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
4/30/2022	25,513						
5/31/2022	23,920	772	1	10	1	7	
6/30/2022	28,541	951	0	17	0	15	
7/31/2022	51,755	1,670	0	20	0	20	x
8/31/2022	48,678	1,570	0	18	0	16	x
9/30/2022	31,282	1,043	0	11	0	9	x
10/31/2022	26,394	851	3	2	4	2	x
11/30/2022	24,655	822	11	1	13	0	x
12/31/2022	23,898	771	21	0	24	0	x
1/31/2023	25,868	834	19	0	29	0	x
2/28/2023	21,863	781	18	0	29	0	x
3/31/2023	24,415	788	16	0	19	1	x
4/30/2023	25,154	838	6	3	9	3	x
5/31/2023	23,184	748	2	6	1	7	
6/30/2023	31,604	1,053	0	13	0	15	x
7/31/2023	50,343	1,624	0	19	0	20	x
8/31/2023	40,761	1,315	0	16	0	16	x
9/30/2023	40,211	1,340	0	12	0	9	x
10/31/2023	33,346	1,076	3	4	4	2	x
11/30/2023	24,885	829	12	0	13	0	x

Cleveland Police 5th District Utility Baseline Determination (Weatherization)

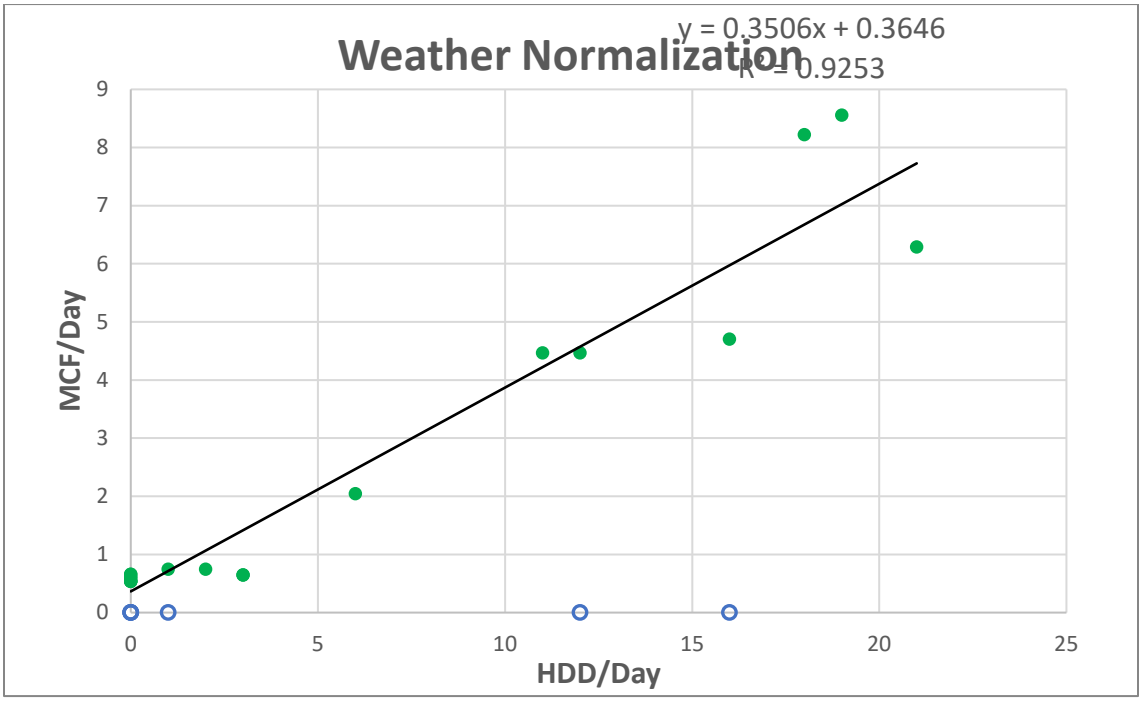
Natural Gas: MCF			Actual Weather		TMY3 Weather		
Read Date	MCF	MCF/Day	HDD/Day	CDD/Day	HDD/Day	CDD/Day	Include?
4/30/2022	61						
5/31/2022	23	1	1	10	1	7	x
6/30/2022	18	1	0	17	0	15	x
7/31/2022	17	1	0	20	0	20	x
8/31/2022	20	1	0	18	0	16	x
9/30/2022	16	1	0	11	0	9	x
10/31/2022	20	1	3	2	4	2	x
11/30/2022	134	4	11	1	13	0	x
12/31/2022	195	6	21	0	24	0	x
1/31/2023	265	9	19	0	29	0	x
2/28/2023	230	8	18	0	29	0	x
3/31/2023	146	5	16	0	19	1	x
4/30/2023	61	2	6	3	9	3	x
5/31/2023	23	1	2	6	1	7	x
6/30/2023	18	1	0	13	0	15	x
7/31/2023	17	1	0	19	0	20	x
8/31/2023	20	1	0	16	0	16	x
9/30/2023	16	1	0	12	0	9	x
10/31/2023	20	1	3	4	4	2	x
11/30/2023	134	4	12	0	13	0	x

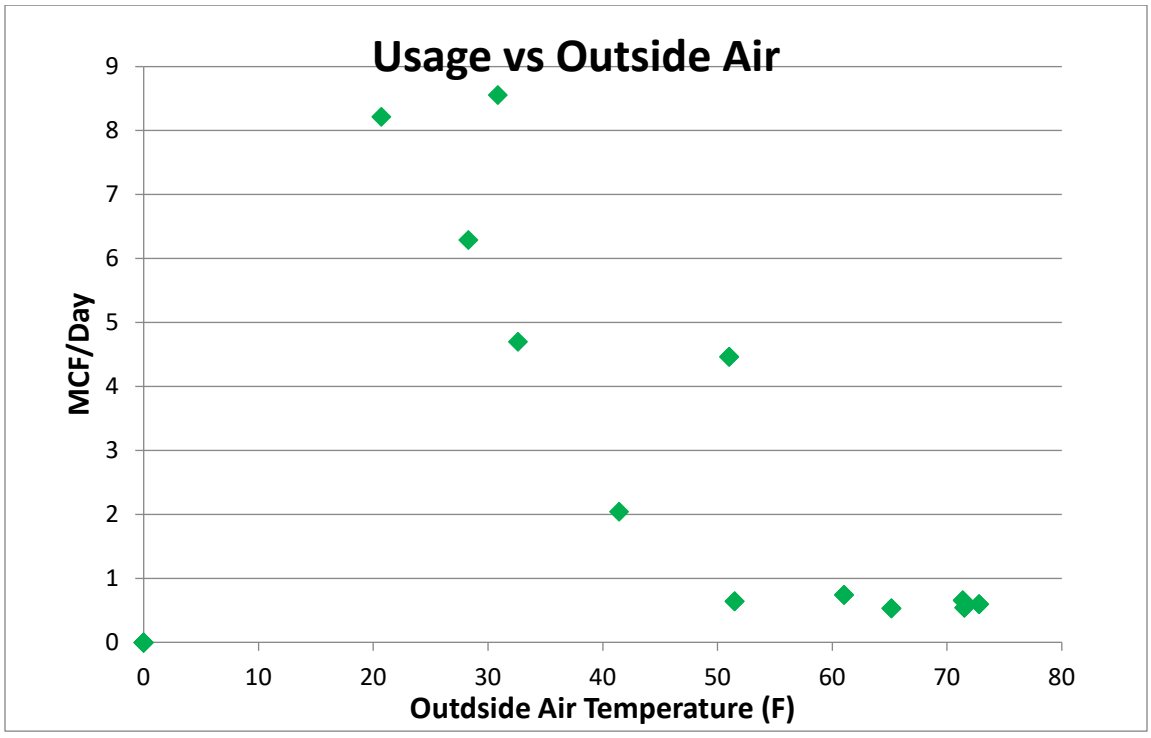
Cleveland Police 5th District Utility Baseline Determination (Weatherization)





Cleveland Police 5th District Utility Baseline Determination (Weatherization)





Cleveland Police 5th District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	39.3	782.9	0.901	
	Actual	-	WN	**WN**
	w Equation	Offset	w Equation	**Usage**
5/31/2022	36,460	-12,540	33,118	20,578
6/30/2022	43,541	-15,000	41,103	26,103
7/31/2022	48,649	3,106	48,924	52,030
8/31/2022	46,211	2,466	43,695	46,161
9/30/2022	36,463	-5,182	34,458	29,276
10/31/2022	26,708	-314	26,630	26,316
11/30/2022	24,667	-13	23,566	23,554
12/31/2022	24,271	-372	24,271	23,898
1/31/2023	24,271	1,597	24,271	25,868
2/28/2023	21,922	-59	21,922	21,863
3/31/2023	24,271	144	25,214	25,359
4/30/2023	27,026	-1,872	26,555	24,683
5/31/2023	31,584	-8,400	33,118	24,718
6/30/2023	38,823	-7,218	41,103	33,885
7/31/2023	47,430	2,913	48,924	51,837
8/31/2023	43,773	-3,012	43,695	40,682
9/30/2023	37,643	2,568	34,458	37,026
10/31/2023	29,146	4,200	26,630	30,830
11/30/2023	23,488	1,397	23,566	24,963

Cleveland Police 5th District Utility Baseline Determination (Weatherization)

	x	b	R^2	
	0.4	0.4	0.925	
	Actual		WN	**WN**
	w Equation	Offset	w Equation	**Usage**
5/31/2022	22	1	23	23
6/30/2022	11	7	11	18
7/31/2022	11	6	11	17
8/31/2022	11	9	11	20
9/30/2022	11	5	15	21
10/31/2022	44	-24	54	31
11/30/2022	127	7	145	152
12/31/2022	240	-45	274	229
1/31/2023	218	48	326	373
2/28/2023	187	43	298	341
3/31/2023	185	-39	219	180
4/30/2023	74	-13	100	88
5/31/2023	33	-10	23	13
6/30/2023	11	7	11	18
7/31/2023	11	6	11	17
8/31/2023	11	9	11	20
9/30/2023	11	5	15	21
10/31/2023	44	-24	54	31
11/30/2023	137	-3	145	141

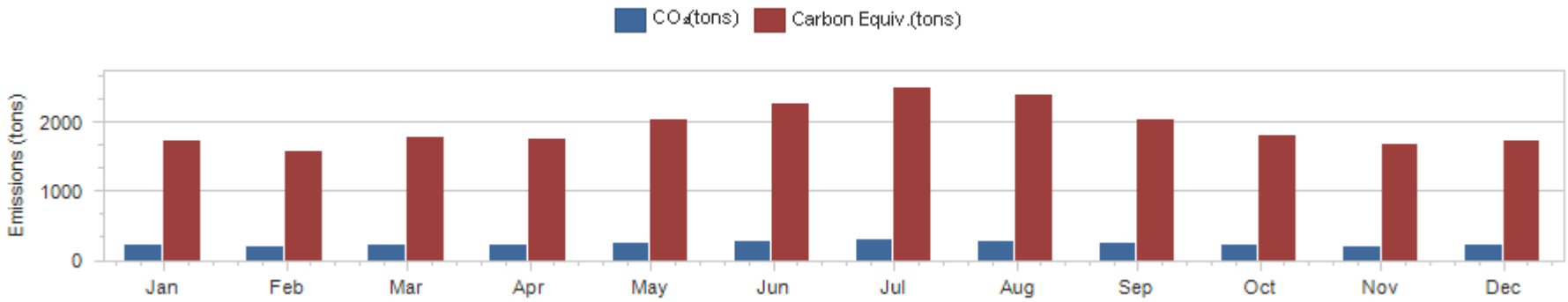
5 APPENDICES

d. Energy Methodology

District 1 & 4 – Baseline Energy Model

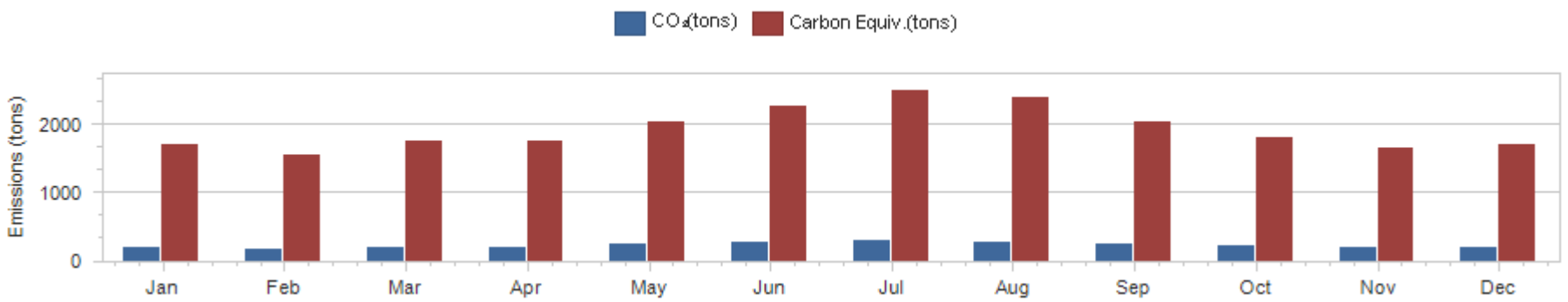
Carbon Footprint and Renewable Energy Summary

Total Emissions



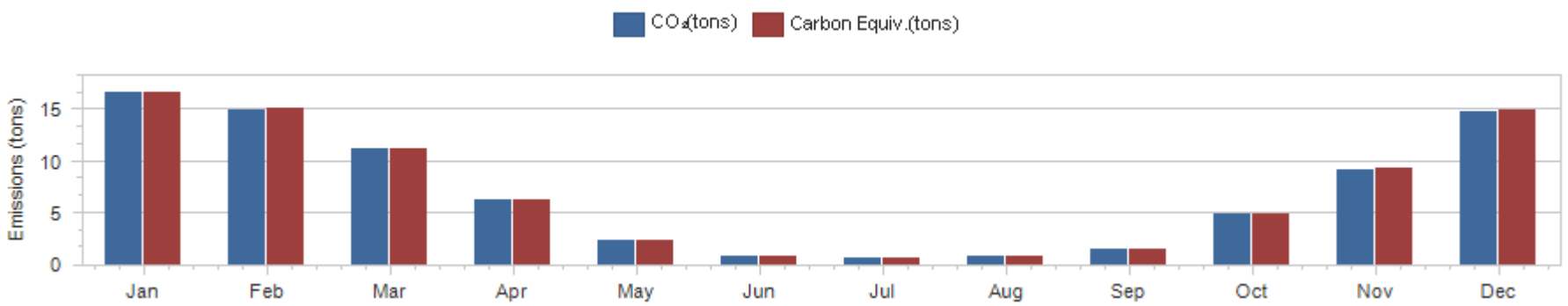
Emissions Data of Total Emissions		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
CO_2	(tons CO2e)	226.14	205.13	226.52	219.68	250.18	278.06	306.46	293.93	249.56	225.43	212.36	224.30	2,917.75
CH_4	(tons CO2e)	556.96	505.59	572.52	567.60	659.05	737.27	813.32	779.62	659.61	586.28	540.15	557.03	7,535.01
N_2O	(tons CO2e)	962.75	873.95	989.62	981.09	1,139.13	1,274.33	1,405.79	1,347.53	1,140.10	1,013.37	933.66	962.87	13,024.18
Carbon Equiv	(tons CO2e)	1,745.85	1,584.66	1,788.66	1,768.36	2,048.36	2,289.65	2,525.57	2,421.07	2,049.27	1,825.08	1,686.18	1,744.21	23,476.94
NO_x	(lbs)	384.33	348.64	385.19	373.73	425.78	473.31	521.66	500.32	424.76	383.56	361.16	381.29	4,963.75
SO_2	(lbs)	1,219.95	1,107.40	1,253.97	1,243.14	1,443.37	1,614.67	1,781.22	1,707.41	1,444.60	1,284.04	1,183.04	1,220.08	16,502.92
Hg	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	(lbs)	2.12	1.90	1.43	0.79	0.31	0.11	0.09	0.09	0.20	0.64	1.17	1.87	10.69
Water Consum	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0

Source Electricity Emissions



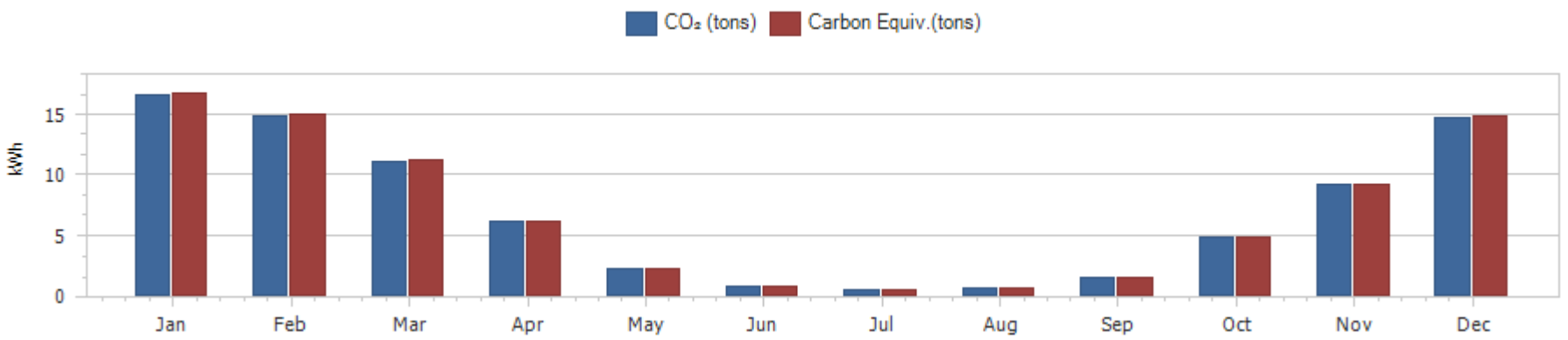
Emission Data for Source Electricity		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
CO_2	(tons CO2e)	209.42	190.11	215.28	213.43	247.81	277.23	305.82	293.15	248.02	220.45	203.11	209.45	2,833.28
CH_4	(tons CO2e)	556.96	505.58	572.52	567.60	659.04	737.27	813.32	779.62	659.61	586.28	540.15	557.03	7,534.97
N_2O	(tons CO2e)	962.66	873.86	989.56	981.05	1,139.12	1,274.32	1,405.78	1,347.52	1,140.09	1,013.35	933.61	962.79	13,023.72
Carbon Equiv	(tons CO2e)	1,729.04	1,569.55	1,777.35	1,762.08	2,045.98	2,288.82	2,524.93	2,420.29	2,047.72	1,820.08	1,676.87	1,729.26	23,391.97
NO_x	(lbs)	356.49	323.62	366.45	363.30	421.83	471.92	520.60	499.02	422.21	375.27	345.73	356.53	4,822.99
SO_2	(lbs)	1,219.77	1,107.25	1,253.86	1,243.08	1,443.34	1,614.67	1,781.22	1,707.41	1,444.58	1,283.99	1,182.96	1,219.93	16,502.09
Hg	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Consum	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0

Site Emissions



Emissions Data of Total Emissions		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
CO_2	(tons CO2e)	16.71	15.02	11.24	6.25	2.37	0.83	0.63	0.78	1.54	4.98	9.26	14.85	84.47
CH_4	(tons CO2e)	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04
N_2O	(tons CO2e)	0.09	0.08	0.06	0.03	0.01	0.00	0.00	0.00	0.01	0.03	0.05	0.08	0.46
Carbon Equiv	(tons CO2e)	16.81	15.11	11.31	6.29	2.38	0.83	0.64	0.78	1.55	5.00	9.31	14.94	84.97
NO_x	(lbs)	27.84	25.02	18.74	10.43	3.95	1.39	1.06	1.30	2.56	8.29	15.43	24.76	140.77
SO_2	(lbs)	0.18	0.15	0.11	0.07	0.02	0	0	0	0.02	0.04	0.09	0.15	0.84
Hg	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	(lbs)	2.12	1.90	1.43	0.79	0.31	0.11	0.09	0.09	0.20	0.64	1.17	1.87	10.69
Water Consum	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0

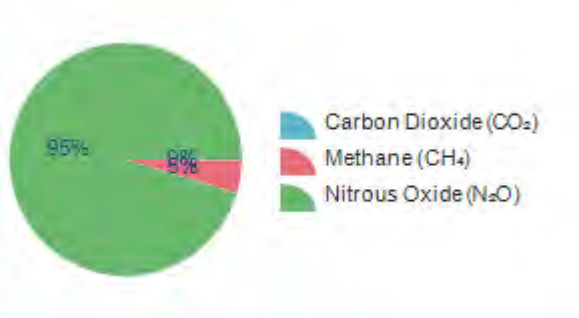
NATURALGAS



Emissions Data for Natural Gas		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CO_2	(tons CO2e)	16.71	15.02	11.24	6.25	2.37	0.83	0.63	0.78	1.54	4.98	9.26	14.85	84.47
CH_4	(tons CO2e)	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04
N_2O	(tons CO2e)	0.09	0.08	0.06	0.03	0.01	0.00	0.00	0.00	0.01	0.03	0.05	0.08	0.46
Carbon Equiv.	(tons CO2e)	16.81	15.11	11.31	6.29	2.38	0.83	0.64	0.78	1.55	5.00	9.31	14.94	84.97
NO_x	(lbs)	27.84	25.02	18.74	10.43	3.95	1.39	1.06	1.30	2.56	8.29	15.43	24.76	140.77
SO_2	(lbs)	0.18	0.15	0.11	0.07	0.02	0	0	0	0.02	0.04	0.09	0.15	0.84
Hg	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	(lbs)	2.12	1.90	1.43	0.79	0.31	0.11	0.09	0.09	0.20	0.64	1.17	1.87	10.71
Water Consum.	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0

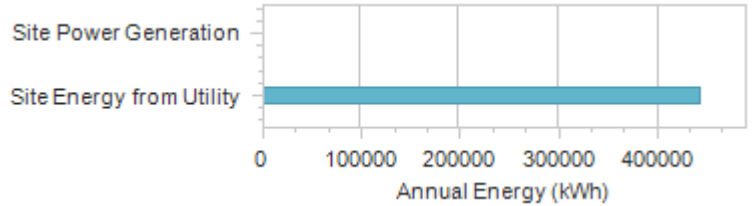
Greenhouse Gas Equivalence

Greenhouse Gas	Annual Total (kg)	Carbon Dioxide Equivalent (kg)	Percent of Total (%)
Carbon Dioxide (CO_2)	2,646,939.84	2,646,939.84	0.04 %
Methane (CH_4)	6,835,651.75	170,891,293.75	2.31 %
Nitrous Oxide (N_2O)	11,815,354.32	3,520,975,587.36	47.65 %
	Total	3,694,513,820.95	* Conversion factors from US EPA



On-Site and Renewable Energy Contribution Summary

Electric Load Satisfied	Energy (kWh)	Percent Electricity (%)
Site Energy from Utility	445,556	100%
Site Power Generation	0	0%



On-Site and Renewable Energy Systems

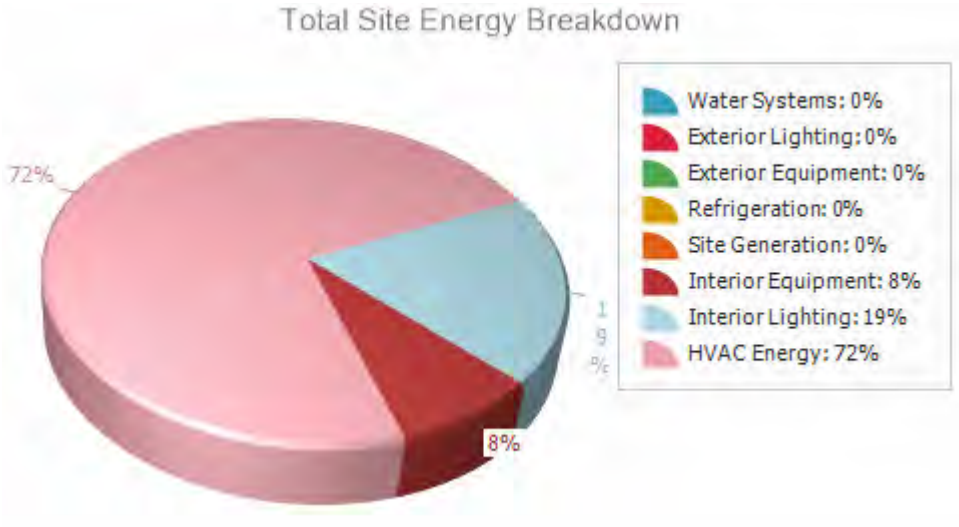
Electric Loads Satisfied	Electricity Used (kWh)	Percent Electricity (%)
Electricity Coming From Utility	445,556	100 %
Fuel-Fired Power Generation	0	0 %
Net Decrease in On-Site Storage	0	0 %
Net Electricity From Utility	445,556	100 %
Photovoltaic Power	0	0 %
Surplus Electricity Going To Utility	0	0 %
Total Electricity End Uses	445,556	100 %
Total On-Site and Utility Electric Sources	445,556	100 %
Total On-Site Electric Sources	0	0 %
Wind Power	0	0 %

Thermal Sources	Heat (Btu)	Percent Heat (%)
Air to Air Heat Recovery for Cooling	0	0 %
Air to Air Heat Recovery for Heating	0	0 %
Total Thermal Sources	0	0 %
Water-Side Heat Recovery	0	0 %

Monthly On-Site Generation

On-Site and Renewables (kWh)	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Photovoltaics	0	0	0	0	0	0	0	0	0	0	0	0	0
Wind	0	0	0	0	0	0	0	0	0	0	0	0	0
Internal Combustion Engine	0	0	0	0	0	0	0	0	0	0	0	0	0
Combustion Turbine	0	0	0	0	0	0	0	0	0	0	0	0	0

Lighting and Daylighting Summary



Window Area

	Units	North	East	South	West	Total
Above Ground Wall Area	ft²	3,485	2,587	3,485	2,587	12,143
Above Ground Window-Wall Ratio	%	6.87	9.93	16.06	4.36	9.62
Gross Wall Area	ft²	5,062	3,806	5,062	3,806	17,735
Gross Window-Wall Ratio	%	4.73	6.75	11.05	2.96	6.59
Window Opening Area	ft²	239	257	560	113	1,168

SkyLight Area

	Units	Total
Gross Roof Area	ft²	14,293
Skylight Area	ft²	0
Skylight-Roof Ratio	%	0

Lighting

Component	Electricity (kWh)	Site Energy (Mbtu)	Site Energy Use Intensity (Mbtu/ft²)	Source Energy (Mbtu)	Source Energy Use Intensity (Mbtu/ft²)
Interior Lighting	166,425	567,866	16.65	1,798,431	52.72
Exterior Lighting	0	0	0	0	0

Interior Lighting

Zone Name	Zone Lighting Library Entry (Libraries>InternalLoads>Lights)	Schedules (Libraries>Schedules>Lighting)	Lighting Power Density (W/ft²)	Installed Lighting Power (W)	Fraction of Lighting Energy to Return Air	Lighting Consumption (kWh)	Full Load Hours per Week
Zone 00-02	Room 00-00 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.34	754	0.31	6,604	167.98
Zone 00-04	Room 00-01 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.75	592	0.31	1,506	48.77
Zone 00-05	Room 00-02 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.75	484	0.31	1,230	48.77
Zone 00-06	Room 00-03 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.69	100	0.31	880	167.98
Zone 00-03	Room 00-04 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.75	86	0.31	749	167.98
Zone 00-01	Room 00-05 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.52	372	0.31	3,261	167.98
Zone 00-01	Room 00-06 _Light Load #001_Template	Lights - Mid-Rise Office - Lighting	0.23	168	0.31	496	56.62
Zone 00-02	Room 00-07 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.01	29	0.31	75	48.77
Zone 00-00	Room 00-08 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.26	168	0.31	1,474	167.98
Zone 00-00	Room 00-10 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.45	293	0.31	2,568	167.98
Zone 00-11	Room 00-11 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.69	151	0.31	1,322	167.98
Zone 00-02	Room 00-12 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.11	247	0.31	2,161	167.98
Zone 00-00	Room 00-14 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.05	30	0.31	76	48.77
Zone 00-10	Room 00-15 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.16	113	0.31	988	167.98
Zone 00-10	Room 00-16 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.59	425	0.31	3,724	167.98
Zone 00-02	Room 00-17 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.03	77	0.31	676	167.98
Zone 00-12	Room 00-18 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	1.23	1,255	0.31	3,192	48.77

Interior Lighting

Zone Name	Zone Lighting Library Entry (Libraries>InternalLoads>Lights)	Schedules (Libraries>Schedules>Lighting)	Lighting Power Density (W/ft²)	Installed Lighting Power (W)	Fraction of Lighting Energy to Return Air	Lighting Consumption (kWh)	Full Load Hours per Week
Zone 00-13	Room 00-19 _Light Load #001_Template	Lights - Mid-Rise Office - Lighting	0.32	264	0.31	780	56.62
Zone 00-13	Room 00-20 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.57	468	0.31	4,099	167.98
Zone 00-02	Room 00-21 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.04	93	0.31	813	167.98
Zone 00-02	Room 00-22 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.19	420	0.31	3,677	167.98
Zone 00-07	Room 00-24 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.75	180	0.31	457	48.77
Zone 00-09	Room 00-25 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.12	107	0.31	939	167.98
Zone 00-09	Room 00-26 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.09	86	0.31	217	48.77
Zone 00-09	Room 00-27 _Light Load #001_Template	Lights - Mid-Rise Office - Lighting	0.07	65	0.31	193	56.62
Zone 00-08	Room 00-29 _Light Load #001_Template	Lights - Mid-Rise Office - Lighting	0.02	59	0.31	173	56.62
Zone 00-09	Room 00-30 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.33	300	0.31	2,631	167.98
Zone 00-09	Room 00-31 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.14	125	0.31	1,091	167.98
Zone 00-08	Room 00-32 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.73	1,802	0.31	4,583	48.77
Zone 01-04	Room 01-00 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.9	5,083	0.31	44,520	167.98
Zone 01-00	Room 01-01 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0	0	0.31	0	167.98
Zone 01-00	Room 01-02 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.42	609	0.31	1,550	48.77
Zone 01-01	Room 01-03 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.69	104	0.31	915	167.98
Zone 01-02	Room 01-04 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.23	384	0.31	3,365	167.98
Zone 01-02	Room 01-05 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.23	386	0.31	3,379	167.98
Zone 01-03	Room 01-06 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.68	530	0.31	4,646	167.98
Zone 01-02	Room 01-07 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.25	424	0.31	3,715	167.98
Zone 01-08	Room 01-08 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.18	287	0.31	2,515	167.98
Zone 01-06	Room 01-09 _Light Load #001_Template	Lights - Mid-Rise Office - Lighting	0.17	57	0.31	169	56.62

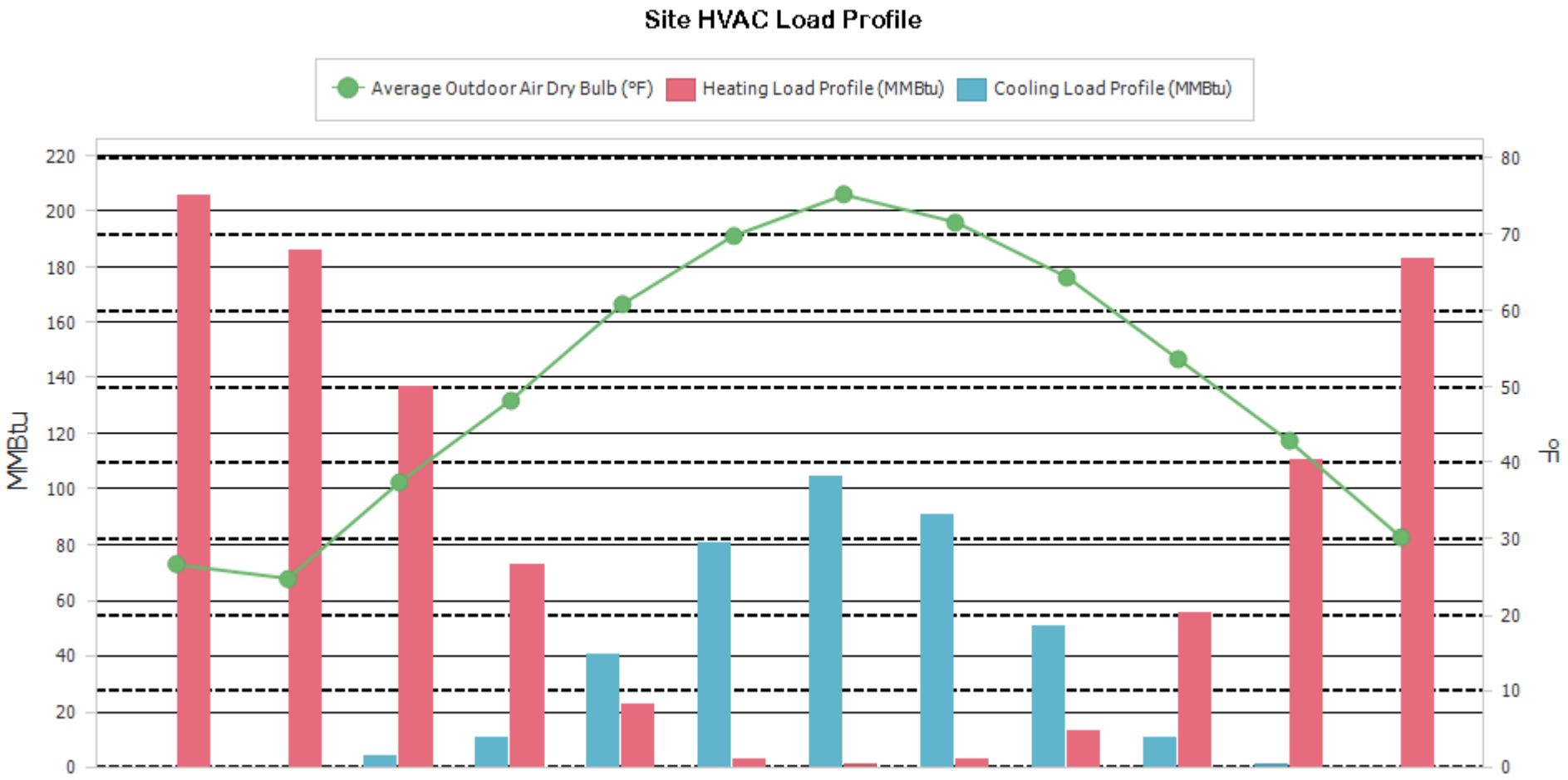
Interior Lighting

Zone Name	Zone Lighting Library Entry (Libraries>InternalLoads>Lights)	Schedules (Libraries>Schedules>Lighting)	Lighting Power Density (W/ft²)	Installed Lighting Power (W)	Fraction of Lighting Energy to Return Air	Lighting Consumption (kWh)	Full Load Hours per Week
Zone 01-03	Room 01-10 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.07	51	0.31	130	48.77
Zone 01-05	Room 01-11 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.69	161	0.31	1,408	167.98
Zone 01-07	Room 01-13 _Light Load #001_Template	Lights - Mid-Rise Office - Lighting	0.05	31	0.31	92	56.62
Zone 01-07	Room 01-15 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.5	317	0.31	2,779	167.98
Zone 01-07	Room 01-16 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.2	128	0.31	1,121	167.98
Zone 01-08	Room 01-17 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.53	843	0.31	7,384	167.98
Zone 01-06	Room 01-18 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.06	21	0.31	54	48.77
Zone 01-06	Room 01-20 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.49	169	0.31	1,479	167.98
Zone 01-04	Room 01-21 _Light Load #001_Template	Lights - Mid-Rise Office - Lighting	0.07	412	0.31	1,217	56.62
Zone -01-00	Room B1-00 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.45	3,496	0.78	30,621	167.98
Zone -01-03	Room B1-01 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.53	264	0.31	671	48.77
Zone -01-01	Room B1-02 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.09	95	0.31	241	48.77
Zone -01-02	Room B1-03 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.69	150	0.31	1,310	167.98
Zone -01-04	Room B1-04 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.62	209	0.31	532	48.77
Zone -01-04	Room B1-05 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.11	37	0.31	321	167.98
Zone -01-01	Room B1-06 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.26	270	0.31	686	48.77
Zone -01-01	Room B1-07 _Light Load #001_Template	Lights - Low-Rise Office - Lighting	0.07	77	0.31	197	48.77
Zone -01-03	Room B1-08 _Light Load #001_Template	Lights - Mid-Rise Office - Lighting	0.06	32	0.31	94	56.62
Zone -01-03	Room B1-09 _Light Load #001_Template	Lights - Cooling Only Design - Lighting	0.15	75	0.31	660	167.98

Daylighting

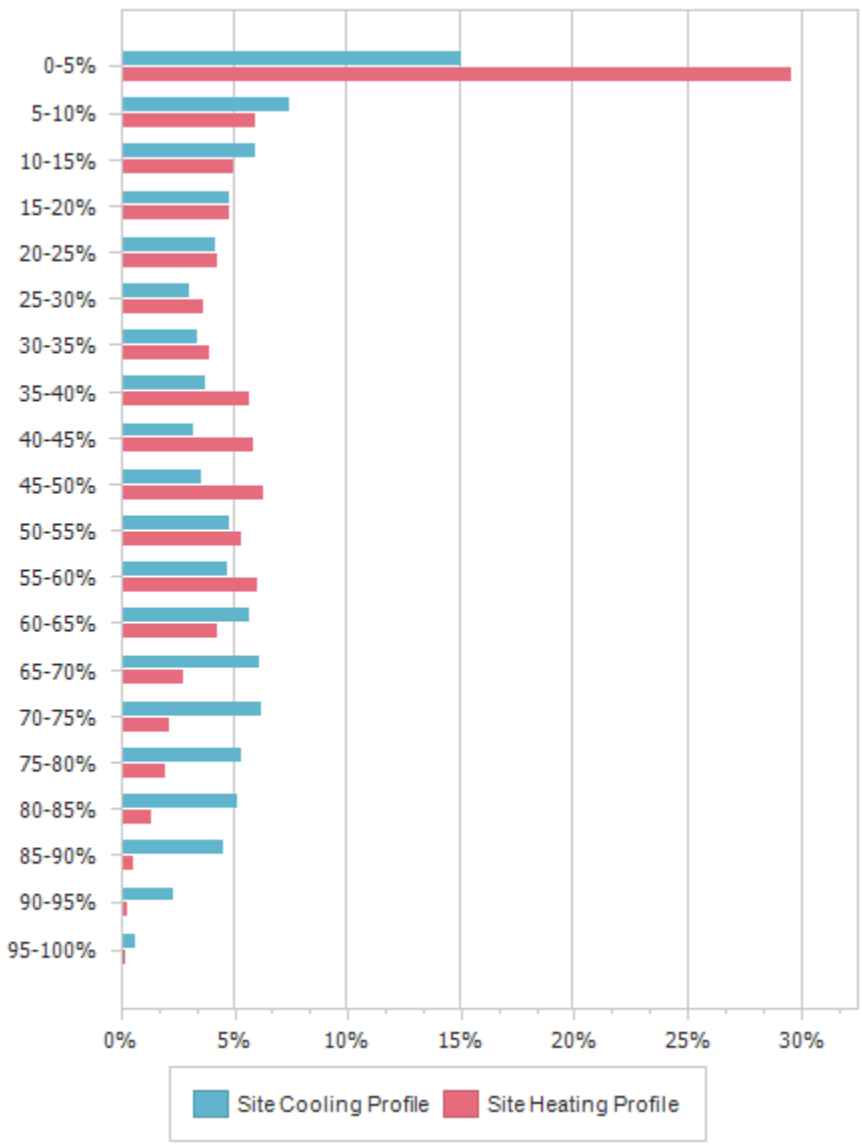
Daylighting Reference Point	Zone Name	Control Type	Control Type	Fraction of Lighting Controlled	Installed Lighting Power (W)	Controlled Lighting Power (W)	Window Area (ft²)	Average Visible Transmittance
None					0	0	0	0

Site Load Profile



	January	February	March	April	May	June	July	August	September	October	November	December
Cooling Load (MMBtu)	0	0	3.73	11.35	40.95	80.99	104.62	90.61	51.27	10.85	1.27	0
Heating Load (MMBtu)	206.49	185.56	136.61	73.01	23	3.42	0.61	2.53	12.54	56.4	111.45	182.72
Average OADB (°F)	26.1	25.7	37.6	49	61.2	69.9	75.2	70.9	63.9	53	42.4	30.9

Site HVAC Hourly Load Distribution



	Cooling			Heating		
% Load	Cutoff (tons)	% Hours	Hours	Cutoff (MBtuh)	% Hours	Hours
0-5	0.8	15.03%	715	22.9	29.55%	2,214
5-10	1.6	7.48%	356	45.7	5.94%	445
10-15	2.5	5.93%	282	68.6	4.94%	370
15-20	3.3	4.83%	230	91.4	4.79%	359
20-25	4.1	4.2%	200	114.3	4.23%	317
25-30	4.9	3.03%	144	137.1	3.64%	273
30-35	5.7	3.38%	161	160	3.95%	296
35-40	6.5	3.72%	177	182.8	5.69%	426
40-45	7.4	3.22%	153	205.7	5.86%	439
45-50	8.2	3.57%	170	228.5	6.31%	473
50-55	9	4.83%	230	251.4	5.37%	402
55-60	9.8	4.69%	223	274.2	6.05%	453
60-65	10.6	5.7%	271	297.1	4.31%	323
65-70	11.4	6.16%	293	319.9	2.8%	210
70-75	12.3	6.22%	296	342.8	2.18%	163
75-80	13.1	5.34%	254	365.6	2%	150
80-85	13.9	5.15%	245	388.5	1.36%	102
85-90	14.7	4.54%	216	411.3	0.57%	43
90-95	15.5	2.31%	110	434.2	0.29%	22
95-100	16.4	0.67%	32	457	0.17%	13

Cooling hours off: 4,002 (46%) Heating hours off: 1,267 (14%)

Site Temperature Profile

Zone Name	Unmet Heating Hours	Minimum Temperature (°F)	Time spent in each temperature range (°F)											Unmet Cooling Hours	Maximum Temperature (°F)	Mean Temperature (°F)
			< 50°F	50°F ≤ 55°F	55°F ≤ 60°F	60°F ≤ 65°F	65°F ≤ 70°F	70°F ≤ 75°F	75°F ≤ 80°F	80°F ≤ 85°F	85°F ≤ 90°F	90°F ≤ 95°F	> 95°F			
AH-1 (MZU)																
Zone Group 00																
Zone 00-00	3776	43.8	143	505	1,079	1,129	933	3,553	1,101	307	10	0	0	1418	86.1	68.6
Zone 00-01	3780	43.7	146	505	1,073	1,137	954	3,790	909	239	7	0	0	1156	85.8	68.5
Zone 00-02	3181	49.2	5	193	670	1,362	1,163	3,778	1,228	352	9	0	0	1590	85.7	70.2
Zone 00-09	3330	54.5	0	4	373	1,436	1,576	3,883	1,290	198	0	0	0	1488	83.8	70.7
Zone 00-10	3706	44.2	119	463	1,009	1,184	952	3,658	1,042	322	11	0	0	1375	86.1	68.8
Zone 00-12	3720	42.2	216	534	1,078	1,047	946	3,731	915	281	12	0	0	1208	87	68.3
Zone 00-13	3706	48.2	12	298	893	1,371	1,130	3,615	1,147	290	4	0	0	1442	85.1	69.4
Zone 01-02	3820	43.3	174	539	1,091	1,088	932	3,500	1,058	363	15	0	0	1437	86.9	68.5
Zone 01-03	3895	41.1	299	612	1,120	968	896	3,313	1,133	394	25	0	0	1552	87.2	68.1
Zone 01-06	3702	46.7	53	405	962	1,280	1,004	3,468	1,201	374	13	0	0	1590	86.5	69.2
Zone 01-07	3881	41.6	277	579	1,117	987	921	3,382	1,093	383	21	0	0	1498	86.9	68.2
Zone 01-08	3892	42	268	580	1,124	995	925	3,327	1,131	388	22	0	0	1542	87	68.2
AH-2 (Locker Room)																
Zone Group 00																
Zone 01-04	0	72.2	0	0	0	0	0	7,693	1,011	56	0	0	0	1072	82.8	73.6
AH-3 (Jail)																
Zone Group 00																
Zone 00-08	0	71.4	0	0	0	0	0	8,479	281	0	0	0	0	281	78.1	72.9
Unit Heater																
Zone Group 00																
Zone 00-03	0	71	0	0	0	0	0	5,266	1,198	1,140	692	362	102	3494	101.7	76.0
Zone 00-04	15	69.2	0	0	0	0	15	6,258	1,983	493	11	0	0	2489	85.9	73.4
Zone 00-05	0	71	0	0	0	0	0	6,010	1,678	976	96	0	0	2750	88.8	74.0

Zone Name	Unmet Heating Hours	Minimum Temperature (°F)	Time spent in each temperature range (°F)											Unmet Cooling Hours	Maximum Temperature (°F)	Mean Temperature (°F)
			< 50°F	50°F ≤ 55°F	55°F ≤ 60°F	60°F ≤ 65°F	65°F ≤ 70°F	70°F ≤ 75°F	75°F ≤ 80°F	80°F ≤ 85°F	85°F ≤ 90°F	90°F ≤ 95°F	> 95°F			
Zone 00-06	0	71	0	0	0	0	0	5,418	1,971	1,205	166	0	0	3342	89.9	74.7
Zone 00-07	41	69	0	0	0	0	41	6,210	2,203	306	0	0	0	2511	83.9	73.3
Zone 00-11	376	62.7	0	0	0	14	362	4,736	1,845	1,351	426	26	0	3649	92.4	75.1
Zone 01-00	0	71	0	0	0	0	0	5,732	1,028	1,140	688	164	8	3029	95.9	75.1
Zone 01-01	83	67.4	0	0	0	0	83	5,305	1,336	1,348	621	67	0	3374	93.3	75.2
Zone -01-01	3	70	0	0	0	0	3	8,703	54	0	0	0	0	55	75.7	72.5
Zone -01-02	0	71	0	0	0	0	0	5,309	3,451	0	0	0	0	3454	79.4	74.4
Zone -01-03	353	68.4	0	0	0	0	352	8,071	337	0	0	0	0	341	77	72.4
Zone -01-04	74	68.2	0	0	0	0	73	3,253	2,238	1,313	1,652	231	0	5437	94.2	78.5
Zone 01-05	522	61.7	0	0	0	69	453	4,661	1,604	1,378	538	57	0	3577	93.1	75.1
Ventilation and Heating																
Zone Group 00																
Zone -01-00	2668	57.3	0	0	32	543	2,091	5,197	861	36	0	0	0	897	81.7	70.7

0 Hours
1 - 100 Hours
100 - 4000 Hours
4000+ Hours

Site Humidity Profile

	Zone Name	Minimum % Relative Humidity	Time spent in each humidity range											Maximum % Relative Humidity	Mean % Relative Humidity
			< 30%	30% ≤ 35%	35% ≤ 40%	40% ≤ 45%	45% ≤ 50%	50% ≤ 55%	55% ≤ 60%	60% ≤ 65%	65% ≤ 70%	70% ≤ 75%	75% ≤ 80%	> 80%		
AH-1 (MZU)																
Zone Group 00																
	Zone 00-00	16.3	2,425	1,400	985	690	646	658	695	480	429	265	86	0	79.6	42.4
	Zone 00-01	16.3	2,418	1,370	969	714	619	647	691	480	390	314	137	11	81.0	42.7
	Zone 00-02	14	3,066	1,175	733	602	584	671	710	481	472	233	33	0	77.7	41.2
	Zone 00-09	11.5	3,177	1,083	682	596	574	651	711	454	501	238	93	0	79.7	41.1
	Zone 00-10	16.1	2,555	1,343	956	664	637	639	706	483	428	275	74	0	79.0	42.2
	Zone 00-12	17.3	2,049	1,534	1,052	772	609	669	698	523	391	321	130	12	81.2	43.6
	Zone 00-13	13.8	2,826	1,228	833	645	626	646	707	484	475	242	48	0	78.8	41.6
	Zone 01-02	16.3	2,373	1,421	991	727	648	685	693	480	430	265	48	0	78.7	42.3
	Zone 01-03	17.8	2,053	1,536	1,081	811	670	714	696	511	462	186	40	0	78.2	42.7
	Zone 01-06	14.8	2,657	1,280	937	654	651	675	718	534	452	177	26	0	77.2	41.8
	Zone 01-07	17.4	2,113	1,543	1,060	775	665	690	696	517	462	193	48	0	78.3	42.7
	Zone 01-08	17.3	2,104	1,531	1,073	781	668	699	697	524	477	175	30	0	77.7	42.7
AH-2 (Locker Room)																
Zone Group 00																
	Zone 01-04	3.4	4,152	625	441	485	493	479	511	628	592	266	89	0	80.0	37.2
AH-3 (Jail)																
Zone Group 00																
	Zone 00-08	4.8	3,973	674	598	512	521	444	793	771	379	92	2	0	75.4	36.8
Unit Heater																
Zone Group 00																
	Zone 00-03	5	3,848	890	851	754	742	645	456	254	223	82	14	2	80.3	35.4
	Zone 00-04	4.4	4,004	698	514	699	593	554	540	548	342	189	74	8	81.5	36.2
	Zone 00-05	11.5	8,760	0	0	0	0	0	0	0	0	0	0	0	21.1	18.6
	Zone 00-06	20.6	59	3	2	15	3	2	3	3	16	2	12	8,642	100.0	98.3

Zone Name	Minimum % Relative Humidity	Time spent in each humidity range												Maximum % Relative Humidity	Mean % Relative Humidity
		< 30%	30% ≤ 35%	35% ≤ 40%	40% ≤ 45%	45% ≤ 50%	50% ≤ 55%	55% ≤ 60%	60% ≤ 65%	65% ≤ 70%	70% ≤ 75%	75% ≤ 80%	> 80%		
Zone 00-07	4.5	4,028	696	509	651	619	510	491	591	359	217	76	13	81.5	36.4
Zone 00-11	7.6	3,340	890	819	786	727	645	618	530	246	97	51	12	82.9	38.9
Zone 01-00	4.2	4,092	795	873	850	785	651	314	241	130	26	4	0	77.5	33.1
Zone 01-01	20.6	60	3	17	2	3	3	17	2	4	16	3	8,630	100.0	98.7
Zone -01-01	17.7	8,760	0	0	0	0	0	0	0	0	0	0	0	21.8	19.6
Zone -01-02	20.6	58	1	2	1	2	2	13	2	1	2	2	8,674	100.0	99.6
Zone -01-03	28.1	55	107	109	141	72	105	65	97	106	162	90	7,651	100.0	92.8
Zone -01-04	13.8	313	97	146	82	122	131	559	1,149	701	376	327	4,759	100.0	74.7
Zone 01-05	20.6	60	3	17	2	3	4	16	3	3	15	4	8,631	100.0	98.7
Ventilation and Heating															
Zone Group 00															
Zone -01-00	4.8	3,941	651	456	402	484	479	436	438	519	422	291	242	93.0	40

0 Hours
1 - 100 Hours
100 - 4000 Hours
4000+ Hours

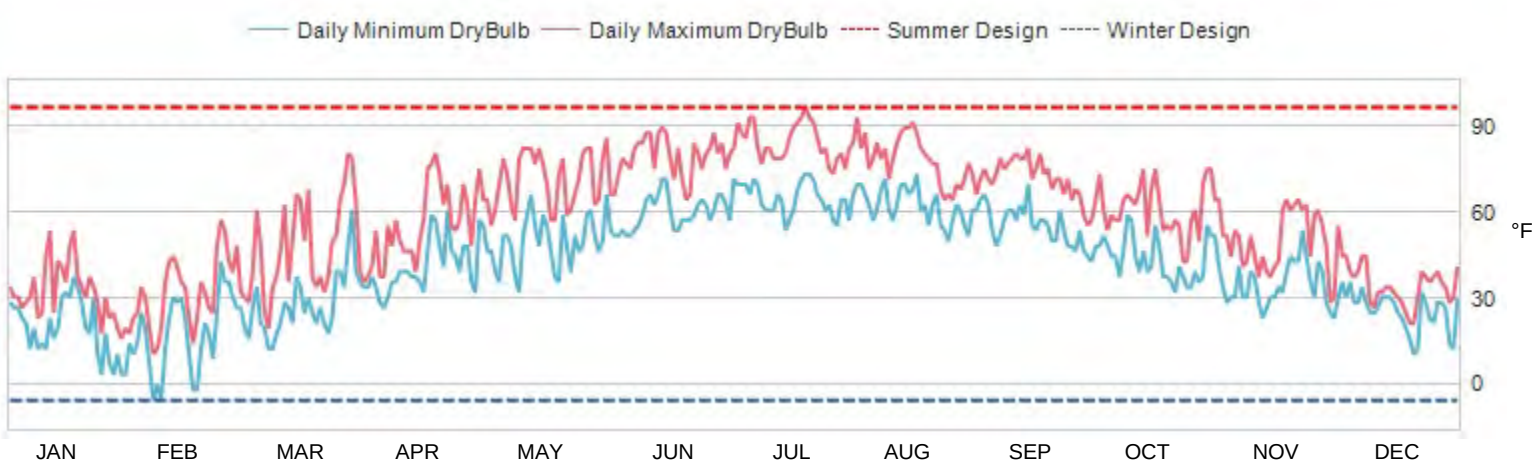
Climatic Summary

Overview

Location	Cleveland Hopkins Intl Ap OH USA
Weather File	USA_OH_Cleveland-Hopkins.Intl.AP.725240
Weather File Source	TMY3
WMO Station	725240
Latitude	N 41° 24
Longitude	W 81° 50
Time Zone	GMT -5.0 Hours
Elevation	771 ft
Standard Pressure	0.99 Bar
Heating Degree Days (base 65°F)	5,909
Cooling Degree Days (base 50°F)	3,130

Peaks

	Dry Bulb Temp. [F]	Dew Point Temp. [F]
Maximum	96.1	79
Date	Jul 20	Jul 7
Minimum	-5.1	-11
Date	Feb 6	Feb 6

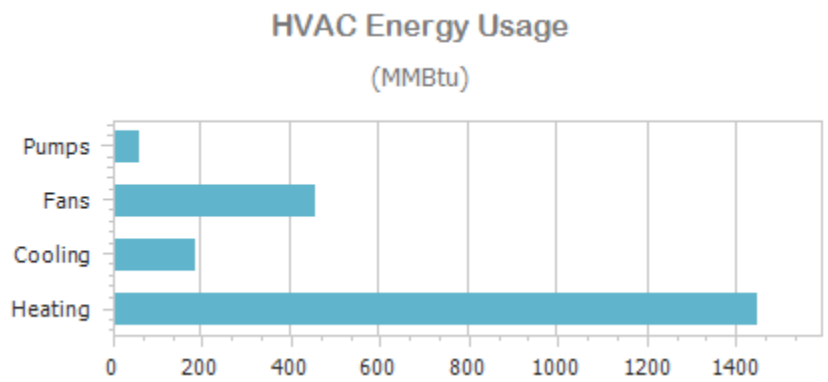


Design Day Data

	ASHRAE Design Conditions %	Design Temperature[F]	Daily Temperature Range [ΔF]	Humidity Value	Humidity Type	Wind Speed[mph]	Wind Direction deg.
Heating	99.6	4.1	0	2.8	Wetbulb[F]	28	230 °
Cooling	1	87	17.3	72.4	Wetbulb[F]	11.3	230 °

Site Consumption Summary

Energy Consumption





Component	Electricity (kWh)	Gas (MMBtu)	District Cooling (MMBtu)	District Heating Water (MMBtu)	Other Utilities (MMBtu)	Site Energy (Mbtu)	Site Energy Use Intensity (Mbtu/ft²)	Source Energy (Mbtu)	Source Energy Use Intensity (Mbtu/ft²)	Water (gal)
Heating	325	1,446	0	0	0	1,446,938	42.42	1,570,790	46.05	0
Cooling	54,767	0	0	0	0	186,872	5.48	591,822	17.35	0
Fans	133,197	0	0	0	0	454,488	13.32	1,439,363	42.2	0
Pumps	17,342	0	0	0	0	59,172	1.73	187,398	5.49	0
Heat Rejection	0	0	0	0	0	0	0	0	0	0
Humidification	0	0	0	0	0	0	0	0	0	0
Air-Side Heat Recovery	0	0	0	0	0	0	0	0	0	0
HVAC	205,631	1,446	0	0	0	2,147,469	62.96	3,789,374	111.09	0
Water Systems	0	0	0	0	0	0	0	0	0	0
Interior Lighting	166,425	0	0	0	0	567,866	16.65	1,798,431	52.72	0
Exterior Lighting	0	0	0	0	0	0	0	0	0	0
Interior Equipment	73,464	0	0	0	0	250,669	7.35	793,869	23.27	0
Exterior Equipment	0	0	0	0	0	0	0	0	0	0
Refrigeration	0	0	0	0	0	0	0	0	0	0
Non-HVAC	239,889	0	0	0	0	818,535	24	2,592,300	76	0
Generators	0	0	0	0	0	0	0	0	0	0
Site Generation	0	0	0	0	0	0	0	0	0	0
Grand Total	445,519	1,446	0	0	0	2,966,004	86.95	6,381,674	187.09	0

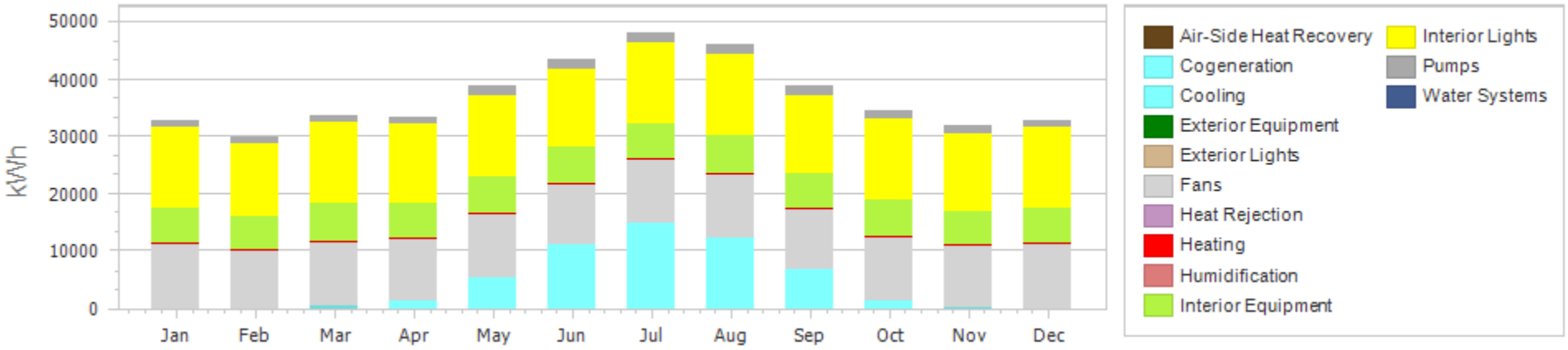
IT Equipment Energy 0 0 PUE N/A

Gross Floor Area: 34,100 ft² Region: Midwest Building Type: Office CBECS Survey Year: 2012 Benchmark EUI: 80.0 Mbtu/ft²/yr

If the region reports as "All US" it means the data for the particular region was withheld because the Relative Standard Error was greater than 50 percent or fewer than 20 buildings were sampled.

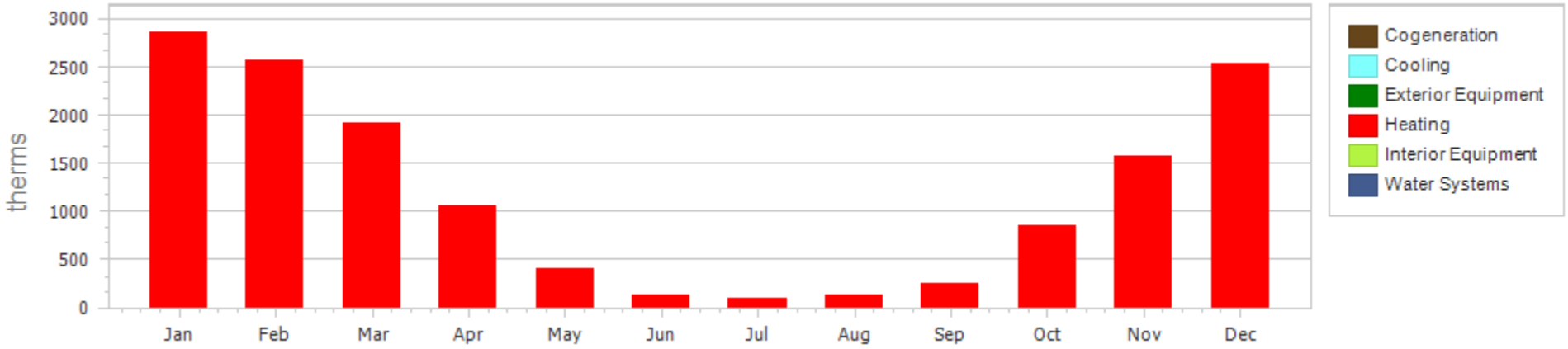
Monthly Energy End Use

Electricity



	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Air-Side Heat Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0
Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0
Cooling	0	0	523	1,553	5,563	11,150	14,948	12,538	6,815	1,490	187	0	54,766
Exterior Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
Exterior Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
Fans	11,510	10,387	11,387	10,922	11,206	10,829	11,190	11,190	10,836	11,260	11,001	11,480	133,197
Heat Rejection	0	0	0	0	0	0	0	0	0	0	0	0	0
Heating	64	58	43	24	9	3	2	3	6	19	36	57	324
Humidification	0	0	0	0	0	0	0	0	0	0	0	0	0
Interior Equipment	6,121	5,626	6,401	6,014	6,307	6,174	6,148	6,401	6,014	6,214	5,894	6,148	73,463
Interior Lights	14,061	12,761	14,239	13,661	14,180	13,766	14,075	14,239	13,661	14,120	13,588	14,075	166,425
Pumps	1,175	1,061	1,259	1,386	1,702	1,670	1,726	1,726	1,667	1,562	1,232	1,175	17,342
Water Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	32,931	29,893	33,851	33,560	38,967	43,592	48,089	46,096	39,000	34,665	31,937	32,935	445,517

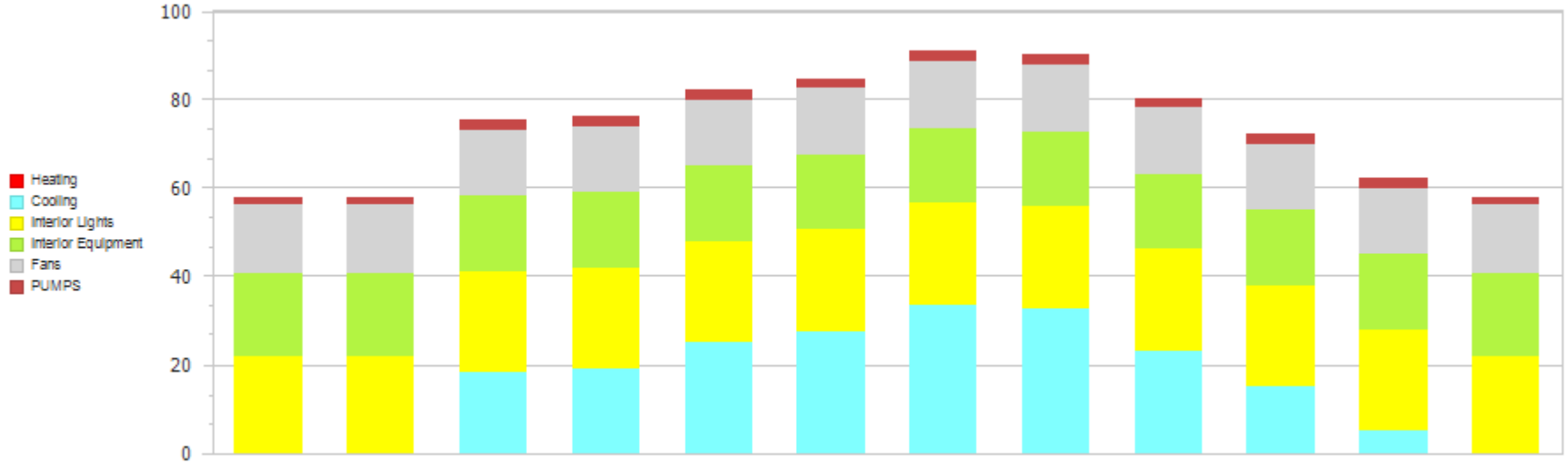
Natural Gas



	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0
Cooling	0	0	0	0	0	0	0	0	0	0	0	0	0
Exterior Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
Heating	2,861	2,572	1,925	1,071	406	142	108	134	264	852	1,585	2,543	14,462
Interior Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	2,861	2,572	1,925	1,071	406	142	108	134	264	852	1,585	2,543	14,462

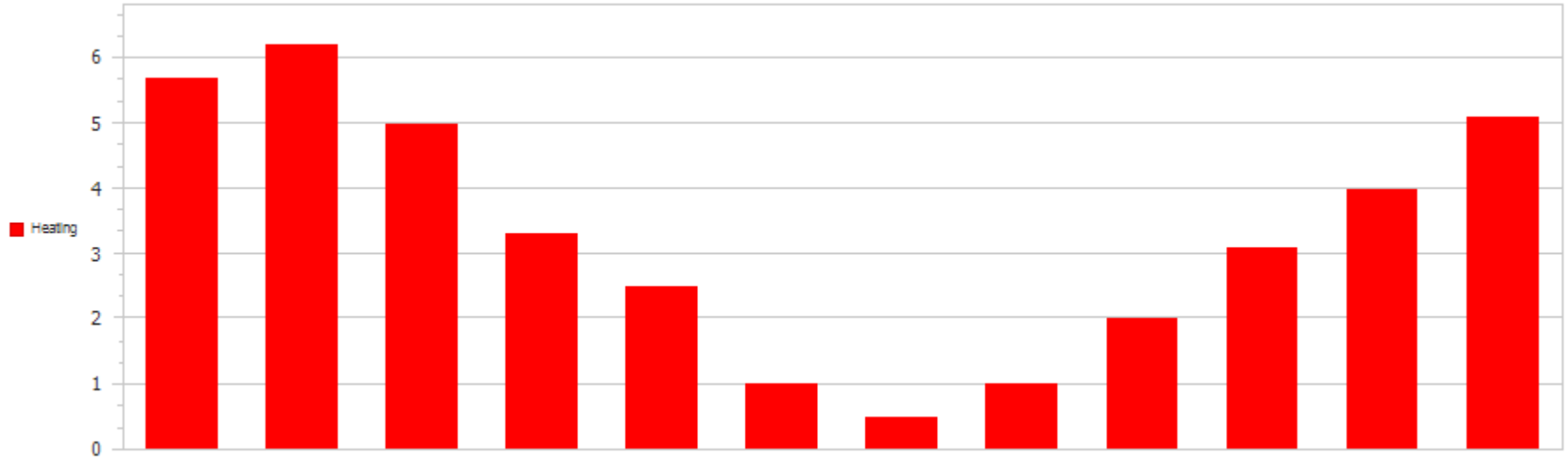
Utility Peak Demand Summary

Electricity (kW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Facility Demand	58	58	75.8	76.5	82.5	85.1	91.2	90.4	80.7	72.6	62.6	57.9
Time of Peak (Day/Hour)	30/10:00	08/10:00	28/14:00	18/14:00	31/14:00	15/14:00	07/14:00	02/14:00	14/14:00	13/14:00	20/14:00	20/10:00
Heating	0.1	0.1	0	0	0	0	0	0	0	0	0	0.1
Cooling	0	0	18.4	19.1	25.1	27.7	33.8	33	23.3	15.2	5.2	0
Interior Lights	22.1	22.1	23	23	23	23	23	23	23	23	23	22.1
Interior Equipment	18.6	18.6	17	17	17	17	17	17	17	17	17	18.6
Fans	15.6	15.6	15	15	15	15	15	15	15	15	15	15.5
PUMPS	1.6	1.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.6

Gas (therms/hr)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Facility Demand	5.7	6.2	5	3.3	2.5	1	0.5	1	2	3.1	4	5.1
Time of Peak (Day/Hour)	30/02:00	08/08:00	08/05:00	05/06:00	19/06:00	02/05:00	15/05:00	25/05:00	30/04:00	25/06:00	30/08:00	21/02:00
Heating	5.7	6.2	5	3.3	2.5	1	0.5	1	2	3.1	4	5.1

Zone Summary

Zone Names	Area (ft²)	Conditioned	Volume (ft³)	Gross Wall Area (ft²)	Window Glass (ft²)	People Density (ft²/person)	Lighting (W/ft²)	Plug and Process (W/ft²)	Lighting (W/ft²) Min	Lighting (W/ft²) Max	Plug and Process (W/ft²) Max
Zone 00-00	655	Yes	5,898	491	66	213.04	0.75	0.48	0	45.25	45.25
Zone 00-01	720	Yes	6,483	298	102	138.87	0.75	0.25	0	45.25	45.25
Zone 00-02	2,247	Yes	20,483	0	0	134.02	0.72	0.89	0	45.25	45.25
Zone 00-03	114	Yes	1,026	297	70	100.01	0.75	0.25	0	45.25	45.25
Zone 00-04	790	Yes	11,053	371	33	0	0.75	0.2	0	45.25	45.25
Zone 00-05	645	Yes	9,027	726	33	0	0.75	0.2	0	45.25	45.25
Zone 00-06	146	Yes	2,038	84	30	200.01	0.69	0	0	45.25	45.25
Zone 00-07	240	Yes	3,356	212	0	0	0.75	0.2	0	45.25	45.25
Zone 00-08	2,481	Yes	34,346	1,581	0	31,675.68	0.75	0.2	0	45.25	45.25
Zone 00-09	923	Yes	9,588	0	0	309.28	0.74	0.36	0	45.25	45.25
Zone 00-10	717	Yes	6,455	273	41	200.01	0.75	0.5	0	45.25	45.25
Zone 00-11	219	Yes	3,061	147	54	200.01	0.69	0	0	45.25	45.25
Zone 00-12	1,021	Yes	9,185	585	82	20.02	1.23	0.63	0	45.25	45.25
Zone 00-13	820	Yes	9,722	332	33	304.65	0.89	0.22	0	45.25	45.25
Zone 01-00	1,451	Yes	17,409	987	82	11,812,397.78	0.42	0.5	0	45.25	45.25
Zone -01-00	7,769	Yes	93,226	0	0	1,553.92	0.45	0.2	0	45.25	45.25
Zone 01-01	151	Yes	1,817	71	0	200.01	0.69	0	0	45.25	45.25
Zone -01-01	1,053	Yes	12,633	0	0	0	0.42	0.5	0	45.25	45.25
Zone 01-02	1,669	Yes	15,022	448	171	447.93	0.72	0.22	0	45.25	45.25
Zone -01-02	217	Yes	2,602	0	0	200.01	0.69	0	0	45.25	45.25
Zone 01-03	776	Yes	6,981	525	65	219.39	0.75	0.47	0	45.25	45.25

Zone Names	Area (ft²)	Conditioned	Volume (ft³)	Gross Wall Area (ft²)	Window Glass (ft²)	People Density (ft²/person)	Lighting (W/ft²)	Plug and Process (W/ft²)	Lighting (W/ft²) Min	Lighting (W/ft²) Max	Plug and Process (W/ft²) Min	Plug and Process (W/ft²) Max
Zone -01-03	502	Yes	6,020	0	0	3,343.81	0.74	0.18	0	45.25		
Zone 01-04	5,632	Yes	50,691	1,418	190	216.91	0.98	0.2	0	45.25		
Zone -01-04	336	Yes	4,037	0	0	5,875.19	0.73	44.51	0	45.25		
Zone 01-05	233	Yes	2,796	126	0	200.01	0.69	0	0	45.25		
Zone 01-06	343	Yes	3,131	0	0	285.7	0.72	0.4	0	45.25		
Zone 01-07	635	Yes	5,717	272	36	211.1	0.75	0.48	0	45.25		
Zone 01-08	1,597	Yes	14,555	615	77	264.71	0.71	0.38	0	45.25		
Conditioned Total	34,100		368,358	9,860	1,166	243.5	0.7	0.75	0	45.25		
Total	34,100		368,358	9,860	1,166	243.5	0.7	0.75	0	45.25		
Unconditioned Total	0		0	0	0	0	0	0	0	45.25		

Design Day: Zone Cooling (1%) and Heating (99%)

Zone Names		Calculated Design Sensible Load	User Design Sensible Load	Calculated Design Air Flow (cfm)	User Design Air Flow (cfm)	Date of Peak	External Temperature at Peak (°F)	Humidity Ratio at Peak (gr/lb)	Calculated Cooling Load (tons) Min	Calculated Cooling Load (tons) Max	Calculated Heating Load (Mbh) Min	Calculated Heating Load (Mbh) Max
Zone 00-00	Cooling	0.6 tons	0.6 tons	748	748	9/21 11:00	76	0	0	3.1		
	Heating	7.8 Mbh	7.8 Mbh	739	739	1/21 24:00	4.1	0	0	111.6		
Zone 00-01	Cooling	1 tons	1 tons	1,263	1,263	10/21 13:00	70.2	0	0	3.1		
	Heating	7.8 Mbh	7.8 Mbh	1,235	1,235	1/21 24:00	4.1	0	0	111.6		
Zone 00-02	Cooling	1.2 tons	1.2 tons	1,460	1,460	8/21 14:00	85.1	0	0	3.1		
	Heating	2.5 Mbh	2.5 Mbh	598	598	1/21 24:00	4.1	0	0	111.6		
Zone 00-03	Cooling	0.5 tons	0.5 tons	271	271	9/21 14:00	80	0	0	3.1		
	Heating	6.3 Mbh	6.3 Mbh	271	271	1/21 24:00	4.1	0	0	111.6		
Zone 00-04	Cooling	0.4 tons	0.4 tons	261	261	9/21 14:00	80	0	0	3.1		
	Heating	7.4 Mbh	7.4 Mbh	259	259	1/21 24:00	4.1	0	0	111.6		
Zone 00-05	Cooling	0.5 tons	0.5 tons	333	333	8/21 16:00	84.1	0	0	3.1		

Zone Names		Calculated Design Sensible Load	User Design Sensible Load	Calculated Design Air Flow (cfm)	User Design Air Flow (cfm)	Date of Peak	External Temperature at Peak (°F)	Humidity Ratio at Peak (gr/lb)	Calculated Cooling Load (tons) Min	Calculated Heating Load (Mbh) Max
	Heating	9.4 Mbh	9.4 Mbh	333	333	1/21 24:00	4.1	0	0	111.6
Zone 00-06	Cooling	0.2 tons	0.2 tons	140	140	7/21 18:00	82.8	0	0	3.1
	Heating	2.1 Mbh	2.1 Mbh	140	140	1/21 24:00	4.1	0	0	111.6
Zone 00-07	Cooling	0.1 tons	0.1 tons	53	53	7/21 20:00	78.3	0	0	3.1
	Heating	2.1 Mbh	2.1 Mbh	53	53	1/21 24:00	4.1	0	0	111.6
Zone 00-08	Cooling	0.7 tons	0.7 tons	877	877	7/21 22:00	75.2	0	0	3.1
	Heating	10.8 Mbh	10.8 Mbh	871	871	1/21 24:00	4.1	0	0	111.6
Zone 00-09	Cooling	0.3 tons	0.3 tons	413	413	7/21 20:00	78.3	0	0	3.1
	Heating	1.4 Mbh	1.4 Mbh	341	341	1/21 24:00	4.1	0	0	111.6
Zone 00-10	Cooling	0.6 tons	0.6 tons	801	801	7/21 10:00	80.4	0	0	3.1
	Heating	5 Mbh	5 Mbh	778	778	1/21 24:00	4.1	0	0	111.6
Zone 00-11	Cooling	0.4 tons	0.4 tons	231	231	7/21 10:00	80.4	0	0	3.1
	Heating	4.1 Mbh	4.1 Mbh	229	229	1/21 24:00	4.1	0	0	111.6
Zone 00-12	Cooling	1.5 tons	1.5 tons	1,858	1,858	7/21 10:00	80.4	0	0	3.1
	Heating	9.3 Mbh	9.3 Mbh	1,803	1,803	1/21 24:00	4.1	0	0	111.6
Zone 00-13	Cooling	0.4 tons	0.4 tons	464	464	7/21 15:00	87	0	0	3.1
	Heating	6.2 Mbh	6.2 Mbh	464	464	1/21 24:00	4.1	0	0	111.6
Zone 01-00	Cooling	1.1 tons	1.1 tons	689	689	7/21 17:00	84.6	0	0	3.1
	Heating	36.2 Mbh	36.2 Mbh	689	689	1/21 24:00	4.1	0	0	111.6
Zone -01-00	Cooling	2.3 tons	2.3 tons	1,017	1,017	7/21 15:00	87	0	0	3.1
	Heating	110.3 Mbh	110.3 Mbh	1,774	1,774	1/21 24:00	4.1	0	0	111.6
Zone 01-01	Cooling	0.1 tons	0.1 tons	78	78	7/21 19:00	80.2	0	0	3.1
	Heating	3.3 Mbh	3.3 Mbh	78	78	1/21 24:00	4.1	0	0	111.6
Zone -01-01	Cooling	0.3 tons	0.3 tons	170	170	9/21 18:00	75.8	0	0	3.1
	Heating	1.6 Mbh	1.6 Mbh	170	170	1/21 24:00	4.1	0	0	111.6

Zone Names		Calculated Design Sensible Load	User Design Sensible Load	Calculated Design Air Flow (cfm)	User Design Air Flow (cfm)	Date of Peak	External Temperature at Peak (°F)	Humidity Ratio at Peak (gr/lb)	Calculated Cooling Load (tons) Min	Calculated Heating Load (Mbh) Max
Zone 01-02	Cooling	1.6 tons	1.6 tons	2,021	2,021	9/21 14:00	80	0	0	3.1
	Heating	20.3 Mbh	20.3 Mbh	1,884	1,884	1/21 24:00	4.1	0	0	111.6
Zone -01-02	Cooling	0.1 tons	0.1 tons	55	55	7/21 16:00	86	0	0	3.1
	Heating	0.3 Mbh	0.3 Mbh	55	55	1/21 24:00	4.1	0	0	111.6
Zone 01-03	Cooling	0.6 tons	0.6 tons	765	765	8/21 14:00	85.1	0	0	3.1
	Heating	11.5 Mbh	11.5 Mbh	748	748	1/21 24:00	4.1	0	0	111.6
Zone -01-03	Cooling	0.1 tons	0.2 tons	78	100	6/21 20:00	76.1	0	0	3.1
	Heating	0.5 Mbh	0.6 Mbh	91	97	1/21 24:00	4.1	0	0	111.6
Zone 01-04	Cooling	3.1 tons	3.1 tons	3,835	3,835	7/21 18:00	82.8	0	0	3.1
	Heating	53.7 Mbh	53.7 Mbh	3,742	3,742	1/21 24:00	4.1	0	0	111.6
Zone -01-04	Cooling	1.2 tons	1.2 tons	710	710	6/21 20:00	76.1	0	0	3.1
	Heating	0.5 Mbh	0.5 Mbh	127	127	1/21 24:00	4.1	0	0	111.6
Zone 01-05	Cooling	0.2 tons	0.2 tons	112	112	7/21 18:00	82.8	0	0	3.1
	Heating	4.7 Mbh	4.7 Mbh	112	112	1/21 24:00	4.1	0	0	111.6
Zone 01-06	Cooling	0.2 tons	0.2 tons	235	235	7/21 19:00	80.2	0	0	3.1
	Heating	2.4 Mbh	2.4 Mbh	214	214	1/21 24:00	4.1	0	0	111.6
Zone 01-07	Cooling	0.5 tons	0.5 tons	672	672	7/21 10:00	80.4	0	0	3.1
	Heating	7.4 Mbh	7.4 Mbh	636	636	1/21 24:00	4.1	0	0	111.6
Zone 01-08	Cooling	0.9 tons	0.9 tons	1,155	1,155	7/21 10:00	80.4	0	0	3.1
	Heating	17.9 Mbh	17.9 Mbh	1,125	1,125	1/21 24:00	4.1	0	0	111.6

Zone Cooling and Heating Loads by Component

ZONE_Zone 00-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 11:00:00					
Outside	DB / WB / HR	76.0	°F /	66.2	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	64.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2,331	3,594	0	5,925	70.7
Door	0	0	0	0	0.0
Wall	0	-724	0	-724	-8.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	13	0	13	0.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-385	0	-385	-4.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	29	0	5	34	0.4
Envelope Subtotal	2,360	2,497	5	4,863	-
People	323	334	615	1,272	15.2
Lights	453	609	0	1,061	12.7
Miscellaneous Loads	646	376	0	1,022	12.2
Internal Subtotal	1,422	1,318	615	3,356	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-257	0	-257	-3.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-99	0	-99	-1.2
Grand Total	3,782	3,460	621	7,863	100.0
RA Sensible (Lights)	520	0	0	520	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		81.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-4,142	0	0	-4,142	53.0
Door	0	0	0	0	0.0
Wall	0	-2,774	0	-2,774	35.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	159	0	159	-2.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	504	0	504	-6.5
Slab	0	2	0	2	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,108	0	0	-1,112	14.2
Envelope Subtotal	-5,250	-2,108	0	-7,362	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-169	0	-169	2.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-280	0	-280	3.6
Grand Total	-5,250	-2,557	0	-7,811	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,136
Cooling ACH	11.56
Sec Fan cfm	0
Input Ventilation cfm	55
Calculated Ventilation cfm	77
Calculated Ventilation ACH	0.78
Infiltration cfm	14
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,136
Heating ACH	11.56
Sec Fan cfm	0
Input Ventilation cfm	55
Calculated Ventilation cfm	74
Calculated Ventilation ACH	0.75
Infiltration cfm	14
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	704
Window	66
Door	0
Wall	491
Below-Grade Wall	0
Other Wall	491
Partition	1,294
Exterior Floor	0
Internal Floor	701
Slab	3
Other Floor	701

Engineering Checks For Cooling

Cooling tons	0.66	No People(max)	3.08
%OA	7	People per 1000 ft²	5
cfm/ft²	1.73	Volume (ft³)	5,898
cfm/ton	1,733		
ft²/ton	1,000		
Btu/h-ft²	12.00		

Engineering Checks For Heating

Heating Mbh	-7.81	No People(max)	3.08
%OA	6	People per 1000 ft²	5
cfm/ft²	1.73	Volume (ft³)	5,898
cfm/Mbh	-145		
ft²/Mbh	-84		
Btu/h-ft²	-11.90		

ZONE_Zone 00-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		10/21 13:00:00					
Outside	DB / WB / HR	70.2	°F /	60.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	63.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	4,026	8,956	0	12,982	98.6
Door	0	0	0	0	0.0
Wall	0	-944	0	-944	-7.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,019	0	-1,019	-7.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-292	0	-292	-2.2
Slab	0	-245	0	-245	-1.9
Other Floor	0	0	0	0	0.0
Infiltration	-60	0	-164	-224	-1.7
Envelope Subtotal	3,966	6,457	-164	10,259	-
People	508	662	804	1,975	15.0
Lights	498	711	0	1,208	9.2
Miscellaneous Loads	369	233	0	601	4.6
Internal Subtotal	1,375	1,606	804	3,785	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-952	0	-952	-7.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	-271	-271	-2.1
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-221	0	-221	-1.7
Grand Total	5,341	6,889	369	12,600	100.0
RA Sensible (Lights)	571	0	0	571	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		77.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-5,836	0	0	-5,836	75.1
Door	0	0	0	0	0.0
Wall	0	-1,273	0	-1,273	16.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	310	0	310	-4.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	178	0	178	-2.3
Slab	0	403	0	403	-5.2
Other Floor	0	0	0	0	0.0
Infiltration	-1,192	0	0	-1,197	15.4
Envelope Subtotal	-7,028	-382	0	-7,415	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	91	0	91	-1.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-445	0	-445	5.7
Grand Total	-7,028	-736	0	-7,769	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,900
Cooling ACH	17.58
Sec Fan cfm	0
Input Ventilation cfm	55
Calculated Ventilation cfm	129
Calculated Ventilation ACH	1.19
Infiltration cfm	15
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,900
Heating ACH	17.58
Sec Fan cfm	0
Input Ventilation cfm	55
Calculated Ventilation cfm	123
Calculated Ventilation ACH	1.14
Infiltration cfm	15
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	760
Window	102
Door	0
Wall	298
Below-Grade Wall	0
Other Wall	298
Partition	1,142
Exterior Floor	0
Internal Floor	228
Slab	532
Other Floor	228

Engineering Checks For Cooling

Cooling tons	1.05	No People(max)	5.19
%OA	7	People per 1000 ft²	7
cfm/ft²	2.64	Volume (ft³)	6,483
cfm/ton	1,809		
ft²/ton	686		
Btu/h-ft²	17.49		

Engineering Checks For Heating

Heating Mbh	-7.77	No People(max)	5.19
%OA	6	People per 1000 ft²	7
cfm/ft²	2.64	Volume (ft³)	6,483
cfm/Mbh	-244		
ft²/Mbh	-93		
Btu/h-ft²	-10.75		

ZONE_Zone 00-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 14:00:00					
Outside	DB / WB / HR	85.1	°F /	71.9	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	66.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	583	0	583	2.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-492	0	-492	-2.5
Slab	0	-73	0	-73	-0.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	18	0	18	-
People	1,849	2,402	4,011	8,262	41.6
Lights	1,492	2,365	0	3,858	19.4
Miscellaneous Loads	3,705	2,349	0	6,054	30.5
Internal Subtotal	7,046	7,117	4,011	18,173	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-33	0	-33	-0.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-16	0	-16	-0.1
Grand Total	7,046	7,085	4,011	18,142	100.0
RA Sensible (Lights)	1,713	0	0	1,713	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,326	0	-1,326	52.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-184	0	-184	7.3
Slab	0	-127	0	-127	5.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,637	0	-1,637	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-878	0	-878	34.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	0	-2,515	0	-2,515	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	2,001
Cooling ACH	5.86
Sec Fan cfm	0
Input Ventilation cfm	221
Calculated Ventilation cfm	136
Calculated Ventilation ACH	0.40
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	2,001
Heating ACH	5.86
Sec Fan cfm	0
Input Ventilation cfm	221
Calculated Ventilation cfm	129
Calculated Ventilation ACH	0.38
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	2,382
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	5,102
Exterior Floor	0
Internal Floor	1,843
Slab	540
Other Floor	1,843

Engineering Checks For Cooling

Cooling tons	1.51	No People(max)	16.76
%OA	7	People per 1000 ft²	7
cfm/ft²	0.89	Volume (ft³)	20,483
cfm/ton	1,323		
ft²/ton	1,486		
Btu/h-ft²	8.08		

Engineering Checks For Heating

Heating Mbh	-2.52	No People(max)	16.76
%OA	6	People per 1000 ft²	7
cfm/ft²	0.89	Volume (ft³)	20,483
cfm/Mbh	-795		
ft²/Mbh	-893		
Btu/h-ft²	-1.12		

ZONE_Zone 00-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	47.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2,789	3,826	0	6,615	109.5
Door	0	0	0	0	0.0
Wall	0	-1,204	0	-1,204	-19.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-212	0	-212	-3.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	79	0	79	1.3
Other Floor	0	0	0	0	0.0
Infiltration	106	0	250	356	5.9
Envelope Subtotal	2,895	2,489	250	5,634	-
People	112	125	177	414	6.8
Lights	79	102	0	180	3.0
Miscellaneous Loads	58	33	0	92	1.5
Internal Subtotal	249	260	177	686	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-207	0	-207	-3.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-162	0	-162	-2.7
Grand Total	3,144	2,380	427	5,951	100.0
RA Sensible (Lights)	90	0	0	90	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		92.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-3,189	0	0	-3,189	50.8
Door	0	0	0	0	0.0
Wall	0	-1,304	0	-1,304	20.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	202	0	202	-3.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	352	0	352	-5.6
Other Floor	0	0	0	0	0.0
Infiltration	-1,369	0	0	-1,374	21.9
Envelope Subtotal	-4,558	-750	0	-5,314	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-795	0	-795	12.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-175	0	-175	2.8
Grand Total	-4,558	-1,721	0	-6,284	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	249
Cooling ACH	14.56
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	17
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	249
Heating ACH	14.56
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	17
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	125
Window	70
Door	0
Wall	297
Below-Grade Wall	0
Other Wall	297
Partition	106
Exterior Floor	0
Internal Floor	0
Slab	125
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.50	No People(max)	1.14
%OA	0	People per 1000 ft²	10
cfm/ft²	2.18	Volume (ft³)	1,026
cfm/ton	501		
ft²/ton	230		
Btu/h-ft²	52.17		

Engineering Checks For Heating

Heating Mbh	-6.28	No People(max)	1.14
%OA	0	People per 1000 ft²	10
cfm/ft²	2.18	Volume (ft³)	1,026
cfm/Mbh	-40		
ft²/Mbh	-18		
Btu/h-ft²	-55.56		

ZONE_Zone 00-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	50.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		56.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,495	1,784	0	3,280	55.2
Door	0	0	0	0	0.0
Wall	0	-260	0	-260	-4.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	172	0	172	2.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	455	0	455	7.6
Other Floor	0	0	0	0	0.0
Infiltration	171	0	348	518	8.7
Envelope Subtotal	1,666	2,151	348	4,165	-
People	0	0	0	0	0.0
Lights	546	626	0	1,171	19.7
Miscellaneous Loads	323	160	0	483	8.1
Internal Subtotal	869	785	0	1,654	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-427	0	-427	-7.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-74	0	-74	-1.2
Grand Total	2,535	2,436	348	5,318	100.0
RA Sensible (Lights)	626	0	0	626	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		98.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,154	0	0	-2,154	29.0
Door	0	0	0	0	0.0
Wall	0	-2,222	0	-2,222	29.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	4	0	4	-0.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	419	0	419	-5.6
Other Floor	0	0	0	0	0.0
Infiltration	-2,212	0	0	-2,220	29.9
Envelope Subtotal	-4,366	-1,798	0	-6,172	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-1,101	0	-1,101	14.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-158	0	-158	2.1
Grand Total	-4,366	-3,057	0	-7,431	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	296
Cooling ACH	1.61
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	28
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	296
Heating ACH	1.61
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	28
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	818
Window	33
Door	0
Wall	371
Below-Grade Wall	0
Other Wall	371
Partition	1,235
Exterior Floor	0
Internal Floor	0
Slab	818
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.44	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.38	Volume (ft³)	11,053
cfm/ton	669		
ft²/ton	1,782		
Btu/h-ft²	6.73		

Engineering Checks For Heating

Heating Mbh	-7.43	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.38	Volume (ft³)	11,053
cfm/Mbh	-40		
ft²/Mbh	-106		
Btu/h-ft²	-9.43		

ZONE_Zone 00-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 16:00:00					
Outside	DB / WB / HR	84.1	°F /	71.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		57.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	850	998	0	1,848	28.8
Door	0	3,870	0	3,870	60.3
Wall	0	-264	0	-264	-4.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-25	0	-25	-0.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	4	0	4	0.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	850	4,582	0	5,433	-
People	0	0	0	0	0.0
Lights	446	453	0	899	14.0
Miscellaneous Loads	264	116	0	380	5.9
Internal Subtotal	710	569	0	1,279	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-642	0	-642	-10.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-160	0	-160	-2.5
Grand Total	1,560	4,350	0	5,910	100.0
RA Sensible (Lights)	512	0	0	512	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		97.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,094	0	0	-2,094	22.3
Door	0	-3,896	0	-3,896	41.5
Wall	0	-3,689	0	-3,689	39.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	446	0	446	-4.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	826	0	826	-8.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	-2,094	-6,314	0	-8,407	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-694	0	-694	7.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-280	0	-280	3.0
Grand Total	-2,094	-7,288	0	-9,382	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	371
Cooling ACH	2.47
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	371
Heating ACH	2.47
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	670
Window	33
Door	112
Wall	726
Below-Grade Wall	0
Other Wall	726
Partition	726
Exterior Floor	0
Internal Floor	0
Slab	670
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.49	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.58	Volume (ft³)	9,027
cfm/ton	754		
ft²/ton	1,310		
Btu/h-ft²	9.16		

Engineering Checks For Heating

Heating Mbh	-9.38	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.58	Volume (ft³)	9,027
cfm/Mbh	-40		
ft²/Mbh	-69		
Btu/h-ft²	-14.49		

ZONE_Zone 00-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	47.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,424	1,829	0	3,253	104.9
Door	0	0	0	0	0.0
Wall	0	-27	0	-27	-0.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-600	0	-600	-19.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	180	0	180	5.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	1,424	1,380	0	2,805	-
People	76	114	146	336	10.8
Lights	93	162	0	255	8.2
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	169	276	146	591	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-311	0	-311	-10.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-91	0	-91	-2.9
Grand Total	1,593	1,255	146	2,993	100.0
RA Sensible (Lights)	106	0	0	106	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		85.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,533	0	0	-1,533	73.6
Door	0	0	0	0	0.0
Wall	0	-352	0	-352	16.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-75	0	-75	3.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	81	0	81	-3.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	-1,533	-346	0	-1,879	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-87	0	-87	4.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-115	0	-115	5.5
Grand Total	-1,533	-548	0	-2,081	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	83
Cooling ACH	2.44
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	83
Heating ACH	2.44
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	162
Window	30
Door	0
Wall	84
Below-Grade Wall	0
Other Wall	84
Partition	840
Exterior Floor	0
Internal Floor	0
Slab	162
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.25	No People(max)	0.73
%OA	0	People per 1000 ft²	5
cfm/ft²	0.57	Volume (ft³)	2,038
cfm/ton	332		
ft²/ton	583		
Btu/h-ft²	20.58		

Engineering Checks For Heating

Heating Mbh	-2.08	No People(max)	0.73
%OA	0	People per 1000 ft²	5
cfm/ft²	0.57	Volume (ft³)	2,038
cfm/Mbh	-40		
ft²/Mbh	-70		
Btu/h-ft²	-14.29		

ZONE_Zone 00-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	346	0	346	22.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	27	0	27	1.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-10	0	-10	-0.7
Slab	0	-22	0	-22	-1.4
Other Floor	0	0	0	0	0.0
Infiltration	38	0	196	233	15.1
Envelope Subtotal	38	341	196	574	-
People	0	0	0	0	0.0
Lights	166	341	0	507	32.9
Miscellaneous Loads	98	87	0	185	12.0
Internal Subtotal	264	428	0	692	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	87	0	87	5.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.2
Grand Total	301	854	196	1,351	100.0
RA Sensible (Lights)	190	0	0	190	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		109.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,416	0	-1,416	65.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	61	0	61	-2.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	17	0	17	-0.8
Slab	0	45	0	45	-2.1
Other Floor	0	0	0	0	0.0
Infiltration	-671	0	0	-674	31.3
Envelope Subtotal	-671	-1,294	0	-1,968	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-171	0	-171	8.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-11	0	-11	0.5
Grand Total	-671	-1,476	0	-2,150	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	86
Cooling ACH	1.54
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	8
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	86
Heating ACH	1.54
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	8
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	255
Window	0
Door	0
Wall	212
Below-Grade Wall	0
Other Wall	212
Partition	684
Exterior Floor	0
Internal Floor	84
Slab	172
Other Floor	84

Engineering Checks For Cooling

Cooling tons	0.11	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.36	Volume (ft³)	3,356
cfm/ton	766		
ft²/ton	2,130		
Btu/h-ft²	5.63		

Engineering Checks For Heating

Heating Mbh	-2.15	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.36	Volume (ft³)	3,356
cfm/Mbh	-40		
ft²/Mbh	-112		
Btu/h-ft²	-8.93		

ZONE_Zone 00-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 22:00:00					
Outside	DB / WB / HR	75.2	°F /	69.1	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	61.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	7	0	7	0.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	2,350	0	2,350	22.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-124	0	-124	-1.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-233	0	-233	-2.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	1,999	0	1,999	-
People	1	6	1	8	0.1
Lights	1,714	2,109	0	3,824	36.6
Miscellaneous Loads	1,024	540	0	1,564	15.0
Internal Subtotal	2,739	2,655	1	5,395	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	1,091	0	1,091	10.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-5	0	-5	-0.1
Grand Total	2,739	5,740	1	8,481	100.0
RA Sensible (Lights)	1,968	0	0	1,968	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		82.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-47	0	-47	0.4
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-10,459	0	-10,459	97.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	539	0	539	-5.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	823	0	823	-7.6
Slab	0	16	0	16	-0.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-9,128	0	-9,128	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-1,552	0	-1,552	14.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-76	0	-76	0.7
Grand Total	0	-10,757	0	-10,757	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	2,250
Cooling ACH	3.93
Sec Fan cfm	0
Input Ventilation cfm	144
Calculated Ventilation cfm	144
Calculated Ventilation ACH	0.25
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	2,250
Heating ACH	3.93
Sec Fan cfm	0
Input Ventilation cfm	144
Calculated Ventilation cfm	144
Calculated Ventilation ACH	0.25
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	3
Other Roof	3
Ceiling	2,540
Window	0
Door	0
Wall	1,581
Below-Grade Wall	0
Other Wall	1,581
Partition	1,740
Exterior Floor	0
Internal Floor	2,499
Slab	45
Other Floor	2,499

Engineering Checks For Cooling

Cooling tons	0.71	No People(max)	0.08
%OA	6	People per 1000 ft²	0
cfm/ft²	0.91	Volume (ft³)	34,346
cfm/ton	3,183		
ft²/ton	3,511		
Btu/h-ft²	3.42		

Engineering Checks For Heating

Heating Mbh	-10.76	No People(max)	0.08
%OA	6	People per 1000 ft²	0
cfm/ft²	0.91	Volume (ft³)	34,346
cfm/Mbh	-209		
ft²/Mbh	-231		
Btu/h-ft²	-4.33		

ZONE_Zone 00-09

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	64.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-113	0	-113	-2.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-65	0	-65	-1.2
Slab	0	-50	0	-50	-0.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-228	0	-228	-
People	313	541	602	1,455	27.3
Lights	629	1,241	0	1,870	35.1
Miscellaneous Loads	684	578	0	1,262	23.7
Internal Subtotal	1,626	2,360	602	4,587	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	246	0	246	4.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.1
Grand Total	1,626	2,375	602	4,603	100.0
RA Sensible (Lights)	722	0	0	722	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-742	0	-742	51.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-123	0	-123	8.5
Slab	0	-79	0	-79	5.5
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-944	0	-944	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-493	0	-493	34.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	0	-1,437	0	-1,437	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	566
Cooling ACH	3.54
Sec Fan cfm	0
Input Ventilation cfm	64
Calculated Ventilation cfm	39
Calculated Ventilation ACH	0.24
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	566
Heating ACH	3.54
Sec Fan cfm	0
Input Ventilation cfm	64
Calculated Ventilation cfm	37
Calculated Ventilation ACH	0.23
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	996
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	3,181
Exterior Floor	0
Internal Floor	634
Slab	363
Other Floor	634

Engineering Checks For Cooling

Cooling tons	0.38	No People(max)	2.98
%OA	7	People per 1000 ft²	3
cfm/ft²	0.61	Volume (ft³)	9,588
cfm/ton	1,476		
ft²/ton	2,406		
Btu/h-ft²	4.99		

Engineering Checks For Heating

Heating Mbh	-1.44	No People(max)	2.98
%OA	6	People per 1000 ft²	3
cfm/ft²	0.61	Volume (ft³)	9,588
cfm/Mbh	-394		
ft²/Mbh	-642		
Btu/h-ft²	-1.56		

ZONE_Zone 00-10

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00				
Outside	DB / WB / HR	80.4 °F	/	70.6 °F	/	0.0 gr/lb
Zone	DB / RH / HR	74.0 °F	/	64.5 %	/	0.0 gr/lb
Supply Air Dry Bulb Temp		65.0 °F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,982	3,338	0	5,320	58.0
Door	0	0	0	0	0.0
Wall	0	-177	0	-177	-1.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	173	0	173	1.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-373	0	-373	-4.1
Slab	0	-2	0	-2	0.0
Other Floor	0	0	0	0	0.0
Infiltration	84	0	139	224	2.4
Envelope Subtotal	2,067	2,960	139	5,165	-
People	377	400	717	1,493	16.3
Lights	496	690	0	1,185	12.9
Miscellaneous Loads	734	441	0	1,175	12.8
Internal Subtotal	1,606	1,530	717	3,854	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-316	0	-316	-3.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-99	0	-99	-1.1
Grand Total	3,673	4,074	856	8,603	100.0
RA Sensible (Lights)	569	0	0	569	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00				
Outside	DB / WB / HR	4.1 °F	/	2.5 °F	/	0.0 gr/lb
Zone	DB / RH / HR	71.0 °F	/	4.1 %	/	0.0 gr/lb
Supply Air Dry Bulb Temp		77.1 °F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,478	0	0	-2,478	49.3
Door	0	0	0	0	0.0
Wall	0	-1,536	0	-1,536	30.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	16	0	16	-0.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	254	0	254	-5.0
Slab	0	2	0	2	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,021	0	0	-1,025	20.4
Envelope Subtotal	-3,498	-1,266	0	-4,768	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-96	0	-96	1.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-166	0	-166	3.3
Grand Total	-3,498	-1,528	0	-5,030	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,197
Cooling ACH	11.13
Sec Fan cfm	0
Input Ventilation cfm	61
Calculated Ventilation cfm	81
Calculated Ventilation ACH	0.75
Infiltration cfm	13
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,197
Heating ACH	11.13
Sec Fan cfm	0
Input Ventilation cfm	61
Calculated Ventilation cfm	77
Calculated Ventilation ACH	0.72
Infiltration cfm	13
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	759
Window	41
Door	0
Wall	273
Below-Grade Wall	0
Other Wall	273
Partition	1,232
Exterior Floor	0
Internal Floor	752
Slab	6
Other Floor	752

Engineering Checks For Cooling

Cooling tons	0.72	No People(max)	3.59
%OA	7	People per 1000 ft²	5
cfm/ft²	1.67	Volume (ft³)	6,455
cfm/ton	1,669		
ft²/ton	1,001		
Btu/h-ft²	11.99		

Engineering Checks For Heating

Heating Mbh	-5.03	No People(max)	3.59
%OA	6	People per 1000 ft²	5
cfm/ft²	1.67	Volume (ft³)	6,455
cfm/Mbh	-238		
ft²/Mbh	-143		
Btu/h-ft²	-6.99		

ZONE_Zone 00-11

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	48.5	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2,421	3,782	0	6,203	114.9
Door	0	0	0	0	0.0
Wall	0	-174	0	-174	-3.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-735	0	-735	-13.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-436	0	-436	-8.1
Slab	0	-1	0	-1	0.0
Other Floor	0	0	0	0	0.0
Infiltration	84	0	314	399	7.4
Envelope Subtotal	2,505	2,436	314	5,256	-
People	115	126	219	459	8.5
Lights	139	212	0	351	6.5
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	254	338	219	810	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-680	0	-680	-12.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-149	0	-149	-2.8
Grand Total	2,759	1,945	533	5,237	100.0
RA Sensible (Lights)	160	0	0	160	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		88.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,625	0	0	-2,625	63.4
Door	0	0	0	0	0.0
Wall	0	-607	0	-607	14.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	240	0	240	-5.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	193	0	193	-4.7
Slab	0	1	0	1	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,021	0	0	-1,025	24.7
Envelope Subtotal	-3,646	-173	0	-3,822	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-130	0	-130	3.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-189	0	-189	4.6
Grand Total	-3,646	-493	0	-4,142	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	167
Cooling ACH	3.27
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	167
Heating ACH	3.27
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	237
Window	54
Door	0
Wall	147
Below-Grade Wall	0
Other Wall	147
Partition	904
Exterior Floor	0
Internal Floor	235
Slab	2
Other Floor	235

Engineering Checks For Cooling

Cooling tons	0.44	No People(max)	1.09
%OA	0	People per 1000 ft²	5
cfm/ft²	0.76	Volume (ft³)	3,061
cfm/ton	382		
ft²/ton	501		
Btu/h-ft²	23.95		

Engineering Checks For Heating

Heating Mbh	-4.14	No People(max)	1.09
%OA	0	People per 1000 ft²	5
cfm/ft²	0.76	Volume (ft³)	3,061
cfm/Mbh	-40		
ft²/Mbh	-53		
Btu/h-ft²	-18.87		

ZONE_Zone 00-12

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	70.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2,265	3,462	0	5,727	19.3
Door	0	0	0	0	0.0
Wall	0	-597	0	-597	-2.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-443	0	-443	-1.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-1,172	0	-1,172	-4.0
Slab	0	-1	0	-1	0.0
Other Floor	0	0	0	0	0.0
Infiltration	153	0	152	304	1.0
Envelope Subtotal	2,418	1,249	152	3,819	-
People	5,358	4,697	10,205	20,259	68.4
Lights	1,156	1,468	0	2,625	8.9
Miscellaneous Loads	1,316	724	0	2,040	6.9
Internal Subtotal	7,830	6,889	10,205	24,924	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-247	0	-247	-0.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-203	0	-203	-0.7
Grand Total	10,248	7,687	10,357	28,292	100.0
RA Sensible (Lights)	1,328	0	0	1,328	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-4,885	0	0	-4,885	52.3
Door	0	0	0	0	0.0
Wall	0	-3,274	0	-3,274	35.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	247	0	247	-2.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	651	0	651	-7.0
Slab	0	4	0	4	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,837	0	0	-1,845	19.7
Envelope Subtotal	-6,723	-2,371	0	-9,102	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	66	0	66	-0.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-309	0	-309	3.3
Grand Total	-6,723	-2,615	0	-9,345	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	2,774
Cooling ACH	18.12
Sec Fan cfm	0
Input Ventilation cfm	316
Calculated Ventilation cfm	189
Calculated Ventilation ACH	1.23
Infiltration cfm	23
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	2,774
Heating ACH	18.12
Sec Fan cfm	0
Input Ventilation cfm	316
Calculated Ventilation cfm	180
Calculated Ventilation ACH	1.18
Infiltration cfm	23
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,053
Window	83
Door	0
Wall	585
Below-Grade Wall	0
Other Wall	585
Partition	585
Exterior Floor	0
Internal Floor	1,046
Slab	7
Other Floor	1,046

Engineering Checks For Cooling

Cooling tons	2.36	No People(max)	50.97
%OA	7	People per 1000 ft²	50
cfm/ft²	2.72	Volume (ft³)	9,185
cfm/ton	1,176		
ft²/ton	433		
Btu/h-ft²	27.71		

Engineering Checks For Heating

Heating Mbh	-9.35	No People(max)	50.97
%OA	6	People per 1000 ft²	50
cfm/ft²	2.72	Volume (ft³)	9,185
cfm/Mbh	-297		
ft²/Mbh	-109		
Btu/h-ft²	-9.17		

ZONE_Zone 00-13

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 15:00:00					
Outside	DB / WB / HR	87.0	°F /	72.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	64.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	487	507	0	995	16.8
Door	0	0	0	0	0.0
Wall	0	74	0	74	1.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	259	0	259	4.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-201	0	-201	-3.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	293	0	232	525	8.9
Envelope Subtotal	780	639	232	1,651	-
People	264	368	417	1,049	17.8
Lights	675	1,027	0	1,701	28.8
Miscellaneous Loads	372	253	0	625	10.6
Internal Subtotal	1,310	1,648	417	3,376	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	123	0	123	2.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-17	0	-17	-0.3
Grand Total	2,090	2,394	649	5,133	100.0
RA Sensible (Lights)	774	0	0	774	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,992	0	0	-1,992	32.3
Door	0	0	0	0	0.0
Wall	0	-1,990	0	-1,990	32.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-43	0	-43	0.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	170	0	170	-2.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,770	0	0	-1,777	28.8
Envelope Subtotal	-3,762	-1,863	0	-5,632	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-400	0	-400	6.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-141	0	-141	2.3
Grand Total	-3,762	-2,403	0	-6,172	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	713
Cooling ACH	4.40
Sec Fan cfm	0
Input Ventilation cfm	68
Calculated Ventilation cfm	49
Calculated Ventilation ACH	0.30
Infiltration cfm	22
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	713
Heating ACH	4.40
Sec Fan cfm	0
Input Ventilation cfm	68
Calculated Ventilation cfm	46
Calculated Ventilation ACH	0.28
Infiltration cfm	22
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	865
Window	33
Door	0
Wall	332
Below-Grade Wall	0
Other Wall	332
Partition	1,749
Exterior Floor	0
Internal Floor	865
Slab	0
Other Floor	865

Engineering Checks For Cooling

Cooling tons	0.43	No People(max)	2.69
%OA	7	People per 1000 ft²	3
cfm/ft²	0.87	Volume (ft³)	9,722
cfm/ton	1,666		
ft²/ton	1,918		
Btu/h-ft²	6.26		

Engineering Checks For Heating

Heating Mbh	-6.17	No People(max)	2.69
%OA	6	People per 1000 ft²	3
cfm/ft²	0.87	Volume (ft³)	9,722
cfm/Mbh	-115		
ft²/Mbh	-133		
Btu/h-ft²	-7.52		

ZONE_Zone 01-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)			7/21 17:00:00				
Outside	DB / WB / HR	84.6 °F	/	71.8 °F	/	0.0	gr/lb
Zone	DB / RH / HR	74.0 °F	/	50.0 %	/	0.0	gr/lb
Supply Air Dry Bulb Temp		55.7 °F					

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	7,301	0	7,301	45.3
Other Roof	0	0	0	0	0.0
Glass	1,454	1,671	0	3,125	19.4
Door	0	0	0	0	0.0
Wall	0	-229	0	-229	-1.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-220	0	-220	-1.4
Exterior Floor	0	-20	0	-20	-0.1
Interior Floor	0	-499	0	-499	-3.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	937	0	2,019	2,956	18.3
Envelope Subtotal	2,391	8,003	2019	12,413	-
People	0	0	0	0	0.0
Lights	561	528	0	1,089	6.8
Miscellaneous Loads	1,485	603	0	2,088	12.9
Internal Subtotal	2,046	1,130	0	3,177	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-109	0	-109	-0.7
Grand Total	4,438	9,024	2,019	15,481	100.0
RA Sensible (Lights)	645	0	0	645	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)			1/21 24:00:00				
Outside	DB / WB / HR	4.1 °F	/	2.5 °F	/	0.0	gr/lb
Zone	DB / RH / HR	71.0 °F	/	4.1 %	/	0.0	gr/lb
Supply Air Dry Bulb Temp		121.0 °F					

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-20,184	0	-20,184	55.7
Other Roof	0	0	0	0	0.0
Glass	-5,234	0	0	-5,234	14.4
Door	0	0	0	0	0.0
Wall	0	-5,453	0	-5,453	15.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	665	0	665	-1.8
Exterior Floor	0	-356	0	-356	1.0
Interior Floor	0	1,749	0	1,749	-4.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-6,972	0	0	-6,997	19.3
Envelope Subtotal	-12,206	-23,578	0	-35,810	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-427	0	-427	1.2
Grand Total	-12,206	-24,006	0	-36,237	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,439
Cooling ACH	4.96
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	86
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,439
Heating ACH	4.96
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	87
Min Stop/RH (%)	N/A

Areas	ft²
Roof	1,492
Other Roof	1,492
Ceiling	0
Window	83
Door	0
Wall	987
Below-Grade Wall	0
Other Wall	987
Partition	1,006
Exterior Floor	164
Internal Floor	1,328
Slab	0
Other Floor	1,328

Engineering Checks For Cooling

Cooling tons	1.29	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.99	Volume (ft³)	17,409
cfm/ton	1,115		
ft²/ton	1,125		
Btu/h-ft²	10.67		

Engineering Checks For Heating

Heating Mbh	-36.24	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.99	Volume (ft³)	17,409
cfm/Mbh	-40		
ft²/Mbh	-40		
Btu/h-ft²	-25.00		

ZONE_Zone -01-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 15:00:00					
Outside	DB / WB / HR	87.0	°F /	72.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	60.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		48.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	2,280	0	2,280	4.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	366	0	366	0.7
Other Wall	0	0	0	0	0.0
Partition	0	862	0	862	1.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	630	0	630	1.1
Other Floor	0	0	0	0	0.0
Infiltration	15,470	0	17,147	32,618	58.6
Envelope Subtotal	15,470	4,137	17147	36,755	-
People	525	275	1,000	1,800	3.2
Lights	0	1,262	0	1,262	2.3
Miscellaneous Loads	3,181	1,020	0	4,201	7.6
Internal Subtotal	3,706	2,558	1,000	7,264	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	2,526	0	2,526	4.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-212	0	-212	-0.4
Grand Total	19,176	9,009	18,147	46,333	100.0
RA Sensible (Lights)	9,304	0	0	9,304	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	3.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		130.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-17,031	0	-17,031	15.4
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	292	0	292	-0.3
Other Wall	0	0	0	0	0.0
Partition	0	251	0	251	-0.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	1,146	0	1,146	-1.0
Other Floor	0	0	0	0	0.0
Infiltration	-93,225	0	0	-93,446	84.6
Envelope Subtotal	-93,225	-15,341	0	-108,787	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-1,425	0	-1,425	1.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-272	0	-272	0.2
Grand Total	-93,225	-17,038	0	-110,484	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,773
Cooling ACH	1.14
Sec Fan cfm	0
Input Ventilation cfm	516
Calculated Ventilation cfm	516
Calculated Ventilation ACH	0.33
Infiltration cfm	1,165
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,773
Heating ACH	1.14
Sec Fan cfm	0
Input Ventilation cfm	516
Calculated Ventilation cfm	516
Calculated Ventilation ACH	0.33
Infiltration cfm	1,163
Min Stop/RH (%)	100

Areas	ft²
Roof	1,222
Other Roof	1,222
Ceiling	6,643
Window	0
Door	0
Wall	0
Below-Grade Wall	3,832
Other Wall	0
Partition	777
Exterior Floor	0
Internal Floor	0
Slab	7,865
Other Floor	0

Engineering Checks For Cooling

Cooling tons	3.86	No People(max)	5.00
%OA	29	People per 1000 ft²	1
cfm/ft²	0.23	Volume (ft³)	93,226
cfm/ton	459		
ft²/ton	2,012		
Btu/h-ft²	5.96		

Engineering Checks For Heating

Heating Mbh	-110.48	No People(max)	5.00
%OA	29	People per 1000 ft²	1
cfm/ft²	0.23	Volume (ft³)	93,226
cfm/Mbh	-16		
ft²/Mbh	-70		
Btu/h-ft²	-14.29		

ZONE_Zone 01-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	48.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	863	0	863	46.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	54	0	54	2.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	261	0	261	13.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-1	0	-1	0.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	1,178	0	1,178	-
People	79	111	151	342	18.2
Lights	96	157	0	253	13.5
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	176	268	151	595	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-8	0	-8	-0.4
Grand Total	176	1,438	151	1,765	100.0
RA Sensible (Lights)	110	0	0	110	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		111.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-2,382	0	-2,382	71.5
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-457	0	-457	13.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-542	0	-542	16.3
Exterior Floor	0	-5	0	-5	0.2
Interior Floor	0	84	0	84	-2.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-3,303	0	-3,303	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-29	0	-29	0.9
Grand Total	0	-3,332	0	-3,332	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	136
Cooling ACH	4.49
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	136
Heating ACH	4.49
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	168
Other Roof	168
Ceiling	0
Window	0
Door	0
Wall	71
Below-Grade Wall	0
Other Wall	71
Partition	751
Exterior Floor	2
Internal Floor	166
Slab	0
Other Floor	166

Engineering Checks For Cooling

Cooling tons	0.15	No People(max)	0.76
%OA	0	People per 1000 ft²	5
cfm/ft²	0.90	Volume (ft³)	1,817
cfm/ton	924		
ft²/ton	1,029		
Btu/h-ft²	11.66		

Engineering Checks For Heating

Heating Mbh	-3.33	No People(max)	0.76
%OA	0	People per 1000 ft²	5
cfm/ft²	0.90	Volume (ft³)	1,817
cfm/Mbh	-41		
ft²/Mbh	-45		
Btu/h-ft²	-22.22		

ZONE_Zone -01-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 18:00:00					
Outside	DB / WB / HR	75.8	°F /	66.2	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	44.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	71	0	71	1.8
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	81	0	81	2.1
Other Wall	0	0	0	0	0.0
Partition	0	178	0	178	4.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	65	0	65	1.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	396	0	396	-
People	0	0	0	0	0.0
Lights	407	360	0	767	19.5
Miscellaneous Loads	1,078	408	0	1,486	37.8
Internal Subtotal	1,485	768	0	2,253	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	814	0	814	20.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	-0.1
Grand Total	1,485	1,976	0	3,461	100.0
RA Sensible (Lights)	468	0	0	468	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		79.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-141	0	-141	9.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-579	0	-579	37.0
Other Wall	0	0	0	0	0.0
Partition	0	51	0	51	-3.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-219	0	-219	14.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-887	0	-887	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-674	0	-674	43.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	0.2
Grand Total	0	-1,564	0	-1,564	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	63
Cooling ACH	0.30
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	63
Heating ACH	0.30
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	10
Other Roof	10
Ceiling	1,100
Window	0
Door	0
Wall	0
Below-Grade Wall	1,117
Other Wall	0
Partition	1,712
Exterior Floor	0
Internal Floor	0
Slab	1,111
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.29	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.06	Volume (ft³)	12,633
cfm/ton	217		
ft²/ton	3,651		
Btu/h-ft²	3.29		

Engineering Checks For Heating

Heating Mbh	-1.56	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.06	Volume (ft³)	12,633
cfm/Mbh	-40		
ft²/Mbh	-673		
Btu/h-ft²	-1.49		

ZONE_Zone 01-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	63.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	6,561	14,566	0	21,127	97.6
Door	0	0	0	0	0.0
Wall	0	-521	0	-521	-2.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,566	0	-1,566	-7.2
Exterior Floor	0	-163	0	-163	-0.8
Interior Floor	0	-3,044	0	-3,044	-14.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	147	0	19	166	0.8
Envelope Subtotal	6,708	9,272	19	15,999	-
People	391	514	803	1,709	7.9
Lights	1,100	1,761	0	2,861	13.2
Miscellaneous Loads	763	528	0	1,291	6.0
Internal Subtotal	2,254	2,803	803	5,861	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-1,153	0	-1,153	-5.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-325	0	-325	-1.5
Grand Total	8,962	10,598	822	20,382	100.0
RA Sensible (Lights)	1,263	0	0	1,263	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		81.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-10,148	0	0	-10,148	49.9
Door	0	0	0	0	0.0
Wall	0	-1,781	0	-1,781	8.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-609	0	-609	3.0
Exterior Floor	0	-230	0	-230	1.1
Interior Floor	0	742	0	742	-3.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,916	0	0	-1,924	9.5
Envelope Subtotal	-12,063	-1,878	0	-13,949	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-5,551	0	-5,551	27.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-824	0	-824	4.1
Grand Total	-12,063	-8,253	0	-20,324	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	2,897
Cooling ACH	11.57
Sec Fan cfm	0
Input Ventilation cfm	113
Calculated Ventilation cfm	197
Calculated Ventilation ACH	0.79
Infiltration cfm	24
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	2,897
Heating ACH	11.57
Sec Fan cfm	0
Input Ventilation cfm	113
Calculated Ventilation cfm	188
Calculated Ventilation ACH	0.75
Infiltration cfm	24
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,774
Window	171
Door	0
Wall	448
Below-Grade Wall	0
Other Wall	448
Partition	3,340
Exterior Floor	98
Internal Floor	1,676
Slab	0
Other Floor	1,676

Engineering Checks For Cooling

Cooling tons	1.70	No People(max)	3.73
%OA	7	People per 1000 ft²	2
cfm/ft²	1.74	Volume (ft³)	15,022
cfm/ton	1,706		
ft²/ton	983		
Btu/h-ft²	12.21		

Engineering Checks For Heating

Heating Mbh	-20.32	No People(max)	3.73
%OA	6	People per 1000 ft²	2
cfm/ft²	1.74	Volume (ft³)	15,022
cfm/Mbh	-143		
ft²/Mbh	-82		
Btu/h-ft²	-12.20		

ZONE_Zone -01-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 16:00:00					
Outside	DB / WB / HR	86.0	°F /	72.2	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		54.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-14	0	-14	-0.9
Other Wall	0	0	0	0	0.0
Partition	0	478	0	478	31.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	7	0	7	0.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	471	0	471	-
People	114	106	217	437	28.7
Lights	138	162	0	300	19.6
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	252	268	217	737	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	162	0	162	10.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.2
Grand Total	252	899	217	1,367	100.0
RA Sensible (Lights)	158	0	0	158	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-79	0	-79	23.2
Other Wall	0	0	0	0	0.0
Partition	0	-11	0	-11	3.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-58	0	-58	16.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-148	0	-148	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-192	0	-192	56.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-340	0	-340	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	14
Cooling ACH	0.32
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	14
Heating ACH	0.32
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	235
Window	0
Door	0
Wall	0
Below-Grade Wall	127
Other Wall	0
Partition	761
Exterior Floor	0
Internal Floor	0
Slab	235
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.11	No People(max)	1.08
%OA	0	People per 1000 ft²	5
cfm/ft²	0.06	Volume (ft³)	2,602
cfm/ton	119		
ft²/ton	1,903		
Btu/h-ft²	6.31		

Engineering Checks For Heating

Heating Mbh	-0.34	No People(max)	1.08
%OA	0	People per 1000 ft²	5
cfm/ft²	0.06	Volume (ft³)	2,602
cfm/Mbh	-40		
ft²/Mbh	-637		
Btu/h-ft²	-1.57		

ZONE_Zone 01-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 14:00:00					
Outside	DB / WB / HR	85.1	°F /	71.9	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	64.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,879	2,711	0	4,590	51.6
Door	0	0	0	0	0.0
Wall	0	-41	0	-41	-0.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-143	0	-143	-1.6
Exterior Floor	0	-47	0	-47	-0.5
Interior Floor	0	-521	0	-521	-5.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	180	0	167	346	3.9
Envelope Subtotal	2,059	1,959	167	4,184	-
People	371	392	707	1,470	16.5
Lights	536	721	0	1,257	14.1
Miscellaneous Loads	752	437	0	1,189	13.4
Internal Subtotal	1,659	1,550	707	3,916	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	248	0	248	2.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-77	0	-77	-0.9
Grand Total	3,718	3,679	874	8,271	100.0
RA Sensible (Lights)	615	0	0	615	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		85.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-4,173	0	0	-4,173	36.3
Door	0	0	0	0	0.0
Wall	0	-2,918	0	-2,918	25.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	86	0	86	-0.8
Exterior Floor	0	-343	0	-343	3.0
Interior Floor	0	332	0	332	-2.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,275	0	0	-1,280	11.1
Envelope Subtotal	-5,448	-2,842	0	-8,295	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-2,927	0	-2,927	25.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-266	0	-266	2.3
Grand Total	-5,448	-6,034	0	-11,487	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,148
Cooling ACH	9.87
Sec Fan cfm	0
Input Ventilation cfm	64
Calculated Ventilation cfm	78
Calculated Ventilation ACH	0.67
Infiltration cfm	16
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,148
Heating ACH	9.87
Sec Fan cfm	0
Input Ventilation cfm	64
Calculated Ventilation cfm	74
Calculated Ventilation ACH	0.64
Infiltration cfm	16
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	814
Window	65
Door	0
Wall	525
Below-Grade Wall	0
Other Wall	525
Partition	873
Exterior Floor	148
Internal Floor	666
Slab	0
Other Floor	666

Engineering Checks For Cooling

Cooling tons	0.69	No People(max)	3.54
%OA	7	People per 1000 ft²	5
cfm/ft²	1.48	Volume (ft³)	6,981
cfm/ton	1,666		
ft²/ton	1,125		
Btu/h-ft²	10.67		

Engineering Checks For Heating

Heating Mbh	-11.49	No People(max)	3.54
%OA	6	People per 1000 ft²	5
cfm/ft²	1.48	Volume (ft³)	6,981
cfm/Mbh	-100		
ft²/Mbh	-68		
Btu/h-ft²	-14.71		

ZONE_Zone -01-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		6/21 20:00:00					
Outside	DB / WB / HR	76.1	°F /	67.9	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	47.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	13	0	13	0.5
Other Wall	0	0	0	0	0.0
Partition	0	350	0	350	14.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	6	0	6	0.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	369	0	369	-
People	15	17	33	66	2.7
Lights	342	414	0	756	31.1
Miscellaneous Loads	188	98	0	285	11.7
Internal Subtotal	545	529	33	1,107	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	158	0	158	6.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	406	0	0	406	16.7
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	951	1,056	33	2,040	100.0
RA Sensible (Lights)	392	0	0	392	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-183	0	-183	31.5
Other Wall	0	0	0	0	0.0
Partition	0	-159	0	-159	27.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-164	0	-164	28.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-506	0	-506	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-41	0	-41	7.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	-34	0	0	-34	5.8
Time Delay Correction	0	0	0	0	0.0
Grand Total	-34	-547	0	-581	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	28
Cooling ACH	0.28
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	28
Heating ACH	0.28
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	542
Window	0
Door	0
Wall	0
Below-Grade Wall	248
Other Wall	0
Partition	1,742
Exterior Floor	0
Internal Floor	0
Slab	542
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.17	No People(max)	0.15
%OA	0	People per 1000 ft²	0
cfm/ft²	0.05	Volume (ft³)	6,020
cfm/ton	162		
ft²/ton	2,950		
Btu/h-ft²	4.07		

Engineering Checks For Heating

Heating Mbh	-0.58	No People(max)	0.15
%OA	0	People per 1000 ft²	0
cfm/ft²	0.05	Volume (ft³)	6,020
cfm/Mbh	-47		
ft²/Mbh	-864		
Btu/h-ft²	-1.16		

ZONE_Zone 01-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	63.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	4,105	6,592	0	10,697	22.0
Door	0	0	0	0	0.0
Wall	0	120	0	120	0.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-501	0	-501	-1.0
Exterior Floor	0	5	0	5	0.0
Interior Floor	0	-3,571	0	-3,571	-7.3
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	1,377	0	1,783	3,159	6.5
Envelope Subtotal	5,482	2,646	1783	9,910	-
People	2,544	3,332	4,024	9,900	20.3
Lights	5,062	6,923	0	11,986	24.6
Miscellaneous Loads	2,362	1,395	0	3,757	7.7
Internal Subtotal	9,969	11,650	4,024	25,643	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	7,576	0	7,576	15.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-223	0	-223	-0.5
Grand Total	15,451	21,649	5,807	42,907	100.0
RA Sensible (Lights)	5,812	0	0	5,812	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		84.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-11,903	0	0	-11,903	22.1
Door	0	0	0	0	0.0
Wall	0	-7,869	0	-7,869	14.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	336	0	336	-0.6
Exterior Floor	0	-230	0	-230	0.4
Interior Floor	0	4,018	0	4,018	-7.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-12,212	0	0	-12,261	22.8
Envelope Subtotal	-24,115	-3,746	0	-27,909	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-25,037	0	-25,037	46.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-802	0	-802	1.5
Grand Total	-24,115	-29,585	0	-53,749	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows

Main Fan cfm	10,420
Cooling ACH	12.33
Sec Fan cfm	0
Input Ventilation cfm	737
Calculated Ventilation cfm	737
Calculated Ventilation ACH	0.87
Infiltration cfm	151
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows

Main Fan cfm	10,420
Heating ACH	12.33
Sec Fan cfm	0
Input Ventilation cfm	737
Calculated Ventilation cfm	737
Calculated Ventilation ACH	0.87
Infiltration cfm	152
Min Stop/RH (%)	100

Areas

	ft²
Roof	0
Other Roof	0
Ceiling	5,738
Window	190
Door	0
Wall	1,418
Below-Grade Wall	0
Other Wall	1,418
Partition	2,389
Exterior Floor	99
Internal Floor	5,639
Slab	0
Other Floor	5,639

Engineering Checks For Cooling

Cooling tons	3.58	No People(max)	25.97
%OA	7	People per 1000 ft²	5
cfm/ft²	1.85	Volume (ft³)	50,691
cfm/ton	2,914		
ft²/ton	1,575		
Btu/h-ft²	7.62		

Engineering Checks For Heating

Heating Mbh	-53.75	No People(max)	25.97
%OA	7	People per 1000 ft²	5
cfm/ft²	1.85	Volume (ft³)	50,691
cfm/Mbh	-194		
ft²/Mbh	-105		
Btu/h-ft²	-9.52		

ZONE_Zone -01-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		6/21 20:00:00					
Outside	DB / WB / HR	76.1	°F /	67.9	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	44.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-9	0	-9	-0.1
Other Wall	0	0	0	0	0.0
Partition	0	-2,100	0	-2,100	-14.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-180	0	-180	-1.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-2,289	0	-2,289	-
People	6	8	14	28	0.2
Lights	227	341	0	568	3.9
Miscellaneous Loads	8,260	7,963	0	16,223	110.6
Internal Subtotal	8,492	8,313	14	16,819	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-119	0	-119	-0.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	8,492	5,904	14	14,410	100.0
RA Sensible (Lights)	260	0	0	260	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-165	0	-165	30.8
Other Wall	0	0	0	0	0.0
Partition	0	-132	0	-132	24.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-88	0	-88	16.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-385	0	-385	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-151	0	-151	28.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-536	0	-536	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	22
Cooling ACH	0.33
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	22
Heating ACH	0.33
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	365
Window	0
Door	0
Wall	0
Below-Grade Wall	267
Other Wall	0
Partition	1,142
Exterior Floor	0
Internal Floor	0
Slab	365
Other Floor	0

Engineering Checks For Cooling

Cooling tons	1.20	No People(max)	0.06
%OA	0	People per 1000 ft²	0
cfm/ft²	0.06	Volume (ft³)	4,037
cfm/ton	18		
ft²/ton	280		
Btu/h-ft²	42.86		

Engineering Checks For Heating

Heating Mbh	-0.54	No People(max)	0.06
%OA	0	People per 1000 ft²	0
cfm/ft²	0.06	Volume (ft³)	4,037
cfm/Mbh	-40		
ft²/Mbh	-627		
Btu/h-ft²	-1.59		

ZONE_Zone 01-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	48.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	1,325	0	1,325	49.4
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	175	0	175	6.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	145	0	145	5.4
Exterior Floor	0	-1	0	-1	0.0
Interior Floor	0	12	0	12	0.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	1,656	0	1,656	-
People	122	149	233	504	18.8
Lights	148	215	0	363	13.5
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	270	364	233	867	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-12	0	-12	-0.4
Grand Total	270	2,008	233	2,512	100.0
RA Sensible (Lights)	170	0	0	170	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		110.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-3,552	0	-3,552	76.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-801	0	-801	17.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-342	0	-342	7.3
Exterior Floor	0	-67	0	-67	1.4
Interior Floor	0	129	0	129	-2.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-4,632	0	-4,632	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-42	0	-42	0.9
Grand Total	0	-4,674	0	-4,674	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	191
Cooling ACH	4.10
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	191
Heating ACH	4.10
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	252
Other Roof	252
Ceiling	0
Window	0
Door	0
Wall	126
Below-Grade Wall	0
Other Wall	126
Partition	811
Exterior Floor	29
Internal Floor	223
Slab	0
Other Floor	223

Engineering Checks For Cooling

Cooling tons	0.21	No People(max)	1.16
%OA	0	People per 1000 ft²	5
cfm/ft²	0.82	Volume (ft³)	2,796
cfm/ton	912		
ft²/ton	1,113		
Btu/h-ft²	10.78		

Engineering Checks For Heating

Heating Mbh	-4.67	No People(max)	1.16
%OA	0	People per 1000 ft²	5
cfm/ft²	0.82	Volume (ft³)	2,796
cfm/Mbh	-41		
ft²/Mbh	-50		
Btu/h-ft²	-20.00		

ZONE_Zone 01-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	64.5	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	100	0	100	3.6
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	280	0	280	10.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-67	0	-67	-2.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	313	0	313	-
People	126	209	237	572	20.6
Lights	228	434	0	661	23.8
Miscellaneous Loads	281	230	0	511	18.4
Internal Subtotal	634	873	237	1,744	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	460	0	460	16.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.1
Grand Total	634	1,642	237	2,514	100.0
RA Sensible (Lights)	261	0	0	261	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		81.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-264	0	-264	11.2
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-635	0	-635	26.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	75	0	75	-3.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-824	0	-824	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-1,527	0	-1,527	64.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-10	0	-10	0.4
Grand Total	0	-2,361	0	-2,361	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	328
Cooling ACH	6.29
Sec Fan cfm	0
Input Ventilation cfm	21
Calculated Ventilation cfm	22
Calculated Ventilation ACH	0.42
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	328
Heating ACH	6.29
Sec Fan cfm	0
Input Ventilation cfm	21
Calculated Ventilation cfm	21
Calculated Ventilation ACH	0.40
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	18
Other Roof	18
Ceiling	361
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,370
Exterior Floor	0
Internal Floor	379
Slab	0
Other Floor	379

Engineering Checks For Cooling

Cooling tons	0.21	No People(max)	1.20
%OA	7	People per 1000 ft²	4
cfm/ft²	0.96	Volume (ft³)	3,131
cfm/ton	1,566		
ft²/ton	1,639		
Btu/h-ft²	7.32		

Engineering Checks For Heating

Heating Mbh	-2.36	No People(max)	1.20
%OA	6	People per 1000 ft²	4
cfm/ft²	0.96	Volume (ft³)	3,131
cfm/Mbh	-139		
ft²/Mbh	-145		
Btu/h-ft²	-6.90		

ZONE_Zone 01-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	64.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,667	2,831	0	4,498	58.0
Door	0	0	0	0	0.0
Wall	0	-111	0	-111	-1.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-173	0	-173	-2.2
Exterior Floor	0	-70	0	-70	-0.9
Interior Floor	0	-373	0	-373	-4.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	88	0	145	233	3.0
Envelope Subtotal	1,755	2,105	145	4,005	-
People	316	332	600	1,248	16.1
Lights	439	615	0	1,054	13.6
Miscellaneous Loads	629	383	0	1,012	13.0
Internal Subtotal	1,384	1,329	600	3,313	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	14	0	14	0.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-82	0	-82	-1.1
Grand Total	3,139	3,366	745	7,250	100.0
RA Sensible (Lights)	504	0	0	504	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		82.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,202	0	0	-2,202	29.7
Door	0	0	0	0	0.0
Wall	0	-1,532	0	-1,532	20.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-159	0	-159	2.1
Exterior Floor	0	-196	0	-196	2.6
Interior Floor	0	243	0	243	-3.3
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,070	0	0	-1,074	14.5
Envelope Subtotal	-3,272	-1,644	0	-4,920	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-2,360	0	-2,360	31.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-146	0	-146	2.0
Grand Total	-3,272	-4,149	0	-7,425	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	977
Cooling ACH	10.25
Sec Fan cfm	0
Input Ventilation cfm	50
Calculated Ventilation cfm	66
Calculated Ventilation ACH	0.69
Infiltration cfm	13
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	977
Heating ACH	10.25
Sec Fan cfm	0
Input Ventilation cfm	50
Calculated Ventilation cfm	63
Calculated Ventilation ACH	0.66
Infiltration cfm	13
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	677
Window	36
Door	0
Wall	272
Below-Grade Wall	0
Other Wall	272
Partition	1,247
Exterior Floor	82
Internal Floor	594
Slab	0
Other Floor	594

Engineering Checks For Cooling

Cooling tons	0.60	No People(max)	3.01
%OA	7	People per 1000 ft²	5
cfm/ft²	1.54	Volume (ft³)	5,717
cfm/ton	1,616		
ft²/ton	1,052		
Btu/h-ft²	11.41		

Engineering Checks For Heating

Heating Mbh	-7.43	No People(max)	3.01
%OA	6	People per 1000 ft²	5
cfm/ft²	1.54	Volume (ft³)	5,717
cfm/Mbh	-132		
ft²/Mbh	-86		
Btu/h-ft²	-11.63		

ZONE_Zone 01-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	74.0	°F /	64.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	18	0	18	0.1
Other Roof	0	0	0	0	0.0
Glass	2,002	3,158	0	5,160	37.2
Door	0	0	0	0	0.0
Wall	0	-81	0	-81	-0.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	137	0	137	1.0
Exterior Floor	0	-45	0	-45	-0.3
Interior Floor	0	-239	0	-239	-1.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	166	0	270	436	3.1
Envelope Subtotal	2,168	2,948	270	5,387	-
People	633	634	1,227	2,494	18.0
Lights	1,041	1,412	0	2,453	17.7
Miscellaneous Loads	1,235	722	0	1,956	14.1
Internal Subtotal	2,909	2,768	1,227	6,904	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	485	0	485	3.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-96	0	-96	-0.7
Grand Total	5,077	6,105	1,497	12,679	100.0
RA Sensible (Lights)	1,195	0	0	1,195	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		86.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-1,044	0	-1,044	5.8
Other Roof	0	0	0	0	0.0
Glass	-4,699	0	0	-4,699	26.3
Door	0	0	0	0	0.0
Wall	0	-3,466	0	-3,466	19.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-318	0	-318	1.8
Exterior Floor	0	-257	0	-257	1.4
Interior Floor	0	733	0	733	-4.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-2,026	0	0	-2,034	11.4
Envelope Subtotal	-6,724	-4,352	0	-11,084	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-6,455	0	-6,455	36.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-322	0	-322	1.8
Grand Total	-6,724	-11,128	0	-17,861	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,729
Cooling ACH	7.13
Sec Fan cfm	0
Input Ventilation cfm	120
Calculated Ventilation cfm	118
Calculated Ventilation ACH	0.49
Infiltration cfm	25
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,729
Heating ACH	7.13
Sec Fan cfm	0
Input Ventilation cfm	120
Calculated Ventilation cfm	112
Calculated Ventilation ACH	0.46
Infiltration cfm	25
Min Stop/RH (%)	100

Areas	ft²
Roof	74
Other Roof	74
Ceiling	1,600
Window	77
Door	0
Wall	615
Below-Grade Wall	0
Other Wall	615
Partition	2,338
Exterior Floor	109
Internal Floor	1,565
Slab	0
Other Floor	1,565

Engineering Checks For Cooling

Cooling tons	1.06	No People(max)	6.03
%OA	7	People per 1000 ft²	4
cfm/ft²	1.08	Volume (ft³)	14,555
cfm/ton	1,637		
ft²/ton	1,511		
Btu/h-ft²	7.94		

Engineering Checks For Heating

Heating Mbh	-17.86	No People(max)	6.03
%OA	6	People per 1000 ft²	4
cfm/ft²	1.08	Volume (ft³)	14,555
cfm/Mbh	-97		
ft²/Mbh	-89		
Btu/h-ft²	-11.24		

System Component Selection Summary

Baseline

System Name: AH-1 (MZU)

System Type:	Double Duct
Number of Zones	12
Number of Rooms	38

Component	Quantity
Cooling Coils	1
Heating Coils	1
Fans	7

Cooling Coils

Coil Location			Coil Selection at Design							Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
SCC-1		Water	Peak		51.9	622.5	173.5	26.1	N/A	12,349	1,182	78.1	67.40	65.0	63.02	103.34	45.0	57.0

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
SHC-1		Water	Peak	1/21 24:00	607.4	607.4	N/A	17,366	1,182	61.8	95.0	28.50	180.0	140.0

Load/Airflows

	Location			Cooling					Heating				
System	Zone	Room	Area	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
AH-1 (MZU)			12,123	8/21 14:00	12,349	173,498	17,366	65.0	1/21 24:00	17,366	607,407	17,366	77.0
	Zone 00-00		655	9/21 11:00	1,136	7,242	1,136	65.0	1/21 24:00	1,136	7,806	1,136	81.0
		Room 00-08	224	9/21 14:00	387	2,523	387	65.0	1/21 24:00	387	2,225	387	79.3
		Room 00-10	391	8/21 11:00	732	4,718	732	65.0	1/21 24:00	732	5,428	732	81.7
		Room 00-14	40	7/21 11:00	46	305	46	65.0	1/21 24:00	46	173	46	76.4
	Zone 00-01		720	10/21 13:00	1,900	12,230	1,900	65.0	1/21 24:00	1,900	7,764	1,900	77.0
		Room 00-05	496	11/21 13:00	1,454	9,524	1,454	65.0	1/21 24:00	1,454	5,451	1,454	76.4
		Room 00-06	224	10/21 14:00	440	2,880	440	65.0	1/21 24:00	440	2,362	440	78.7
	Zone 00-02		2,247	8/21 14:00	2,001	14,130	2,001	65.0	1/21 24:00	2,001	2,515	2,001	75.0
		Room 00-00	1,005	8/21 14:00	633	4,568	633	65.0	1/21 24:00	633	910	633	75.0
		Room 00-07	39	10/21 14:00	36	255	36	65.0	1/21 24:00	36	133	36	76.3
		Room 00-12	352	8/21 14:00	202	1,458	202	65.0	1/21 24:00	202	506	202	75.0
		Room 00-13	53	7/21 11:00	61	425	61	65.0	1/21 24:00	61	219	61	76.2
		Room 00-17	110	6/21 19:00	69	499	69	65.0	1/21 24:00	69	164	69	75.0
		Room 00-21	127	6/21 19:00	647	4,658	647	65.0	1/21 24:00	647	102	647	75.0
		Room 00-22	560	7/21 19:00	370	2,672	370	65.0	1/21 24:00	370	322	370	75.0
	Zone 00-09		923	7/21 20:00	566	4,001	566	65.0	1/21 24:00	566	1,437	566	75.0
		Room 00-25	143	7/21 20:00	122	815	122	65.0	1/21 24:00	122	417	122	75.9
		Room 00-26	114	7/21 19:00	70	474	70	65.0	1/21 24:00	70	267	70	76.5
		Room 00-27	87	7/21 19:00	52	344	52	65.0	1/21 24:00	52	162	52	75.5
		Room 00-30	401	7/21 20:00	251	1,812	251	65.0	1/21 24:00	251	446	251	75.0
		Room 00-31	178	7/21 20:00	83	583	83	65.0	1/21 24:00	83	230	83	75.0
	Zone 00-10		717	7/21 10:00	1,197	7,747	1,197	65.0	1/21 24:00	1,197	5,026	1,197	77.1
		Room 00-15	150	7/21 11:00	132	953	132	65.0	1/21 24:00	132	267	132	75.0
		Room 00-16	567	7/21 10:00	988	6,442	988	65.0	1/21 24:00	988	4,766	988	77.9
	Zone 00-12		1,021	7/21 10:00	2,774	17,935	2,774	65.0	1/21 24:00	2,774	9,338	2,774	75.9
		Room 00-18	1,021	7/21 10:00	2,730	17,939	2,730	65.0	1/21 24:00	2,730	9,393	2,730	76.0
	Zone 00-13		820	7/21 15:00	713	4,484	713	65.0	1/21 24:00	713	6,165	713	83.6
		Room 00-19	352	7/21 15:00	289	1,853	289	65.0	1/21 24:00	289	2,460	289	83.3
		Room 00-20	468	7/21 15:00	417	2,672	417	65.0	1/21 24:00	417	3,832	417	84.2

Load/Airflows

	Location			Cooling					Heating				
System	Zone	Room	Area	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
AH-1 (MZU)			12,123	8/21 14:00	12,349	173,498	17,366	65.0	1/21 24:00	17,366	607,407	17,366	77.0
	Zone 01-02		1,669	9/21 14:00	2,897	19,559	2,897	65.0	1/21 24:00	2,897	20,316	2,897	81.2
		Room 01-04	549	10/21 13:00	1,972	13,368	1,972	65.0	1/21 24:00	1,972	10,616	1,972	78.7
		Room 01-05	514	9/21 14:00	683	4,638	683	65.0	1/21 24:00	683	5,807	683	83.2
		Room 01-07	606	7/21 18:00	494	3,301	494	65.0	1/21 24:00	494	4,531	494	84.2
	Zone 01-03		776	8/21 14:00	1,148	7,397	1,148	65.0	1/21 24:00	1,148	11,481	1,148	85.6
		Room 01-06	707	8/21 14:00	1,064	6,929	1,064	65.0	1/21 24:00	1,064	10,938	1,064	85.8
		Room 01-10	68	7/21 18:00	64	424	64	65.0	1/21 24:00	64	572	64	84.0
	Zone 01-06		343	7/21 19:00	328	2,277	328	65.0	1/21 24:00	328	2,361	328	81.5
		Room 01-09	76	7/21 20:00	57	397	57	65.0	1/21 24:00	57	460	57	82.6
		Room 01-18	28	7/21 20:00	23	161	23	65.0	1/21 24:00	23	200	23	83.3
		Room 01-19	14	7/21 19:00	33	210	33	65.0	1/21 24:00	33	447	33	90.8
		Room 01-20	225	7/21 19:00	191	1,379	191	65.0	1/21 24:00	191	1,199	191	80.1
	Zone 01-07		635	7/21 10:00	977	6,504	977	65.0	1/21 24:00	977	7,421	977	82.1
		Room 01-13	42	7/21 19:00	36	249	36	65.0	1/21 24:00	36	306	36	83.1
		Room 01-15	423	7/21 10:00	613	4,121	613	65.0	1/21 24:00	613	4,892	613	82.5
		Room 01-16	171	7/21 10:00	303	2,037	303	65.0	1/21 24:00	303	2,339	303	82.1
	Zone 01-08		1,597	7/21 10:00	1,729	11,182	1,729	65.0	1/21 24:00	1,729	17,852	1,729	86.1
		Room 01-08	410	7/21 19:00	273	1,848	273	65.0	1/21 24:00	273	2,455	273	83.9
		Room 01-12	47	7/21 19:00	63	407	63	65.0	1/21 24:00	63	972	63	93.0
		Room 01-14	15	7/21 19:00	30	190	30	65.0	1/21 24:00	30	443	30	92.6
		Room 01-17	1,124	7/21 10:00	1,406	9,204	1,406	65.0	1/21 24:00	1,406	14,300	1,406	85.6

Fans

System	Zone	Type	Efficiency	Efficiency with PRM Fan Override	Static Pressure	Flow Rate	Power	Power with PRM Fan Override	Motor Heat in Air
			(%)	(%)	(in. Wg)	(cfm)	(kW)	(kW)	(%)
AH-1 (MZU) RF-1		System	70.00	N/A	1.25	17,366	3.65	N/A	100.00
AH-1 (MZU) SF-1		System	70.00	N/A	2.25	17,366	6.56	N/A	100.00

Fans

System	Zone	Type	Efficiency (%)	Efficiency with PRM Fan Override (%)	Static Pressure (in. Wg)	Flow Rate (cfm)	Power (kW)	Power with PRM Fan Override (kW)	Motor Heat in Air (%)
	Zone 00-01 _EXHAUST FAN	Zone	10.00	N/A	0.00	448	.00	N/A	100.00
	Zone 00-09 _EXHAUST FAN	Zone	10.00	N/A	0.00	174	.00	N/A	100.00
	Zone 00-13 _EXHAUST FAN	Zone	10.00	N/A	0.00	704	.00	N/A	100.00
	Zone 01-06 _EXHAUST FAN	Zone	10.00	N/A	0.00	153	.00	N/A	100.00
	Zone 01-07 _EXHAUST FAN	Zone	10.00	N/A	0.00	87	.00	N/A	100.00

System Name: AH-2 (Locker Room)

System Type:	Constant Volume (CV)
Number of Zones	1
Number of Rooms	2

Component	Quantity
Cooling Coils	1
Heating Coils	1
Fans	2

Cooling Coils

Coil Location			Coil Selection at Design							Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
SCC-1 Zone 01-04		Water	Peak		14.0	168.4	105.9	17.5	N/A	10,420	737	78.9	67.12	69.4	64.09	27.95	45.0	57.0

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
SHC-1 Zone 01-04		Water	Peak	1/21 24:00	430.7	430.7	N/A	10,420	737	55.7	95.0	12.87	180.0	140.0

Load/Airflows

System	Location: Zone	Location: Room	Area (ft²)	Cooling: Time of Peak Mo/D/Hr	Cooling: Supply Airflow (cfm)	Cooling: Sensible Load (Btu/h)	Cooling: Minimum Airflow (cfm)	Cooling: SAT (°F)	Heating: Time of Peak Mo/D/Hr	Heating: Supply Airflow (cfm)	Heating: Sensible Load (Btu/h)	Heating: Minimum Airflow (cfm)	Heating: SAT (°F)
AH-2 (Locker Room)			5,632	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 01-04		5,632	7/21 18:00	10,420	37,098	10,420	65.0	1/21 24:00	10,420	53,698	10,420	84.6
		Room 01-00	5,083	7/21 18:00	9,696	34,485	9,696	65.0	1/21 24:00	9,696	51,141	9,696	84.9
		Room 01-21	549	7/21 19:00	724	2,574	724	65.0	1/21 24:00	724	2,928	724	82.4

Fans

System	Zone	Type	Efficiency (%)	Efficiency with PRM Fan Override (%)	Static Pressure (in. Wg)	Flow Rate (cfm)	Power (kW)	Power with PRM Fan Override (kW)	Motor Heat in Air (%)
Zone 01-04 _AH-2 (Locker Room) SF-1		System	70.00	N/A	2.25	10,420	3.94	N/A	100.00
	Zone 01-04 _EXHAUST FAN	Zone	10.00	N/A	0.00	2,370	.00	N/A	100.00

System Name: AH-3 (Jail)

System Type:	Constant Volume (CV)
Number of Zones	1
Number of Rooms	2

Component	Quantity
Cooling Coils	1
Heating Coils	1
Fans	2

Cooling Coils

Coil Location			Coil Selection at Design							Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
SCC-1 Zone 00-08		Water	Peak		9.0	107.5	18.0	4.0	N/A	2,250	144	77.1	66.10	69.6	63.68	17.85	45.0	57.0

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/und r sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
SHC-1 Zone 00-08		Water	Peak	1/21 24:00	67.9	67.9	N/A	2,250	144	66.4	95.0	4.78	180.0	140.0

Load/Airflows

	Location			Cooling					Heating				
System	Zone	Room	Area	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
AH-3 (Jail)			2,481	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 00-08		2,481	7/21 22:00	2,250	8,479	2,250	65.0	1/21 24:00	2,250	10,756	2,250	82.7
		Room 00-29	78	7/21 22:00	107	412	107	65.0	1/21 24:00	107	598	107	84.4
		Room 00-32	2,403	7/21 23:00	2,143	8,223	2,143	65.0	1/21 24:00	2,143	10,382	2,143	82.7

Fans

System	Zone	Type	Efficiency	Efficiency with PRM Fan Override	Static Pressure	Flow Rate	Power	Power with PRM Fan Override	Motor Heat in Air
			(%)	(%)	(in. Wg)	(cfm)	(kW)	(kW)	(%)
Zone 00-08 _AH-3 (Jail) SF-1		System	70.00	N/A	2.25	2,250	.85	N/A	100.00
	Zone 00-08 _EXHAUST FAN	Zone	10.00	N/A	0.00	157	.00	N/A	100.00

System Name: Unit Heater

System Type:	Heating Only
Number of Zones	13
Number of Rooms	19

Component	Quantity
Cooling Coils	0
Heating Coils	13
Fans	14

Cooling Coils

Coil Location			Coil Selection at Design						Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
																	N/A	N/A

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/und r sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
	UH-1 Zone 00-03	Water	Peak	1/21 24:00	6.3	0.0	N/A	249	0	71.0	32.0	0.32	180.0	140.0
	UH-1 Zone 00-04	Water	Peak	1/21 24:00	7.4	0.0	N/A	296	0	71.0	32.0	0.38	180.0	140.0
	UH-1 Zone 00-05	Water	Peak	1/21 24:00	9.4	0.0	N/A	371	0	71.0	32.0	0.48	180.0	140.0
	UH-1 Zone 00-06	Water	Peak	1/21 24:00	2.1	0.0	N/A	83	0	71.0	32.0	0.11	180.0	140.0
	UH-1 Zone 00-07	Water	Peak	1/21 24:00	2.1	0.0	N/A	86	0	71.0	32.0	0.11	180.0	140.0
	UH-1 Zone 00-11	Water	Peak	1/21 24:00	4.1	0.0	N/A	167	0	71.0	32.0	0.21	180.0	140.0
	UH-1 Zone 01-00	Water	Peak	1/21 24:00	36.2	0.0	N/A	1,439	0	71.0	32.0	1.84	180.0	140.0
	UH-1 Zone 01-01	Water	Peak	1/21 24:00	3.3	0.0	N/A	136	0	71.0	32.0	0.17	180.0	140.0
	UH-1 Zone -01-01	Water	Peak	1/21 24:00	1.6	0.0	N/A	63	0	71.0	32.0	0.08	180.0	140.0
	UH-1 Zone -01-02	Water	Peak	1/21 24:00	0.3	0.0	N/A	14	0	71.0	32.0	0.02	180.0	140.0
	UH-1 Zone -01-03	Water	Peak	1/21 24:00	0.6	0.0	N/A	28	0	71.0	32.0	0.03	180.0	140.0
	UH-1 Zone -01-04	Water	Peak	1/21 24:00	0.5	0.0	N/A	22	0	71.0	32.0	0.03	180.0	140.0
	UH-1 Zone 01-05	Water	Peak	1/21 24:00	4.7	0.0	N/A	191	0	71.0	32.0	0.24	180.0	140.0

Load/Airflows

	Location			Cooling					Heating				
System	Zone	Room	Area	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
Unit Heater			6,095	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 00-03		114	9/21 14:00	249	5,523	N/A	55.0	1/21 24:00	249	6,279	N/A	92.9
		Room 00-04	114	9/21 14:00	248	5,551	N/A	55.0	1/21 24:00	248	6,258	N/A	92.7
	Zone 00-04		790	9/21 14:00	296	4,970	N/A	56.1	1/21 24:00	296	7,422	N/A	98.2
		Room 00-01	790	9/21 14:00	295	4,975	N/A	56.1	1/21 24:00	295	7,399	N/A	98.0
	Zone 00-05		645	8/21 16:00	371	5,909	N/A	57.4	1/21 24:00	371	9,382	N/A	97.8
		Room 00-02	645	8/21 16:00	371	5,907	N/A	57.4	1/21 24:00	371	9,382	N/A	97.8
	Zone 00-06		146	7/21 18:00	83	2,848	N/A	55.0	1/21 24:00	83	2,081	N/A	85.1
		Room 00-03	146	7/21 18:00	82	2,828	N/A	55.0	1/21 24:00	82	2,075	N/A	85.2
	Zone 00-07		240	7/21 20:00	86	1,155	N/A	53.3	1/21 24:00	86	2,147	N/A	109.8
		Room 00-24	240	7/21 20:00	87	1,125	N/A	53.2	1/21 24:00	87	2,158	N/A	111.5
	Zone 00-11		219	7/21 10:00	167	4,704	N/A	55.0	1/21 24:00	167	4,138	N/A	88.1
		Room 00-11	219	7/21 10:00	165	4,671	N/A	55.0	1/21 24:00	165	4,103	N/A	88.1
	Zone 01-00		1,451	7/21 17:00	1,439	13,462	N/A	55.7	1/21 24:00	1,439	36,210	N/A	121.0
		Room 01-02	1,451	7/21 17:00	1,439	13,465	N/A	55.7	1/21 24:00	1,439	36,235	N/A	121.0
	Zone 01-01		151	7/21 19:00	136	1,613	N/A	55.0	1/21 24:00	136	3,332	N/A	111.3
		Room 01-03	151	7/21 19:00	132	1,552	N/A	55.0	1/21 24:00	132	3,279	N/A	111.8
	Zone -01-01		1,053	9/21 18:00	63	3,460	N/A	55.0	1/21 24:00	63	1,564	N/A	79.8
		Room B1-02	226	9/21 18:00	18	799	N/A	55.0	1/21 24:00	18	442	N/A	81.7
		Room B1-06	643	9/21 18:00	31	2,011	N/A	55.0	1/21 24:00	31	782	N/A	78.6
		Room B1-07	184	9/21 18:00	14	610	N/A	55.0	1/21 24:00	14	350	N/A	82.1
	Zone -01-02		217	7/21 16:00	14	1,150	N/A	54.7	1/21 24:00	14	340	N/A	76.8
		Room B1-03	217	7/21 15:00	14	1,119	N/A	54.6	1/21 24:00	14	339	N/A	77.0
	Zone -01-03		502	6/21 20:00	28	2,007	N/A	55.0	1/21 24:00	28	581	N/A	76.7
		Room B1-01	352	6/21 20:00	21	979	N/A	56.1	1/21 24:00	21	303	N/A	76.7
		Room B1-08	42	8/21 20:00	4	155	N/A	55.0	1/21 24:00	4	101	N/A	83.6
		Room B1-09	108	6/21 20:00	6	815	N/A	56.8	1/21 24:00	6	118	N/A	75.0
	Zone -01-04		336	6/21 20:00	22	14,395	N/A	55.0	1/21 24:00	22	536	N/A	75.0
		Room B1-04	279	6/21 20:00	19	1,412	N/A	57.2	1/21 24:00	19	469	N/A	76.7
		Room B1-05	57	6/21 20:00	3	13,513	N/A	55.0	1/21 24:00	3	83	N/A	75.0
	Zone 01-05		233	7/21 18:00	191	2,279	N/A	55.0	1/21 24:00	191	4,674	N/A	110.7
		Room 01-11	233	7/21 19:00	188	2,217	N/A	55.0	1/21 24:00	188	4,609	N/A	111.3

Fans

System	Zone	Type	Efficiency (%)	Efficiency with PRM Fan Override (%)	Static Pressure (in. Wg)	Flow Rate (cfm)	Power (kW)	Power with PRM Fan Override (kW)	Motor Heat in Air (%)
	Zone 00-03 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	249	.05	N/A	100.00
	Zone 00-04 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	296	.06	N/A	100.00
	Zone 00-05 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	371	.07	N/A	100.00
	Zone 00-06 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	83	.02	N/A	100.00
	Zone 00-07 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	86	.02	N/A	100.00
	Zone 00-11 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	167	.03	N/A	100.00
	Zone 01-00 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	1,439	.29	N/A	100.00
	Zone 01-01 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	136	.03	N/A	100.00
	Zone -01-01 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	63	.01	N/A	100.00
	Zone -01-02 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	14	.00	N/A	100.00
	Zone -01-03 _EXHAUST FAN	Zone	10.00	N/A	0.00	85	.00	N/A	100.00
	Zone -01-03 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	28	.01	N/A	100.00
	Zone -01-04 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	22	.00	N/A	100.00
	Zone 01-05 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	191	.04	N/A	100.00

System Name: Ventilation and Heating

System Type:	Heating Only
Number of Zones	1
Number of Rooms	1

Component	Quantity
Cooling Coils	0
Heating Coils	1
Fans	1

Cooling Coils

Coil Location			Coil Selection at Design						Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
																	N/A	N/A

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/und r sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
SHC-1		Water	Peak	1/21 24:00	81.2	81.2	N/A	1,773	516	51.5	94.9	4.13	180.0	140.0

Load/Airflows

System	Location: Zone	Location: Room	Area	Cooling: Time of Peak	Cooling: Supply Airflow	Cooling: Sensible Load	Cooling: Minimum Airflow	Cooling: SAT	Heating: Time of Peak	Heating: Supply Airflow	Heating: Sensible Load	Heating: Minimum Airflow	Heating: SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
Ventilation and Heating			7,769		0	0	1,773	48.0	1/21 24:00	1,773	81,148	1,773	130.0
	Zone -01-00		7,769	7/21 15:00	1,773	28,185	1,773	48.0	1/21 24:00	1,773	110,258	1,773	130.0
		Room B1-00	7,769	7/21 15:00	1,773	28,058	1,773	48.0	1/21 24:00	1,773	110,278	1,773	130.0

Fans

System	Zone	Type	Efficiency	Efficiency with PRM Fan Override	Static Pressure	Flow Rate	Power	Power with PRM Fan Override	Motor Heat in Air
			(%)	(%)	(in. Wg)	(cfm)	(kW)	(kW)	(%)
Ventilation and Heating SF-1		System	70.00	N/A	1.25	1,773	.37	N/A	100.00

Loop Name: **HW Loop**
Loop Type: Hot Water Loop
Number of Assigned Coils: 17

Pumps

Name	Type	Contol	Head (psig)	Flow (gpm)	Power (W)	Power per Flow
HW Loop HWP-1	Pump:ConstantSpeed	Intermittent	23	83.13	1579	19

Plant Equipment

Name	Type	Nominal Capacity (MBh)	Efficiency (%)
HW Loop BO-1	Boiler:HotWater	1,680.00	75.0

Name	Type	Nominal Capacity (MBh)	Efficiency (%)
HW Loop BO-2	Boiler:HotWater	1,668.00	75.0

Loop Name: **CHW Loop**
Loop Type: Chilled Water Loop
Number of Assigned Coils: 3

Pumps

Name	Type	Contol	Head (psig)	Flow (gpm)	Power (W)	Power per Flow
CHW Loop CHWP-1	Pump:ConstantSpeed	Intermittent	15	33.67	741	22

Plant Equipment

Name	Type	Nominal Capacity (tons)	Efficiency (COP)
CHW Loop ACH-1	Chiller:Electric:EIR	76.00	2.50

Plant Summary

Cooling Plant Summary

	Sizing Method	Peak Time Mo./Day/Time	Capacity (tons)	Flow Rate (gpm)	Percent of Peak Plant Capacity	Coil Δ T (°F)	Plant Temps (°F)	
							Supply	Return
CHW Loop	Block	7/21 15:00:00	16.90	33.67				
	Peak	Sum of Peaks	74.87	149.14	100 %			
AH-1 (MZU) SCC-1	Peak	8/21 14:00:00	51.87	103.34	307%	12.01	45.0	57.0
Zone 00-08 _AH-3 (Jail) SCC-1	Peak	7/21 15:00:00	8.96	17.85	53%	12.01	45.0	57.0
Zone 01-04 _AH-2 (Locker Room) SCC-1	Peak	7/21 17:00:00	14.03	27.95	83%	12.01	45.0	57.0

Heating Plant Summary

	Sizing Method	Peak Time Mo./Day/Time	Capacity (MBh)	Flow Rate (gpm)	Percent of Peak Plant Capacity	Coil Δ T (°F)	Plant Temps (°F)	
							Supply	Return
HW Loop	Peak	Sum of Peaks	1,390.99	83.12	100 %			
AH-1 (MZU) SHC-1	Peak	1/21 24:00:00	607.43	28.50	44%	40.00	180.0	140.0
Ventilation and Heating SHC-1	Peak	1/21 24:00:00	81.15	4.13	6%	40.00	180.0	140.0
Zone 00-03 _UH-1_HEATING COIL	Peak	1/21 24:00:00	6.28	0.32	0%	40.00	180.0	140.0
Zone 00-04 _UH-1_HEATING COIL	Peak	1/21 24:00:00	7.42	0.38	1%	40.00	180.0	140.0
Zone 00-05 _UH-1_HEATING COIL	Peak	1/21 24:00:00	9.38	0.48	1%	40.00	180.0	140.0
Zone 00-06 _UH-1_HEATING COIL	Peak	1/21 24:00:00	2.08	0.11	0%	40.00	180.0	140.0
Zone 00-07 _UH-1_HEATING COIL	Peak	1/21 24:00:00	2.15	0.11	0%	40.00	180.0	140.0
Zone 00-08 _AH-3 (Jail) SHC-1	Peak	1/21 24:00:00	67.85	4.78	5%	40.00	180.0	140.0
Zone 00-11 _UH-1_HEATING COIL	Peak	1/21 24:00:00	4.14	0.21	0%	40.00	180.0	140.0
Zone 01-00 _UH-1_HEATING COIL	Peak	1/21 24:00:00	36.21	1.84	3%	40.00	180.0	140.0
Zone 01-01 _UH-1_HEATING COIL	Peak	1/21 24:00:00	3.33	0.17	0%	40.00	180.0	140.0
Zone -01-01 _UH-1_HEATING COIL	Peak	1/21 24:00:00	1.56	0.08	0%	40.00	180.0	140.0

	Sizing Method	Peak Time Mo./Day/Time	Capacity (MBh)	Flow Rate (gpm)	Percent of Peak Plant Capacity	Coil Δ T (°F)	Plant Temps (°F)	
							Supply	Return
Zone -01-02 _UH-1_HEATING COIL	Peak	1/21 24:00:00	0.34	0.02	0%	40.00	180.0	140.0
Zone -01-03 _UH-1_HEATING COIL	Peak	1/21 24:00:00	0.58	0.03	0%	40.00	180.0	140.0
Zone 01-04 _AH-2 (Locker Room) SHC-1	Peak	1/21 24:00:00	430.73	12.87	31%	40.00	180.0	140.0
Zone -01-04 _UH-1_HEATING COIL	Peak	1/21 24:00:00	0.54	0.03	0%	40.00	180.0	140.0
Zone 01-05 _UH-1_HEATING COIL	Peak	1/21 24:00:00	4.67	0.24	0%	40.00	180.0	140.0

Peak Load Summary Report

Baseline

System Name: AH-1 (MZU)

Location		Cooling								Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
AH-1 (MZU)		8/21 14:00	85.1	71.9	74.0	65.0	11,855	12,349	173,498	448,976	1/21 24:00	4.1	2.5	71.0	77.0	10,565	17,366	607,407
	Zone 00-00	9/21 11:00	76.0	66.2	74.0	65.0	748	1,136	7,242	621	1/21 24:00	4.1	2.5	71.0	81.0	739	1,136	7,806
	Room 00-08	9/21 14:00	80.0	67.5	74.0	65.0	261	387	2,523	226	1/21 24:00	4.1	2.5	71.0	79.3	254	387	2,225
	Room 00-10	8/21 11:00	81.2	70.8	74.0	65.0	487	732	4,718	485	1/21 24:00	4.1	2.5	71.0	81.7	483	732	5,428
	Room 00-14	7/21 11:00	83.0	71.4	74.0	65.0	32	46	305	0	1/21 24:00	4.1	2.5	71.0	76.4	30	46	173
	Zone 00-01	10/21 13:00	70.2	60.6	74.0	65.0	1,263	1,900	12,230	369	1/21 24:00	4.1	2.5	71.0	77.0	1,235	1,900	7,764
	Room 00-05	11/21 13:00	61.4	54.6	74.0	65.0	983	1,454	9,524	210	1/21 24:00	4.1	2.5	71.0	76.4	958	1,454	5,451
	Room 00-06	10/21 14:00	71.0	60.9	74.0	65.0	297	440	2,880	35	1/21 24:00	4.1	2.5	71.0	78.7	290	440	2,362
	Zone 00-02	8/21 14:00	85.1	71.9	74.0	65.0	1,460	2,001	14,130	4,011	1/21 24:00	4.1	2.5	71.0	75.0	598	2,001	2,515
	Room 00-00	8/21 14:00	85.1	71.9	74.0	65.0	473	633	4,568	1,005	1/21 24:00	4.1	2.5	71.0	75.0	216	633	910
	Room 00-07	10/21 14:00	71.0	60.9	74.0	65.0	25	36	255	0	1/21 24:00	4.1	2.5	71.0	76.3	23	36	133
	Room 00-12	8/21 14:00	85.1	71.9	74.0	65.0	150	202	1,458	88	1/21 24:00	4.1	2.5	71.0	75.0	121	202	506
	Room 00-13	7/21 11:00	83.0	71.4	74.0	65.0	44	61	425	0	1/21 24:00	4.1	2.5	71.0	76.2	40	61	219
	Room 00-17	6/21 19:00	78.1	68.5	74.0	65.0	51	69	499	28	1/21 24:00	4.1	2.5	71.0	75.0	38	69	164
	Room 00-21	6/21 19:00	78.1	68.5	74.0	65.0	483	647	4,658	2,330	1/21 24:00	4.1	2.5	71.0	75.0	57	647	102
	Room 00-22	7/21 19:00	80.2	70.6	74.0	65.0	275	370	2,672	560	1/21 24:00	4.1	2.5	71.0	75.0	76	370	322
	Zone 00-09	7/21 20:00	78.3	70.0	74.0	65.0	413	566	4,001	602	1/21 24:00	4.1	2.5	71.0	75.0	341	566	1,437
	Room 00-25	7/21 20:00	78.3	70.0	74.0	65.0	85	122	815	143	1/21 24:00	4.1	2.5	71.0	75.9	81	122	417
	Room 00-26	7/21 19:00	80.2	70.6	74.0	65.0	49	70	474	0	1/21 24:00	4.1	2.5	71.0	76.5	47	70	267
	Room 00-27	7/21 19:00	80.2	70.6	74.0	65.0	36	52	344	13	1/21 24:00	4.1	2.5	71.0	75.5	34	52	162
	Room 00-30	7/21 20:00	78.3	70.0	74.0	65.0	186	251	1,812	401	1/21 24:00	4.1	2.5	71.0	75.0	106	251	446
	Room 00-31	7/21 20:00	78.3	70.0	74.0	65.0	59	83	583	44	1/21 24:00	4.1	2.5	71.0	75.0	55	83	230
	Zone 00-10	7/21 10:00	80.4	70.6	74.0	65.0	801	1,197	7,747	856	1/21 24:00	4.1	2.5	71.0	77.1	778	1,197	5,026
	Room 00-15	7/21 11:00	83.0	71.4	74.0	65.0	97	132	953	150	1/21 24:00	4.1	2.5	71.0	75.0	64	132	267
	Room 00-16	7/21 10:00	80.4	70.6	74.0	65.0	665	988	6,442	706	1/21 24:00	4.1	2.5	71.0	77.9	650	988	4,766
	Zone 00-12	7/21 10:00	80.4	70.6	74.0	65.0	1,858	2,774	17,935	10,356	1/21 24:00	4.1	2.5	71.0	75.9	1,803	2,774	9,338
	Room 00-18	7/21 10:00	80.4	70.6	74.0	65.0	1,858	2,730	17,939	10,357	1/21 24:00	4.1	2.5	71.0	76.0	1,799	2,730	9,393

Location			Cooling								Heating							
System	Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
				DB	WB								DB	WB					
			(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
AH-1 (MZU)			8/21 14:00	85.1	71.9	74.0	65.0	11,855	12,349	173,498	448,976	1/21 24:00	4.1	2.5	71.0	77.0	10,565	17,366	607,407
	Zone 00-13		7/21 15:00	87.0	72.5	74.0	65.0	464	713	4,484	649	1/21 24:00	4.1	2.5	71.0	83.6	464	713	6,165
		Room 00-19	7/21 15:00	87.0	72.5	74.0	65.0	191	289	1,853	143	1/21 24:00	4.1	2.5	71.0	83.3	191	289	2,460
		Room 00-20	7/21 15:00	87.0	72.5	74.0	65.0	275	417	2,672	506	1/21 24:00	4.1	2.5	71.0	84.2	275	417	3,832
	Zone 01-02		9/21 14:00	80.0	67.5	74.0	65.0	2,021	2,897	19,559	822	1/21 24:00	4.1	2.5	71.0	81.2	1,884	2,897	20,316
		Room 01-04	10/21 13:00	70.2	60.6	74.0	65.0	1,382	1,972	13,368	5	1/21 24:00	4.1	2.5	71.0	78.7	1,301	1,972	10,616
		Room 01-05	9/21 14:00	80.0	67.5	74.0	65.0	479	683	4,638	516	1/21 24:00	4.1	2.5	71.0	83.2	451	683	5,807
		Room 01-07	7/21 18:00	82.8	71.3	74.0	65.0	341	494	3,301	151	1/21 24:00	4.1	2.5	71.0	84.2	326	494	4,531
	Zone 01-03		8/21 14:00	85.1	71.9	74.0	65.0	765	1,148	7,397	874	1/21 24:00	4.1	2.5	71.0	85.6	748	1,148	11,481
		Room 01-06	8/21 14:00	85.1	71.9	74.0	65.0	716	1,064	6,929	873	1/21 24:00	4.1	2.5	71.0	85.8	701	1,064	10,938
		Room 01-10	7/21 18:00	82.8	71.3	74.0	65.0	44	64	424	0	1/21 24:00	4.1	2.5	71.0	84.0	42	64	572
	Zone 01-06		7/21 19:00	80.2	70.6	74.0	65.0	235	328	2,277	237	1/21 24:00	4.1	2.5	71.0	81.5	214	328	2,361
		Room 01-09	7/21 20:00	78.3	70.0	74.0	65.0	40	57	397	12	1/21 24:00	4.1	2.5	71.0	82.6	38	57	460
		Room 01-18	7/21 20:00	78.3	70.0	74.0	65.0	17	23	161	0	1/21 24:00	4.1	2.5	71.0	83.3	15	23	200
		Room 01-19	7/21 19:00	80.2	70.6	74.0	65.0	21	33	210	0	1/21 24:00	4.1	2.5	71.0	90.8	21	33	447
		Room 01-20	7/21 19:00	80.2	70.6	74.0	65.0	142	191	1,379	225	1/21 24:00	4.1	2.5	71.0	80.1	125	191	1,199
	Zone 01-07		7/21 10:00	80.4	70.6	74.0	65.0	672	977	6,504	745	1/21 24:00	4.1	2.5	71.0	82.1	636	977	7,421
		Room 01-13	7/21 19:00	80.2	70.6	74.0	65.0	25	36	249	6	1/21 24:00	4.1	2.5	71.0	83.1	23	36	306
		Room 01-15	7/21 10:00	80.4	70.6	74.0	65.0	426	613	4,121	525	1/21 24:00	4.1	2.5	71.0	82.5	405	613	4,892
		Room 01-16	7/21 10:00	80.4	70.6	74.0	65.0	210	303	2,037	213	1/21 24:00	4.1	2.5	71.0	82.1	199	303	2,339
	Zone 01-08		7/21 10:00	80.4	70.6	74.0	65.0	1,155	1,729	11,182	1,497	1/21 24:00	4.1	2.5	71.0	86.1	1,125	1,729	17,852
		Room 01-08	7/21 19:00	80.2	70.6	74.0	65.0	191	273	1,848	103	1/21 24:00	4.1	2.5	71.0	83.9	180	273	2,455
		Room 01-12	7/21 19:00	80.2	70.6	74.0	65.0	42	63	407	0	1/21 24:00	4.1	2.5	71.0	93.0	42	63	972
		Room 01-14	7/21 19:00	80.2	70.6	74.0	65.0	19	30	190	0	1/21 24:00	4.1	2.5	71.0	92.6	19	30	443
		Room 01-17	7/21 10:00	80.4	70.6	74.0	65.0	951	1,406	9,204	1,390	1/21 24:00	4.1	2.5	71.0	85.6	926	1,406	14,300

System Name: Unit Heater

Location		Cooling								Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
Unit Heater		N/A	N/A	N/A	N/A	N/A	3,202	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,613	N/A	N/A
	Zone 00-03	9/21 14:00	80.0	67.5	74.0	55.0	271	249	5,523	427	1/21 24:00	4.1	2.5	71.0	92.9	271	249	6,279
	Room 00-04	9/21 14:00	80.0	67.5	74.0	55.0	273	248	5,551	427	1/21 24:00	4.1	2.5	71.0	92.7	273	248	6,258
	Zone 00-04	9/21 14:00	80.0	67.5	74.0	56.1	261	296	4,970	348	1/21 24:00	4.1	2.5	71.0	98.2	259	296	7,422
	Room 00-01	9/21 14:00	80.0	67.5	74.0	56.1	261	295	4,975	347	1/21 24:00	4.1	2.5	71.0	98.0	259	295	7,399
	Zone 00-05	8/21 16:00	84.1	71.6	74.0	57.4	333	371	5,909	0	1/21 24:00	4.1	2.5	71.0	97.8	333	371	9,382
	Room 00-02	8/21 16:00	84.1	71.6	74.0	57.4	333	371	5,907	0	1/21 24:00	4.1	2.5	71.0	97.8	333	371	9,382
	Zone 00-06	7/21 18:00	82.8	71.3	74.0	55.0	140	83	2,848	146	1/21 24:00	4.1	2.5	71.0	85.1	140	83	2,081
	Room 00-03	7/21 18:00	82.8	71.3	74.0	55.0	140	82	2,828	146	1/21 24:00	4.1	2.5	71.0	85.2	140	82	2,075
	Zone 00-07	7/21 20:00	78.3	70.0	74.0	53.3	53	86	1,155	196	1/21 24:00	4.1	2.5	71.0	109.8	53	86	2,147
	Room 00-24	7/21 20:00	78.3	70.0	74.0	53.2	51	87	1,125	196	1/21 24:00	4.1	2.5	71.0	111.5	51	87	2,158
	Zone 00-11	7/21 10:00	80.4	70.6	74.0	55.0	231	167	4,704	533	1/21 24:00	4.1	2.5	71.0	88.1	229	167	4,138
	Room 00-11	7/21 10:00	80.4	70.6	74.0	55.0	231	165	4,671	533	1/21 24:00	4.1	2.5	71.0	88.1	227	165	4,103
	Zone 01-00	7/21 17:00	84.6	71.8	74.0	55.7	689	1,439	13,462	2,019	1/21 24:00	4.1	2.5	71.0	121.0	689	1,439	36,210
	Room 01-02	7/21 17:00	84.6	71.8	74.0	55.7	689	1,439	13,465	2,019	1/21 24:00	4.1	2.5	71.0	121.0	689	1,439	36,235
	Zone 01-01	7/21 19:00	80.2	70.6	74.0	55.0	78	136	1,613	151	1/21 24:00	4.1	2.5	71.0	111.3	78	136	3,332
	Room 01-03	7/21 19:00	80.2	70.6	74.0	55.0	76	132	1,552	151	1/21 24:00	4.1	2.5	71.0	111.8	76	132	3,279
	Zone -01-01	9/21 18:00	75.8	66.2	74.0	55.0	170	63	3,460	0	1/21 24:00	4.1	2.5	71.0	79.8	170	63	1,564
	Room B1-02	9/21 18:00	75.8	66.2	74.0	55.0	40	18	799	0	1/21 24:00	4.1	2.5	71.0	81.7	38	18	442
	Room B1-06	9/21 18:00	75.8	66.2	74.0	55.0	100	31	2,011	0	1/21 24:00	4.1	2.5	71.0	78.6	97	31	782
	Room B1-07	9/21 18:00	75.8	66.2	74.0	55.0	30	14	610	0	1/21 24:00	4.1	2.5	71.0	82.1	30	14	350
	Zone -01-02	7/21 16:00	86.0	72.2	74.0	54.7	55	14	1,150	217	1/21 24:00	4.1	2.5	71.0	76.8	55	14	340
	Room B1-03	7/21 15:00	87.0	72.5	74.0	54.6	53	14	1,119	217	1/21 24:00	4.1	2.5	71.0	77.0	53	14	339
	Zone -01-03	6/21 20:00	76.1	67.9	74.0	55.0	100	28	2,007	33	1/21 24:00	4.1	2.5	71.0	76.7	97	28	581
	Room B1-01	6/21 20:00	76.1	67.9	74.0	56.1	51	21	979	0	1/21 24:00	4.1	2.5	71.0	76.7	51	21	303
	Room B1-08	8/21 20:00	76.6	69.4	74.0	55.0	8	4	155	7	1/21 24:00	4.1	2.5	71.0	83.6	8	4	101
	Room B1-09	6/21 20:00	76.1	67.9	74.0	56.8	44	6	815	27	1/21 24:00	4.1	2.5	71.0	75.0	28	6	118
	Zone -01-04	6/21 20:00	76.1	67.9	74.0	55.0	710	22	14,395	14	1/21 24:00	4.1	2.5	71.0	75.0	127	22	536
	Room B1-04	6/21 20:00	76.1	67.9	74.0	57.2	78	19	1,412	0	1/21 24:00	4.1	2.5	71.0	76.7	78	19	469
	Room B1-05	6/21 20:00	76.1	67.9	74.0	55.0	665	3	13,513	14	1/21 24:00	4.1	2.5	71.0	75.0	19	3	83

Location		Cooling								Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
Unit Heater		N/A	N/A	N/A	N/A	N/A	3,202	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,613	N/A	N/A
Zone 01-05		7/21 18:00	82.8	71.3	74.0	55.0	112	191	2,279	233	1/21 24:00	4.1	2.5	71.0	110.7	112	191	4,674
	Room 01-11	7/21 19:00	80.2	70.6	74.0	55.0	110	188	2,217	233	1/21 24:00	4.1	2.5	71.0	111.3	108	188	4,609

System Name: AH-3 (Jail)

Location		Cooling									Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
AH-3 (Jail)		N/A	N/A	N/A	N/A	N/A	877	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	871	N/A	N/A
	Zone 00-08	7/21 22:00	75.2	69.1	74.0	65.0	877	2,250	8,479	1	1/21 24:00	4.1	2.5	71.0	82.7	871	2,250	10,756
		Room 00-29	7/21 22:00	75.2	69.1	74.0	65.0	42	107	412	1	1/21 24:00	4.1	2.5	71.0	84.4	42	107	598
		Room 00-32	7/21 23:00	74.0	68.7	74.0	65.0	850	2,143	8,223	0	1/21 24:00	4.1	2.5	71.0	82.7	843	2,143	10,382

System Name: AH-2 (Locker Room)

Location		Cooling									Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
AH-2 (Locker Room)		N/A	N/A	N/A	N/A	N/A	3,835	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,742	N/A	N/A
	Zone 01-04	7/21 18:00	82.8	71.3	74.0	65.0	3,835	10,420	37,098	5,807	1/21 24:00	4.1	2.5	71.0	84.6	3,742	10,420	53,698
	Room 01-00	7/21 18:00	82.8	71.3	74.0	65.0	3,566	9,696	34,485	5,709	1/21 24:00	4.1	2.5	71.0	84.9	3,492	9,696	51,141
	Room 01-21	7/21 19:00	80.2	70.6	74.0	65.0	267	724	2,574	85	1/21 24:00	4.1	2.5	71.0	82.4	244	724	2,928

System Name: Ventilation and Heating

Location		Cooling								Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
Ventilation and Heating			32.0	32.0	32.0	48.0	1,017	0	0	0	1/21 24:00	4.1	2.5	71.0	130.0	1,774	1,773	81,148
Zone -01-00		7/21 15:00	87.0	72.5	74.0	48.0	1,017	1,773	28,185	18,147	1/21 24:00	4.1	2.5	71.0	130.0	1,774	1,773	110,258
	Room B1-00	7/21 15:00	87.0	72.5	74.0	48.0	1,013	1,773	28,058	18,104	1/21 24:00	4.1	2.5	71.0	130.0	1,774	1,773	110,278

Outside Air / ASHRAE Standard 62.1 Summary

System Ventilation Requirements

System	Mode	ΣVpz (cfm)	Ps People	ΣPz People	D Ps / ΣPz	Vou (cfm)	Vps (cfm)	Xs	Ev	Vot (cfm)	%OA Vot / Vps
AH-1 (MZU)	Cooling	17,366	86	103	0.83	1,124	17,366	0.065	0.951	1,182	6.8%
	Heating	17,366	86	103	0.83	1,124	17,366	0.065	1	1,124	6.5%
Ventilation and Heating	Cooling	1,773	5	5	1	516	1,773	1	1	516	29.1%
	Heating	1,773	5	5	1	516	1,773	0.811	1	516	29.1%
Zone 00-08 _AH-3 (Jail)	Cooling	2,250	0	0	1	144	2,250	1	1	144	6.4%
	Heating	2,250	0	0	1	144	2,250	1	1	144	6.4%
Zone 01-04 _AH-2 (Locker Room)	Cooling	10,420	18	26	1	737	10,420	0.192	1	737	7.1%
	Heating	10,420	18	26	1	737	10,420	1	1	737	7.1%

Ventilation Parameters

System Zone	Rp cfm/person	Pz People	Ra cfm/ft²	Az (ft²)	Vbz (cfm)	Cooling Ez	Cooling Voz (cfm)	Heating Ez	Heating Voz (cfm)
AH-1 (MZU)	4.85	102.82	0.06	12,123	1,208		1,208		1,208
Zone 00-00	5.00	3.08	0.06	655	55	1.00	55	1.00	55
Zone 00-01	4.78	5.19	0.04	720	55	1.00	55	1.00	55
Zone 00-02	4.86	16.76	0.06	2,247	221	1.00	221	1.00	221
Zone 00-09	4.56	2.98	0.05	923	64	1.00	64	1.00	64
Zone 00-10	5.00	3.59	0.06	717	61	1.00	61	1.00	61
Zone 00-12	5.00	51.03	0.06	1,021	316	1.00	316	1.00	316
Zone 00-13	4.35	2.69	0.07	820	68	1.00	68	1.00	68
Zone 01-02	3.45	3.73	0.06	1,669	113	1.00	113	1.00	113
Zone 01-03	5.00	3.54	0.06	776	64	1.00	64	1.00	64
Zone 01-06	4.68	1.20	0.04	343	21	1.00	21	1.00	21
Zone 01-07	4.93	3.01	0.06	635	50	1.00	50	1.00	50
Zone 01-08	4.66	6.03	0.06	1,596	120	1.00	120	1.00	120
Ventilation and Heating	10.00	5.00	0.06	7,769	516		516		516
Zone -01-00	10.00	5.00	0.06	7,769	516	1.00	516	1.00	516
Zone 00-08 _AH-3 (Jail)	0.00	0.08	0.06	2,481	144		144		144
Zone 00-08	0.00	0.08	0.06	2,481	144	1.00	144	1.00	144

Ventilation Parameters

System Zone	Rp cfm/person	Pz People	Ra cfm/ft²	Az (ft²)	Vbz (cfm)	Cooling Ez	Cooling Voz (cfm)	Heating Ez	Heating Voz (cfm)
Zone 01-04 _AH-2 (Locker Room)	4.89	25.96	0.11	5,632	737		737		737
Zone 01-04	4.89	25.96	0.11	5,632	737	1.00	737	1.00	737

*Ventilation Sizing Factor: 1.00

Ventilation Calculations for Cooling Design

System Zone	Box Type	Vpz (cfm)	Vdz (cfm)	Vpz-min (cfm)	Voz-clg (cfm)	Zpz	Ep	Er	Fa	Fb	Fc	Evz
AH-1 (MZU)		17,366	17,366	17,366	1,208							
Zone 00-00	Dual Duct Const Vol	1,136	1,136	1,136	54.70	0.048	1.00	1.00	1.00	1.00	1.00	1.017
Zone 00-01	Dual Duct Const Vol	1,900	1,900	1,900	54.60	0.029	1.00	1.00	1.00	1.00	1.00	1.036
Zone 00-02	Dual Duct Const Vol	2,001	2,001	2,001	220.76	0.110	1.00	1.00	1.00	1.00	1.00	0.954
Zone 00-09	Dual Duct Const Vol	566	566	566	63.72	0.113	1.00	1.00	1.00	1.00	1.00	0.952
Zone 00-10	Dual Duct Const Vol	1,197	1,197	1,197	60.97	0.051	1.00	1.00	1.00	1.00	1.00	1.014
Zone 00-12	Dual Duct Const Vol	2,774	2,774	2,774	316.36	0.114	1.00	1.00	1.00	1.00	1.00	0.951
Zone 00-13	Dual Duct Const Vol	713	713	713	67.86	0.095	1.00	1.00	1.00	1.00	1.00	0.970
Zone 01-02	Dual Duct Const Vol	2,897	2,897	2,897	113.00	0.039	1.00	1.00	1.00	1.00	1.00	1.026
Zone 01-03	Dual Duct Const Vol	1,148	1,148	1,148	64.22	0.056	1.00	1.00	1.00	1.00	1.00	1.009
Zone 01-06	Dual Duct Const Vol	328	328	328	20.82	0.063	1.00	1.00	1.00	1.00	1.00	1.001
Zone 01-07	Dual Duct Const Vol	977	977	977	50.47	0.052	1.00	1.00	1.00	1.00	1.00	1.013
Zone 01-08	Dual Duct Const Vol	1,729	1,729	1,729	120.16	0.069	1.00	1.00	1.00	1.00	1.00	0.995
Ventilation and Heating		1,773	1,773	1,773	516							
Zone -01-00	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	1,773	1,773	1,773	516.13	0.291	1.00	0.00	0.00	0.00	0.00	1.000
Zone 00-08 _AH-3 (Jail)		2,250	2,250	2,250	144							
Zone 00-08	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	2,250	2,250	2,250	144.17	0.064	1.00	0.00	0.00	0.00	0.00	1.000
Zone 01-04 _AH-2 (Locker Room)		10,420	10,420	10,420	737							
Zone 01-04	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	10,420	10,420	10,420	737.00	0.071	1.00	0.00	0.00	0.00	0.00	1.000

Ventilation Calculations for Heating Design

System Zone	Box Type	Vpz (cfm)	Vdz (cfm)	Vpz-min (cfm)	Voz-htg (cfm)	Zpz	Ep	Er	Fa	Fb	Fc	Evz
AH-1 (MZU)		17,366	17,366	17,366	1,208							
Zone 00-00	Dual Duct Const Vol	1,136	1,136	1,136	54.70	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 00-01	Dual Duct Const Vol	1,900	1,900	1,900	54.60	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 00-02	Dual Duct Const Vol	2,001	2,001	2,001	220.76	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 00-09	Dual Duct Const Vol	566	566	566	63.72	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 00-10	Dual Duct Const Vol	1,197	1,197	1,197	60.97	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 00-12	Dual Duct Const Vol	2,774	2,774	2,774	316.36	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 00-13	Dual Duct Const Vol	713	713	713	67.86	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 01-02	Dual Duct Const Vol	2,897	2,897	2,897	113.00	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 01-03	Dual Duct Const Vol	1,148	1,148	1,148	64.22	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 01-06	Dual Duct Const Vol	328	328	328	20.82	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 01-07	Dual Duct Const Vol	977	977	977	50.47	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Zone 01-08	Dual Duct Const Vol	1,729	1,729	1,729	120.16	0.000	1.00	1.00	1.00	1.00	1.00	1.065
Ventilation and Heating		1,773	1,773	1,773	516							
Zone -01-00	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	1,773	1,773	1,773	516.13	0.291	1.00	0.00	0.00	0.00	0.00	1.000
Zone 00-08 _AH-3 (Jail)		2,250	2,250	2,250	144							
Zone 00-08	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	2,250	2,250	2,250	144.17	0.064	1.00	0.00	0.00	0.00	0.00	1.000
Zone 01-04 _AH-2 (Locker Room)		10,420	10,420	10,420	737							
Zone 01-04	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	10,420	10,420	10,420	737.00	0.071	1.00	0.00	0.00	0.00	0.00	1.000

Single-Zone System Calculations

Zone / Room	Rp cfm/person	Pz People	Ra cfm/ft²	Az (ft²)	Vbz (cfm)	Cooling Ez	Cooling Voz (cfm)	Heating Ez	Heating Voz (cfm)
Zone 00-03	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-04	5.00	1.14	0.06	114	0	100.00	0	100.00	0
Zone 00-04	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-01	5.00	0.00	0.06	790	0	100.00	0	100.00	0
Zone 00-05	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-02	5.00	0.00	0.06	645	0	100.00	0	100.00	0
Zone 00-06	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-03	0.00	0.73	0.00	146	0	100.00	0	100.00	0
Zone 00-07	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-24	5.00	0.00	0.06	240	0	100.00	0	100.00	0
Zone 00-11	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-11	0.00	1.09	0.00	219	0	100.00	0	100.00	0
Zone 01-00	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 01-02	0.00	0.00	0.00	1,451	0	100.00	0	100.00	0
Room 01-01	5.00	0.00	0.06	0	0	100.00	0	100.00	0
Zone 01-01	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 01-03	0.00	0.76	0.00	151	0	100.00	0	100.00	0
Zone -01-01	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room B1-07	0.00	0.00	0.00	184	0	100.00	0	100.00	0
Room B1-06	0.00	0.00	0.00	643	0	100.00	0	100.00	0
Room B1-02	0.00	0.00	0.00	226	0	100.00	0	100.00	0
Zone -01-02	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room B1-03	0.00	1.08	0.00	217	0	100.00	0	100.00	0
Zone -01-03	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room B1-08	0.00	0.04	0.00	42	0	100.00	0	100.00	0
Room B1-01	5.00	0.00	0.06	352	0	100.00	0	100.00	0
Room B1-09	0.00	0.11	0.06	108	0	100.00	0	100.00	0
Zone -01-04	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room B1-05	0.00	0.06	0.00	57	0	100.00	0	100.00	0
Room B1-04	5.00	0.00	0.06	279	0	100.00	0	100.00	0

Single-Zone System Calculations

Zone	Room	Rp cfm/person	Pz People	Ra cfm/ft²	Az (ft²)	Vbz (cfm)	Cooling Ez	Cooling Voz (cfm)	Heating Ez	Heating Voz (cfm)
Zone 01-05		N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
	Room 01-11	0.00	1.16	0.00	233	0	100.00	0	100.00	0

Sum of Outdoor Air Calculations

System Zone Room	Supply (cfm)	Outdoor (cfm)	Outdoor (%)
Unit Heater	N/A	N/A	N/A
Zone 00-03	249	0	0.00%
Room 00-04	248	0	N/A
Zone 00-04	296	0	0.00%
Room 00-01	295	0	N/A
Zone 00-05	371	0	0.00%
Room 00-02	371	0	N/A
Zone 00-06	83	0	0.00%
Room 00-03	82	0	N/A
Zone 00-07	86	0	0.00%
Room 00-24	87	0	N/A
Zone 00-11	167	0	0.00%
Room 00-11	165	0	N/A
Zone 01-00	1,439	0	0.00%
Room 01-01	1	0	N/A
Room 01-02	1,439	0	N/A
Zone 01-01	136	0	0.00%
Room 01-03	132	0	N/A
Zone -01-01	63	0	0.00%
Room B1-02	18	0	N/A
Room B1-06	31	0	N/A
Room B1-07	14	0	N/A
Zone -01-02	14	0	0.00%
Room B1-03	14	0	N/A
Zone -01-03	28	0	0.00%
Room B1-01	21	0	N/A
Room B1-08	4	0	N/A
Room B1-09	6	0	N/A
Zone -01-04	22	0	0.00%
Room B1-04	19	0	N/A
Room B1-05	3	0	N/A
Zone 01-05	191	0	0.00%
Room 01-11	188	0	N/A

Load/Airflow Report

Baseline

System Name: AH-1 (MZU)

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
AH-1 (MZU)			12,123	102.82	8/21 14:00	12,349	173,498	9.20	17,366	141	1/21 24:00	17,366	607,407	7	11
	Zone 00-00		655	3.08	9/21 11:00	1,136	7,242	11.55	1,136	100	1/21 24:00	1,136	7,806	7	6
		Room 00-08	224	1.12	9/21 14:00	387	2,523	11.50	387	100	1/21 24:00	387	2,225	7	6
		Room 00-10	391	1.95	8/21 11:00	732	4,718	12.49	732	100	1/21 24:00	732	5,428	7	6
		Room 00-14	40	0.00	7/21 11:00	46	305	7.61	46	100	1/21 24:00	46	173	7	6
	Zone 00-01		720	5.19	10/21 13:00	1,900	12,230	17.58	1,900	100	1/21 24:00	1,900	7,764	7	6
		Room 00-05	496	4.96	11/21 13:00	1,454	9,524	19.53	1,454	100	1/21 24:00	1,454	5,451	7	6
		Room 00-06	224	0.22	10/21 14:00	440	2,880	13.09	440	100	1/21 24:00	440	2,362	7	6
	Zone 00-02		2,247	16.76	8/21 14:00	2,001	14,130	5.86	2,001	100	1/21 24:00	2,001	2,515	7	6
		Room 00-00	1,005	5.03	8/21 14:00	633	4,568	4.20	633	100	1/21 24:00	633	910	7	6
		Room 00-07	39	0.00	10/21 14:00	36	255	6.19	36	100	1/21 24:00	36	133	7	6
		Room 00-12	352	0.35	8/21 14:00	202	1,458	3.82	202	100	1/21 24:00	202	506	7	6
		Room 00-13	53	0.00	7/21 11:00	61	425	4.96	61	100	1/21 24:00	61	219	7	6
		Room 00-17	110	0.11	6/21 19:00	69	499	4.17	69	100	1/21 24:00	69	164	7	6
		Room 00-21	127	8.50	6/21 19:00	647	4,658	33.94	647	100	1/21 24:00	647	102	7	6
		Room 00-22	560	2.80	7/21 19:00	370	2,672	4.41	370	100	1/21 24:00	370	322	7	6
	Zone 00-09		923	2.98	7/21 20:00	566	4,001	3.54	566	100	1/21 24:00	566	1,437	7	6
		Room 00-25	143	0.72	7/21 20:00	122	815	3.67	122	100	1/21 24:00	122	417	7	6
		Room 00-26	114	0.00	7/21 19:00	70	474	2.64	70	100	1/21 24:00	70	267	7	6
		Room 00-27	87	0.09	7/21 19:00	52	344	3.95	52	100	1/21 24:00	52	162	7	6
		Room 00-30	401	2.00	7/21 20:00	251	1,812	4.18	251	100	1/21 24:00	251	446	7	6
		Room 00-31	178	0.18	7/21 20:00	83	583	3.10	83	100	1/21 24:00	83	230	7	6
	Zone 00-10		717	3.59	7/21 10:00	1,197	7,747	11.12	1,197	100	1/21 24:00	1,197	5,026	7	6
		Room 00-15	150	0.75	7/21 11:00	132	953	5.85	132	100	1/21 24:00	132	267	7	6
		Room 00-16	567	2.83	7/21 10:00	988	6,442	11.62	988	100	1/21 24:00	988	4,766	7	6
	Zone 00-12		1,021	50.97	7/21 10:00	2,774	17,935	18.12	2,774	100	1/21 24:00	2,774	9,338	7	6
		Room 00-18	1,021	50.97	7/21 10:00	2,730	17,939	17.84	2,730	100	1/21 24:00	2,730	9,393	7	6
	Zone 00-13		820	2.69	7/21 15:00	713	4,484	4.40	713	100	1/21 24:00	713	6,165	7	6
		Room 00-19	352	0.35	7/21 15:00	289	1,853	5.47	289	100	1/21 24:00	289	2,460	7	6
		Room 00-20	468	2.34	7/21 15:00	417	2,672	3.82	417	100	1/21 24:00	417	3,832	7	6

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
AH-1 (MZU)			12,123	102.82	8/21 14:00	12,349	173,498	9.20	17,366	141	1/21 24:00	17,366	607,407	7	11
	Zone 01-02		1,669	3.73	9/21 14:00	2,897	19,559	11.57	2,897	100	1/21 24:00	2,897	20,316	7	6
		Room 01-04	549	0.55	10/21 13:00	1,972	13,368	23.96	1,972	100	1/21 24:00	1,972	10,616	7	6
		Room 01-05	514	2.57	9/21 14:00	683	4,638	8.86	683	100	1/21 24:00	683	5,807	7	6
		Room 01-07	606	0.61	7/21 18:00	494	3,301	5.44	494	100	1/21 24:00	494	4,531	7	6
	Zone 01-03		776	3.54	8/21 14:00	1,148	7,397	9.87	1,148	100	1/21 24:00	1,148	11,481	7	6
		Room 01-06	707	3.54	8/21 14:00	1,064	6,929	10.03	1,064	100	1/21 24:00	1,064	10,938	7	6
		Room 01-10	68	0.00	7/21 18:00	64	424	6.19	64	100	1/21 24:00	64	572	7	6
	Zone 01-06		343	1.20	7/21 19:00	328	2,277	6.29	328	100	1/21 24:00	328	2,361	7	6
		Room 01-09	76	0.08	7/21 20:00	57	397	4.97	57	100	1/21 24:00	57	460	7	6
		Room 01-18	28	0.00	7/21 20:00	23	161	5.56	23	100	1/21 24:00	23	200	7	6
		Room 01-19	14	0.00	7/21 19:00	33	210	11.85	33	100	1/21 24:00	33	447	7	6
		Room 01-20	225	1.13	7/21 19:00	191	1,379	5.66	191	100	1/21 24:00	191	1,199	7	6
	Zone 01-07		635	3.01	7/21 10:00	977	6,504	10.25	977	100	1/21 24:00	977	7,421	7	6
		Room 01-13	42	0.04	7/21 19:00	36	249	5.84	36	100	1/21 24:00	36	306	7	6
		Room 01-15	423	2.12	7/21 10:00	613	4,121	9.66	613	100	1/21 24:00	613	4,892	7	6
		Room 01-16	171	0.85	7/21 10:00	303	2,037	11.82	303	100	1/21 24:00	303	2,339	7	6
	Zone 01-08		1,597	6.03	7/21 10:00	1,729	11,182	7.13	1,729	100	1/21 24:00	1,729	17,852	7	6
		Room 01-08	410	0.41	7/21 19:00	273	1,848	4.44	273	100	1/21 24:00	273	2,455	7	6
		Room 01-12	47	0.00	7/21 19:00	63	407	6.73	63	100	1/21 24:00	63	972	7	6
		Room 01-14	15	0.00	7/21 19:00	30	190	9.77	30	100	1/21 24:00	30	443	7	6
		Room 01-17	1,124	5.62	7/21 10:00	1,406	9,204	8.34	1,406	100	1/21 24:00	1,406	14,300	7	6

System Name: Unit Heater

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
Unit Heater			6,095	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 00-03		114	1.14	9/21 14:00	249	5,523	14.54	N/A	N/A	1/21 24:00	249	6,279	0	0
		Room 00-04	114	1.14	9/21 14:00	248	5,551	14.49	N/A	N/A	1/21 24:00	248	6,258	0	0
	Zone 00-04		790	0.00	9/21 14:00	296	4,970	1.61	N/A	N/A	1/21 24:00	296	7,422	0	0
		Room 00-01	790	0.00	9/21 14:00	295	4,975	1.60	N/A	N/A	1/21 24:00	295	7,399	0	0
	Zone 00-05		645	0.00	8/21 16:00	371	5,909	2.47	N/A	N/A	1/21 24:00	371	9,382	0	0
		Room 00-02	645	0.00	8/21 16:00	371	5,907	2.47	N/A	N/A	1/21 24:00	371	9,382	0	0
	Zone 00-06		146	0.73	7/21 18:00	83	2,848	2.44	N/A	N/A	1/21 24:00	83	2,081	0	0
		Room 00-03	146	0.73	7/21 18:00	82	2,828	2.43	N/A	N/A	1/21 24:00	82	2,075	0	0
	Zone 00-07		240	0.00	7/21 20:00	86	1,155	1.54	N/A	N/A	1/21 24:00	86	2,147	0	0
		Room 00-24	240	0.00	7/21 20:00	87	1,125	1.55	N/A	N/A	1/21 24:00	87	2,158	0	0
	Zone 00-11		219	1.09	7/21 10:00	167	4,704	3.27	N/A	N/A	1/21 24:00	167	4,138	0	0
		Room 00-11	219	1.09	7/21 10:00	165	4,671	3.24	N/A	N/A	1/21 24:00	165	4,103	0	0
	Zone 01-00		1,451	0.00	7/21 17:00	1,439	13,462	4.96	N/A	N/A	1/21 24:00	1,439	36,210	0	0
		Room 01-02	1,451	0.00	7/21 17:00	1,439	13,465	4.96	N/A	N/A	1/21 24:00	1,439	36,235	0	0
	Zone 01-01		151	0.76	7/21 19:00	136	1,613	4.49	N/A	N/A	1/21 24:00	136	3,332	0	0
		Room 01-03	151	0.76	7/21 19:00	132	1,552	4.37	N/A	N/A	1/21 24:00	132	3,279	0	0
	Zone -01-01		1,053	0.00	9/21 18:00	63	3,460	0.30	N/A	N/A	1/21 24:00	63	1,564	0	0
		Room B1-02	226	0.00	9/21 18:00	18	799	0.39	N/A	N/A	1/21 24:00	18	442	0	0
		Room B1-06	643	0.00	9/21 18:00	31	2,011	0.24	N/A	N/A	1/21 24:00	31	782	0	0
		Room B1-07	184	0.00	9/21 18:00	14	610	0.38	N/A	N/A	1/21 24:00	14	350	0	0
	Zone -01-02		217	1.08	7/21 16:00	14	1,150	0.31	N/A	N/A	1/21 24:00	14	340	0	0
		Room B1-03	217	1.08	7/21 15:00	14	1,119	0.31	N/A	N/A	1/21 24:00	14	339	0	0
	Zone -01-03		502	0.15	6/21 20:00	28	2,007	0.27	N/A	N/A	1/21 24:00	28	581	0	0
		Room B1-01	352	0.00	6/21 20:00	21	979	0.30	N/A	N/A	1/21 24:00	21	303	0	0
		Room B1-08	42	0.04	8/21 20:00	4	155	0.47	N/A	N/A	1/21 24:00	4	101	0	0
		Room B1-09	108	0.11	6/21 20:00	6	815	0.30	N/A	N/A	1/21 24:00	6	118	0	0
	Zone -01-04		336	0.06	6/21 20:00	22	14,395	0.32	N/A	N/A	1/21 24:00	22	536	0	0
		Room B1-04	279	0.00	6/21 20:00	19	1,412	0.34	N/A	N/A	1/21 24:00	19	469	0	0
		Room B1-05	57	0.06	6/21 20:00	3	13,513	0.29	N/A	N/A	1/21 24:00	3	83	0	0
	Zone 01-05		233	1.16	7/21 18:00	191	2,279	4.09	N/A	N/A	1/21 24:00	191	4,674	0	0
		Room 01-11	233	1.16	7/21 19:00	188	2,217	4.03	N/A	N/A	1/21 24:00	188	4,609	0	0

System Name: AH-3 (Jail)

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
AH-3 (Jail)			2,481	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 00-08		2,481	0.08	7/21 22:00	2,250	8,479	3.93	2,250	100	1/21 24:00	2,250	10,756	6	6
		Room 00-29	78	0.08	7/21 22:00	107	412	9.13	107	100	1/21 24:00	107	598	6	6
		Room 00-32	2,403	0.00	7/21 23:00	2,143	8,223	3.82	2,143	100	1/21 24:00	2,143	10,382	6	6

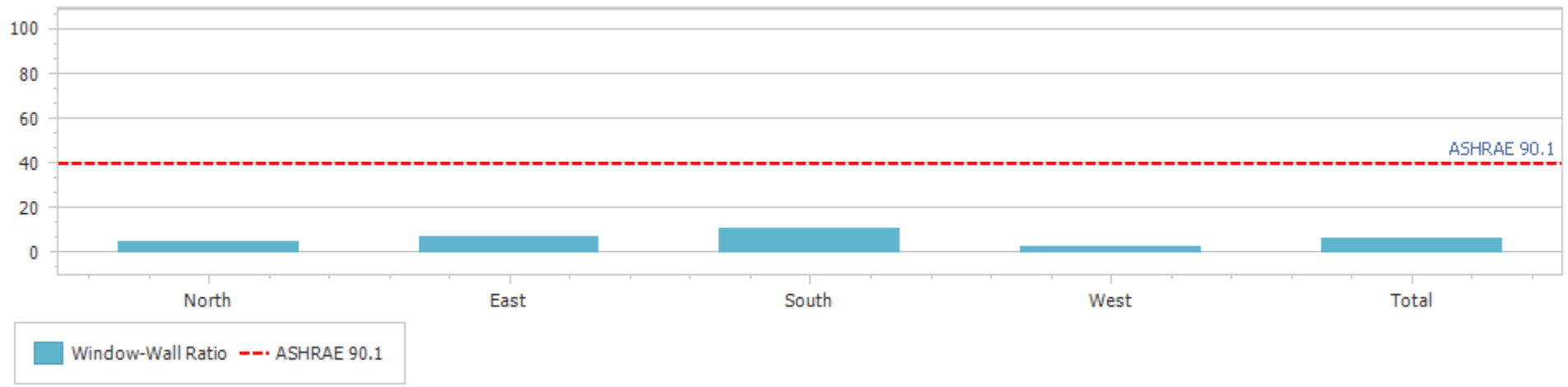
System Name: AH-2 (Locker Room)

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
AH-2 (Locker Room)			5,632	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 01-04		5,632	25.97	7/21 18:00	10,420	37,098	12.33	10,420	100	1/21 24:00	10,420	53,698	7	7
		Room 01-00	5,083	25.41	7/21 18:00	9,696	34,485	12.72	9,696	100	1/21 24:00	9,696	51,141	7	7
		Room 01-21	549	0.55	7/21 19:00	724	2,574	8.78	724	100	1/21 24:00	724	2,928	7	7

System Name: Ventilation and Heating

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
Ventilation and Heating			7,769	5.00		0	0	1.14	1,773	0	1/21 24:00	1,773	81,148	29	29
	Zone -01-00		7,769	5.00	7/21 15:00	1,773	28,185	1.14	1,773	100	1/21 24:00	1,773	110,258	29	29
		Room B1-00	7,769	5.00	7/21 15:00	1,773	28,058	1.14	1,773	100	1/21 24:00	1,773	110,278	29	29

Envelope Summary



	North	East	South	West	Total
Gross Window-Wall Ratio	4.73	6.75	11.05	2.96	6.59

Ratios

	Units	North	East	South	West	Total
Above Ground Wall Area	ft²	3,485	2,587	3,485	2,587	12,143
Above Ground Window-Wall Ratio	%	6.87	9.93	16.06	4.36	9.62
Gross Wall Area	ft²	5,062	3,806	5,062	3,806	17,735
Gross Window-Wall Ratio	%	4.73	6.75	11.05	2.96	6.59
Window Opening Area	ft²	239	257	560	113	1,168
Gross Roof Area	ft²	0	0	0	0	14,293
Skylight Area	ft²	0	0	0	0	0
Skylight-Roof Ratio	%	0	0	0	0	0

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
PLENUM WALL 290-Room 00-04 _9	Police District Brick-Block Ext Walls - Rev3	0.3	53	0.102	0.112	90.04°	90 °	E

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
PLENUM WALL 291-Room 00-04 _9	Police District Brick-Block Ext Walls - Rev3	0.3	53	0.102	0.112	270.04°	90 °	W
PLENUM WALL 292-Room 00-04 _9	Police District Brick-Block Ext Walls - Rev3	0.3	59	0.102	0.112	180.04°	90 °	S
PLENUM WALL 298-Room 00-05 _9	Police District Brick-Block Ext Walls - Rev3	0.3	35	0.102	0.112	180.04°	90 °	S
PLENUM WALL 299-Room 00-05 _9	Police District Brick-Block Ext Walls - Rev3	0.3	34	0.102	0.112	180.04°	90 °	S
PLENUM WALL 305-Room 00-06 _9	Police District Brick-Block Ext Walls - Rev3	0.3	97	0.102	0.112	180.04°	90 °	S
PLENUM WALL 317-Room 00-08 _9	Police District Brick-Block Ext Walls - Rev3	0.3	70	0.102	0.112	180.04°	90 °	S
PLENUM WALL 325-Room 00-10 _9	Police District Brick-Block Ext Walls - Rev3	0.3	102	0.102	0.112	90.04°	90 °	E
PLENUM WALL 326-Room 00-10 _9	Police District Brick-Block Ext Walls - Rev3	0.3	101	0.102	0.112	180.04°	90 °	S
PLENUM WALL 362-Room 00-18 _9	Police District Brick-Block Ext Walls - Rev3	0.3	154	0.102	0.112	90.04°	90 °	E
PLENUM WALL 363-Room 00-18 _9	Police District Brick-Block Ext Walls - Rev3	0.3	171	0.102	0.112	0.04°	90 °	N
PLENUM WALL 367-Room 00-19 _9	Police District Brick-Block Ext Walls - Rev3	0.3	61	0.102	0.112	0.04°	90 °	N
PLENUM WALL 382-Room 00-29 _9	Police District Brick-Block Ext Walls - Rev3	0.3	49	0.102	0.112	270.04°	90 °	W
PLENUM WALL 406-Room 00-16 _9	Police District Brick-Block Ext Walls - Rev3	0.3	152	0.102	0.112	90.04°	90 °	E
PLENUM WALL 416-Room 01-00 _23	Police District Brick-Block Ext Walls - Rev3	0.3	293	0.102	0.112	0°	90 °	N
PLENUM WALL 417-Room 01-00 _23	Police District Brick-Block Ext Walls - Rev3	0.3	7	0.102	0.112	270°	90 °	W
PLENUM WALL 418-Room 01-00 _23	Police District Brick-Block Ext Walls - Rev3	0.3	7	0.102	0.112	0°	90 °	N
PLENUM WALL 419-Room 01-00 _23	Police District Brick-Block Ext Walls - Rev3	0.3	166	0.102	0.112	270°	90 °	W
PLENUM WALL 423-Room 01-04 _23	Police District Brick-Block Ext Walls - Rev3	0.3	76	0.102	0.112	180°	90 °	S
PLENUM WALL 429-Room 01-05 _23	Police District Brick-Block Ext Walls - Rev3	0.3	58	0.102	0.112	180°	90 °	S
PLENUM WALL 436-Room 01-06 _23	Police District Brick-Block Ext Walls - Rev3	0.3	9	0.102	0.112	90°	90 °	E
PLENUM WALL 437-Room 01-06 _23	Police District Brick-Block Ext Walls - Rev3	0.3	8	0.102	0.112	180°	90 °	S
PLENUM WALL 438-Room 01-06 _23	Police District Brick-Block Ext Walls - Rev3	0.3	58	0.102	0.112	90°	90 °	E
PLENUM WALL 439-Room 01-06 _23	Police District Brick-Block Ext Walls - Rev3	0.3	99	0.102	0.112	180°	90 °	S
PLENUM WALL 454-Room 01-07 _23	Police District Brick-Block Ext Walls - Rev3	0.3	15	0.102	0.112	270°	90 °	W

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
PLENUM WALL 491-Room 01-15 _23	Police District Brick-Block Ext Walls - Rev3	0.3	59	0.102	0.112	90°	90 °	E
PLENUM WALL 495-Room 01-17 _23	Police District Brick-Block Ext Walls - Rev3	0.3	90	0.102	0.112	90°	90 °	E
PLENUM WALL 496-Room 01-17 _23	Police District Brick-Block Ext Walls - Rev3	0.3	8	0.102	0.112	0°	90 °	N
PLENUM WALL 497-Room 01-17 _23	Police District Brick-Block Ext Walls - Rev3	0.3	7	0.102	0.112	90°	90 °	E
PLENUM WALL 498-Room 01-17 _23	Police District Brick-Block Ext Walls - Rev3	0.3	99	0.102	0.112	0°	90 °	N
PLENUM WALL 502-Room 01-16 _23	Police District Brick-Block Ext Walls - Rev3	0.3	31	0.102	0.112	90°	90 °	E
Roof 04-04	Police Concrete Roof Deck	0.3	91	0.219	0.265	90.04°	0 °	
Roof 24-00	Police Concrete Roof Deck	0.3	5,164	0.219	0.265	270°	0 °	
Roof 25-01	Police Concrete Roof Deck	0.3	0	0.219	0.265	33.6°	0 °	
Roof 26-02	Police Concrete Roof Deck	0.3	1,492	0.219	0.265	90°	0 °	
Roof 27-03	Police Concrete Roof Deck	0.3	168	0.219	0.265	90°	0 °	
Roof 28-04	Police Concrete Roof Deck	0.3	573	0.219	0.265	90°	0 °	
Roof 29-05	Police Concrete Roof Deck	0.3	538	0.219	0.265	90°	0 °	
Roof 30-06	Police Concrete Roof Deck	0.3	736	0.219	0.265	90°	0 °	
Roof 31-07	Police Concrete Roof Deck	0.3	663	0.219	0.265	90°	0 °	
Roof 32-08	Police Concrete Roof Deck	0.3	442	0.219	0.265	90°	0 °	
Roof 33-09	Police Concrete Roof Deck	0.3	86	0.219	0.265	90°	0 °	
Roof 34-10	Police Concrete Roof Deck	0.3	78	0.219	0.265	90°	0 °	
Roof 35-11	Police Concrete Roof Deck	0.3	252	0.219	0.265	90°	0 °	
Roof 36-12	Police Concrete Roof Deck	0.3	54	0.219	0.265	90°	0 °	
Roof 37-13	Police Concrete Roof Deck	0.3	48	0.219	0.265	90°	0 °	
Roof 38-14	Police Concrete Roof Deck	0.3	20	0.219	0.265	90°	0 °	
Roof 39-15	Police Concrete Roof Deck	0.3	444	0.219	0.265	90°	0 °	
Roof 40-16	Police Concrete Roof Deck	0.3	184	0.219	0.265	90°	0 °	

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
Roof 41-17	Police Concrete Roof Deck	0.3	1,158	0.219	0.265	90°	0 °	
Roof 42-18	Police Concrete Roof Deck	0.3	34	0.219	0.265	90°	0 °	
Roof 43-19	Police Concrete Roof Deck	0.3	18	0.219	0.265	90°	0 °	
Roof 44-20	Police Concrete Roof Deck	0.3	241	0.219	0.265	90°	0 °	
Roof 45-21	Police Concrete Roof Deck	0.3	573	0.219	0.265	90°	0 °	
Roof 47-00	Police Concrete Roof Deck	0.3	1,222	0.219	0.265	90°	0 °	
Roof 49-02	Police Concrete Roof Deck	0.3	2	0.219	0.265	90°	0 °	
Roof 50-06	Police Concrete Roof Deck	0.3	6	0.219	0.265	90°	0 °	
Roof 51-07	Police Concrete Roof Deck	0.3	2	0.219	0.265	90°	0 °	
Roof 52-32	Police Concrete Roof Deck	0.3	3	0.219	0.265	90°	0 °	
SLAB 00_0	4 In. Hw Concrete	0.3	517	0.249	0.323		180 °	
SLAB 01_0	4 In. Hw Concrete	0.3	818	0.249	0.323		180 °	
SLAB 02_0	4 In. Hw Concrete	0.3	670	0.249	0.323		180 °	
SLAB 03_0	4 In. Hw Concrete	0.3	162	0.249	0.323		180 °	
SLAB 04_0	4 In. Hw Concrete	0.3	125	0.249	0.323		180 °	
SLAB 05_0	4 In. Hw Concrete	0.3	519	0.249	0.323		180 °	
SLAB 06_0	4 In. Hw Concrete	0.3	13	0.249	0.323		180 °	
SLAB 10_0	4 In. Hw Concrete	0.3	3	0.249	0.323		180 °	
SLAB 11_0	4 In. Hw Concrete	0.3	2	0.249	0.323		180 °	
SLAB 118_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	29	0.038	0.04		180 °	
SLAB 12_0	4 In. Hw Concrete	0.3	5	0.249	0.323		180 °	
SLAB 129_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	54	0.038	0.04		180 °	
SLAB 131_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	28	0.038	0.04		180 °	
SLAB 137_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	82	0.038	0.04		180 °	

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
SLAB 138_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	27	0.038	0.04		180 °	
SLAB 16_0	4 In. Hw Concrete	0.3	6	0.249	0.323		180 °	
SLAB 172_0	4 In. Hw Concrete	0.3	7,865	0.249	0.323		180 °	
SLAB 18_0	4 In. Hw Concrete	0.3	7	0.249	0.323		180 °	
SLAB 183_0	4 In. Hw Concrete	0.3	372	0.249	0.323		180 °	
SLAB 185_0	4 In. Hw Concrete	0.3	242	0.249	0.323		180 °	
SLAB 190_0	4 In. Hw Concrete	0.3	235	0.249	0.323		180 °	
SLAB 194_0	4 In. Hw Concrete	0.3	300	0.249	0.323		180 °	
SLAB 199_0	4 In. Hw Concrete	0.3	65	0.249	0.323		180 °	
SLAB 207_0	4 In. Hw Concrete	0.3	670	0.249	0.323		180 °	
SLAB 210_0	4 In. Hw Concrete	0.3	199	0.249	0.323		180 °	
SLAB 213_0	4 In. Hw Concrete	0.3	50	0.249	0.323		180 °	
SLAB 22_0	4 In. Hw Concrete	0.3	18	0.249	0.323		180 °	
SLAB 220_0	4 In. Hw Concrete	0.3	121	0.249	0.323		180 °	
SLAB 223_0	4 In. Hw Concrete	0.3	10	0.249	0.323		180 °	
SLAB 227_0	4 In. Hw Concrete	0.3	125	0.249	0.323		180 °	
SLAB 231_0	4 In. Hw Concrete	0.3	77	0.249	0.323		180 °	
SLAB 233_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	23	0.038	0.04		180 °	
SLAB 235_0	4 In. Hw Concrete	0.3	35	0.249	0.323		180 °	
SLAB 24_0	4 In. Hw Concrete	0.3	172	0.249	0.323		180 °	
SLAB 26_0	4 In. Hw Concrete	0.3	99	0.249	0.323		180 °	
SLAB 27_0	4 In. Hw Concrete	0.3	61	0.249	0.323		180 °	
SLAB 60_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	0	0.038	0.04		180 °	
SLAB 61_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	76	0.038	0.04		180 °	

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
SLAB 65_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	164	0.038	0.04		180 °	
SLAB 69_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	2	0.038	0.04		180 °	
SLAB 74_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	17	0.038	0.04		180 °	
SLAB 76_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	23	0.038	0.04		180 °	
SLAB 83_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	56	0.038	0.04		180 °	
SLAB 84_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	148	0.038	0.04		180 °	
SLAB 97_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	2	0.038	0.04		180 °	
WALL 103-Room 00-24 _0	Police District Brick-Block Ext Walls - Rev3	0.3	212	0.102	0.112	270.04°	90 °	W
WALL 124-Room 01-00 _14	Police District Brick-Block Ext Walls - Rev3	0.3	878	0.102	0.112	0°	90 °	N
WALL 125-Room 01-00 _14	Police District Brick-Block Ext Walls - Rev3	0.3	22	0.102	0.112	270°	90 °	W
WALL 127-Room 01-00 _14	Police District Brick-Block Ext Walls - Rev3	0.3	21	0.102	0.112	0°	90 °	N
WALL 128-Room 01-00 _14	Police District Brick-Block Ext Walls - Rev3	0.3	497	0.102	0.112	270°	90 °	W
WALL 136-Room 01-02 _14	Police District Brick-Block Ext Walls - Rev3	0.3	295	0.102	0.112	270°	90 °	W
WALL 137-Room 01-02 _14	Police District Brick-Block Ext Walls - Rev3	0.3	28	0.102	0.112	180°	90 °	S
WALL 138-Room 01-02 _14	Police District Brick-Block Ext Walls - Rev3	0.3	32	0.102	0.112	270°	90 °	W
WALL 139-Room 01-02 _14	Police District Brick-Block Ext Walls - Rev3	0.3	632	0.102	0.112	180°	90 °	S
WALL 13-Room 00-01 _0	Police District Brick-Block Ext Walls - Rev3	0.3	371	0.102	0.112	180.04°	90 °	S
WALL 143-Room 01-03 _14	Police District Brick-Block Ext Walls - Rev3	0.3	71	0.102	0.112	270°	90 °	W
WALL 147-Room 01-04 _14	Police District Brick-Block Ext Walls - Rev3	0.3	229	0.102	0.112	180°	90 °	S
WALL 151-Room 01-05 _14	Police District Brick-Block Ext Walls - Rev3	0.3	175	0.102	0.112	180°	90 °	S
WALL 156-Room 01-06 _14	Police District Brick-Block Ext Walls - Rev3	0.3	28	0.102	0.112	90°	90 °	E
WALL 157-Room 01-06 _14	Police District Brick-Block Ext Walls - Rev3	0.3	25	0.102	0.112	180°	90 °	S
WALL 158-Room 01-06 _14	Police District Brick-Block Ext Walls - Rev3	0.3	175	0.102	0.112	90°	90 °	E
WALL 159-Room 01-06 _14	Police District Brick-Block Ext Walls - Rev3	0.3	298	0.102	0.112	180°	90 °	S

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
WALL 164-Room 01-07 _14	Police District Brick-Block Ext Walls - Rev3	0.3	44	0.102	0.112	270°	90 °	W
WALL 16-Room 00-02 _0	Police District Brick-Block Ext Walls - Rev3	0.3	348	0.102	0.112	270.04°	90 °	W
WALL 17-Room 00-02 _0	Police District Brick-Block Ext Walls - Rev3	0.3	378	0.102	0.112	180.04°	90 °	S
WALL 181-Room 01-11 _14	Police District Brick-Block Ext Walls - Rev3	0.3	126	0.102	0.112	90°	90 °	E
WALL 192-Room 01-15 _14	Police District Brick-Block Ext Walls - Rev3	0.3	178	0.102	0.112	90°	90 °	E
WALL 194-Room 01-16 _14	Police District Brick-Block Ext Walls - Rev3	0.3	93	0.102	0.112	90°	90 °	E
WALL 196-Room 01-17 _14	Police District Brick-Block Ext Walls - Rev3	0.3	271	0.102	0.112	90°	90 °	E
WALL 197-Room 01-17 _14	Police District Brick-Block Ext Walls - Rev3	0.3	25	0.102	0.112	0°	90 °	N
WALL 198-Room 01-17 _14	Police District Brick-Block Ext Walls - Rev3	0.3	21	0.102	0.112	90°	90 °	E
WALL 199-Room 01-17 _14	Police District Brick-Block Ext Walls - Rev3	0.3	298	0.102	0.112	0°	90 °	N
WALL 19-Room 00-03 _0	Police District Brick-Block Ext Walls - Rev3	0.3	84	0.102	0.112	270.04°	90 °	W
WALL 213-Room B1-00 _-12	12 In. Hw Concrete	0.3	1,577	0.638	1.125	0°	90 °	N
WALL 214-Room B1-00 _-12	12 In. Hw Concrete	0.3	727	0.638	1.125	270.04°	90 °	W
WALL 215-Room B1-00 _-12	12 In. Hw Concrete	0.3	946	0.638	1.125	180°	90 °	S
WALL 218-Room B1-00 _-12	12 In. Hw Concrete	0.3	582	0.638	1.125	90°	90 °	E
WALL 21-Room 00-04 _0	Police District Brick-Block Ext Walls - Rev3	0.3	96	0.102	0.112	90.04°	90 °	E
WALL 225-Room B1-02 _-12	12 In. Hw Concrete	0.3	243	0.638	1.125	90°	90 °	E
WALL 226-Room B1-02 _-12	12 In. Hw Concrete	0.3	143	0.638	1.125	180°	90 °	S
WALL 22-Room 00-04 _0	Police District Brick-Block Ext Walls - Rev3	0.3	96	0.102	0.112	270.04°	90 °	W
WALL 232-Room B1-03 _-12	12 In. Hw Concrete	0.3	127	0.638	1.125	90°	90 °	E
WALL 236-Room B1-04 _-12	12 In. Hw Concrete	0.3	267	0.638	1.125	90°	90 °	E
WALL 23-Room 00-04 _0	Police District Brick-Block Ext Walls - Rev3	0.3	106	0.102	0.112	180.04°	90 °	S
WALL 243-Room B1-06 _-12	12 In. Hw Concrete	0.3	370	0.638	1.125	180°	90 °	S
WALL 245-Room B1-07 _-12	12 In. Hw Concrete	0.3	243	0.638	1.125	270°	90 °	W

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
WALL 246-Room B1-07 _-12	12 In. Hw Concrete	0.3	118	0.638	1.125	180°	90 °	S
WALL 247-Room B1-01 _-12	12 In. Hw Concrete	0.3	121	0.638	1.125	270°	90 °	W
WALL 251-Room B1-08 _-12	12 In. Hw Concrete	0.3	127	0.638	1.125	270°	90 °	W
WALL 258-Room 00-29 _0	Police District Brick-Block Ext Walls - Rev3	0.3	89	0.102	0.112	270.04°	90 °	W
WALL 279-Room 00-32 _0	Police District Brick-Block Ext Walls - Rev3	0.3	985	0.102	0.112	0.04°	90 °	N
WALL 27-Room 00-05 _0	Police District Brick-Block Ext Walls - Rev3	0.3	62	0.102	0.112	180.04°	90 °	S
WALL 280-Room 00-32 _0	Police District Brick-Block Ext Walls - Rev3	0.3	507	0.102	0.112	270.04°	90 °	W
WALL 28-Room 00-05 _0	Police District Brick-Block Ext Walls - Rev3	0.3	61	0.102	0.112	180.04°	90 °	S
WALL 34-Room 00-06 _0	Police District Brick-Block Ext Walls - Rev3	0.3	175	0.102	0.112	180.04°	90 °	S
WALL 41-Room 00-08 _0	Police District Brick-Block Ext Walls - Rev3	0.3	126	0.102	0.112	180.04°	90 °	S
WALL 50-Room 00-10 _0	Police District Brick-Block Ext Walls - Rev3	0.3	184	0.102	0.112	90.04°	90 °	E
WALL 51-Room 00-10 _0	Police District Brick-Block Ext Walls - Rev3	0.3	181	0.102	0.112	180.04°	90 °	S
WALL 58-Room 00-11 _0	Police District Brick-Block Ext Walls - Rev3	0.3	147	0.102	0.112	90.04°	90 °	E
WALL 76-Room 00-16 _0	Police District Brick-Block Ext Walls - Rev3	0.3	273	0.102	0.112	90.04°	90 °	E
WALL 83-Room 00-18 _0	Police District Brick-Block Ext Walls - Rev3	0.3	277	0.102	0.112	90.04°	90 °	E
WALL 84-Room 00-18 _0	Police District Brick-Block Ext Walls - Rev3	0.3	308	0.102	0.112	0.04°	90 °	N
WALL 87-Room 00-19 _0	Police District Brick-Block Ext Walls - Rev3	0.3	109	0.102	0.112	0.04°	90 °	N
WALL 90-Room 00-20 _0	Police District Brick-Block Ext Walls - Rev3	0.3	223	0.102	0.112	0.04°	90 °	N

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 283-Room 00-00 _9	Gypsum, Gypsum	0.3	43	0.28	0.452
PLENUM WALL 284-Room 00-00 _9	Gypsum, Gypsum	0.3	27	0.28	0.452
PLENUM WALL 285-Room 00-00 _9	Gypsum, Gypsum	0.3	84	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 287-Room 00-00 _9	Gypsum, Gypsum	0.3	52	0.28	0.452
PLENUM WALL 295-Room 00-00 _9	Gypsum, Gypsum	0.3	127	0.28	0.452
PLENUM WALL 296-Room 00-01 _9	Gypsum, Gypsum	0.3	102	0.28	0.452
PLENUM WALL 297-Room 00-04 _9	Gypsum, Gypsum	0.3	59	0.28	0.452
PLENUM WALL 304-Room 00-05 _9	Gypsum, Gypsum	0.3	74	0.28	0.452
PLENUM WALL 308-Room 00-06 _9	Gypsum, Gypsum	0.3	30	0.28	0.452
PLENUM WALL 309-Room 00-06 _9	Gypsum, Gypsum	0.3	38	0.28	0.452
PLENUM WALL 315-Room 00-07 _9	Gypsum, Gypsum	0.3	38	0.28	0.452
PLENUM WALL 478-Room 01-10 _23	Gypsum, Gypsum	0.3	30	0.28	0.452
PLENUM WALL 479-Room 01-10 _23	Gypsum, Gypsum	0.3	14	0.28	0.452
PLENUM WALL 480-Room 01-08 _23	Gypsum, Gypsum	0.3	28	0.28	0.452
PLENUM WALL 482-Room 01-13 _23	Gypsum, Gypsum	0.3	18	0.28	0.452
PLENUM WALL 483-Room 01-08 _23	Gypsum, Gypsum	0.3	24	0.28	0.452
PLENUM WALL 484-Room 01-12 _23	Gypsum, Gypsum	0.3	18	0.28	0.452
PLENUM WALL 486-Room 01-08 _23	Gypsum, Gypsum	0.3	14	0.28	0.452
PLENUM WALL 487-Room 01-14 _23	Gypsum, Gypsum	0.3	10	0.28	0.452
PLENUM WALL 488-Room 01-13 _23	Gypsum, Gypsum	0.3	24	0.28	0.452
PLENUM WALL 489-Room 01-12 _23	Gypsum, Gypsum	0.3	26	0.28	0.452
PLENUM WALL 316-Room 00-06 _9	Gypsum, Gypsum	0.3	36	0.28	0.452
PLENUM WALL 490-Room 01-11 _23	Gypsum, Gypsum	0.3	67	0.28	0.452
PLENUM WALL 492-Room 01-00 _23	Gypsum, Gypsum	0.3	97	0.28	0.452
PLENUM WALL 493-Room 01-08 _23	Gypsum, Gypsum	0.3	54	0.28	0.452
PLENUM WALL 499-Room 01-16 _23	Gypsum, Gypsum	0.3	53	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 500-Room 01-08 _23	Gypsum, Gypsum	0.3	31	0.28	0.452
PLENUM WALL 501-Room 01-15 _23	Gypsum, Gypsum	0.3	53	0.28	0.452
PLENUM WALL 503-Room 01-08 _23	Gypsum, Gypsum	0.3	15	0.28	0.452
PLENUM WALL 504-Room 01-18 _23	Gypsum, Gypsum	0.3	20	0.28	0.452
PLENUM WALL 506-Room 01-09 _23	Gypsum, Gypsum	0.3	20	0.28	0.452
PLENUM WALL 507-Room 01-09 _23	Gypsum, Gypsum	0.3	39	0.28	0.452
PLENUM WALL 318-Room 00-10 _9	Gypsum, Gypsum	0.3	84	0.28	0.452
PLENUM WALL 508-Room 01-18 _23	Gypsum, Gypsum	0.3	15	0.28	0.452
PLENUM WALL 509-Room 01-19 _23	Gypsum, Gypsum	0.3	8	0.28	0.452
PLENUM WALL 510-Room 01-00 _23	Gypsum, Gypsum	0.3	35	0.28	0.452
PLENUM WALL 512-Room 01-07 _23	Gypsum, Gypsum	0.3	35	0.28	0.452
PLENUM WALL 513-Room 01-20 _23	Gypsum, Gypsum	0.3	62	0.28	0.452
PLENUM WALL 514-Room 01-00 _23	Gypsum, Gypsum	0.3	62	0.28	0.452
PLENUM WALL 515-Room 01-00 _23	Gypsum, Gypsum	0.3	83	0.28	0.452
WALL 100-Room 00-24 _0	Gypsum, Gypsum	0.3	80	0.28	0.452
WALL 101-Room 00-24 _0	Gypsum, Gypsum	0.3	136	0.28	0.452
PLENUM WALL 321-Room 00-08 _9	Gypsum, Gypsum	0.3	32	0.28	0.452
WALL 102-Room 00-03 _0	Gypsum, Gypsum	0.3	56	0.28	0.452
WALL 106-Room 00-25 _0	Gypsum, Gypsum	0.3	89	0.28	0.452
WALL 107-Room 00-25 _0	Gypsum, Gypsum	0.3	70	0.28	0.452
WALL 109-Room 00-26 _0	Gypsum, Gypsum	0.3	112	0.28	0.452
WALL 10-Room 00-01 _0	Gypsum, Gypsum	0.3	348	0.28	0.452
WALL 110-Room 00-26 _0	Gypsum, Gypsum	0.3	76	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 111-Room 00-26 _0	Gypsum, Gypsum	0.3	112	0.28	0.452
WALL 112-Room 00-01 _0	Gypsum, Gypsum	0.3	86	0.28	0.452
WALL 113-Room 00-03 _0	Gypsum, Gypsum	0.3	55	0.28	0.452
WALL 114-Room 00-27 _0	Gypsum, Gypsum	0.3	24	0.28	0.452
PLENUM WALL 322-Room 00-08 _9	Gypsum, Gypsum	0.3	20	0.28	0.452
WALL 115-Room 00-26 _0	Gypsum, Gypsum	0.3	14	0.28	0.452
WALL 117-Room 00-00 _0	Gypsum, Gypsum	0.3	225	0.28	0.452
WALL 11-Room 00-01 _0	Gypsum, Gypsum	0.3	114	0.28	0.452
WALL 12-Room 00-01 _0	Gypsum, Gypsum	0.3	184	0.28	0.452
WALL 130-Room 01-01 _14	Gypsum, Gypsum	0.3	2	0.28	0.452
WALL 131-Room 01-01 _14	Gypsum, Gypsum	0.3	4	0.28	0.452
WALL 132-Room 01-01 _14	Gypsum, Gypsum	0.3	3	0.28	0.452
WALL 134-Room 01-02 _14	Gypsum, Gypsum	0.3	340	0.28	0.452
WALL 135-Room 01-02 _14	Gypsum, Gypsum	0.3	203	0.28	0.452
WALL 140-Room 01-03 _14	Gypsum, Gypsum	0.3	255	0.28	0.452
PLENUM WALL 323-Room 00-08 _9	Gypsum, Gypsum	0.3	41	0.28	0.452
WALL 141-Room 01-03 _14	Gypsum, Gypsum	0.3	53	0.28	0.452
WALL 142-Room 01-02 _14	Gypsum, Gypsum	0.3	240	0.28	0.452
WALL 144-Room 01-02 _14	Gypsum, Gypsum	0.3	42	0.28	0.452
WALL 145-Room 01-04 _14	Gypsum, Gypsum	0.3	229	0.28	0.452
WALL 146-Room 01-04 _14	Gypsum, Gypsum	0.3	203	0.28	0.452
WALL 148-Room 01-05 _14	Gypsum, Gypsum	0.3	46	0.28	0.452
WALL 149-Room 01-05 _14	Gypsum, Gypsum	0.3	175	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 14-Room 00-02 _0	Gypsum, Gypsum	0.3	378	0.28	0.452
WALL 150-Room 01-05 _14	Gypsum, Gypsum	0.3	162	0.28	0.452
WALL 152-Room 01-06 _14	Gypsum, Gypsum	0.3	40	0.28	0.452
PLENUM WALL 324-Room 00-08 _9	Gypsum, Gypsum	0.3	55	0.28	0.452
WALL 153-Room 01-06 _14	Gypsum, Gypsum	0.3	166	0.28	0.452
WALL 154-Room 01-05 _14	Gypsum, Gypsum	0.3	86	0.28	0.452
WALL 155-Room 01-06 _14	Gypsum, Gypsum	0.3	66	0.28	0.452
PLENUM WALL 516-Room 01-07 _23	Gypsum, Gypsum	0.3	83	0.28	0.452
WALL 15-Room 00-01 _0	Gypsum, Gypsum	0.3	84	0.28	0.452
WALL 160-Room 01-00 _14	Gypsum, Gypsum	0.3	308	0.28	0.452
WALL 161-Room 01-00 _14	Gypsum, Gypsum	0.3	50	0.28	0.452
WALL 162-Room 01-07 _14	Gypsum, Gypsum	0.3	250	0.28	0.452
WALL 163-Room 01-07 _14	Gypsum, Gypsum	0.3	44	0.28	0.452
WALL 165-Room 01-06 _14	Gypsum, Gypsum	0.3	61	0.28	0.452
WALL 166-Room 01-00 _14	Gypsum, Gypsum	0.3	90	0.28	0.452
PLENUM WALL 327-Room 00-10 _9	Gypsum, Gypsum	0.3	28	0.28	0.452
WALL 167-Room 01-08 _14	Gypsum, Gypsum	0.3	163	0.28	0.452
WALL 168-Room 01-08 _14	Gypsum, Gypsum	0.3	93	0.28	0.452
WALL 169-Room 01-08 _14	Gypsum, Gypsum	0.3	55	0.28	0.452
WALL 170-Room 01-08 _14	Gypsum, Gypsum	0.3	71	0.28	0.452
WALL 171-Room 01-09 _14	Gypsum, Gypsum	0.3	116	0.28	0.452
WALL 172-Room 01-09 _14	Gypsum, Gypsum	0.3	60	0.28	0.452
WALL 173-Room 01-08 _14	Gypsum, Gypsum	0.3	116	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 174-Room 01-07 _14	Gypsum, Gypsum	0.3	60	0.28	0.452
WALL 175-Room 01-06 _14	Gypsum, Gypsum	0.3	30	0.28	0.452
WALL 176-Room 01-10 _14	Gypsum, Gypsum	0.3	91	0.28	0.452
PLENUM WALL 329-Room 00-11 _9	Gypsum, Gypsum	0.3	29	0.28	0.452
WALL 177-Room 01-10 _14	Gypsum, Gypsum	0.3	42	0.28	0.452
WALL 178-Room 01-08 _14	Gypsum, Gypsum	0.3	83	0.28	0.452
WALL 179-Room 01-11 _14	Gypsum, Gypsum	0.3	202	0.28	0.452
WALL 180-Room 01-08 _14	Gypsum, Gypsum	0.3	52	0.28	0.452
WALL 182-Room 01-11 _14	Gypsum, Gypsum	0.3	74	0.28	0.452
WALL 183-Room 01-08 _14	Gypsum, Gypsum	0.3	79	0.28	0.452
WALL 184-Room 01-12 _14	Gypsum, Gypsum	0.3	55	0.28	0.452
WALL 185-Room 01-12 _14	Gypsum, Gypsum	0.3	79	0.28	0.452
WALL 186-Room 01-08 _14	Gypsum, Gypsum	0.3	29	0.28	0.452
WALL 187-Room 01-13 _14	Gypsum, Gypsum	0.3	55	0.28	0.452
PLENUM WALL 330-Room 00-12 _9	Gypsum, Gypsum	0.3	44	0.28	0.452
WALL 188-Room 01-13 _14	Gypsum, Gypsum	0.3	71	0.28	0.452
WALL 189-Room 01-08 _14	Gypsum, Gypsum	0.3	42	0.28	0.452
WALL 18-Room 00-03 _0	Gypsum, Gypsum	0.3	236	0.28	0.452
WALL 190-Room 01-14 _14	Gypsum, Gypsum	0.3	29	0.28	0.452
WALL 191-Room 01-15 _14	Gypsum, Gypsum	0.3	160	0.28	0.452
WALL 193-Room 01-16 _14	Gypsum, Gypsum	0.3	160	0.28	0.452
WALL 195-Room 01-00 _14	Gypsum, Gypsum	0.3	292	0.28	0.452
WALL 200-Room 01-08 _14	Gypsum, Gypsum	0.3	46	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 201-Room 01-18 _14	Gypsum, Gypsum	0.3	46	0.28	0.452
WALL 202-Room 01-18 _14	Gypsum, Gypsum	0.3	60	0.28	0.452
PLENUM WALL 338-Room 00-05 _9	Gypsum, Gypsum	0.3	28	0.28	0.452
WALL 203-Room 01-08 _14	Gypsum, Gypsum	0.3	25	0.28	0.452
WALL 204-Room 01-19 _14	Gypsum, Gypsum	0.3	25	0.28	0.452
WALL 205-Room 01-00 _14	Gypsum, Gypsum	0.3	60	0.28	0.452
WALL 206-Room 01-20 _14	Gypsum, Gypsum	0.3	186	0.28	0.452
WALL 207-Room 01-00 _14	Gypsum, Gypsum	0.3	105	0.28	0.452
WALL 208-Room 01-07 _14	Gypsum, Gypsum	0.3	105	0.28	0.452
WALL 209-Room 01-00 _14	Gypsum, Gypsum	0.3	186	0.28	0.452
WALL 20-Room 00-04 _0	Gypsum, Gypsum	0.3	106	0.28	0.452
WALL 210-Room 01-00 _14	Gypsum, Gypsum	0.3	250	0.28	0.452
WALL 211-Room 01-00 _14	Gypsum, Gypsum	0.3	176	0.28	0.452
PLENUM WALL 339-Room 00-06 _9	Gypsum, Gypsum	0.3	67	0.28	0.452
WALL 216-Room B1-00 _-12	Gypsum, Gypsum	0.3	146	0.28	0.452
WALL 217-Room B1-00 _-12	Gypsum, Gypsum	0.3	98	0.28	0.452
WALL 219-Room B1-00 _-12	Gypsum, Gypsum	0.3	244	0.28	0.452
WALL 223-Room B1-02 _-12	Gypsum, Gypsum	0.3	243	0.28	0.452
WALL 224-Room B1-02 _-12	Gypsum, Gypsum	0.3	143	0.28	0.452
WALL 227-Room B1-03 _-12	Gypsum, Gypsum	0.3	53	0.28	0.452
WALL 228-Room B1-03 _-12	Gypsum, Gypsum	0.3	54	0.28	0.452
WALL 229-Room B1-03 _-12	Gypsum, Gypsum	0.3	121	0.28	0.452
WALL 230-Room B1-03 _-12	Gypsum, Gypsum	0.3	73	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 231-Room B1-03 _-12	Gypsum, Gypsum	0.3	239	0.28	0.452
PLENUM WALL 340-Room 00-07 _9	Gypsum, Gypsum	0.3	30	0.28	0.452
WALL 233-Room B1-03 _-12	Gypsum, Gypsum	0.3	78	0.28	0.452
WALL 234-Room B1-04 _-12	Gypsum, Gypsum	0.3	121	0.28	0.452
WALL 235-Room B1-00 _-12	Gypsum, Gypsum	0.3	141	0.28	0.452
WALL 237-Room B1-05 _-12	Gypsum, Gypsum	0.3	121	0.28	0.452
WALL 238-Room B1-00 _-12	Gypsum, Gypsum	0.3	78	0.28	0.452
WALL 239-Room B1-06 _-12	Gypsum, Gypsum	0.3	243	0.28	0.452
WALL 240-Room B1-01 _-12	Gypsum, Gypsum	0.3	126	0.28	0.452
WALL 241-Room B1-06 _-12	Gypsum, Gypsum	0.3	54	0.28	0.452
WALL 244-Room B1-01 _-12	Gypsum, Gypsum	0.3	62	0.28	0.452
WALL 248-Room B1-01 _-12	Gypsum, Gypsum	0.3	56	0.28	0.452
PLENUM WALL 341-Room 00-08 _9	Gypsum, Gypsum	0.3	36	0.28	0.452
WALL 249-Room B1-01 _-12	Gypsum, Gypsum	0.3	127	0.28	0.452
WALL 24-Room 00-00 _0	Gypsum, Gypsum	0.3	94	0.28	0.452
WALL 250-Room B1-07 _-12	Gypsum, Gypsum	0.3	56	0.28	0.452
WALL 252-Room B1-06 _-12	Gypsum, Gypsum	0.3	70	0.28	0.452
WALL 253-Room B1-01 _-12	Gypsum, Gypsum	0.3	248	0.28	0.452
WALL 254-Room B1-00 _-12	Gypsum, Gypsum	0.3	70	0.28	0.452
WALL 256-Room 00-25 _0	Gypsum, Gypsum	0.3	89	0.28	0.452
WALL 257-Room 00-24 _0	Gypsum, Gypsum	0.3	112	0.28	0.452
WALL 259-Room 00-01 _0	Gypsum, Gypsum	0.3	70	0.28	0.452
WALL 25-Room 00-00 _0	Gypsum, Gypsum	0.3	229	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 342-Room 00-11 _9	Gypsum, Gypsum	0.3	51	0.28	0.452
WALL 261-Room 00-30 _0	Gypsum, Gypsum	0.3	225	0.28	0.452
WALL 26-Room 00-05 _0	Gypsum, Gypsum	0.3	133	0.28	0.452
WALL 272-Room 00-20 _0	Gypsum, Gypsum	0.3	431	0.28	0.452
WALL 273-Room 00-00 _0	Gypsum, Gypsum	0.3	151	0.28	0.452
WALL 274-Room 00-00 _0	Gypsum, Gypsum	0.3	49	0.28	0.452
WALL 275-Room 00-31 _0	Gypsum, Gypsum	0.3	70	0.28	0.452
WALL 276-Room 00-30 _0	Gypsum, Gypsum	0.3	190	0.28	0.452
WALL 277-Room 00-25 _0	Gypsum, Gypsum	0.3	221	0.28	0.452
WALL 278-Room 00-29 _0	Gypsum, Gypsum	0.3	80	0.28	0.452
WALL 29-Room 00-05 _0	Gypsum, Gypsum	0.3	51	0.28	0.452
PLENUM WALL 343-Room 00-11 _9	Gypsum, Gypsum	0.3	23	0.28	0.452
WALL 30-Room 00-06 _0	Gypsum, Gypsum	0.3	120	0.28	0.452
WALL 31-Room 00-06 _0	Gypsum, Gypsum	0.3	68	0.28	0.452
WALL 32-Room 00-06 _0	Gypsum, Gypsum	0.3	55	0.28	0.452
WALL 33-Room 00-06 _0	Gypsum, Gypsum	0.3	65	0.28	0.452
WALL 35-Room 00-07 _0	Gypsum, Gypsum	0.3	55	0.28	0.452
WALL 36-Room 00-07 _0	Gypsum, Gypsum	0.3	68	0.28	0.452
WALL 37-Room 00-08 _0	Gypsum, Gypsum	0.3	99	0.28	0.452
WALL 38-Room 00-08 _0	Gypsum, Gypsum	0.3	75	0.28	0.452
WALL 39-Room 00-08 _0	Gypsum, Gypsum	0.3	37	0.28	0.452
WALL 40-Room 00-08 _0	Gypsum, Gypsum	0.3	58	0.28	0.452
PLENUM WALL 344-Room 00-12 _9	Gypsum, Gypsum	0.3	23	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 47-Room 00-10 _0	Gypsum, Gypsum	0.3	51	0.28	0.452
WALL 48-Room 00-08 _0	Gypsum, Gypsum	0.3	64	0.28	0.452
WALL 55-Room 00-11 _0	Gypsum, Gypsum	0.3	53	0.28	0.452
WALL 56-Room 00-11 _0	Gypsum, Gypsum	0.3	181	0.28	0.452
WALL 57-Room 00-10 _0	Gypsum, Gypsum	0.3	152	0.28	0.452
WALL 59-Room 00-12 _0	Gypsum, Gypsum	0.3	197	0.28	0.452
WALL 60-Room 00-12 _0	Gypsum, Gypsum	0.3	52	0.28	0.452
WALL 61-Room 00-12 _0	Gypsum, Gypsum	0.3	145	0.28	0.452
WALL 62-Room 00-12 _0	Gypsum, Gypsum	0.3	187	0.28	0.452
WALL 63-Room 00-12 _0	Gypsum, Gypsum	0.3	79	0.28	0.452
PLENUM WALL 345-Room 00-10 _9	Gypsum, Gypsum	0.3	51	0.28	0.452
WALL 64-Room 00-13 _0	Gypsum, Gypsum	0.3	62	0.28	0.452
WALL 65-Room 00-13 _0	Gypsum, Gypsum	0.3	79	0.28	0.452
WALL 66-Room 00-11 _0	Gypsum, Gypsum	0.3	96	0.28	0.452
WALL 67-Room 00-10 _0	Gypsum, Gypsum	0.3	91	0.28	0.452
WALL 68-Room 00-12 _0	Gypsum, Gypsum	0.3	42	0.28	0.452
WALL 69-Room 00-11 _0	Gypsum, Gypsum	0.3	91	0.28	0.452
WALL 70-Room 00-11 _0	Gypsum, Gypsum	0.3	42	0.28	0.452
WALL 71-Room 00-12 _0	Gypsum, Gypsum	0.3	49	0.28	0.452
WALL 72-Room 00-15 _0	Gypsum, Gypsum	0.3	91	0.28	0.452
WALL 73-Room 00-15 _0	Gypsum, Gypsum	0.3	145	0.28	0.452
PLENUM WALL 349-Room 00-12 _9	Gypsum, Gypsum	0.3	81	0.28	0.452
WALL 74-Room 00-15 _0	Gypsum, Gypsum	0.3	91	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 75-Room 00-16 _0	Gypsum, Gypsum	0.3	152	0.28	0.452
WALL 77-Room 00-12 _0	Gypsum, Gypsum	0.3	53	0.28	0.452
WALL 78-Room 00-17 _0	Gypsum, Gypsum	0.3	96	0.28	0.452
WALL 79-Room 00-00 _0	Gypsum, Gypsum	0.3	53	0.28	0.452
WALL 80-Room 00-17 _0	Gypsum, Gypsum	0.3	109	0.28	0.452
WALL 81-Room 00-18 _0	Gypsum, Gypsum	0.3	277	0.28	0.452
WALL 82-Room 00-17 _0	Gypsum, Gypsum	0.3	12	0.28	0.452
WALL 85-Room 00-17 _0	Gypsum, Gypsum	0.3	66	0.28	0.452
WALL 86-Room 00-19 _0	Gypsum, Gypsum	0.3	277	0.28	0.452
PLENUM WALL 350-Room 00-12 _9	Gypsum, Gypsum	0.3	30	0.28	0.452
WALL 88-Room 00-00 _0	Gypsum, Gypsum	0.3	77	0.28	0.452
WALL 91-Room 00-12 _0	Gypsum, Gypsum	0.3	117	0.28	0.452
WALL 92-Room 00-17 _0	Gypsum, Gypsum	0.3	91	0.28	0.452
WALL 93-Room 00-21 _0	Gypsum, Gypsum	0.3	96	0.28	0.452
WALL 94-Room 00-21 _0	Gypsum, Gypsum	0.3	117	0.28	0.452
WALL 95-Room 00-00 _0	Gypsum, Gypsum	0.3	314	0.28	0.452
PLENUM WALL 353-Room 00-17 _9	Gypsum, Gypsum	0.3	37	0.28	0.452
PLENUM WALL 354-Room 00-00 _9	Gypsum, Gypsum	0.3	30	0.28	0.452
PLENUM WALL 358-Room 00-17 _9	Gypsum, Gypsum	0.3	7	0.28	0.452
PLENUM WALL 359-Room 00-12 _9	Gypsum, Gypsum	0.3	29	0.28	0.452
PLENUM WALL 360-Room 00-15 _9	Gypsum, Gypsum	0.3	51	0.28	0.452
PLENUM WALL 364-Room 00-18 _9	Gypsum, Gypsum	0.3	154	0.28	0.452
PLENUM WALL 365-Room 00-19 _9	Gypsum, Gypsum	0.3	154	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 366-Room 00-17 _9	Gypsum, Gypsum	0.3	61	0.28	0.452
PLENUM WALL 369-Room 00-30 _9	Gypsum, Gypsum	0.3	106	0.28	0.452
PLENUM WALL 370-Room 00-25 _9	Gypsum, Gypsum	0.3	49	0.28	0.452
PLENUM WALL 372-Room 00-26 _9	Gypsum, Gypsum	0.3	62	0.28	0.452
PLENUM WALL 373-Room 00-26 _9	Gypsum, Gypsum	0.3	42	0.28	0.452
PLENUM WALL 374-Room 00-01 _9	Gypsum, Gypsum	0.3	63	0.28	0.452
PLENUM WALL 375-Room 00-00 _9	Gypsum, Gypsum	0.3	125	0.28	0.452
PLENUM WALL 376-Room 00-31 _9	Gypsum, Gypsum	0.3	39	0.28	0.452
PLENUM WALL 377-Room 00-30 _9	Gypsum, Gypsum	0.3	125	0.28	0.452
PLENUM WALL 378-Room 00-01 _9	Gypsum, Gypsum	0.3	39	0.28	0.452
PLENUM WALL 379-Room 00-25 _9	Gypsum, Gypsum	0.3	49	0.28	0.452
PLENUM WALL 380-Room 00-29 _9	Gypsum, Gypsum	0.3	44	0.28	0.452
PLENUM WALL 381-Room 00-24 _9	Gypsum, Gypsum	0.3	44	0.28	0.452
PLENUM WALL 383-Room 00-26 _9	Gypsum, Gypsum	0.3	8	0.28	0.452
PLENUM WALL 384-Room 00-26 _9	Gypsum, Gypsum	0.3	62	0.28	0.452
PLENUM WALL 385-Room 00-27 _9	Gypsum, Gypsum	0.3	14	0.28	0.452
PLENUM WALL 386-Room 00-25 _9	Gypsum, Gypsum	0.3	39	0.28	0.452
PLENUM WALL 387-Room 00-24 _9	Gypsum, Gypsum	0.3	76	0.28	0.452
PLENUM WALL 388-Room 00-03 _9	Gypsum, Gypsum	0.3	31	0.28	0.452
PLENUM WALL 389-Room 00-12 _9	Gypsum, Gypsum	0.3	109	0.28	0.452
PLENUM WALL 390-Room 00-12 _9	Gypsum, Gypsum	0.3	104	0.28	0.452
PLENUM WALL 393-Room 00-17 _9	Gypsum, Gypsum	0.3	51	0.28	0.452
PLENUM WALL 394-Room 00-00 _9	Gypsum, Gypsum	0.3	174	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 395-Room 00-12 _9	Gypsum, Gypsum	0.3	65	0.28	0.452
PLENUM WALL 396-Room 00-17 _9	Gypsum, Gypsum	0.3	53	0.28	0.452
PLENUM WALL 397-Room 00-21 _9	Gypsum, Gypsum	0.3	53	0.28	0.452
PLENUM WALL 398-Room 00-21 _9	Gypsum, Gypsum	0.3	65	0.28	0.452
PLENUM WALL 399-Room 00-16 _9	Gypsum, Gypsum	0.3	84	0.28	0.452
PLENUM WALL 400-Room 00-15 _9	Gypsum, Gypsum	0.3	81	0.28	0.452
PLENUM WALL 401-Room 00-15 _9	Gypsum, Gypsum	0.3	51	0.28	0.452
PLENUM WALL 402-Room 00-12 _9	Gypsum, Gypsum	0.3	27	0.28	0.452
PLENUM WALL 403-Room 00-13 _9	Gypsum, Gypsum	0.3	44	0.28	0.452
PLENUM WALL 404-Room 00-13 _9	Gypsum, Gypsum	0.3	34	0.28	0.452
PLENUM WALL 405-Room 00-11 _9	Gypsum, Gypsum	0.3	101	0.28	0.452
PLENUM WALL 410-Room 01-00 _23	Gypsum, Gypsum	0.3	20	0.28	0.452
PLENUM WALL 422-Room 01-02 _23	Gypsum, Gypsum	0.3	68	0.28	0.452
PLENUM WALL 428-Room 01-04 _23	Gypsum, Gypsum	0.3	68	0.28	0.452
PLENUM WALL 430-Room 01-06 _23	Gypsum, Gypsum	0.3	55	0.28	0.452
PLENUM WALL 435-Room 01-05 _23	Gypsum, Gypsum	0.3	54	0.28	0.452
PLENUM WALL 440-Room 01-05 _23	Gypsum, Gypsum	0.3	58	0.28	0.452
PLENUM WALL 441-Room 01-05 _23	Gypsum, Gypsum	0.3	15	0.28	0.452
PLENUM WALL 446-Room 01-00 _23	Gypsum, Gypsum	0.3	103	0.28	0.452
PLENUM WALL 447-Room 01-00 _23	Gypsum, Gypsum	0.3	17	0.28	0.452
PLENUM WALL 448-Room 01-00 _23	Gypsum, Gypsum	0.3	59	0.28	0.452
PLENUM WALL 449-Room 01-03 _23	Gypsum, Gypsum	0.3	18	0.28	0.452
PLENUM WALL 450-Room 01-03 _23	Gypsum, Gypsum	0.3	85	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 451-Room 01-02 _23	Gypsum, Gypsum	0.3	14	0.28	0.452
PLENUM WALL 452-Room 01-02 _23	Gypsum, Gypsum	0.3	80	0.28	0.452
PLENUM WALL 453-Room 01-04 _23	Gypsum, Gypsum	0.3	76	0.28	0.452
PLENUM WALL 456-Room 01-08 _23	Gypsum, Gypsum	0.3	17	0.28	0.452
PLENUM WALL 457-Room 01-08 _23	Gypsum, Gypsum	0.3	26	0.28	0.452
PLENUM WALL 459-Room 01-08 _23	Gypsum, Gypsum	0.3	18	0.28	0.452
PLENUM WALL 460-Room 01-08 _23	Gypsum, Gypsum	0.3	10	0.28	0.452
PLENUM WALL 464-Room 01-00 _23	Gypsum, Gypsum	0.3	30	0.28	0.452
PLENUM WALL 465-Room 01-08 _23	Gypsum, Gypsum	0.3	8	0.28	0.452
PLENUM WALL 468-Room 01-07 _23	Gypsum, Gypsum	0.3	15	0.28	0.452
PLENUM WALL 469-Room 01-05 _23	Gypsum, Gypsum	0.3	29	0.28	0.452
PLENUM WALL 470-Room 01-06 _23	Gypsum, Gypsum	0.3	22	0.28	0.452
PLENUM WALL 471-Room 01-08 _23	Gypsum, Gypsum	0.3	39	0.28	0.452
PLENUM WALL 474-Room 01-07 _23	Gypsum, Gypsum	0.3	20	0.28	0.452
PLENUM WALL 475-Room 01-06 _23	Gypsum, Gypsum	0.3	10	0.28	0.452
PLENUM WALL 476-Room 01-06 _23	Gypsum, Gypsum	0.3	13	0.28	0.452
PLENUM WALL 477-Room 01-06 _23	Gypsum, Gypsum	0.3	20	0.28	0.452

Opaque Exterior Door

	Construction	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Gross Area (ft²)	Parent Surface
DOOR 03_D - WALL 16-Room 00-02 _0	26 GA STEEL CORRIGATED ROLL UP DOOR	0.581	1.149	112	WALL 16-Room 00-02 _0

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
DOOR 02_D - WALL 19-Room 00-03 _0	90.1-10 Zone 5-6 Metal Frame Entrance Door	16.2	16.2	0.8	0.401	0.51	No	WALL 19-Room 00-03 _0	270.04°	W
WINDOW 44_W - WALL 19-Room 00-03 _0	1/4 In. Tint Al Frame W/Out Thermal Break	14	14	1.015	0.62	0.534	No	WALL 19-Room 00-03 _0	270.04°	W
WINDOW 45_W - WALL 136-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 136-Room 01-02 _14	270°	W
WINDOW 46_W - WALL 136-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 136-Room 01-02 _14	270°	W
WINDOW 55_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 56_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 57_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 58_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 59_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 60_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 61_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 62_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 63_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 64_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
WINDOW 65_W - WALL 128-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 128-Room 01-00 _14	270°	W
DOOR 00_D - WALL 23-Room 00-04 _0	90.1-10 Zone 5-6 Metal Frame Entrance Door	32.5	32.5	0.8	0.401	0.51	No	WALL 23-Room 00-04 _0	180.04°	S
WINDOW 00_W - WALL 13-Room 00-01 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 13-Room 00-01 _0	180.04°	S
WINDOW 01_W - WALL 13-Room 00-01 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 13-Room 00-01 _0	180.04°	S
WINDOW 02_W - WALL 13-Room 00-01 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 13-Room 00-01 _0	180.04°	S
WINDOW 03_W - WALL 13-Room 00-01 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 13-Room 00-01 _0	180.04°	S
WINDOW 04_W - WALL 17-Room 00-02 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 17-Room 00-02 _0	180.04°	S

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
WINDOW 05_W - WALL 17-Room 00-02 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 17-Room 00-02 _0	180.04°	S
WINDOW 06_W - WALL 17-Room 00-02 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 17-Room 00-02 _0	180.04°	S
WINDOW 07_W - WALL 17-Room 00-02 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 17-Room 00-02 _0	180.04°	S
WINDOW 08_W - WALL 34-Room 00-06 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 34-Room 00-06 _0	180.04°	S
WINDOW 09_W - WALL 34-Room 00-06 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 34-Room 00-06 _0	180.04°	S
WINDOW 10_W - WALL 34-Room 00-06 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 34-Room 00-06 _0	180.04°	S
WINDOW 102_W - WALL 159-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 159-Room 01-06 _14	180°	S
WINDOW 103_W - WALL 159-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 159-Room 01-06 _14	180°	S
WINDOW 104_W - WALL 159-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 159-Room 01-06 _14	180°	S
WINDOW 105_W - WALL 159-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 159-Room 01-06 _14	180°	S
WINDOW 106_W - WALL 159-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 159-Room 01-06 _14	180°	S
WINDOW 107_W - WALL 151-Room 01-05 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 151-Room 01-05 _14	180°	S
WINDOW 108_W - WALL 151-Room 01-05 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 151-Room 01-05 _14	180°	S
WINDOW 109_W - WALL 151-Room 01-05 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 151-Room 01-05 _14	180°	S
WINDOW 11_W - WALL 41-Room 00-08 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 41-Room 00-08 _0	180.04°	S
WINDOW 110_W - WALL 147-Room 01-04 _14	1/4 In. Tint Al Frame W/Out Thermal Break	48.7	48.7	1.015	0.62	0.534	No	WALL 147-Room 01-04 _14	180°	S
WINDOW 111_W - WALL 147-Room 01-04 _14	1/4 In. Tint Al Frame W/Out Thermal Break	48.7	48.7	1.015	0.62	0.534	No	WALL 147-Room 01-04 _14	180°	S
WINDOW 112_W - WALL 147-Room 01-04 _14	1/4 In. Tint Al Frame W/Out Thermal Break	48.7	48.7	1.015	0.62	0.534	No	WALL 147-Room 01-04 _14	180°	S
WINDOW 12_W - WALL 41-Room 00-08 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 41-Room 00-08 _0	180.04°	S
WINDOW 13_W - WALL 51-Room 00-10 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 51-Room 00-10 _0	180.04°	S
WINDOW 14_W - WALL 51-Room 00-10 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 51-Room 00-10 _0	180.04°	S

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
WINDOW 15_W - WALL 51-Room 00-10 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 51-Room 00-10 _0	180.04°	S
WINDOW 38_W - WALL 27-Room 00-05 _0	1/4 In. Tint Al Frame W/Out Thermal Break	38.5	38.5	1.015	0.62	0.534	No	WALL 27-Room 00-05 _0	180.04°	S
WINDOW 39_W - WALL 28-Room 00-05 _0	1/4 In. Tint Al Frame W/Out Thermal Break	38.5	38.5	1.015	0.62	0.534	No	WALL 28-Room 00-05 _0	180.04°	S
WINDOW 40_W - WALL 23-Room 00-04 _0	1/4 In. Tint Al Frame W/Out Thermal Break	21.1	21.1	1.015	0.62	0.534	No	WALL 23-Room 00-04 _0	180.04°	S
WINDOW 41_W - WALL 23-Room 00-04 _0	1/4 In. Tint Al Frame W/Out Thermal Break	18.7	18.7	1.015	0.62	0.534	No	WALL 23-Room 00-04 _0	180.04°	S
WINDOW 47_W - WALL 139-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 139-Room 01-02 _14	180°	S
WINDOW 48_W - WALL 139-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 139-Room 01-02 _14	180°	S
WINDOW 49_W - WALL 139-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 139-Room 01-02 _14	180°	S
WINDOW 50_W - WALL 139-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 139-Room 01-02 _14	180°	S
WINDOW 51_W - WALL 139-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 139-Room 01-02 _14	180°	S
WINDOW 52_W - WALL 139-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 139-Room 01-02 _14	180°	S
WINDOW 53_W - WALL 139-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 139-Room 01-02 _14	180°	S
WINDOW 54_W - WALL 139-Room 01-02 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 139-Room 01-02 _14	180°	S
WINDOW 16_W - WALL 84-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 84-Room 00-18 _0	0.04°	N
WINDOW 17_W - WALL 84-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 84-Room 00-18 _0	0.04°	N
WINDOW 18_W - WALL 84-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 84-Room 00-18 _0	0.04°	N
WINDOW 19_W - WALL 84-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 84-Room 00-18 _0	0.04°	N
WINDOW 20_W - WALL 84-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 84-Room 00-18 _0	0.04°	N
WINDOW 21_W - WALL 87-Room 00-19 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 87-Room 00-19 _0	0.04°	N
WINDOW 22_W - WALL 90-Room 00-20 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 90-Room 00-20 _0	0.04°	N
WINDOW 23_W - WALL 90-Room 00-20 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 90-Room 00-20 _0	0.04°	N

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
WINDOW 24_W - WALL 87-Room 00-19 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 87-Room 00-19 _0	0.04°	N
WINDOW 66_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 67_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 68_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 69_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 70_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 71_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 72_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 73_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 74_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 75_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 76_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 77_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 78_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 79_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 80_W - WALL 124-Room 01-00 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 124-Room 01-00 _14	0°	N
WINDOW 81_W - WALL 199-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 199-Room 01-17 _14	0°	N
WINDOW 82_W - WALL 199-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 199-Room 01-17 _14	0°	N
WINDOW 83_W - WALL 199-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 199-Room 01-17 _14	0°	N
WINDOW 84_W - WALL 199-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 199-Room 01-17 _14	0°	N
WINDOW 85_W - WALL 199-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 199-Room 01-17 _14	0°	N

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
DOOR 01_D - WALL 58-Room 00-11 _0	90.1-10 Zone 5-6 Metal Frame Entrance Door	16.2	16.2	0.8	0.401	0.51	No	WALL 58-Room 00-11 _0	90.04°	E
WINDOW 100_W - WALL 158-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 158-Room 01-06 _14	90°	E
WINDOW 101_W - WALL 158-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 158-Room 01-06 _14	90°	E
WINDOW 25_W - WALL 83-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 83-Room 00-18 _0	90.04°	E
WINDOW 26_W - WALL 83-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 83-Room 00-18 _0	90.04°	E
WINDOW 27_W - WALL 83-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 83-Room 00-18 _0	90.04°	E
WINDOW 28_W - WALL 83-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 83-Room 00-18 _0	90.04°	E
WINDOW 29_W - WALL 83-Room 00-18 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 83-Room 00-18 _0	90.04°	E
WINDOW 30_W - WALL 76-Room 00-16 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 76-Room 00-16 _0	90.04°	E
WINDOW 31_W - WALL 76-Room 00-16 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 76-Room 00-16 _0	90.04°	E
WINDOW 32_W - WALL 76-Room 00-16 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 76-Room 00-16 _0	90.04°	E
WINDOW 33_W - WALL 76-Room 00-16 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 76-Room 00-16 _0	90.04°	E
WINDOW 34_W - WALL 76-Room 00-16 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 76-Room 00-16 _0	90.04°	E
WINDOW 35_W - WALL 50-Room 00-10 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 50-Room 00-10 _0	90.04°	E
WINDOW 36_W - WALL 50-Room 00-10 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 50-Room 00-10 _0	90.04°	E
WINDOW 37_W - WALL 50-Room 00-10 _0	1/4 In. Tint Al Frame W/Out Thermal Break	8.2	8.2	1.015	0.62	0.534	No	WALL 50-Room 00-10 _0	90.04°	E
WINDOW 42_W - WALL 58-Room 00-11 _0	1/4 In. Tint Al Frame W/Out Thermal Break	18.7	18.7	1.015	0.62	0.534	No	WALL 58-Room 00-11 _0	90.04°	E
WINDOW 43_W - WALL 58-Room 00-11 _0	1/4 In. Tint Al Frame W/Out Thermal Break	18.7	18.7	1.015	0.62	0.534	No	WALL 58-Room 00-11 _0	90.04°	E
WINDOW 86_W - WALL 196-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 196-Room 01-17 _14	90°	E
WINDOW 87_W - WALL 196-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 196-Room 01-17 _14	90°	E
WINDOW 88_W - WALL 196-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 196-Room 01-17 _14	90°	E

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
WINDOW 89_W - WALL 196-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 196-Room 01-17 _14	90°	E
WINDOW 90_W - WALL 196-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 196-Room 01-17 _14	90°	E
WINDOW 91_W - WALL 196-Room 01-17 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 196-Room 01-17 _14	90°	E
WINDOW 92_W - WALL 194-Room 01-16 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 194-Room 01-16 _14	90°	E
WINDOW 93_W - WALL 194-Room 01-16 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 194-Room 01-16 _14	90°	E
WINDOW 94_W - WALL 192-Room 01-15 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 192-Room 01-15 _14	90°	E
WINDOW 95_W - WALL 192-Room 01-15 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 192-Room 01-15 _14	90°	E
WINDOW 96_W - WALL 192-Room 01-15 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 192-Room 01-15 _14	90°	E
WINDOW 97_W - WALL 192-Room 01-15 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 192-Room 01-15 _14	90°	E
WINDOW 98_W - WALL 158-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 158-Room 01-06 _14	90°	E
WINDOW 99_W - WALL 158-Room 01-06 _14	1/4 In. Tint Al Frame W/Out Thermal Break	6	6	1.015	0.62	0.534	No	WALL 158-Room 01-06 _14	90°	E
Total or Average		0	1,168.4	1.003	0.608	0.533			0°	
North Total or Average		0	239.2	1.015	0.62	0.534			0°	
Non-North Total or Average		0	929.1	1	0.605	0.533			0°	

Sunlit Fraction

* Sunlit Fraction is available for calculation timesteps of 15 minutes or less.

	March 21 9am	March 21 Noon	March 21 3pm	June 21 9am	June 21 Noon	June 21 3pm	December 21 9am	December 21 Noon	December 21 3pm
None	0	0	0	0	0	0	0	0	0

Window Controls

	Control Name	Type	Shaded	Control	Glare Control
None					

Room Cooling and Heating Loads by Component

ROOM_Room 00-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 14:00:00					
Outside	DB / WB / HR	85.1	°F /	71.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	65.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	198	0	198	3.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-157	0	-157	-2.5
Slab	0	-67	0	-67	-1.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-26	0	-26	-
People	528	629	1,005	2,162	33.9
Lights	695	1,015	0	1,709	26.8
Miscellaneous Loads	1,029	644	0	1,673	26.3
Internal Subtotal	2,251	2,287	1,005	5,544	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	61	0	61	1.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	-0.1
Grand Total	2,251	2,317	1,005	5,574	100.0
RA Sensible (Lights)	797	0	0	797	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-364	0	-364	40.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-98	0	-98	10.8
Slab	0	-109	0	-109	12.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-571	0	-571	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-338	0	-338	37.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-910	0	-910	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	633
Cooling ACH	4.20
Sec Fan cfm	0
Input Ventilation cfm	85
Calculated Ventilation cfm	43
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	633
Heating ACH	4.20
Sec Fan cfm	0
Input Ventilation cfm	85
Calculated Ventilation cfm	41
Calculated Ventilation ACH	0.27
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,038
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,193
Exterior Floor	0
Internal Floor	521
Slab	517
Other Floor	521

Engineering Checks For Cooling

Cooling tons	0.46	No People(max)	5.03
%OA	7	People per 1000 ft²	5
cfm/ft²	0.63	Volume (ft³)	9,047
cfm/ton	1,362		
ft²/ton	2,164		
Btu/h-ft²	5.55		

Engineering Checks For Heating

Heating Mbh	-0.91	No People(max)	5.03
%OA	6	People per 1000 ft²	5
cfm/ft²	0.63	Volume (ft³)	9,047
cfm/Mbh	-696		
ft²/Mbh	-1,105		
Btu/h-ft²	-0.90		

ROOM_Room 00-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	50.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		56.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,496	1,788	0	3,284	55.2
Door	0	0	0	0	0.0
Wall	0	-259	0	-259	-4.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	264	0	264	4.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	454	0	454	7.6
Other Floor	0	0	0	0	0.0
Infiltration	171	0	347	518	8.7
Envelope Subtotal	1,666	2,247	347	4,261	-
People	0	0	0	0	0.0
Lights	546	627	0	1,172	19.7
Miscellaneous Loads	323	160	0	483	8.1
Internal Subtotal	869	786	0	1,655	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-520	0	-520	-8.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-73	0	-73	-1.2
Grand Total	2,535	2,441	347	5,322	100.0
RA Sensible (Lights)	626	0	0	626	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		98.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,154	0	0	-2,154	29.1
Door	0	0	0	0	0.0
Wall	0	-2,222	0	-2,222	30.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-22	0	-22	0.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	416	0	416	-5.6
Other Floor	0	0	0	0	0.0
Infiltration	-2,212	0	0	-2,220	30.0
Envelope Subtotal	-4,366	-1,827	0	-6,201	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-1,048	0	-1,048	14.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-158	0	-158	2.1
Grand Total	-4,366	-3,033	0	-7,408	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	295
Cooling ACH	1.60
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	28
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	295
Heating ACH	1.60
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	28
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	818
Window	33
Door	0
Wall	371
Below-Grade Wall	0
Other Wall	371
Partition	1,235
Exterior Floor	0
Internal Floor	0
Slab	818
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.44	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.37	Volume (ft³)	11,053
cfm/ton	666		
ft²/ton	1,780		
Btu/h-ft²	6.74		

Engineering Checks For Heating

Heating Mbh	-7.41	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.37	Volume (ft³)	11,053
cfm/Mbh	-40		
ft²/Mbh	-107		
Btu/h-ft²	-9.35		

ROOM_Room 00-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 16:00:00					
Outside	DB / WB / HR	84.1	°F /	71.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		57.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	851	995	0	1,845	28.8
Door	0	3,870	0	3,870	60.3
Wall	0	-264	0	-264	-4.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-26	0	-26	-0.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	6	0	6	0.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	851	4,581	0	5,431	-
People	0	0	0	0	0.0
Lights	446	452	0	897	14.0
Miscellaneous Loads	264	115	0	379	5.9
Internal Subtotal	710	567	0	1,277	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-641	0	-641	-10.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-160	0	-160	-2.5
Grand Total	1,560	4,347	0	5,907	100.0
RA Sensible (Lights)	512	0	0	512	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		97.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,094	0	0	-2,094	22.3
Door	0	-3,896	0	-3,896	41.5
Wall	0	-3,689	0	-3,689	39.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	448	0	448	-4.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	826	0	826	-8.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	-2,094	-6,311	0	-8,405	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-697	0	-697	7.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-280	0	-280	3.0
Grand Total	-2,094	-7,289	0	-9,383	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	371
Cooling ACH	2.47
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	371
Heating ACH	2.47
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	670
Window	33
Door	112
Wall	726
Below-Grade Wall	0
Other Wall	726
Partition	726
Exterior Floor	0
Internal Floor	0
Slab	670
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.49	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.58	Volume (ft³)	9,027
cfm/ton	754		
ft²/ton	1,310		
Btu/h-ft²	9.16		

Engineering Checks For Heating

Heating Mbh	-9.38	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.58	Volume (ft³)	9,027
cfm/Mbh	-40		
ft²/Mbh	-69		
Btu/h-ft²	-14.49		

ROOM_Room 00-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	47.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,425	1,726	0	3,151	102.3
Door	0	0	0	0	0.0
Wall	0	-26	0	-26	-0.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-534	0	-534	-17.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	225	0	225	7.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	1,425	1,391	0	2,816	-
People	76	104	146	326	10.6
Lights	93	149	0	241	7.8
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	169	253	146	568	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-319	0	-319	-10.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-91	0	-91	-3.0
Grand Total	1,594	1,235	146	2,974	100.0
RA Sensible (Lights)	106	0	0	106	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		85.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,533	0	0	-1,533	73.9
Door	0	0	0	0	0.0
Wall	0	-352	0	-352	17.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-78	0	-78	3.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	81	0	81	-3.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	-1,533	-349	0	-1,882	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-78	0	-78	3.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-115	0	-115	5.5
Grand Total	-1,533	-542	0	-2,075	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	82
Cooling ACH	2.41
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	82
Heating ACH	2.41
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	162
Window	30
Door	0
Wall	84
Below-Grade Wall	0
Other Wall	84
Partition	840
Exterior Floor	0
Internal Floor	0
Slab	162
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.25	No People(max)	0.73
%OA	0	People per 1000 ft²	5
cfm/ft²	0.57	Volume (ft³)	2,038
cfm/ton	332		
ft²/ton	587		
Btu/h-ft²	20.44		

Engineering Checks For Heating

Heating Mbh	-2.08	No People(max)	0.73
%OA	0	People per 1000 ft²	5
cfm/ft²	0.57	Volume (ft³)	2,038
cfm/Mbh	-40		
ft²/Mbh	-70		
Btu/h-ft²	-14.29		

ROOM_Room 00-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	47.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2,778	3,860	0	6,637	109.4
Door	0	0	0	0	0.0
Wall	0	-1,221	0	-1,221	-20.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-192	0	-192	-3.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	64	0	64	1.1
Other Floor	0	0	0	0	0.0
Infiltration	106	0	250	356	5.9
Envelope Subtotal	2,883	2,511	250	5,645	-
People	112	127	177	415	6.8
Lights	79	103	0	182	3.0
Miscellaneous Loads	58	34	0	92	1.5
Internal Subtotal	249	263	177	689	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-194	0	-194	-3.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-161	0	-161	-2.7
Grand Total	3,132	2,419	427	5,979	100.0
RA Sensible (Lights)	90	0	0	90	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		92.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-3,141	0	0	-3,141	50.2
Door	0	0	0	0	0.0
Wall	0	-1,318	0	-1,318	21.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	199	0	199	-3.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	352	0	352	-5.6
Other Floor	0	0	0	0	0.0
Infiltration	-1,369	0	0	-1,374	21.9
Envelope Subtotal	-4,510	-767	0	-5,283	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-806	0	-806	12.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-175	0	-175	2.8
Grand Total	-4,510	-1,748	0	-6,263	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	248
Cooling ACH	14.50
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	17
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	248
Heating ACH	14.50
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	17
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	125
Window	70
Door	0
Wall	297
Below-Grade Wall	0
Other Wall	297
Partition	106
Exterior Floor	0
Internal Floor	0
Slab	125
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.50	No People(max)	1.14
%OA	0	People per 1000 ft²	10
cfm/ft²	2.17	Volume (ft³)	1,026
cfm/ton	497		
ft²/ton	229		
Btu/h-ft²	52.40		

Engineering Checks For Heating

Heating Mbh	-6.26	No People(max)	1.14
%OA	0	People per 1000 ft²	10
cfm/ft²	2.17	Volume (ft³)	1,026
cfm/Mbh	-40		
ft²/Mbh	-18		
Btu/h-ft²	-55.56		

ROOM_Room 00-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		11/21 13:00:00					
Outside	DB / WB / HR	61.4	°F /	54.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2,600	7,707	0	10,307	101.8
Door	0	0	0	0	0.0
Wall	0	-333	0	-333	-3.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,106	0	-1,106	-10.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-513	0	-513	-5.1
Other Floor	0	0	0	0	0.0
Infiltration	-200	0	-283	-483	-4.8
Envelope Subtotal	2,400	5,755	-283	7,872	-
People	486	660	769	1,916	18.9
Lights	343	513	0	856	8.4
Miscellaneous Loads	254	165	0	419	4.1
Internal Subtotal	1,084	1,338	769	3,191	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-905	0	-905	-8.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	-277	-277	-2.7
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-146	0	-146	-1.4
Grand Total	3,483	6,041	210	9,734	100.0
RA Sensible (Lights)	394	0	0	394	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-4,228	0	0	-4,228	77.5
Door	0	0	0	0	0.0
Wall	0	-297	0	-297	5.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	124	0	124	-2.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	434	0	434	-8.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,192	0	0	-1,197	21.9
Envelope Subtotal	-5,419	261	0	-5,163	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	40	0	40	-0.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-332	0	-332	6.1
Grand Total	-5,419	-32	0	-5,456	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,454
Cooling ACH	19.53
Sec Fan cfm	0
Input Ventilation cfm	55
Calculated Ventilation cfm	99
Calculated Ventilation ACH	1.33
Infiltration cfm	15
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,454
Heating ACH	19.53
Sec Fan cfm	0
Input Ventilation cfm	55
Calculated Ventilation cfm	94
Calculated Ventilation ACH	1.26
Infiltration cfm	15
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	519
Window	77
Door	0
Wall	123
Below-Grade Wall	0
Other Wall	123
Partition	702
Exterior Floor	0
Internal Floor	0
Slab	519
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.81	No People(max)	4.96
%OA	7	People per 1000 ft²	10
cfm/ft²	2.93	Volume (ft³)	4,468
cfm/ton	1,792		
ft²/ton	612		
Btu/h-ft²	19.61		

Engineering Checks For Heating

Heating Mbh	-5.46	No People(max)	4.96
%OA	6	People per 1000 ft²	10
cfm/ft²	2.93	Volume (ft³)	4,468
cfm/Mbh	-266		
ft²/Mbh	-91		
Btu/h-ft²	-10.99		

ROOM_Room 00-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		10/21 14:00:00					
Outside	DB / WB / HR	71.0	°F /	60.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.5	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,008	2,324	0	3,332	107.7
Door	0	0	0	0	0.0
Wall	0	-356	0	-356	-11.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-88	0	-88	-2.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-365	0	-365	-11.8
Slab	0	-9	0	-9	-0.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	1,008	1,506	0	2,514	-
People	22	28	35	84	2.7
Lights	155	205	0	360	11.6
Miscellaneous Loads	115	71	0	186	6.0
Internal Subtotal	291	304	35	630	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-183	0	-183	-5.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-45	0	-45	-1.5
Grand Total	1,299	1,582	35	2,915	100.0
RA Sensible (Lights)	178	0	0	178	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		78.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,602	0	0	-1,602	67.8
Door	0	0	0	0	0.0
Wall	0	-983	0	-983	41.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	186	0	186	-7.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	167	0	167	-7.1
Slab	0	8	0	8	-0.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	-1,602	-622	0	-2,224	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-28	0	-28	1.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-111	0	-111	4.7
Grand Total	-1,602	-760	0	-2,362	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	440
Cooling ACH	13.10
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	30
Calculated Ventilation ACH	0.89
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	440
Heating ACH	13.10
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	28
Calculated Ventilation ACH	0.83
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	241
Window	25
Door	0
Wall	175
Below-Grade Wall	0
Other Wall	175
Partition	440
Exterior Floor	0
Internal Floor	228
Slab	13
Other Floor	228

Engineering Checks For Cooling

Cooling tons	0.24	No People(max)	0.22
%OA	7	People per 1000 ft²	1
cfm/ft²	1.96	Volume (ft³)	2,015
cfm/ton	1,809		
ft²/ton	922		
Btu/h-ft²	13.02		

Engineering Checks For Heating

Heating Mbh	-2.36	No People(max)	0.22
%OA	6	People per 1000 ft²	1
cfm/ft²	1.96	Volume (ft³)	2,015
cfm/Mbh	-186		
ft²/Mbh	-95		
Btu/h-ft²	-10.53		

ROOM_Room 00-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		10/21 14:00:00					
Outside	DB / WB / HR	71.0	°F /	60.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	155	0	155	54.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-8	0	-8	-2.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	148	0	148	-
People	0	0	0	0	0.0
Lights	27	53	0	80	28.1
Miscellaneous Loads	16	14	0	30	10.4
Internal Subtotal	43	67	0	110	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-3	0	-3	-1.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	43	211	0	255	100.0
RA Sensible (Lights)	31	0	0	31	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-119	0	-119	89.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	4	0	4	-3.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-115	0	-115	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-19	0	-19	13.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-133	0	-133	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	36
Cooling ACH	6.12
Sec Fan cfm	0
Input Ventilation cfm	2
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.34
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	36
Heating ACH	6.12
Sec Fan cfm	0
Input Ventilation cfm	2
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.34
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	46
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	245
Exterior Floor	0
Internal Floor	46
Slab	0
Other Floor	46

Engineering Checks For Cooling

Cooling tons	0.02	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	0.93	Volume (ft³)	353
cfm/ton	1,717		
ft²/ton	1,853		
Btu/h-ft²	6.48		

Engineering Checks For Heating

Heating Mbh	-0.13	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	0.93	Volume (ft³)	353
cfm/Mbh	-273		
ft²/Mbh	-295		
Btu/h-ft²	-3.39		

ROOM_Room 00-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	742	1,255	0	1,997	68.2
Door	0	0	0	0	0.0
Wall	0	-106	0	-106	-3.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-38	0	-38	-1.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-224	0	-224	-7.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	31	0	2	33	1.1
Envelope Subtotal	774	887	2	1,662	-
People	118	137	224	479	16.4
Lights	155	223	0	378	12.9
Miscellaneous Loads	230	143	0	372	12.7
Internal Subtotal	502	503	224	1,230	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-107	0	-107	-3.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-36	0	-36	-1.2
Grand Total	1,276	1,247	226	2,749	100.0
RA Sensible (Lights)	178	0	0	178	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		79.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,077	0	0	-1,077	48.4
Door	0	0	0	0	0.0
Wall	0	-723	0	-723	32.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-25	0	-25	1.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	149	0	149	-6.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-404	0	0	-406	18.2
Envelope Subtotal	-1,481	-600	0	-2,083	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-68	0	-68	3.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-76	0	-76	3.4
Grand Total	-1,481	-744	0	-2,227	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	387
Cooling ACH	11.50
Sec Fan cfm	0
Input Ventilation cfm	19
Calculated Ventilation cfm	26
Calculated Ventilation ACH	0.77
Infiltration cfm	5
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	387
Heating ACH	11.50
Sec Fan cfm	0
Input Ventilation cfm	19
Calculated Ventilation cfm	25
Calculated Ventilation ACH	0.74
Infiltration cfm	5
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	240
Window	16
Door	0
Wall	126
Below-Grade Wall	0
Other Wall	126
Partition	465
Exterior Floor	0
Internal Floor	240
Slab	0
Other Floor	240

Engineering Checks For Cooling

Cooling tons	0.23	No People(max)	1.12
%OA	7	People per 1000 ft²	5
cfm/ft²	1.73	Volume (ft³)	2,019
cfm/ton	1,689		
ft²/ton	979		
Btu/h-ft²	12.26		

Engineering Checks For Heating

Heating Mbh	-2.23	No People(max)	1.12
%OA	6	People per 1000 ft²	5
cfm/ft²	1.73	Volume (ft³)	2,019
cfm/Mbh	-174		
ft²/Mbh	-101		
Btu/h-ft²	-9.90		

ROOM_Room 00-10

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 11:00:00					
Outside	DB / WB / HR	81.2	°F /	70.8	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.5	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,753	2,255	0	4,008	72.7
Door	0	0	0	0	0.0
Wall	0	-366	0	-366	-6.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-114	0	-114	-2.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-283	0	-283	-5.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	65	0	94	159	2.9
Envelope Subtotal	1,819	1,491	94	3,404	-
People	205	193	391	790	14.3
Lights	270	336	0	607	11.0
Miscellaneous Loads	400	216	0	616	11.2
Internal Subtotal	876	746	391	2,013	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-143	0	-143	-2.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-71	0	-71	-1.3
Grand Total	2,694	2,024	485	5,203	100.0
RA Sensible (Lights)	310	0	0	310	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		81.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-3,042	0	0	-3,042	56.0
Door	0	0	0	0	0.0
Wall	0	-2,038	0	-2,038	37.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	250	0	250	-4.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	375	0	375	-6.9
Slab	0	3	0	3	-0.1
Other Floor	0	0	0	0	0.0
Infiltration	-704	0	0	-707	13.0
Envelope Subtotal	-3,746	-1,410	0	-5,159	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-75	0	-75	1.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-197	0	-197	3.6
Grand Total	-3,746	-1,682	0	-5,431	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	732
Cooling ACH	12.48
Sec Fan cfm	0
Input Ventilation cfm	33
Calculated Ventilation cfm	50
Calculated Ventilation ACH	0.85
Infiltration cfm	9
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	732
Heating ACH	12.48
Sec Fan cfm	0
Input Ventilation cfm	33
Calculated Ventilation cfm	47
Calculated Ventilation ACH	0.80
Infiltration cfm	9
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	416
Window	49
Door	0
Wall	365
Below-Grade Wall	0
Other Wall	365
Partition	562
Exterior Floor	0
Internal Floor	413
Slab	3
Other Floor	413

Engineering Checks For Cooling

Cooling tons	0.43	No People(max)	1.95
%OA	7	People per 1000 ft²	5
cfm/ft²	1.87	Volume (ft³)	3,518
cfm/ton	1,688		
ft²/ton	902		
Btu/h-ft²	13.30		

Engineering Checks For Heating

Heating Mbh	-5.43	No People(max)	1.95
%OA	6	People per 1000 ft²	5
cfm/ft²	1.87	Volume (ft³)	3,518
cfm/Mbh	-135		
ft²/Mbh	-72		
Btu/h-ft²	-13.89		

ROOM_Room 00-11

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	48.5	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2,422	3,612	0	6,034	112.5
Door	0	0	0	0	0.0
Wall	0	-173	0	-173	-3.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-655	0	-655	-12.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-355	0	-355	-6.6
Slab	0	-1	0	-1	0.0
Other Floor	0	0	0	0	0.0
Infiltration	84	0	314	399	7.4
Envelope Subtotal	2,506	2,428	314	5,248	-
People	115	118	219	452	8.4
Lights	139	201	0	340	6.3
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	254	319	219	792	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-687	0	-687	-12.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-149	0	-149	-2.8
Grand Total	2,760	1,911	533	5,204	100.0
RA Sensible (Lights)	160	0	0	160	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		88.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,626	0	0	-2,626	63.9
Door	0	0	0	0	0.0
Wall	0	-607	0	-607	14.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	271	0	271	-6.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	191	0	191	-4.6
Slab	0	1	0	1	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,021	0	0	-1,025	25.0
Envelope Subtotal	-3,647	-143	0	-3,794	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-123	0	-123	3.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-190	0	-190	4.6
Grand Total	-3,647	-456	0	-4,107	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	165
Cooling ACH	3.23
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	165
Heating ACH	3.23
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	237
Window	54
Door	0
Wall	147
Below-Grade Wall	0
Other Wall	147
Partition	904
Exterior Floor	0
Internal Floor	235
Slab	2
Other Floor	235

Engineering Checks For Cooling

Cooling tons	0.43	No People(max)	1.09
%OA	0	People per 1000 ft²	5
cfm/ft²	0.76	Volume (ft³)	3,061
cfm/ton	381		
ft²/ton	504		
Btu/h-ft²	23.81		

Engineering Checks For Heating

Heating Mbh	-4.11	No People(max)	1.09
%OA	0	People per 1000 ft²	5
cfm/ft²	0.76	Volume (ft³)	3,061
cfm/Mbh	-40		
ft²/Mbh	-53		
Btu/h-ft²	-18.87		

ROOM_Room 00-12

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 14:00:00					
Outside	DB / WB / HR	85.1	°F /	71.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	630	0	630	34.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-23	0	-23	-1.3
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	607	0	607	-
People	37	52	88	177	9.8
Lights	227	382	0	610	33.7
Miscellaneous Loads	72	52	0	124	6.9
Internal Subtotal	336	486	88	911	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	30	0	30	1.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.1
Grand Total	336	1,122	88	1,546	100.0
RA Sensible (Lights)	261	0	0	261	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-360	0	-360	71.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-18	0	-18	3.5
Slab	0	-1	0	-1	0.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-379	0	-379	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-127	0	-127	25.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-506	0	-506	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	202
Cooling ACH	3.82
Sec Fan cfm	0
Input Ventilation cfm	21
Calculated Ventilation cfm	14
Calculated Ventilation ACH	0.26
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	202
Heating ACH	3.82
Sec Fan cfm	0
Input Ventilation cfm	21
Calculated Ventilation cfm	13
Calculated Ventilation ACH	0.25
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	389
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,316
Exterior Floor	0
Internal Floor	384
Slab	5
Other Floor	384

Engineering Checks For Cooling

Cooling tons	0.13	No People(max)	0.35
%OA	7	People per 1000 ft²	1
cfm/ft²	0.57	Volume (ft³)	3,172
cfm/ton	1,566		
ft²/ton	2,736		
Btu/h-ft²	4.39		

Engineering Checks For Heating

Heating Mbh	-0.51	No People(max)	0.35
%OA	6	People per 1000 ft²	1
cfm/ft²	0.57	Volume (ft³)	3,172
cfm/Mbh	-399		
ft²/Mbh	-696		
Btu/h-ft²	-1.44		

ROOM_Room 00-13

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 11:00:00					
Outside	DB / WB / HR	83.0	°F /	71.4	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	245	0	245	57.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	211	0	211	49.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	456	0	456	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-30	0	-30	-7.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.2
Grand Total	0	425	0	425	100.0
RA Sensible (Lights)	0	0	0	0	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-191	0	-191	87.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	10	0	10	-4.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-180	0	-180	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-39	0	-39	17.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-219	0	-219	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	61
Cooling ACH	4.97
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.33
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	61
Heating ACH	4.97
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.33
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	60
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	438
Exterior Floor	0
Internal Floor	60
Slab	0
Other Floor	60

Engineering Checks For Cooling

Cooling tons	0.04	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	1.16	Volume (ft³)	737
cfm/ton	1,718		
ft²/ton	1,486		
Btu/h-ft²	8.08		

Engineering Checks For Heating

Heating Mbh	-0.22	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	1.16	Volume (ft³)	737
cfm/Mbh	-278		
ft²/Mbh	-240		
Btu/h-ft²	-4.17		

ROOM_Room 00-14

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 11:00:00					
Outside	DB / WB / HR	83.0	°F /	71.4	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	203	0	203	60.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-8	0	-8	-2.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	195	0	195	-
People	0	0	0	0	0.0
Lights	28	49	0	77	22.8
Miscellaneous Loads	16	12	0	29	8.6
Internal Subtotal	44	62	0	106	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	5	0	5	1.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	44	261	0	305	100.0
RA Sensible (Lights)	32	0	0	32	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-164	0	-164	94.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	7	0	7	-4.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-157	0	-157	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-16	0	-16	9.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-173	0	-173	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	46
Cooling ACH	7.66
Sec Fan cfm	0
Input Ventilation cfm	2
Calculated Ventilation cfm	3
Calculated Ventilation ACH	0.50
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	46
Heating ACH	7.66
Sec Fan cfm	0
Input Ventilation cfm	2
Calculated Ventilation cfm	3
Calculated Ventilation ACH	0.50
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	47
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	266
Exterior Floor	0
Internal Floor	47
Slab	0
Other Floor	47

Engineering Checks For Cooling

Cooling tons	0.03	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	1.14	Volume (ft³)	360
cfm/ton	1,795		
ft²/ton	1,574		
Btu/h-ft²	7.62		

Engineering Checks For Heating

Heating Mbh	-0.17	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	1.14	Volume (ft³)	360
cfm/Mbh	-264		
ft²/Mbh	-232		
Btu/h-ft²	-4.31		

ROOM_Room 00-15

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 11:00:00					
Outside	DB / WB / HR	83.0	°F /	71.4	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	65.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	288	0	288	23.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-39	0	-39	-3.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	249	0	249	-
People	79	101	150	330	27.0
Lights	104	169	0	273	22.3
Miscellaneous Loads	154	107	0	261	21.4
Internal Subtotal	337	376	150	864	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-9	0	-9	-0.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.1
Grand Total	337	616	150	1,103	100.0
RA Sensible (Lights)	119	0	0	119	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-197	0	-197	73.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-25	0	-25	9.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-223	0	-223	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-44	0	-44	16.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-267	0	-267	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	132
Cooling ACH	5.85
Sec Fan cfm	0
Input Ventilation cfm	13
Calculated Ventilation cfm	9
Calculated Ventilation ACH	0.40
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	132
Heating ACH	5.85
Sec Fan cfm	0
Input Ventilation cfm	13
Calculated Ventilation cfm	9
Calculated Ventilation ACH	0.40
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	163
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	472
Exterior Floor	0
Internal Floor	163
Slab	0
Other Floor	163

Engineering Checks For Cooling

Cooling tons	0.09	No People(max)	0.75
%OA	7	People per 1000 ft²	5
cfm/ft²	0.88	Volume (ft³)	1,354
cfm/ton	1,435		
ft²/ton	1,636		
Btu/h-ft²	7.33		

Engineering Checks For Heating

Heating Mbh	-0.27	No People(max)	0.75
%OA	6	People per 1000 ft²	5
cfm/ft²	0.88	Volume (ft³)	1,354
cfm/Mbh	-495		
ft²/Mbh	-564		
Btu/h-ft²	-1.77		

ROOM_Room 00-16

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.5	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,976	3,122	0	5,097	67.1
Door	0	0	0	0	0.0
Wall	0	-232	0	-232	-3.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-59	0	-59	-0.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-472	0	-472	-6.2
Slab	0	-1	0	-1	0.0
Other Floor	0	0	0	0	0.0
Infiltration	84	0	139	224	2.9
Envelope Subtotal	2,060	2,358	139	4,557	-
People	298	288	567	1,153	15.2
Lights	392	503	0	895	11.8
Miscellaneous Loads	580	322	0	902	11.9
Internal Subtotal	1,269	1,113	567	2,950	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-261	0	-261	-3.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-97	0	-97	-1.3
Grand Total	3,330	3,112	706	7,148	100.0
RA Sensible (Lights)	450	0	0	450	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		77.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,462	0	0	-2,462	51.6
Door	0	0	0	0	0.0
Wall	0	-1,527	0	-1,527	32.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	171	0	171	-3.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	283	0	283	-5.9
Slab	0	3	0	3	-0.1
Other Floor	0	0	0	0	0.0
Infiltration	-1,021	0	0	-1,025	21.5
Envelope Subtotal	-3,483	-1,071	0	-4,558	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-51	0	-51	1.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-162	0	-162	3.4
Grand Total	-3,483	-1,283	0	-4,770	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	988
Cooling ACH	11.62
Sec Fan cfm	0
Input Ventilation cfm	48
Calculated Ventilation cfm	67
Calculated Ventilation ACH	0.79
Infiltration cfm	13
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	988
Heating ACH	11.62
Sec Fan cfm	0
Input Ventilation cfm	48
Calculated Ventilation cfm	64
Calculated Ventilation ACH	0.75
Infiltration cfm	13
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	595
Window	41
Door	0
Wall	273
Below-Grade Wall	0
Other Wall	273
Partition	759
Exterior Floor	0
Internal Floor	589
Slab	6
Other Floor	589

Engineering Checks For Cooling

Cooling tons	0.60	No People(max)	2.83
%OA	7	People per 1000 ft²	5
cfm/ft²	1.74	Volume (ft³)	5,102
cfm/ton	1,659		
ft²/ton	952		
Btu/h-ft²	12.61		

Engineering Checks For Heating

Heating Mbh	-4.77	No People(max)	2.83
%OA	6	People per 1000 ft²	5
cfm/ft²	1.74	Volume (ft³)	5,102
cfm/Mbh	-207		
ft²/Mbh	-119		
Btu/h-ft²	-8.40		

ROOM_Room 00-17

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		6/21 19:00:00					
Outside	DB / WB / HR	78.1	°F /	68.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	210	0	210	34.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-6	0	-6	-1.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	203	0	203	-
People	12	19	28	59	9.6
Lights	71	135	0	206	33.9
Miscellaneous Loads	23	18	0	41	6.7
Internal Subtotal	105	173	28	306	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	18	0	18	2.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	-0.1
Grand Total	105	394	28	527	100.0
RA Sensible (Lights)	82	0	0	82	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-84	0	-84	51.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-29	0	-29	17.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-112	0	-112	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-51	0	-51	31.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-164	0	-164	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	69
Cooling ACH	4.17
Sec Fan cfm	0
Input Ventilation cfm	7
Calculated Ventilation cfm	5
Calculated Ventilation ACH	0.30
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	69
Heating ACH	4.17
Sec Fan cfm	0
Input Ventilation cfm	7
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.24
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	123
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	481
Exterior Floor	0
Internal Floor	123
Slab	0
Other Floor	123

Engineering Checks For Cooling

Cooling tons	0.04	No People(max)	0.11
%OA	7	People per 1000 ft²	1
cfm/ft²	0.63	Volume (ft³)	993
cfm/ton	1,574		
ft²/ton	2,515		
Btu/h-ft²	4.77		

Engineering Checks For Heating

Heating Mbh	-0.16	No People(max)	0.11
%OA	6	People per 1000 ft²	1
cfm/ft²	0.63	Volume (ft³)	993
cfm/Mbh	-422		
ft²/Mbh	-675		
Btu/h-ft²	-1.48		

ROOM_Room 00-18

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	70.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2,264	3,463	0	5,728	19.3
Door	0	0	0	0	0.0
Wall	0	-597	0	-597	-2.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-504	0	-504	-1.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-1,176	0	-1,176	-4.0
Slab	0	-1	0	-1	0.0
Other Floor	0	0	0	0	0.0
Infiltration	153	0	152	304	1.0
Envelope Subtotal	2,417	1,186	152	3,755	-
People	5,358	4,701	10,205	20,264	68.4
Lights	1,156	1,466	0	2,622	8.9
Miscellaneous Loads	1,316	722	0	2,039	6.9
Internal Subtotal	7,830	6,889	10,205	24,925	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-179	0	-179	-0.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-204	0	-204	-0.7
Grand Total	10,247	7,693	10,357	28,297	100.0
RA Sensible (Lights)	1,328	0	0	1,328	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-4,884	0	0	-4,884	51.9
Door	0	0	0	0	0.0
Wall	0	-3,272	0	-3,272	34.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	274	0	274	-2.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	659	0	659	-7.0
Slab	0	4	0	4	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,837	0	0	-1,845	19.6
Envelope Subtotal	-6,721	-2,335	0	-9,063	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-28	0	-28	0.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-309	0	-309	3.3
Grand Total	-6,721	-2,672	0	-9,401	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	2,730
Cooling ACH	17.83
Sec Fan cfm	0
Input Ventilation cfm	316
Calculated Ventilation cfm	186
Calculated Ventilation ACH	1.22
Infiltration cfm	23
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	2,730
Heating ACH	17.83
Sec Fan cfm	0
Input Ventilation cfm	316
Calculated Ventilation cfm	177
Calculated Ventilation ACH	1.16
Infiltration cfm	23
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,053
Window	83
Door	0
Wall	585
Below-Grade Wall	0
Other Wall	585
Partition	585
Exterior Floor	0
Internal Floor	1,046
Slab	7
Other Floor	1,046

Engineering Checks For Cooling

Cooling tons	2.36	No People(max)	50.97
%OA	7	People per 1000 ft²	50
cfm/ft²	2.68	Volume (ft³)	9,185
cfm/ton	1,158		
ft²/ton	433		
Btu/h-ft²	27.71		

Engineering Checks For Heating

Heating Mbh	-9.40	No People(max)	50.97
%OA	6	People per 1000 ft²	50
cfm/ft²	2.68	Volume (ft³)	9,185
cfm/Mbh	-290		
ft²/Mbh	-109		
Btu/h-ft²	-9.17		

ROOM_Room 00-19

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 15:00:00					
Outside	DB / WB / HR	87.0	°F /	72.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	248	248	0	496	21.8
Door	0	0	0	0	0.0
Wall	0	15	0	15	0.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	353	0	353	15.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-94	0	-94	-4.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	105	0	88	193	8.5
Envelope Subtotal	353	522	88	962	-
People	35	45	55	134	5.9
Lights	243	334	0	578	25.4
Miscellaneous Loads	180	115	0	296	13.0
Internal Subtotal	458	494	55	1,007	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	33	0	33	1.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-7	0	-7	-0.3
Grand Total	811	1,042	143	1,996	100.0
RA Sensible (Lights)	279	0	0	279	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,036	0	0	-1,036	42.1
Door	0	0	0	0	0.0
Wall	0	-605	0	-605	24.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-70	0	-70	2.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	75	0	75	-3.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-634	0	0	-637	25.9
Envelope Subtotal	-1,670	-599	0	-2,271	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-124	0	-124	5.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-67	0	-67	2.7
Grand Total	-1,670	-790	0	-2,462	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	289
Cooling ACH	5.47
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	20
Calculated Ventilation ACH	0.38
Infiltration cfm	8
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	289
Heating ACH	5.47
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	19
Calculated Ventilation ACH	0.36
Infiltration cfm	8
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	373
Window	16
Door	0
Wall	109
Below-Grade Wall	0
Other Wall	109
Partition	664
Exterior Floor	0
Internal Floor	373
Slab	0
Other Floor	373

Engineering Checks For Cooling

Cooling tons	0.17	No People(max)	0.35
%OA	7	People per 1000 ft²	1
cfm/ft²	0.82	Volume (ft³)	3,170
cfm/ton	1,736		
ft²/ton	2,119		
Btu/h-ft²	5.66		

Engineering Checks For Heating

Heating Mbh	-2.46	No People(max)	0.35
%OA	6	People per 1000 ft²	1
cfm/ft²	0.82	Volume (ft³)	3,170
cfm/Mbh	-117		
ft²/Mbh	-143		
Btu/h-ft²	-6.99		

ROOM_Room 00-20

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 15:00:00					
Outside	DB / WB / HR	87.0	°F /	72.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	65.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	246	216	0	462	12.6
Door	0	0	0	0	0.0
Wall	0	71	0	71	1.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-23	0	-23	-0.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-89	0	-89	-2.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	188	0	143	331	9.0
Envelope Subtotal	433	175	143	751	-
People	229	282	363	875	23.8
Lights	431	608	0	1,039	28.3
Miscellaneous Loads	192	116	0	308	8.4
Internal Subtotal	852	1,006	363	2,221	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	214	0	214	5.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	-0.2
Grand Total	1,286	1,387	506	3,178	100.0
RA Sensible (Lights)	495	0	0	495	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		84.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-995	0	0	-995	25.9
Door	0	0	0	0	0.0
Wall	0	-1,375	0	-1,375	35.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	11	0	11	-0.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	110	0	110	-2.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,136	0	0	-1,141	29.7
Envelope Subtotal	-2,131	-1,253	0	-3,388	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-376	0	-376	9.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-73	0	-73	1.9
Grand Total	-2,131	-1,701	0	-3,837	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	417
Cooling ACH	3.82
Sec Fan cfm	0
Input Ventilation cfm	68
Calculated Ventilation cfm	28
Calculated Ventilation ACH	0.26
Infiltration cfm	14
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	417
Heating ACH	3.82
Sec Fan cfm	0
Input Ventilation cfm	68
Calculated Ventilation cfm	27
Calculated Ventilation ACH	0.25
Infiltration cfm	14
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	491
Window	16
Door	0
Wall	223
Below-Grade Wall	0
Other Wall	223
Partition	1,086
Exterior Floor	0
Internal Floor	491
Slab	0
Other Floor	491

Engineering Checks For Cooling

Cooling tons	0.26	No People(max)	2.34
%OA	7	People per 1000 ft²	5
cfm/ft²	0.89	Volume (ft³)	6,552
cfm/ton	1,576		
ft²/ton	1,767		
Btu/h-ft²	6.79		

Engineering Checks For Heating

Heating Mbh	-3.84	No People(max)	2.34
%OA	6	People per 1000 ft²	5
cfm/ft²	0.89	Volume (ft³)	6,552
cfm/Mbh	-109		
ft²/Mbh	-122		
Btu/h-ft²	-8.20		

ROOM_Room 00-21

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		6/21 19:00:00					
Outside	DB / WB / HR	78.1	°F /	68.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	68.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,147	0	-1,147	-16.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-381	0	-381	-5.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,527	0	-1,527	-
People	979	1,679	2,330	4,988	70.4
Lights	85	168	0	254	3.6
Miscellaneous Loads	1,992	1,504	0	3,495	49.3
Internal Subtotal	3,056	3,351	2,330	8,737	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-214	0	-214	-3.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	-0.1
Grand Total	3,056	1,602	2,330	6,988	100.0
RA Sensible (Lights)	98	0	0	98	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-15	0	-15	15.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-40	0	-40	39.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-56	0	-56	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-46	0	-46	45.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-102	0	-102	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	647
Cooling ACH	33.94
Sec Fan cfm	0
Input Ventilation cfm	58
Calculated Ventilation cfm	44
Calculated Ventilation ACH	2.31
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	647
Heating ACH	33.94
Sec Fan cfm	0
Input Ventilation cfm	58
Calculated Ventilation cfm	42
Calculated Ventilation ACH	2.20
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	139
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	426
Exterior Floor	0
Internal Floor	139
Slab	0
Other Floor	139

Engineering Checks For Cooling

Cooling tons	0.58	No People(max)	8.50
%OA	7	People per 1000 ft²	67
cfm/ft²	5.09	Volume (ft³)	1,144
cfm/ton	1,111		
ft²/ton	218		
Btu/h-ft²	55.05		

Engineering Checks For Heating

Heating Mbh	-0.10	No People(max)	8.50
%OA	6	People per 1000 ft²	67
cfm/ft²	5.09	Volume (ft³)	1,144
cfm/Mbh	-6,353		
ft²/Mbh	-1,248		
Btu/h-ft²	-0.80		

ROOM_Room 00-22

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	65.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	206	0	206	5.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-136	0	-136	-3.7
Slab	0	-2	0	-2	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	68	0	68	-
People	294	383	560	1,236	33.6
Lights	387	579	0	966	26.3
Miscellaneous Loads	573	368	0	941	25.6
Internal Subtotal	1,254	1,330	560	3,143	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	23	0	23	0.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.1
Grand Total	1,254	1,419	560	3,232	100.0
RA Sensible (Lights)	444	0	0	444	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-69	0	-69	21.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-51	0	-51	16.0
Slab	0	-6	0	-6	1.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-126	0	-126	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-196	0	-196	60.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-322	0	-322	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	370
Cooling ACH	4.41
Sec Fan cfm	0
Input Ventilation cfm	48
Calculated Ventilation cfm	25
Calculated Ventilation ACH	0.30
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	370
Heating ACH	4.41
Sec Fan cfm	0
Input Ventilation cfm	48
Calculated Ventilation cfm	24
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	587
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,003
Exterior Floor	0
Internal Floor	570
Slab	18
Other Floor	570

Engineering Checks For Cooling

Cooling tons	0.27	No People(max)	2.80
%OA	7	People per 1000 ft²	5
cfm/ft²	0.66	Volume (ft³)	5,037
cfm/ton	1,374		
ft²/ton	2,079		
Btu/h-ft²	5.77		

Engineering Checks For Heating

Heating Mbh	-0.32	No People(max)	2.80
%OA	6	People per 1000 ft²	5
cfm/ft²	0.66	Volume (ft³)	5,037
cfm/Mbh	-1,150		
ft²/Mbh	-1,739		
Btu/h-ft²	-0.58		

ROOM_Room 00-24

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	362	0	362	24.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	127	0	127	8.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-3	0	-3	-0.2
Slab	0	-6	0	-6	-0.4
Other Floor	0	0	0	0	0.0
Infiltration	38	0	196	233	15.5
Envelope Subtotal	38	480	196	714	-
People	0	0	0	0	0.0
Lights	166	209	0	375	24.8
Miscellaneous Loads	98	53	0	151	10.0
Internal Subtotal	264	262	0	526	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	83	0	83	5.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.2
Grand Total	301	823	196	1,321	100.0
RA Sensible (Lights)	190	0	0	190	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		111.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,416	0	-1,416	65.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	32	0	32	-1.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	17	0	17	-0.8
Slab	0	46	0	46	-2.1
Other Floor	0	0	0	0	0.0
Infiltration	-671	0	0	-674	31.2
Envelope Subtotal	-671	-1,321	0	-1,994	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-155	0	-155	7.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-11	0	-11	0.5
Grand Total	-671	-1,486	0	-2,160	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	87
Cooling ACH	1.56
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	8
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	87
Heating ACH	1.56
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	8
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	255
Window	0
Door	0
Wall	212
Below-Grade Wall	0
Other Wall	212
Partition	684
Exterior Floor	0
Internal Floor	84
Slab	172
Other Floor	84

Engineering Checks For Cooling

Cooling tons	0.11	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.36	Volume (ft³)	3,356
cfm/ton	786		
ft²/ton	2,178		
Btu/h-ft²	5.51		

Engineering Checks For Heating

Heating Mbh	-2.16	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.36	Volume (ft³)	3,356
cfm/Mbh	-40		
ft²/Mbh	-111		
Btu/h-ft²	-9.01		

ROOM_Room 00-25

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	65.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	7	0	7	0.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-14	0	-14	-1.3
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-7	0	-7	-
People	75	116	143	334	31.2
Lights	99	176	0	275	25.6
Miscellaneous Loads	146	112	0	258	24.1
Internal Subtotal	320	404	143	867	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	99	0	99	9.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.1
Grand Total	320	495	143	959	100.0
RA Sensible (Lights)	113	0	0	113	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-236	0	-236	56.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-18	0	-18	4.3
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-254	0	-254	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-163	0	-163	39.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-417	0	-417	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	122
Cooling ACH	3.66
Sec Fan cfm	0
Input Ventilation cfm	12
Calculated Ventilation cfm	8
Calculated Ventilation ACH	0.24
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	122
Heating ACH	3.66
Sec Fan cfm	0
Input Ventilation cfm	12
Calculated Ventilation cfm	8
Calculated Ventilation ACH	0.24
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	156
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	718
Exterior Floor	0
Internal Floor	156
Slab	0
Other Floor	156

Engineering Checks For Cooling

Cooling tons	0.08	No People(max)	0.72
%OA	7	People per 1000 ft²	5
cfm/ft²	0.85	Volume (ft³)	2,002
cfm/ton	1,531		
ft²/ton	1,791		
Btu/h-ft²	6.70		

Engineering Checks For Heating

Heating Mbh	-0.42	No People(max)	0.72
%OA	6	People per 1000 ft²	5
cfm/ft²	0.85	Volume (ft³)	2,002
cfm/Mbh	-293		
ft²/Mbh	-343		
Btu/h-ft²	-2.92		

ROOM_Room 00-26

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	114	0	114	20.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	1	0	1	0.1
Slab	0	-6	0	-6	-1.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	109	0	109	-
People	0	0	0	0	0.0
Lights	79	146	0	224	39.8
Miscellaneous Loads	47	37	0	84	14.8
Internal Subtotal	125	183	0	308	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	57	0	57	10.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	125	348	0	474	100.0
RA Sensible (Lights)	90	0	0	90	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-129	0	-129	48.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-5	0	-5	1.8
Slab	0	-20	0	-20	7.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-154	0	-154	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-113	0	-113	42.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-267	0	-267	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	70
Cooling ACH	2.63
Sec Fan cfm	0
Input Ventilation cfm	7
Calculated Ventilation cfm	5
Calculated Ventilation ACH	0.19
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	70
Heating ACH	2.63
Sec Fan cfm	0
Input Ventilation cfm	7
Calculated Ventilation cfm	5
Calculated Ventilation ACH	0.19
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	125
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	630
Exterior Floor	0
Internal Floor	26
Slab	99
Other Floor	26

Engineering Checks For Cooling

Cooling tons	0.04	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	0.62	Volume (ft³)	1,596
cfm/ton	1,780		
ft²/ton	2,887		
Btu/h-ft²	4.16		

Engineering Checks For Heating

Heating Mbh	-0.27	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	0.62	Volume (ft³)	1,596
cfm/Mbh	-264		
ft²/Mbh	-428		
Btu/h-ft²	-2.34		

ROOM_Room 00-27

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	71	0	71	16.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	1	0	1	0.3
Slab	0	-4	0	-4	-0.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	69	0	69	-
People	9	13	13	35	8.2
Lights	60	97	0	157	36.9
Miscellaneous Loads	45	31	0	76	17.8
Internal Subtotal	113	141	13	268	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	20	0	20	4.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	113	230	13	357	100.0
RA Sensible (Lights)	69	0	0	69	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-111	0	-111	68.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-7	0	-7	4.6
Slab	0	-14	0	-14	8.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-132	0	-132	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-30	0	-30	18.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-162	0	-162	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	52
Cooling ACH	3.98
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.31
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	52
Heating ACH	3.98
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	3
Calculated Ventilation ACH	0.23
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	98
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	412
Exterior Floor	0
Internal Floor	37
Slab	61
Other Floor	37

Engineering Checks For Cooling

Cooling tons	0.03	No People(max)	0.09
%OA	7	People per 1000 ft²	1
cfm/ft²	0.59	Volume (ft³)	783
cfm/ton	1,731		
ft²/ton	2,926		
Btu/h-ft²	4.10		

Engineering Checks For Heating

Heating Mbh	-0.16	No People(max)	0.09
%OA	6	People per 1000 ft²	1
cfm/ft²	0.59	Volume (ft³)	783
cfm/Mbh	-318		
ft²/Mbh	-537		
Btu/h-ft²	-1.86		

ROOM_Room 00-29

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 22:00:00					
Outside	DB / WB / HR	75.2	°F /	69.1	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	62.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	201	0	201	42.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-12	0	-12	-2.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-8	0	-8	-1.6
Slab	0	-1	0	-1	-0.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	181	0	181	-
People	1	6	1	8	1.8
Lights	54	83	0	137	28.8
Miscellaneous Loads	40	26	0	66	14.0
Internal Subtotal	95	115	1	212	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	21	0	21	4.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.1
Grand Total	95	317	1	413	100.0
RA Sensible (Lights)	62	0	0	62	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		84.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-592	0	-592	99.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	41	0	41	-6.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	20	0	20	-3.4
Slab	0	3	0	3	-0.5
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-528	0	-528	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-65	0	-65	11.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	0.7
Grand Total	0	-598	0	-598	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	107
Cooling ACH	9.10
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	7
Calculated Ventilation ACH	0.60
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	107
Heating ACH	9.10
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	7
Calculated Ventilation ACH	0.60
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	87
Window	0
Door	0
Wall	89
Below-Grade Wall	0
Other Wall	89
Partition	248
Exterior Floor	0
Internal Floor	78
Slab	10
Other Floor	78

Engineering Checks For Cooling

Cooling tons	0.03	No People(max)	0.08
%OA	6	People per 1000 ft²	1
cfm/ft²	1.37	Volume (ft³)	705
cfm/ton	3,117		
ft²/ton	2,276		
Btu/h-ft²	5.27		

Engineering Checks For Heating

Heating Mbh	-0.60	No People(max)	0.08
%OA	6	People per 1000 ft²	1
cfm/ft²	1.37	Volume (ft³)	705
cfm/Mbh	-180		
ft²/Mbh	-131		
Btu/h-ft²	-7.63		

ROOM_Room 00-30

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	65.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-77	0	-77	-3.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-43	0	-43	-1.7
Slab	0	-12	0	-12	-0.5
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-132	0	-132	-
People	210	278	401	889	35.1
Lights	277	417	0	694	27.4
Miscellaneous Loads	410	265	0	675	26.7
Internal Subtotal	897	960	401	2,258	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	88	0	88	3.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	-0.1
Grand Total	897	915	401	2,212	100.0
RA Sensible (Lights)	318	0	0	318	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-184	0	-184	41.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-59	0	-59	13.2
Slab	0	-28	0	-28	6.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-271	0	-271	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-175	0	-175	39.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-446	0	-446	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	251
Cooling ACH	4.18
Sec Fan cfm	0
Input Ventilation cfm	34
Calculated Ventilation cfm	17
Calculated Ventilation ACH	0.28
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	251
Heating ACH	4.18
Sec Fan cfm	0
Input Ventilation cfm	34
Calculated Ventilation cfm	16
Calculated Ventilation ACH	0.27
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	423
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	831
Exterior Floor	0
Internal Floor	298
Slab	125
Other Floor	298

Engineering Checks For Cooling

Cooling tons	0.18	No People(max)	2.00
%OA	7	People per 1000 ft²	5
cfm/ft²	0.63	Volume (ft³)	3,605
cfm/ton	1,361		
ft²/ton	2,173		
Btu/h-ft²	5.52		

Engineering Checks For Heating

Heating Mbh	-0.45	No People(max)	2.00
%OA	6	People per 1000 ft²	5
cfm/ft²	0.63	Volume (ft³)	3,605
cfm/Mbh	-562		
ft²/Mbh	-898		
Btu/h-ft²	-1.11		

ROOM_Room 00-31

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	98	0	98	12.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-1	0	-1	-0.1
Slab	0	-6	0	-6	-0.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	92	0	92	-
People	19	30	44	93	12.3
Lights	115	209	0	324	42.7
Miscellaneous Loads	36	28	0	65	8.6
Internal Subtotal	170	268	44	483	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	53	0	53	7.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	170	413	44	627	100.0
RA Sensible (Lights)	132	0	0	132	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-101	0	-101	43.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-26	0	-26	11.5
Slab	0	-20	0	-20	8.5
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-147	0	-147	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-83	0	-83	36.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-230	0	-230	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	83
Cooling ACH	3.11
Sec Fan cfm	0
Input Ventilation cfm	11
Calculated Ventilation cfm	6
Calculated Ventilation ACH	0.22
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	83
Heating ACH	3.11
Sec Fan cfm	0
Input Ventilation cfm	11
Calculated Ventilation cfm	5
Calculated Ventilation ACH	0.19
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	194
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	590
Exterior Floor	0
Internal Floor	117
Slab	77
Other Floor	117

Engineering Checks For Cooling

Cooling tons	0.05	No People(max)	0.18
%OA	7	People per 1000 ft²	1
cfm/ft²	0.46	Volume (ft³)	1,602
cfm/ton	1,581		
ft²/ton	3,405		
Btu/h-ft²	3.52		

Engineering Checks For Heating

Heating Mbh	-0.23	No People(max)	0.18
%OA	6	People per 1000 ft²	1
cfm/ft²	0.46	Volume (ft³)	1,602
cfm/Mbh	-360		
ft²/Mbh	-775		
Btu/h-ft²	-1.29		

ROOM_Room 00-32

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 23:00:00					
Outside	DB / WB / HR	74.0	°F /	68.7	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	61.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	6	0	6	0.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	2,271	0	2,271	22.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	14	0	14	0.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-152	0	-152	-1.5
Slab	0	2	0	2	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	2,140	0	2,140	-
People	0	0	0	0	0.0
Lights	1,660	1,698	0	3,358	33.2
Miscellaneous Loads	984	431	0	1,415	14.0
Internal Subtotal	2,644	2,129	0	4,773	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	1,315	0	1,315	13.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-5	0	-5	0.0
Grand Total	2,644	5,579	0	8,224	100.0
RA Sensible (Lights)	1,906	0	0	1,906	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		82.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-47	0	-47	0.5
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-9,864	0	-9,864	95.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	445	0	445	-4.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	845	0	845	-8.1
Slab	0	13	0	13	-0.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-8,608	0	-8,608	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-1,703	0	-1,703	16.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-71	0	-71	0.7
Grand Total	0	-10,382	0	-10,382	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	2,143
Cooling ACH	3.82
Sec Fan cfm	0
Input Ventilation cfm	144
Calculated Ventilation cfm	137
Calculated Ventilation ACH	0.24
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	2,143
Heating ACH	3.82
Sec Fan cfm	0
Input Ventilation cfm	144
Calculated Ventilation cfm	137
Calculated Ventilation ACH	0.24
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	3
Other Roof	3
Ceiling	2,453
Window	0
Door	0
Wall	1,492
Below-Grade Wall	0
Other Wall	1,492
Partition	1,492
Exterior Floor	0
Internal Floor	2,421
Slab	35
Other Floor	2,421

Engineering Checks For Cooling

Cooling tons	0.69	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	0.89	Volume (ft³)	33,641
cfm/ton	3,126		
ft²/ton	3,507		
Btu/h-ft²	3.42		

Engineering Checks For Heating

Heating Mbh	-10.38	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	0.89	Volume (ft³)	33,641
cfm/Mbh	-206		
ft²/Mbh	-231		
Btu/h-ft²	-4.33		

ROOM_Room 01-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	4,076	6,262	0	10,339	22.7
Door	0	0	0	0	0.0
Wall	0	71	0	71	0.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-751	0	-751	-1.6
Exterior Floor	0	3	0	3	0.0
Interior Floor	0	-2,870	0	-2,870	-6.3
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	1,377	0	1,770	3,147	6.9
Envelope Subtotal	5,453	2,716	1770	9,939	-
People	2,491	3,039	3,939	9,469	20.8
Lights	4,683	5,967	0	10,649	23.4
Miscellaneous Loads	2,081	1,144	0	3,225	7.1
Internal Subtotal	9,254	10,150	3,939	23,343	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	7,130	0	7,130	15.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-216	0	-216	-0.5
Grand Total	14,708	19,779	5,709	40,196	100.0
RA Sensible (Lights)	5,376	0	0	5,376	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		84.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-11,854	0	0	-11,854	23.2
Door	0	0	0	0	0.0
Wall	0	-7,832	0	-7,832	15.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	695	0	695	-1.4
Exterior Floor	0	-229	0	-229	0.4
Interior Floor	0	3,794	0	3,794	-7.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-12,212	0	0	-12,260	24.0
Envelope Subtotal	-24,067	-3,571	0	-27,686	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-22,725	0	-22,725	44.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-780	0	-780	1.5
Grand Total	-24,067	-27,076	0	-51,191	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	9,696
Cooling ACH	12.72
Sec Fan cfm	0
Input Ventilation cfm	737
Calculated Ventilation cfm	686
Calculated Ventilation ACH	0.90
Infiltration cfm	151
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	9,696
Heating ACH	12.72
Sec Fan cfm	0
Input Ventilation cfm	737
Calculated Ventilation cfm	686
Calculated Ventilation ACH	0.90
Infiltration cfm	152
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	5,164
Window	190
Door	0
Wall	1,418
Below-Grade Wall	0
Other Wall	1,418
Partition	1,517
Exterior Floor	99
Internal Floor	5,065
Slab	0
Other Floor	5,065

Engineering Checks For Cooling

Cooling tons	3.35	No People(max)	25.41
%OA	7	People per 1000 ft²	5
cfm/ft²	1.91	Volume (ft³)	45,745
cfm/ton	2,894		
ft²/ton	1,518		
Btu/h-ft²	7.91		

Engineering Checks For Heating

Heating Mbh	-51.19	No People(max)	25.41
%OA	7	People per 1000 ft²	5
cfm/ft²	1.91	Volume (ft³)	45,745
cfm/Mbh	-189		
ft²/Mbh	-99		
Btu/h-ft²	-10.10		

ROOM_Room 01-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 16:00:00					
Outside	DB / WB / HR	84.1	°F /	71.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	44.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	1.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	10	0	10	91.6
Exterior Floor	0	0	0	0	0.2
Interior Floor	0	0	0	0	0.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	10	0	10	-
People	0	0	0	0	1.8
Lights	0	0	0	0	3.2
Miscellaneous Loads	0	0	0	0	2.2
Internal Subtotal	0	1	0	1	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	-0.1
Grand Total	0	10	0	11	100.0
RA Sensible (Lights)	0	0	0	0	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		97.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	2.4
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-14	0	-14	97.1
Exterior Floor	0	0	0	0	0.4
Interior Floor	0	0	0	0	0.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-14	0	-14	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-14	0	-14	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1
Cooling ACH	150.00
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1
Heating ACH	150.00
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	9
Exterior Floor	0
Internal Floor	0
Slab	0
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.00	No People(max)	0.00
%OA	0	People per 1000 ft²	5
cfm/ft²	0.00	Volume (ft³)	0
cfm/ton	650		
ft²/ton	0		
Btu/h-ft²	0.00		

Engineering Checks For Heating

Heating Mbh	-0.01	No People(max)	0.00
%OA	0	People per 1000 ft²	5
cfm/ft²	0.00	Volume (ft³)	0
cfm/Mbh	-40		
ft²/Mbh	0		
Btu/h-ft²	0.00		

ROOM_Room 01-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 17:00:00					
Outside	DB / WB / HR	84.6	°F /	71.8	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	7,297	0	7,297	45.2
Other Roof	0	0	0	0	0.0
Glass	1,454	1,665	0	3,119	19.3
Door	0	0	0	0	0.0
Wall	0	-231	0	-231	-1.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-202	0	-202	-1.3
Exterior Floor	0	-20	0	-20	-0.1
Interior Floor	0	-495	0	-495	-3.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	937	0	2,019	2,956	18.3
Envelope Subtotal	2,391	8,014	2019	12,424	-
People	0	0	0	0	0.0
Lights	561	526	0	1,087	6.7
Miscellaneous Loads	1,485	600	0	2,085	12.9
Internal Subtotal	2,046	1,126	0	3,172	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-111	0	-111	-0.7
Grand Total	4,437	9,028	2,019	15,485	100.0
RA Sensible (Lights)	645	0	0	645	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		121.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-20,178	0	-20,178	55.6
Other Roof	0	0	0	0	0.0
Glass	-5,233	0	0	-5,233	14.4
Door	0	0	0	0	0.0
Wall	0	-5,451	0	-5,451	15.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	623	0	623	-1.7
Exterior Floor	0	-356	0	-356	1.0
Interior Floor	0	1,756	0	1,756	-4.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-6,972	0	0	-6,997	19.3
Envelope Subtotal	-12,205	-23,606	0	-35,836	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-426	0	-426	1.2
Grand Total	-12,205	-24,032	0	-36,262	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,439
Cooling ACH	4.96
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	86
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,439
Heating ACH	4.96
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	87
Min Stop/RH (%)	N/A

Areas	ft²
Roof	1,492
Other Roof	1,492
Ceiling	0
Window	83
Door	0
Wall	987
Below-Grade Wall	0
Other Wall	987
Partition	996
Exterior Floor	164
Internal Floor	1,328
Slab	0
Other Floor	1,328

Engineering Checks For Cooling

Cooling tons	1.29	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.99	Volume (ft³)	17,409
cfm/ton	1,115		
ft²/ton	1,124		
Btu/h-ft²	10.68		

Engineering Checks For Heating

Heating Mbh	-36.26	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.99	Volume (ft³)	17,409
cfm/Mbh	-40		
ft²/Mbh	-40		
Btu/h-ft²	-25.00		

ROOM_Room 01-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	48.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	861	0	861	47.5
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	52	0	52	2.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	208	0	208	11.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	2	0	2	0.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	1,123	0	1,123	-
People	79	108	151	339	18.7
Lights	96	153	0	249	13.7
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	176	261	151	588	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-8	0	-8	-0.4
Grand Total	176	1,376	151	1,703	100.0
RA Sensible (Lights)	110	0	0	110	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		111.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-2,385	0	-2,385	72.7
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-458	0	-458	14.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-482	0	-482	14.7
Exterior Floor	0	-5	0	-5	0.2
Interior Floor	0	82	0	82	-2.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-3,249	0	-3,249	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-30	0	-30	0.9
Grand Total	0	-3,279	0	-3,279	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	132
Cooling ACH	4.36
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	132
Heating ACH	4.36
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	168
Other Roof	168
Ceiling	0
Window	0
Door	0
Wall	71
Below-Grade Wall	0
Other Wall	71
Partition	751
Exterior Floor	2
Internal Floor	166
Slab	0
Other Floor	166

Engineering Checks For Cooling

Cooling tons	0.14	No People(max)	0.76
%OA	0	People per 1000 ft²	5
cfm/ft²	0.87	Volume (ft³)	1,817
cfm/ton	932		
ft²/ton	1,067		
Btu/h-ft²	11.25		

Engineering Checks For Heating

Heating Mbh	-3.28	No People(max)	0.76
%OA	0	People per 1000 ft²	5
cfm/ft²	0.87	Volume (ft³)	1,817
cfm/Mbh	-40		
ft²/Mbh	-46		
Btu/h-ft²	-21.74		

ROOM_Room 01-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		10/21 13:00:00					
Outside	DB / WB / HR	70.2	°F /	60.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	4,703	14,596	0	19,299	140.1
Door	0	0	0	0	0.0
Wall	0	-596	0	-596	-4.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,742	0	-1,742	-12.6
Exterior Floor	0	-228	0	-228	-1.7
Interior Floor	0	-2,487	0	-2,487	-18.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-50	0	-133	-183	-1.3
Envelope Subtotal	4,653	9,543	-133	14,063	-
People	58	71	137	265	1.9
Lights	354	512	0	866	6.3
Miscellaneous Loads	112	71	0	184	1.3
Internal Subtotal	524	654	137	1,316	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-1,780	0	-1,780	-12.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-226	0	-226	-1.6
Grand Total	5,177	8,192	5	13,373	100.0
RA Sensible (Lights)	406	0	0	406	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		78.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-8,075	0	0	-8,075	76.0
Door	0	0	0	0	0.0
Wall	0	-507	0	-507	4.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	399	0	399	-3.8
Exterior Floor	0	-88	0	-88	0.8
Interior Floor	0	445	0	445	-4.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-989	0	0	-993	9.3
Envelope Subtotal	-9,064	249	0	-8,819	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-1,198	0	-1,198	11.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-604	0	-604	5.7
Grand Total	-9,064	-1,553	0	-10,621	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,972
Cooling ACH	23.96
Sec Fan cfm	0
Input Ventilation cfm	33
Calculated Ventilation cfm	134
Calculated Ventilation ACH	1.63
Infiltration cfm	12
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,972
Heating ACH	23.96
Sec Fan cfm	0
Input Ventilation cfm	33
Calculated Ventilation cfm	128
Calculated Ventilation ACH	1.55
Infiltration cfm	12
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	573
Window	146
Door	0
Wall	229
Below-Grade Wall	0
Other Wall	229
Partition	634
Exterior Floor	40
Internal Floor	533
Slab	0
Other Floor	533

Engineering Checks For Cooling

Cooling tons	1.11	No People(max)	0.55
%OA	7	People per 1000 ft²	1
cfm/ft²	3.59	Volume (ft³)	4,939
cfm/ton	1,770		
ft²/ton	492		
Btu/h-ft²	24.39		

Engineering Checks For Heating

Heating Mbh	-10.62	No People(max)	0.55
%OA	6	People per 1000 ft²	1
cfm/ft²	3.59	Volume (ft³)	4,939
cfm/Mbh	-186		
ft²/Mbh	-52		
Btu/h-ft²	-19.23		

ROOM_Room 01-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,036	1,815	0	2,851	51.3
Door	0	0	0	0	0.0
Wall	0	-169	0	-169	-3.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	217	0	217	3.9
Exterior Floor	0	-55	0	-55	-1.0
Interior Floor	0	-377	0	-377	-6.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	71	0	2	73	1.3
Envelope Subtotal	1,107	1,431	2	2,540	-
People	270	309	514	1,093	19.7
Lights	355	512	0	868	15.6
Miscellaneous Loads	527	327	0	854	15.3
Internal Subtotal	1,152	1,148	514	2,815	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-151	0	-151	-2.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-50	0	-50	-0.9
Grand Total	2,259	2,379	516	5,154	100.0
RA Sensible (Lights)	408	0	0	408	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,663	0	0	-1,663	28.6
Door	0	0	0	0	0.0
Wall	0	-969	0	-969	16.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-90	0	-90	1.6
Exterior Floor	0	-132	0	-132	2.3
Interior Floor	0	255	0	255	-4.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-927	0	0	-931	16.0
Envelope Subtotal	-2,590	-937	0	-3,530	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-2,164	0	-2,164	37.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-117	0	-117	2.0
Grand Total	-2,590	-3,218	0	-5,811	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	683
Cooling ACH	8.85
Sec Fan cfm	0
Input Ventilation cfm	44
Calculated Ventilation cfm	47
Calculated Ventilation ACH	0.61
Infiltration cfm	11
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	683
Heating ACH	8.85
Sec Fan cfm	0
Input Ventilation cfm	44
Calculated Ventilation cfm	44
Calculated Ventilation ACH	0.57
Infiltration cfm	12
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	538
Window	25
Door	0
Wall	175
Below-Grade Wall	0
Other Wall	175
Partition	673
Exterior Floor	56
Internal Floor	482
Slab	0
Other Floor	482

Engineering Checks For Cooling

Cooling tons	0.43	No People(max)	2.57
%OA	7	People per 1000 ft²	5
cfm/ft²	1.33	Volume (ft³)	4,630
cfm/ton	1,591		
ft²/ton	1,198		
Btu/h-ft²	10.02		

Engineering Checks For Heating

Heating Mbh	-5.81	No People(max)	2.57
%OA	6	People per 1000 ft²	5
cfm/ft²	1.33	Volume (ft³)	4,630
cfm/Mbh	-118		
ft²/Mbh	-89		
Btu/h-ft²	-11.24		

ROOM_Room 01-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 14:00:00					
Outside	DB / WB / HR	85.1	°F /	71.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,866	2,606	0	4,472	53.5
Door	0	0	0	0	0.0
Wall	0	-71	0	-71	-0.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-262	0	-262	-3.1
Exterior Floor	0	-46	0	-46	-0.5
Interior Floor	0	-491	0	-491	-5.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	180	0	166	345	4.1
Envelope Subtotal	2,046	1,735	166	3,946	-
People	371	373	707	1,451	17.4
Lights	489	630	0	1,119	13.4
Miscellaneous Loads	724	405	0	1,129	13.5
Internal Subtotal	1,584	1,408	707	3,699	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	235	0	235	2.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-78	0	-78	-0.9
Grand Total	3,630	3,300	873	7,802	100.0
RA Sensible (Lights)	561	0	0	561	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		85.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-4,143	0	0	-4,143	37.9
Door	0	0	0	0	0.0
Wall	0	-2,894	0	-2,894	26.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	280	0	280	-2.6
Exterior Floor	0	-339	0	-339	3.1
Interior Floor	0	353	0	353	-3.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,275	0	0	-1,280	11.7
Envelope Subtotal	-5,418	-2,600	0	-8,023	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-2,664	0	-2,664	24.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-256	0	-256	2.3
Grand Total	-5,418	-5,521	0	-10,944	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,064
Cooling ACH	10.03
Sec Fan cfm	0
Input Ventilation cfm	60
Calculated Ventilation cfm	72
Calculated Ventilation ACH	0.68
Infiltration cfm	16
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,064
Heating ACH	10.03
Sec Fan cfm	0
Input Ventilation cfm	60
Calculated Ventilation cfm	69
Calculated Ventilation ACH	0.65
Infiltration cfm	16
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	736
Window	65
Door	0
Wall	525
Below-Grade Wall	0
Other Wall	525
Partition	525
Exterior Floor	148
Internal Floor	588
Slab	0
Other Floor	588

Engineering Checks For Cooling

Cooling tons	0.65	No People(max)	3.54
%OA	7	People per 1000 ft²	5
cfm/ft²	1.50	Volume (ft³)	6,365
cfm/ton	1,635		
ft²/ton	1,088		
Btu/h-ft²	11.03		

Engineering Checks For Heating

Heating Mbh	-10.94	No People(max)	3.54
%OA	6	People per 1000 ft²	5
cfm/ft²	1.50	Volume (ft³)	6,365
cfm/Mbh	-97		
ft²/Mbh	-65		
Btu/h-ft²	-15.38		

ROOM_Room 01-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00						
Outside	DB / WB / HR	82.8	°F	/	71.3	°F	/	0.0 gr/lb
Room	DB / RH / HR	74.0	°F	/	63.8	%	/	0.0 gr/lb
Supply Air Dry Bulb Temp		65.0	°F					

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	33	0	33	0.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	921	0	921	23.6
Exterior Floor	0	1	0	1	0.0
Interior Floor	0	-73	0	-73	-1.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	882	0	882	-
People	64	97	151	312	8.0
Lights	391	684	0	1,075	27.6
Miscellaneous Loads	124	93	0	217	5.6
Internal Subtotal	578	874	151	1,604	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	970	0	970	24.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.1
Grand Total	578	2,722	151	3,452	100.0
RA Sensible (Lights)	449	0	0	449	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00						
Outside	DB / WB / HR	4.1	°F	/	2.5	°F	/	0.0 gr/lb
Room	DB / RH / HR	71.0	°F	/	4.1	%	/	0.0 gr/lb
Supply Air Dry Bulb Temp		84.2	°F					

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-290	0	-290	6.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,358	0	-1,358	30.0
Exterior Floor	0	-5	0	-5	0.1
Interior Floor	0	178	0	178	-3.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,474	0	-1,474	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-3,044	0	-3,044	67.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-13	0	-13	0.3
Grand Total	0	-4,531	0	-4,531	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	494
Cooling ACH	5.44
Sec Fan cfm	0
Input Ventilation cfm	36
Calculated Ventilation cfm	34
Calculated Ventilation ACH	0.37
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	494
Heating ACH	5.44
Sec Fan cfm	0
Input Ventilation cfm	36
Calculated Ventilation cfm	32
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	663
Window	0
Door	0
Wall	44
Below-Grade Wall	0
Other Wall	44
Partition	2,033
Exterior Floor	2
Internal Floor	661
Slab	0
Other Floor	661

Engineering Checks For Cooling

Cooling tons	0.29	No People(max)	0.61
%OA	7	People per 1000 ft²	1
cfm/ft²	0.82	Volume (ft³)	5,453
cfm/ton	1,718		
ft²/ton	2,106		
Btu/h-ft²	5.70		

Engineering Checks For Heating

Heating Mbh	-4.53	No People(max)	0.61
%OA	6	People per 1000 ft²	1
cfm/ft²	0.82	Volume (ft³)	5,453
cfm/Mbh	-109		
ft²/Mbh	-134		
Btu/h-ft²	-7.46		

ROOM_Room 01-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00						
Outside	DB / WB / HR	80.2	°F	/	70.6	°F	/	0.0 gr/lb
Room	DB / RH / HR	74.0	°F	/	63.9	%	/	0.0 gr/lb
Supply Air Dry Bulb Temp		65.0	°F					

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	250	0	250	11.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-35	0	-35	-1.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	214	0	214	-
People	43	59	103	205	9.1
Lights	265	414	0	678	30.1
Miscellaneous Loads	84	56	0	140	6.2
Internal Subtotal	392	529	103	1,023	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	715	0	715	31.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	-0.1
Grand Total	392	1,456	103	1,950	100.0
RA Sensible (Lights)	304	0	0	304	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00						
Outside	DB / WB / HR	4.1	°F	/	2.5	°F	/	0.0 gr/lb
Room	DB / RH / HR	71.0	°F	/	4.1	%	/	0.0 gr/lb
Supply Air Dry Bulb Temp		83.9	°F					

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-392	0	-392	16.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	125	0	125	-5.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-267	0	-267	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-2,179	0	-2,179	88.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	0.4
Grand Total	0	-2,455	0	-2,455	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	273
Cooling ACH	4.44
Sec Fan cfm	0
Input Ventilation cfm	25
Calculated Ventilation cfm	19
Calculated Ventilation ACH	0.31
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	273
Heating ACH	4.44
Sec Fan cfm	0
Input Ventilation cfm	25
Calculated Ventilation cfm	18
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	442
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,139
Exterior Floor	0
Internal Floor	442
Slab	0
Other Floor	442

Engineering Checks For Cooling

Cooling tons	0.16	No People(max)	0.41
%OA	7	People per 1000 ft²	1
cfm/ft²	0.67	Volume (ft³)	3,692
cfm/ton	1,682		
ft²/ton	2,524		
Btu/h-ft²	4.75		

Engineering Checks For Heating

Heating Mbh	-2.46	No People(max)	0.41
%OA	6	People per 1000 ft²	1
cfm/ft²	0.67	Volume (ft³)	3,692
cfm/Mbh	-111		
ft²/Mbh	-167		
Btu/h-ft²	-5.99		

ROOM_Room 01-09

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	25	0	25	5.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-5	0	-5	-1.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	20	0	20	-
People	7	13	12	33	6.9
Lights	53	98	0	151	32.1
Miscellaneous Loads	39	31	0	70	15.0
Internal Subtotal	99	142	12	253	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	135	0	135	28.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	-0.1
Grand Total	99	297	12	409	100.0
RA Sensible (Lights)	61	0	0	61	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		82.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-47	0	-47	10.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	17	0	17	-3.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-30	0	-30	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-428	0	-428	93.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	0.5
Grand Total	0	-460	0	-460	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	57
Cooling ACH	4.98
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	57
Heating ACH	4.98
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	86
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	352
Exterior Floor	0
Internal Floor	86
Slab	0
Other Floor	86

Engineering Checks For Cooling

Cooling tons	0.03	No People(max)	0.08
%OA	7	People per 1000 ft²	1
cfm/ft²	0.74	Volume (ft³)	687
cfm/ton	1,671		
ft²/ton	2,245		
Btu/h-ft²	5.35		

Engineering Checks For Heating

Heating Mbh	-0.46	No People(max)	0.08
%OA	6	People per 1000 ft²	1
cfm/ft²	0.74	Volume (ft³)	687
cfm/Mbh	-124		
ft²/Mbh	-166		
Btu/h-ft²	-6.02		

ROOM_Room 01-10

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	130	0	130	27.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	5	0	5	1.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	135	0	135	-
People	0	0	0	0	0.0
Lights	47	86	0	134	28.0
Miscellaneous Loads	28	22	0	50	10.5
Internal Subtotal	75	108	0	184	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	105	0	105	21.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	75	348	0	424	100.0
RA Sensible (Lights)	54	0	0	54	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		84.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-236	0	-236	41.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-10	0	-10	1.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-246	0	-246	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-325	0	-325	56.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.2
Grand Total	0	-572	0	-572	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	64
Cooling ACH	6.24
Sec Fan cfm	0
Input Ventilation cfm	4
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.39
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	64
Heating ACH	6.24
Sec Fan cfm	0
Input Ventilation cfm	4
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.39
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	78
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	347
Exterior Floor	0
Internal Floor	78
Slab	0
Other Floor	78

Engineering Checks For Cooling

Cooling tons	0.04	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	0.93	Volume (ft³)	616
cfm/ton	1,799		
ft²/ton	1,937		
Btu/h-ft²	6.20		

Engineering Checks For Heating

Heating Mbh	-0.57	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	0.93	Volume (ft³)	616
cfm/Mbh	-111		
ft²/Mbh	-120		
Btu/h-ft²	-8.33		

ROOM_Room 01-11

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	48.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	1,293	0	1,293	49.4
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	191	0	191	7.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	103	0	103	3.9
Exterior Floor	0	3	0	3	0.1
Interior Floor	0	12	0	12	0.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	1,603	0	1,603	-
People	122	147	233	503	19.2
Lights	148	208	0	356	13.6
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	270	355	233	859	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-12	0	-12	-0.4
Grand Total	270	1,946	233	2,450	100.0
RA Sensible (Lights)	170	0	0	170	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		111.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-3,556	0	-3,556	77.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-801	0	-801	17.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-271	0	-271	5.9
Exterior Floor	0	-67	0	-67	1.4
Interior Floor	0	129	0	129	-2.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-4,566	0	-4,566	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-43	0	-43	0.9
Grand Total	0	-4,609	0	-4,609	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	188
Cooling ACH	4.03
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	188
Heating ACH	4.03
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	252
Other Roof	252
Ceiling	0
Window	0
Door	0
Wall	126
Below-Grade Wall	0
Other Wall	126
Partition	811
Exterior Floor	29
Internal Floor	223
Slab	0
Other Floor	223

Engineering Checks For Cooling

Cooling tons	0.20	No People(max)	1.16
%OA	0	People per 1000 ft²	5
cfm/ft²	0.81	Volume (ft³)	2,796
cfm/ton	920		
ft²/ton	1,141		
Btu/h-ft²	10.52		

Engineering Checks For Heating

Heating Mbh	-4.61	No People(max)	1.16
%OA	0	People per 1000 ft²	5
cfm/ft²	0.81	Volume (ft³)	2,796
cfm/Mbh	-41		
ft²/Mbh	-51		
Btu/h-ft²	-19.61		

ROOM_Room 01-12

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	289	0	289	70.9
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	124	0	124	30.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-3	0	-3	-0.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	410	0	410	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	-0.6
Grand Total	0	407	0	407	100.0
RA Sensible (Lights)	0	0	0	0	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		93.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-781	0	-781	80.3
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-215	0	-215	22.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	35	0	35	-3.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-961	0	-961	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-11	0	-11	1.1
Grand Total	0	-972	0	-972	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	63
Cooling ACH	6.69
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.42
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	63
Heating ACH	6.69
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	4
Calculated Ventilation ACH	0.42
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	54
Other Roof	54
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	360
Exterior Floor	0
Internal Floor	54
Slab	0
Other Floor	54

Engineering Checks For Cooling

Cooling tons	0.03	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	1.35	Volume (ft³)	565
cfm/ton	1,869		
ft²/ton	1,389		
Btu/h-ft²	8.64		

Engineering Checks For Heating

Heating Mbh	-0.97	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	1.35	Volume (ft³)	565
cfm/Mbh	-65		
ft²/Mbh	-49		
Btu/h-ft²	-20.41		

ROOM_Room 01-13

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	48	0	48	16.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	5	0	5	1.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	53	0	53	-
People	4	7	6	18	6.1
Lights	29	53	0	82	28.5
Miscellaneous Loads	21	17	0	38	13.3
Internal Subtotal	54	78	6	138	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	64	0	64	22.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	-0.1
Grand Total	54	195	6	255	100.0
RA Sensible (Lights)	33	0	0	33	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-106	0	-106	34.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-3	0	-3	1.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-109	0	-109	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-197	0	-197	64.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.2
Grand Total	0	-307	0	-307	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	36
Cooling ACH	5.78
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.32
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	36
Heating ACH	5.78
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.32
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	48
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	252
Exterior Floor	0
Internal Floor	48
Slab	0
Other Floor	48

Engineering Checks For Cooling

Cooling tons	0.02	No People(max)	0.04
%OA	7	People per 1000 ft²	1
cfm/ft²	0.88	Volume (ft³)	374
cfm/ton	1,711		
ft²/ton	1,953		
Btu/h-ft²	6.14		

Engineering Checks For Heating

Heating Mbh	-0.31	No People(max)	0.04
%OA	6	People per 1000 ft²	1
cfm/ft²	0.88	Volume (ft³)	374
cfm/Mbh	-119		
ft²/Mbh	-136		
Btu/h-ft²	-7.35		

ROOM_Room 01-14

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	106	0	106	55.7
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	85	0	85	44.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	191	0	191	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.5
Grand Total	0	190	0	190	100.0
RA Sensible (Lights)	0	0	0	0	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		92.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-282	0	-282	63.7
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-164	0	-164	37.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	8	0	8	-1.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-438	0	-438	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-5	0	-5	1.0
Grand Total	0	-443	0	-443	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	30
Cooling ACH	9.92
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.66
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	30
Heating ACH	9.92
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.66
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	20
Other Roof	20
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	224
Exterior Floor	0
Internal Floor	20
Slab	0
Other Floor	20

Engineering Checks For Cooling

Cooling tons	0.02	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	1.95	Volume (ft³)	182
cfm/ton	1,864		
ft²/ton	958		
Btu/h-ft²	12.53		

Engineering Checks For Heating

Heating Mbh	-0.44	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	1.95	Volume (ft³)	182
cfm/Mbh	-67		
ft²/Mbh	-34		
Btu/h-ft²	-29.41		

ROOM_Room 01-15

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,110	1,734	0	2,844	57.1
Door	0	0	0	0	0.0
Wall	0	-77	0	-77	-1.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-233	0	-233	-4.7
Exterior Floor	0	-41	0	-41	-0.8
Interior Floor	0	-175	0	-175	-3.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	63	0	102	165	3.3
Envelope Subtotal	1,173	1,209	102	2,484	-
People	222	208	423	853	17.1
Lights	292	372	0	664	13.3
Miscellaneous Loads	433	238	0	671	13.5
Internal Subtotal	948	817	423	2,188	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	30	0	30	0.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-55	0	-55	-1.1
Grand Total	2,121	2,000	525	4,646	100.0
RA Sensible (Lights)	336	0	0	336	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		82.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,459	0	0	-1,459	29.8
Door	0	0	0	0	0.0
Wall	0	-998	0	-998	20.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	38	0	38	-0.8
Exterior Floor	0	-128	0	-128	2.6
Interior Floor	0	185	0	185	-3.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-762	0	0	-765	15.6
Envelope Subtotal	-2,222	-903	0	-3,127	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-1,674	0	-1,674	34.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-94	0	-94	1.9
Grand Total	-2,222	-2,671	0	-4,896	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	613
Cooling ACH	9.66
Sec Fan cfm	0
Input Ventilation cfm	36
Calculated Ventilation cfm	42
Calculated Ventilation ACH	0.66
Infiltration cfm	9
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	613
Heating ACH	9.66
Sec Fan cfm	0
Input Ventilation cfm	36
Calculated Ventilation cfm	40
Calculated Ventilation ACH	0.63
Infiltration cfm	10
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	444
Window	24
Door	0
Wall	178
Below-Grade Wall	0
Other Wall	178
Partition	581
Exterior Floor	54
Internal Floor	390
Slab	0
Other Floor	390

Engineering Checks For Cooling

Cooling tons	0.39	No People(max)	2.12
%OA	7	People per 1000 ft²	5
cfm/ft²	1.45	Volume (ft³)	3,808
cfm/ton	1,584		
ft²/ton	1,093		
Btu/h-ft²	10.98		

Engineering Checks For Heating

Heating Mbh	-4.90	No People(max)	2.12
%OA	6	People per 1000 ft²	5
cfm/ft²	1.45	Volume (ft³)	3,808
cfm/Mbh	-125		
ft²/Mbh	-86		
Btu/h-ft²	-11.63		

ROOM_Room 01-16

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	64.5	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	557	995	0	1,552	65.1
Door	0	0	0	0	0.0
Wall	0	-51	0	-51	-2.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-57	0	-57	-2.4
Exterior Floor	0	-28	0	-28	-1.2
Interior Floor	0	-143	0	-143	-6.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	25	0	42	67	2.8
Envelope Subtotal	582	717	42	1,341	-
People	90	100	171	360	15.1
Lights	118	179	0	297	12.5
Miscellaneous Loads	175	114	0	289	12.1
Internal Subtotal	382	394	171	947	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-11	0	-11	-0.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-27	0	-27	-1.1
Grand Total	964	1,073	213	2,250	100.0
RA Sensible (Lights)	135	0	0	135	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		82.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-732	0	0	-732	31.3
Door	0	0	0	0	0.0
Wall	0	-529	0	-529	22.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-33	0	-33	1.4
Exterior Floor	0	-67	0	-67	2.9
Interior Floor	0	59	0	59	-2.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-308	0	0	-309	13.2
Envelope Subtotal	-1,040	-571	0	-1,611	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-681	0	-681	29.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-48	0	-48	2.1
Grand Total	-1,040	-1,300	0	-2,341	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	303
Cooling ACH	11.84
Sec Fan cfm	0
Input Ventilation cfm	15
Calculated Ventilation cfm	21
Calculated Ventilation ACH	0.82
Infiltration cfm	4
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	303
Heating ACH	11.84
Sec Fan cfm	0
Input Ventilation cfm	15
Calculated Ventilation cfm	20
Calculated Ventilation ACH	0.78
Infiltration cfm	4
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	184
Window	12
Door	0
Wall	93
Below-Grade Wall	0
Other Wall	93
Partition	413
Exterior Floor	28
Internal Floor	156
Slab	0
Other Floor	156

Engineering Checks For Cooling

Cooling tons	0.19	No People(max)	0.85
%OA	7	People per 1000 ft²	5
cfm/ft²	1.77	Volume (ft³)	1,536
cfm/ton	1,613		
ft²/ton	910		
Btu/h-ft²	13.19		

Engineering Checks For Heating

Heating Mbh	-2.34	No People(max)	0.85
%OA	6	People per 1000 ft²	5
cfm/ft²	1.77	Volume (ft³)	1,536
cfm/Mbh	-129		
ft²/Mbh	-73		
Btu/h-ft²	-13.70		

ROOM_Room 01-17

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 10:00:00					
Outside	DB / WB / HR	80.4	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	65.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,963	2,867	0	4,829	42.0
Door	0	0	0	0	0.0
Wall	0	-210	0	-210	-1.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-132	0	-132	-1.1
Exterior Floor	0	-59	0	-59	-0.5
Interior Floor	0	-180	0	-180	-1.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	166	0	266	433	3.8
Envelope Subtotal	2,129	2,286	266	4,682	-
People	590	516	1,124	2,230	19.4
Lights	777	946	0	1,723	15.0
Miscellaneous Loads	1,151	607	0	1,757	15.3
Internal Subtotal	2,517	2,069	1,124	5,710	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	300	0	300	2.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-98	0	-98	-0.9
Grand Total	4,646	4,558	1,390	10,594	100.0
RA Sensible (Lights)	892	0	0	892	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		85.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-4,626	0	0	-4,626	32.3
Door	0	0	0	0	0.0
Wall	0	-3,406	0	-3,406	23.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	234	0	234	-1.6
Exterior Floor	0	-251	0	-251	1.8
Interior Floor	0	724	0	724	-5.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-2,026	0	0	-2,034	14.2
Envelope Subtotal	-6,651	-2,699	0	-9,358	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-4,675	0	-4,675	32.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-276	0	-276	1.9
Grand Total	-6,651	-7,650	0	-14,309	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,406
Cooling ACH	8.34
Sec Fan cfm	0
Input Ventilation cfm	96
Calculated Ventilation cfm	96
Calculated Ventilation ACH	0.57
Infiltration cfm	25
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,406
Heating ACH	8.34
Sec Fan cfm	0
Input Ventilation cfm	96
Calculated Ventilation cfm	91
Calculated Ventilation ACH	0.54
Infiltration cfm	25
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,158
Window	77
Door	0
Wall	615
Below-Grade Wall	0
Other Wall	615
Partition	615
Exterior Floor	109
Internal Floor	1,049
Slab	0
Other Floor	1,049

Engineering Checks For Cooling

Cooling tons	0.88	No People(max)	5.62
%OA	7	People per 1000 ft²	5
cfm/ft²	1.25	Volume (ft³)	10,117
cfm/ton	1,592		
ft²/ton	1,273		
Btu/h-ft²	9.43		

Engineering Checks For Heating

Heating Mbh	-14.31	No People(max)	5.62
%OA	6	People per 1000 ft²	5
cfm/ft²	1.25	Volume (ft³)	10,117
cfm/Mbh	-98		
ft²/Mbh	-79		
Btu/h-ft²	-12.66		

ROOM_Room 01-18

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	30	0	30	16.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	3	0	3	1.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	33	0	33	-
People	0	0	0	0	0.0
Lights	19	40	0	59	32.4
Miscellaneous Loads	12	10	0	22	11.8
Internal Subtotal	31	50	0	81	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	48	0	48	26.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	-0.1
Grand Total	31	130	0	161	100.0
RA Sensible (Lights)	22	0	0	22	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-56	0	-56	27.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	4	0	4	-1.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-52	0	-52	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-147	0	-147	73.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.3
Grand Total	0	-200	0	-200	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	23
Cooling ACH	5.46
Sec Fan cfm	0
Input Ventilation cfm	2
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.47
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	23
Heating ACH	5.46
Sec Fan cfm	0
Input Ventilation cfm	2
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.47
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	34
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	211
Exterior Floor	0
Internal Floor	34
Slab	0
Other Floor	34

Engineering Checks For Cooling

Cooling tons	0.01	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	0.83	Volume (ft³)	253
cfm/ton	1,743		
ft²/ton	2,089		
Btu/h-ft²	5.74		

Engineering Checks For Heating

Heating Mbh	-0.20	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	0.83	Volume (ft³)	253
cfm/Mbh	-117		
ft²/Mbh	-141		
Btu/h-ft²	-7.09		

ROOM_Room 01-19

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	63.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	97	0	97	46.3
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	113	0	113	54.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	211	0	211	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.4
Grand Total	0	210	0	210	100.0
RA Sensible (Lights)	0	0	0	0	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		90.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-262	0	-262	58.6
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-190	0	-190	42.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	9	0	9	-2.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-443	0	-443	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	1.0
Grand Total	0	-447	0	-447	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	33
Cooling ACH	12.03
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.73
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	33
Heating ACH	12.03
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	2
Calculated Ventilation ACH	0.73
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	18
Other Roof	18
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	225
Exterior Floor	0
Internal Floor	18
Slab	0
Other Floor	18

Engineering Checks For Cooling

Cooling tons	0.02	No People(max)	0.00
%OA	7	People per 1000 ft²	0
cfm/ft²	2.36	Volume (ft³)	165
cfm/ton	1,860		
ft²/ton	788		
Btu/h-ft²	15.23		

Engineering Checks For Heating

Heating Mbh	-0.45	No People(max)	0.00
%OA	6	People per 1000 ft²	0
cfm/ft²	2.36	Volume (ft³)	165
cfm/Mbh	-73		
ft²/Mbh	-31		
Btu/h-ft²	-32.26		

ROOM_Room 01-21

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	62.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	198	0	198	6.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-135	0	-135	-4.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	63	0	63	-
People	54	79	85	218	7.0
Lights	380	587	0	967	31.2
Miscellaneous Loads	281	189	0	470	15.2
Internal Subtotal	715	855	85	1,655	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	945	0	945	30.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.1
Grand Total	715	1,859	85	2,659	100.0
RA Sensible (Lights)	436	0	0	436	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		82.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-192	0	-192	6.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	255	0	255	-8.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	63	0	63	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-2,979	0	-2,979	101.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-12	0	-12	0.4
Grand Total	0	-2,928	0	-2,928	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	724
Cooling ACH	8.78
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	51
Calculated Ventilation ACH	0.62
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	724
Heating ACH	8.78
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	51
Calculated Ventilation ACH	0.62
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	573
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	871
Exterior Floor	0
Internal Floor	573
Slab	0
Other Floor	573

Engineering Checks For Cooling

Cooling tons	0.22	No People(max)	0.55
%OA	7	People per 1000 ft²	1
cfm/ft²	1.32	Volume (ft³)	4,946
cfm/ton	3,264		
ft²/ton	2,480		
Btu/h-ft²	4.84		

Engineering Checks For Heating

Heating Mbh	-2.93	No People(max)	0.55
%OA	7	People per 1000 ft²	1
cfm/ft²	1.32	Volume (ft³)	4,946
cfm/Mbh	-247		
ft²/Mbh	-188		
Btu/h-ft²	-5.32		

ROOM_Room B1-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 15:00:00					
Outside	DB / WB / HR	87.0	°F /	72.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	60.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		48.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	2,286	0	2,286	4.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	378	0	378	0.7
Other Wall	0	0	0	0	0.0
Partition	0	583	0	583	1.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	635	0	635	1.1
Other Floor	0	0	0	0	0.0
Infiltration	15,470	0	17,104	32,575	58.7
Envelope Subtotal	15,470	3,882	17104	36,456	-
People	525	274	1,000	1,799	3.2
Lights	0	1,256	0	1,256	2.3
Miscellaneous Loads	3,181	1,015	0	4,196	7.6
Internal Subtotal	3,706	2,546	1,000	7,252	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	2,669	0	2,669	4.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-214	0	-214	-0.4
Grand Total	19,176	8,883	18,104	46,163	100.0
RA Sensible (Lights)	9,304	0	0	9,304	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	3.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		130.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-17,030	0	-17,030	15.4
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	296	0	296	-0.3
Other Wall	0	0	0	0	0.0
Partition	0	250	0	250	-0.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	1,151	0	1,151	-1.0
Other Floor	0	0	0	0	0.0
Infiltration	-93,225	0	0	-93,446	84.6
Envelope Subtotal	-93,225	-15,333	0	-108,779	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-1,452	0	-1,452	1.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-272	0	-272	0.2
Grand Total	-93,225	-17,057	0	-110,503	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,773
Cooling ACH	1.14
Sec Fan cfm	0
Input Ventilation cfm	516
Calculated Ventilation cfm	516
Calculated Ventilation ACH	0.33
Infiltration cfm	1,165
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,773
Heating ACH	1.14
Sec Fan cfm	0
Input Ventilation cfm	516
Calculated Ventilation cfm	516
Calculated Ventilation ACH	0.33
Infiltration cfm	1,163
Min Stop/RH (%)	100

Areas ft²	
Roof	1,222
Other Roof	1,222
Ceiling	6,643
Window	0
Door	0
Wall	0
Below-Grade Wall	3,832
Other Wall	0
Partition	777
Exterior Floor	0
Internal Floor	0
Slab	7,865
Other Floor	0

Engineering Checks For Cooling

Cooling tons	3.85	No People(max)	5.00
%OA	29	People per 1000 ft²	1
cfm/ft²	0.23	Volume (ft³)	93,226
cfm/ton	461		
ft²/ton	2,020		
Btu/h-ft²	5.94		

Engineering Checks For Heating

Heating Mbh	-110.50	No People(max)	5.00
%OA	29	People per 1000 ft²	1
cfm/ft²	0.23	Volume (ft³)	93,226
cfm/Mbh	-16		
ft²/Mbh	-70		
Btu/h-ft²	-14.29		

ROOM_Room B1-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		6/21 20:00:00					
Outside	DB / WB / HR	76.1	°F /	67.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	49.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		56.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	12	0	12	1.0
Other Wall	0	0	0	0	0.0
Partition	0	124	0	124	9.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	11	0	11	0.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	148	0	148	-
People	0	0	0	0	0.0
Lights	243	267	0	510	40.5
Miscellaneous Loads	144	68	0	212	16.8
Internal Subtotal	387	335	0	722	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	110	0	110	8.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	387	593	0	980	100.0
RA Sensible (Lights)	279	0	0	279	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-89	0	-89	29.5
Other Wall	0	0	0	0	0.0
Partition	0	-102	0	-102	33.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-114	0	-114	37.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-306	0	-306	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	3	0	3	-0.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-303	0	-303	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	21
Cooling ACH	0.30
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	21
Heating ACH	0.30
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	372
Window	0
Door	0
Wall	0
Below-Grade Wall	121
Other Wall	0
Partition	865
Exterior Floor	0
Internal Floor	0
Slab	372
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.08	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.06	Volume (ft³)	4,219
cfm/ton	258		
ft²/ton	4,307		
Btu/h-ft²	2.79		

Engineering Checks For Heating

Heating Mbh	-0.30	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.06	Volume (ft³)	4,219
cfm/Mbh	-70		
ft²/Mbh	-1,159		
Btu/h-ft²	-0.86		

ROOM_Room B1-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 18:00:00					
Outside	DB / WB / HR	75.8	°F /	66.2	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	44.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	16	0	16	1.8
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	19	0	19	2.2
Other Wall	0	0	0	0	0.0
Partition	0	57	0	57	6.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	14	0	14	1.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	106	0	106	-
People	0	0	0	0	0.0
Lights	87	74	0	162	18.0
Miscellaneous Loads	231	84	0	315	35.1
Internal Subtotal	318	159	0	477	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	216	0	216	24.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.1
Grand Total	318	481	0	799	100.0
RA Sensible (Lights)	100	0	0	100	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		81.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-30	0	-30	6.7
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-177	0	-177	40.1
Other Wall	0	0	0	0	0.0
Partition	0	22	0	22	-5.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-40	0	-40	9.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-225	0	-225	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-217	0	-217	49.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.2
Grand Total	0	-442	0	-442	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	18
Cooling ACH	0.40
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	18
Heating ACH	0.40
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	2
Other Roof	2
Ceiling	239
Window	0
Door	0
Wall	0
Below-Grade Wall	386
Other Wall	0
Partition	386
Exterior Floor	0
Internal Floor	0
Slab	242
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.07	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.08	Volume (ft³)	2,709
cfm/ton	265		
ft²/ton	3,390		
Btu/h-ft²	3.54		

Engineering Checks For Heating

Heating Mbh	-0.44	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.08	Volume (ft³)	2,709
cfm/Mbh	-40		
ft²/Mbh	-510		
Btu/h-ft²	-1.96		

ROOM_Room B1-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 15:00:00					
Outside	DB / WB / HR	87.0	°F /	72.5	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		54.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-15	0	-15	-1.0
Other Wall	0	0	0	0	0.0
Partition	0	442	0	442	29.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	6	0	6	0.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	433	0	433	-
People	114	103	217	434	29.0
Lights	138	162	0	299	20.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	252	265	217	733	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	176	0	176	11.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-6	0	-6	-0.4
Grand Total	252	867	217	1,336	100.0
RA Sensible (Lights)	158	0	0	158	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		77.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-79	0	-79	23.4
Other Wall	0	0	0	0	0.0
Partition	0	-13	0	-13	3.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-58	0	-58	17.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-150	0	-150	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-189	0	-189	55.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-339	0	-339	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	14
Cooling ACH	0.32
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	14
Heating ACH	0.32
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	235
Window	0
Door	0
Wall	0
Below-Grade Wall	127
Other Wall	0
Partition	761
Exterior Floor	0
Internal Floor	0
Slab	235
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.11	No People(max)	1.08
%OA	0	People per 1000 ft²	5
cfm/ft²	0.06	Volume (ft³)	2,602
cfm/ton	122		
ft²/ton	1,948		
Btu/h-ft²	6.16		

Engineering Checks For Heating

Heating Mbh	-0.34	No People(max)	1.08
%OA	0	People per 1000 ft²	5
cfm/ft²	0.06	Volume (ft³)	2,602
cfm/Mbh	-40		
ft²/Mbh	-640		
Btu/h-ft²	-1.56		

ROOM_Room B1-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		6/21 20:00:00					
Outside	DB / WB / HR	76.1	°F /	67.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	49.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		57.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-12	0	-12	-0.7
Other Wall	0	0	0	0	0.0
Partition	0	712	0	712	43.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	6	0	6	0.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	707	0	707	-
People	0	0	0	0	0.0
Lights	193	225	0	418	25.6
Miscellaneous Loads	114	57	0	171	10.5
Internal Subtotal	307	282	0	589	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	122	0	122	7.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-6	0	-6	-0.3
Grand Total	307	1,105	0	1,412	100.0
RA Sensible (Lights)	221	0	0	221	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-147	0	-147	31.4
Other Wall	0	0	0	0	0.0
Partition	0	-83	0	-83	17.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-63	0	-63	13.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-292	0	-292	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-176	0	-176	37.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-469	0	-469	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	19
Cooling ACH	0.34
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	19
Heating ACH	0.34
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	300
Window	0
Door	0
Wall	0
Below-Grade Wall	267
Other Wall	0
Partition	745
Exterior Floor	0
Internal Floor	0
Slab	300
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.12	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.07	Volume (ft³)	3,350
cfm/ton	160		
ft²/ton	2,373		
Btu/h-ft²	5.06		

Engineering Checks For Heating

Heating Mbh	-0.47	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.07	Volume (ft³)	3,350
cfm/Mbh	-40		
ft²/Mbh	-596		
Btu/h-ft²	-1.68		

ROOM_Room B1-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		6/21 20:00:00					
Outside	DB / WB / HR	76.1	°F /	67.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	44.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-5,381	0	-5,381	-39.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-416	0	-416	-3.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-5,797	0	-5,797	-
People	6	11	14	32	0.2
Lights	34	73	0	107	0.8
Miscellaneous Loads	8,145	11,316	0	19,462	143.5
Internal Subtotal	8,185	11,401	14	19,600	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-275	0	-275	-2.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	8,185	5,328	14	13,528	100.0
RA Sensible (Lights)	39	0	0	39	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-46	0	-46	55.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-21	0	-21	25.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-67	0	-67	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-15	0	-15	18.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-83	0	-83	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	3
Cooling ACH	0.26
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	3
Heating ACH	0.26
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	65
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	397
Exterior Floor	0
Internal Floor	0
Slab	65
Other Floor	0

Engineering Checks For Cooling

Cooling tons	1.13	No People(max)	0.06
%OA	0	People per 1000 ft²	1
cfm/ft²	0.06	Volume (ft³)	687
cfm/ton	3		
ft²/ton	51		
Btu/h-ft²	235.29		

Engineering Checks For Heating

Heating Mbh	-0.08	No People(max)	0.06
%OA	0	People per 1000 ft²	1
cfm/ft²	0.06	Volume (ft³)	687
cfm/Mbh	-40		
ft²/Mbh	-691		
Btu/h-ft²	-1.45		

ROOM_Room B1-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 18:00:00					
Outside	DB / WB / HR	75.8	°F /	66.2	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	44.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	44	0	44	1.9
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	30	0	30	1.3
Other Wall	0	0	0	0	0.0
Partition	0	101	0	101	4.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	44	0	44	1.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	219	0	219	-
People	0	0	0	0	0.0
Lights	249	223	0	472	20.5
Miscellaneous Loads	658	253	0	911	39.7
Internal Subtotal	906	476	0	1,383	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	411	0	411	17.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	906	1,105	0	2,011	100.0
RA Sensible (Lights)	285	0	0	285	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		78.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-83	0	-83	10.6
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-203	0	-203	26.0
Other Wall	0	0	0	0	0.0
Partition	0	18	0	18	-2.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-140	0	-140	17.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-408	0	-408	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-372	0	-372	47.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	0.2
Grand Total	0	-782	0	-782	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	31
Cooling ACH	0.24
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	31
Heating ACH	0.24
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	6
Other Roof	6
Ceiling	664
Window	0
Door	0
Wall	0
Below-Grade Wall	370
Other Wall	0
Partition	964
Exterior Floor	0
Internal Floor	0
Slab	670
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.17	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.05	Volume (ft³)	7,711
cfm/ton	187		
ft²/ton	3,834		
Btu/h-ft²	3.13		

Engineering Checks For Heating

Heating Mbh	-0.78	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.05	Volume (ft³)	7,711
cfm/Mbh	-40		
ft²/Mbh	-822		
Btu/h-ft²	-1.22		

ROOM_Room B1-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 18:00:00					
Outside	DB / WB / HR	75.8	°F /	66.2	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	44.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	12	0	12	1.7
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	20	0	20	2.8
Other Wall	0	0	0	0	0.0
Partition	0	43	0	43	6.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	11	0	11	1.5
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	85	0	85	-
People	0	0	0	0	0.0
Lights	71	61	0	132	19.1
Miscellaneous Loads	189	69	0	258	37.2
Internal Subtotal	260	130	0	390	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	136	0	136	19.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	260	350	0	610	100.0
RA Sensible (Lights)	82	0	0	82	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		82.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-28	0	-28	8.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-191	0	-191	54.6
Other Wall	0	0	0	0	0.0
Partition	0	15	0	15	-4.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-39	0	-39	11.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-244	0	-244	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-105	0	-105	30.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.2
Grand Total	0	-350	0	-350	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	14
Cooling ACH	0.38
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	14
Heating ACH	0.38
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	2
Other Roof	2
Ceiling	197
Window	0
Door	0
Wall	0
Below-Grade Wall	361
Other Wall	0
Partition	361
Exterior Floor	0
Internal Floor	0
Slab	199
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.05	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.08	Volume (ft³)	2,212
cfm/ton	275		
ft²/ton	3,629		
Btu/h-ft²	3.31		

Engineering Checks For Heating

Heating Mbh	-0.35	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.08	Volume (ft³)	2,212
cfm/Mbh	-40		
ft²/Mbh	-527		
Btu/h-ft²	-1.90		

ROOM_Room B1-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 20:00:00					
Outside	DB / WB / HR	76.6	°F /	69.4	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	46.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	1	0	1	0.7
Other Wall	0	0	0	0	0.0
Partition	0	30	0	30	15.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	0	0	0	0.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	32	0	32	-
People	4	5	7	16	8.0
Lights	29	36	0	66	33.6
Miscellaneous Loads	22	12	0	33	17.0
Internal Subtotal	55	53	7	114	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	16	0	16	8.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	55	100	7	162	100.0
RA Sensible (Lights)	34	0	0	34	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	-92	0	-92	90.9
Other Wall	0	0	0	0	0.0
Partition	0	3	0	3	-3.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-14	0	-14	13.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-102	0	-102	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	1	0	1	-1.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-101	0	-101	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	4
Cooling ACH	0.47
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	4
Heating ACH	0.47
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	50
Window	0
Door	0
Wall	0
Below-Grade Wall	127
Other Wall	0
Partition	240
Exterior Floor	0
Internal Floor	0
Slab	50
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.01	No People(max)	0.04
%OA	0	People per 1000 ft²	1
cfm/ft²	0.09	Volume (ft³)	510
cfm/ton	299		
ft²/ton	3,148		
Btu/h-ft²	3.81		

Engineering Checks For Heating

Heating Mbh	-0.10	No People(max)	0.04
%OA	0	People per 1000 ft²	1
cfm/ft²	0.09	Volume (ft³)	510
cfm/Mbh	-40		
ft²/Mbh	-420		
Btu/h-ft²	-2.38		

ROOM_Room B1-09

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		6/21 20:00:00					
Outside	DB / WB / HR	76.1	°F /	67.9	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		56.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	604	0	604	65.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-4	0	-4	-0.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	600	0	600	-
People	11	17	27	55	5.9
Lights	69	115	0	184	20.0
Miscellaneous Loads	22	16	0	38	4.1
Internal Subtotal	103	147	27	277	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-30	0	-30	-3.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-6	0	-6	-0.6
Grand Total	103	712	27	842	100.0
RA Sensible (Lights)	80	0	0	80	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-63	0	-63	53.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-42	0	-42	35.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-105	0	-105	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-14	0	-14	11.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-118	0	-118	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	6
Cooling ACH	0.28
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	6
Heating ACH	0.28
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	121
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	637
Exterior Floor	0
Internal Floor	0
Slab	121
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.07	No People(max)	0.11
%OA	0	People per 1000 ft²	1
cfm/ft²	0.06	Volume (ft³)	1,291
cfm/ton	92		
ft²/ton	1,534		
Btu/h-ft²	7.82		

Engineering Checks For Heating

Heating Mbh	-0.12	No People(max)	0.11
%OA	0	People per 1000 ft²	1
cfm/ft²	0.06	Volume (ft³)	1,291
cfm/Mbh	-54		
ft²/Mbh	-908		
Btu/h-ft²	-1.10		

ROOM_Room 01-20

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	74.0	°F /	65.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		65.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-14	0	-14	-0.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-67	0	-67	-3.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-81	0	-81	-
People	118	171	225	515	28.9
Lights	156	260	0	416	23.3
Miscellaneous Loads	230	165	0	396	22.2
Internal Subtotal	504	597	225	1,326	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	362	0	362	20.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	-0.1
Grand Total	504	875	225	1,605	100.0
RA Sensible (Lights)	179	0	0	179	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	71.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		80.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-94	0	-94	7.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	81	0	81	-6.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-13	0	-13	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-1,181	0	-1,181	98.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-5	0	-5	0.4
Grand Total	0	-1,199	0	-1,199	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	191
Cooling ACH	5.66
Sec Fan cfm	0
Input Ventilation cfm	19
Calculated Ventilation cfm	13
Calculated Ventilation ACH	0.38
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	191
Heating ACH	5.66
Sec Fan cfm	0
Input Ventilation cfm	19
Calculated Ventilation cfm	12
Calculated Ventilation ACH	0.36
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	241
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	582
Exterior Floor	0
Internal Floor	241
Slab	0
Other Floor	241

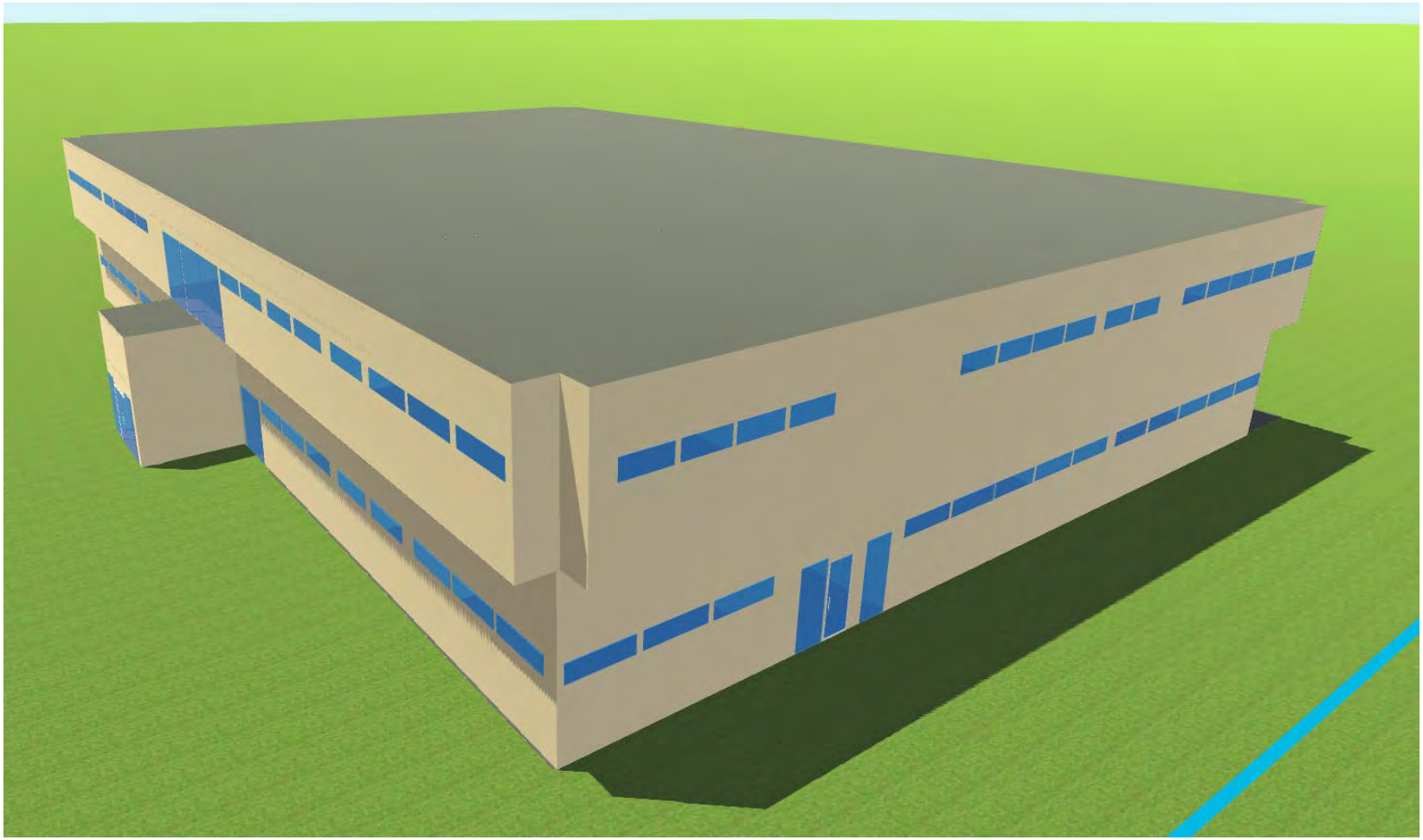
Engineering Checks For Cooling

Cooling tons	0.13	No People(max)	1.13
%OA	7	People per 1000 ft²	5
cfm/ft²	0.85	Volume (ft³)	2,026
cfm/ton	1,428		
ft²/ton	1,683		
Btu/h-ft²	7.13		

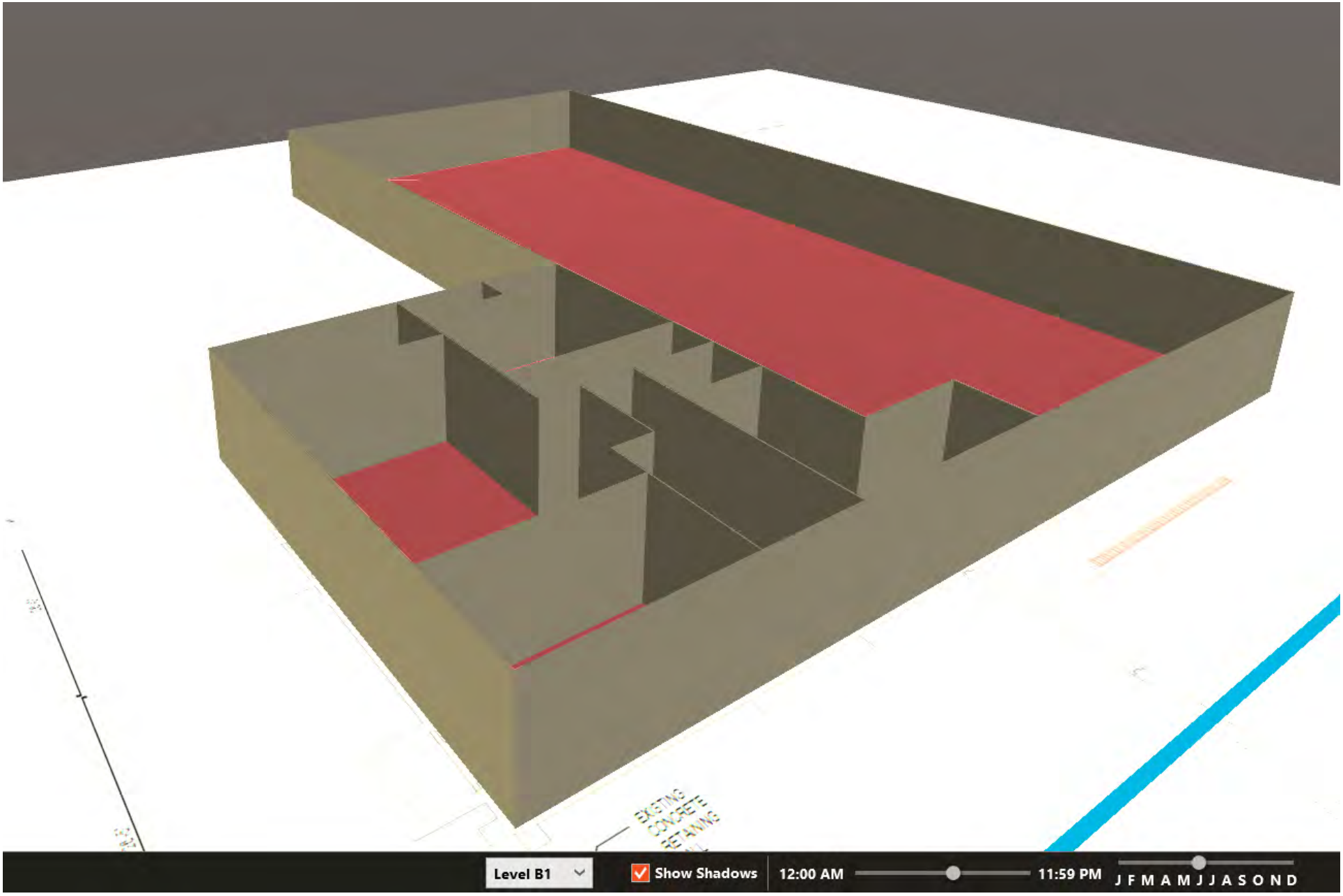
Engineering Checks For Heating

Heating Mbh	-1.20	No People(max)	1.13
%OA	6	People per 1000 ft²	5
cfm/ft²	0.85	Volume (ft³)	2,026
cfm/Mbh	-159		
ft²/Mbh	-188		
Btu/h-ft²	-5.32		

Energy Model Renderings



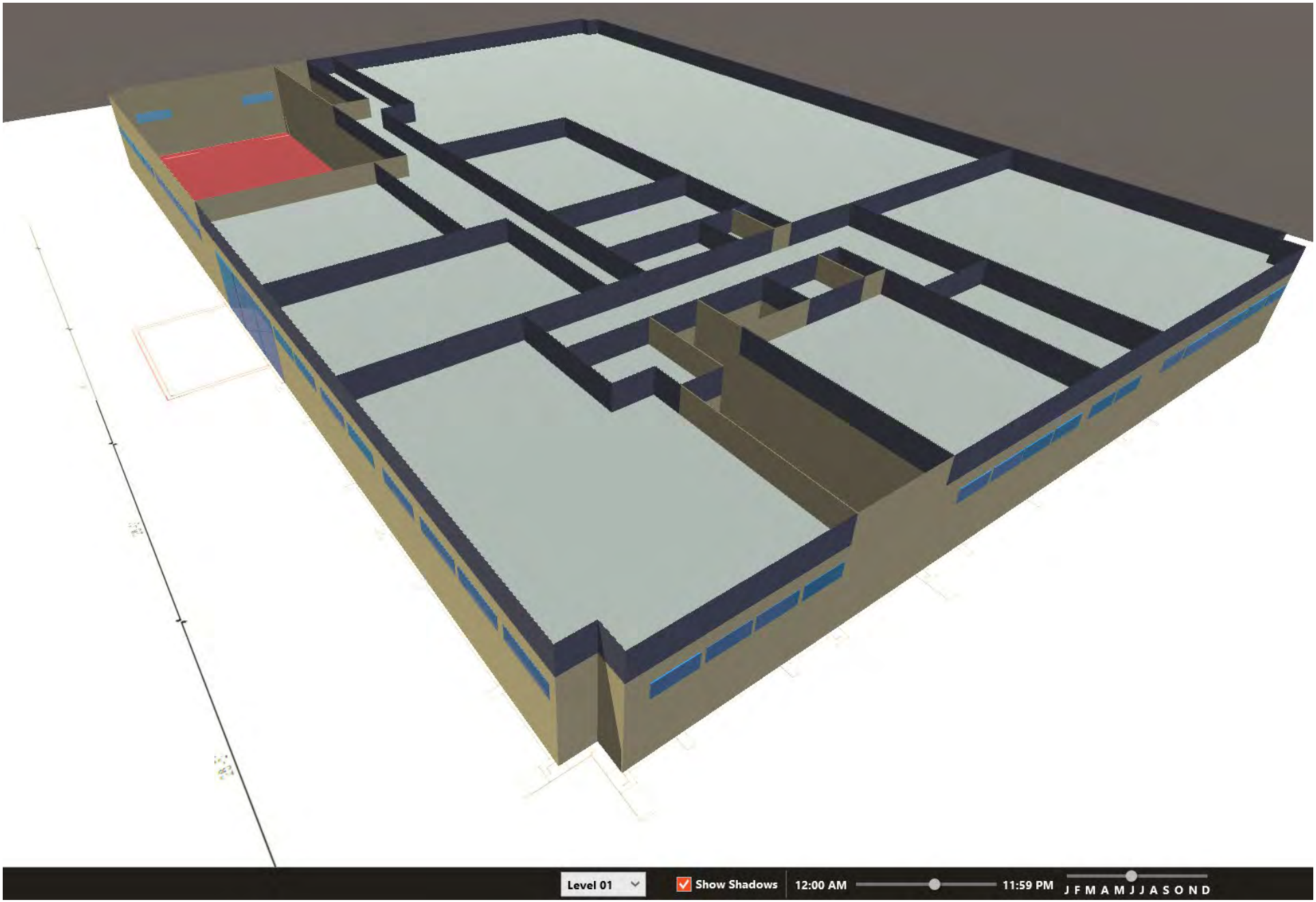
Energy Model Renderings



Energy Model Renderings



Energy Model Renderings



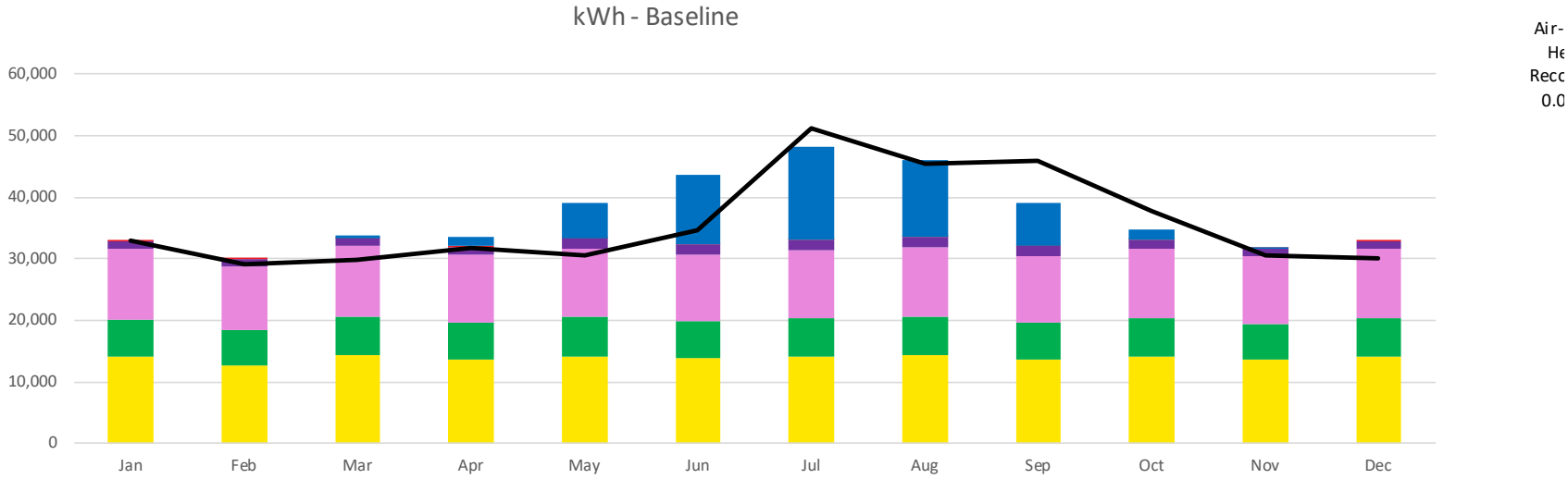
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g. Energy Methodology

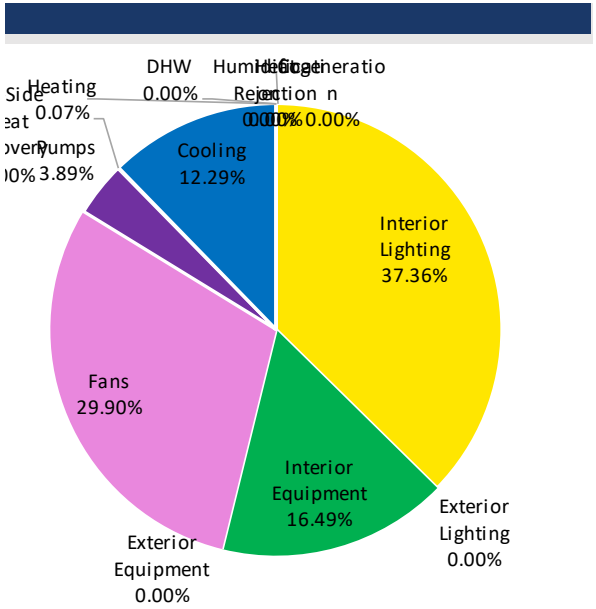
District 1 & 4 Model Calibration

Electric Consumption Data (kWh)



kWh	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	T
Interior Lighting	14,061	12,761	14,239	13,661	14,180	13,766	14,075	14,239	13,661	14,120	13,588	14,075	166,426
Exterior Lighting	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior Equipment	6,121	5,626	6,401	6,014	6,307	6,174	6,148	6,401	6,014	6,214	5,894	6,148	73,462
Exterior Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Fans	11,510	10,387	11,387	10,921	11,206	10,829	11,190	11,190	10,836	11,260	11,001	11,480	133,197
Pumps	1,175	1,061	1,259	1,386	1,702	1,670	1,726	1,726	1,667	1,562	1,231	1,175	17,340
Heating	64	58	43	24	9	3	2	3	6	19	35	57	323
Cooling	-	-	523	1,553	5,563	11,150	14,948	12,538	6,815	1,489	187	-	54,766
Heat Rejection	-	-	-	-	-	-	-	-	-	-	-	-	-
Humidification	-	-	-	-	-	-	-	-	-	-	-	-	-
Air-Side Heat Recovery	-	-	-	-	-	-	-	-	-	-	-	-	-
DHW	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogeneration	-	-	-	-	-	-	-	-	-	-	-	-	-
Modeled Baseline	**32,931**	**29,893**	**33,852**	**33,559**	**38,967**	**43,592**	**48,089**	**46,097**	**38,999**	**34,664**	**31,936**	**32,935**	**445,514**
Utility Baseline	32,838	29,166	29,735	31,654	30,533	34,735	51,320	45,333	45,902	37,764	30,611	30,138	**429,729**
% Diff.	0.3%	2.5%	13.8%	6.0%	27.6%	25.5%	-6.3%	1.7%	-15.0%	-8.2%	4.3%	9.3%	**3.7%**

g. Energy Methodology

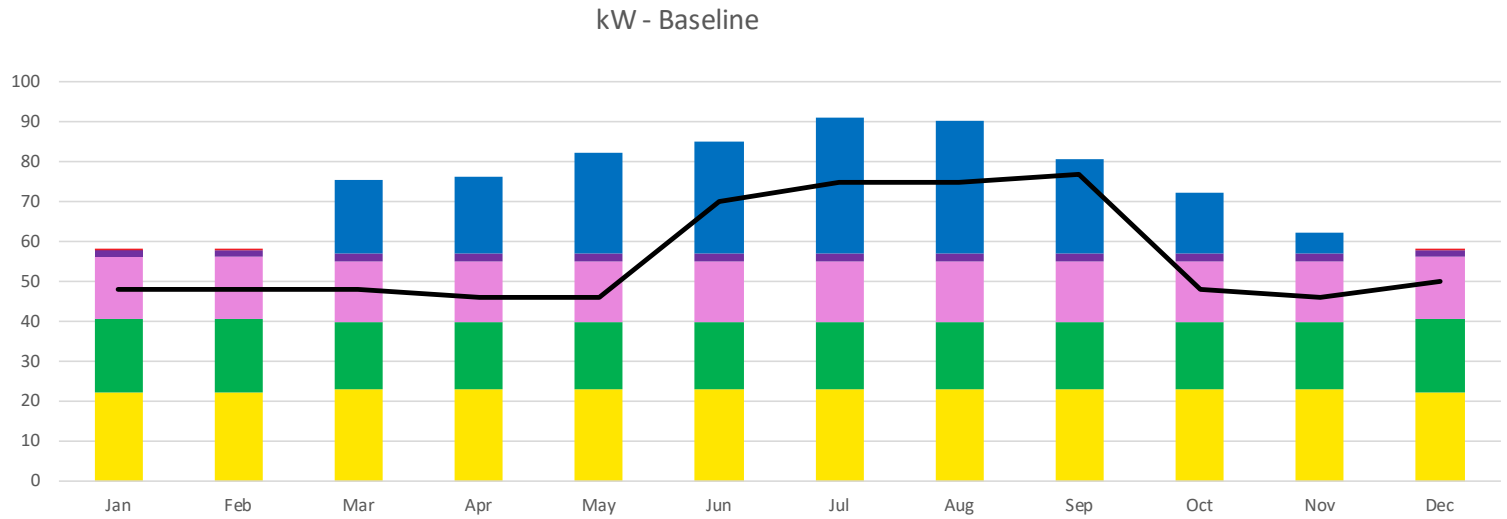


	Avg Hours	Max Hours	Load Factor
Int Lighting	7,307	7,236	82.6%
Ext Lighting	0	0	0.0%
Int Equipment	4,222	3,950	45.1%
Ext Equipment	0	0	0.0%
Fans	8,797	8,538	97.5%
Pumps	8,160	7,539	86.1%
Heating	12,920	3,230	36.9%
Cooling	3,274	1,620	18.5%
Heat Rejection	0	0	0.0%
Humidification	0	0	0.0%
Heat Recovery	0	0	0.0%
DHW	0	0	0.0%
Cogeneration	0	0	0.0%
Modeled Baseline	**6,005**	**4,890**	**55.8%**
Utility Baseline	7,617	5,581	63.7%
	-21.2%	**-12.4%**	**-12.4%**

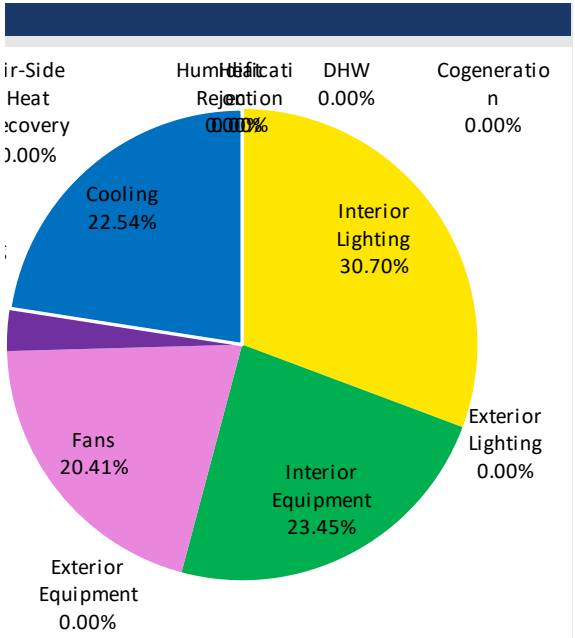
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g. Energy Methodology

Electric Demand Data (kW)



kW	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	T
Interior Lighting	22	22	23	23	23	23	23	23	23	23	23	22	273
Exterior Lighting	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior Equipment	19	19	17	17	17	17	17	17	17	17	17	19	209
Exterior Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Fans	16	16	15	15	15	15	15	15	15	15	15	16	182
Pumps	2	2	2	2	2	2	2	2	2	2	2	2	26
Heating	0	0	-	-	-	-	-	-	-	-	-	0	0
Cooling	-	-	18	19	25	28	34	33	23	15	5	-	201
Heat Rejection	-	-	-	-	-	-	-	-	-	-	-	-	-
Humidification	-	-	-	-	-	-	-	-	-	-	-	-	-
Air-Side Heat Recovery	-	-	-	-	-	-	-	-	-	-	-	-	-
DHW	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogeneration	-	-	-	-	-	-	-	-	-	-	-	-	-
Modeled Baseline	**58**	**58**	**76**	**76**	**82**	**85**	**91**	**90**	**81**	**73**	**62**	**58**	**890**
Utility Baseline	48	48	48	46	46	70	75	75	77	48	46	50	**677**
% Diff.	20.8%	20.8%	57.7%	66.1%	79.1%	21.4%	21.5%	20.4%	4.7%	51.0%	35.7%	15.8%	**31.5%**

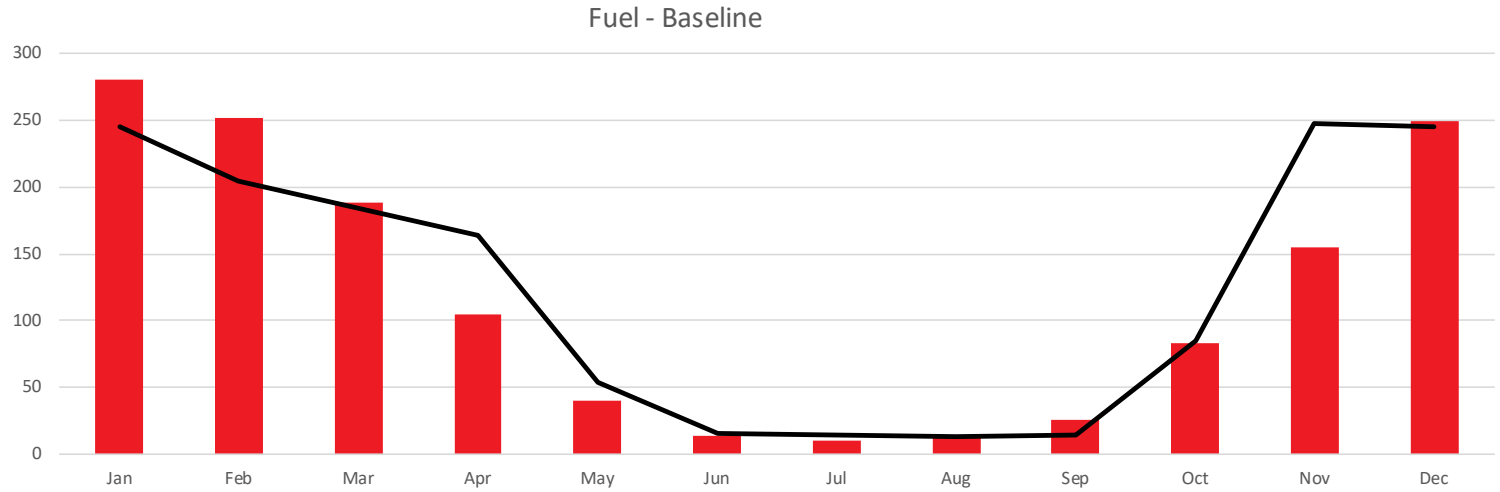


	Average	Max
Int Lighting	23	23
Ext Lighting	0	0
Int Equipment	17	19
Ext Equipment	0	0
Fans	15	16
Pumps	2	2
Heating	0	0
Cooling	17	34
Heat Rejection	0	0
Humidification	0	0
Heat Recovery	0	0
DHW	0	0
Cogeneration	0	0
lodeled Baseline	**74**	**91**
Utility Baseline	56	77
	31.5%	**18.3%**

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g. Energy Methodology

Fuel Consumption Data (MCF)



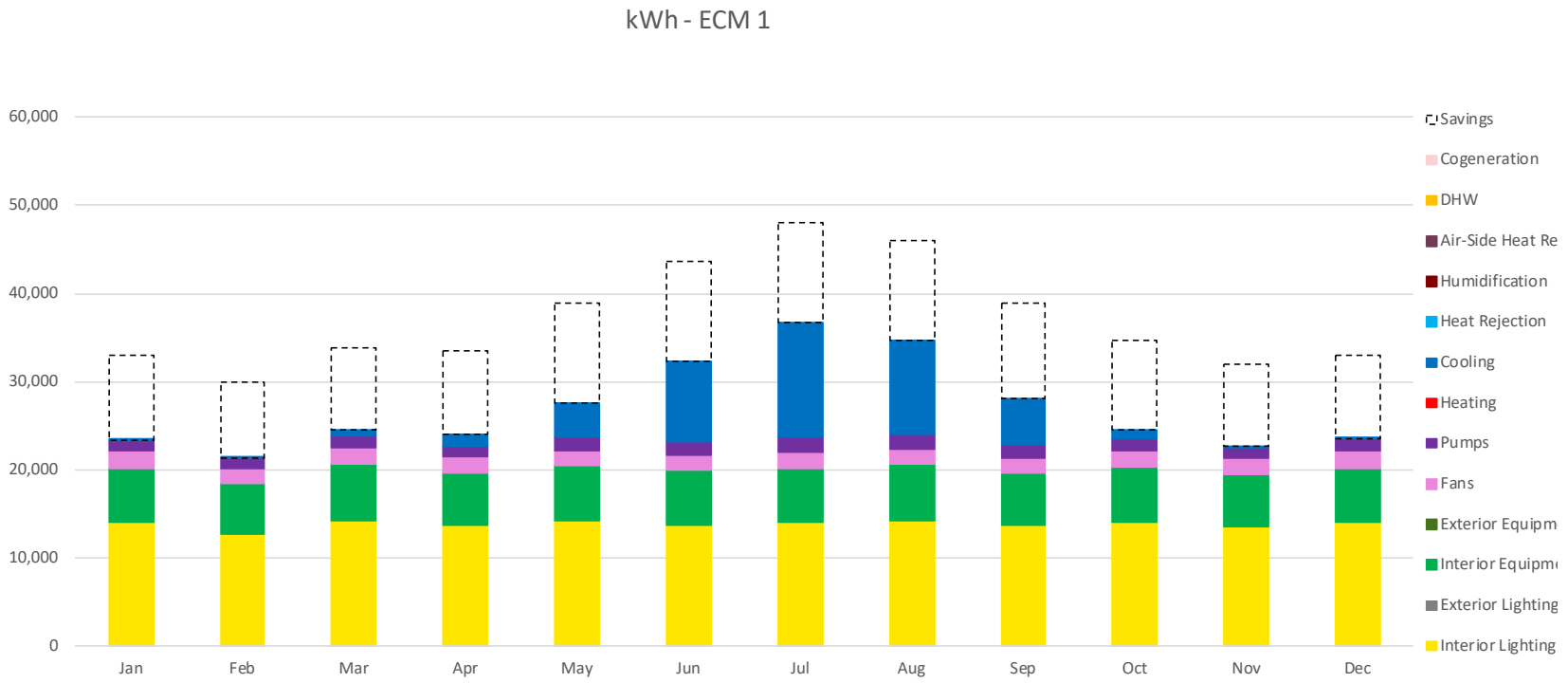
MCF	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	T
Heating	280	252	189	105	40	14	11	13	26	84	155	249	1,418
DHW	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Cooling	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogeneration	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Process Load	-	-	-	-	-	-	-	-	-	-	-	-	-
Modeled Baseline	**280**	**252**	**189**	**105**	**40**	**14**	**11**	**13**	**26**	**84**	**155**	**249**	**1,418**
Utility Baseline	245	204	184	164	54	16	14	13	14	85	247	245	**1,485**
% Diff.	14.5%	23.6%	2.6%	-36.0%	-26.3%	-13.0%	-24.4%	1.1%	84.9%	-1.7%	-37.1%	1.8%	**-4.5%**

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g. Energy Methodology

Energy Savings – Post HVAC and BAS Installation

Electric Consumption Data (kWh)



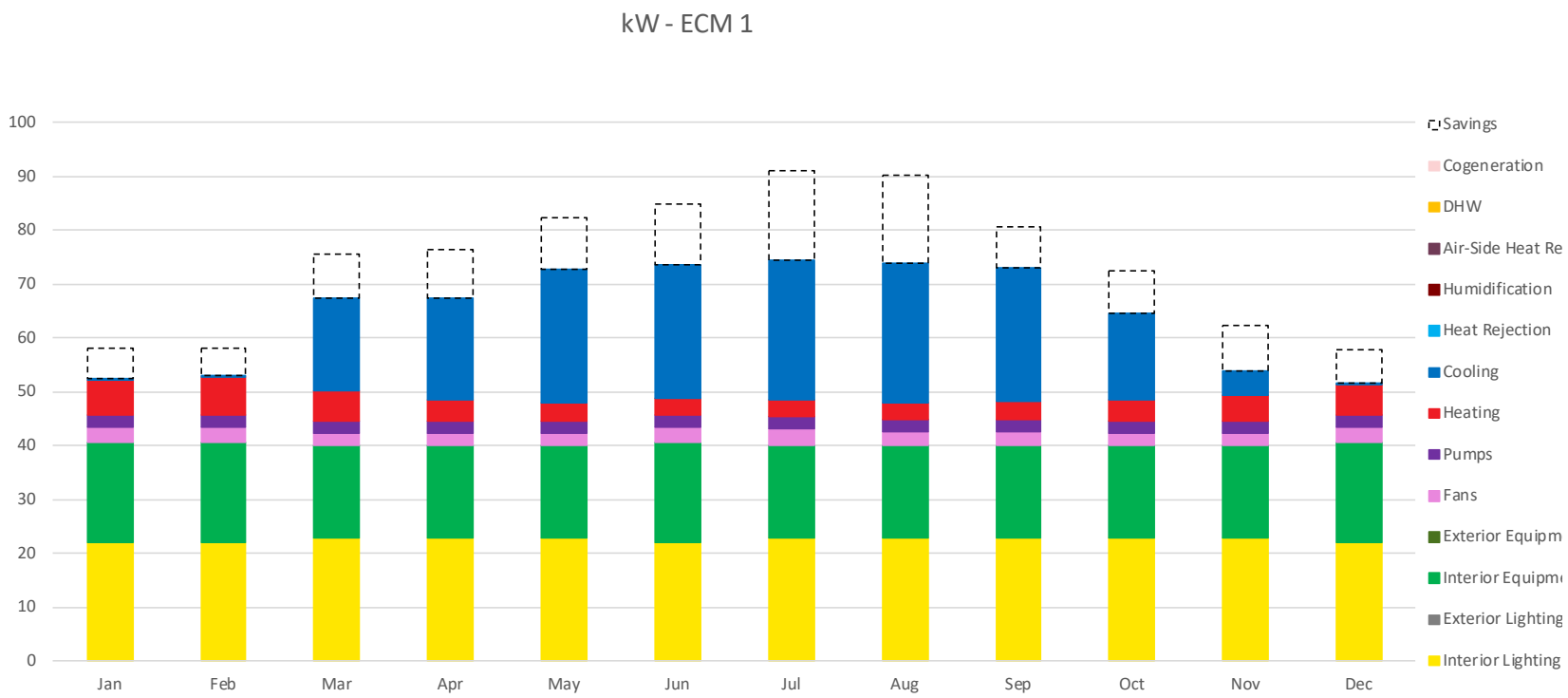
kWh	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	T
Previous Run	32,931	29,893	33,852	33,559	38,967	43,592	48,089	46,097	38,999	34,664	31,936	32,935	445,514
Current Run	23,441	21,313	24,498	23,982	27,623	32,376	36,798	34,732	28,174	24,485	22,671	23,604	323,697
Unit Savings	*9,490*	*8,580*	*9,354*	*9,577*	*11,344*	*11,216*	*11,291*	*11,365*	*10,825*	*10,179*	*9,265*	*9,331*	***121,817***
% Savings	*9,463*	*8,371*	*8,216*	*9,033*	*8,889*	*8,937*	*12,050*	*11,177*	*12,741*	*11,089*	*8,881*	*8,539*	***117,386***
Minimum Savings	***9,463***	***8,371***	***8,216***	***9,033***	***8,889***	***8,937***	***11,291***	***11,177***	***10,825***	***10,179***	***8,881***	***8,539***	***113,801***
% Diff.	*28.7%*	*28.0%*	*24.3%*	*26.9%*	*22.8%*	*20.5%*	*23.5%*	*24.2%*	*27.8%*	*29.4%*	*27.8%*	*25.9%*	***25.5%***


kWh Savings By End-Use
12,000
10,000
8,000
6,000
4,000
2,000
0
-2,000
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
% Savings By End-Use
17%
84%
100%
4%
Air-Side Heat Recovery
Cogeneration
Cooling
Exterior Equipment
Exterior Lights
Fans
Heat Rejection
Heating
Humidification
Interior Equipment
Interior Lights
Pumps
Water Systems

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g. Energy Methodology

Electric Demand Data (kW)



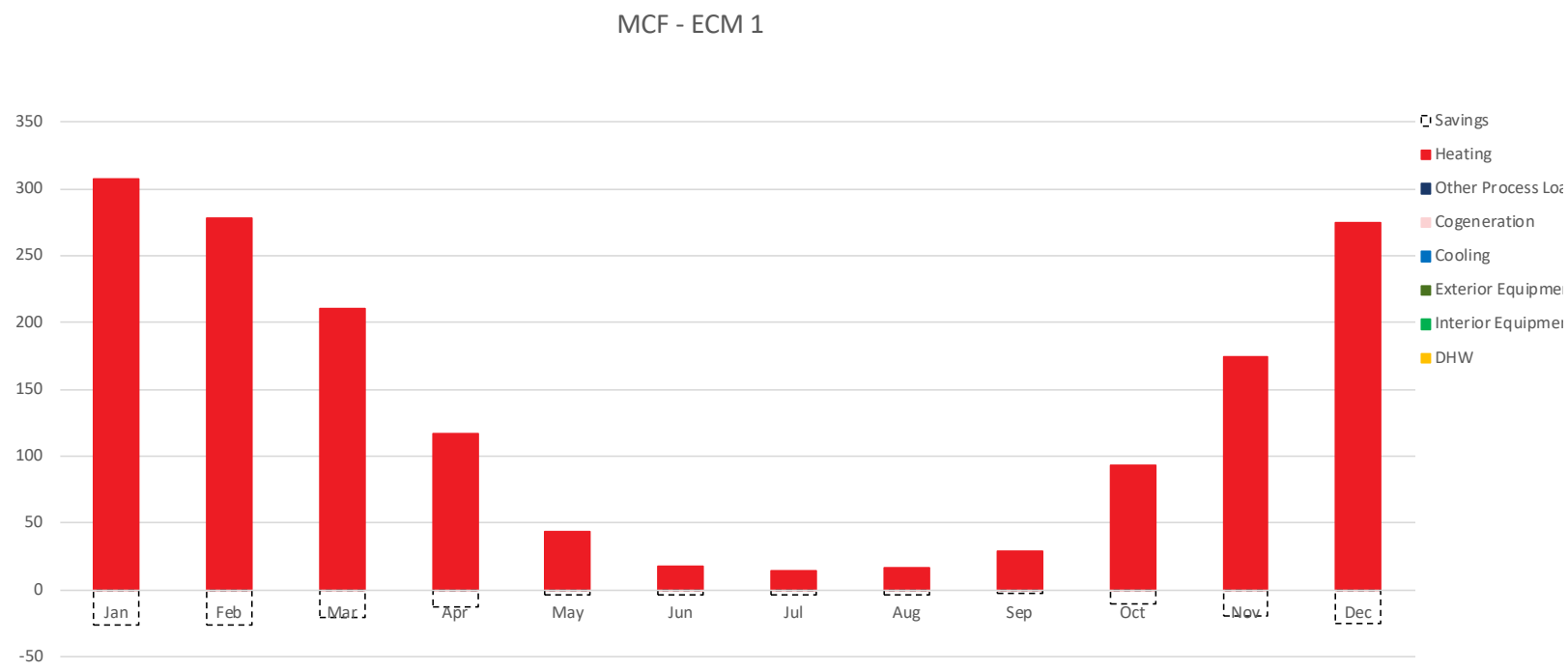
kW	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	T
Previous Run	58	58	76	76	82	85	91	90	81	73	62	58	890
Current Run	52	53	67	67	73	74	75	74	73	65	54	52	778
Unit Savings	*6*	*5*	*8*	*9*	*10*	*11*	*17*	*17*	*8*	*8*	*8*	*6*	***113***
% Savings	*5*	*4*	*5*	*5*	*5*	*9*	*14*	*14*	*7*	*5*	*6*	*5*	***86***
Minimum Savings	***5***	***4***	***5***	***5***	***5***	***9***	***14***	***14***	***7***	***5***	***6***	***5***	***86***
% Diff.	*8.0%*	*7.1%*	*7.0%*	*7.2%*	*6.5%*	*11.0%*	*15.0%*	*15.2%*	*9.0%*	*7.3%*	*9.9%*	*9.4%*	***9.6%***


kW Savings By End-Use
25
20
15
10
5
0
-5
-10
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
% Savings By End-Use
8%
83%
0%
-17433%
Air-Side Heat Recovery
Cogeneration
Cooling
Exterior Equipment
Exterior Lights
Fans
Heat Rejection
Humidification
Interior Equipment
Interior Lights
Water Systems

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g. Energy Methodology

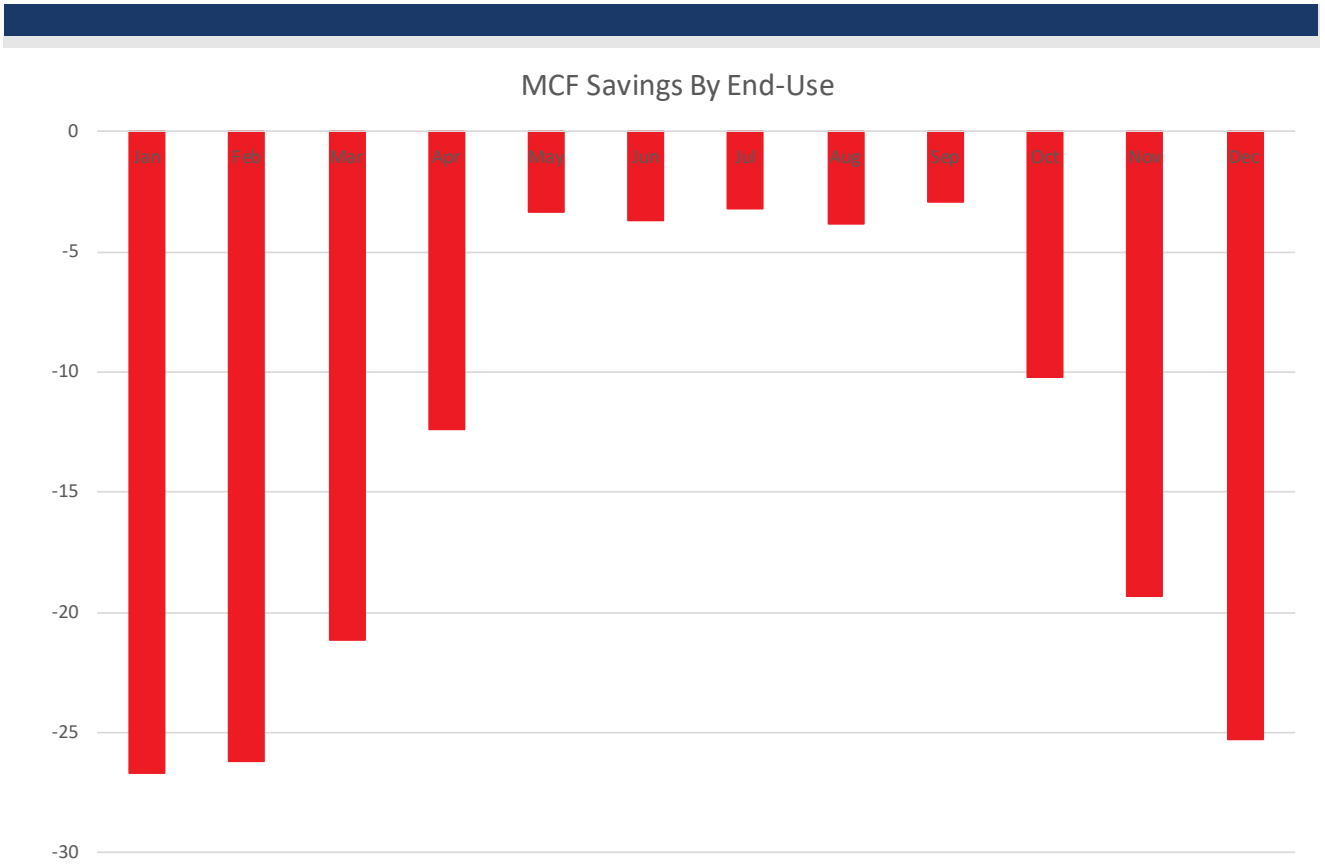
Fuel Consumption Data (MCF)

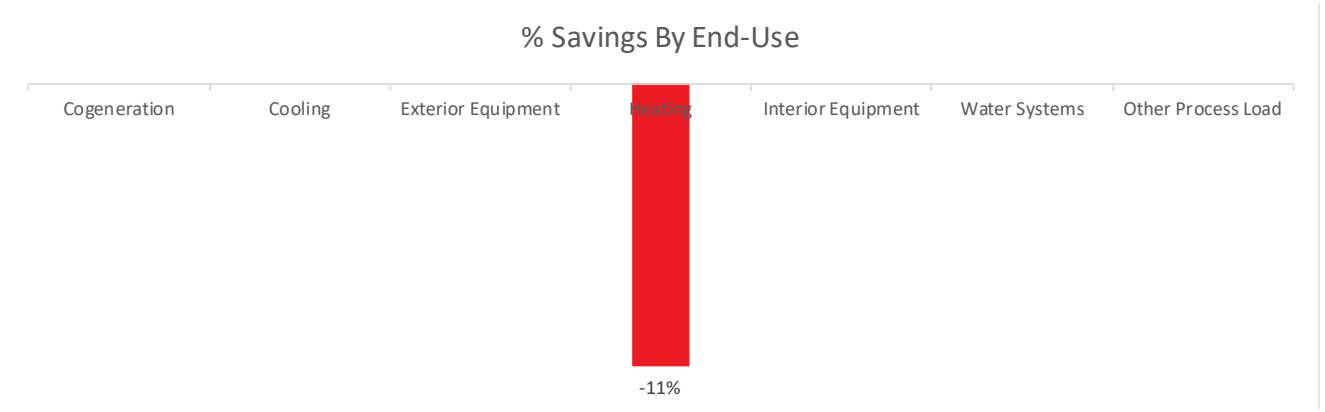


MCF	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	T
Previous Run	280	252	189	105	40	14	11	13	26	84	155	249	1,418
Current Run	307	278	210	117	43	18	14	17	29	94	175	275	1,576
Unit Savings	*(27)*	*(26)*	*(21)*	*(12)*	*(3)*	*(4)*	*(3)*	*(4)*	*(3)*	*(10)*	*(19)*	*(25)*	***(158)***
% Savings	*(23)*	*(21)*	*(21)*	*(19)*	*(5)*	*(4)*	*(4)*	*(4)*	*(2)*	*(10)*	*(31)*	*(25)*	***(169)***
Minimum Savings	***(27)***	***(26)***	***(21)***	***(19)***	***(5)***	***(4)***	***(4)***	***(4)***	***(3)***	***(10)***	***(31)***	***(25)***	***(180)***
% Diff.	*-9.5%*	*-10.4%*	*-11.2%*	*-18.4%*	*-11.4%*	*-30.8%*	*-40.4%*	*-29.1%*	*-11.4%*	*-12.4%*	*-19.8%*	*-10.1%*	***-12.7%***

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g. Energy Methodology





5 APPENDICES

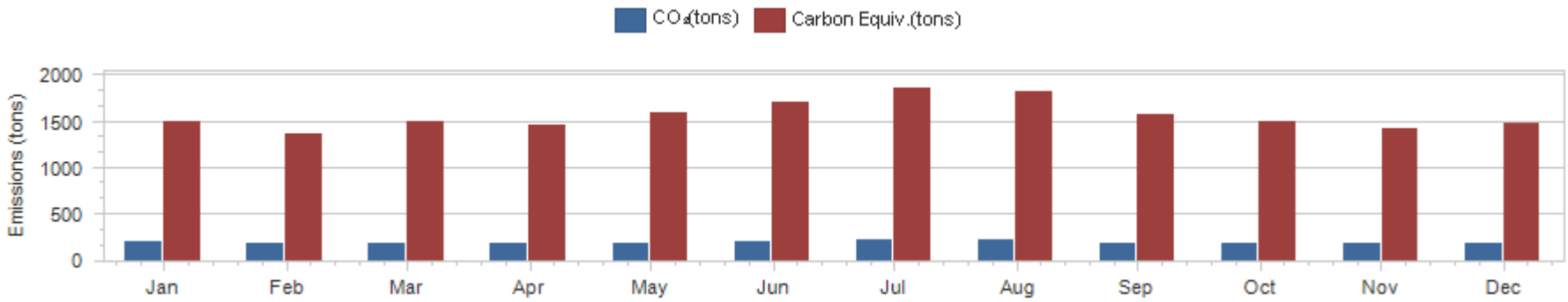
g. Energy Methodology

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District 5 – Baseline Energy Model

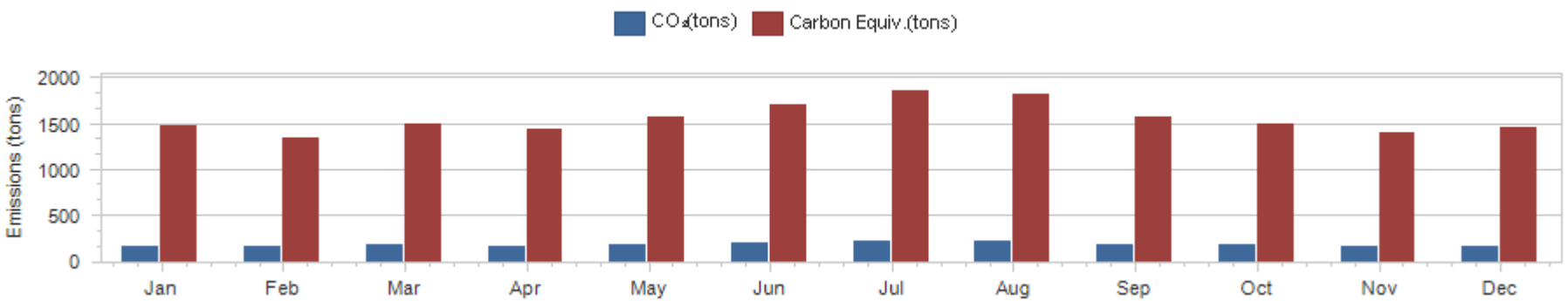
Carbon Footprint and Renewable Energy Summary

Total Emissions



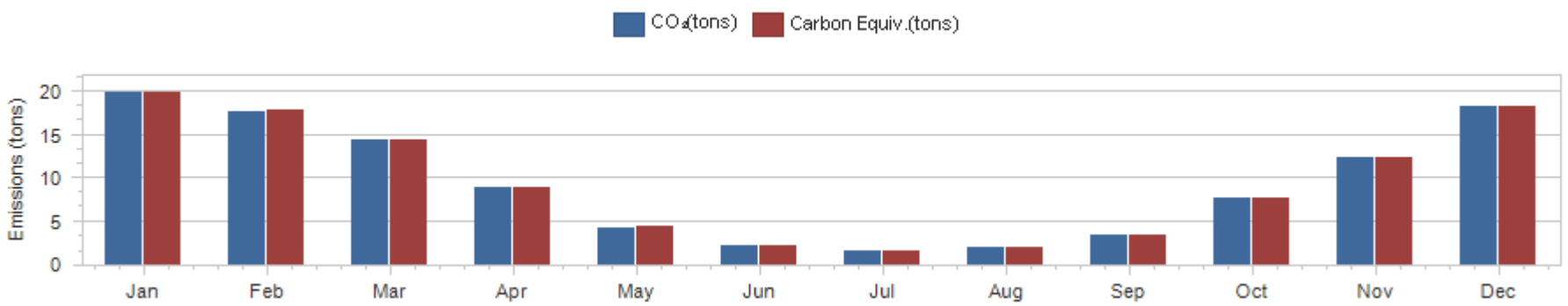
Emissions Data of Total Emissions		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
CO_2	(tons CO2e)	200.57	181.84	195.81	184.57	196.93	210.75	228.99	223.11	195.63	190.00	184.24	196.56	2,388.99
CH_4	(tons CO2e)	480.40	436.35	482.34	467.18	512.09	554.76	604.70	587.72	511.28	484.87	456.98	474.08	6,052.75
N_2O	(tons CO2e)	830.44	754.29	833.76	807.53	885.14	958.88	1,045.19	1,015.84	883.74	838.11	789.92	819.50	10,462.33
Carbon Equiv	(tons CO2e)	1,511.40	1,372.48	1,511.91	1,459.27	1,594.17	1,724.38	1,878.88	1,826.67	1,590.65	1,512.98	1,431.15	1,490.15	18,904.08
NO_x	(lbs)	340.70	308.91	332.81	313.87	335.08	358.67	389.76	379.70	332.88	323.15	313.19	333.96	4,062.66
SO_2	(lbs)	1,052.29	955.79	1,056.50	1,023.23	1,121.56	1,214.97	1,324.36	1,287.17	1,119.77	1,061.97	1,000.94	1,038.42	13,256.95
Hg	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	(lbs)	2.51	2.25	1.83	1.12	0.55	0.26	0.20	0.26	0.42	0.97	1.57	2.31	14.31
Water Consum	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0

Source Electricity Emissions



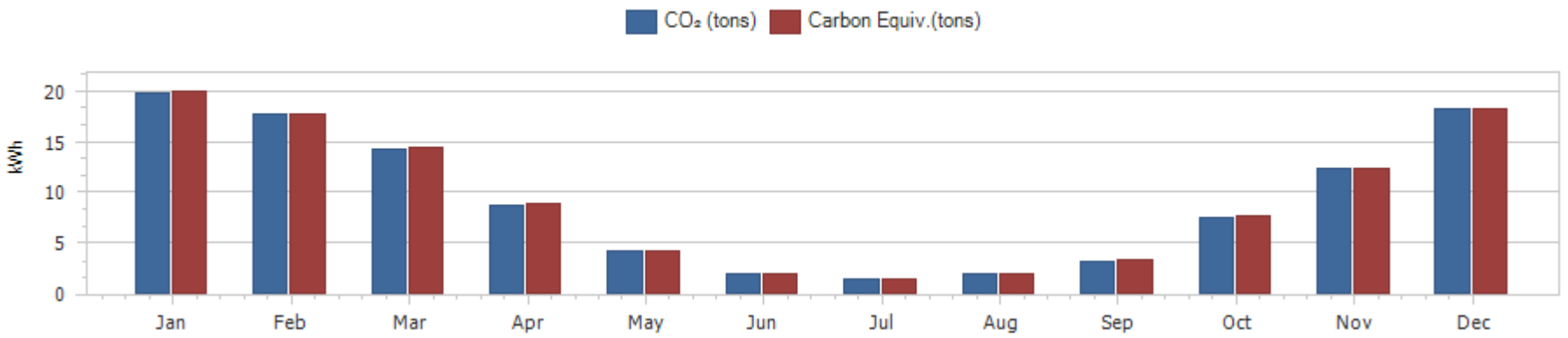
Emission Data for Source Electricity		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
CO_2	(tons CO2e)	180.64	164.07	181.36	175.67	192.56	208.60	227.38	220.99	192.25	182.32	171.83	178.26	2,275.92
CH_4	(tons CO2e)	480.39	436.34	482.33	467.17	512.09	554.76	604.70	587.72	511.28	484.87	456.98	474.07	6,052.70
N_2O	(tons CO2e)	830.33	754.19	833.68	807.48	885.12	958.86	1,045.18	1,015.83	883.72	838.07	789.85	819.40	10,461.71
Carbon Equiv	(tons CO2e)	1,491.35	1,354.61	1,497.37	1,450.32	1,589.77	1,722.22	1,877.26	1,824.54	1,587.25	1,505.25	1,418.66	1,471.74	18,790.33
NO_x	(lbs)	307.48	279.30	308.74	299.04	327.78	355.10	387.07	376.17	327.25	310.34	292.51	303.44	3,874.21
SO_2	(lbs)	1,052.09	955.62	1,056.34	1,023.14	1,121.51	1,214.95	1,324.34	1,287.15	1,119.73	1,061.90	1,000.81	1,038.24	13,255.82
Hg	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Consum	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0

Site Emissions



Emissions Data of Total Emissions		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
CO_2	(tons CO2e)	19.93	17.77	14.45	8.90	4.38	2.15	1.61	2.11	3.38	7.68	12.41	18.30	113.07
CH_4	(tons CO2e)	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.05
N_2O	(tons CO2e)	0.11	0.10	0.08	0.05	0.02	0.01	0.01	0.01	0.02	0.04	0.07	0.10	0.62
Carbon Equiv	(tons CO2e)	20.05	17.87	14.54	8.95	4.40	2.16	1.62	2.13	3.40	7.73	12.49	18.41	113.74
NO_x	(lbs)	33.22	29.61	24.07	14.84	7.30	3.57	2.69	3.53	5.62	12.81	20.68	30.51	188.45
SO_2	(lbs)	0.20	0.18	0.15	0.09	0.04	0.02	0.02	0.02	0.04	0.07	0.13	0.18	1.12
Hg	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	(lbs)	2.51	2.25	1.83	1.12	0.55	0.26	0.20	0.26	0.42	0.97	1.57	2.31	14.31
Water Consum	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0

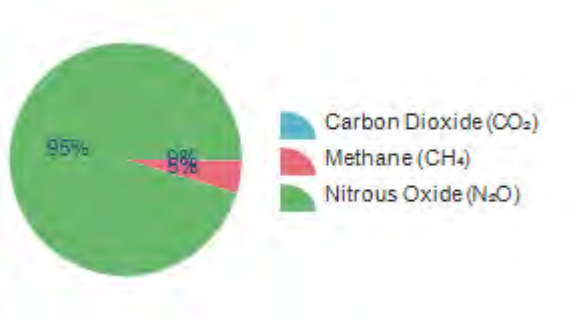
NATURALGAS



Emissions Data for Natural Gas		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CO_2	(tons CO2e)	19.93	17.77	14.45	8.90	4.38	2.15	1.61	2.11	3.38	7.68	12.41	18.30	113.07
CH_4	(tons CO2e)	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.05
N_2O	(tons CO2e)	0.11	0.10	0.08	0.05	0.02	0.01	0.01	0.01	0.02	0.04	0.07	0.10	0.62
Carbon Equiv.	(tons CO2e)	20.05	17.87	14.54	8.95	4.40	2.16	1.62	2.13	3.40	7.73	12.49	18.41	113.75
NO_x	(lbs)	33.22	29.61	24.07	14.84	7.30	3.57	2.69	3.53	5.62	12.81	20.68	30.51	188.45
SO_2	(lbs)	0.20	0.18	0.15	0.09	0.04	0.02	0.02	0.02	0.04	0.07	0.13	0.18	1.15
Hg	(lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	(lbs)	2.51	2.25	1.83	1.12	0.55	0.26	0.20	0.26	0.42	0.97	1.57	2.31	14.26
Water Consum.	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0

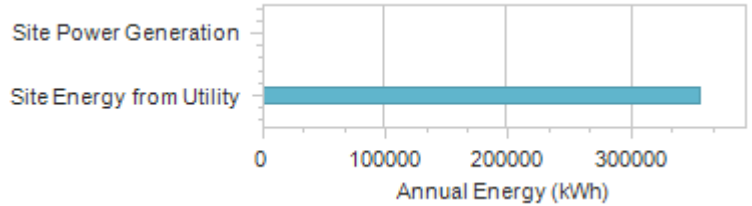
Greenhouse Gas Equivalence

Greenhouse Gas	Annual Total (kg)	Carbon Dioxide Equivalent (kg)	Percent of Total (%)
Carbon Dioxide (CO_2)	2,167,258.50	2,167,258.50	0.04 %
Methane (CH_4)	5,490,971.75	137,274,293.75	2.31 %
Nitrous Oxide (N_2O)	9,491,279.14	2,828,401,183.72	47.65 %
	Total	2,967,842,735.97	* Conversion factors from US EPA



On-Site and Renewable Energy Contribution Summary

Electric Load Satisfied	Energy (kWh)	Percent Electricity (%)
Site Energy from Utility	357,778	100%
Site Power Generation	0	0%



On-Site and Renewable Energy Systems

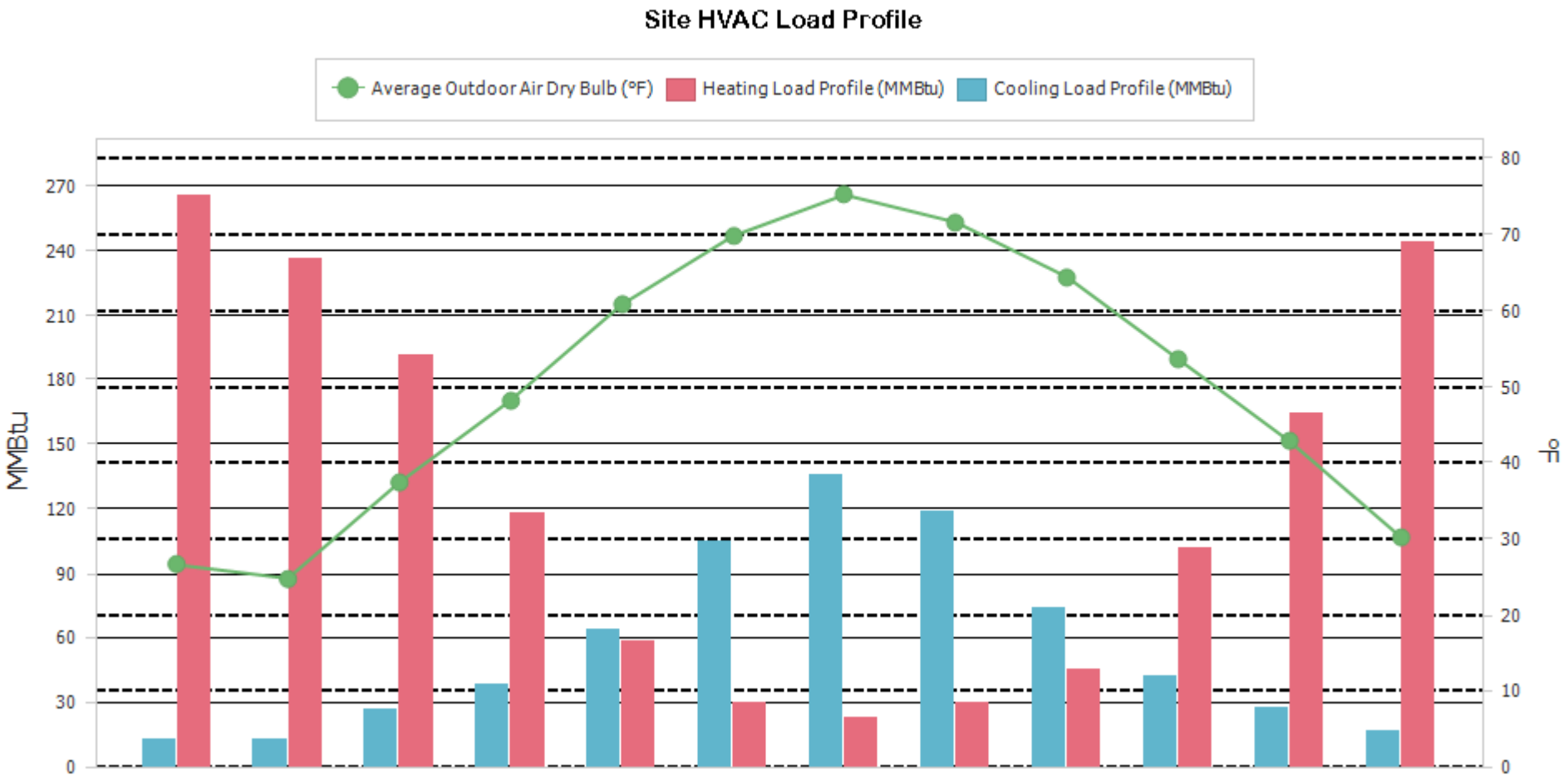
Electric Loads Satisfied	Electricity Used (kWh)	Percent Electricity (%)
Electricity Coming From Utility	357,778	100 %
Fuel-Fired Power Generation	0	0 %
Net Decrease in On-Site Storage	0	0 %
Net Electricity From Utility	357,778	100 %
Photovoltaic Power	0	0 %
Surplus Electricity Going To Utility	0	0 %
Total Electricity End Uses	357,778	100 %
Total On-Site and Utility Electric Sources	357,778	100 %
Total On-Site Electric Sources	0	0 %
Wind Power	0	0 %

Thermal Sources	Heat (Btu)	Percent Heat (%)
Air to Air Heat Recovery for Cooling	0	0 %
Air to Air Heat Recovery for Heating	0	0 %
Total Thermal Sources	0	0 %
Water-Side Heat Recovery	0	0 %

Monthly On-Site Generation

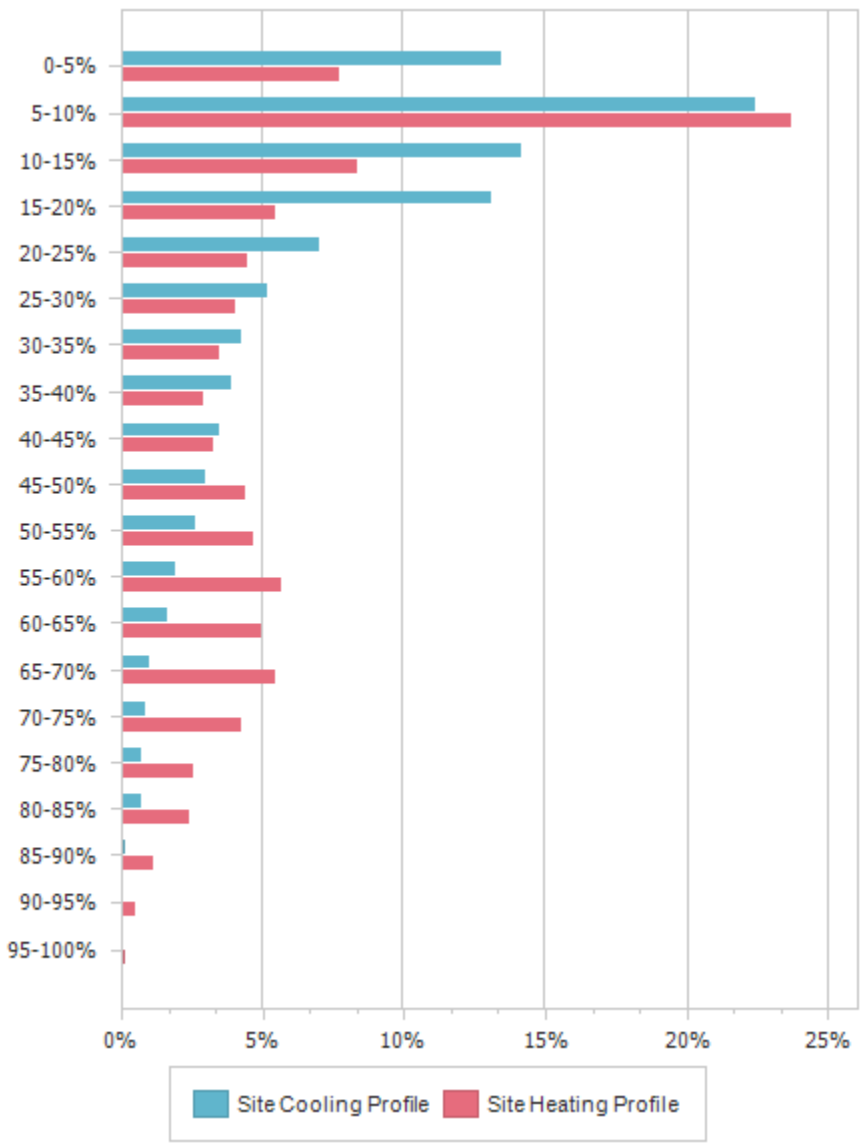
On-Site and Renewables (kWh)	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Photovoltaics	0	0	0	0	0	0	0	0	0	0	0	0	0
Wind	0	0	0	0	0	0	0	0	0	0	0	0	0
Internal Combustion Engine	0	0	0	0	0	0	0	0	0	0	0	0	0
Combustion Turbine	0	0	0	0	0	0	0	0	0	0	0	0	0

Site Load Profile



	January	February	March	April	May	June	July	August	September	October	November	December
Cooling Load (MMBtu)	13.3	12.69	26.57	39.14	63.68	104.81	135.68	119.13	74.23	43.04	27.51	16.52
Heating Load (MMBtu)	265.85	237.02	191.99	118.37	59	29.98	23.07	29.62	46	102.42	165.09	243.65
Average OADB (°F)	26.1	25.7	37.6	49	61.2	69.9	75.2	70.9	63.9	53	42.4	30.9

Site HVAC Hourly Load Distribution



% Load	Cooling Cutoff (tons)	Cooling % Hours	Cooling Hours	Heating Cutoff (MBtuh)	Heating % Hours	Heating Hours
0-5	1.5	13.47%	1,177	26	7.73%	677
5-10	3	22.42%	1,959	51.9	23.68%	2,074
10-15	4.6	14.15%	1,236	77.9	8.38%	734
15-20	6.1	13.09%	1,144	103.9	5.5%	482
20-25	7.6	7.02%	613	129.8	4.51%	395
25-30	9.1	5.2%	454	155.8	4.08%	357
30-35	10.6	4.3%	376	181.8	3.5%	307
35-40	12.2	3.93%	343	207.7	2.95%	258
40-45	13.7	3.51%	307	233.7	3.3%	289
45-50	15.2	2.98%	260	259.7	4.38%	384
50-55	16.7	2.62%	229	285.6	4.69%	411
55-60	18.3	1.93%	169	311.6	5.65%	495
60-65	19.8	1.67%	146	337.6	4.99%	437
65-70	21.3	1.03%	90	363.5	5.46%	478
70-75	22.8	0.86%	75	389.5	4.25%	372
75-80	24.3	0.73%	64	415.5	2.6%	228
80-85	25.9	0.74%	65	441.4	2.43%	213
85-90	27.4	0.19%	17	467.4	1.18%	103
90-95	28.9	0.1%	9	493.4	0.55%	48
95-100	30.4	0.06%	5	519.3	0.21%	18

Cooling hours off: 22 (0%)

Heating hours off: (0%)

Site Temperature Profile

Zone Name	Unmet Heating Hours	Minimum Temperature (°F)	Time spent in each temperature range (°F)											Unmet Cooling Hours	Maximum Temperature (°F)	Mean Temperature (°F)
			< 50°F	50°F ≤ 55°F	55°F ≤ 60°F	60°F ≤ 65°F	65°F ≤ 70°F	70°F ≤ 75°F	75°F ≤ 80°F	80°F ≤ 85°F	85°F ≤ 90°F	90°F ≤ 95°F	> 95°F			
AC-1 MZU																
Zone Group 00																
Zone 00-02	0	70	0	0	0	0	786	7,974	0	0	0	0	0	0	73	72.3
Zone 00-03	0	70	0	0	0	0	2,484	6,276	0	0	0	0	0	0	73.1	71.7
Zone 00-04	0	70	0	0	0	0	638	8,122	0	0	0	0	0	0	73	72.2
Zone 00-05	0	70	0	0	0	0	3,364	5,396	0	0	0	0	0	0	73.1	71.5
Zone 00-06	0	70	0	0	0	0	101	8,659	0	0	0	0	0	0	73	72.4
Zone 00-07	0	70	0	0	0	0	205	8,555	0	0	0	0	0	0	73	72.5
Zone 00-08	0	70	0	0	0	0	18	8,742	0	0	0	0	0	0	73	72.7
Zone 00-10	0	70	0	0	0	0	3,223	5,537	0	0	0	0	0	0	73	71.5
Zone 00-11	0	70	0	0	0	0	2,976	5,784	0	0	0	0	0	0	73	71.5
Zone 00-16	0	70	0	0	0	0	2,550	6,210	0	0	0	0	0	0	73	71.5
Zone 01-04	0	70	0	0	0	0	3,601	5,159	0	0	0	0	0	0	73.2	71.6
Zone 01-06	15	68.2	0	0	0	0	4,328	4,432	0	0	0	0	0	0	73.5	71.3
Zone 01-07	306	64.6	0	0	0	3	4,764	3,993	0	0	0	0	0	0	73.9	71.1
Zone 01-08	1	68.9	0	0	0	0	4,051	4,709	0	0	0	0	0	0	73.3	71.4
Zone 01-09	1	68.8	0	0	0	0	4,583	4,177	0	0	0	0	0	0	73.4	71.3
Zone 01-10	1	68.9	0	0	0	0	4,555	4,205	0	0	0	0	0	0	73.4	71.3
AC-2 Locker Room																
Zone Group 00																
Zone 01-03	189	61.9	0	0	0	26	285	8,449	0	0	0	0	0	25	74.9	71.2
AC-3 Jail																
Zone Group 00																
Zone 00-00	0	70.3	0	0	0	0	0	8,760	0	0	0	0	0	0	73	71.6
Unit Heater																

Zone Name	Unmet Heating Hours	Minimum Temperature (°F)	Time spent in each temperature range (°F)											Unmet Cooling Hours	Maximum Temperature (°F)	Mean Temperature (°F)
			< 50°F	50°F ≤ 55°F	55°F ≤ 60°F	60°F ≤ 65°F	65°F ≤ 70°F	70°F ≤ 75°F	75°F ≤ 80°F	80°F ≤ 85°F	85°F ≤ 90°F	90°F ≤ 95°F	> 95°F			
Zone Group 00																
Zone 00-01	184	67.5	0	0	0	0	4,568	2,260	1,713	219	0	0	0	2386	83.9	72.2
Zone 00-12	106	68.4	0	0	0	0	4,552	2,024	1,973	211	0	0	0	2592	83.4	72.4
Zone 00-13	60	68.5	0	0	0	0	4,352	2,197	2,111	100	0	0	0	2713	82.2	72.4
Zone 00-14	825	64.3	0	0	0	5	4,505	1,299	1,069	691	460	243	488	3176	120	75.3
Zone 00-15	130	68	0	0	0	0	4,668	2,624	1,407	61	0	0	0	2030	82	71.9
Zone 01-00	711	66.7	0	0	0	0	5,069	1,320	1,591	750	30	0	0	2608	86.8	72.6
Zone 01-01	669	67	0	0	0	0	5,063	1,338	1,584	759	16	0	0	2627	86.1	72.6
Zone 01-02	722	66.5	0	0	0	0	5,147	1,340	1,563	688	22	0	0	2535	86.3	72.5
Zone Group 01																
Zone 01-05	574	67	0	0	0	0	4,737	1,241	1,240	1,224	312	6	0	3032	90.5	73.6
Ventilation and Heating																
Zone Group 00																
Zone 00-17	2197	48.6	6	65	284	550	4,918	1,302	1,037	463	127	8	0	1876	91.6	70.7

0 Hours
1 - 100 Hours
100 - 4000 Hours
4000+ Hours

Site Humidity Profile

Zone Name	Minimum % Relative Humidity	Time spent in each humidity range												Maximum % Relative Humidity	Mean % Relative Humidity
		< 30%	30% ≤ 35%	35% ≤ 40%	40% ≤ 45%	45% ≤ 50%	50% ≤ 55%	55% ≤ 60%	60% ≤ 65%	65% ≤ 70%	70% ≤ 75%	75% ≤ 80%	> 80%		
AC-1 MZU															
Zone Group 00															
Zone 00-02	3.6	3,774	735	484	439	1,163	2,057	108	0	0	0	0	0	58.1	32.6
Zone 00-03	3.8	3,359	794	625	442	808	1,807	801	124	2	0	0	0	65.8	35.1
Zone 00-04	3.6	3,932	736	423	436	1,501	1,686	46	0	0	0	0	0	56.7	31.7
Zone 00-05	3.5	3,631	822	489	449	1,192	1,937	240	0	0	0	0	0	60.0	32.9
Zone 00-06	3.7	3,906	722	447	422	1,589	1,594	80	0	0	0	0	0	57.2	31.7
Zone 00-07	3.6	3,857	701	468	431	1,079	2,026	198	0	0	0	0	0	58.9	32.4
Zone 00-08	3.7	3,825	706	463	440	1,187	2,044	95	0	0	0	0	0	57.4	32.3
Zone 00-10	3.6	3,547	823	530	450	910	1,891	595	14	0	0	0	0	61.8	33.6
Zone 00-11	3.6	3,668	817	491	423	1,585	1,699	78	0	0	0	0	0	56.9	32.5
Zone 00-16	3.6	3,703	783	475	427	1,552	1,726	94	0	0	0	0	0	57.3	32.3
Zone 01-04	3.6	3,612	831	508	453	1,198	2,021	137	0	0	0	0	0	57.8	32.9
Zone 01-06	3.7	3,602	787	550	445	1,625	1,670	81	0	0	0	0	0	57.2	32.7
Zone 01-07	4.1	3,560	744	580	441	1,354	1,911	171	0	0	0	0	0	58.2	33.1
Zone 01-08	3.7	3,542	802	562	443	1,585	1,776	51	0	0	0	0	0	56.6	32.9
Zone 01-09	3.7	3,575	756	563	448	1,361	1,885	171	0	0	0	0	0	58.0	33
Zone 01-10	3.7	3,573	749	574	448	1,325	1,909	183	0	0	0	0	0	58.3	33
AC-2 Locker Room															
Zone Group 00															
Zone 01-03	3.8	3,835	663	493	414	793	860	922	468	252	56	3	0	76.0	33.3
AC-3 Jail															
Zone Group 00															
Zone 00-00	4	3,694	764	488	441	454	417	477	463	663	450	273	176	89.3	36.5
Unit Heater															
Zone Group 00															

Zone Name	Minimum % Relative Humidity	Time spent in each humidity range												Maximum % Relative Humidity	Mean % Relative Humidity
		< 30%	30% ≤ 35%	35% ≤ 40%	40% ≤ 45%	45% ≤ 50%	50% ≤ 55%	55% ≤ 60%	60% ≤ 65%	65% ≤ 70%	70% ≤ 75%	75% ≤ 80%	> 80%		
Zone 00-01	3.6	3,839	744	484	582	592	557	466	549	456	287	136	70	86.2	34.1
Zone 00-12	5.7	1,695	774	699	693	639	616	590	673	623	577	507	676	100.0	47.8
Zone 00-13	5.6	1,717	775	691	711	619	627	599	645	615	559	477	724	100.0	47.8
Zone 00-14	3.8	3,983	805	741	580	572	515	479	429	294	231	91	42	89.7	33
Zone 00-15	5.4	1,687	716	673	631	638	564	576	603	605	587	522	959	100.0	49
Zone 01-00	4.2	3,355	724	643	625	681	675	610	528	498	245	122	55	89.1	36.6
Zone 01-01	6.6	2,470	832	656	697	609	666	679	623	718	473	194	143	93.1	42
Zone 01-02	5	3,065	732	636	641	610	731	575	619	567	326	156	103	92.1	38.7
Zone Group 01															
Zone 01-05	10.9	8,760	0	0	0	0	0	0	0	0	0	0	0	26.5	19.6
Ventilation and Heating															
Zone Group 00															
Zone 00-17	6.2	3,826	696	537	524	570	531	499	562	455	290	190	81	88.8	34.9

0 Hours
1 - 100 Hours
100 - 4000 Hours
4000+ Hours

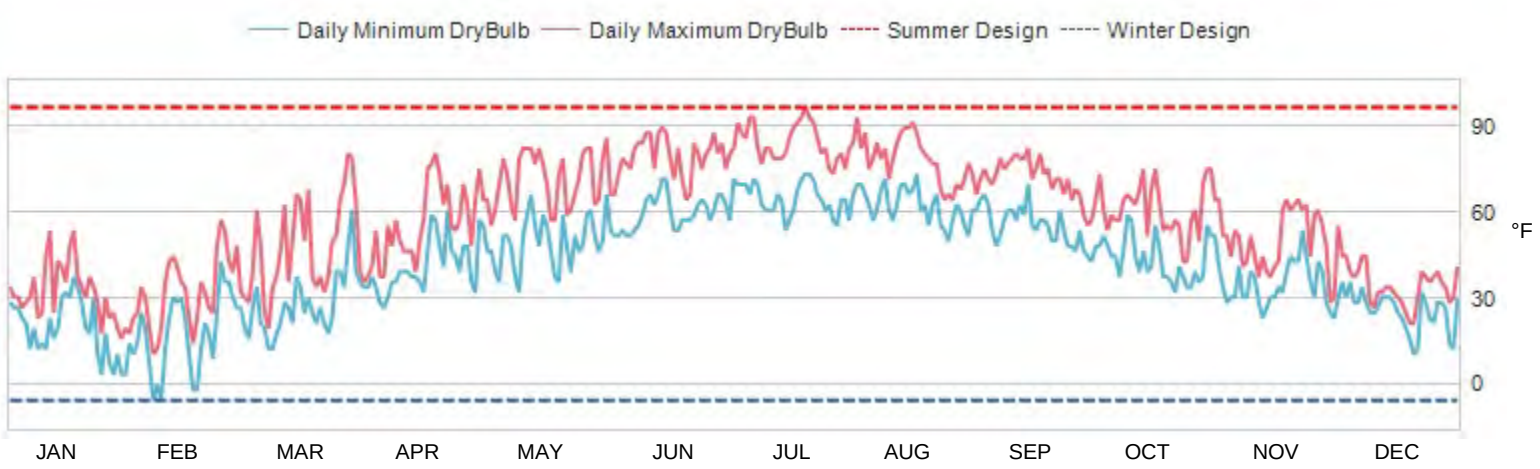
Climatic Summary

Overview

Location	Cleveland Hopkins Intl Ap OH USA
Weather File	USA_OH_Cleveland-Hopkins.Intl.AP.725240
Weather File Source	TMY3
WMO Station	725240
Latitude	N 41° 24
Longitude	W 81° 50
Time Zone	GMT -5.0 Hours
Elevation	771 ft
Standard Pressure	0.99 Bar
Heating Degree Days (base 65°F)	5,909
Cooling Degree Days (base 50°F)	3,130

Peaks

	Dry Bulb Temp. [F]	Dew Point Temp. [F]
Maximum	96.1	79
Date	Jul 20	Jul 7
Minimum	-5.1	-11
Date	Feb 6	Feb 6

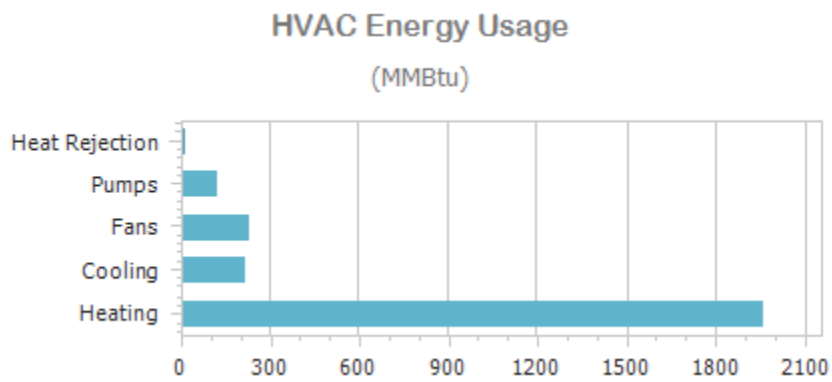


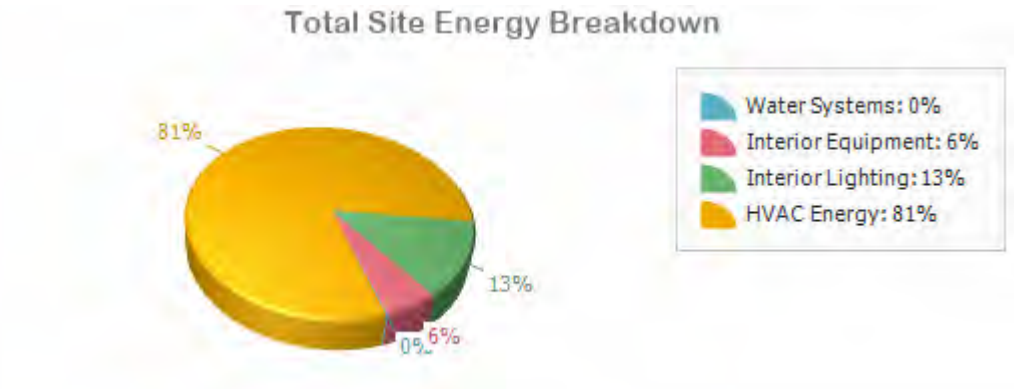
Design Day Data

	ASHRAE Design Conditions %	Design Temperature[F]	Daily Temperature Range [ΔF]	Humidity Value	Humidity Type	Wind Speed[mph]	Wind Direction deg.
Heating	99.6	4.1	0	2.8	Wetbulb[F]	28	230 °
Cooling	1	87	17.3	72.4	Wetbulb[F]	11.3	230 °

Site Consumption Summary

Energy Consumption





Component	Electricity (kWh)	Gas (MMBtu)	District Cooling (MMBtu)	District Heating Water (MMBtu)	Other Utilities (MMBtu)	Site Energy (Mbtu)	Site Energy Use Intensity (Mbtu/ft²)	Source Energy (Mbtu)	Source Energy Use Intensity (Mbtu/ft²)	Water (gal)
Heating	8,408	1,931	0	0	0	1,959,811	67.67	2,184,197	75.42	0
Cooling	64,250	0	0	0	0	219,230	7.57	694,302	23.97	0
Fans	67,381	0	0	0	0	229,912	7.94	728,131	25.14	0
Pumps	36,947	0	0	0	0	126,069	4.35	399,261	13.79	0
Heat Rejection	4,689	0	0	0	0	15,999	0.55	50,669	1.75	138,413
Humidification	0	0	0	0	0	0	0	0	0	0
Air-Side Heat Recovery	0	0	0	0	0	0	0	0	0	0
HVAC	181,675	1,931	0	0	0	2,551,021	88.08	4,056,561	140.07	138,413
Water Systems	0	4	0	0	0	4,275	0.15	4,634	0.16	5,254,612
Interior Lighting	124,414	0	0	0	0	424,518	14.66	1,344,448	46.42	0
Exterior Lighting	0	0	0	0	0	0	0	0	0	0
Interior Equipment	51,786	0	0	0	0	176,702	6.1	559,614	19.32	0
Exterior Equipment	0	0	0	0	0	0	0	0	0	0
Refrigeration	0	0	0	0	0	0	0	0	0	0
Non-HVAC	176,200	4	0	0	0	605,494	20.91	1,908,695	65.9	5,254,612
Generators	0	0	0	0	0	0	0	0	0	0
Site Generation	0	0	0	0	0	0	0	0	0	0
Grand Total	357,875	1,935	0	0	0	3,156,515	108.99	5,965,256	205.97	5,393,025

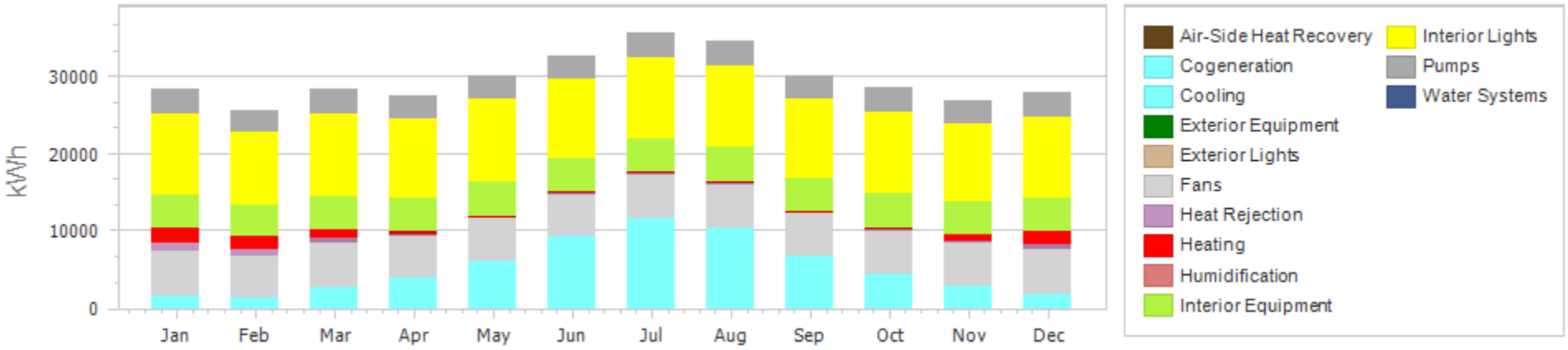
IT Equipment Energy 0 0 PUE N/A

Gross Floor Area: 28,953 ft² Region: Midwest Building Type: Office CBECS Survey Year: 2012 Benchmark EUI: 80.0 Mbtu/ft²/yr

If the region reports as "All US" it means the data for the particular region was withheld because the Relative Standard Error was greater than 50 percent or fewer than 20 buildings were sampled.

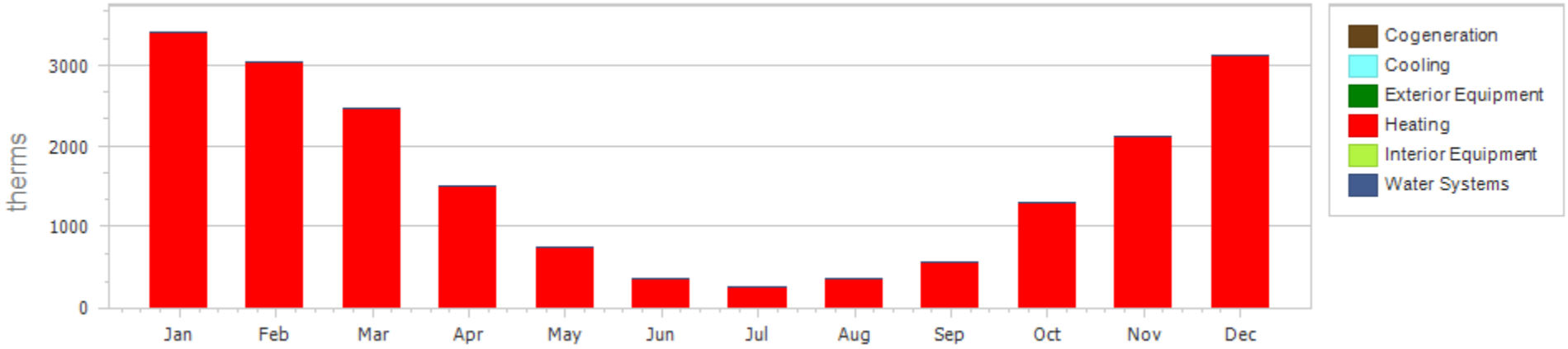
Monthly Energy End Use

Electricity



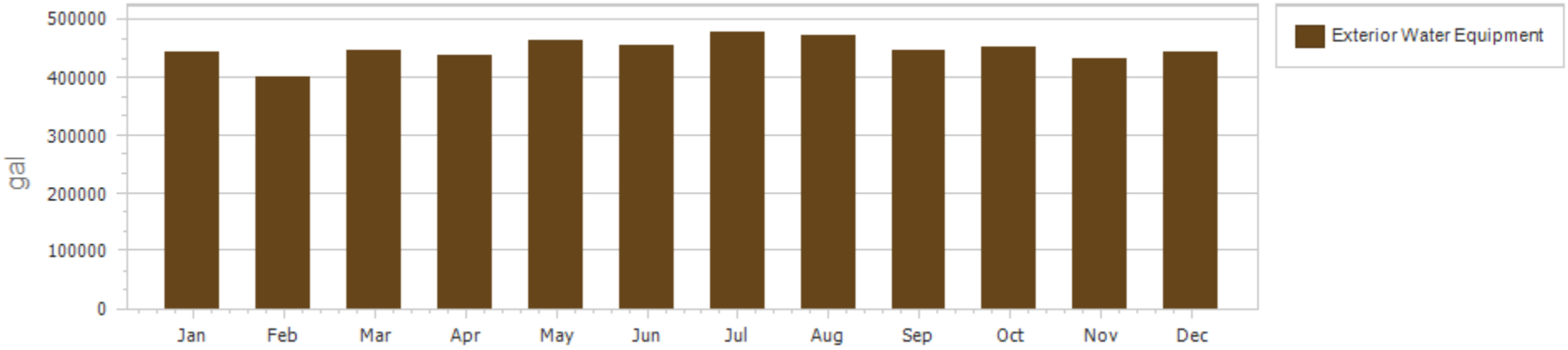
	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Air-Side Heat Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0
Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0
Cooling	1,657	1,547	2,879	4,012	6,144	9,375	11,809	10,517	6,967	4,404	2,977	1,961	64,249
Exterior Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
Exterior Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
Fans	5,830	5,261	5,766	5,528	5,663	5,469	5,651	5,652	5,475	5,701	5,572	5,813	67,381
Heat Rejection	1,015	992	479	112	211	267	279	279	239	126	150	542	4,690
Heating	1,933	1,691	1,108	476	77	15	11	15	49	364	957	1,710	8,408
Humidification	0	0	0	0	0	0	0	0	0	0	0	0	0
Interior Equipment	4,352	3,969	4,451	4,255	4,418	4,302	4,371	4,451	4,255	4,385	4,202	4,371	51,785
Interior Lights	10,476	9,538	10,695	10,199	10,624	10,333	10,491	10,695	10,206	10,547	10,121	10,491	124,415
Pumps	3,141	2,801	3,141	3,040	3,141	3,040	3,141	3,141	3,040	3,141	3,040	3,141	36,947
Water Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	28,404	25,800	28,519	27,622	30,278	32,801	35,754	34,750	30,230	28,669	27,019	28,030	357,876

Natural Gas



	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Cogeneration	0	0	0	0	0	0	0	0	0	0	0	0	0
Cooling	0	0	0	0	0	0	0	0	0	0	0	0	0
Exterior Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
Heating	3,409	3,038	2,470	1,520	746	364	272	358	575	1,311	2,121	3,130	19,316
Interior Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Systems	4	3	4	4	4	4	4	4	4	4	4	4	43
Grand Total	3,413	3,042	2,474	1,524	749	368	275	362	579	1,315	2,125	3,134	19,359

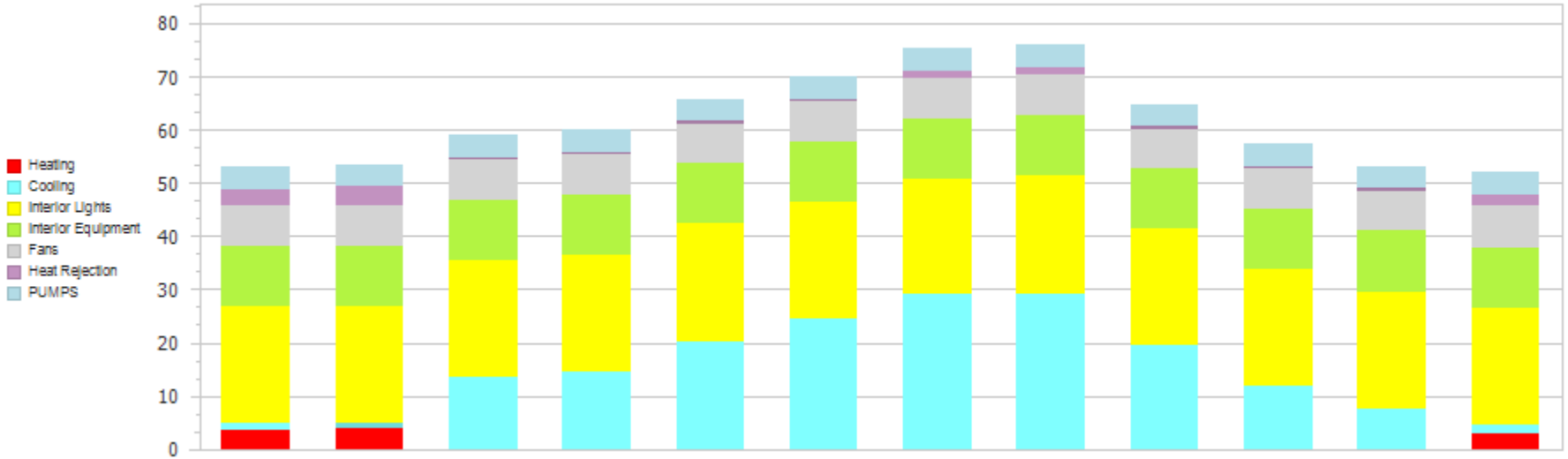
Water



	January	February	March	April	May	June	July	August	September	October	November	December	Grand Total
Exterior Water Equipment	446,284	403,142	449,020	438,104	464,556	456,720	479,039	472,907	449,231	454,010	433,751	446,284	5,393,048

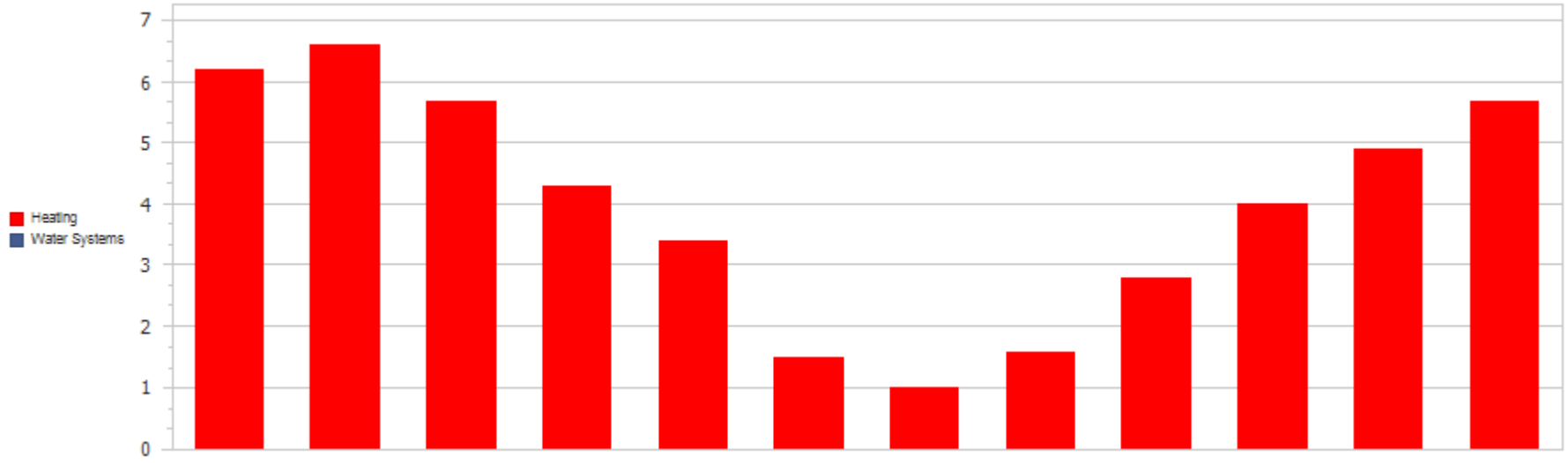
Utility Peak Demand Summary

Electricity (kW)



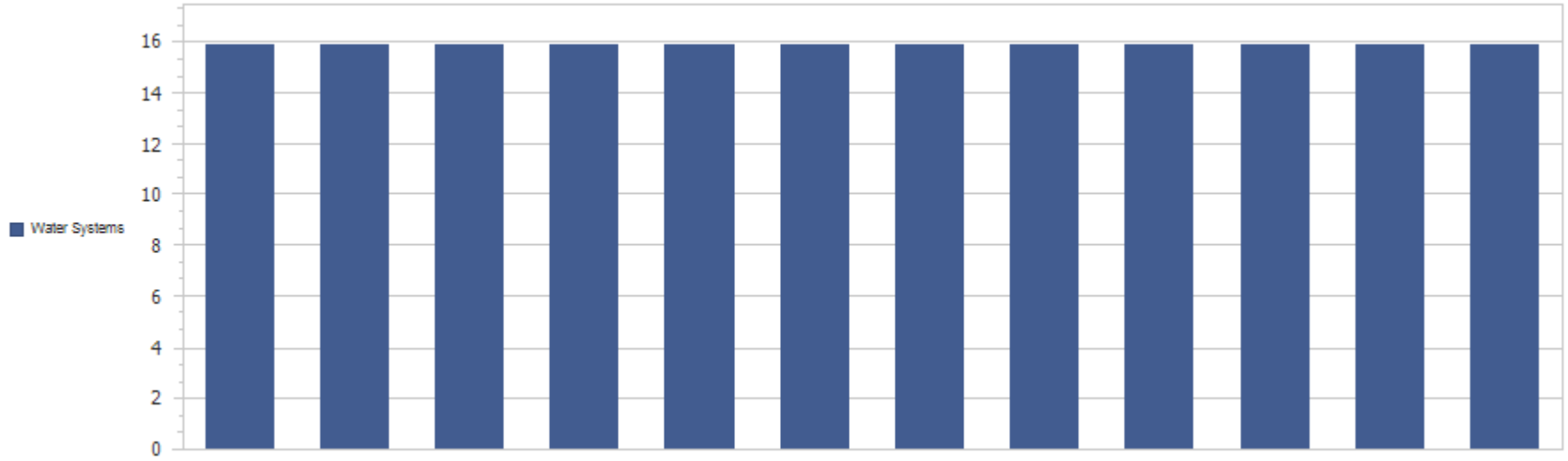
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Facility Demand	53.3	53.9	59.1	60.3	66.1	70.1	75.6	76.2	65.1	57.5	53.3	52.3
Time of Peak (Day/Hour)	24/12:00	06/12:00	28/15:00	18/16:00	31/14:00	15/15:00	07/11:00	02/15:00	14/12:00	16/16:00	01/13:00	20/13:00
Heating	3.7	4	0	0	0	0	0	0	0	0	0	2.9
Cooling	1.2	0.9	13.6	14.7	20.5	24.6	29.5	29.5	19.6	12	7.7	1.7
Interior Lights	22.1	22.1	22.1	22.1	22.1	22.1	21.6	22.1	22.1	22.1	22.1	22.1
Interior Equipment	11.2	11.2	11.3	11.3	11.3	11.3	11.2	11.3	11.2	11.3	11.4	11.4
Fans	7.9	7.9	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.8
Heat Rejection	3	3.5	0.4	0.4	0.4	0.4	1.5	1.5	0.4	0.4	0.4	2.1
PUMPS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2

Gas (therms/hr)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Facility Demand	6.2	6.6	5.7	4.3	3.4	1.5	1.1	1.6	2.8	4	4.9	5.7
Time of Peak (Day/Hour)	30/02:00	08/07:00	08/05:00	05/06:00	19/06:00	02/05:00	28/05:00	25/05:00	30/06:00	25/07:00	30/06:00	21/02:00
Heating	6.2	6.6	5.7	4.3	3.4	1.5	1	1.6	2.8	4	4.9	5.7
Water Systems	0	0	0	0	0	0	0	0	0	0	0	0

Water (gpm)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Peak Facility Demand	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
Time of Peak (Day/Hour)	01/01:00	23/15:00	27/15:00	18/18:00	31/18:00	14/13:00	07/15:00	02/15:00	14/15:00	02/15:00	18/15:00	01/01:00
Water Systems	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9

Zone Summary

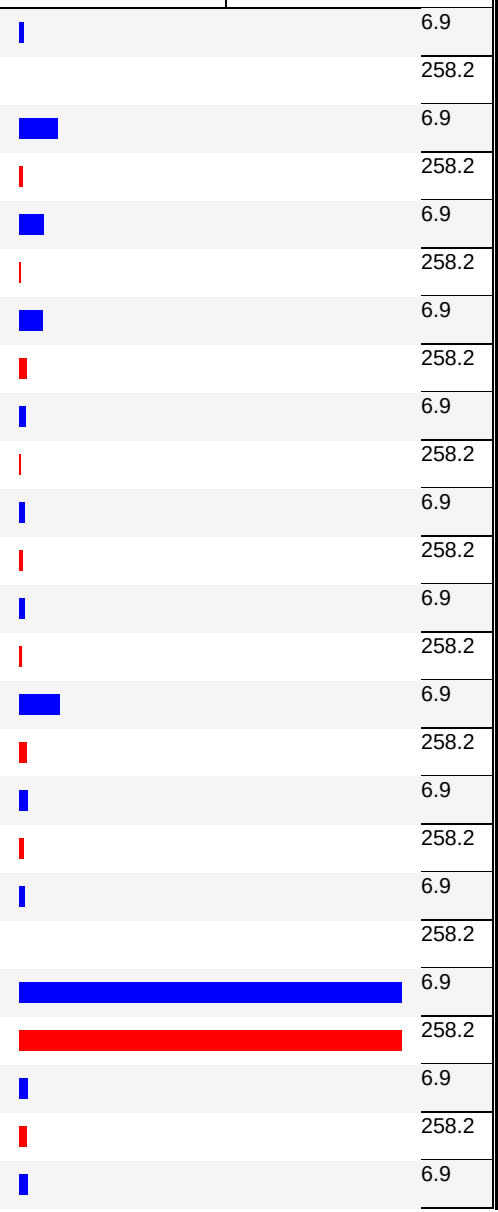
Zone Names	Area (ft²)	Conditioned	Volume (ft³)	Gross Wall Area (ft²)	Window Glass (ft²)	People Density (ft²/person)	Lighting (W/ft²)	Plug and Process (W/ft²)	Lighting (W/ft²) Min	Lighting (W/ft²) Max	Plug and Process (W/ft²) Min	Plug and Process (W/ft²) Max
Zone 00-00	2,769	Yes	24,918	0	0	593.47	0.94	0.63	0	1.91	0	1.91
Zone 00-01	857	Yes	11,993	416	27	0	0.42	0.63	0	1.91	0	1.91
Zone 00-02	654	Yes	5,889	194	0	200.01	0.98	0.63	0	1.91	0	1.91
Zone 00-03	560	Yes	5,042	453	32	126.6	1	0.91	0	1.91	0	1.91
Zone 00-04	644	Yes	5,797	189	0	1,000.06	1.1	0.63	0	1.91	0	1.91
Zone 00-05	601	Yes	5,412	366	45	200.01	0.98	0.63	0	1.91	0	1.91
Zone 00-06	182	Yes	1,639	0	0	1,000.06	0.98	0.63	0	1.91	0	1.91
Zone 00-07	1,291	Yes	11,619	0	0	211.75	1	0.63	0	1.91	0	1.91
Zone 00-08	909	Yes	8,180	0	0	226.71	0.98	0.63	0	1.91	0	1.91
Zone 00-10	794	Yes	7,142	506	0	200.01	0.98	0.63	0	1.91	0	1.91
Zone 00-11	226	Yes	2,035	189	0	1,000.06	0.98	0.63	0	1.91	0	1.91
Zone 00-12	144	Yes	1,293	250	0	200.01	0.69	0.63	0	1.91	0	1.91
Zone 00-13	141	Yes	1,271	246	0	200.01	0.69	0.63	0	1.91	0	1.91
Zone 00-14	89	Yes	802	138	81	100.01	0.9	0.63	0	1.91	0	1.91
Zone 00-15	265	Yes	2,385	265	0	200.01	0.69	0.63	0	1.91	0	1.91
Zone 00-16	220	Yes	1,983	0	0	0	0.9	0.63	0	1.91	0	1.91
Zone 00-17	7,681	Yes	107,528	3,494	384	1,536.27	0.58	0.63	0	1.91	0	1.91
Zone 01-00	134	Yes	1,883	353	0	200.01	0.69	0.63	0	1.91	0	1.91
Zone 01-01	141	Yes	1,968	358	0	200.01	0.69	0.63	0	1.91	0	1.91
Zone 01-02	172	Yes	2,413	468	0	200.01	0.69	0.63	0	1.91	0	1.91
Zone 01-03	4,076	Yes	39,326	616	0	200.01	1.08	0.26	0	1.91	0	1.91
Zone 01-04	1,450	Yes	13,046	697	54	200.01	0.98	0.63	0	1.91	0	1.91

Zone Names	Area (ft²)	Conditioned	Volume (ft³)	Gross Wall Area (ft²)	Window Glass (ft²)	People Density (ft²/person)	Lighting (W/ft²)	Plug and Process (W/ft²)	Lighting (W/ft²) Min	Lighting (W/ft²) Max	Plug and Process (W/ft²) Min	Plug and Process (W/ft²) Max
Zone 01-05	786	Yes	11,004	817	27	0	0.42	0.63	0	1.91	0	1.91
Zone 01-06	1,104	Yes	15,456	379	0	400.67	1.05	0.63	0	1.91	0	1.91
Zone 01-07	1,525	Yes	21,352	1,316	66	281.5	1.01	0.63	0	1.91	0	1.91
Zone 01-08	596	Yes	8,346	0	0	200.01	0.98	0.63	0	1.91	0	1.91
Zone 01-09	460	Yes	6,434	422	30	218.1	0.98	0.63	0	1.91	0	1.91
Zone 01-10	483	Yes	6,758	419	33	200.01	0.98	0.63	0	1.91	0	1.91
Conditioned Total	28,953		332,914	12,552	779	342	0.85	0.58	0	1.91	0	1.91
Total	28,953		332,914	12,552	779	342	0.85	0.58	0	1.91	0	1.91
Unconditioned Total	0		0	0	0	0	0	0	0	1.91	0	1.91

Design Day: Zone Cooling (1%) and Heating (99%)

Zone Names		Calculated Design Sensible Load	User Design Sensible Load	Calculated Design Air Flow (cfm)	User Design Air Flow (cfm)	Date of Peak	External Temperature at Peak (°F)	Humidity Ratio at Peak (gr/lb)	Calculated Cooling Load (tons) Min	Calculated Cooling Load (tons) Max	Calculated Heating Load (Mbh) Min	Calculated Heating Load (Mbh) Max
Zone 00-00	Cooling	1.1 tons	1.1 tons	716	716	7/21 20:00	78.3	0	0	6.9	0	258.2
	Heating	3.1 Mbh	3.1 Mbh	591	591	1/21 24:00	4.1	0	0	258.2		
Zone 00-01	Cooling	0.6 tons	0.6 tons	360	360	9/21 14:00	80	0	0	6.9		
	Heating	10.3 Mbh	10.3 Mbh	358	358	1/21 24:00	4.1	0	0	258.2		
Zone 00-02	Cooling	0.4 tons	0.4 tons	199	199	7/21 20:00	78.3	0	0	6.9		
	Heating	2 Mbh	2 Mbh	186	186	1/21 24:00	4.1	0	0	258.2		
Zone 00-03	Cooling	0.7 tons	0.8 tons	417	441	10/21 14:00	71	0	0	6.9		
	Heating	5.6 Mbh	5.9 Mbh	407	430	1/21 24:00	4.1	0	0	258.2		
Zone 00-04	Cooling	0.4 tons	0.4 tons	212	212	8/21 17:00	82.7	0	0	6.9		
	Heating	3.1 Mbh	3.1 Mbh	206	206	1/21 24:00	4.1	0	0	258.2		
Zone 00-05	Cooling	0.8 tons	0.8 tons	441	441	7/21 18:00	82.8	0	0	6.9		
	Heating	6 Mbh	6 Mbh	432	432	1/21 24:00	4.1	0	0	258.2		

Zone Names		Calculated Design Sensible Load	User Design Sensible Load	Calculated Design Air Flow (cfm)	User Design Air Flow (cfm)	Date of Peak	External Temperature at Peak (°F)	Humidity Ratio at Peak (gr/lb)	Calculated Cooling Load (tons) Min	Calculated Heating Load (Mbh) Max
Zone 00-06	Cooling	0.1 tons	0.1 tons	44	44	7/21 20:00	78.3	0	0	6.9
	Heating	0.2 Mbh	0.2 Mbh	40	40	1/21 24:00	4.1	0	0	258.2
Zone 00-07	Cooling	0.7 tons	0.7 tons	390	390	7/21 18:00	82.8	0	0	6.9
	Heating	2.6 Mbh	2.6 Mbh	362	362	1/21 24:00	4.1	0	0	258.2
Zone 00-08	Cooling	0.4 tons	0.4 tons	244	244	7/21 20:00	78.3	0	0	6.9
	Heating	0.9 Mbh	0.9 Mbh	163	163	1/21 24:00	4.1	0	0	258.2
Zone 00-10	Cooling	0.4 tons	0.4 tons	231	231	7/21 20:00	78.3	0	0	6.9
	Heating	5 Mbh	5 Mbh	227	227	1/21 24:00	4.1	0	0	258.2
Zone 00-11	Cooling	0.1 tons	0.1 tons	59	59	7/21 20:00	78.3	0	0	6.9
	Heating	1.3 Mbh	1.3 Mbh	59	59	1/21 24:00	4.1	0	0	258.2
Zone 00-12	Cooling	0.1 tons	0.1 tons	55	55	7/21 19:00	80.2	0	0	6.9
	Heating	2.1 Mbh	2.1 Mbh	55	55	1/21 24:00	4.1	0	0	258.2
Zone 00-13	Cooling	0.1 tons	0.1 tons	57	57	7/21 20:00	78.3	0	0	6.9
	Heating	2 Mbh	2 Mbh	57	57	1/21 24:00	4.1	0	0	258.2
Zone 00-14	Cooling	0.7 tons	0.7 tons	489	489	7/21 18:00	82.8	0	0	6.9
	Heating	4.6 Mbh	4.6 Mbh	489	489	1/21 24:00	4.1	0	0	258.2
Zone 00-15	Cooling	0.1 tons	0.1 tons	81	81	7/21 19:00	80.2	0	0	6.9
	Heating	2.9 Mbh	2.9 Mbh	81	81	1/21 24:00	4.1	0	0	258.2
Zone 00-16	Cooling	0.1 tons	0.1 tons	55	55	7/21 20:00	78.3	0	0	6.9
	Heating	0.6 Mbh	0.6 Mbh	53	53	1/21 24:00	4.1	0	0	258.2
Zone 00-17	Cooling	6.9 tons	6.9 tons	3,087	3,087	7/21 16:00	86	0	0	6.9
	Heating	258.2 Mbh	258.2 Mbh	4,081	4,081	1/21 24:00	4.1	0	0	258.2
Zone 01-00	Cooling	0.2 tons	0.2 tons	85	85	7/21 19:00	80.2	0	0	6.9
	Heating	5.2 Mbh	5.2 Mbh	85	85	1/21 24:00	4.1	0	0	258.2
Zone 01-01	Cooling	0.1 tons	0.1 tons	89	89	7/21 20:00	78.3	0	0	6.9



Zone Names		Calculated Design Sensible Load	User Design Sensible Load	Calculated Design Air Flow (cfm)	User Design Air Flow (cfm)	Date of Peak	External Temperature at Peak (°F)	Humidity Ratio at Peak (gr/lb)	Calculated Cooling Load (tons) Min	Calculated Heating Load (Mbh) Max
	Heating	4.7 Mbh	4.7 Mbh	89	89	1/21 24:00	4.1	0	0	258.2
Zone 01-02	Cooling	0.2 tons	0.2 tons	114	114	7/21 19:00	80.2	0	0	6.9
	Heating	6.3 Mbh	6.3 Mbh	114	114	1/21 24:00	4.1	0	0	258.2
Zone 01-03	Cooling	2.3 tons	2.3 tons	1,159	1,159	7/21 18:00	82.8	0	0	6.9
	Heating	35.2 Mbh	35.2 Mbh	1,144	1,144	1/21 24:00	4.1	0	0	258.2
Zone 01-04	Cooling	1.1 tons	1.1 tons	638	638	8/21 14:00	85.1	0	0	6.9
	Heating	17.2 Mbh	17.2 Mbh	627	627	1/21 24:00	4.1	0	0	258.2
Zone 01-05	Cooling	0.7 tons	0.7 tons	470	470	7/21 18:00	82.8	0	0	6.9
	Heating	17.2 Mbh	17.2 Mbh	470	470	1/21 24:00	4.1	0	0	258.2
Zone 01-06	Cooling	1.1 tons	1.1 tons	636	636	7/21 19:00	80.2	0	0	6.9
	Heating	22.8 Mbh	22.8 Mbh	629	629	1/21 24:00	4.1	0	0	258.2
Zone 01-07	Cooling	1.5 tons	1.5 tons	865	865	7/21 19:00	80.2	0	0	6.9
	Heating	38.2 Mbh	38.2 Mbh	858	858	1/21 24:00	4.1	0	0	258.2
Zone 01-08	Cooling	0.5 tons	0.5 tons	290	290	7/21 19:00	80.2	0	0	6.9
	Heating	8.4 Mbh	8.4 Mbh	286	286	1/21 24:00	4.1	0	0	258.2
Zone 01-09	Cooling	0.7 tons	0.7 tons	388	388	7/21 18:00	82.8	0	0	6.9
	Heating	12.4 Mbh	12.4 Mbh	386	386	1/21 24:00	4.1	0	0	258.2
Zone 01-10	Cooling	0.7 tons	0.7 tons	390	390	7/21 18:00	82.8	0	0	6.9
	Heating	12.3 Mbh	12.3 Mbh	388	388	1/21 24:00	4.1	0	0	258.2

Zone Cooling and Heating Loads by Component

ZONE_Zone 00-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	47.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	131	0	131	0.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-556	0	-556	-3.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-426	0	-426	-
People	490	711	940	2,140	12.2
Lights	2,386	3,921	0	6,307	36.1
Miscellaneous Loads	3,571	2,521	0	6,092	34.9
Internal Subtotal	6,447	7,153	940	14,540	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	630	0	630	3.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-10	0	-10	-0.1
Grand Total	6,447	7,348	940	14,735	100.0
RA Sensible (Lights)	2,739	0	0	2,739	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,346	0	-1,346	43.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-460	0	-460	14.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,806	0	-1,806	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-1,309	0	-1,309	42.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	0.1
Grand Total	0	-3,118	0	-3,118	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	715
Cooling ACH	1.72
Sec Fan cfm	0
Input Ventilation cfm	189
Calculated Ventilation cfm	189
Calculated Ventilation ACH	0.46
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	715
Heating ACH	1.72
Sec Fan cfm	0
Input Ventilation cfm	189
Calculated Ventilation cfm	189
Calculated Ventilation ACH	0.46
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	2,861
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	3,366
Exterior Floor	0
Internal Floor	0
Slab	2,861
Other Floor	0

Engineering Checks For Cooling

Cooling tons	1.23	No People(max)	4.67
%OA	26	People per 1000 ft²	2
cfm/ft²	0.26	Volume (ft³)	24,918
cfm/ton	582		
ft²/ton	2,255		
Btu/h-ft²	5.32		

Engineering Checks For Heating

Heating Mbh	-3.12	No People(max)	4.67
%OA	26	People per 1000 ft²	2
cfm/ft²	0.26	Volume (ft³)	24,918
cfm/Mbh	-229		
ft²/Mbh	-888		
Btu/h-ft²	-1.13		

ZONE_Zone 00-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	249	2,934	0	3,183	40.2
Door	0	1,066	0	1,066	13.4
Wall	0	-193	0	-193	-2.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	43	0	43	0.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	647	0	647	8.2
Other Floor	0	0	0	0	0.0
Infiltration	360	0	699	1,059	13.4
Envelope Subtotal	609	4,497	699	5,805	-
People	0	0	0	0	0.0
Lights	331	391	0	723	9.1
Miscellaneous Loads	1,105	560	0	1,665	21.0
Internal Subtotal	1,436	952	0	2,388	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-595	0	-595	-7.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-53	0	-53	-0.7
Grand Total	2,046	4,800	699	7,545	100.0
RA Sensible (Lights)	381	0	0	381	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		97.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,765	0	0	-1,765	17.1
Door	0	-1,124	0	-1,124	10.9
Wall	0	-2,294	0	-2,294	22.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-425	0	-425	4.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	555	0	555	-5.4
Other Floor	0	0	0	0	0.0
Infiltration	-3,940	0	0	-3,954	38.4
Envelope Subtotal	-5,705	-3,288	0	-9,007	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-1,127	0	-1,127	10.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-173	0	-173	1.7
Grand Total	-5,705	-4,588	0	-10,307	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	392
Cooling ACH	1.96
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	50
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	392
Heating ACH	1.96
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	50
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	886
Window	27
Door	33
Wall	416
Below-Grade Wall	0
Other Wall	416
Partition	1,261
Exterior Floor	0
Internal Floor	0
Slab	886
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.63	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.46	Volume (ft³)	11,993
cfm/ton	624		
ft²/ton	1,363		
Btu/h-ft²	8.80		

Engineering Checks For Heating

Heating Mbh	-10.31	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.46	Volume (ft³)	11,993
cfm/Mbh	-38		
ft²/Mbh	-83		
Btu/h-ft²	-12.05		

ZONE_Zone 00-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	49.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	335	0	335	6.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	50	0	50	0.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-107	0	-107	-1.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	278	0	278	-
People	344	480	654	1,478	26.5
Lights	591	932	0	1,523	27.3
Miscellaneous Loads	844	576	0	1,420	25.5
Internal Subtotal	1,778	1,988	654	4,420	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	201	0	201	3.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-7	0	-7	-0.1
Grand Total	1,778	2,460	654	4,892	100.0
RA Sensible (Lights)	678	0	0	678	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		79.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,274	0	-1,274	65.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-241	0	-241	12.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	47	0	47	-2.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,467	0	-1,467	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-474	0	-474	24.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-11	0	-11	0.5
Grand Total	0	-1,952	0	-1,952	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	199
Cooling ACH	2.03
Sec Fan cfm	0
Input Ventilation cfm	56
Calculated Ventilation cfm	38
Calculated Ventilation ACH	0.39
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	199
Heating ACH	2.03
Sec Fan cfm	0
Input Ventilation cfm	56
Calculated Ventilation cfm	33
Calculated Ventilation ACH	0.34
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	692
Window	0
Door	0
Wall	194
Below-Grade Wall	0
Other Wall	194
Partition	1,182
Exterior Floor	0
Internal Floor	0
Slab	692
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.41	No People(max)	3.27
%OA	19	People per 1000 ft²	5
cfm/ft²	0.30	Volume (ft³)	5,889
cfm/ton	487		
ft²/ton	1,605		
Btu/h-ft²	7.48		

Engineering Checks For Heating

Heating Mbh	-1.95	No People(max)	3.27
%OA	17	People per 1000 ft²	5
cfm/ft²	0.30	Volume (ft³)	5,889
cfm/Mbh	-102		
ft²/Mbh	-335		
Btu/h-ft²	-2.99		

ZONE_Zone 00-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		10/21 14:00:00					
Outside	DB / WB / HR	71.0	°F /	60.9	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	59.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	33	5,888	0	5,921	38.6
Door	0	0	0	0	0.0
Wall	0	-859	0	-859	-5.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-574	0	-574	-3.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-483	0	-483	-3.2
Other Floor	0	0	0	0	0.0
Infiltration	-23	0	-57	-81	-0.5
Envelope Subtotal	10	3,972	-57	3,924	-
People	1,416	1,506	4,702	7,624	49.7
Lights	118	495	0	613	4.0
Miscellaneous Loads	1,048	628	0	1,676	10.9
Internal Subtotal	2,582	2,629	4,702	9,912	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-237	0	-237	-1.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	529	0	0	529	3.5
Time Delay Correction	0	-78	0	-78	-0.5
Grand Total	3,120	6,285	4,645	14,050	100.0
RA Sensible (Lights)	1,279	0	0	1,279	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,056	0	0	-2,056	34.9
Door	0	0	0	0	0.0
Wall	0	-2,713	0	-2,713	46.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	202	0	202	-3.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	368	0	368	-6.3
Other Floor	0	0	0	0	0.0
Infiltration	-892	0	0	-896	15.2
Envelope Subtotal	-2,948	-2,143	0	-5,095	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-307	0	-307	5.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	-329	0	0	-329	5.6
Time Delay Correction	0	-152	0	-152	2.6
Grand Total	-3,278	-2,602	0	-5,884	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	442
Cooling ACH	5.26
Sec Fan cfm	0
Input Ventilation cfm	112
Calculated Ventilation cfm	84
Calculated Ventilation ACH	1.00
Infiltration cfm	11
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	442
Heating ACH	5.26
Sec Fan cfm	0
Input Ventilation cfm	112
Calculated Ventilation cfm	74
Calculated Ventilation ACH	0.88
Infiltration cfm	11
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	593
Window	32
Door	0
Wall	453
Below-Grade Wall	0
Other Wall	453
Partition	760
Exterior Floor	0
Internal Floor	0
Slab	593
Other Floor	0

Engineering Checks For Cooling

Cooling tons	1.17	No People(max)	4.43
%OA	19	People per 1000 ft²	8
cfm/ft²	0.79	Volume (ft³)	5,042
cfm/ton	377		
ft²/ton	479		
Btu/h-ft²	25.05		

Engineering Checks For Heating

Heating Mbh	-5.88	No People(max)	4.43
%OA	17	People per 1000 ft²	8
cfm/ft²	0.79	Volume (ft³)	5,042
cfm/Mbh	-75		
ft²/Mbh	-95		
Btu/h-ft²	-10.53		

ZONE_Zone 00-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 17:00:00					
Outside	DB / WB / HR	82.7	°F /	71.2	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	47.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	288	0	288	5.1
Wall	0	143	0	143	2.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	465	0	465	8.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-123	0	-123	-2.2
Other Floor	0	0	0	0	0.0
Infiltration	70	0	182	252	4.5
Envelope Subtotal	70	773	182	1,025	-
People	68	110	161	339	6.0
Lights	653	1,234	0	1,887	33.6
Miscellaneous Loads	831	673	0	1,504	26.8
Internal Subtotal	1,551	2,018	161	3,730	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	117	0	117	2.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	-0.2
Grand Total	1,621	2,899	343	4,863	100.0
RA Sensible (Lights)	749	0	0	749	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		84.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	-683	0	-683	22.1
Wall	0	-1,116	0	-1,116	36.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-289	0	-289	9.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-5	0	-5	0.2
Other Floor	0	0	0	0	0.0
Infiltration	-551	0	0	-553	17.9
Envelope Subtotal	-551	-2,093	0	-2,646	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-410	0	-410	13.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-39	0	-39	1.3
Grand Total	-551	-2,542	0	-3,095	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	212
Cooling ACH	2.19
Sec Fan cfm	0
Input Ventilation cfm	39
Calculated Ventilation cfm	40
Calculated Ventilation ACH	0.41
Infiltration cfm	7
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	212
Heating ACH	2.19
Sec Fan cfm	0
Input Ventilation cfm	39
Calculated Ventilation cfm	35
Calculated Ventilation ACH	0.36
Infiltration cfm	7
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	716
Window	0
Door	19
Wall	189
Below-Grade Wall	0
Other Wall	189
Partition	2,424
Exterior Floor	0
Internal Floor	0
Slab	716
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.41	No People(max)	0.64
%OA	19	People per 1000 ft²	1
cfm/ft²	0.33	Volume (ft³)	5,797
cfm/ton	523		
ft²/ton	1,589		
Btu/h-ft²	7.55		

Engineering Checks For Heating

Heating Mbh	-3.09	No People(max)	0.64
%OA	17	People per 1000 ft²	1
cfm/ft²	0.33	Volume (ft³)	5,797
cfm/Mbh	-68		
ft²/Mbh	-208		
Btu/h-ft²	-4.81		

ZONE_Zone 00-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	48.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	432	6,538	0	6,970	63.4
Door	0	0	0	0	0.0
Wall	0	-407	0	-407	-3.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-502	0	-502	-4.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	386	0	386	3.5
Other Floor	0	0	0	0	0.0
Infiltration	137	0	350	486	4.4
Envelope Subtotal	569	6,014	350	6,932	-
People	316	389	601	1,307	11.9
Lights	543	754	0	1,297	11.8
Miscellaneous Loads	776	480	0	1,256	11.4
Internal Subtotal	1,634	1,623	601	3,859	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-376	0	-376	-3.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-47	0	-47	-0.4
Grand Total	2,203	7,215	951	10,369	100.0
RA Sensible (Lights)	623	0	0	623	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,927	0	0	-2,927	49.1
Door	0	0	0	0	0.0
Wall	0	-2,061	0	-2,061	34.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	179	0	179	-3.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	444	0	444	-7.5
Other Floor	0	0	0	0	0.0
Infiltration	-1,067	0	0	-1,071	18.0
Envelope Subtotal	-3,993	-1,437	0	-5,435	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-322	0	-322	5.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-203	0	-203	3.4
Grand Total	-3,993	-1,962	0	-5,960	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	442
Cooling ACH	4.90
Sec Fan cfm	0
Input Ventilation cfm	51
Calculated Ventilation cfm	84
Calculated Ventilation ACH	0.93
Infiltration cfm	14
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	442
Heating ACH	4.90
Sec Fan cfm	0
Input Ventilation cfm	51
Calculated Ventilation cfm	73
Calculated Ventilation ACH	0.81
Infiltration cfm	14
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	629
Window	45
Door	0
Wall	366
Below-Grade Wall	0
Other Wall	366
Partition	644
Exterior Floor	0
Internal Floor	0
Slab	629
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.86	No People(max)	3.01
%OA	19	People per 1000 ft²	5
cfm/ft²	0.73	Volume (ft³)	5,412
cfm/ton	511		
ft²/ton	696		
Btu/h-ft²	17.24		

Engineering Checks For Heating

Heating Mbh	-5.96	No People(max)	3.01
%OA	17	People per 1000 ft²	5
cfm/ft²	0.73	Volume (ft³)	5,412
cfm/Mbh	-74		
ft²/Mbh	-101		
Btu/h-ft²	-9.90		

ZONE_Zone 00-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	46.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	19	0	19	1.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-25	0	-25	-2.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-6	0	-6	-
People	18	29	28	75	6.5
Lights	164	279	0	443	38.3
Miscellaneous Loads	235	171	0	406	35.0
Internal Subtotal	417	478	28	924	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	52	0	52	4.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	417	524	28	969	100.0
RA Sensible (Lights)	189	0	0	189	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-72	0	-72	32.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-49	0	-49	22.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-121	0	-121	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-98	0	-98	44.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-219	0	-219	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	44
Cooling ACH	1.61
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	8
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	44
Heating ACH	1.61
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	7
Calculated Ventilation ACH	0.26
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	196
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	519
Exterior Floor	0
Internal Floor	0
Slab	196
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.08	No People(max)	0.18
%OA	19	People per 1000 ft²	1
cfm/ft²	0.24	Volume (ft³)	1,639
cfm/ton	546		
ft²/ton	2,255		
Btu/h-ft²	5.32		

Engineering Checks For Heating

Heating Mbh	-0.22	No People(max)	0.18
%OA	17	People per 1000 ft²	1
cfm/ft²	0.24	Volume (ft³)	1,639
cfm/Mbh	-202		
ft²/Mbh	-832		
Btu/h-ft²	-1.20		

ZONE_Zone 00-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	519	0	519	4.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-283	0	-283	-2.6
Other Floor	0	0	0	0	0.0
Infiltration	112	0	270	382	3.5
Envelope Subtotal	112	236	270	618	-
People	623	979	1,129	2,731	24.7
Lights	1,191	2,069	0	3,260	29.5
Miscellaneous Loads	1,665	1,251	0	2,917	26.4
Internal Subtotal	3,479	4,299	1,129	8,907	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	189	0	189	1.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-17	0	-17	-0.2
Grand Total	3,591	4,707	1,399	9,697	100.0
RA Sensible (Lights)	1,368	0	0	1,368	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-781	0	-781	29.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-283	0	-283	10.7
Other Floor	0	0	0	0	0.0
Infiltration	-871	0	0	-874	33.0
Envelope Subtotal	-871	-1,065	0	-1,939	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-710	0	-710	26.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	0.1
Grand Total	-871	-1,776	0	-2,650	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	389
Cooling ACH	2.01
Sec Fan cfm	0
Input Ventilation cfm	106
Calculated Ventilation cfm	74
Calculated Ventilation ACH	0.38
Infiltration cfm	11
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	389
Heating ACH	2.01
Sec Fan cfm	0
Input Ventilation cfm	106
Calculated Ventilation cfm	65
Calculated Ventilation ACH	0.34
Infiltration cfm	11
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,381
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	3,283
Exterior Floor	0
Internal Floor	0
Slab	1,381
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.81	No People(max)	6.10
%OA	19	People per 1000 ft²	5
cfm/ft²	0.30	Volume (ft³)	11,619
cfm/ton	481		
ft²/ton	1,598		
Btu/h-ft²	7.51		

Engineering Checks For Heating

Heating Mbh	-2.65	No People(max)	6.10
%OA	17	People per 1000 ft²	5
cfm/ft²	0.30	Volume (ft³)	11,619
cfm/Mbh	-147		
ft²/Mbh	-487		
Btu/h-ft²	-2.05		

ZONE_Zone 00-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	49.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-193	0	-193	-2.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-188	0	-188	-2.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-381	0	-381	-
People	420	659	796	1,875	27.0
Lights	821	1,450	0	2,271	32.7
Miscellaneous Loads	1,172	893	0	2,065	29.8
Internal Subtotal	2,413	3,002	796	6,211	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	175	0	175	2.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-8	0	-8	-0.1
Grand Total	2,413	2,789	796	5,997	100.0
RA Sensible (Lights)	942	0	0	942	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-168	0	-168	19.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-262	0	-262	30.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-429	0	-429	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-433	0	-433	50.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-863	0	-863	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	244
Cooling ACH	1.79
Sec Fan cfm	0
Input Ventilation cfm	66
Calculated Ventilation cfm	46
Calculated Ventilation ACH	0.34
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	244
Heating ACH	1.79
Sec Fan cfm	0
Input Ventilation cfm	66
Calculated Ventilation cfm	41
Calculated Ventilation ACH	0.30
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	968
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	2,162
Exterior Floor	0
Internal Floor	0
Slab	968
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.50	No People(max)	4.01
%OA	19	People per 1000 ft²	4
cfm/ft²	0.27	Volume (ft³)	8,180
cfm/ton	488		
ft²/ton	1,819		
Btu/h-ft²	6.60		

Engineering Checks For Heating

Heating Mbh	-0.86	No People(max)	4.01
%OA	17	People per 1000 ft²	4
cfm/ft²	0.27	Volume (ft³)	8,180
cfm/Mbh	-283		
ft²/Mbh	-1,053		
Btu/h-ft²	-0.95		

ZONE_Zone 00-10

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	52.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	517	0	517	7.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-117	0	-117	-1.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-143	0	-143	-2.1
Other Floor	0	0	0	0	0.0
Infiltration	99	0	413	512	7.3
Envelope Subtotal	99	257	413	769	-
People	417	539	794	1,749	25.1
Lights	716	1,046	0	1,763	25.3
Miscellaneous Loads	1,024	649	0	1,672	24.0
Internal Subtotal	2,157	2,234	794	5,184	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	202	0	202	2.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-12	0	-12	-0.2
Grand Total	2,255	2,681	1,206	6,143	100.0
RA Sensible (Lights)	823	0	0	823	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		90.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-3,287	0	-3,287	66.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	221	0	221	-4.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	348	0	348	-7.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,407	0	0	-1,413	28.5
Envelope Subtotal	-1,407	-2,719	0	-4,132	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-804	0	-804	16.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-24	0	-24	0.5
Grand Total	-1,407	-3,547	0	-4,960	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	231
Cooling ACH	1.94
Sec Fan cfm	0
Input Ventilation cfm	67
Calculated Ventilation cfm	44
Calculated Ventilation ACH	0.37
Infiltration cfm	18
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	231
Heating ACH	1.94
Sec Fan cfm	0
Input Ventilation cfm	67
Calculated Ventilation cfm	39
Calculated Ventilation ACH	0.33
Infiltration cfm	18
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	824
Window	0
Door	0
Wall	506
Below-Grade Wall	0
Other Wall	506
Partition	602
Exterior Floor	0
Internal Floor	0
Slab	824
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.51	No People(max)	3.97
%OA	19	People per 1000 ft²	5
cfm/ft²	0.29	Volume (ft³)	7,142
cfm/ton	452		
ft²/ton	1,550		
Btu/h-ft²	7.74		

Engineering Checks For Heating

Heating Mbh	-4.96	No People(max)	3.97
%OA	17	People per 1000 ft²	5
cfm/ft²	0.29	Volume (ft³)	7,142
cfm/Mbh	-47		
ft²/Mbh	-160		
Btu/h-ft²	-6.25		

ZONE_Zone 00-11

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	46.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	156	0	156	10.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	20	0	20	1.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-26	0	-26	-1.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	150	0	150	-
People	22	32	35	89	5.8
Lights	204	313	0	517	33.3
Miscellaneous Loads	292	191	0	483	31.1
Internal Subtotal	518	536	35	1,089	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	78	0	78	5.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	518	764	35	1,317	100.0
RA Sensible (Lights)	234	0	0	234	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		90.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,229	0	-1,229	95.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	128	0	128	-9.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	85	0	85	-6.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,016	0	-1,016	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-264	0	-264	20.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	0.7
Grand Total	0	-1,289	0	-1,289	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	60
Cooling ACH	1.77
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	11
Calculated Ventilation ACH	0.32
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	60
Heating ACH	1.77
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	10
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	243
Window	0
Door	0
Wall	189
Below-Grade Wall	0
Other Wall	189
Partition	424
Exterior Floor	0
Internal Floor	0
Slab	243
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.11	No People(max)	0.23
%OA	19	People per 1000 ft²	1
cfm/ft²	0.27	Volume (ft³)	2,035
cfm/ton	547		
ft²/ton	2,060		
Btu/h-ft²	5.83		

Engineering Checks For Heating

Heating Mbh	-1.29	No People(max)	0.23
%OA	17	People per 1000 ft²	1
cfm/ft²	0.27	Volume (ft³)	2,035
cfm/Mbh	-47		
ft²/Mbh	-175		
Btu/h-ft²	-5.71		

ZONE_Zone 00-12

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	184	0	184	12.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	270	0	270	17.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-19	0	-19	-1.2
Other Floor	0	0	0	0	0.0
Infiltration	24	0	80	104	6.9
Envelope Subtotal	24	435	80	539	-
People	75	92	144	311	20.5
Lights	91	131	0	222	14.6
Miscellaneous Loads	185	114	0	299	19.7
Internal Subtotal	352	336	144	831	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	45	0	45	3.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	-0.2
Grand Total	376	812	224	1,412	100.0
RA Sensible (Lights)	105	0	0	105	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		105.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,590	0	-1,590	76.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	51	0	51	-2.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	141	0	141	-6.8
Other Floor	0	0	0	0	0.0
Infiltration	-255	0	0	-256	12.4
Envelope Subtotal	-255	-1,398	0	-1,654	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-405	0	-405	19.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	0.4
Grand Total	-255	-1,813	0	-2,068	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	79
Cooling ACH	3.67
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	3
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	79
Heating ACH	3.67
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	3
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	156
Window	0
Door	0
Wall	250
Below-Grade Wall	0
Other Wall	250
Partition	222
Exterior Floor	0
Internal Floor	0
Slab	156
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.12	No People(max)	0.72
%OA	0	People per 1000 ft²	5
cfm/ft²	0.55	Volume (ft³)	1,293
cfm/ton	669		
ft²/ton	1,221		
Btu/h-ft²	9.83		

Engineering Checks For Heating

Heating Mbh	-2.07	No People(max)	0.72
%OA	0	People per 1000 ft²	5
cfm/ft²	0.55	Volume (ft³)	1,293
cfm/Mbh	-38		
ft²/Mbh	-69		
Btu/h-ft²	-14.49		

ZONE_Zone 00-13

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	366	0	366	23.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	103	0	103	6.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-18	0	-18	-1.2
Other Floor	0	0	0	0	0.0
Infiltration	18	0	79	96	6.3
Envelope Subtotal	18	451	79	547	-
People	74	94	141	310	20.2
Lights	90	131	0	221	14.4
Miscellaneous Loads	182	114	0	296	19.3
Internal Subtotal	346	339	141	826	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	57	0	57	3.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.2
Grand Total	364	845	220	1,429	100.0
RA Sensible (Lights)	103	0	0	103	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		102.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,569	0	-1,569	79.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	93	0	93	-4.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	132	0	132	-6.7
Other Floor	0	0	0	0	0.0
Infiltration	-251	0	0	-252	12.7
Envelope Subtotal	-251	-1,343	0	-1,595	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-379	0	-379	19.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	0.4
Grand Total	-251	-1,731	0	-1,982	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	76
Cooling ACH	3.59
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	3
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	76
Heating ACH	3.59
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	3
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	154
Window	0
Door	0
Wall	246
Below-Grade Wall	0
Other Wall	246
Partition	222
Exterior Floor	0
Internal Floor	0
Slab	154
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.12	No People(max)	0.71
%OA	0	People per 1000 ft²	5
cfm/ft²	0.54	Volume (ft³)	1,271
cfm/ton	635		
ft²/ton	1,186		
Btu/h-ft²	10.12		

Engineering Checks For Heating

Heating Mbh	-1.98	No People(max)	0.71
%OA	0	People per 1000 ft²	5
cfm/ft²	0.54	Volume (ft³)	1,271
cfm/Mbh	-38		
ft²/Mbh	-71		
Btu/h-ft²	-14.08		

ZONE_Zone 00-14

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		56.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,790	9,171	0	10,961	117.1
Door	0	0	0	0	0.0
Wall	0	-441	0	-441	-4.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,748	0	-1,748	-18.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-44	0	-44	-0.5
Other Floor	0	0	0	0	0.0
Infiltration	135	0	330	465	5.0
Envelope Subtotal	1,925	6,938	330	9,194	-
People	87	144	138	369	3.9
Lights	74	126	0	199	2.1
Miscellaneous Loads	115	87	0	202	2.2
Internal Subtotal	276	356	138	771	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-447	0	-447	-4.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-245	0	-245	-2.6
Grand Total	2,202	6,603	468	9,273	100.0
RA Sensible (Lights)	85	0	0	85	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		79.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-3,667	0	0	-3,667	78.9
Door	0	0	0	0	0.0
Wall	0	-324	0	-324	7.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	489	0	489	-10.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	225	0	225	-4.8
Other Floor	0	0	0	0	0.0
Infiltration	-1,054	0	0	-1,058	22.8
Envelope Subtotal	-4,721	390	0	-4,335	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-96	0	-96	2.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-216	0	-216	4.7
Grand Total	-4,721	78	0	-4,647	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	176
Cooling ACH	13.17
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	176
Heating ACH	13.17
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	100
Window	81
Door	0
Wall	138
Below-Grade Wall	0
Other Wall	138
Partition	256
Exterior Floor	0
Internal Floor	0
Slab	100
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.77	No People(max)	0.89
%OA	0	People per 1000 ft²	10
cfm/ft²	1.98	Volume (ft³)	802
cfm/ton	228		
ft²/ton	115		
Btu/h-ft²	104.35		

Engineering Checks For Heating

Heating Mbh	-4.65	No People(max)	0.89
%OA	0	People per 1000 ft²	10
cfm/ft²	1.98	Volume (ft³)	802
cfm/Mbh	-38		
ft²/Mbh	-19		
Btu/h-ft²	-52.63		

ZONE_Zone 00-15

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		52.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	183	0	183	7.7
Wall	0	199	0	199	8.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	6	0	6	0.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-36	0	-36	-1.5
Other Floor	0	0	0	0	0.0
Infiltration	45	0	147	192	8.0
Envelope Subtotal	45	352	147	544	-
People	139	185	265	589	24.6
Lights	168	261	0	429	18.0
Miscellaneous Loads	342	227	0	569	23.8
Internal Subtotal	649	673	265	1,587	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	73	0	73	3.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-6	0	-6	-0.2
Grand Total	694	1,092	412	2,199	100.0
RA Sensible (Lights)	193	0	0	193	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		104.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	-645	0	-645	22.1
Wall	0	-1,579	0	-1,579	54.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	115	0	115	-3.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	204	0	204	-7.0
Other Floor	0	0	0	0	0.0
Infiltration	-470	0	0	-472	16.2
Envelope Subtotal	-470	-1,905	0	-2,377	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-505	0	-505	17.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-33	0	-33	1.1
Grand Total	-470	-2,444	0	-2,915	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	111
Cooling ACH	2.79
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	6
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	111
Heating ACH	2.79
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	6
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	283
Window	0
Door	19
Wall	265
Below-Grade Wall	0
Other Wall	265
Partition	406
Exterior Floor	0
Internal Floor	0
Slab	283
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.18	No People(max)	1.33
%OA	0	People per 1000 ft²	5
cfm/ft²	0.42	Volume (ft³)	2,385
cfm/ton	606		
ft²/ton	1,447		
Btu/h-ft²	8.29		

Engineering Checks For Heating

Heating Mbh	-2.92	No People(max)	1.33
%OA	0	People per 1000 ft²	5
cfm/ft²	0.42	Volume (ft³)	2,385
cfm/Mbh	-38		
ft²/Mbh	-91		
Btu/h-ft²	-10.99		

ZONE_Zone 00-16

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	46.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	119	0	119	8.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-35	0	-35	-2.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	83	0	83	-
People	0	0	0	0	0.0
Lights	183	337	0	520	37.4
Miscellaneous Loads	284	225	0	509	36.6
Internal Subtotal	467	562	0	1,029	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	69	0	69	5.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	467	714	0	1,181	100.0
RA Sensible (Lights)	210	0	0	210	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		80.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-338	0	-338	61.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-14	0	-14	2.5
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-352	0	-352	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-202	0	-202	36.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-554	0	-554	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	55
Cooling ACH	1.66
Sec Fan cfm	0
Input Ventilation cfm	13
Calculated Ventilation cfm	11
Calculated Ventilation ACH	0.33
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	55
Heating ACH	1.66
Sec Fan cfm	0
Input Ventilation cfm	13
Calculated Ventilation cfm	9
Calculated Ventilation ACH	0.27
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	238
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	640
Exterior Floor	0
Internal Floor	0
Slab	238
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.10	No People(max)	0.00
%OA	19	People per 1000 ft²	0
cfm/ft²	0.25	Volume (ft³)	1,983
cfm/ton	562		
ft²/ton	2,238		
Btu/h-ft²	5.36		

Engineering Checks For Heating

Heating Mbh	-0.55	No People(max)	0.00
%OA	17	People per 1000 ft²	0
cfm/ft²	0.25	Volume (ft³)	1,983
cfm/Mbh	-100		
ft²/Mbh	-398		
Btu/h-ft²	-2.51		

ZONE_Zone 00-17

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 16:00:00					
Outside	DB / WB / HR	86.0	°F /	72.2	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	55.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		48.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	36,590	0	36,590	27.8
Other Roof	0	0	0	0	0.0
Glass	5,127	2,694	0	7,822	5.9
Door	0	0	0	0	0.0
Wall	0	522	0	522	0.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,200	0	-1,200	-0.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-1,189	0	-1,189	-0.9
Other Floor	0	0	0	0	0.0
Infiltration	23,725	0	36,354	60,079	45.7
Envelope Subtotal	28,852	37,417	36354	102,623	-
People	525	376	1,000	1,901	1.4
Lights	0	1,993	0	1,993	1.5
Miscellaneous Loads	9,906	3,960	0	13,866	10.5
Internal Subtotal	10,431	6,328	1,000	17,759	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-736	0	-736	-0.6
Grand Total	39,283	43,009	37,354	119,646	100.0
RA Sensible (Lights)	11,856	0	0	11,856	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		130.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-103,593	0	-103,593	40.1
Other Roof	0	0	0	0	0.0
Glass	-14,754	0	0	-14,754	5.7
Door	0	0	0	0	0.0
Wall	0	-18,519	0	-18,519	7.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	2,772	0	2,772	-1.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	18,708	0	18,708	-7.2
Other Floor	0	0	0	0	0.0
Infiltration	-141,286	0	0	-141,682	54.8
Envelope Subtotal	-156,040	-100,633	0	-257,069	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1,495	0	-1,495	0.6
Grand Total	-156,040	-102,127	0	-258,564	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	4,082
Cooling ACH	2.28
Sec Fan cfm	0
Input Ventilation cfm	511
Calculated Ventilation cfm	511
Calculated Ventilation ACH	0.29
Infiltration cfm	1,788
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	4,082
Heating ACH	2.28
Sec Fan cfm	0
Input Ventilation cfm	511
Calculated Ventilation cfm	511
Calculated Ventilation ACH	0.29
Infiltration cfm	1,790
Min Stop/RH (%)	100

Areas	ft²
Roof	7,773
Other Roof	7,773
Ceiling	0
Window	384
Door	0
Wall	3,494
Below-Grade Wall	0
Other Wall	3,494
Partition	1,671
Exterior Floor	0
Internal Floor	0
Slab	7,773
Other Floor	0

Engineering Checks For Cooling

Cooling tons	9.97	No People(max)	5.00
%OA	13	People per 1000 ft²	1
cfm/ft²	0.53	Volume (ft³)	107,528
cfm/ton	409		
ft²/ton	770		
Btu/h-ft²	15.58		

Engineering Checks For Heating

Heating Mbh	-258.56	No People(max)	5.00
%OA	13	People per 1000 ft²	1
cfm/ft²	0.53	Volume (ft³)	107,528
cfm/Mbh	-16		
ft²/Mbh	-30		
Btu/h-ft²	-33.33		

ZONE_Zone 01-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		52.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	759	0	759	30.9
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	290	0	290	11.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	193	0	193	7.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-4	0	-4	-0.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	93	0	311	404	16.4
Envelope Subtotal	93	1,237	311	1,641	-
People	71	71	134	276	11.2
Lights	85	103	0	189	7.7
Miscellaneous Loads	173	90	0	263	10.7
Internal Subtotal	329	264	134	728	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	-0.4
Grand Total	423	1,492	445	2,360	100.0
RA Sensible (Lights)	98	0	0	98	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		128.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-1,990	0	-1,990	38.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-2,162	0	-2,162	41.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	70	0	70	-1.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-126	0	-126	2.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-990	0	0	-994	19.0
Envelope Subtotal	-990	-4,208	0	-5,202	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-22	0	-22	0.4
Grand Total	-990	-4,230	0	-5,224	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	198
Cooling ACH	6.31
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	12
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	198
Heating ACH	6.31
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A

Areas	ft²
Roof	147
Other Roof	147
Ceiling	0
Window	0
Door	0
Wall	353
Below-Grade Wall	0
Other Wall	353
Partition	353
Exterior Floor	0
Internal Floor	147
Slab	0
Other Floor	147

Engineering Checks For Cooling

Cooling tons	0.20	No People(max)	0.67
%OA	0	People per 1000 ft²	5
cfm/ft²	1.48	Volume (ft³)	1,883
cfm/ton	1,009		
ft²/ton	684		
Btu/h-ft²	17.54		

Engineering Checks For Heating

Heating Mbh	-5.22	No People(max)	0.67
%OA	0	People per 1000 ft²	5
cfm/ft²	1.48	Volume (ft³)	1,883
cfm/Mbh	-38		
ft²/Mbh	-26		
Btu/h-ft²	-38.46		

ZONE_Zone 01-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		54.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	749	0	749	34.9
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	260	0	260	12.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	141	0	141	6.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-2	0	-2	-0.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	27	0	122	149	6.9
Envelope Subtotal	27	1,147	122	1,296	-
People	74	75	141	289	13.5
Lights	89	105	0	194	9.0
Miscellaneous Loads	181	91	0	272	12.7
Internal Subtotal	345	270	141	755	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-8	0	-8	-0.4
Grand Total	371	1,410	263	2,044	100.0
RA Sensible (Lights)	103	0	0	103	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		120.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-2,077	0	-2,077	44.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-2,197	0	-2,197	46.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	118	0	118	-2.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-144	0	-144	3.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-388	0	0	-390	8.3
Envelope Subtotal	-388	-4,300	0	-4,690	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-23	0	-23	0.5
Grand Total	-388	-4,323	0	-4,713	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	179
Cooling ACH	5.46
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	5
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	179
Heating ACH	5.46
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	5
Min Stop/RH (%)	N/A

Areas	ft²
Roof	153
Other Roof	153
Ceiling	0
Window	0
Door	0
Wall	358
Below-Grade Wall	0
Other Wall	358
Partition	358
Exterior Floor	0
Internal Floor	153
Slab	0
Other Floor	153

Engineering Checks For Cooling

Cooling tons	0.17	No People(max)	0.70
%OA	0	People per 1000 ft²	5
cfm/ft²	1.27	Volume (ft³)	1,968
cfm/ton	1,050		
ft²/ton	825		
Btu/h-ft²	14.55		

Engineering Checks For Heating

Heating Mbh	-4.71	No People(max)	0.70
%OA	0	People per 1000 ft²	5
cfm/ft²	1.27	Volume (ft³)	1,968
cfm/Mbh	-38		
ft²/Mbh	-30		
Btu/h-ft²	-33.33		

ZONE_Zone 01-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	993	0	993	33.6
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	511	0	511	17.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	95	0	95	3.2
Exterior Floor	0	6	0	6	0.2
Interior Floor	0	-29	0	-29	-1.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	75	0	249	324	11.0
Envelope Subtotal	75	1,576	249	1,899	-
People	91	93	172	356	12.1
Lights	110	134	0	244	8.3
Miscellaneous Loads	222	117	0	339	11.5
Internal Subtotal	422	344	172	939	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-11	0	-11	-0.4
Grand Total	497	1,909	422	2,827	100.0
RA Sensible (Lights)	126	0	0	126	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		121.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-2,560	0	-2,560	40.8
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-2,874	0	-2,874	45.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	50	0	50	-0.8
Exterior Floor	0	-75	0	-75	1.2
Interior Floor	0	6	0	6	-0.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-793	0	0	-796	12.7
Envelope Subtotal	-793	-5,453	0	-6,250	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-29	0	-29	0.5
Grand Total	-793	-5,483	0	-6,279	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	238
Cooling ACH	5.92
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	10
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	238
Heating ACH	5.92
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	10
Min Stop/RH (%)	N/A

Areas	ft²
Roof	189
Other Roof	189
Ceiling	0
Window	0
Door	0
Wall	468
Below-Grade Wall	0
Other Wall	468
Partition	465
Exterior Floor	34
Internal Floor	155
Slab	0
Other Floor	155

Engineering Checks For Cooling

Cooling tons	0.24	No People(max)	0.86
%OA	0	People per 1000 ft²	5
cfm/ft²	1.38	Volume (ft³)	2,413
cfm/ton	1,012		
ft²/ton	731		
Btu/h-ft²	16.42		

Engineering Checks For Heating

Heating Mbh	-6.28	No People(max)	0.86
%OA	0	People per 1000 ft²	5
cfm/ft²	1.38	Volume (ft³)	2,413
cfm/Mbh	-38		
ft²/Mbh	-27		
Btu/h-ft²	-37.04		

ZONE_Zone 01-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	47.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		50.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	3,044	0	3,044	8.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	1,012	0	1,012	2.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	156	0	156	0.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-1,805	0	-1,805	-4.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	696	0	1,837	2,532	6.8
Envelope Subtotal	696	2,407	1837	4,939	-
People	2,016	2,752	3,278	8,045	21.5
Lights	4,072	5,923	0	9,995	26.7
Miscellaneous Loads	2,135	1,288	0	3,423	9.1
Internal Subtotal	8,222	9,963	3,278	21,463	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	6,459	0	6,459	17.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-86	0	-86	-0.2
Grand Total	8,917	18,743	5,114	32,775	100.0
RA Sensible (Lights)	4,675	0	0	4,675	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		99.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-7,748	0	-7,748	22.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-3,901	0	-3,901	11.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,499	0	-1,499	4.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	2,629	0	2,629	-7.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-5,456	0	0	-5,478	15.6
Envelope Subtotal	-5,456	-10,519	0	-15,997	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-19,028	0	-19,028	54.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-163	0	-163	0.5
Grand Total	-5,456	-29,711	0	-35,189	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	1,159
Cooling ACH	1.77
Sec Fan cfm	0
Input Ventilation cfm	559
Calculated Ventilation cfm	559
Calculated Ventilation ACH	0.85
Infiltration cfm	69
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	1,159
Heating ACH	1.77
Sec Fan cfm	0
Input Ventilation cfm	559
Calculated Ventilation cfm	559
Calculated Ventilation ACH	0.85
Infiltration cfm	69
Min Stop/RH (%)	100

Areas	ft²
Roof	557
Other Roof	557
Ceiling	3,609
Window	0
Door	0
Wall	616
Below-Grade Wall	0
Other Wall	616
Partition	3,237
Exterior Floor	0
Internal Floor	4,166
Slab	0
Other Floor	4,166

Engineering Checks For Cooling

Cooling tons	2.73	No People(max)	20.38
%OA	48	People per 1000 ft²	5
cfm/ft²	0.28	Volume (ft³)	39,326
cfm/ton	424		
ft²/ton	1,492		
Btu/h-ft²	8.04		

Engineering Checks For Heating

Heating Mbh	-35.19	No People(max)	20.38
%OA	48	People per 1000 ft²	5
cfm/ft²	0.28	Volume (ft³)	39,326
cfm/Mbh	-33		
ft²/Mbh	-116		
Btu/h-ft²	-8.62		

ZONE_Zone 01-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 14:00:00					
Outside	DB / WB / HR	85.1	°F /	71.9	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	608	5,223	0	5,831	33.7
Door	0	0	0	0	0.0
Wall	0	-422	0	-422	-2.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-232	0	-232	-1.3
Exterior Floor	0	-32	0	-32	-0.2
Interior Floor	0	-471	0	-471	-2.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	402	0	789	1,191	6.9
Envelope Subtotal	1,010	4,065	789	5,864	-
People	761	793	1,450	3,004	17.3
Lights	1,309	1,569	0	2,877	16.6
Miscellaneous Loads	1,870	1,086	0	2,956	17.1
Internal Subtotal	3,939	3,448	1,450	8,837	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	1,170	0	1,170	6.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-47	0	-47	-0.3
Grand Total	4,950	8,635	2,238	15,823	100.0
RA Sensible (Lights)	1,503	0	0	1,503	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		96.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-3,584	0	0	-3,584	20.8
Door	0	0	0	0	0.0
Wall	0	-3,995	0	-3,995	23.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-78	0	-78	0.5
Exterior Floor	0	-192	0	-192	1.1
Interior Floor	0	702	0	702	-4.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-2,573	0	0	-2,583	15.0
Envelope Subtotal	-6,157	-3,562	0	-9,730	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	-7,237	0	-7,237	42.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-246	0	-246	1.4
Grand Total	-6,157	-11,045	0	-17,212	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	637
Cooling ACH	2.93
Sec Fan cfm	0
Input Ventilation cfm	123
Calculated Ventilation cfm	121
Calculated Ventilation ACH	0.56
Infiltration cfm	32
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	637
Heating ACH	2.93
Sec Fan cfm	0
Input Ventilation cfm	123
Calculated Ventilation cfm	106
Calculated Ventilation ACH	0.49
Infiltration cfm	33
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,488
Window	54
Door	0
Wall	697
Below-Grade Wall	0
Other Wall	697
Partition	697
Exterior Floor	85
Internal Floor	1,403
Slab	0
Other Floor	1,403

Engineering Checks For Cooling

Cooling tons	1.32	No People(max)	7.25
%OA	19	People per 1000 ft²	5
cfm/ft²	0.44	Volume (ft³)	13,046
cfm/ton	483		
ft²/ton	1,099		
Btu/h-ft²	10.92		

Engineering Checks For Heating

Heating Mbh	-17.21	No People(max)	7.25
%OA	17	People per 1000 ft²	5
cfm/ft²	0.44	Volume (ft³)	13,046
cfm/Mbh	-37		
ft²/Mbh	-84		
Btu/h-ft²	-11.90		

ZONE_Zone 01-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		57.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	4,348	0	4,348	52.8
Other Roof	0	0	0	0	0.0
Glass	86	860	0	945	11.5
Door	0	0	0	0	0.0
Wall	0	820	0	820	10.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	231	0	231	2.8
Exterior Floor	0	2	0	2	0.0
Interior Floor	0	-582	0	-582	-7.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	86	5,678	0	5,764	-
People	0	0	0	0	0.0
Lights	304	344	0	648	7.9
Miscellaneous Loads	1,014	493	0	1,507	18.3
Internal Subtotal	1,318	838	0	2,156	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-33	0	-33	-0.4
Grand Total	1,404	6,482	0	7,886	100.0
RA Sensible (Lights)	349	0	0	349	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		104.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-10,927	0	-10,927	63.6
Other Roof	0	0	0	0	0.0
Glass	-1,738	0	0	-1,738	10.1
Door	0	0	0	0	0.0
Wall	0	-4,753	0	-4,753	27.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-519	0	-519	3.0
Exterior Floor	0	-101	0	-101	0.6
Interior Floor	0	1,046	0	1,046	-6.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	-1,738	-15,253	0	-16,991	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-183	0	-183	1.1
Grand Total	-1,738	-15,436	0	-17,174	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	651
Cooling ACH	3.55
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	651
Heating ACH	3.55
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	815
Other Roof	815
Ceiling	0
Window	27
Door	0
Wall	817
Below-Grade Wall	0
Other Wall	817
Partition	817
Exterior Floor	46
Internal Floor	769
Slab	0
Other Floor	769

Engineering Checks For Cooling

Cooling tons	0.66	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.83	Volume (ft³)	11,004
cfm/ton	990		
ft²/ton	1,196		
Btu/h-ft²	10.03		

Engineering Checks For Heating

Heating Mbh	-17.17	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.83	Volume (ft³)	11,004
cfm/Mbh	-38		
ft²/Mbh	-46		
Btu/h-ft²	-21.74		

ZONE_Zone 01-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	48.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	6,231	0	6,231	39.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	270	0	270	1.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	1,439	0	1,439	9.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-277	0	-277	-1.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	174	0	616	790	4.9
Envelope Subtotal	174	7,662	616	8,452	-
People	289	389	585	1,263	7.9
Lights	1,070	1,655	0	2,725	17.0
Miscellaneous Loads	1,424	955	0	2,379	14.9
Internal Subtotal	2,783	2,999	585	6,366	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-61	0	-61	-0.4
Grand Total	2,957	10,600	1,200	14,758	100.0
RA Sensible (Lights)	1,228	0	0	1,228	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		104.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-16,782	0	-16,782	73.7
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-2,392	0	-2,392	10.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-2,074	0	-2,074	9.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	565	0	565	-2.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,853	0	0	-1,861	8.2
Envelope Subtotal	-1,853	-20,683	0	-22,544	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-215	0	-215	0.9
Grand Total	-1,853	-20,898	0	-22,759	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	636
Cooling ACH	2.47
Sec Fan cfm	0
Input Ventilation cfm	77
Calculated Ventilation cfm	121
Calculated Ventilation ACH	0.47
Infiltration cfm	23
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	636
Heating ACH	2.47
Sec Fan cfm	0
Input Ventilation cfm	77
Calculated Ventilation cfm	106
Calculated Ventilation ACH	0.41
Infiltration cfm	23
Min Stop/RH (%)	100

Areas	ft²
Roof	1,204
Other Roof	1,204
Ceiling	0
Window	0
Door	0
Wall	379
Below-Grade Wall	0
Other Wall	379
Partition	5,270
Exterior Floor	0
Internal Floor	1,204
Slab	0
Other Floor	1,204

Engineering Checks For Cooling

Cooling tons	1.23	No People(max)	2.76
%OA	19	People per 1000 ft²	2
cfm/ft²	0.58	Volume (ft³)	15,456
cfm/ton	517		
ft²/ton	898		
Btu/h-ft²	13.36		

Engineering Checks For Heating

Heating Mbh	-22.76	No People(max)	2.76
%OA	17	People per 1000 ft²	2
cfm/ft²	0.58	Volume (ft³)	15,456
cfm/Mbh	-28		
ft²/Mbh	-49		
Btu/h-ft²	-20.41		

ZONE_Zone 01-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	49.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	8,235	0	8,235	36.7
Other Roof	0	0	0	0	0.0
Glass	176	1,836	0	2,012	9.0
Door	0	0	0	0	0.0
Wall	0	421	0	421	1.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	246	0	246	1.1
Exterior Floor	0	16	0	16	0.1
Interior Floor	0	-334	0	-334	-1.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	378	0	1,292	1,670	7.4
Envelope Subtotal	554	10,420	1292	12,266	-
People	569	638	1,107	2,314	10.3
Lights	1,423	1,830	0	3,254	14.5
Miscellaneous Loads	1,967	1,115	0	3,082	13.7
Internal Subtotal	3,959	3,583	1,107	8,649	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-92	0	-92	-0.4
Grand Total	4,513	13,911	2,399	20,823	100.0
RA Sensible (Lights)	1,634	0	0	1,634	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		112.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-21,937	0	-21,937	57.5
Other Roof	0	0	0	0	0.0
Glass	-3,914	0	0	-3,914	10.3
Door	0	0	0	0	0.0
Wall	0	-7,677	0	-7,677	20.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-594	0	-594	1.6
Exterior Floor	0	-258	0	-258	0.7
Interior Floor	0	675	0	675	-1.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-4,020	0	0	-4,036	10.6
Envelope Subtotal	-7,934	-29,790	0	-37,740	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-439	0	-439	1.1
Grand Total	-7,934	-30,229	0	-38,179	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	864
Cooling ACH	2.43
Sec Fan cfm	0
Input Ventilation cfm	116
Calculated Ventilation cfm	164
Calculated Ventilation ACH	0.46
Infiltration cfm	50
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	864
Heating ACH	2.43
Sec Fan cfm	0
Input Ventilation cfm	116
Calculated Ventilation cfm	144
Calculated Ventilation ACH	0.40
Infiltration cfm	51
Min Stop/RH (%)	100

Areas	ft²
Roof	1,615
Other Roof	1,615
Ceiling	0
Window	66
Door	0
Wall	1,316
Below-Grade Wall	0
Other Wall	1,316
Partition	3,744
Exterior Floor	116
Internal Floor	1,499
Slab	0
Other Floor	1,499

Engineering Checks For Cooling

Cooling tons	1.74	No People(max)	5.42
%OA	19	People per 1000 ft²	4
cfm/ft²	0.57	Volume (ft³)	21,352
cfm/ton	498		
ft²/ton	879		
Btu/h-ft²	13.65		

Engineering Checks For Heating

Heating Mbh	-38.18	No People(max)	5.42
%OA	17	People per 1000 ft²	4
cfm/ft²	0.57	Volume (ft³)	21,352
cfm/Mbh	-23		
ft²/Mbh	-40		
Btu/h-ft²	-25.00		

ZONE_Zone 01-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	48.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	3,295	0	3,295	44.5
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-40	0	-40	-0.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-212	0	-212	-2.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	3,044	0	3,044	-
People	313	372	596	1,281	17.3
Lights	538	725	0	1,263	17.1
Miscellaneous Loads	769	458	0	1,227	16.6
Internal Subtotal	1,620	1,555	596	3,771	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-30	0	-30	-0.4
Grand Total	1,620	4,568	596	6,785	100.0
RA Sensible (Lights)	618	0	0	618	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		97.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-8,776	0	-8,776	104.2
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	100	0	100	-1.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	355	0	355	-4.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-8,322	0	-8,322	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-101	0	-101	1.2
Grand Total	0	-8,422	0	-8,422	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	290
Cooling ACH	2.08
Sec Fan cfm	0
Input Ventilation cfm	51
Calculated Ventilation cfm	55
Calculated Ventilation ACH	0.40
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	290
Heating ACH	2.08
Sec Fan cfm	0
Input Ventilation cfm	51
Calculated Ventilation cfm	48
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	627
Other Roof	627
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,719
Exterior Floor	0
Internal Floor	627
Slab	0
Other Floor	627

Engineering Checks For Cooling

Cooling tons	0.57	No People(max)	2.98
%OA	19	People per 1000 ft²	5
cfm/ft²	0.49	Volume (ft³)	8,346
cfm/ton	513		
ft²/ton	1,054		
Btu/h-ft²	11.39		

Engineering Checks For Heating

Heating Mbh	-8.42	No People(max)	2.98
%OA	17	People per 1000 ft²	5
cfm/ft²	0.49	Volume (ft³)	8,346
cfm/Mbh	-34		
ft²/Mbh	-71		
Btu/h-ft²	-14.08		

ZONE_Zone 01-09

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	48.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	2,155	0	2,155	22.5
Other Roof	0	0	0	0	0.0
Glass	292	3,140	0	3,432	35.8
Door	0	0	0	0	0.0
Wall	0	-161	0	-161	-1.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-44	0	-44	-0.5
Exterior Floor	0	94	0	94	1.0
Interior Floor	0	432	0	432	4.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	162	0	416	577	6.0
Envelope Subtotal	453	5,614	416	6,483	-
People	221	221	419	861	9.0
Lights	415	473	0	888	9.3
Miscellaneous Loads	593	307	0	899	9.4
Internal Subtotal	1,229	1,000	419	2,649	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-32	0	-32	-0.3
Grand Total	1,682	6,583	835	9,100	100.0
RA Sensible (Lights)	476	0	0	476	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		100.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-6,655	0	-6,655	53.8
Other Roof	0	0	0	0	0.0
Glass	-1,968	0	0	-1,968	15.9
Door	0	0	0	0	0.0
Wall	0	-2,404	0	-2,404	19.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	201	0	201	-1.6
Exterior Floor	0	-217	0	-217	1.8
Interior Floor	0	140	0	140	-1.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,269	0	0	-1,274	10.3
Envelope Subtotal	-3,238	-8,935	0	-12,178	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-188	0	-188	1.5
Grand Total	-3,238	-9,123	0	-12,366	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	388
Cooling ACH	3.62
Sec Fan cfm	0
Input Ventilation cfm	35
Calculated Ventilation cfm	74
Calculated Ventilation ACH	0.69
Infiltration cfm	16
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	388
Heating ACH	3.62
Sec Fan cfm	0
Input Ventilation cfm	35
Calculated Ventilation cfm	64
Calculated Ventilation ACH	0.60
Infiltration cfm	16
Min Stop/RH (%)	100

Areas	ft²
Roof	489
Other Roof	489
Ceiling	0
Window	30
Door	0
Wall	422
Below-Grade Wall	0
Other Wall	422
Partition	1,247
Exterior Floor	97
Internal Floor	391
Slab	0
Other Floor	391

Engineering Checks For Cooling

Cooling tons	0.76	No People(max)	2.11
%OA	19	People per 1000 ft²	5
cfm/ft²	0.84	Volume (ft³)	6,434
cfm/ton	511		
ft²/ton	606		
Btu/h-ft²	19.80		

Engineering Checks For Heating

Heating Mbh	-12.37	No People(max)	2.11
%OA	17	People per 1000 ft²	5
cfm/ft²	0.84	Volume (ft³)	6,434
cfm/Mbh	-31		
ft²/Mbh	-37		
Btu/h-ft²	-27.03		

ZONE_Zone 01-10

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Zone	DB / RH / HR	73.0	°F /	48.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	2,156	0	2,156	22.2
Other Roof	0	0	0	0	0.0
Glass	306	3,164	0	3,470	35.7
Door	0	0	0	0	0.0
Wall	0	-218	0	-218	-2.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-242	0	-242	-2.5
Exterior Floor	0	108	0	108	1.1
Interior Floor	0	607	0	607	6.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	170	0	433	603	6.2
Envelope Subtotal	475	5,575	433	6,484	-
People	253	232	483	968	10.0
Lights	436	453	0	889	9.1
Miscellaneous Loads	623	297	0	919	9.5
Internal Subtotal	1,312	982	483	2,777	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-33	0	-33	-0.3
Grand Total	1,787	6,524	916	9,227	100.0
RA Sensible (Lights)	500	0	0	500	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Zone	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		100.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-6,837	0	-6,837	55.5
Other Roof	0	0	0	0	0.0
Glass	-2,145	0	0	-2,145	17.4
Door	0	0	0	0	0.0
Wall	0	-2,343	0	-2,343	19.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	419	0	419	-3.4
Exterior Floor	0	-212	0	-212	1.7
Interior Floor	0	323	0	323	-2.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,333	0	0	-1,339	10.9
Envelope Subtotal	-3,478	-8,651	0	-12,134	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Zone	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-188	0	-188	1.5
Grand Total	-3,478	-8,839	0	-12,322	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	390
Cooling ACH	3.46
Sec Fan cfm	0
Input Ventilation cfm	41
Calculated Ventilation cfm	74
Calculated Ventilation ACH	0.66
Infiltration cfm	17
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	390
Heating ACH	3.46
Sec Fan cfm	0
Input Ventilation cfm	41
Calculated Ventilation cfm	65
Calculated Ventilation ACH	0.58
Infiltration cfm	17
Min Stop/RH (%)	100

Areas	ft²
Roof	505
Other Roof	505
Ceiling	0
Window	33
Door	0
Wall	419
Below-Grade Wall	0
Other Wall	419
Partition	869
Exterior Floor	97
Internal Floor	409
Slab	0
Other Floor	409

Engineering Checks For Cooling

Cooling tons	0.77	No People(max)	2.41
%OA	19	People per 1000 ft²	5
cfm/ft²	0.81	Volume (ft³)	6,758
cfm/ton	507		
ft²/ton	628		
Btu/h-ft²	19.11		

Engineering Checks For Heating

Heating Mbh	-12.32	No People(max)	2.41
%OA	17	People per 1000 ft²	5
cfm/ft²	0.81	Volume (ft³)	6,758
cfm/Mbh	-32		
ft²/Mbh	-39		
Btu/h-ft²	-25.64		

System Component Selection Summary

Baseline

System Name: AC-1 MZU

System Type:	Double Duct
Number of Zones	16
Number of Rooms	30

Component	Quantity
Cooling Coils	1
Heating Coils	1
Fans	9

Cooling Coils

Coil Location			Coil Selection at Design							Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
SCC-1		Water	Peak		17.2	206.7	153.7	40.3	N/A	5,350	1,050	79.9	64.76	53.0	51.41	41.18	44.0	54.0

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
SHC-1		Water	Peak	1/21 24:00	232.5	232.5	N/A	5,522	1,050	55.0	95.0	23.65	180.0	160.0

Load/Airflows

	Location			Cooling					Heating				
System	Zone	Room	Area	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
AC-1 MZU			11,699	7/21 17:00	5,350	153,693	5,522	53.0	1/21 24:00	5,522	232,521	5,522	83.0
	Zone 00-02		654	7/21 20:00	199	4,238	199	53.0	1/21 24:00	199	1,952	199	79.9
		Room 00-03	409	9/21 15:00	124	2,640	124	53.0	1/21 24:00	124	602	124	75.1
		Room 00-04	246	7/21 20:00	81	1,731	81	53.0	1/21 24:00	81	1,356	81	86.4
	Zone 00-03		560	10/21 14:00	442	9,405	442	53.0	1/21 24:00	442	5,880	442	83.0
		Room 00-01	429	10/21 14:00	391	8,327	391	53.0	1/21 24:00	391	3,921	391	79.8
		Room 00-02	131	7/21 23:00	50	1,067	50	53.0	1/21 24:00	50	1,651	50	101.5
	Zone 00-04		644	8/21 17:00	212	4,520	212	53.0	1/21 24:00	212	3,092	212	84.3
		Room 00-07	310	7/21 18:00	116	2,475	116	53.0	1/21 24:00	116	2,518	116	91.1
		Room 00-14	334	8/21 16:00	96	2,049	96	53.0	1/21 24:00	96	613	96	76.6
	Zone 00-05		601	7/21 18:00	442	9,418	442	53.0	1/21 24:00	442	5,955	442	83.1
		Room 00-06	601	7/21 18:00	443	9,445	443	53.0	1/21 24:00	443	6,023	443	83.2
	Zone 00-06		182	7/21 20:00	44	941	44	53.0	1/21 24:00	44	219	44	75.3
		Room 00-08	182	7/21 20:00	44	931	44	53.0	1/21 24:00	44	246	44	75.9
	Zone 00-07		1,291	7/21 18:00	389	8,298	389	53.0	1/21 24:00	389	2,647	389	76.9
		Room 00-09	209	7/21 20:00	56	1,203	56	53.0	1/21 24:00	56	245	56	75.0
		Room 00-10	396	7/21 20:00	103	2,202	103	53.0	1/21 24:00	103	486	103	75.0
		Room 00-11	246	7/21 18:00	111	2,371	111	53.0	1/21 24:00	111	1,500	111	83.1
		Room 00-23	440	7/21 20:00	120	2,550	120	53.0	1/21 24:00	120	504	120	75.0
	Zone 00-08		909	7/21 20:00	244	5,201	244	53.0	1/21 24:00	244	863	244	75.0
		Room 00-19	367	7/21 20:00	98	2,080	98	53.0	1/21 24:00	98	328	98	75.0
		Room 00-20	408	7/21 20:00	108	2,311	108	53.0	1/21 24:00	108	353	108	75.0
		Room 00-21	134	7/21 20:00	34	731	34	53.0	1/21 24:00	34	134	34	75.0
	Zone 00-10		794	7/21 20:00	231	4,936	231	53.0	1/21 24:00	231	4,954	231	90.7
		Room 00-18	794	7/21 20:00	233	4,978	233	53.0	1/21 24:00	233	5,013	233	90.7
	Zone 00-11		226	7/21 20:00	60	1,282	60	53.0	1/21 24:00	60	1,289	60	90.8
		Room 00-25	226	7/21 20:00	61	1,291	61	53.0	1/21 24:00	61	1,294	61	90.7
	Zone 00-16		220	7/21 20:00	55	1,181	55	53.0	1/21 24:00	55	554	55	80.0
		Room 00-16	220	7/21 20:00	56	1,185	56	53.0	1/21 24:00	56	564	56	80.1
	Zone 01-04		1,450	8/21 14:00	637	13,584	637	53.0	1/21 24:00	637	17,201	637	96.0
		Room 01-01	1,450	8/21 14:00	638	13,599	638	53.0	1/21 24:00	638	17,214	638	96.0

Load/Airflows

System	Location: Zone	Location: Room	Area (ft²)	Cooling: Time of Peak Mo/D/Hr	Cooling: Supply Airflow (cfm)	Cooling: Sensible Load (Btu/h)	Cooling: Minimum Airflow (cfm)	Cooling: SAT (°F)	Heating: Time of Peak Mo/D/Hr	Heating: Supply Airflow (cfm)	Heating: Sensible Load (Btu/h)	Heating: Minimum Airflow (cfm)	Heating: SAT (°F)
AC-1 MZU			11,699	7/21 17:00	5,350	153,693	5,522	53.0	1/21 24:00	5,522	232,521	5,522	83.0
	Zone 01-06		1,104	7/21 19:00	636	13,557	636	53.0	1/21 24:00	636	22,751	636	104.3
		Room 01-04	671	7/21 19:00	401	8,552	401	53.0	1/21 24:00	401	15,696	401	107.5
		Room 01-08	150	7/21 19:00	80	1,714	80	53.0	1/21 24:00	80	2,407	80	98.7
		Room 01-09	267	7/21 19:00	141	3,005	141	53.0	1/21 24:00	141	4,245	141	98.9
		Room 01-15	16	7/21 19:00	17	357	17	53.0	1/21 24:00	17	486	17	97.9
	Zone 01-07		1,525	7/21 19:00	864	18,423	864	53.0	1/21 24:00	864	38,162	864	112.1
		Room 01-05	991	7/21 19:00	539	11,484	539	53.0	1/21 24:00	539	24,937	539	114.1
		Room 01-06	465	7/21 19:00	290	6,183	290	53.0	1/21 24:00	290	11,989	290	109.6
		Room 01-11	69	7/21 19:00	42	888	42	53.0	1/21 24:00	42	1,524	42	104.9
	Zone 01-08		596	7/21 19:00	290	6,188	290	53.0	1/21 24:00	290	8,422	290	97.9
		Room 01-07	596	7/21 19:00	286	6,103	286	53.0	1/21 24:00	286	8,465	286	98.4
	Zone 01-09		460	7/21 18:00	388	8,265	388	53.0	1/21 24:00	388	12,360	388	100.4
		Room 01-13	47	7/21 18:00	56	1,195	56	53.0	1/21 24:00	56	1,754	56	99.9
		Room 01-14	412	7/21 18:00	328	6,997	328	53.0	1/21 24:00	328	10,588	328	100.8
	Zone 01-10		483	7/21 18:00	390	8,311	390	53.0	1/21 24:00	390	12,316	390	100.2
		Room 01-03	483	7/21 18:00	386	8,231	386	53.0	1/21 24:00	386	12,255	386	100.3

Fans

System	Zone	Type	Efficiency (%)	Efficiency with PRM Fan Override (%)	Static Pressure (in. Wg)	Flow Rate (cfm)	Power (kW)	Power with PRM Fan Override (kW)	Motor Heat in Air (%)
AC-1 MZU RF-1		System	65.00	N/A	1.50	5,522	1.50	N/A	100.00
AC-1 MZU SF-1		System	65.00	N/A	4.00	5,522	4.00	N/A	100.00
	Zone 00-03 _EXHAUST FAN	Zone	10.00	N/A	0.00	261	.00	N/A	100.00
	Zone 00-05 _EXHAUST FAN	Zone	10.00	N/A	0.00	0	.00	N/A	100.00
	Zone 00-06 _EXHAUST FAN	Zone	10.00	N/A	0.00	364	.00	N/A	100.00
	Zone 00-08 _EXHAUST FAN	Zone	10.00	N/A	0.00	268	.00	N/A	100.00
	Zone 00-10 _EXHAUST FAN	Zone	10.00	N/A	0.00	0	.00	N/A	100.00

Fans

System	Zone	Type	Efficiency (%)	Efficiency with PRM Fan Override (%)	Static Pressure (in. Wg)	Flow Rate (cfm)	Power (kW)	Power with PRM Fan Override (kW)	Motor Heat in Air (%)
	Zone 00-11 _EXHAUST FAN	Zone	10.00	N/A	0.00	452	.00	N/A	100.00
	Zone 01-09 _EXHAUST FAN	Zone	10.00	N/A	0.00	95	.00	N/A	100.00

System Name: AC-2 Locker Room

System Type:	Constant Volume (CV)
Number of Zones	1
Number of Rooms	2

Component	Quantity
Cooling Coils	1
Heating Coils	1
Fans	2

Cooling Coils

Coil Location			Coil Selection at Design							Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
SCC-1 Zone 01-03		Water	Peak		5.3	63.9	41.6	23.4	N/A	1,159	559	82.9	67.53	49.2	48.61	12.73	44.0	54.0

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/und r sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
SHC-1 Zone 01-03		Water	Peak	1/21 24:00	79.4	79.4	N/A	1,159	559	29.9	94.9	8.08	180.0	160.0

Load/Airflows

	Location			Cooling					Heating				
System	Zone	Room	Area	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
AC-2 Locker Room			4,076	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 01-03		4,076	7/21 18:00	1,159	27,659	1,159	50.6	1/21 24:00	1,159	35,166	1,159	99.2
		Room 01-00	3,546	7/21 18:00	923	22,023	923	50.6	1/21 24:00	923	27,588	923	98.8
		Room 01-10	529	7/21 19:00	243	5,786	243	50.6	1/21 24:00	243	8,143	243	102.2

Fans

System	Zone	Type	Efficiency	Efficiency with PRM Fan Override	Static Pressure	Flow Rate	Power	Power with PRM Fan Override	Motor Heat in Air
			(%)	(%)	(in. Wg)	(cfm)	(kW)	(kW)	(%)
Zone 01-03 _AC-2 Locker Room SF-1		System	65.00	N/A	3.00	1,159	.63	N/A	100.00
	Zone 01-03 _EXHAUST FAN	Zone	10.00	N/A	0.00	1,945	.00	N/A	100.00

System Name: AC-3 Jail

System Type:	Constant Volume (CV)
Number of Zones	1
Number of Rooms	3

Component	Quantity
Cooling Coils	1
Heating Coils	1
Fans	1

Cooling Coils

Coil Location			Coil Selection at Design							Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
SCC-1 Zone 00-00		Water	Peak		2.1	25.2	20.0	8.1	N/A	715	189	79.4	64.63	53.2	52.56	5.03	44.0	54.0

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
SHC-1 Zone 00-00		Water	Peak	1/21 24:00	33.1	33.1	N/A	715	189	51.1	94.9	3.37	180.0	160.0

Load/Airflows

	Location			Cooling					Heating				
System	Zone	Room	Area	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
AC-3 Jail			2,769	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 00-00		2,769	7/21 20:00	715	13,795	715	55.0	1/21 24:00	715	3,118	715	75.0
		Room 00-00	908	7/21 20:00	260	5,047	260	54.9	1/21 24:00	260	796	260	75.0
		Room 00-15	1,734	7/21 19:00	413	8,013	413	54.9	1/21 24:00	413	2,187	413	75.5
		Room 00-22	127	7/21 20:00	40	781	40	54.9	1/21 24:00	40	146	40	75.0

Fans

System	Zone	Type	Efficiency	Efficiency with PRM Fan Override	Static Pressure	Flow Rate	Power	Power with PRM Fan Override	Motor Heat in Air
			(%)	(%)	(in. Wg)	(cfm)	(kW)	(kW)	(%)
Zone 00-00 _AC-3 Jail SF-1		System	65.00	N/A	3.00	715	.39	N/A	100.00

System Name: Unit Heater

System Type:	Heating Only
Number of Zones	9
Number of Rooms	9

Component	Quantity
Cooling Coils	0
Heating Coils	9
Fans	9

Cooling Coils

Coil Location			Coil Selection at Design						Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
																	N/A	N/A

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/und r sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
	UH-1 Zone 00-01	Water	Peak	1/21 24:00	10.3	0.0	N/A	392	0	70.0	32.0	1.05	180.0	160.0
	UH-1 Zone 00-12	Water	Peak	1/21 24:00	2.1	0.0	N/A	79	0	70.0	32.0	0.21	180.0	160.0
	UH-1 Zone 00-13	Water	Peak	1/21 24:00	2.0	0.0	N/A	76	0	70.0	32.0	0.20	180.0	160.0
	UH-1 Zone 00-14	Water	Peak	1/21 24:00	4.6	0.0	N/A	176	0	70.0	32.0	0.47	180.0	160.0
	UH-1 Zone 00-15	Water	Peak	1/21 24:00	2.9	0.0	N/A	111	0	70.0	32.0	0.30	180.0	160.0
	UH-1 Zone 01-00	Water	Peak	1/21 24:00	5.2	0.0	N/A	198	0	70.0	32.0	0.53	180.0	160.0
	UH-1 Zone 01-01	Water	Peak	1/21 24:00	4.7	0.0	N/A	179	0	70.0	32.0	0.48	180.0	160.0
	UH-1 Zone 01-02	Water	Peak	1/21 24:00	6.3	0.0	N/A	238	0	70.0	32.0	0.64	180.0	160.0
	UH-1 Zone 01-05	Electric	Peak	1/21 24:00	17.2	0.0	N/A	651	0	70.0	95.0	N/A	N/A	N/A

Load/Airflows

System	Location		Area	Cooling					Heating				
	Zone	Room		Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
Unit Heater			2,729	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 00-01		857	9/21 14:00	392	6,846	N/A	55.3	1/21 24:00	392	10,292	N/A	97.2
		Room 00-13	857	9/21 14:00	389	6,913	N/A	55.3	1/21 24:00	389	10,206	N/A	96.7
	Zone 00-12		144	7/21 19:00	79	1,188	N/A	53.1	1/21 24:00	79	2,067	N/A	105.2
		Room 00-12	144	7/21 19:00	79	1,208	N/A	53.2	1/21 24:00	79	2,083	N/A	104.7
	Zone 00-13		141	7/21 20:00	76	1,209	N/A	53.3	1/21 24:00	76	1,981	N/A	102.9
		Room 00-24	141	7/21 20:00	76	1,212	N/A	53.4	1/21 24:00	76	1,997	N/A	103.0
	Zone 00-14		89	7/21 18:00	176	8,804	N/A	56.2	1/21 24:00	176	4,643	N/A	79.0
		Room 00-05	89	7/21 18:00	176	8,820	N/A	56.2	1/21 24:00	176	4,635	N/A	79.0
	Zone 00-15		265	7/21 19:00	111	1,786	N/A	52.1	1/21 24:00	111	2,914	N/A	104.8
		Room 00-17	265	7/21 19:00	112	1,792	N/A	52.1	1/21 24:00	112	2,927	N/A	104.8
	Zone 01-00		134	7/21 19:00	198	1,915	N/A	52.0	1/21 24:00	198	5,220	N/A	128.1
		Room 01-16	134	7/21 19:00	199	1,913	N/A	52.0	1/21 24:00	199	5,229	N/A	128.2
	Zone 01-01		141	7/21 20:00	179	1,781	N/A	54.2	1/21 24:00	179	4,711	N/A	120.5
		Room 01-17	141	7/21 20:00	181	1,804	N/A	54.2	1/21 24:00	181	4,753	N/A	120.2
	Zone 01-02		172	7/21 19:00	238	2,406	N/A	53.4	1/21 24:00	238	6,276	N/A	121.8
		Room 01-12	172	7/21 19:00	234	2,345	N/A	53.3	1/21 24:00	234	6,167	N/A	122.5
	Zone 01-05		786	7/21 18:00	651	7,886	N/A	57.3	1/21 24:00	651	17,173	N/A	104.7
		Room 01-02	786	7/21 18:00	652	7,902	N/A	57.3	1/21 24:00	652	17,194	N/A	104.7

Fans

System	Zone	Type	Efficiency	Efficiency with PRM Fan Override	Static Pressure	Flow Rate	Power	Power with PRM Fan Override	Motor Heat in Air
			(%)	(%)	(in. Wg)	(cfm)	(kW)	(kW)	(%)
	Zone 00-01 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	392	.08	N/A	100.00
	Zone 00-12 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	79	.02	N/A	100.00
	Zone 00-13 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	76	.02	N/A	100.00
	Zone 00-14 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	176	.04	N/A	100.00
	Zone 00-15 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	111	.02	N/A	100.00

Fans

System	Zone	Type	Efficiency (%)	Efficiency with PRM Fan Override (%)	Static Pressure (in. Wg)	Flow Rate (cfm)	Power (kW)	Power with PRM Fan Override (kW)	Motor Heat in Air (%)
	Zone 01-00 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	198	.04	N/A	100.00
	Zone 01-01 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	179	.04	N/A	100.00
	Zone 01-02 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	238	.05	N/A	100.00
	Zone 01-05 _UH-1_SUPPLY FAN	Zone	6.00	N/A	0.10	651	.13	N/A	100.00

System Name: Ventilation and Heating

System Type:	Heating Only
Number of Zones	1
Number of Rooms	1

Component	Quantity
Cooling Coils	0
Heating Coils	1
Fans	1

Cooling Coils

Coil Location			Coil Selection at Design						Airflow Conditions at Design						Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity		Sensible capacity	Vent Load	Ov/undr sizing	Airflow	Vent	Enter DB/WB		Leave DB/WB		Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(tons)	(MBh)	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(°F)	(°F)	(gpm)	(°F)	(°F)
																	N/A	N/A

*Values do not include effects of plenum loads, heat exchangers such as evaporative cooling devices and similar components.

Heating Coils

Coil Location			Coil Selection at Design					Airflow Conditions at Design				Water Flow Conditions		
System	Zone	Type	Sizing Method	Time of Peak	Total capacity	Vent Load	Ov/und r sizing	Airflow	Vent	Enter DB	Leave DB	Flow	Enter Temp	Leave Temp
				Mo/D/Hr	(MBh)	(MBh)	(MBh)	(cfm)	(cfm)	(°F)	(°F)	(gpm)	(°F)	(°F)
SHC-1		Water	Peak	1/21 24:00	142.9	142.9	N/A	4,082	511	61.8	95.0	14.53	180.0	160.0

Load/Airflows

	Location			Cooling					Heating				
System	Zone	Room	Area	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	SAT
			(ft²)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)	Mo/D/Hr	(cfm)	(Btu/h)	(cfm)	(°F)
Ventilation and Heating			7,681		0	0	4,082	48.0	1/21 24:00	4,082	142,876	4,082	130.0
	Zone 00-17		7,681	7/21 16:00	4,082	82,289	4,082	48.0	1/21 24:00	4,082	258,157	4,082	130.0
		Room 00-26	7,681	7/21 16:00	4,082	82,310	4,082	48.0	1/21 24:00	4,082	258,170	4,082	130.0

Fans

System	Zone	Type	Efficiency	Efficiency with PRM Fan Override	Static Pressure	Flow Rate	Power	Power with PRM Fan Override	Motor Heat in Air
			(%)	(%)	(in. Wg)	(cfm)	(kW)	(kW)	(%)
Ventilation and Heating SF-1		System	65.00	N/A	2.00	4,082	1.48	N/A	100.00

Loop Name: **CHW Loop**
Loop Type: Chilled Water Loop
Number of Assigned Coils: 3

Pumps

Name	Type	Contol	Head (psig)	Flow (gpm)	Power (W)	Power per Flow
CHW Loop CHWP-1	Pump:ConstantSpeed	Intermittent	26	70.73	1556	22

Plant Equipment

Name	Type	Nominal Capacity (tons)	Efficiency (COP)
CHW Loop WCH-1	Chiller:Electric:EIR	24.66	3.50

Loop Name: **HW Loop**
Loop Type: Hot Water Loop
Number of Assigned Coils: 12

Pumps

Name	Type	Contol	Head (psig)	Flow (gpm)	Power (W)	Power per Flow
HW Loop HWP-1	Pump:ConstantSpeed	Intermittent	23	64.22	1220	19

Plant Equipment

Name	Type	Nominal Capacity (MBh)	Efficiency (%)
HW Loop BO-1	Boiler:HotWater	887.00	75.0

Name	Type	Nominal Capacity (MBh)	Efficiency (%)
HW Loop BO-2	Boiler:HotWater	887.00	75.0

Loop Name: **Single Cooling Tower CF**
Loop Type: Condenser Loop
Number of Assigned Coils: 0

Pumps

Name	Type	Contol	Head (psig)	Flow (gpm)	Power (W)	Power per Flow
Single Cooling Tower CF CWP-1	Pump:ConstantSpeed	Intermittent	23	76.11	1446	19

Plant Equipment

Name	Type	Nominal Capacity (tons)	Efficiency (COP)
Single Cooling Tower CF CT-1	Condenser Loop	55.00	0.00

Plant Summary

Cooling Plant Summary

	Sizing Method	Peak Time Mo./Day/Time	Capacity (tons)	Flow Rate (gpm)	Percent of Peak Plant Capacity	Coil Δ T (°F)	Plant Temps (°F)	
							Supply	Return
CHW Loop	Peak	Sum of Peaks	24.66	70.72	100 %			
AC-1 MZU SCC-1	Peak	7/21 17:00:00	17.23	41.18	70%	9.99	44.0	54.0
Zone 00-00 _AC-3 Jail SCC-1	Peak	7/21 15:00:00	2.10	5.03	9%	9.99	44.0	54.0
Zone 01-03 _AC-2 Locker Room SCC-1	Peak	7/21 16:00:00	5.33	12.73	22%	9.99	44.0	54.0

Heating Plant Summary

	Sizing Method	Peak Time Mo./Day/Time	Capacity (MBh)	Flow Rate (gpm)	Percent of Peak Plant Capacity	Coil Δ T (°F)	Plant Temps (°F)	
							Supply	Return
HW Loop	Peak	Sum of Peaks	537.18	64.21	100 %			
AC-1 MZU SHC-1	Peak	1/21 24:00:00	232.53	23.65	43%	20.00	180.0	160.0
Ventilation and Heating SHC-1	Peak	1/21 24:00:00	142.88	14.53	27%	20.00	180.0	160.0
Zone 00-00 _AC-3 Jail SHC-1	Peak	1/21 24:00:00	33.08	3.37	6%	20.00	180.0	160.0
Zone 00-01 _UH-1_HEATING COIL	Peak	1/21 24:00:00	10.29	1.05	2%	20.00	180.0	160.0
Zone 00-12 _UH-1_HEATING COIL	Peak	1/21 24:00:00	2.07	0.21	0%	20.00	180.0	160.0
Zone 00-13 _UH-1_HEATING COIL	Peak	1/21 24:00:00	1.98	0.20	0%	20.00	180.0	160.0
Zone 00-14 _UH-1_HEATING COIL	Peak	1/21 24:00:00	4.64	0.47	1%	20.00	180.0	160.0
Zone 00-15 _UH-1_HEATING COIL	Peak	1/21 24:00:00	2.91	0.30	1%	20.00	180.0	160.0
Zone 01-00 _UH-1_HEATING COIL	Peak	1/21 24:00:00	5.22	0.53	1%	20.00	180.0	160.0
Zone 01-01 _UH-1_HEATING COIL	Peak	1/21 24:00:00	4.71	0.48	1%	20.00	180.0	160.0
Zone 01-02 _UH-1_HEATING COIL	Peak	1/21 24:00:00	6.28	0.64	1%	20.00	180.0	160.0
Zone 01-03 _AC-2 Locker Room SHC-1	Peak	1/21 24:00:00	79.41	8.08	15%	20.00	180.0	160.0

Peak Load Summary Report

Baseline

System Name: AC-1 MZU

Location			Cooling								Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
AC-1 MZU		7/21 17:00	84.6	71.8	73.0	53.0	5,522	5,350	153,693	53,018	1/21 24:00	4.1	2.5	70.0	83.0	5,333	5,522	232,521
	Zone 00-02	7/21 20:00	78.3	70.0	73.0	53.0	199	199	4,238	654	1/21 24:00	4.1	2.5	70.0	79.9	186	199	1,952
	Room 00-03	9/21 15:00	80.0	67.5	73.0	53.0	123	124	2,640	409	1/21 24:00	4.1	2.5	70.0	75.1	112	124	602
	Room 00-04	7/21 20:00	78.3	70.0	73.0	53.0	81	81	1,731	245	1/21 24:00	4.1	2.5	70.0	86.4	78	81	1,356
	Zone 00-03	10/21 14:00	71.0	60.9	73.0	53.0	441	442	9,405	4,644	1/21 24:00	4.1	2.5	70.0	83.0	430	442	5,880
	Room 00-01	10/21 14:00	71.0	60.9	73.0	53.0	392	391	8,327	4,633	1/21 24:00	4.1	2.5	70.0	79.8	379	391	3,921
	Room 00-02	7/21 23:00	74.0	68.7	73.0	53.0	51	50	1,067	81	1/21 24:00	4.1	2.5	70.0	101.5	49	50	1,651
	Zone 00-04	8/21 17:00	82.7	71.2	73.0	53.0	212	212	4,520	343	1/21 24:00	4.1	2.5	70.0	84.3	206	212	3,092
	Room 00-07	7/21 18:00	82.8	71.3	73.0	53.0	117	116	2,475	258	1/21 24:00	4.1	2.5	70.0	91.1	114	116	2,518
	Room 00-14	8/21 16:00	84.1	71.6	73.0	53.0	95	96	2,049	83	1/21 24:00	4.1	2.5	70.0	76.6	89	96	613
	Zone 00-05	7/21 18:00	82.8	71.3	73.0	53.0	441	442	9,418	951	1/21 24:00	4.1	2.5	70.0	83.1	432	442	5,955
	Room 00-06	7/21 18:00	82.8	71.3	73.0	53.0	443	443	9,445	951	1/21 24:00	4.1	2.5	70.0	83.2	432	443	6,023
	Zone 00-06	7/21 20:00	78.3	70.0	73.0	53.0	44	44	941	28	1/21 24:00	4.1	2.5	70.0	75.3	40	44	219
	Room 00-08	7/21 20:00	78.3	70.0	73.0	53.0	44	44	931	28	1/21 24:00	4.1	2.5	70.0	75.9	40	44	246
	Zone 00-07	7/21 18:00	82.8	71.3	73.0	53.0	390	389	8,298	1,399	1/21 24:00	4.1	2.5	70.0	76.9	362	389	2,647
	Room 00-09	7/21 20:00	78.3	70.0	73.0	53.0	57	56	1,203	209	1/21 24:00	4.1	2.5	70.0	75.0	47	56	245
	Room 00-10	7/21 20:00	78.3	70.0	73.0	53.0	104	103	2,202	99	1/21 24:00	4.1	2.5	70.0	75.0	91	103	486
	Room 00-11	7/21 18:00	82.8	71.3	73.0	53.0	110	111	2,371	629	1/21 24:00	4.1	2.5	70.0	83.1	108	111	1,500
	Room 00-23	7/21 20:00	78.3	70.0	73.0	53.0	119	120	2,550	440	1/21 24:00	4.1	2.5	70.0	75.0	95	120	504
	Zone 00-08	7/21 20:00	78.3	70.0	73.0	53.0	244	244	5,201	796	1/21 24:00	4.1	2.5	70.0	75.0	163	244	863
	Room 00-19	7/21 20:00	78.3	70.0	73.0	53.0	97	98	2,080	367	1/21 24:00	4.1	2.5	70.0	75.0	61	98	328
	Room 00-20	7/21 20:00	78.3	70.0	73.0	53.0	108	108	2,311	408	1/21 24:00	4.1	2.5	70.0	75.0	68	108	353
	Room 00-21	7/21 20:00	78.3	70.0	73.0	53.0	34	34	731	21	1/21 24:00	4.1	2.5	70.0	75.0	25	34	134
	Zone 00-10	7/21 20:00	78.3	70.0	73.0	53.0	231	231	4,936	1,206	1/21 24:00	4.1	2.5	70.0	90.7	227	231	4,954
	Room 00-18	7/21 20:00	78.3	70.0	73.0	53.0	233	233	4,978	1,207	1/21 24:00	4.1	2.5	70.0	90.7	229	233	5,013
	Zone 00-11	7/21 20:00	78.3	70.0	73.0	53.0	59	60	1,282	35	1/21 24:00	4.1	2.5	70.0	90.8	59	60	1,289
	Room 00-25	7/21 20:00	78.3	70.0	73.0	53.0	61	61	1,291	35	1/21 24:00	4.1	2.5	70.0	90.7	59	61	1,294
	Zone 00-16	7/21 20:00	78.3	70.0	73.0	53.0	55	55	1,181	0	1/21 24:00	4.1	2.5	70.0	80.0	53	55	554
	Room 00-16	7/21 20:00	78.3	70.0	73.0	53.0	55	56	1,185	0	1/21 24:00	4.1	2.5	70.0	80.1	53	56	564

Location			Cooling								Heating							
System	Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
				DB	WB								DB	WB					
			(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
AC-1 MZU			7/21 17:00	84.6	71.8	73.0	53.0	5,522	5,350	153,693	53,018	1/21 24:00	4.1	2.5	70.0	83.0	5,333	5,522	232,521
	Zone 01-04		8/21 14:00	85.1	71.9	73.0	53.0	638	637	13,584	2,238	1/21 24:00	4.1	2.5	70.0	96.0	627	637	17,201
		Room 01-01	8/21 14:00	85.1	71.9	73.0	53.0	638	638	13,599	2,238	1/21 24:00	4.1	2.5	70.0	96.0	629	638	17,214
	Zone 01-06		7/21 19:00	80.2	70.6	73.0	53.0	636	636	13,557	1,200	1/21 24:00	4.1	2.5	70.0	104.3	629	636	22,751
		Room 01-04	7/21 19:00	80.2	70.6	73.0	53.0	400	401	8,552	782	1/21 24:00	4.1	2.5	70.0	107.5	398	401	15,696
		Room 01-08	7/21 19:00	80.2	70.6	73.0	53.0	81	80	1,714	150	1/21 24:00	4.1	2.5	70.0	98.7	81	80	2,407
		Room 01-09	7/21 19:00	80.2	70.6	73.0	53.0	142	141	3,005	267	1/21 24:00	4.1	2.5	70.0	98.9	140	141	4,245
		Room 01-15	7/21 19:00	80.2	70.6	73.0	53.0	17	17	357	0	1/21 24:00	4.1	2.5	70.0	97.9	17	17	486
	Zone 01-07		7/21 19:00	80.2	70.6	73.0	53.0	865	864	18,423	2,399	1/21 24:00	4.1	2.5	70.0	112.1	858	864	38,162
		Room 01-05	7/21 19:00	80.2	70.6	73.0	53.0	538	539	11,484	1,848	1/21 24:00	4.1	2.5	70.0	114.1	536	539	24,937
		Room 01-06	7/21 19:00	80.2	70.6	73.0	53.0	290	290	6,183	543	1/21 24:00	4.1	2.5	70.0	109.6	288	290	11,989
		Room 01-11	7/21 19:00	80.2	70.6	73.0	53.0	42	42	888	0	1/21 24:00	4.1	2.5	70.0	104.9	42	42	1,524
	Zone 01-08		7/21 19:00	80.2	70.6	73.0	53.0	290	290	6,188	596	1/21 24:00	4.1	2.5	70.0	97.9	286	290	8,422
		Room 01-07	7/21 19:00	80.2	70.6	73.0	53.0	286	286	6,103	596	1/21 24:00	4.1	2.5	70.0	98.4	284	286	8,465
	Zone 01-09		7/21 18:00	82.8	71.3	73.0	53.0	388	388	8,265	835	1/21 24:00	4.1	2.5	70.0	100.4	386	388	12,360
		Room 01-13	7/21 18:00	82.8	71.3	73.0	53.0	55	56	1,195	52	1/21 24:00	4.1	2.5	70.0	99.9	55	56	1,754
		Room 01-14	7/21 18:00	82.8	71.3	73.0	53.0	328	328	6,997	782	1/21 24:00	4.1	2.5	70.0	100.8	326	328	10,588
	Zone 01-10		7/21 18:00	82.8	71.3	73.0	53.0	390	390	8,311	916	1/21 24:00	4.1	2.5	70.0	100.2	388	390	12,316
		Room 01-03	7/21 18:00	82.8	71.3	73.0	53.0	386	386	8,231	916	1/21 24:00	4.1	2.5	70.0	100.3	384	386	12,255

System Name: AC-3 Jail

Location		Cooling									Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
AC-3 Jail		N/A	N/A	N/A	N/A	N/A	716	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	591	N/A	N/A
	Zone 00-00	7/21 20:00	78.3	70.0	73.0	55.0	716	715	13,795	939	1/21 24:00	4.1	2.5	70.0	75.0	591	715	3,118
	Room 00-00	7/21 20:00	78.3	70.0	73.0	54.9	261	260	5,047	908	1/21 24:00	4.1	2.5	70.0	75.0	150	260	796
	Room 00-15	7/21 19:00	80.2	70.6	73.0	54.9	413	413	8,013	0	1/21 24:00	4.1	2.5	70.0	75.5	381	413	2,187
	Room 00-22	7/21 20:00	78.3	70.0	73.0	54.9	40	40	781	32	1/21 24:00	4.1	2.5	70.0	75.0	28	40	146

System Name: Unit Heater

Location		Cooling								Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
Unit Heater		N/A	N/A	N/A	N/A	N/A	1,801	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,799	N/A	N/A
	Zone 00-01	9/21 14:00	80.0	67.5	73.0	55.3	360	392	6,846	699	1/21 24:00	4.1	2.5	70.0	97.2	358	392	10,292
	Room 00-13	9/21 14:00	80.0	67.5	73.0	55.3	367	389	6,913	698	1/21 24:00	4.1	2.5	70.0	96.7	362	389	10,206
	Zone 00-12	7/21 19:00	80.2	70.6	73.0	53.1	55	79	1,188	224	1/21 24:00	4.1	2.5	70.0	105.2	55	79	2,067
	Room 00-12	7/21 19:00	80.2	70.6	73.0	53.2	57	79	1,208	224	1/21 24:00	4.1	2.5	70.0	104.7	57	79	2,083
	Zone 00-13	7/21 20:00	78.3	70.0	73.0	53.3	57	76	1,209	220	1/21 24:00	4.1	2.5	70.0	102.9	57	76	1,981
	Room 00-24	7/21 20:00	78.3	70.0	73.0	53.4	57	76	1,212	220	1/21 24:00	4.1	2.5	70.0	103.0	57	76	1,997
	Zone 00-14	7/21 18:00	82.8	71.3	73.0	56.2	489	176	8,804	468	1/21 24:00	4.1	2.5	70.0	79.0	489	176	4,643
	Room 00-05	7/21 18:00	82.8	71.3	73.0	56.2	492	176	8,820	468	1/21 24:00	4.1	2.5	70.0	79.0	489	176	4,635
	Zone 00-15	7/21 19:00	80.2	70.6	73.0	52.1	81	111	1,786	412	1/21 24:00	4.1	2.5	70.0	104.8	81	111	2,914
	Room 00-17	7/21 19:00	80.2	70.6	73.0	52.1	81	112	1,792	412	1/21 24:00	4.1	2.5	70.0	104.8	81	112	2,927
	Zone 01-00	7/21 19:00	80.2	70.6	73.0	52.0	85	198	1,915	445	1/21 24:00	4.1	2.5	70.0	128.1	85	198	5,220
	Room 01-16	7/21 19:00	80.2	70.6	73.0	52.0	85	199	1,913	445	1/21 24:00	4.1	2.5	70.0	128.2	85	199	5,229
	Zone 01-01	7/21 20:00	78.3	70.0	73.0	54.2	89	179	1,781	263	1/21 24:00	4.1	2.5	70.0	120.5	89	179	4,711
	Room 01-17	7/21 20:00	78.3	70.0	73.0	54.2	89	181	1,804	263	1/21 24:00	4.1	2.5	70.0	120.2	89	181	4,753
	Zone 01-02	7/21 19:00	80.2	70.6	73.0	53.4	114	238	2,406	422	1/21 24:00	4.1	2.5	70.0	121.8	114	238	6,276
	Room 01-12	7/21 19:00	80.2	70.6	73.0	53.3	112	234	2,345	422	1/21 24:00	4.1	2.5	70.0	122.5	112	234	6,167
	Zone 01-05	7/21 18:00	82.8	71.3	73.0	57.3	470	651	7,886	0	1/21 24:00	4.1	2.5	70.0	104.7	470	651	17,173
	Room 01-02	7/21 18:00	82.8	71.3	73.0	57.3	473	652	7,902	0	1/21 24:00	4.1	2.5	70.0	104.7	470	652	17,194

System Name: AC-2 Locker Room

Location		Cooling									Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
AC-2 Locker Room		N/A	N/A	N/A	N/A	N/A	1,159	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,144	N/A	N/A
	Zone 01-03	7/21 18:00	82.8	71.3	73.0	50.6	1,159	1,159	27,659	5,114	1/21 24:00	4.1	2.5	70.0	99.2	1,144	1,159	35,166
	Room 01-00	7/21 18:00	82.8	71.3	73.0	50.6	924	923	22,023	4,550	1/21 24:00	4.1	2.5	70.0	98.8	911	923	27,588
	Room 01-10	7/21 19:00	80.2	70.6	73.0	50.6	242	243	5,786	529	1/21 24:00	4.1	2.5	70.0	102.2	239	243	8,143

System Name: Ventilation and Heating

Location		Cooling								Heating							
System Zone	Room	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply AirFlow	Sensible Load	Latent Load	Time of Peak	OA Conditions		Room Dry Bulb	Supply Dry Bulb	Zone Airflow	System Supply Airflow	Sensible Load
			DB	WB								DB	WB					
		(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)	(Btu/h)	(Mo/D/Hr)	(°F)	(°F)	(°F)	(°F)	(cfm)	(cfm)	(Btu/h)
Ventilation and Heating			32.0	32.0	32.0	48.0	3,087	0	0	0	1/21 24:00	4.1	2.5	70.0	130.0	4,081	4,082	142,876
	Zone 00-17	7/21 16:00	86.0	72.2	73.0	48.0	3,087	4,082	82,289	37,353	1/21 24:00	4.1	2.5	70.0	130.0	4,081	4,082	258,157
	Room 00-26	7/21 16:00	86.0	72.2	73.0	48.0	3,089	4,082	82,310	37,356	1/21 24:00	4.1	2.5	70.0	130.0	4,083	4,082	258,170

Outside Air / ASHRAE Standard 62.1 Summary

System Ventilation Requirements

System	Mode	ΣVpz (cfm)	Ps People	ΣPz People	D Ps / ΣPz	Vou (cfm)	Vps (cfm)	Xs	Ev	Vot (cfm)	%OA Vot / Vps
AC-1 MZU	Cooling	5,522	43	49	0.89	919	5,522	0.166	0.875	1,050	19.0%
	Heating	5,522	43	49	0.89	919	5,522	0.166	1	919	16.6%
Ventilation and Heating	Cooling	4,082	5	5	1	511	4,082	1	1	511	12.5%
	Heating	4,082	5	5	1	511	4,082	0.346	1	511	12.5%
Zone 00-00 _AC-3 Jail	Cooling	715	4	5	1	189	715	0.34	1	189	26.4%
	Heating	715	4	5	1	189	715	1	1	189	26.4%
Zone 01-03 _AC-2 Locker Room	Cooling	1,159	15	20	1	559	1,159	0.483	1	559	48.3%
	Heating	1,159	15	20	1	559	1,159	1	1	559	48.3%

Ventilation Parameters

System Zone	Rp cfm/person	Pz People	Ra cfm/ft²	Az (ft²)	Vbz (cfm)	Cooling Ez	Cooling Voz (cfm)	Heating Ez	Heating Voz (cfm)
AC-1 MZU	6.02	48.75	0.06	11,699	952		952		952
Zone 00-02	5.00	3.27	0.06	654	56	1.00	56	1.00	56
Zone 00-03	19.41	4.43	0.05	560	112	1.00	112	1.00	112
Zone 00-04	0.00	0.64	0.06	644	39	1.00	39	1.00	39
Zone 00-05	5.00	3.01	0.06	601	51	1.00	51	1.00	51
Zone 00-06	0.00	0.18	0.00	182	0	1.00	0	1.00	0
Zone 00-07	4.67	6.10	0.06	1,291	106	1.00	106	1.00	106
Zone 00-08	4.83	4.01	0.05	909	66	1.00	66	1.00	66
Zone 00-10	5.00	3.97	0.06	794	67	1.00	67	1.00	67
Zone 00-11	0.00	0.23	0.00	226	0	1.00	0	1.00	0
Zone 00-16	0.00	0.00	0.06	220	13	1.00	13	1.00	13
Zone 01-04	5.00	7.25	0.06	1,450	123	1.00	123	1.00	123
Zone 01-06	3.78	2.76	0.06	1,104	77	1.00	77	1.00	77
Zone 01-07	4.57	5.42	0.06	1,525	116	1.00	116	1.00	116
Zone 01-08	5.00	2.98	0.06	596	51	1.00	51	1.00	51
Zone 01-09	4.89	2.11	0.05	460	35	1.00	35	1.00	35
Zone 01-10	5.00	2.41	0.06	483	41	1.00	41	1.00	41

Ventilation Parameters

System Zone	Rp cfm/person	Pz People	Ra cfm/ft²	Az (ft²)	Vbz (cfm)	Cooling Ez	Cooling Voz (cfm)	Heating Ez	Heating Voz (cfm)
Ventilation and Heating	10.00	5.00	0.06	7,681	511		511		511
Zone 00-17	10.00	5.00	0.06	7,681	511	1.00	511	1.00	511
Zone 00-00 _AC-3 Jail	4.86	4.67	0.06	2,769	189		189		189
Zone 00-00	4.86	4.67	0.06	2,769	189	1.00	189	1.00	189
Zone 01-03 _AC-2 Locker Room	5.00	20.38	0.11	4,076	559		559		559
Zone 01-03	5.00	20.38	0.11	4,076	559	1.00	559	1.00	559

*Ventilation Sizing Factor: 1.00

Ventilation Calculations for Cooling Design

System Zone	Box Type	Vpz (cfm)	Vdz (cfm)	Vpz-min (cfm)	Voz-clg (cfm)	Zpz	Ep	Er	Fa	Fb	Fc	Evz
AC-1 MZU		5,522	5,522	5,522	952							
Zone 00-02	Dual Duct Const Vol	199	199	199	55.61	0.280	1.00	1.00	1.00	1.00	1.00	0.887
Zone 00-03	Dual Duct Const Vol	442	442	442	111.68	0.253	1.00	1.00	1.00	1.00	1.00	0.914
Zone 00-04	Dual Duct Const Vol	212	212	212	38.64	0.182	1.00	1.00	1.00	1.00	1.00	0.984
Zone 00-05	Dual Duct Const Vol	442	442	442	51.12	0.116	1.00	1.00	1.00	1.00	1.00	1.051
Zone 00-06	Dual Duct Const Vol	44	44	44	0.00	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-07	Dual Duct Const Vol	389	389	389	105.96	0.272	1.00	1.00	1.00	1.00	1.00	0.894
Zone 00-08	Dual Duct Const Vol	244	244	244	65.87	0.270	1.00	1.00	1.00	1.00	1.00	0.896
Zone 00-10	Dual Duct Const Vol	231	231	231	67.45	0.291	1.00	1.00	1.00	1.00	1.00	0.875
Zone 00-11	Dual Duct Const Vol	60	60	60	0.00	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-16	Dual Duct Const Vol	55	55	55	13.22	0.239	1.00	1.00	1.00	1.00	1.00	0.928
Zone 01-04	Dual Duct Const Vol	637	637	637	123.21	0.193	1.00	1.00	1.00	1.00	1.00	0.973
Zone 01-06	Dual Duct Const Vol	636	636	636	76.66	0.121	1.00	1.00	1.00	1.00	1.00	1.046
Zone 01-07	Dual Duct Const Vol	864	864	864	116.28	0.135	1.00	1.00	1.00	1.00	1.00	1.032
Zone 01-08	Dual Duct Const Vol	290	290	290	50.67	0.175	1.00	1.00	1.00	1.00	1.00	0.992
Zone 01-09	Dual Duct Const Vol	388	388	388	35.03	0.090	1.00	1.00	1.00	1.00	1.00	1.076
Zone 01-10	Dual Duct Const Vol	390	390	390	41.03	0.105	1.00	1.00	1.00	1.00	1.00	1.061
Ventilation and Heating		4,082	4,082	4,082	511							
Zone 00-17	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	4,082	4,082	4,082	510.83	0.125	1.00	0.00	0.00	0.00	0.00	1.000
		715	715	715	189							

Ventilation Calculations for Cooling Design

System Zone	Box Type	Vpz (cfm)	Vdz (cfm)	Vpz-min (cfm)	Voz-clg (cfm)	Zpz	Ep	Er	Fa	Fb	Fc	Evz
Zone 00-00 _AC-3 Jail												
Zone 00-00	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	715	715	715	188.82	0.264	1.00	0.00	0.00	0.00	0.00	1.000
Zone 01-03 _AC-2 Locker Room		1,159	1,159	1,159	559							
Zone 01-03	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	1,159	1,159	1,159	559.21	0.483	1.00	0.00	0.00	0.00	0.00	1.000

Ventilation Calculations for Heating Design

System Zone	Box Type	Vpz (cfm)	Vdz (cfm)	Vpz-min (cfm)	Voz-htg (cfm)	Zpz	Ep	Er	Fa	Fb	Fc	Evz
AC-1 MZU		5,522	5,522	5,522	952							
Zone 00-02	Dual Duct Const Vol	199	199	199	55.61	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-03	Dual Duct Const Vol	442	442	442	111.68	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-04	Dual Duct Const Vol	212	212	212	38.64	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-05	Dual Duct Const Vol	442	442	442	51.12	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-06	Dual Duct Const Vol	44	44	44	0.00	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-07	Dual Duct Const Vol	389	389	389	105.96	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-08	Dual Duct Const Vol	244	244	244	65.87	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-10	Dual Duct Const Vol	231	231	231	67.45	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-11	Dual Duct Const Vol	60	60	60	0.00	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 00-16	Dual Duct Const Vol	55	55	55	13.22	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 01-04	Dual Duct Const Vol	637	637	637	123.21	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 01-06	Dual Duct Const Vol	636	636	636	76.66	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 01-07	Dual Duct Const Vol	864	864	864	116.28	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 01-08	Dual Duct Const Vol	290	290	290	50.67	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 01-09	Dual Duct Const Vol	388	388	388	35.03	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Zone 01-10	Dual Duct Const Vol	390	390	390	41.03	0.000	1.00	1.00	1.00	1.00	1.00	1.166
Ventilation and Heating		4,082	4,082	4,082	511							
Zone 00-17	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	4,082	4,082	4,082	510.83	0.125	1.00	0.00	0.00	0.00	0.00	1.000
Zone 00-00 _AC-3 Jail		715	715	715	189							
Zone 00-00	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	715	715	715	188.82	0.264	1.00	0.00	0.00	0.00	0.00	1.000
Zone 01-03 _AC-2 Locker Room		1,159	1,159	1,159	559							

Ventilation Calculations for Heating Design

System Zone	Box Type	Vpz (cfm)	Vdz (cfm)	Vpz-min (cfm)	Voz-htg (cfm)	Zpz	Ep	Er	Fa	Fb	Fc	Evz
Zone 01-03	AIRTERMINAL:SINGLEDUCT:CONSTANTVOLUME:NOREHEAT	1,159	1,159	1,159	559.21	0.483	1.00	0.00	0.00	0.00	0.00	1.000

Single-Zone System Calculations

Zone / Room	Rp cfm/person	Pz People	Ra cfm/ft²	Az (ft²)	Vbz (cfm)	Cooling Ez	Cooling Voz (cfm)	Heating Ez	Heating Voz (cfm)
Zone 00-01	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-13	0.00	0.00	0.00	857	0	100.00	0	100.00	0
Zone 00-12	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-12	0.00	0.72	0.00	144	0	100.00	0	100.00	0
Zone 00-13	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-24	0.00	0.71	0.00	141	0	100.00	0	100.00	0
Zone 00-14	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-05	5.00	0.89	0.06	89	0	100.00	0	100.00	0
Zone 00-15	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 00-17	0.00	1.33	0.00	265	0	100.00	0	100.00	0
Zone 01-00	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 01-16	0.00	0.67	0.00	134	0	100.00	0	100.00	0
Zone 01-01	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 01-17	0.00	0.70	0.00	141	0	100.00	0	100.00	0
Zone 01-02	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 01-12	0.00	0.86	0.00	172	0	100.00	0	100.00	0
Zone 01-05	N/A	N/A	N/A	N/A	0	100.00	0	100.00	0
Room 01-02	0.00	0.00	0.00	786	0	100.00	0	100.00	0

Sum of Outdoor Air Calculations

System Zone Room	Supply (cfm)	Outdoor (cfm)	Outdoor (%)
Unit Heater	N/A	N/A	N/A
Zone 00-01	392	0	0.00%
Room 00-13	389	0	N/A
Zone 00-12	79	0	0.00%
Room 00-12	79	0	N/A
Zone 00-13	76	0	0.00%
Room 00-24	76	0	N/A
Zone 00-14	176	0	0.00%
Room 00-05	176	0	N/A
Zone 00-15	111	0	0.00%
Room 00-17	112	0	N/A
Zone 01-00	198	0	0.00%
Room 01-16	199	0	N/A
Zone 01-01	179	0	0.00%
Room 01-17	181	0	N/A
Zone 01-02	238	0	0.00%
Room 01-12	234	0	N/A
Zone 01-05	651	0	0.00%
Room 01-02	652	0	N/A

Load/Airflow Report

Baseline

System Name: AC-1 MZU

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
AC-1 MZU			11,699	48.75	7/21 17:00	5,350	153,693	2.63	5,522	103	1/21 24:00	5,522	232,521	17	18
	Zone 00-02		654	3.27	7/21 20:00	199	4,238	2.02	199	100	1/21 24:00	199	1,952	19	17
		Room 00-03	409	2.04	9/21 15:00	124	2,640	2.02	124	100	1/21 24:00	124	602	20	17
		Room 00-04	246	1.23	7/21 20:00	81	1,731	2.20	81	100	1/21 24:00	81	1,356	20	17
	Zone 00-03		560	4.43	10/21 14:00	442	9,405	5.26	442	100	1/21 24:00	442	5,880	19	17
		Room 00-01	429	4.29	10/21 14:00	391	8,327	6.07	391	100	1/21 24:00	391	3,921	20	17
		Room 00-02	131	0.13	7/21 23:00	50	1,067	2.55	50	100	1/21 24:00	50	1,651	20	17
	Zone 00-04		644	0.64	8/21 17:00	212	4,520	2.19	212	100	1/21 24:00	212	3,092	19	17
		Room 00-07	310	0.31	7/21 18:00	116	2,475	2.49	116	100	1/21 24:00	116	2,518	20	17
		Room 00-14	334	0.33	8/21 16:00	96	2,049	1.92	96	100	1/21 24:00	96	613	20	17
	Zone 00-05		601	3.01	7/21 18:00	442	9,418	4.90	442	100	1/21 24:00	442	5,955	19	17
		Room 00-06	601	3.01	7/21 18:00	443	9,445	4.91	443	100	1/21 24:00	443	6,023	20	17
	Zone 00-06		182	0.18	7/21 20:00	44	941	1.61	44	100	1/21 24:00	44	219	19	17
		Room 00-08	182	0.18	7/21 20:00	44	931	1.60	44	100	1/21 24:00	44	246	20	17
	Zone 00-07		1,291	6.10	7/21 18:00	389	8,298	2.01	389	100	1/21 24:00	389	2,647	19	17
		Room 00-09	209	1.05	7/21 20:00	56	1,203	1.80	56	100	1/21 24:00	56	245	20	17
		Room 00-10	396	0.40	7/21 20:00	103	2,202	1.74	103	100	1/21 24:00	103	486	20	17
		Room 00-11	246	2.46	7/21 18:00	111	2,371	3.02	111	100	1/21 24:00	111	1,500	20	17
		Room 00-23	440	2.20	7/21 20:00	120	2,550	1.81	120	100	1/21 24:00	120	504	20	17
	Zone 00-08		909	4.01	7/21 20:00	244	5,201	1.79	244	100	1/21 24:00	244	863	19	17
		Room 00-19	367	1.83	7/21 20:00	98	2,080	1.77	98	100	1/21 24:00	98	328	20	17
		Room 00-20	408	2.04	7/21 20:00	108	2,311	1.77	108	100	1/21 24:00	108	353	20	17
		Room 00-21	134	0.13	7/21 20:00	34	731	1.71	34	100	1/21 24:00	34	134	20	17
	Zone 00-10		794	3.97	7/21 20:00	231	4,936	1.94	231	100	1/21 24:00	231	4,954	19	17
		Room 00-18	794	3.97	7/21 20:00	233	4,978	1.96	233	100	1/21 24:00	233	5,013	20	17
	Zone 00-11		226	0.23	7/21 20:00	60	1,282	1.77	60	100	1/21 24:00	60	1,289	19	17
		Room 00-25	226	0.23	7/21 20:00	61	1,291	1.78	61	100	1/21 24:00	61	1,294	20	17
	Zone 00-16		220	0.00	7/21 20:00	55	1,181	1.68	55	100	1/21 24:00	55	554	19	17
		Room 00-16	220	0.00	7/21 20:00	56	1,185	1.68	56	100	1/21 24:00	56	564	20	17
	Zone 01-04		1,450	7.25	8/21 14:00	637	13,584	2.93	637	100	1/21 24:00	637	17,201	19	17
		Room 01-01	1,450	7.25	8/21 14:00	638	13,599	2.93	638	100	1/21 24:00	638	17,214	20	17

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
AC-1 MZU			11,699	48.75	7/21 17:00	5,350	153,693	2.63	5,522	103	1/21 24:00	5,522	232,521	17	18
	Zone 01-06		1,104	2.76	7/21 19:00	636	13,557	2.47	636	100	1/21 24:00	636	22,751	19	17
		Room 01-04	671	0.67	7/21 19:00	401	8,552	2.56	401	100	1/21 24:00	401	15,696	20	17
		Room 01-08	150	0.75	7/21 19:00	80	1,714	2.30	80	100	1/21 24:00	80	2,407	20	17
		Room 01-09	267	1.33	7/21 19:00	141	3,005	2.26	141	100	1/21 24:00	141	4,245	20	17
		Room 01-15	16	0.00	7/21 19:00	17	357	4.46	17	100	1/21 24:00	17	486	20	17
	Zone 01-07		1,525	5.42	7/21 19:00	864	18,423	2.43	864	100	1/21 24:00	864	38,162	19	17
		Room 01-05	991	4.95	7/21 19:00	539	11,484	2.33	539	100	1/21 24:00	539	24,937	20	17
		Room 01-06	465	0.47	7/21 19:00	290	6,183	2.67	290	100	1/21 24:00	290	11,989	20	17
		Room 01-11	69	0.00	7/21 19:00	42	888	2.57	42	100	1/21 24:00	42	1,524	20	17
	Zone 01-08		596	2.98	7/21 19:00	290	6,188	2.09	290	100	1/21 24:00	290	8,422	19	17
		Room 01-07	596	2.98	7/21 19:00	286	6,103	2.06	286	100	1/21 24:00	286	8,465	20	17
	Zone 01-09		460	2.11	7/21 18:00	388	8,265	3.61	388	100	1/21 24:00	388	12,360	19	17
		Room 01-13	47	0.05	7/21 18:00	56	1,195	5.06	56	100	1/21 24:00	56	1,754	20	17
		Room 01-14	412	2.06	7/21 18:00	328	6,997	3.41	328	100	1/21 24:00	328	10,588	20	17
	Zone 01-10		483	2.41	7/21 18:00	390	8,311	3.46	390	100	1/21 24:00	390	12,316	19	17
		Room 01-03	483	2.41	7/21 18:00	386	8,231	3.43	386	100	1/21 24:00	386	12,255	20	17

System Name: AC-3 Jail

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
AC-3 Jail			2,769	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 00-00		2,769	4.67	7/21 20:00	715	13,795	1.72	715	100	1/21 24:00	715	3,118	26	26
		Room 00-00	908	4.54	7/21 20:00	260	5,047	1.91	260	100	1/21 24:00	260	796	27	27
		Room 00-15	1,734	0.00	7/21 19:00	413	8,013	1.59	413	100	1/21 24:00	413	2,187	27	27
		Room 00-22	127	0.13	7/21 20:00	40	781	2.11	40	100	1/21 24:00	40	146	27	27

System Name: Unit Heater

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
Unit Heater			2,729	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 00-01		857	0.00	9/21 14:00	392	6,846	1.96	N/A	N/A	1/21 24:00	392	10,292	0	0
		Room 00-13	857	0.00	9/21 14:00	389	6,913	1.95	N/A	N/A	1/21 24:00	389	10,206	0	0
	Zone 00-12		144	0.72	7/21 19:00	79	1,188	3.65	N/A	N/A	1/21 24:00	79	2,067	0	0
		Room 00-12	144	0.72	7/21 19:00	79	1,208	3.68	N/A	N/A	1/21 24:00	79	2,083	0	0
	Zone 00-13		141	0.71	7/21 20:00	76	1,209	3.57	N/A	N/A	1/21 24:00	76	1,981	0	0
		Room 00-24	141	0.71	7/21 20:00	76	1,212	3.59	N/A	N/A	1/21 24:00	76	1,997	0	0
	Zone 00-14		89	0.89	7/21 18:00	176	8,804	13.20	N/A	N/A	1/21 24:00	176	4,643	0	0
		Room 00-05	89	0.89	7/21 18:00	176	8,820	13.18	N/A	N/A	1/21 24:00	176	4,635	0	0
	Zone 00-15		265	1.33	7/21 19:00	111	1,786	2.79	N/A	N/A	1/21 24:00	111	2,914	0	0
		Room 00-17	265	1.33	7/21 19:00	112	1,792	2.81	N/A	N/A	1/21 24:00	112	2,927	0	0
	Zone 01-00		134	0.67	7/21 19:00	198	1,915	6.32	N/A	N/A	1/21 24:00	198	5,220	0	0
		Room 01-16	134	0.67	7/21 19:00	199	1,913	6.33	N/A	N/A	1/21 24:00	199	5,229	0	0
	Zone 01-01		141	0.70	7/21 20:00	179	1,781	5.46	N/A	N/A	1/21 24:00	179	4,711	0	0
		Room 01-17	141	0.70	7/21 20:00	181	1,804	5.50	N/A	N/A	1/21 24:00	181	4,753	0	0
	Zone 01-02		172	0.86	7/21 19:00	238	2,406	5.93	N/A	N/A	1/21 24:00	238	6,276	0	0
		Room 01-12	172	0.86	7/21 19:00	234	2,345	5.82	N/A	N/A	1/21 24:00	234	6,167	0	0
	Zone 01-05		786	0.00	7/21 18:00	651	7,886	3.55	N/A	N/A	1/21 24:00	651	17,173	0	0
		Room 01-02	786	0.00	7/21 18:00	652	7,902	3.55	N/A	N/A	1/21 24:00	652	17,194	0	0

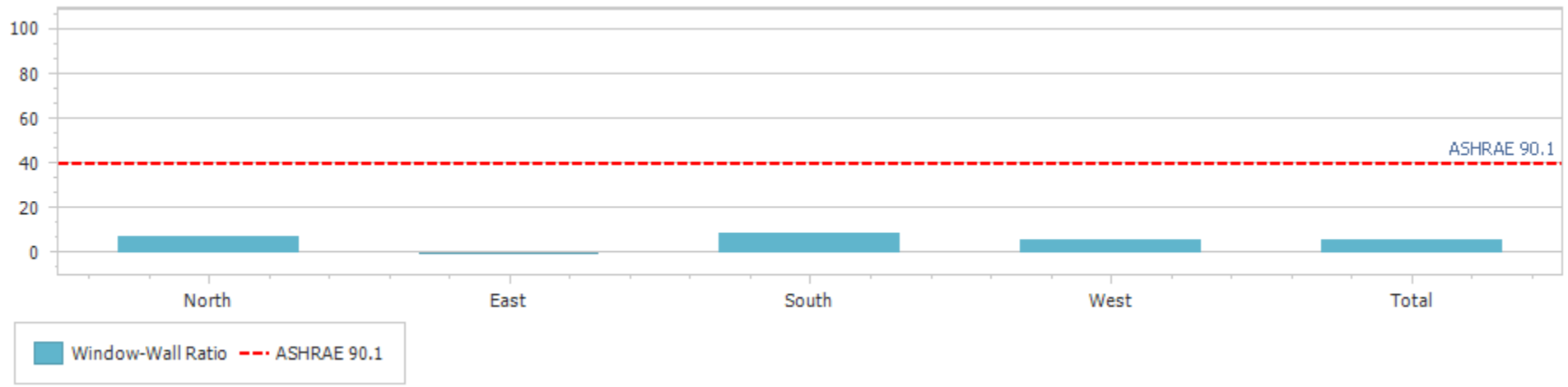
System Name: AC-2 Locker Room

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
AC-2 Locker Room			4,076	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zone 01-03		4,076	20.38	7/21 18:00	1,159	27,659	1.77	1,159	100	1/21 24:00	1,159	35,166	48	48
		Room 01-00	3,546	17.73	7/21 18:00	923	22,023	1.74	923	100	1/21 24:00	923	27,588	51	51
		Room 01-10	529	2.65	7/21 19:00	243	5,786	1.96	243	100	1/21 24:00	243	8,143	51	51

System Name: Ventilation and Heating

Location					Cooling						Heating			Percent OA	
System	Zone	Room	Area	People	Time of Peak	Supply Airflow	Sensible Load	Minimum Airflow	Minimum Airflow	Minimum Airflow	Time of Peak	Supply Airflow	Sensible Load	Clg	Htg
			(ft²)		Mo/D/Hr	(cfm)	(Btu/h)	ACH	(cfm)	%	Mo/D/Hr	(cfm)	(Btu/h)	%	%
Ventilation and Heating			7,681	5.00		0	0	2.28	4,082	0	1/21 24:00	4,082	142,876	17	13
	Zone 00-17		7,681	5.00	7/21 16:00	4,082	82,289	2.28	4,082	100	1/21 24:00	4,082	258,157	13	13
		Room 00-26	7,681	5.00	7/21 16:00	4,082	82,310	2.28	4,082	100	1/21 24:00	4,082	258,170	13	13

Envelope Summary



	North	East	South	West	Total
Gross Window-Wall Ratio	6.7	0	8.61	5.37	5.26

Ratios

	Units	North	East	South	West	Total
Above Ground Wall Area	ft²	3,849	3,572	3,849	3,566	14,835
Above Ground Window-Wall Ratio	%	6.7	0	8.61	5.37	5.26
Gross Wall Area	ft²	3,849	3,572	3,849	3,566	14,835
Gross Window-Wall Ratio	%	6.7	0	8.61	5.37	5.26
Window Opening Area	ft²	258	0	332	192	781
Gross Roof Area	ft²	0	0	0	0	19,170
Skylight Area	ft²	0	0	0	0	0
Skylight-Roof Ratio	%	0	0	0	0	0

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
PLENUM WALL 115-Room 00-12 _9	Police District Brick-Block Ext Walls - Rev3	0.3	7	0.102	0.112	172.22°	90 °	S

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
PLENUM WALL 117-Room 00-12 _9	Police District Brick-Block Ext Walls - Rev3	0.3	84	0.102	0.112	0.01°	90 °	N
PLENUM WALL 119-Room 00-12 _9	Police District Brick-Block Ext Walls - Rev3	0.3	48	0.102	0.112	270.01°	90 °	W
PLENUM WALL 153-Room 00-17 _9	Police District Brick-Block Ext Walls - Rev3	0.3	133	0.102	0.112	0.01°	90 °	N
PLENUM WALL 165-Room 00-18 _9	Police District Brick-Block Ext Walls - Rev3	0.3	193	0.102	0.112	0.01°	90 °	N
PLENUM WALL 167-Room 00-18 _9	Police District Brick-Block Ext Walls - Rev3	0.3	88	0.102	0.112	270.01°	90 °	W
PLENUM WALL 210-Room 00-24 _9	Police District Brick-Block Ext Walls - Rev3	0.3	7	0.102	0.112	0.01°	90 °	N
PLENUM WALL 212-Room 00-24 _9	Police District Brick-Block Ext Walls - Rev3	0.3	46	0.102	0.112	270.01°	90 °	W
PLENUM WALL 214-Room 00-24 _9	Police District Brick-Block Ext Walls - Rev3	0.3	84	0.102	0.112	180.01°	90 °	S
PLENUM WALL 218-Room 00-25 _9	Police District Brick-Block Ext Walls - Rev3	0.3	105	0.102	0.112	0.01°	90 °	N
PLENUM WALL 336-Room 00-17 _9	Police District Brick-Block Ext Walls - Rev3	0.3	14	0.102	0.112	90.01°	90 °	E
PLENUM WALL 33-Room 00-01 _9	Police District Brick-Block Ext Walls - Rev3	0.3	132	0.102	0.112	180.01°	90 °	S
PLENUM WALL 349-Room 01-01 _23	Police District Brick-Block Ext Walls - Rev3	0.3	176	0.102	0.112	270.01°	90 °	W
PLENUM WALL 350-Room 01-01 _23	Police District Brick-Block Ext Walls - Rev3	0.3	211	0.102	0.112	180.01°	90 °	S
PLENUM WALL 362-Room 01-00 _23	Police District Brick-Block Ext Walls - Rev3	0.3	342	0.102	0.112	90.01°	90 °	E
PLENUM WALL 39-Room 00-02 _9	Police District Brick-Block Ext Walls - Rev3	0.3	59	0.102	0.112	270.01°	90 °	W
PLENUM WALL 41-Room 00-02 _9	Police District Brick-Block Ext Walls - Rev3	0.3	61	0.102	0.112	180.01°	90 °	S
PLENUM WALL 51-Room 00-04 _9	Police District Brick-Block Ext Walls - Rev3	0.3	108	0.102	0.112	270.01°	90 °	W
PLENUM WALL 59-Room 00-05 _9	Police District Brick-Block Ext Walls - Rev3	0.3	77	0.102	0.112	270.01°	90 °	W
PLENUM WALL 67-Room 00-06 _9	Police District Brick-Block Ext Walls - Rev3	0.3	203	0.102	0.112	270.01°	90 °	W
PLENUM WALL 85-Room 00-07 _9	Police District Brick-Block Ext Walls - Rev3	0.3	105	0.102	0.112	180.01°	90 °	S
Roof 00-00	Police Concrete Roof Deck	0.3	3,609	0.219	0.265	90.01°	0 °	
Roof 01-01	Police Concrete Roof Deck	0.3	1,488	0.219	0.265	90.01°	0 °	
Roof 02-02	Police Concrete Roof Deck	0.3	815	0.219	0.265	90.01°	0 °	
Roof 03-03	Police Concrete Roof Deck	0.3	505	0.219	0.265	90.01°	0 °	

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
Roof 04-04	Police Concrete Roof Deck	0.3	735	0.219	0.265	90.01°	0 °	
Roof 05-05	Police Concrete Roof Deck	0.3	1,026	0.219	0.265	90.01°	0 °	
Roof 06-06	Police Concrete Roof Deck	0.3	510	0.219	0.265	89.47°	0 °	
Roof 07-07	Police Concrete Roof Deck	0.3	627	0.219	0.265	90.01°	0 °	
Roof 08-08	Police Concrete Roof Deck	0.3	163	0.219	0.265	90.01°	0 °	
Roof 09-09	Police Concrete Roof Deck	0.3	285	0.219	0.265	90.01°	0 °	
Roof 10-10	Police Concrete Roof Deck	0.3	557	0.219	0.265	90.01°	0 °	
Roof 11-11	Police Concrete Roof Deck	0.3	78	0.219	0.265	89.47°	0 °	
Roof 12-12	Police Concrete Roof Deck	0.3	189	0.219	0.265	90.01°	0 °	
Roof 13-13	Police Concrete Roof Deck	0.3	56	0.219	0.265	90.01°	0 °	
Roof 14-14	Police Concrete Roof Deck	0.3	433	0.219	0.265	179.47°	0 °	
Roof 15-15	Police Concrete Roof Deck	0.3	20	0.219	0.265	90.01°	0 °	
Roof 16-16	Police Concrete Roof Deck	0.3	147	0.219	0.265	90.01°	0 °	
Roof 17-17	Police Concrete Roof Deck	0.3	153	0.219	0.265	90.01°	0 °	
Roof 18-26	Police Concrete Roof Deck	0.3	7,773	0.219	0.265	90°	0 °	
SLAB 00_0	4 In. Hw Concrete	0.3	938	0.249	0.323		180 °	
SLAB 01_0	4 In. Hw Concrete	0.3	451	0.249	0.323		180 °	
SLAB 02_0	4 In. Hw Concrete	0.3	142	0.249	0.323		180 °	
SLAB 03_0	4 In. Hw Concrete	0.3	430	0.249	0.323		180 °	
SLAB 04_0	4 In. Hw Concrete	0.3	262	0.249	0.323		180 °	
SLAB 05_0	4 In. Hw Concrete	0.3	100	0.249	0.323		180 °	
SLAB 06_0	4 In. Hw Concrete	0.3	629	0.249	0.323		180 °	
SLAB 07_0	4 In. Hw Concrete	0.3	347	0.249	0.323		180 °	
SLAB 08_0	4 In. Hw Concrete	0.3	196	0.249	0.323		180 °	

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
SLAB 09_0	4 In. Hw Concrete	0.3	225	0.249	0.323		180 °	
SLAB 10_0	4 In. Hw Concrete	0.3	431	0.249	0.323		180 °	
SLAB 11_0	4 In. Hw Concrete	0.3	261	0.249	0.323		180 °	
SLAB 12_0	4 In. Hw Concrete	0.3	156	0.249	0.323		180 °	
SLAB 123_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	34	0.038	0.04		180 °	
SLAB 126_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	14	0.038	0.04		180 °	
SLAB 13_0	4 In. Hw Concrete	0.3	886	0.249	0.323		180 °	
SLAB 131_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	83	0.038	0.04		180 °	
SLAB 136_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	0	0.038	0.04		180 °	
SLAB 138_0	4 In. Hw Concrete	0.3	7,773	0.249	0.323		180 °	
SLAB 14_0	4 In. Hw Concrete	0.3	369	0.249	0.323		180 °	
SLAB 15_0	4 In. Hw Concrete	0.3	1,780	0.249	0.323		180 °	
SLAB 16_0	4 In. Hw Concrete	0.3	238	0.249	0.323		180 °	
SLAB 17_0	4 In. Hw Concrete	0.3	283	0.249	0.323		180 °	
SLAB 18_0	4 In. Hw Concrete	0.3	824	0.249	0.323		180 °	
SLAB 19_0	4 In. Hw Concrete	0.3	389	0.249	0.323		180 °	
SLAB 20_0	4 In. Hw Concrete	0.3	432	0.249	0.323		180 °	
SLAB 21_0	4 In. Hw Concrete	0.3	147	0.249	0.323		180 °	
SLAB 22_0	4 In. Hw Concrete	0.3	143	0.249	0.323		180 °	
SLAB 23_0	4 In. Hw Concrete	0.3	465	0.249	0.323		180 °	
SLAB 24_0	4 In. Hw Concrete	0.3	154	0.249	0.323		180 °	
SLAB 25_0	4 In. Hw Concrete	0.3	243	0.249	0.323		180 °	
SLAB 60_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	85	0.038	0.04		180 °	
SLAB 62_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	46	0.038	0.04		180 °	

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
SLAB 75_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	97	0.038	0.04		180 °	
SLAB 91_0	90.1-13 Min Floors, Steel Joist Zone 5	0.3	116	0.038	0.04		180 °	
WALL 114-Room 00-12 _0	Police District Brick-Block Ext Walls - Rev3	0.3	12	0.102	0.112	172.22°	90 °	S
WALL 116-Room 00-12 _0	Police District Brick-Block Ext Walls - Rev3	0.3	152	0.102	0.112	0.01°	90 °	N
WALL 118-Room 00-12 _0	Police District Brick-Block Ext Walls - Rev3	0.3	86	0.102	0.112	270.01°	90 °	W
WALL 124-Room 00-13 _0	Police District Brick-Block Ext Walls - Rev3	0.3	373	0.102	0.112	180.01°	90 °	S
WALL 152-Room 00-17 _0	Police District Brick-Block Ext Walls - Rev3	0.3	240	0.102	0.112	0.01°	90 °	N
WALL 164-Room 00-18 _0	Police District Brick-Block Ext Walls - Rev3	0.3	348	0.102	0.112	0.01°	90 °	N
WALL 166-Room 00-18 _0	Police District Brick-Block Ext Walls - Rev3	0.3	158	0.102	0.112	270.01°	90 °	W
WALL 209-Room 00-24 _0	Police District Brick-Block Ext Walls - Rev3	0.3	12	0.102	0.112	0.01°	90 °	N
WALL 211-Room 00-24 _0	Police District Brick-Block Ext Walls - Rev3	0.3	82	0.102	0.112	270.01°	90 °	W
WALL 213-Room 00-24 _0	Police District Brick-Block Ext Walls - Rev3	0.3	152	0.102	0.112	180.01°	90 °	S
WALL 217-Room 00-25 _0	Police District Brick-Block Ext Walls - Rev3	0.3	189	0.102	0.112	0.01°	90 °	N
WALL 239-Room 01-00 _14	Police District Brick-Block Ext Walls - Rev3	0.3	616	0.102	0.112	90.01°	90 °	E
WALL 253-Room 01-01 _14	Police District Brick-Block Ext Walls - Rev3	0.3	317	0.102	0.112	270.01°	90 °	W
WALL 254-Room 01-01 _14	Police District Brick-Block Ext Walls - Rev3	0.3	380	0.102	0.112	180.01°	90 °	S
WALL 256-Room 01-02 _14	Police District Brick-Block Ext Walls - Rev3	0.3	494	0.102	0.112	90.01°	90 °	E
WALL 257-Room 01-02 _14	Police District Brick-Block Ext Walls - Rev3	0.3	324	0.102	0.112	180.01°	90 °	S
WALL 272-Room 01-03 _14	Police District Brick-Block Ext Walls - Rev3	0.3	29	0.102	0.112	180.01°	90 °	S
WALL 275-Room 01-04 _14	Police District Brick-Block Ext Walls - Rev3	0.3	74	0.102	0.112	0.01°	90 °	N
WALL 276-Room 01-04 _14	Police District Brick-Block Ext Walls - Rev3	0.3	305	0.102	0.112	180.01°	90 °	S
WALL 284-Room 01-05 _14	Police District Brick-Block Ext Walls - Rev3	0.3	728	0.102	0.112	359.47°	90 °	N
WALL 285-Room 01-05 _14	Police District Brick-Block Ext Walls - Rev3	0.3	273	0.102	0.112	270.01°	90 °	W
WALL 287-Room 01-06 _14	Police District Brick-Block Ext Walls - Rev3	0.3	84	0.102	0.112	90.01°	90 °	E

Opaque Exterior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)	Azimuth	Tilt	Cardinal Direction
WALL 288-Room 01-06 _14	Police District Brick-Block Ext Walls - Rev3	0.3	231	0.102	0.112	0.01°	90 °	N
WALL 308-Room 01-12 _14	Police District Brick-Block Ext Walls - Rev3	0.3	282	0.102	0.112	90.01°	90 °	E
WALL 309-Room 01-12 _14	Police District Brick-Block Ext Walls - Rev3	0.3	187	0.102	0.112	359.47°	90 °	N
WALL 310-Room 01-03 _14	Police District Brick-Block Ext Walls - Rev3	0.3	389	0.102	0.112	270.01°	90 °	W
WALL 314-Room 01-13 _14	Police District Brick-Block Ext Walls - Rev3	0.3	58	0.102	0.112	270.01°	90 °	W
WALL 319-Room 01-14 _14	Police District Brick-Block Ext Walls - Rev3	0.3	29	0.102	0.112	0.01°	90 °	N
WALL 320-Room 01-14 _14	Police District Brick-Block Ext Walls - Rev3	0.3	335	0.102	0.112	270.01°	90 °	W
WALL 325-Room 01-16 _14	Police District Brick-Block Ext Walls - Rev3	0.3	128	0.102	0.112	270.01°	90 °	W
WALL 326-Room 01-16 _14	Police District Brick-Block Ext Walls - Rev3	0.3	225	0.102	0.112	180.01°	90 °	S
WALL 329-Room 01-17 _14	Police District Brick-Block Ext Walls - Rev3	0.3	225	0.102	0.112	0.01°	90 °	N
WALL 32-Room 00-01 _0	Police District Brick-Block Ext Walls - Rev3	0.3	238	0.102	0.112	180.01°	90 °	S
WALL 330-Room 01-17 _14	Police District Brick-Block Ext Walls - Rev3	0.3	133	0.102	0.112	270.01°	90 °	W
WALL 335-Room 00-17 _0	Police District Brick-Block Ext Walls - Rev3	0.3	25	0.102	0.112	90.01°	90 °	E
WALL 342-Room 00-13 _0	Police District Brick-Block Ext Walls - Rev3	0.3	43	0.102	0.112	90.01°	90 °	E
WALL 343-Room 00-26 _0	Police District Brick-Block Ext Walls - Rev3	0.3	1,671	0.102	0.112	90°	90 °	E
WALL 344-Room 00-26 _0	Police District Brick-Block Ext Walls - Rev3	0.3	912	0.102	0.112	0°	90 °	N
WALL 345-Room 00-26 _0	Police District Brick-Block Ext Walls - Rev3	0.3	912	0.102	0.112	180°	90 °	S
WALL 38-Room 00-02 _0	Police District Brick-Block Ext Walls - Rev3	0.3	105	0.102	0.112	270.01°	90 °	W
WALL 40-Room 00-02 _0	Police District Brick-Block Ext Walls - Rev3	0.3	109	0.102	0.112	180.01°	90 °	S
WALL 50-Room 00-04 _0	Police District Brick-Block Ext Walls - Rev3	0.3	194	0.102	0.112	270.01°	90 °	W
WALL 58-Room 00-05 _0	Police District Brick-Block Ext Walls - Rev3	0.3	138	0.102	0.112	270.01°	90 °	W
WALL 66-Room 00-06 _0	Police District Brick-Block Ext Walls - Rev3	0.3	366	0.102	0.112	270.01°	90 °	W
WALL 84-Room 00-07 _0	Police District Brick-Block Ext Walls - Rev3	0.3	189	0.102	0.112	180.01°	90 °	S

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 101-Room 00-10 _9	Gypsum, Gypsum	0.3	15	0.28	0.452
PLENUM WALL 103-Room 00-10 _9	Gypsum, Gypsum	0.3	59	0.28	0.452
PLENUM WALL 105-Room 00-10 _9	Gypsum, Gypsum	0.3	66	0.28	0.452
PLENUM WALL 107-Room 00-11 _9	Gypsum, Gypsum	0.3	45	0.28	0.452
PLENUM WALL 109-Room 00-11 _9	Gypsum, Gypsum	0.3	19	0.28	0.452
PLENUM WALL 111-Room 00-12 _9	Gypsum, Gypsum	0.3	46	0.28	0.452
PLENUM WALL 113-Room 00-11 _9	Gypsum, Gypsum	0.3	39	0.28	0.452
PLENUM WALL 127-Room 00-07 _9	Gypsum, Gypsum	0.3	17	0.28	0.452
PLENUM WALL 129-Room 00-14 _9	Gypsum, Gypsum	0.3	132	0.28	0.452
PLENUM WALL 133-Room 00-00 _9	Gypsum, Gypsum	0.3	178	0.28	0.452
PLENUM WALL 135-Room 00-15 _9	Gypsum, Gypsum	0.3	133	0.28	0.452
WALL 148-Room 00-17 _0	Gypsum, Gypsum	0.3	96	0.28	0.452
WALL 154-Room 00-15 _0	Gypsum, Gypsum	0.3	37	0.28	0.452
WALL 156-Room 00-00 _0	Gypsum, Gypsum	0.3	210	0.28	0.452
WALL 158-Room 00-18 _0	Gypsum, Gypsum	0.3	35	0.28	0.452
WALL 160-Room 00-18 _0	Gypsum, Gypsum	0.3	34	0.28	0.452
WALL 162-Room 00-18 _0	Gypsum, Gypsum	0.3	109	0.28	0.452
WALL 168-Room 00-10 _0	Gypsum, Gypsum	0.3	211	0.28	0.452
WALL 170-Room 00-19 _0	Gypsum, Gypsum	0.3	107	0.28	0.452
WALL 172-Room 00-19 _0	Gypsum, Gypsum	0.3	195	0.28	0.452
WALL 174-Room 00-14 _0	Gypsum, Gypsum	0.3	109	0.28	0.452
PLENUM WALL 139-Room 00-14 _9	Gypsum, Gypsum	0.3	133	0.28	0.452
WALL 176-Room 00-15 _0	Gypsum, Gypsum	0.3	130	0.28	0.452
WALL 178-Room 00-19 _0	Gypsum, Gypsum	0.3	49	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 180-Room 00-20 _0	Gypsum, Gypsum	0.3	59	0.28	0.452
WALL 182-Room 00-20 _0	Gypsum, Gypsum	0.3	65	0.28	0.452
WALL 184-Room 00-20 _0	Gypsum, Gypsum	0.3	181	0.28	0.452
WALL 186-Room 00-15 _0	Gypsum, Gypsum	0.3	67	0.28	0.452
WALL 188-Room 00-21 _0	Gypsum, Gypsum	0.3	181	0.28	0.452
WALL 190-Room 00-15 _0	Gypsum, Gypsum	0.3	47	0.28	0.452
WALL 192-Room 00-00 _0	Gypsum, Gypsum	0.3	47	0.28	0.452
WALL 194-Room 00-00 _0	Gypsum, Gypsum	0.3	241	0.28	0.452
PLENUM WALL 143-Room 00-16 _9	Gypsum, Gypsum	0.3	45	0.28	0.452
WALL 196-Room 00-00 _0	Gypsum, Gypsum	0.3	32	0.28	0.452
WALL 198-Room 00-00 _0	Gypsum, Gypsum	0.3	44	0.28	0.452
WALL 200-Room 00-00 _0	Gypsum, Gypsum	0.3	211	0.28	0.452
WALL 207-Room 00-07 _0	Gypsum, Gypsum	0.3	82	0.28	0.452
WALL 215-Room 00-23 _0	Gypsum, Gypsum	0.3	117	0.28	0.452
WALL 250-Room 01-00 _14	Gypsum, Gypsum	0.3	210	0.28	0.452
WALL 251-Room 01-01 _14	Gypsum, Gypsum	0.3	317	0.28	0.452
WALL 255-Room 01-00 _14	Gypsum, Gypsum	0.3	208	0.28	0.452
WALL 259-Room 01-04 _14	Gypsum, Gypsum	0.3	593	0.28	0.452
PLENUM WALL 145-Room 00-16 _9	Gypsum, Gypsum	0.3	133	0.28	0.452
WALL 261-Room 01-04 _14	Gypsum, Gypsum	0.3	127	0.28	0.452
WALL 262-Room 01-04 _14	Gypsum, Gypsum	0.3	191	0.28	0.452
WALL 263-Room 01-04 _14	Gypsum, Gypsum	0.3	56	0.28	0.452
WALL 264-Room 01-04 _14	Gypsum, Gypsum	0.3	191	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 265-Room 01-00 _14	Gypsum, Gypsum	0.3	73	0.28	0.452
WALL 266-Room 01-01 _14	Gypsum, Gypsum	0.3	170	0.28	0.452
WALL 26-Room 00-01 _0	Gypsum, Gypsum	0.3	105	0.28	0.452
WALL 273-Room 01-04 _14	Gypsum, Gypsum	0.3	332	0.28	0.452
WALL 277-Room 01-00 _14	Gypsum, Gypsum	0.3	239	0.28	0.452
WALL 278-Room 01-06 _14	Gypsum, Gypsum	0.3	266	0.28	0.452
PLENUM WALL 149-Room 00-17 _9	Gypsum, Gypsum	0.3	53	0.28	0.452
WALL 279-Room 01-00 _14	Gypsum, Gypsum	0.3	24	0.28	0.452
WALL 280-Room 01-00 _14	Gypsum, Gypsum	0.3	57	0.28	0.452
WALL 281-Room 01-00 _14	Gypsum, Gypsum	0.3	24	0.28	0.452
WALL 282-Room 01-04 _14	Gypsum, Gypsum	0.3	84	0.28	0.452
WALL 286-Room 01-05 _14	Gypsum, Gypsum	0.3	728	0.28	0.452
WALL 289-Room 01-00 _14	Gypsum, Gypsum	0.3	190	0.28	0.452
WALL 28-Room 00-01 _0	Gypsum, Gypsum	0.3	238	0.28	0.452
WALL 290-Room 01-00 _14	Gypsum, Gypsum	0.3	381	0.28	0.452
WALL 291-Room 01-00 _14	Gypsum, Gypsum	0.3	67	0.28	0.452
WALL 292-Room 01-07 _14	Gypsum, Gypsum	0.3	127	0.28	0.452
PLENUM WALL 155-Room 00-15 _9	Gypsum, Gypsum	0.3	20	0.28	0.452
WALL 293-Room 01-08 _14	Gypsum, Gypsum	0.3	61	0.28	0.452
WALL 294-Room 01-04 _14	Gypsum, Gypsum	0.3	252	0.28	0.452
WALL 295-Room 01-00 _14	Gypsum, Gypsum	0.3	162	0.28	0.452
WALL 296-Room 01-09 _14	Gypsum, Gypsum	0.3	208	0.28	0.452
WALL 297-Room 01-06 _14	Gypsum, Gypsum	0.3	125	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 298-Room 01-07 _14	Gypsum, Gypsum	0.3	422	0.28	0.452
WALL 299-Room 01-07 _14	Gypsum, Gypsum	0.3	85	0.28	0.452
WALL 300-Room 01-07 _14	Gypsum, Gypsum	0.3	169	0.28	0.452
WALL 301-Room 01-07 _14	Gypsum, Gypsum	0.3	56	0.28	0.452
WALL 302-Room 01-06 _14	Gypsum, Gypsum	0.3	94	0.28	0.452
PLENUM WALL 157-Room 00-00 _9	Gypsum, Gypsum	0.3	117	0.28	0.452
WALL 303-Room 01-06 _14	Gypsum, Gypsum	0.3	93	0.28	0.452
WALL 304-Room 01-05 _14	Gypsum, Gypsum	0.3	166	0.28	0.452
WALL 305-Room 01-11 _14	Gypsum, Gypsum	0.3	92	0.28	0.452
WALL 306-Room 01-11 _14	Gypsum, Gypsum	0.3	166	0.28	0.452
WALL 307-Room 01-05 _14	Gypsum, Gypsum	0.3	114	0.28	0.452
WALL 260-Room 01-04 _14	Gypsum, Gypsum	0.3	208	0.28	0.452
WALL 30-Room 00-01 _0	Gypsum, Gypsum	0.3	153	0.28	0.452
WALL 311-Room 01-13 _14	Gypsum, Gypsum	0.3	188	0.28	0.452
WALL 312-Room 01-13 _14	Gypsum, Gypsum	0.3	59	0.28	0.452
WALL 313-Room 01-03 _14	Gypsum, Gypsum	0.3	188	0.28	0.452
WALL 315-Room 01-03 _14	Gypsum, Gypsum	0.3	389	0.28	0.452
PLENUM WALL 159-Room 00-18 _9	Gypsum, Gypsum	0.3	19	0.28	0.452
WALL 316-Room 01-03 _14	Gypsum, Gypsum	0.3	67	0.28	0.452
WALL 321-Room 01-04 _14	Gypsum, Gypsum	0.3	60	0.28	0.452
WALL 322-Room 01-14 _14	Gypsum, Gypsum	0.3	67	0.28	0.452
WALL 323-Room 01-04 _14	Gypsum, Gypsum	0.3	128	0.28	0.452
WALL 324-Room 01-03 _14	Gypsum, Gypsum	0.3	225	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 327-Room 01-04 _14	Gypsum, Gypsum	0.3	133	0.28	0.452
WALL 328-Room 01-14 _14	Gypsum, Gypsum	0.3	225	0.28	0.452
WALL 331-Room 00-16 _0	Gypsum, Gypsum	0.3	80	0.28	0.452
WALL 333-Room 00-17 _0	Gypsum, Gypsum	0.3	70	0.28	0.452
WALL 337-Room 00-15 _0	Gypsum, Gypsum	0.3	601	0.28	0.452
PLENUM WALL 161-Room 00-18 _9	Gypsum, Gypsum	0.3	19	0.28	0.452
WALL 339-Room 00-14 _0	Gypsum, Gypsum	0.3	51	0.28	0.452
WALL 341-Room 00-13 _0	Gypsum, Gypsum	0.3	422	0.28	0.452
WALL 34-Room 00-02 _0	Gypsum, Gypsum	0.3	109	0.28	0.452
WALL 36-Room 00-01 _0	Gypsum, Gypsum	0.3	48	0.28	0.452
WALL 42-Room 00-03 _0	Gypsum, Gypsum	0.3	238	0.28	0.452
WALL 44-Room 00-03 _0	Gypsum, Gypsum	0.3	146	0.28	0.452
WALL 46-Room 00-03 _0	Gypsum, Gypsum	0.3	146	0.28	0.452
WALL 48-Room 00-04 _0	Gypsum, Gypsum	0.3	109	0.28	0.452
WALL 52-Room 00-05 _0	Gypsum, Gypsum	0.3	58	0.28	0.452
WALL 54-Room 00-05 _0	Gypsum, Gypsum	0.3	139	0.28	0.452
PLENUM WALL 163-Room 00-18 _9	Gypsum, Gypsum	0.3	61	0.28	0.452
WALL 56-Room 00-05 _0	Gypsum, Gypsum	0.3	58	0.28	0.452
WALL 60-Room 00-06 _0	Gypsum, Gypsum	0.3	81	0.28	0.452
WALL 62-Room 00-06 _0	Gypsum, Gypsum	0.3	366	0.28	0.452
WALL 64-Room 00-06 _0	Gypsum, Gypsum	0.3	139	0.28	0.452
WALL 68-Room 00-07 _0	Gypsum, Gypsum	0.3	51	0.28	0.452
WALL 70-Room 00-07 _0	Gypsum, Gypsum	0.3	43	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
WALL 72-Room 00-07 _0	Gypsum, Gypsum	0.3	183	0.28	0.452
WALL 74-Room 00-07 _0	Gypsum, Gypsum	0.3	99	0.28	0.452
WALL 76-Room 00-07 _0	Gypsum, Gypsum	0.3	31	0.28	0.452
WALL 78-Room 00-07 _0	Gypsum, Gypsum	0.3	47	0.28	0.452
PLENUM WALL 169-Room 00-10 _9	Gypsum, Gypsum	0.3	117	0.28	0.452
WALL 86-Room 00-08 _0	Gypsum, Gypsum	0.3	99	0.28	0.452
WALL 88-Room 00-08 _0	Gypsum, Gypsum	0.3	129	0.28	0.452
WALL 90-Room 00-07 _0	Gypsum, Gypsum	0.3	160	0.28	0.452
WALL 92-Room 00-07 _0	Gypsum, Gypsum	0.3	54	0.28	0.452
WALL 94-Room 00-09 _0	Gypsum, Gypsum	0.3	99	0.28	0.452
WALL 96-Room 00-09 _0	Gypsum, Gypsum	0.3	183	0.28	0.452
WALL 98-Room 00-10 _0	Gypsum, Gypsum	0.3	260	0.28	0.452
PLENUM WALL 171-Room 00-19 _9	Gypsum, Gypsum	0.3	59	0.28	0.452
PLENUM WALL 173-Room 00-19 _9	Gypsum, Gypsum	0.3	108	0.28	0.452
PLENUM WALL 175-Room 00-14 _9	Gypsum, Gypsum	0.3	61	0.28	0.452
PLENUM WALL 177-Room 00-15 _9	Gypsum, Gypsum	0.3	72	0.28	0.452
PLENUM WALL 179-Room 00-19 _9	Gypsum, Gypsum	0.3	27	0.28	0.452
PLENUM WALL 181-Room 00-20 _9	Gypsum, Gypsum	0.3	33	0.28	0.452
PLENUM WALL 183-Room 00-20 _9	Gypsum, Gypsum	0.3	36	0.28	0.452
PLENUM WALL 185-Room 00-20 _9	Gypsum, Gypsum	0.3	100	0.28	0.452
PLENUM WALL 187-Room 00-15 _9	Gypsum, Gypsum	0.3	37	0.28	0.452
PLENUM WALL 189-Room 00-21 _9	Gypsum, Gypsum	0.3	101	0.28	0.452
PLENUM WALL 191-Room 00-15 _9	Gypsum, Gypsum	0.3	26	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 193-Room 00-00 _9	Gypsum, Gypsum	0.3	26	0.28	0.452
PLENUM WALL 195-Room 00-00 _9	Gypsum, Gypsum	0.3	134	0.28	0.452
PLENUM WALL 197-Room 00-00 _9	Gypsum, Gypsum	0.3	18	0.28	0.452
PLENUM WALL 199-Room 00-00 _9	Gypsum, Gypsum	0.3	25	0.28	0.452
PLENUM WALL 201-Room 00-00 _9	Gypsum, Gypsum	0.3	117	0.28	0.452
PLENUM WALL 204-Room 00-13 _9	Gypsum, Gypsum	0.3	133	0.28	0.452
PLENUM WALL 205-Room 00-03 _9	Gypsum, Gypsum	0.3	81	0.28	0.452
PLENUM WALL 206-Room 00-01 _9	Gypsum, Gypsum	0.3	85	0.28	0.452
PLENUM WALL 208-Room 00-07 _9	Gypsum, Gypsum	0.3	46	0.28	0.452
PLENUM WALL 216-Room 00-23 _9	Gypsum, Gypsum	0.3	65	0.28	0.452
PLENUM WALL 27-Room 00-01 _9	Gypsum, Gypsum	0.3	59	0.28	0.452
PLENUM WALL 29-Room 00-01 _9	Gypsum, Gypsum	0.3	132	0.28	0.452
PLENUM WALL 332-Room 00-16 _9	Gypsum, Gypsum	0.3	45	0.28	0.452
PLENUM WALL 334-Room 00-17 _9	Gypsum, Gypsum	0.3	39	0.28	0.452
PLENUM WALL 338-Room 00-15 _9	Gypsum, Gypsum	0.3	334	0.28	0.452
PLENUM WALL 340-Room 00-14 _9	Gypsum, Gypsum	0.3	28	0.28	0.452
PLENUM WALL 346-Room 01-01 _23	Gypsum, Gypsum	0.3	176	0.28	0.452
PLENUM WALL 348-Room 01-01 _23	Gypsum, Gypsum	0.3	94	0.28	0.452
PLENUM WALL 351-Room 01-00 _23	Gypsum, Gypsum	0.3	13	0.28	0.452
PLENUM WALL 352-Room 01-00 _23	Gypsum, Gypsum	0.3	133	0.28	0.452
PLENUM WALL 353-Room 01-00 _23	Gypsum, Gypsum	0.3	105	0.28	0.452
PLENUM WALL 354-Room 01-00 _23	Gypsum, Gypsum	0.3	13	0.28	0.452
PLENUM WALL 355-Room 01-00 _23	Gypsum, Gypsum	0.3	32	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 356-Room 01-00 _23	Gypsum, Gypsum	0.3	212	0.28	0.452
PLENUM WALL 357-Room 01-00 _23	Gypsum, Gypsum	0.3	90	0.28	0.452
PLENUM WALL 358-Room 01-00 _23	Gypsum, Gypsum	0.3	41	0.28	0.452
PLENUM WALL 359-Room 01-00 _23	Gypsum, Gypsum	0.3	37	0.28	0.452
PLENUM WALL 35-Room 00-02 _9	Gypsum, Gypsum	0.3	61	0.28	0.452
PLENUM WALL 360-Room 01-00 _23	Gypsum, Gypsum	0.3	117	0.28	0.452
PLENUM WALL 361-Room 01-00 _23	Gypsum, Gypsum	0.3	116	0.28	0.452
PLENUM WALL 37-Room 00-01 _9	Gypsum, Gypsum	0.3	27	0.28	0.452
PLENUM WALL 43-Room 00-03 _9	Gypsum, Gypsum	0.3	132	0.28	0.452
PLENUM WALL 45-Room 00-03 _9	Gypsum, Gypsum	0.3	81	0.28	0.452
PLENUM WALL 49-Room 00-04 _9	Gypsum, Gypsum	0.3	61	0.28	0.452
PLENUM WALL 53-Room 00-05 _9	Gypsum, Gypsum	0.3	32	0.28	0.452
PLENUM WALL 55-Room 00-05 _9	Gypsum, Gypsum	0.3	77	0.28	0.452
PLENUM WALL 57-Room 00-05 _9	Gypsum, Gypsum	0.3	32	0.28	0.452
PLENUM WALL 61-Room 00-06 _9	Gypsum, Gypsum	0.3	45	0.28	0.452
PLENUM WALL 63-Room 00-06 _9	Gypsum, Gypsum	0.3	203	0.28	0.452
PLENUM WALL 65-Room 00-06 _9	Gypsum, Gypsum	0.3	77	0.28	0.452
PLENUM WALL 69-Room 00-07 _9	Gypsum, Gypsum	0.3	28	0.28	0.452
PLENUM WALL 71-Room 00-07 _9	Gypsum, Gypsum	0.3	24	0.28	0.452
PLENUM WALL 73-Room 00-07 _9	Gypsum, Gypsum	0.3	102	0.28	0.452
PLENUM WALL 75-Room 00-07 _9	Gypsum, Gypsum	0.3	55	0.28	0.452
PLENUM WALL 77-Room 00-07 _9	Gypsum, Gypsum	0.3	17	0.28	0.452
PLENUM WALL 79-Room 00-07 _9	Gypsum, Gypsum	0.3	26	0.28	0.452

Opaque Interior

	Construction	Exterior Reflectance	Gross Area (ft²)	U-Factor With Film (BTU/h--ft²--°F)	U-Factor No Film (BTU/h--ft²--°F)
PLENUM WALL 87-Room 00-08 _9	Gypsum, Gypsum	0.3	55	0.28	0.452
PLENUM WALL 89-Room 00-08 _9	Gypsum, Gypsum	0.3	72	0.28	0.452
PLENUM WALL 91-Room 00-07 _9	Gypsum, Gypsum	0.3	89	0.28	0.452
PLENUM WALL 93-Room 00-07 _9	Gypsum, Gypsum	0.3	30	0.28	0.452
PLENUM WALL 95-Room 00-09 _9	Gypsum, Gypsum	0.3	55	0.28	0.452
PLENUM WALL 97-Room 00-09 _9	Gypsum, Gypsum	0.3	102	0.28	0.452
PLENUM WALL 99-Room 00-10 _9	Gypsum, Gypsum	0.3	144	0.28	0.452
WALL 100-Room 00-10 _0	Gypsum, Gypsum	0.3	27	0.28	0.452
WALL 102-Room 00-10 _0	Gypsum, Gypsum	0.3	105	0.28	0.452
WALL 104-Room 00-10 _0	Gypsum, Gypsum	0.3	118	0.28	0.452
WALL 106-Room 00-11 _0	Gypsum, Gypsum	0.3	81	0.28	0.452
WALL 108-Room 00-11 _0	Gypsum, Gypsum	0.3	35	0.28	0.452
WALL 110-Room 00-12 _0	Gypsum, Gypsum	0.3	83	0.28	0.452
WALL 112-Room 00-11 _0	Gypsum, Gypsum	0.3	70	0.28	0.452
WALL 120-Room 00-13 _0	Gypsum, Gypsum	0.3	240	0.28	0.452
WALL 126-Room 00-07 _0	Gypsum, Gypsum	0.3	31	0.28	0.452
WALL 128-Room 00-14 _0	Gypsum, Gypsum	0.3	238	0.28	0.452
WALL 132-Room 00-00 _0	Gypsum, Gypsum	0.3	320	0.28	0.452
WALL 134-Room 00-15 _0	Gypsum, Gypsum	0.3	240	0.28	0.452
WALL 138-Room 00-14 _0	Gypsum, Gypsum	0.3	240	0.28	0.452
WALL 142-Room 00-16 _0	Gypsum, Gypsum	0.3	80	0.28	0.452
WALL 144-Room 00-16 _0	Gypsum, Gypsum	0.3	240	0.28	0.452

Opaque Exterior Door

	Construction	U-Factor With Film (BTU/h--ft²-°F)	U-Factor No Film (BTU/h--ft²--°F)	Gross Area (ft²)	Parent Surface
DOOR 01_D - WALL 124-Room 00-13 _0	METAL DOOR	0.579	1.14	16	WALL 124-Room 00-13 _0
DOOR 02_D - WALL 124-Room 00-13 _0	METAL DOOR	0.579	1.14	16	WALL 124-Room 00-13 _0
DOOR 03_D - WALL 152-Room 00-17 _0	METAL DOOR	0.579	1.14	19	WALL 152-Room 00-17 _0
DOOR 04_D - WALL 84-Room 00-07 _0	METAL DOOR	0.579	1.14	19	WALL 84-Room 00-07 _0

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
DOOR 00_D - WALL 58-Room 00-05 _0	90.1-13 Metal Frame Ent. Door Zone 4-6	39	39	0.77	0.407	0.442	No	WALL 58-Room 00-05 _0	270.01°	W
WINDOW 13_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 14_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 15_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 16_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 17_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 18_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 19_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 20_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 21_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 22_W - WALL 66-Room 00-06 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 66-Room 00-06 _0	270.01°	W
WINDOW 23_W - WALL 58-Room 00-05 _0	1/8 In. Clear Al Frame W/Out Thermal Break	21	21	1.037	0.862	0.898	No	WALL 58-Room 00-05 _0	270.01°	W
WINDOW 24_W - WALL 58-Room 00-05 _0	1/8 In. Clear Al Frame W/Out Thermal Break	23.6	23.6	1.037	0.862	0.898	No	WALL 58-Room 00-05 _0	270.01°	W
WINDOW 25_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 26_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 27_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 28_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 29_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 30_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 31_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 32_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
WINDOW 33_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 34_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 35_W - WALL 310-Room 01-03 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 310-Room 01-03 _14	270.01°	W
WINDOW 36_W - WALL 314-Room 01-13 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 314-Room 01-13 _14	270.01°	W
WINDOW 37_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
WINDOW 38_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
WINDOW 39_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
WINDOW 40_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
WINDOW 41_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
WINDOW 42_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
WINDOW 43_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
WINDOW 44_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
WINDOW 45_W - WALL 320-Room 01-14 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 320-Room 01-14 _14	270.01°	W
DOOR 05_D - WALL 345-Room 00-26 _0	90.1-13 Metal Frame Ent. Door Zone 4-6	192	192	0.77	0.407	0.442	No	WALL 345-Room 00-26 _0	180°	S
WINDOW 00_W - WALL 32-Room 00-01 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 32-Room 00-01 _0	180.01°	S
WINDOW 01_W - WALL 32-Room 00-01 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 32-Room 00-01 _0	180.01°	S
WINDOW 02_W - WALL 32-Room 00-01 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 32-Room 00-01 _0	180.01°	S
WINDOW 03_W - WALL 32-Room 00-01 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 32-Room 00-01 _0	180.01°	S
WINDOW 04_W - WALL 32-Room 00-01 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 32-Room 00-01 _0	180.01°	S
WINDOW 05_W - WALL 32-Room 00-01 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 32-Room 00-01 _0	180.01°	S
WINDOW 06_W - WALL 32-Room 00-01 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 32-Room 00-01 _0	180.01°	S

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
WINDOW 07_W - WALL 124-Room 00-13 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 124-Room 00-13 _0	180.01°	S
WINDOW 08_W - WALL 124-Room 00-13 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 124-Room 00-13 _0	180.01°	S
WINDOW 09_W - WALL 124-Room 00-13 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 124-Room 00-13 _0	180.01°	S
WINDOW 10_W - WALL 124-Room 00-13 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 124-Room 00-13 _0	180.01°	S
WINDOW 11_W - WALL 124-Room 00-13 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 124-Room 00-13 _0	180.01°	S
WINDOW 12_W - WALL 124-Room 00-13 _0	1/8 In. Clear Al Frame W/Out Thermal Break	4.5	4.5	1.037	0.862	0.898	No	WALL 124-Room 00-13 _0	180.01°	S
WINDOW 46_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 47_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 48_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 49_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 50_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 51_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 52_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 53_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 54_W - WALL 257-Room 01-02 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 257-Room 01-02 _14	180.01°	S
WINDOW 55_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 56_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 57_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 58_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 59_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 60_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
WINDOW 61_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 62_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 63_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 64_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 65_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 66_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 67_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 68_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 69_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 70_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 71_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
WINDOW 72_W - WALL 254-Room 01-01 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 254-Room 01-01 _14	180.01°	S
DOOR 06_D - WALL 344-Room 00-26 _0	90.1-13 Metal Frame Ent. Door Zone 4-6	192	192	0.77	0.407	0.442	No	WALL 344-Room 00-26 _0	0°	N
WINDOW 73_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 74_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 75_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 76_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 77_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 78_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 79_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 80_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N

Fenestration

	Construction	Area of One Opening (ft²)	Area of Openings (ft²)	U-Factor (BTU/h--ft²--°F)	SHGC	Visible Transmittance	Shade Control	Parent Surface	Azimuth	Cardinal Direction
WINDOW 81_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 82_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 83_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 84_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 85_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 86_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 87_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 88_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 89_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 90_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 91_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 92_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 93_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
WINDOW 94_W - WALL 284-Room 01-05 _14	1/8 In. Clear Al Frame W/Out Thermal Break	3	3	1.037	0.862	0.898	No	WALL 284-Room 01-05 _14	359.47°	N
Total or Average		0	781.1	0.893	0.615	0.651			0°	
North Total or Average		0	258	0.839	0.523	0.559			0°	
Non-North Total or Average		0	523.1	0.919	0.661	0.697			0°	

Sunlit Fraction

* Sunlit Fraction is available for calculation timesteps of 15 minutes or less.

	March 21 9am	March 21 Noon	March 21 3pm	June 21 9am	June 21 Noon	June 21 3pm	December 21 9am	December 21 Noon	December 21 3pm
None	0	0	0	0	0	0	0	0	0

Window Controls

	Control Name	Type	Shaded	Control	Glare Control
None					

Room Cooling and Heating Loads by Component

ROOM_Room 00-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		54.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-236	0	-236	-3.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-245	0	-245	-3.5
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-480	0	-480	-
People	477	698	908	2,083	30.2
Lights	820	1,355	0	2,174	31.5
Miscellaneous Loads	1,171	836	0	2,007	29.1
Internal Subtotal	2,467	2,889	908	6,264	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	180	0	180	2.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-8	0	-8	-0.1
Grand Total	2,467	2,580	908	5,955	100.0
RA Sensible (Lights)	941	0	0	941	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-127	0	-127	15.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-205	0	-205	25.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-332	0	-332	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-464	0	-464	58.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-796	0	-796	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	260
Cooling ACH	1.91
Sec Fan cfm	0
Input Ventilation cfm	77
Calculated Ventilation cfm	69
Calculated Ventilation ACH	0.51
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	260
Heating ACH	1.91
Sec Fan cfm	0
Input Ventilation cfm	77
Calculated Ventilation cfm	69
Calculated Ventilation ACH	0.51
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	938
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,106
Exterior Floor	0
Internal Floor	0
Slab	938
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.50	No People(max)	4.54
%OA	26	People per 1000 ft²	5
cfm/ft²	0.29	Volume (ft³)	8,170
cfm/ton	525		
ft²/ton	1,829		
Btu/h-ft²	6.56		

Engineering Checks For Heating

Heating Mbh	-0.80	No People(max)	4.54
%OA	26	People per 1000 ft²	5
cfm/ft²	0.29	Volume (ft³)	8,170
cfm/Mbh	-327		
ft²/Mbh	-1,140		
Btu/h-ft²	-0.88		

ROOM_Room 00-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		10/21 14:00:00					
Outside	DB / WB / HR	71.0	°F /	60.9	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	59.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	2	6,135	0	6,137	43.5
Door	0	0	0	0	0.0
Wall	0	-522	0	-522	-3.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-873	0	-873	-6.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-662	0	-662	-4.7
Other Floor	0	0	0	0	0.0
Infiltration	-17	0	-48	-65	-0.5
Envelope Subtotal	-15	4,078	-48	4,015	-
People	1,403	1,533	4,682	7,618	54.0
Lights	0	320	0	320	2.3
Miscellaneous Loads	879	535	0	1,414	10.0
Internal Subtotal	2,282	2,388	4,682	9,352	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-321	0	-321	-2.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-85	0	-85	-0.6
Grand Total	2,267	6,060	4,634	12,961	100.0
RA Sensible (Lights)	1,143	0	0	1,143	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		79.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,061	0	0	-2,061	52.5
Door	0	0	0	0	0.0
Wall	0	-1,338	0	-1,338	34.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	148	0	148	-3.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	270	0	270	-6.9
Other Floor	0	0	0	0	0.0
Infiltration	-660	0	0	-663	16.9
Envelope Subtotal	-2,721	-921	0	-3,645	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-135	0	-135	3.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-145	0	-145	3.7
Grand Total	-2,721	-1,200	0	-3,924	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	391
Cooling ACH	6.07
Sec Fan cfm	0
Input Ventilation cfm	112
Calculated Ventilation cfm	74
Calculated Ventilation ACH	1.15
Infiltration cfm	8
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	391
Heating ACH	6.07
Sec Fan cfm	0
Input Ventilation cfm	112
Calculated Ventilation cfm	65
Calculated Ventilation ACH	1.01
Infiltration cfm	8
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	451
Window	32
Door	0
Wall	238
Below-Grade Wall	0
Other Wall	238
Partition	545
Exterior Floor	0
Internal Floor	0
Slab	451
Other Floor	0

Engineering Checks For Cooling

Cooling tons	1.08	No People(max)	4.29
%OA	19	People per 1000 ft²	10
cfm/ft²	0.91	Volume (ft³)	3,866
cfm/ton	362		
ft²/ton	398		
Btu/h-ft²	30.15		

Engineering Checks For Heating

Heating Mbh	-3.92	No People(max)	4.29
%OA	17	People per 1000 ft²	10
cfm/ft²	0.91	Volume (ft³)	3,866
cfm/Mbh	-100		
ft²/Mbh	-109		
Btu/h-ft²	-9.17		

ROOM_Room 00-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 23:00:00					
Outside	DB / WB / HR	74.0	°F /	68.7	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	47.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	416	0	416	32.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	33	0	33	2.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-11	0	-11	-0.9
Other Floor	0	0	0	0	0.0
Infiltration	3	0	79	82	6.4
Envelope Subtotal	3	437	79	519	-
People	1	9	2	12	0.9
Lights	118	170	0	288	22.5
Miscellaneous Loads	169	104	0	273	21.3
Internal Subtotal	288	283	2	573	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	57	0	57	4.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.1
Grand Total	291	776	81	1,148	100.0
RA Sensible (Lights)	135	0	0	135	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		101.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,377	0	-1,377	83.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	59	0	59	-3.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	106	0	106	-6.4
Other Floor	0	0	0	0	0.0
Infiltration	-232	0	0	-233	14.1
Envelope Subtotal	-232	-1,211	0	-1,444	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-200	0	-200	12.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-8	0	-8	0.5
Grand Total	-232	-1,419	0	-1,652	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	50
Cooling ACH	2.55
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	10
Calculated Ventilation ACH	0.51
Infiltration cfm	3
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	50
Heating ACH	2.55
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	8
Calculated Ventilation ACH	0.41
Infiltration cfm	3
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	142
Window	0
Door	0
Wall	215
Below-Grade Wall	0
Other Wall	215
Partition	215
Exterior Floor	0
Internal Floor	0
Slab	142
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.10	No People(max)	0.13
%OA	19	People per 1000 ft²	1
cfm/ft²	0.38	Volume (ft³)	1,176
cfm/ton	523		
ft²/ton	1,366		
Btu/h-ft²	8.78		

Engineering Checks For Heating

Heating Mbh	-1.65	No People(max)	0.13
%OA	17	People per 1000 ft²	1
cfm/ft²	0.38	Volume (ft³)	1,176
cfm/Mbh	-30		
ft²/Mbh	-79		
Btu/h-ft²	-12.66		

ROOM_Room 00-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 15:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	49.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	280	0	280	8.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-78	0	-78	-2.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	201	0	201	-
People	215	290	409	913	26.3
Lights	369	568	0	937	27.0
Miscellaneous Loads	527	367	0	895	25.8
Internal Subtotal	1,111	1,225	409	2,745	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	107	0	107	3.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-5	0	-5	-0.1
Grand Total	1,111	1,529	409	3,049	100.0
RA Sensible (Lights)	424	0	0	424	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-305	0	-305	50.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-60	0	-60	10.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-366	0	-366	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-236	0	-236	39.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-602	0	-602	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	124
Cooling ACH	2.02
Sec Fan cfm	0
Input Ventilation cfm	35
Calculated Ventilation cfm	24
Calculated Ventilation ACH	0.39
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	124
Heating ACH	2.02
Sec Fan cfm	0
Input Ventilation cfm	35
Calculated Ventilation cfm	21
Calculated Ventilation ACH	0.34
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	430
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	769
Exterior Floor	0
Internal Floor	0
Slab	430
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.25	No People(max)	2.04
%OA	19	People per 1000 ft²	5
cfm/ft²	0.30	Volume (ft³)	3,679
cfm/ton	487		
ft²/ton	1,609		
Btu/h-ft²	7.46		

Engineering Checks For Heating

Heating Mbh	-0.60	No People(max)	2.04
%OA	17	People per 1000 ft²	5
cfm/ft²	0.30	Volume (ft³)	3,679
cfm/Mbh	-205		
ft²/Mbh	-679		
Btu/h-ft²	-1.47		

ROOM_Room 00-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	49.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	326	0	326	14.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-26	0	-26	-1.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-41	0	-41	-1.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	259	0	259	-
People	129	172	245	546	24.5
Lights	222	334	0	555	24.9
Miscellaneous Loads	317	207	0	523	23.5
Internal Subtotal	667	712	245	1,625	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	95	0	95	4.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.1
Grand Total	667	1,064	245	1,977	100.0
RA Sensible (Lights)	254	0	0	254	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		86.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,261	0	-1,261	93.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	74	0	74	-5.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	96	0	96	-7.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,091	0	-1,091	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-255	0	-255	18.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	0.7
Grand Total	0	-1,356	0	-1,356	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	81
Cooling ACH	2.20
Sec Fan cfm	0
Input Ventilation cfm	21
Calculated Ventilation cfm	15
Calculated Ventilation ACH	0.41
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	81
Heating ACH	2.20
Sec Fan cfm	0
Input Ventilation cfm	21
Calculated Ventilation cfm	14
Calculated Ventilation ACH	0.38
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	262
Window	0
Door	0
Wall	194
Below-Grade Wall	0
Other Wall	194
Partition	413
Exterior Floor	0
Internal Floor	0
Slab	262
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.16	No People(max)	1.23
%OA	19	People per 1000 ft²	5
cfm/ft²	0.33	Volume (ft³)	2,209
cfm/ton	493		
ft²/ton	1,491		
Btu/h-ft²	8.05		

Engineering Checks For Heating

Heating Mbh	-1.36	No People(max)	1.23
%OA	17	People per 1000 ft²	5
cfm/ft²	0.33	Volume (ft³)	2,209
cfm/Mbh	-60		
ft²/Mbh	-181		
Btu/h-ft²	-5.52		

ROOM_Room 00-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		56.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	1,775	9,089	0	10,864	115.9
Door	0	0	0	0	0.0
Wall	0	-460	0	-460	-4.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,672	0	-1,672	-17.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	4	0	4	0.0
Other Floor	0	0	0	0	0.0
Infiltration	135	0	330	465	5.0
Envelope Subtotal	1,910	6,963	330	9,202	-
People	87	142	138	367	3.9
Lights	74	124	0	198	2.1
Miscellaneous Loads	115	86	0	201	2.1
Internal Subtotal	276	352	138	766	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-435	0	-435	-4.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-245	0	-245	-2.6
Grand Total	2,186	6,635	468	9,289	100.0
RA Sensible (Lights)	85	0	0	85	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		79.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-3,617	0	0	-3,617	78.0
Door	0	0	0	0	0.0
Wall	0	-339	0	-339	7.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	470	0	470	-10.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	227	0	227	-4.9
Other Floor	0	0	0	0	0.0
Infiltration	-1,054	0	0	-1,058	22.8
Envelope Subtotal	-4,671	358	0	-4,318	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-107	0	-107	2.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-216	0	-216	4.6
Grand Total	-4,671	35	0	-4,640	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	176
Cooling ACH	13.17
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	176
Heating ACH	13.17
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	100
Window	81
Door	0
Wall	138
Below-Grade Wall	0
Other Wall	138
Partition	256
Exterior Floor	0
Internal Floor	0
Slab	100
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.77	No People(max)	0.89
%OA	0	People per 1000 ft²	10
cfm/ft²	1.98	Volume (ft³)	802
cfm/ton	228		
ft²/ton	115		
Btu/h-ft²	104.35		

Engineering Checks For Heating

Heating Mbh	-4.64	No People(max)	0.89
%OA	0	People per 1000 ft²	10
cfm/ft²	1.98	Volume (ft³)	802
cfm/Mbh	-38		
ft²/Mbh	-19		
Btu/h-ft²	-52.63		

ROOM_Room 00-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	431	6,495	0	6,927	62.9
Door	0	0	0	0	0.0
Wall	0	-408	0	-408	-3.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-447	0	-447	-4.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	414	0	414	3.8
Other Floor	0	0	0	0	0.0
Infiltration	137	0	350	486	4.4
Envelope Subtotal	568	6,055	350	6,973	-
People	316	386	601	1,303	11.8
Lights	543	746	0	1,289	11.7
Miscellaneous Loads	776	475	0	1,251	11.4
Internal Subtotal	1,634	1,607	601	3,843	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-373	0	-373	-3.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-47	0	-47	-0.4
Grand Total	2,202	7,243	951	10,396	100.0
RA Sensible (Lights)	623	0	0	623	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-2,925	0	0	-2,925	48.5
Door	0	0	0	0	0.0
Wall	0	-2,059	0	-2,059	34.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	106	0	106	-1.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	454	0	454	-7.5
Other Floor	0	0	0	0	0.0
Infiltration	-1,067	0	0	-1,071	17.8
Envelope Subtotal	-3,991	-1,499	0	-5,494	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-331	0	-331	5.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-202	0	-202	3.3
Grand Total	-3,991	-2,032	0	-6,027	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	443
Cooling ACH	4.91
Sec Fan cfm	0
Input Ventilation cfm	51
Calculated Ventilation cfm	84
Calculated Ventilation ACH	0.93
Infiltration cfm	14
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	443
Heating ACH	4.91
Sec Fan cfm	0
Input Ventilation cfm	51
Calculated Ventilation cfm	74
Calculated Ventilation ACH	0.82
Infiltration cfm	14
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	629
Window	45
Door	0
Wall	366
Below-Grade Wall	0
Other Wall	366
Partition	644
Exterior Floor	0
Internal Floor	0
Slab	629
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.87	No People(max)	3.01
%OA	19	People per 1000 ft²	5
cfm/ft²	0.74	Volume (ft³)	5,412
cfm/ton	511		
ft²/ton	694		
Btu/h-ft²	17.29		

Engineering Checks For Heating

Heating Mbh	-6.03	No People(max)	3.01
%OA	17	People per 1000 ft²	5
cfm/ft²	0.74	Volume (ft³)	5,412
cfm/Mbh	-73		
ft²/Mbh	-100		
Btu/h-ft²	-10.00		

ROOM_Room 00-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.6	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	141	0	141	4.6
Wall	0	174	0	174	5.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	416	0	416	13.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-56	0	-56	-1.8
Other Floor	0	0	0	0	0.0
Infiltration	71	0	180	251	8.1
Envelope Subtotal	71	676	180	926	-
People	33	51	78	162	5.2
Lights	315	570	0	884	28.6
Miscellaneous Loads	400	311	0	711	23.0
Internal Subtotal	747	932	78	1,757	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	53	0	53	1.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	-0.1
Grand Total	818	1,657	258	2,733	100.0
RA Sensible (Lights)	361	0	0	361	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		91.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	-678	0	-678	26.9
Wall	0	-1,107	0	-1,107	43.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	39	0	39	-1.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	65	0	65	-2.6
Other Floor	0	0	0	0	0.0
Infiltration	-551	0	0	-553	21.9
Envelope Subtotal	-551	-1,683	0	-2,235	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-249	0	-249	9.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-36	0	-36	1.4
Grand Total	-551	-1,968	0	-2,521	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	116
Cooling ACH	2.49
Sec Fan cfm	0
Input Ventilation cfm	19
Calculated Ventilation cfm	22
Calculated Ventilation ACH	0.47
Infiltration cfm	7
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	116
Heating ACH	2.49
Sec Fan cfm	0
Input Ventilation cfm	19
Calculated Ventilation cfm	19
Calculated Ventilation ACH	0.41
Infiltration cfm	7
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	347
Window	0
Door	19
Wall	189
Below-Grade Wall	0
Other Wall	189
Partition	1,147
Exterior Floor	0
Internal Floor	0
Slab	347
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.23	No People(max)	0.31
%OA	19	People per 1000 ft²	1
cfm/ft²	0.37	Volume (ft³)	2,793
cfm/ton	509		
ft²/ton	1,363		
Btu/h-ft²	8.80		

Engineering Checks For Heating

Heating Mbh	-2.52	No People(max)	0.31
%OA	17	People per 1000 ft²	1
cfm/ft²	0.37	Volume (ft³)	2,793
cfm/Mbh	-46		
ft²/Mbh	-123		
Btu/h-ft²	-8.13		

ROOM_Room 00-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	46.8	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	20	0	20	1.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-23	0	-23	-2.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-2	0	-2	-
People	18	28	28	74	6.5
Lights	164	271	0	435	37.9
Miscellaneous Loads	235	166	0	401	34.9
Internal Subtotal	417	465	28	911	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	52	0	52	4.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	417	514	28	960	100.0
RA Sensible (Lights)	189	0	0	189	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-101	0	-101	41.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-44	0	-44	17.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-145	0	-145	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-101	0	-101	40.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-246	0	-246	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	44
Cooling ACH	1.61
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	8
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	44
Heating ACH	1.61
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	7
Calculated Ventilation ACH	0.26
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	196
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	519
Exterior Floor	0
Internal Floor	0
Slab	196
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.08	No People(max)	0.18
%OA	19	People per 1000 ft²	1
cfm/ft²	0.24	Volume (ft³)	1,639
cfm/ton	546		
ft²/ton	2,278		
Btu/h-ft²	5.27		

Engineering Checks For Heating

Heating Mbh	-0.25	No People(max)	0.18
%OA	17	People per 1000 ft²	1
cfm/ft²	0.24	Volume (ft³)	1,639
cfm/Mbh	-177		
ft²/Mbh	-740		
Btu/h-ft²	-1.35		

ROOM_Room 00-09

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-47	0	-47	-2.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-35	0	-35	-2.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-83	0	-83	-
People	110	162	209	481	29.5
Lights	189	315	0	504	30.9
Miscellaneous Loads	270	194	0	464	28.5
Internal Subtotal	568	671	209	1,448	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	49	0	49	3.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-2	0	-2	-0.1
Grand Total	568	635	209	1,413	100.0
RA Sensible (Lights)	217	0	0	217	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-72	0	-72	29.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-56	0	-56	22.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-128	0	-128	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-117	0	-117	47.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-245	0	-245	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	56
Cooling ACH	1.79
Sec Fan cfm	0
Input Ventilation cfm	18
Calculated Ventilation cfm	11
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	56
Heating ACH	1.79
Sec Fan cfm	0
Input Ventilation cfm	18
Calculated Ventilation cfm	9
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	225
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	565
Exterior Floor	0
Internal Floor	0
Slab	225
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.12	No People(max)	1.05
%OA	19	People per 1000 ft²	5
cfm/ft²	0.27	Volume (ft³)	1,882
cfm/ton	479		
ft²/ton	1,777		
Btu/h-ft²	6.75		

Engineering Checks For Heating

Heating Mbh	-0.24	No People(max)	1.05
%OA	17	People per 1000 ft²	5
cfm/ft²	0.27	Volume (ft³)	1,882
cfm/Mbh	-231		
ft²/Mbh	-855		
Btu/h-ft²	-1.17		

ROOM_Room 00-10

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	47.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	26	0	26	0.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-68	0	-68	-2.5
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-42	0	-42	-
People	42	66	99	207	7.5
Lights	402	721	0	1,122	40.6
Miscellaneous Loads	511	393	0	904	32.7
Internal Subtotal	955	1,180	99	2,234	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	110	0	110	4.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	955	1,247	99	2,301	100.0
RA Sensible (Lights)	461	0	0	461	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-147	0	-147	30.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-111	0	-111	22.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-257	0	-257	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-228	0	-228	47.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-486	0	-486	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	103
Cooling ACH	1.73
Sec Fan cfm	0
Input Ventilation cfm	24
Calculated Ventilation cfm	20
Calculated Ventilation ACH	0.34
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	103
Heating ACH	1.73
Sec Fan cfm	0
Input Ventilation cfm	24
Calculated Ventilation cfm	17
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	431
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,234
Exterior Floor	0
Internal Floor	0
Slab	431
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.19	No People(max)	0.40
%OA	19	People per 1000 ft²	1
cfm/ft²	0.26	Volume (ft³)	3,568
cfm/ton	538		
ft²/ton	2,068		
Btu/h-ft²	5.80		

Engineering Checks For Heating

Heating Mbh	-0.49	No People(max)	0.40
%OA	17	People per 1000 ft²	1
cfm/ft²	0.26	Volume (ft³)	3,568
cfm/Mbh	-213		
ft²/Mbh	-816		
Btu/h-ft²	-1.23		

ROOM_Room 00-11

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	52.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	690	0	690	21.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-81	0	-81	-2.5
Other Floor	0	0	0	0	0.0
Infiltration	112	0	249	360	11.1
Envelope Subtotal	112	609	249	969	-
People	241	367	381	989	30.6
Lights	204	330	0	534	16.5
Miscellaneous Loads	317	220	0	537	16.6
Internal Subtotal	761	918	381	2,059	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-19	0	-19	-0.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-10	0	-10	-0.3
Grand Total	873	1,498	629	3,000	100.0
RA Sensible (Lights)	234	0	0	234	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		83.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-440	0	-440	29.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-871	0	0	-874	58.1
Envelope Subtotal	-871	-440	0	-1,314	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-189	0	-189	12.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.1
Grand Total	-871	-629	0	-1,504	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	111
Cooling ACH	3.01
Sec Fan cfm	0
Input Ventilation cfm	27
Calculated Ventilation cfm	21
Calculated Ventilation ACH	0.57
Infiltration cfm	11
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	111
Heating ACH	3.01
Sec Fan cfm	0
Input Ventilation cfm	27
Calculated Ventilation cfm	19
Calculated Ventilation ACH	0.52
Infiltration cfm	11
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	261
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	583
Exterior Floor	0
Internal Floor	0
Slab	261
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.25	No People(max)	2.46
%OA	19	People per 1000 ft²	10
cfm/ft²	0.45	Volume (ft³)	2,210
cfm/ton	445		
ft²/ton	982		
Btu/h-ft²	12.22		

Engineering Checks For Heating

Heating Mbh	-1.50	No People(max)	2.46
%OA	17	People per 1000 ft²	10
cfm/ft²	0.45	Volume (ft³)	2,210
cfm/Mbh	-74		
ft²/Mbh	-163		
Btu/h-ft²	-6.13		

ROOM_Room 00-12

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	181	0	181	11.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	294	0	294	19.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-19	0	-19	-1.2
Other Floor	0	0	0	0	0.0
Infiltration	24	0	80	104	6.8
Envelope Subtotal	24	456	80	560	-
People	75	91	144	310	20.2
Lights	91	130	0	221	14.4
Miscellaneous Loads	185	113	0	298	19.4
Internal Subtotal	352	334	144	829	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	45	0	45	3.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	-0.2
Grand Total	376	832	224	1,431	100.0
RA Sensible (Lights)	105	0	0	105	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		104.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,590	0	-1,590	76.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	37	0	37	-1.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	143	0	143	-6.9
Other Floor	0	0	0	0	0.0
Infiltration	-255	0	0	-256	12.3
Envelope Subtotal	-255	-1,409	0	-1,665	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-411	0	-411	19.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	0.4
Grand Total	-255	-1,829	0	-2,085	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	79
Cooling ACH	3.67
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	3
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	79
Heating ACH	3.67
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	3
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	156
Window	0
Door	0
Wall	250
Below-Grade Wall	0
Other Wall	250
Partition	222
Exterior Floor	0
Internal Floor	0
Slab	156
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.12	No People(max)	0.72
%OA	0	People per 1000 ft²	5
cfm/ft²	0.55	Volume (ft³)	1,293
cfm/ton	665		
ft²/ton	1,204		
Btu/h-ft²	9.97		

Engineering Checks For Heating

Heating Mbh	-2.08	No People(max)	0.72
%OA	0	People per 1000 ft²	5
cfm/ft²	0.55	Volume (ft³)	1,293
cfm/Mbh	-38		
ft²/Mbh	-69		
Btu/h-ft²	-14.49		

ROOM_Room 00-13

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		9/21 14:00:00					
Outside	DB / WB / HR	80.0	°F /	67.5	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		55.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	250	2,956	0	3,207	40.1
Door	0	1,065	0	1,065	13.3
Wall	0	-198	0	-198	-2.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	116	0	116	1.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	632	0	632	7.9
Other Floor	0	0	0	0	0.0
Infiltration	360	0	698	1,058	13.2
Envelope Subtotal	611	4,571	698	5,880	-
People	0	0	0	0	0.0
Lights	331	395	0	726	9.1
Miscellaneous Loads	1,105	566	0	1,671	20.9
Internal Subtotal	1,436	961	0	2,397	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-613	0	-613	-7.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-53	0	-53	-0.7
Grand Total	2,047	4,866	698	7,611	100.0
RA Sensible (Lights)	381	0	0	381	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		96.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-1,795	0	0	-1,795	17.6
Door	0	-1,125	0	-1,125	11.0
Wall	0	-2,288	0	-2,288	22.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-284	0	-284	2.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	540	0	540	-5.3
Other Floor	0	0	0	0	0.0
Infiltration	-3,940	0	0	-3,954	38.7
Envelope Subtotal	-5,734	-3,158	0	-8,907	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-1,140	0	-1,140	11.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-174	0	-174	1.7
Grand Total	-5,734	-4,472	0	-10,221	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	389
Cooling ACH	1.95
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	50
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	389
Heating ACH	1.95
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	50
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	886
Window	27
Door	33
Wall	416
Below-Grade Wall	0
Other Wall	416
Partition	1,261
Exterior Floor	0
Internal Floor	0
Slab	886
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.63	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.45	Volume (ft³)	11,993
cfm/ton	613		
ft²/ton	1,351		
Btu/h-ft²	8.88		

Engineering Checks For Heating

Heating Mbh	-10.22	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.45	Volume (ft³)	11,993
cfm/Mbh	-38		
ft²/Mbh	-84		
Btu/h-ft²	-11.90		

ROOM_Room 00-14

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 16:00:00					
Outside	DB / WB / HR	84.1	°F /	71.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	47.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	133	0	133	5.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-67	0	-67	-2.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	66	0	66	-
People	35	59	83	178	7.0
Lights	338	667	0	1,005	39.9
Miscellaneous Loads	430	364	0	794	31.5
Internal Subtotal	804	1,090	83	1,977	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	90	0	90	3.6
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	804	1,245	83	2,132	100.0
RA Sensible (Lights)	388	0	0	388	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		76.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-354	0	-354	57.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-74	0	-74	12.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-428	0	-428	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-184	0	-184	30.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-613	0	-613	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	96
Cooling ACH	1.92
Sec Fan cfm	0
Input Ventilation cfm	20
Calculated Ventilation cfm	18
Calculated Ventilation ACH	0.36
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	96
Heating ACH	1.92
Sec Fan cfm	0
Input Ventilation cfm	20
Calculated Ventilation cfm	16
Calculated Ventilation ACH	0.32
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	369
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,277
Exterior Floor	0
Internal Floor	0
Slab	369
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.18	No People(max)	0.33
%OA	19	People per 1000 ft²	1
cfm/ft²	0.29	Volume (ft³)	3,003
cfm/ton	540		
ft²/ton	1,878		
Btu/h-ft²	6.39		

Engineering Checks For Heating

Heating Mbh	-0.61	No People(max)	0.33
%OA	17	People per 1000 ft²	1
cfm/ft²	0.29	Volume (ft³)	3,003
cfm/Mbh	-157		
ft²/Mbh	-545		
Btu/h-ft²	-1.83		

ROOM_Room 00-15

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	46.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		54.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	340	0	340	3.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-328	0	-328	-3.4
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	12	0	12	-
People	0	0	0	0	0.0
Lights	1,438	2,282	0	3,719	38.5
Miscellaneous Loads	2,236	1,521	0	3,758	38.9
Internal Subtotal	3,674	3,803	0	7,477	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	526	0	526	5.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	3,674	4,340	0	8,014	100.0
RA Sensible (Lights)	1,651	0	0	1,651	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,142	0	-1,142	52.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-178	0	-178	8.1
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,320	0	-1,320	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-865	0	-865	39.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	0.1
Grand Total	0	-2,187	0	-2,187	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	413
Cooling ACH	1.59
Sec Fan cfm	0
Input Ventilation cfm	104
Calculated Ventilation cfm	109
Calculated Ventilation ACH	0.42
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	413
Heating ACH	1.59
Sec Fan cfm	0
Input Ventilation cfm	104
Calculated Ventilation cfm	109
Calculated Ventilation ACH	0.42
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,780
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,682
Exterior Floor	0
Internal Floor	0
Slab	1,780
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.67	No People(max)	0.00
%OA	26	People per 1000 ft²	0
cfm/ft²	0.24	Volume (ft³)	15,605
cfm/ton	619		
ft²/ton	2,597		
Btu/h-ft²	4.62		

Engineering Checks For Heating

Heating Mbh	-2.19	No People(max)	0.00
%OA	26	People per 1000 ft²	0
cfm/ft²	0.24	Volume (ft³)	15,605
cfm/Mbh	-189		
ft²/Mbh	-793		
Btu/h-ft²	-1.26		

ROOM_Room 00-16

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	46.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	117	0	117	8.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-36	0	-36	-2.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	81	0	81	-
People	0	0	0	0	0.0
Lights	183	340	0	523	37.5
Miscellaneous Loads	284	227	0	511	36.7
Internal Subtotal	467	567	0	1,034	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	70	0	70	5.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	467	718	0	1,185	100.0
RA Sensible (Lights)	210	0	0	210	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		80.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-348	0	-348	61.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-12	0	-12	2.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-361	0	-361	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-202	0	-202	35.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.1
Grand Total	0	-564	0	-564	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	56
Cooling ACH	1.69
Sec Fan cfm	0
Input Ventilation cfm	13
Calculated Ventilation cfm	11
Calculated Ventilation ACH	0.33
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	56
Heating ACH	1.69
Sec Fan cfm	0
Input Ventilation cfm	13
Calculated Ventilation cfm	9
Calculated Ventilation ACH	0.27
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	238
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	640
Exterior Floor	0
Internal Floor	0
Slab	238
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.10	No People(max)	0.00
%OA	19	People per 1000 ft²	0
cfm/ft²	0.25	Volume (ft³)	1,983
cfm/ton	562		
ft²/ton	2,232		
Btu/h-ft²	5.38		

Engineering Checks For Heating

Heating Mbh	-0.56	No People(max)	0.00
%OA	17	People per 1000 ft²	0
cfm/ft²	0.25	Volume (ft³)	1,983
cfm/Mbh	-99		
ft²/Mbh	-391		
Btu/h-ft²	-2.56		

ROOM_Room 00-17

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		52.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	183	0	183	7.6
Wall	0	199	0	199	8.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	6	0	6	0.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-36	0	-36	-1.5
Other Floor	0	0	0	0	0.0
Infiltration	45	0	147	192	8.0
Envelope Subtotal	45	352	147	544	-
People	139	185	265	589	24.6
Lights	168	261	0	429	17.9
Miscellaneous Loads	342	227	0	569	23.7
Internal Subtotal	649	673	265	1,587	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	80	0	80	3.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-6	0	-6	-0.2
Grand Total	694	1,098	412	2,205	100.0
RA Sensible (Lights)	193	0	0	193	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		104.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	-645	0	-645	22.0
Wall	0	-1,579	0	-1,579	53.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	114	0	114	-3.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	205	0	205	-7.0
Other Floor	0	0	0	0	0.0
Infiltration	-470	0	0	-472	16.1
Envelope Subtotal	-470	-1,904	0	-2,375	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-521	0	-521	17.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-33	0	-33	1.1
Grand Total	-470	-2,458	0	-2,929	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	112
Cooling ACH	2.82
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	6
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	112
Heating ACH	2.82
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	6
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	283
Window	0
Door	19
Wall	265
Below-Grade Wall	0
Other Wall	265
Partition	406
Exterior Floor	0
Internal Floor	0
Slab	283
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.18	No People(max)	1.33
%OA	0	People per 1000 ft²	5
cfm/ft²	0.42	Volume (ft³)	2,385
cfm/ton	607		
ft²/ton	1,443		
Btu/h-ft²	8.32		

Engineering Checks For Heating

Heating Mbh	-2.93	No People(max)	1.33
%OA	0	People per 1000 ft²	5
cfm/ft²	0.42	Volume (ft³)	2,385
cfm/Mbh	-38		
ft²/Mbh	-90		
Btu/h-ft²	-11.11		

ROOM_Room 00-18

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	52.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	516	0	516	7.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-109	0	-109	-1.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-140	0	-140	-2.0
Other Floor	0	0	0	0	0.0
Infiltration	99	0	413	512	7.3
Envelope Subtotal	99	266	413	779	-
People	417	537	794	1,748	24.9
Lights	716	1,044	0	1,760	25.1
Miscellaneous Loads	1,024	647	0	1,671	23.8
Internal Subtotal	2,157	2,228	794	5,179	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	240	0	240	3.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-12	0	-12	-0.2
Grand Total	2,255	2,723	1,207	6,185	100.0
RA Sensible (Lights)	823	0	0	823	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		90.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-3,286	0	-3,286	65.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	237	0	237	-4.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	358	0	358	-7.1
Other Floor	0	0	0	0	0.0
Infiltration	-1,407	0	0	-1,413	28.2
Envelope Subtotal	-1,407	-2,691	0	-4,104	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-892	0	-892	17.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-23	0	-23	0.5
Grand Total	-1,407	-3,606	0	-5,019	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	233
Cooling ACH	1.96
Sec Fan cfm	0
Input Ventilation cfm	67
Calculated Ventilation cfm	44
Calculated Ventilation ACH	0.37
Infiltration cfm	18
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	233
Heating ACH	1.96
Sec Fan cfm	0
Input Ventilation cfm	67
Calculated Ventilation cfm	39
Calculated Ventilation ACH	0.33
Infiltration cfm	18
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	824
Window	0
Door	0
Wall	506
Below-Grade Wall	0
Other Wall	506
Partition	602
Exterior Floor	0
Internal Floor	0
Slab	824
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.52	No People(max)	3.97
%OA	19	People per 1000 ft²	5
cfm/ft²	0.29	Volume (ft³)	7,142
cfm/ton	453		
ft²/ton	1,540		
Btu/h-ft²	7.79		

Engineering Checks For Heating

Heating Mbh	-5.02	No People(max)	3.97
%OA	17	People per 1000 ft²	5
cfm/ft²	0.29	Volume (ft³)	7,142
cfm/Mbh	-47		
ft²/Mbh	-158		
Btu/h-ft²	-6.33		

ROOM_Room 00-19

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-103	0	-103	-3.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-75	0	-75	-2.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-178	0	-178	-
People	193	288	367	847	30.0
Lights	331	558	0	889	31.5
Miscellaneous Loads	473	344	0	817	28.9
Internal Subtotal	997	1,190	367	2,554	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	75	0	75	2.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	-0.1
Grand Total	997	1,083	367	2,447	100.0
RA Sensible (Lights)	380	0	0	380	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-29	0	-29	8.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-107	0	-107	32.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-136	0	-136	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-192	0	-192	58.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-328	0	-328	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	98
Cooling ACH	1.78
Sec Fan cfm	0
Input Ventilation cfm	31
Calculated Ventilation cfm	19
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	98
Heating ACH	1.78
Sec Fan cfm	0
Input Ventilation cfm	31
Calculated Ventilation cfm	16
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	389
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	799
Exterior Floor	0
Internal Floor	0
Slab	389
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.20	No People(max)	1.83
%OA	19	People per 1000 ft²	5
cfm/ft²	0.27	Volume (ft³)	3,302
cfm/ton	478		
ft²/ton	1,799		
Btu/h-ft²	6.67		

Engineering Checks For Heating

Heating Mbh	-0.33	No People(max)	1.83
%OA	17	People per 1000 ft²	5
cfm/ft²	0.27	Volume (ft³)	3,302
cfm/Mbh	-298		
ft²/Mbh	-1,119		
Btu/h-ft²	-0.89		

ROOM_Room 00-20

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.4	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-147	0	-147	-4.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-87	0	-87	-2.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-234	0	-234	-
People	214	323	408	945	30.1
Lights	368	626	0	995	31.7
Miscellaneous Loads	526	386	0	913	29.0
Internal Subtotal	1,109	1,335	408	2,853	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	105	0	105	3.3
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	-0.1
Grand Total	1,109	1,202	408	2,720	100.0
RA Sensible (Lights)	423	0	0	423	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-27	0	-27	7.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-120	0	-120	34.2
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-148	0	-148	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-205	0	-205	58.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-353	0	-353	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	108
Cooling ACH	1.76
Sec Fan cfm	0
Input Ventilation cfm	35
Calculated Ventilation cfm	21
Calculated Ventilation ACH	0.34
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	108
Heating ACH	1.76
Sec Fan cfm	0
Input Ventilation cfm	35
Calculated Ventilation cfm	18
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	432
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	869
Exterior Floor	0
Internal Floor	0
Slab	432
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.23	No People(max)	2.04
%OA	19	People per 1000 ft²	5
cfm/ft²	0.27	Volume (ft³)	3,673
cfm/ton	478		
ft²/ton	1,801		
Btu/h-ft²	6.66		

Engineering Checks For Heating

Heating Mbh	-0.35	No People(max)	2.04
%OA	17	People per 1000 ft²	5
cfm/ft²	0.27	Volume (ft³)	3,673
cfm/Mbh	-307		
ft²/Mbh	-1,158		
Btu/h-ft²	-0.86		

ROOM_Room 00-21

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	46.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-2	0	-2	-0.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-23	0	-23	-2.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-25	0	-25	-
People	13	24	21	58	6.5
Lights	121	235	0	356	40.0
Miscellaneous Loads	173	144	0	317	35.6
Internal Subtotal	307	404	21	731	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	46	0	46	5.1
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	307	424	21	751	100.0
RA Sensible (Lights)	139	0	0	139	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-19	0	-19	14.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-46	0	-46	34.3
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-66	0	-66	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-69	0	-69	51.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-135	0	-135	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	34
Cooling ACH	1.69
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	7
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	34
Heating ACH	1.69
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	6
Calculated Ventilation ACH	0.30
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	147
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	494
Exterior Floor	0
Internal Floor	0
Slab	147
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.06	No People(max)	0.13
%OA	19	People per 1000 ft²	1
cfm/ft²	0.26	Volume (ft³)	1,205
cfm/ton	547		
ft²/ton	2,139		
Btu/h-ft²	5.61		

Engineering Checks For Heating

Heating Mbh	-0.13	No People(max)	0.13
%OA	17	People per 1000 ft²	1
cfm/ft²	0.26	Volume (ft³)	1,205
cfm/Mbh	-255		
ft²/Mbh	-996		
Btu/h-ft²	-1.00		

ROOM_Room 00-22

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	47.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		54.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	2	0	2	0.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-28	0	-28	-2.9
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-26	0	-26	-
People	13	26	32	71	7.4
Lights	129	284	0	412	42.9
Miscellaneous Loads	164	155	0	318	33.2
Internal Subtotal	306	464	32	802	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	37	0	37	3.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	306	475	32	812	100.0
RA Sensible (Lights)	148	0	0	148	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-34	0	-34	23.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-45	0	-45	30.8
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-79	0	-79	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-67	0	-67	45.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-146	0	-146	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	40
Cooling ACH	2.10
Sec Fan cfm	0
Input Ventilation cfm	8
Calculated Ventilation cfm	11
Calculated Ventilation ACH	0.58
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	40
Heating ACH	2.10
Sec Fan cfm	0
Input Ventilation cfm	8
Calculated Ventilation cfm	11
Calculated Ventilation ACH	0.58
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	143
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	577
Exterior Floor	0
Internal Floor	0
Slab	143
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.07	No People(max)	0.13
%OA	26	People per 1000 ft²	1
cfm/ft²	0.32	Volume (ft³)	1,143
cfm/ton	595		
ft²/ton	1,876		
Btu/h-ft²	6.40		

Engineering Checks For Heating

Heating Mbh	-0.15	No People(max)	0.13
%OA	26	People per 1000 ft²	1
cfm/ft²	0.32	Volume (ft³)	1,143
cfm/Mbh	-276		
ft²/Mbh	-870		
Btu/h-ft²	-1.15		

ROOM_Room 00-23

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-84	0	-84	-2.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-102	0	-102	-3.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-186	0	-186	-
People	231	354	440	1,025	29.7
Lights	397	687	0	1,084	31.4
Miscellaneous Loads	567	423	0	991	28.7
Internal Subtotal	1,195	1,464	440	3,099	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	82	0	82	2.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	-0.1
Grand Total	1,195	1,355	440	2,990	100.0
RA Sensible (Lights)	456	0	0	456	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		75.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-143	0	-143	28.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-101	0	-101	20.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-244	0	-244	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-259	0	-259	51.5
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	0	0	0	0.0
Grand Total	0	-504	0	-504	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	120
Cooling ACH	1.82
Sec Fan cfm	0
Input Ventilation cfm	37
Calculated Ventilation cfm	23
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	120
Heating ACH	1.82
Sec Fan cfm	0
Input Ventilation cfm	37
Calculated Ventilation cfm	20
Calculated Ventilation ACH	0.30
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	465
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	901
Exterior Floor	0
Internal Floor	0
Slab	465
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.25	No People(max)	2.20
%OA	19	People per 1000 ft²	5
cfm/ft²	0.27	Volume (ft³)	3,959
cfm/ton	480		
ft²/ton	1,765		
Btu/h-ft²	6.80		

Engineering Checks For Heating

Heating Mbh	-0.50	No People(max)	2.20
%OA	17	People per 1000 ft²	5
cfm/ft²	0.27	Volume (ft³)	3,959
cfm/Mbh	-237		
ft²/Mbh	-873		
Btu/h-ft²	-1.15		

ROOM_Room 00-24

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	365	0	365	23.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	109	0	109	7.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-18	0	-18	-1.1
Other Floor	0	0	0	0	0.0
Infiltration	18	0	79	96	6.3
Envelope Subtotal	18	457	79	553	-
People	74	93	141	309	20.1
Lights	90	130	0	220	14.3
Miscellaneous Loads	182	113	0	295	19.2
Internal Subtotal	346	336	141	824	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	57	0	57	3.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.2
Grand Total	364	848	220	1,432	100.0
RA Sensible (Lights)	103	0	0	103	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		103.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,568	0	-1,568	78.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	79	0	79	-4.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	134	0	134	-6.7
Other Floor	0	0	0	0	0.0
Infiltration	-251	0	0	-252	12.6
Envelope Subtotal	-251	-1,355	0	-1,606	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-383	0	-383	19.2
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	0.4
Grand Total	-251	-1,747	0	-1,998	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	76
Cooling ACH	3.59
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	3
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	76
Heating ACH	3.59
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	3
Min Stop/RH (%)	N/A

Areas	ft²
Roof	0
Other Roof	0
Ceiling	154
Window	0
Door	0
Wall	246
Below-Grade Wall	0
Other Wall	246
Partition	222
Exterior Floor	0
Internal Floor	0
Slab	154
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.12	No People(max)	0.71
%OA	0	People per 1000 ft²	5
cfm/ft²	0.54	Volume (ft³)	1,271
cfm/ton	638		
ft²/ton	1,184		
Btu/h-ft²	10.14		

Engineering Checks For Heating

Heating Mbh	-2.00	No People(max)	0.71
%OA	0	People per 1000 ft²	5
cfm/ft²	0.54	Volume (ft³)	1,271
cfm/Mbh	-38		
ft²/Mbh	-71		
Btu/h-ft²	-14.08		

ROOM_Room 00-25

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	46.7	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	155	0	155	10.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	37	0	37	2.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-26	0	-26	-1.7
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	166	0	166	-
People	22	32	35	89	5.7
Lights	204	311	0	516	33.0
Miscellaneous Loads	292	191	0	482	30.9
Internal Subtotal	518	534	35	1,087	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	73	0	73	4.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	0.0
Grand Total	518	773	35	1,326	100.0
RA Sensible (Lights)	234	0	0	234	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		90.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,229	0	-1,229	95.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	116	0	116	-9.0
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	86	0	86	-6.6
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,027	0	-1,027	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-257	0	-257	19.9
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	0.7
Grand Total	0	-1,294	0	-1,294	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	61
Cooling ACH	1.80
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	12
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	61
Heating ACH	1.80
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	10
Calculated Ventilation ACH	0.29
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	243
Window	0
Door	0
Wall	189
Below-Grade Wall	0
Other Wall	189
Partition	424
Exterior Floor	0
Internal Floor	0
Slab	243
Other Floor	0

Engineering Checks For Cooling

Cooling tons	0.11	No People(max)	0.23
%OA	19	People per 1000 ft²	1
cfm/ft²	0.27	Volume (ft³)	2,035
cfm/ton	548		
ft²/ton	2,046		
Btu/h-ft²	5.87		

Engineering Checks For Heating

Heating Mbh	-1.29	No People(max)	0.23
%OA	17	People per 1000 ft²	1
cfm/ft²	0.27	Volume (ft³)	2,035
cfm/Mbh	-47		
ft²/Mbh	-175		
Btu/h-ft²	-5.71		

ROOM_Room 00-26

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 16:00:00				
Outside	DB / WB / HR	86.0 °F	/	72.2 °F	/	0.0 gr/lb
Room	DB / RH / HR	73.0 °F	/	55.3 %	/	0.0 gr/lb
Supply Air Dry Bulb Temp		48.0 °F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	36,592	0	36,592	27.8
Other Roof	0	0	0	0	0.0
Glass	5,127	2,698	0	7,825	5.9
Door	0	0	0	0	0.0
Wall	0	523	0	523	0.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,193	0	-1,193	-0.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	-1,194	0	-1,194	-0.9
Other Floor	0	0	0	0	0.0
Infiltration	23,725	0	36,357	60,082	45.7
Envelope Subtotal	28,852	37,426	36357	102,635	-
People	525	376	1,000	1,901	1.4
Lights	0	1,997	0	1,997	1.5
Miscellaneous Loads	9,906	3,968	0	13,874	10.5
Internal Subtotal	10,431	6,341	1,000	17,772	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-736	0	-736	-0.6
Grand Total	39,283	43,031	37,357	119,671	100.0
RA Sensible (Lights)	11,856	0	0	11,856	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00				
Outside	DB / WB / HR	4.1 °F	/	2.5 °F	/	0.0 gr/lb
Room	DB / RH / HR	70.0 °F	/	4.1 %	/	0.0 gr/lb
Supply Air Dry Bulb Temp		130.0 °F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-103,592	0	-103,592	40.1
Other Roof	0	0	0	0	0.0
Glass	-14,754	0	0	-14,754	5.7
Door	0	0	0	0	0.0
Wall	0	-18,519	0	-18,519	7.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	2,754	0	2,754	-1.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	0	0	0	0.0
Slab	0	18,710	0	18,710	-7.2
Other Floor	0	0	0	0	0.0
Infiltration	-141,286	0	0	-141,682	54.8
Envelope Subtotal	-156,040	-100,647	0	-257,083	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1,494	0	-1,494	0.6
Grand Total	-156,040	-102,141	0	-258,577	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	4,082
Cooling ACH	2.28
Sec Fan cfm	0
Input Ventilation cfm	511
Calculated Ventilation cfm	511
Calculated Ventilation ACH	0.29
Infiltration cfm	1,788
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	4,082
Heating ACH	2.28
Sec Fan cfm	0
Input Ventilation cfm	511
Calculated Ventilation cfm	511
Calculated Ventilation ACH	0.29
Infiltration cfm	1,790
Min Stop/RH (%)	100

Areas	ft²
Roof	7,773
Other Roof	7,773
Ceiling	0
Window	384
Door	0
Wall	3,494
Below-Grade Wall	0
Other Wall	3,494
Partition	1,671
Exterior Floor	0
Internal Floor	0
Slab	7,773
Other Floor	0

Engineering Checks For Cooling

Cooling tons	9.97	No People(max)	5.00
%OA	13	People per 1000 ft²	1
cfm/ft²	0.53	Volume (ft³)	107,528
cfm/ton	409		
ft²/ton	770		
Btu/h-ft²	15.58		

Engineering Checks For Heating

Heating Mbh	-258.58	No People(max)	5.00
%OA	13	People per 1000 ft²	1
cfm/ft²	0.53	Volume (ft³)	107,528
cfm/Mbh	-16		
ft²/Mbh	-30		
Btu/h-ft²	-33.33		

ROOM_Room 01-00

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		50.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	1,037	0	1,037	3.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-138	0	-138	-0.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-1,681	0	-1,681	-5.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	696	0	1,801	2,497	8.1
Envelope Subtotal	696	-783	1801	1,714	-
People	1,738	2,369	2,749	6,856	22.3
Lights	3,594	5,163	0	8,757	28.5
Miscellaneous Loads	1,452	847	0	2,299	7.5
Internal Subtotal	6,784	8,379	2,749	17,911	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	7,005	0	7,005	22.8
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-56	0	-56	-0.2
Grand Total	7,480	14,545	4,550	26,574	100.0
RA Sensible (Lights)	4,126	0	0	4,126	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		98.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-3,896	0	-3,896	14.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-388	0	-388	1.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	2,482	0	2,482	-9.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-5,456	0	0	-5,477	19.8
Envelope Subtotal	-5,456	-1,801	0	-7,278	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-20,254	0	-20,254	73.4
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-78	0	-78	0.3
Grand Total	-5,456	-22,133	0	-27,610	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	923
Cooling ACH	1.74
Sec Fan cfm	0
Input Ventilation cfm	514
Calculated Ventilation cfm	446
Calculated Ventilation ACH	0.84
Infiltration cfm	69
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	923
Heating ACH	1.74
Sec Fan cfm	0
Input Ventilation cfm	514
Calculated Ventilation cfm	446
Calculated Ventilation ACH	0.84
Infiltration cfm	69
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	3,609
Window	0
Door	0
Wall	616
Below-Grade Wall	0
Other Wall	616
Partition	1,634
Exterior Floor	0
Internal Floor	3,609
Slab	0
Other Floor	3,609

Engineering Checks For Cooling

Cooling tons	2.21	No People(max)	17.73
%OA	48	People per 1000 ft²	5
cfm/ft²	0.26	Volume (ft³)	31,918
cfm/ton	417		
ft²/ton	1,602		
Btu/h-ft²	7.49		

Engineering Checks For Heating

Heating Mbh	-27.61	No People(max)	17.73
%OA	48	People per 1000 ft²	5
cfm/ft²	0.26	Volume (ft³)	31,918
cfm/Mbh	-33		
ft²/Mbh	-128		
Btu/h-ft²	-7.81		

ROOM_Room 01-01

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		8/21 14:00:00					
Outside	DB / WB / HR	85.1	°F /	71.9	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	608	5,248	0	5,856	33.8
Door	0	0	0	0	0.0
Wall	0	-424	0	-424	-2.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-233	0	-233	-1.3
Exterior Floor	0	-33	0	-33	-0.2
Interior Floor	0	-494	0	-494	-2.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	402	0	789	1,191	6.9
Envelope Subtotal	1,010	4,064	789	5,862	-
People	761	797	1,450	3,008	17.3
Lights	1,309	1,577	0	2,886	16.6
Miscellaneous Loads	1,870	1,092	0	2,961	17.1
Internal Subtotal	3,939	3,466	1,450	8,855	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	1,167	0	1,167	6.7
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-47	0	-47	-0.3
Grand Total	4,949	8,651	2,238	15,838	100.0
RA Sensible (Lights)	1,503	0	0	1,503	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		96.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	0	0	0	0.0
Other Roof	0	0	0	0	0.0
Glass	-3,584	0	0	-3,584	20.8
Door	0	0	0	0	0.0
Wall	0	-3,995	0	-3,995	23.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-96	0	-96	0.6
Exterior Floor	0	-192	0	-192	1.1
Interior Floor	0	713	0	713	-4.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-2,573	0	0	-2,583	15.0
Envelope Subtotal	-6,157	-3,569	0	-9,736	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	-7,242	0	-7,242	42.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-246	0	-246	1.4
Grand Total	-6,157	-11,058	0	-17,225	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	638
Cooling ACH	2.93
Sec Fan cfm	0
Input Ventilation cfm	123
Calculated Ventilation cfm	121
Calculated Ventilation ACH	0.56
Infiltration cfm	32
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	638
Heating ACH	2.93
Sec Fan cfm	0
Input Ventilation cfm	123
Calculated Ventilation cfm	106
Calculated Ventilation ACH	0.49
Infiltration cfm	33
Min Stop/RH (%)	100

Areas	ft²
Roof	0
Other Roof	0
Ceiling	1,488
Window	54
Door	0
Wall	697
Below-Grade Wall	0
Other Wall	697
Partition	697
Exterior Floor	85
Internal Floor	1,403
Slab	0
Other Floor	1,403

Engineering Checks For Cooling

Cooling tons	1.32	No People(max)	7.25
%OA	19	People per 1000 ft²	5
cfm/ft²	0.44	Volume (ft³)	13,046
cfm/ton	483		
ft²/ton	1,098		
Btu/h-ft²	10.93		

Engineering Checks For Heating

Heating Mbh	-17.22	No People(max)	7.25
%OA	17	People per 1000 ft²	5
cfm/ft²	0.44	Volume (ft³)	13,046
cfm/Mbh	-37		
ft²/Mbh	-84		
Btu/h-ft²	-11.90		

ROOM_Room 01-02

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		57.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	4,346	0	4,346	52.7
Other Roof	0	0	0	0	0.0
Glass	86	863	0	949	11.5
Door	0	0	0	0	0.0
Wall	0	819	0	819	9.9
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	244	0	244	3.0
Exterior Floor	0	2	0	2	0.0
Interior Floor	0	-583	0	-583	-7.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	86	5,692	0	5,777	-
People	0	0	0	0	0.0
Lights	304	346	0	650	7.9
Miscellaneous Loads	1,014	495	0	1,509	18.3
Internal Subtotal	1,318	841	0	2,159	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-33	0	-33	-0.4
Grand Total	1,404	6,499	0	7,903	100.0
RA Sensible (Lights)	349	0	0	349	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		104.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-10,926	0	-10,926	63.5
Other Roof	0	0	0	0	0.0
Glass	-1,738	0	0	-1,738	10.1
Door	0	0	0	0	0.0
Wall	0	-4,752	0	-4,752	27.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-553	0	-553	3.2
Exterior Floor	0	-101	0	-101	0.6
Interior Floor	0	1,057	0	1,057	-6.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	-1,738	-15,274	0	-17,013	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-182	0	-182	1.1
Grand Total	-1,738	-15,457	0	-17,195	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	652
Cooling ACH	3.56
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	652
Heating ACH	3.56
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	0
Min Stop/RH (%)	N/A

Areas	ft²
Roof	815
Other Roof	815
Ceiling	0
Window	27
Door	0
Wall	817
Below-Grade Wall	0
Other Wall	817
Partition	817
Exterior Floor	46
Internal Floor	769
Slab	0
Other Floor	769

Engineering Checks For Cooling

Cooling tons	0.66	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.83	Volume (ft³)	11,004
cfm/ton	989		
ft²/ton	1,194		
Btu/h-ft²	10.05		

Engineering Checks For Heating

Heating Mbh	-17.19	No People(max)	0.00
%OA	0	People per 1000 ft²	0
cfm/ft²	0.83	Volume (ft³)	11,004
cfm/Mbh	-38		
ft²/Mbh	-46		
Btu/h-ft²	-21.74		

ROOM_Room 01-03

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	2,172	0	2,172	22.5
Other Roof	0	0	0	0	0.0
Glass	307	3,110	0	3,417	35.4
Door	0	0	0	0	0.0
Wall	0	-209	0	-209	-2.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-305	0	-305	-3.2
Exterior Floor	0	112	0	112	1.2
Interior Floor	0	636	0	636	6.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	170	0	433	603	6.2
Envelope Subtotal	477	5,517	433	6,427	-
People	253	227	483	963	10.0
Lights	436	442	0	878	9.1
Miscellaneous Loads	623	290	0	912	9.5
Internal Subtotal	1,312	959	483	2,754	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-33	0	-33	-0.3
Grand Total	1,789	6,443	916	9,147	100.0
RA Sensible (Lights)	500	0	0	500	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		100.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-6,841	0	-6,841	55.8
Other Roof	0	0	0	0	0.0
Glass	-2,145	0	0	-2,145	17.5
Door	0	0	0	0	0.0
Wall	0	-2,345	0	-2,345	19.1
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	498	0	498	-4.1
Exterior Floor	0	-212	0	-212	1.7
Interior Floor	0	312	0	312	-2.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,333	0	0	-1,339	10.9
Envelope Subtotal	-3,479	-8,588	0	-12,071	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-189	0	-189	1.5
Grand Total	-3,479	-8,777	0	-12,261	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	386
Cooling ACH	3.43
Sec Fan cfm	0
Input Ventilation cfm	41
Calculated Ventilation cfm	73
Calculated Ventilation ACH	0.65
Infiltration cfm	17
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	386
Heating ACH	3.43
Sec Fan cfm	0
Input Ventilation cfm	41
Calculated Ventilation cfm	64
Calculated Ventilation ACH	0.57
Infiltration cfm	17
Min Stop/RH (%)	100

Areas	ft²
Roof	505
Other Roof	505
Ceiling	0
Window	33
Door	0
Wall	419
Below-Grade Wall	0
Other Wall	419
Partition	869
Exterior Floor	97
Internal Floor	409
Slab	0
Other Floor	409

Engineering Checks For Cooling

Cooling tons	0.76	No People(max)	2.41
%OA	19	People per 1000 ft²	5
cfm/ft²	0.80	Volume (ft³)	6,758
cfm/ton	506		
ft²/ton	633		
Btu/h-ft²	18.96		

Engineering Checks For Heating

Heating Mbh	-12.26	No People(max)	2.41
%OA	17	People per 1000 ft²	5
cfm/ft²	0.80	Volume (ft³)	6,758
cfm/Mbh	-31		
ft²/Mbh	-39		
Btu/h-ft²	-25.64		

ROOM_Room 01-04

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.3	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	3,868	0	3,868	38.2
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	263	0	263	2.6
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	1,103	0	1,103	10.9
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-155	0	-155	-1.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	174	0	614	789	7.8
Envelope Subtotal	174	5,079	614	5,867	-
People	70	95	168	333	3.3
Lights	680	1,052	0	1,732	17.1
Miscellaneous Loads	865	574	0	1,439	14.2
Internal Subtotal	1,616	1,721	168	3,504	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-37	0	-37	-0.4
Grand Total	1,790	6,762	782	9,335	100.0
RA Sensible (Lights)	781	0	0	781	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		107.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-10,269	0	-10,269	65.4
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-2,383	0	-2,383	15.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,322	0	-1,322	8.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	262	0	262	-1.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,853	0	0	-1,860	11.8
Envelope Subtotal	-1,853	-13,712	0	-15,573	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-131	0	-131	0.8
Grand Total	-1,853	-13,844	0	-15,704	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	401
Cooling ACH	2.56
Sec Fan cfm	0
Input Ventilation cfm	40
Calculated Ventilation cfm	76
Calculated Ventilation ACH	0.49
Infiltration cfm	23
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	401
Heating ACH	2.56
Sec Fan cfm	0
Input Ventilation cfm	40
Calculated Ventilation cfm	67
Calculated Ventilation ACH	0.43
Infiltration cfm	23
Min Stop/RH (%)	100

Areas	ft²
Roof	735
Other Roof	735
Ceiling	0
Window	0
Door	0
Wall	379
Below-Grade Wall	0
Other Wall	379
Partition	3,227
Exterior Floor	0
Internal Floor	735
Slab	0
Other Floor	735

Engineering Checks For Cooling

Cooling tons	0.78	No People(max)	0.67
%OA	19	People per 1000 ft²	1
cfm/ft²	0.60	Volume (ft³)	9,394
cfm/ton	515		
ft²/ton	863		
Btu/h-ft²	13.90		

Engineering Checks For Heating

Heating Mbh	-15.70	No People(max)	0.67
%OA	17	People per 1000 ft²	1
cfm/ft²	0.60	Volume (ft³)	9,394
cfm/Mbh	-26		
ft²/Mbh	-43		
Btu/h-ft²	-23.26		

ROOM_Room 01-05

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	5,324	0	5,324	37.1
Other Roof	0	0	0	0	0.0
Glass	139	1,464	0	1,603	11.2
Door	0	0	0	0	0.0
Wall	0	182	0	182	1.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-324	0	-324	-2.3
Exterior Floor	0	24	0	24	0.2
Interior Floor	0	-118	0	-118	-0.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	257	0	857	1,115	7.8
Envelope Subtotal	396	6,553	857	7,806	-
People	520	454	991	1,965	13.7
Lights	894	883	0	1,777	12.4
Miscellaneous Loads	1,278	570	0	1,847	12.9
Internal Subtotal	2,692	1,907	991	5,590	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-64	0	-64	-0.4
Grand Total	3,088	8,396	1,848	13,333	100.0
RA Sensible (Lights)	1,027	0	0	1,027	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		114.1	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-13,721	0	-13,721	55.0
Other Roof	0	0	0	0	0.0
Glass	-3,826	0	0	-3,826	15.3
Door	0	0	0	0	0.0
Wall	0	-5,597	0	-5,597	22.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	843	0	843	-3.4
Exterior Floor	0	-249	0	-249	1.0
Interior Floor	0	647	0	647	-2.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-2,736	0	0	-2,747	11.0
Envelope Subtotal	-6,562	-18,078	0	-24,651	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-298	0	-298	1.2
Grand Total	-6,562	-18,376	0	-24,948	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	539
Cooling ACH	2.33
Sec Fan cfm	0
Input Ventilation cfm	84
Calculated Ventilation cfm	102
Calculated Ventilation ACH	0.44
Infiltration cfm	34
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	539
Heating ACH	2.33
Sec Fan cfm	0
Input Ventilation cfm	84
Calculated Ventilation cfm	90
Calculated Ventilation ACH	0.39
Infiltration cfm	35
Min Stop/RH (%)	100

Areas	ft²
Roof	1,026
Other Roof	1,026
Ceiling	0
Window	66
Door	0
Wall	1,001
Below-Grade Wall	0
Other Wall	1,001
Partition	1,008
Exterior Floor	116
Internal Floor	911
Slab	0
Other Floor	911

Engineering Checks For Cooling

Cooling tons	1.11	No People(max)	4.95
%OA	19	People per 1000 ft²	5
cfm/ft²	0.54	Volume (ft³)	13,870
cfm/ton	485		
ft²/ton	892		
Btu/h-ft²	13.45		

Engineering Checks For Heating

Heating Mbh	-24.95	No People(max)	4.95
%OA	17	People per 1000 ft²	5
cfm/ft²	0.54	Volume (ft³)	13,870
cfm/Mbh	-22		
ft²/Mbh	-40		
Btu/h-ft²	-25.00		

ROOM_Room 01-06

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	2,686	0	2,686	37.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	166	0	166	2.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	855	0	855	11.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-129	0	-129	-1.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	121	0	427	548	7.5
Envelope Subtotal	121	3,578	427	4,126	-
People	49	77	116	242	3.3
Lights	471	850	0	1,321	18.2
Miscellaneous Loads	600	463	0	1,063	14.6
Internal Subtotal	1,120	1,390	116	2,626	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-26	0	-26	-0.4
Grand Total	1,241	4,942	543	6,726	100.0
RA Sensible (Lights)	541	0	0	541	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		109.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-7,083	0	-7,083	59.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-1,974	0	-1,974	16.5
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-1,742	0	-1,742	14.5
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	181	0	181	-1.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,284	0	0	-1,289	10.7
Envelope Subtotal	-1,284	-10,618	0	-11,907	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-87	0	-87	0.7
Grand Total	-1,284	-10,705	0	-11,995	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	290
Cooling ACH	2.67
Sec Fan cfm	0
Input Ventilation cfm	28
Calculated Ventilation cfm	55
Calculated Ventilation ACH	0.51
Infiltration cfm	16
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	290
Heating ACH	2.67
Sec Fan cfm	0
Input Ventilation cfm	28
Calculated Ventilation cfm	48
Calculated Ventilation ACH	0.44
Infiltration cfm	16
Min Stop/RH (%)	100

Areas	ft²
Roof	510
Other Roof	510
Ceiling	0
Window	0
Door	0
Wall	315
Below-Grade Wall	0
Other Wall	315
Partition	2,220
Exterior Floor	0
Internal Floor	510
Slab	0
Other Floor	510

Engineering Checks For Cooling

Cooling tons	0.56	No People(max)	0.47
%OA	19	People per 1000 ft²	1
cfm/ft²	0.62	Volume (ft³)	6,511
cfm/ton	517		
ft²/ton	830		
Btu/h-ft²	14.46		

Engineering Checks For Heating

Heating Mbh	-11.99	No People(max)	0.47
%OA	17	People per 1000 ft²	1
cfm/ft²	0.62	Volume (ft³)	6,511
cfm/Mbh	-24		
ft²/Mbh	-39		
Btu/h-ft²	-25.64		

ROOM_Room 01-07

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.5	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	3,298	0	3,298	45.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	7	0	7	0.1
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-203	0	-203	-2.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	3,102	0	3,102	-
People	313	337	596	1,246	17.0
Lights	538	658	0	1,196	16.3
Miscellaneous Loads	769	416	0	1,185	16.2
Internal Subtotal	1,620	1,411	596	3,628	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-30	0	-30	-0.4
Grand Total	1,620	4,483	596	6,699	100.0
RA Sensible (Lights)	618	0	0	618	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		98.4	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-8,774	0	-8,774	103.6
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	34	0	34	-0.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	374	0	374	-4.4
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-8,365	0	-8,365	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-100	0	-100	1.2
Grand Total	0	-8,465	0	-8,465	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	286
Cooling ACH	2.06
Sec Fan cfm	0
Input Ventilation cfm	51
Calculated Ventilation cfm	54
Calculated Ventilation ACH	0.39
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	286
Heating ACH	2.06
Sec Fan cfm	0
Input Ventilation cfm	51
Calculated Ventilation cfm	48
Calculated Ventilation ACH	0.35
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	627
Other Roof	627
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,719
Exterior Floor	0
Internal Floor	627
Slab	0
Other Floor	627

Engineering Checks For Cooling

Cooling tons	0.56	No People(max)	2.98
%OA	19	People per 1000 ft²	5
cfm/ft²	0.48	Volume (ft³)	8,346
cfm/ton	513		
ft²/ton	1,068		
Btu/h-ft²	11.24		

Engineering Checks For Heating

Heating Mbh	-8.47	No People(max)	2.98
%OA	17	People per 1000 ft²	5
cfm/ft²	0.48	Volume (ft³)	8,346
cfm/Mbh	-34		
ft²/Mbh	-70		
Btu/h-ft²	-14.29		

ROOM_Room 01-08

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	875	0	875	43.3
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	73	0	73	3.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-39	0	-39	-2.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	908	0	908	-
People	79	97	150	326	16.1
Lights	135	190	0	325	16.1
Miscellaneous Loads	193	120	0	313	15.5
Internal Subtotal	407	407	150	964	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-8	0	-8	-0.4
Grand Total	407	1,307	150	1,864	100.0
RA Sensible (Lights)	155	0	0	155	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		98.7	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-2,305	0	-2,305	95.8
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-152	0	-152	6.3
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	79	0	79	-3.3
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-2,378	0	-2,378	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-29	0	-29	1.2
Grand Total	0	-2,407	0	-2,407	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	80
Cooling ACH	2.29
Sec Fan cfm	0
Input Ventilation cfm	13
Calculated Ventilation cfm	15
Calculated Ventilation ACH	0.43
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	80
Heating ACH	2.29
Sec Fan cfm	0
Input Ventilation cfm	13
Calculated Ventilation cfm	13
Calculated Ventilation ACH	0.37
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	163
Other Roof	163
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	758
Exterior Floor	0
Internal Floor	163
Slab	0
Other Floor	163

Engineering Checks For Cooling

Cooling tons	0.16	No People(max)	0.75
%OA	19	People per 1000 ft²	5
cfm/ft²	0.54	Volume (ft³)	2,099
cfm/ton	517		
ft²/ton	965		
Btu/h-ft²	12.44		

Engineering Checks For Heating

Heating Mbh	-2.41	No People(max)	0.75
%OA	17	People per 1000 ft²	5
cfm/ft²	0.54	Volume (ft³)	2,099
cfm/Mbh	-33		
ft²/Mbh	-62		
Btu/h-ft²	-16.13		

ROOM_Room 01-09

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	1,501	0	1,501	42.3
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	130	0	130	3.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-103	0	-103	-2.9
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	1,528	0	1,528	-
People	140	183	267	590	16.6
Lights	241	357	0	598	16.9
Miscellaneous Loads	344	226	0	570	16.1
Internal Subtotal	726	766	267	1,759	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-14	0	-14	-0.4
Grand Total	726	2,280	267	3,272	100.0
RA Sensible (Lights)	277	0	0	277	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		98.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-4,001	0	-4,001	94.2
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-398	0	-398	9.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	201	0	201	-4.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-4,197	0	-4,197	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-48	0	-48	1.1
Grand Total	0	-4,245	0	-4,245	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	141
Cooling ACH	2.26
Sec Fan cfm	0
Input Ventilation cfm	23
Calculated Ventilation cfm	27
Calculated Ventilation ACH	0.43
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	141
Heating ACH	2.26
Sec Fan cfm	0
Input Ventilation cfm	23
Calculated Ventilation cfm	23
Calculated Ventilation ACH	0.37
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	285
Other Roof	285
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,032
Exterior Floor	0
Internal Floor	285
Slab	0
Other Floor	285

Engineering Checks For Cooling

Cooling tons	0.27	No People(max)	1.33
%OA	19	People per 1000 ft²	5
cfm/ft²	0.53	Volume (ft³)	3,738
cfm/ton	517		
ft²/ton	979		
Btu/h-ft²	12.26		

Engineering Checks For Heating

Heating Mbh	-4.25	No People(max)	1.33
%OA	17	People per 1000 ft²	5
cfm/ft²	0.53	Volume (ft³)	3,738
cfm/Mbh	-33		
ft²/Mbh	-63		
Btu/h-ft²	-15.87		

ROOM_Room 01-10

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	45.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		50.6	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	2,891	0	2,891	42.1
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	234	0	234	3.4
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-244	0	-244	-3.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	2,881	0	2,881	-
People	278	357	529	1,164	17.0
Lights	478	696	0	1,174	17.1
Miscellaneous Loads	682	441	0	1,123	16.4
Internal Subtotal	1,438	1,494	529	3,462	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-27	0	-27	-0.4
Grand Total	1,438	4,348	529	6,315	100.0
RA Sensible (Lights)	548	0	0	548	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		102.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-7,780	0	-7,780	95.5
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-720	0	-720	8.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	445	0	445	-5.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-8,055	0	-8,055	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-89	0	-89	1.1
Grand Total	0	-8,143	0	-8,143	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	243
Cooling ACH	1.97
Sec Fan cfm	0
Input Ventilation cfm	45
Calculated Ventilation cfm	117
Calculated Ventilation ACH	0.95
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	243
Heating ACH	1.97
Sec Fan cfm	0
Input Ventilation cfm	45
Calculated Ventilation cfm	117
Calculated Ventilation ACH	0.95
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	557
Other Roof	557
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	1,603
Exterior Floor	0
Internal Floor	557
Slab	0
Other Floor	557

Engineering Checks For Cooling

Cooling tons	0.53	No People(max)	2.65
%OA	48	People per 1000 ft²	5
cfm/ft²	0.46	Volume (ft³)	7,408
cfm/ton	461		
ft²/ton	1,006		
Btu/h-ft²	11.93		

Engineering Checks For Heating

Heating Mbh	-8.14	No People(max)	2.65
%OA	48	People per 1000 ft²	5
cfm/ft²	0.46	Volume (ft³)	7,408
cfm/Mbh	-30		
ft²/Mbh	-65		
Btu/h-ft²	-15.38		

ROOM_Room 01-11

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	46.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	423	0	423	44.3
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	170	0	170	17.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-5	0	-5	-0.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	587	0	587	-
People	0	0	0	0	0.0
Lights	58	95	0	152	15.9
Miscellaneous Loads	90	63	0	153	16.0
Internal Subtotal	147	158	0	305	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	-0.4
Grand Total	147	741	0	888	100.0
RA Sensible (Lights)	66	0	0	66	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		104.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-1,102	0	-1,102	72.3
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-385	0	-385	25.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-24	0	-24	1.6
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-1,511	0	-1,511	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-13	0	-13	0.9
Grand Total	0	-1,524	0	-1,524	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	42
Cooling ACH	2.59
Sec Fan cfm	0
Input Ventilation cfm	4
Calculated Ventilation cfm	8
Calculated Ventilation ACH	0.49
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	42
Heating ACH	2.59
Sec Fan cfm	0
Input Ventilation cfm	4
Calculated Ventilation cfm	7
Calculated Ventilation ACH	0.43
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	ft²
Roof	78
Other Roof	78
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	517
Exterior Floor	0
Internal Floor	78
Slab	0
Other Floor	78

Engineering Checks For Cooling

Cooling tons	0.07	No People(max)	0.00
%OA	19	People per 1000 ft²	0
cfm/ft²	0.60	Volume (ft³)	972
cfm/ton	562		
ft²/ton	938		
Btu/h-ft²	12.79		

Engineering Checks For Heating

Heating Mbh	-1.52	No People(max)	0.00
%OA	17	People per 1000 ft²	0
cfm/ft²	0.60	Volume (ft³)	972
cfm/Mbh	-27		
ft²/Mbh	-46		
Btu/h-ft²	-21.74		

ROOM_Room 01-12

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.3	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	999	0	999	34.5
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	521	0	521	18.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	26	0	26	0.9
Exterior Floor	0	6	0	6	0.2
Interior Floor	0	-23	0	-23	-0.8
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	75	0	249	324	11.2
Envelope Subtotal	75	1,528	249	1,852	-
People	91	89	172	352	12.2
Lights	110	129	0	239	8.3
Miscellaneous Loads	222	112	0	335	11.6
Internal Subtotal	422	331	172	926	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-11	0	-11	-0.4
Grand Total	497	1,848	422	2,766	100.0
RA Sensible (Lights)	126	0	0	126	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		122.5	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-2,564	0	-2,564	41.6
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-2,879	0	-2,879	46.7
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	179	0	179	-2.9
Exterior Floor	0	-75	0	-75	1.2
Interior Floor	0	-3	0	-3	0.0
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-793	0	0	-796	12.9
Envelope Subtotal	-793	-5,342	0	-6,139	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-31	0	-31	0.5
Grand Total	-793	-5,373	0	-6,170	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	234
Cooling ACH	5.82
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	10
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	234
Heating ACH	5.82
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	10
Min Stop/RH (%)	N/A

Areas	ft²
Roof	189
Other Roof	189
Ceiling	0
Window	0
Door	0
Wall	468
Below-Grade Wall	0
Other Wall	468
Partition	465
Exterior Floor	34
Internal Floor	155
Slab	0
Other Floor	155

Engineering Checks For Cooling

Cooling tons	0.23	No People(max)	0.86
%OA	0	People per 1000 ft²	5
cfm/ft²	1.36	Volume (ft³)	2,413
cfm/ton	1,016		
ft²/ton	748		
Btu/h-ft²	16.04		

Engineering Checks For Heating

Heating Mbh	-6.17	No People(max)	0.86
%OA	0	People per 1000 ft²	5
cfm/ft²	1.36	Volume (ft³)	2,413
cfm/Mbh	-38		
ft²/Mbh	-28		
Btu/h-ft²	-35.71		

ROOM_Room 01-13

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	47.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	266	0	266	20.5
Other Roof	0	0	0	0	0.0
Glass	33	467	0	499	38.5
Door	0	0	0	0	0.0
Wall	0	-4	0	-4	-0.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	194	0	194	15.0
Exterior Floor	0	5	0	5	0.4
Interior Floor	0	-22	0	-22	-1.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	17	0	45	62	4.8
Envelope Subtotal	49	905	45	999	-
People	5	8	7	20	1.5
Lights	43	79	0	122	9.4
Miscellaneous Loads	61	48	0	110	8.5
Internal Subtotal	109	135	7	251	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-3	0	-3	-0.3
Grand Total	158	1,037	52	1,247	100.0
RA Sensible (Lights)	49	0	0	49	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		99.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-782	0	-782	44.6
Other Roof	0	0	0	0	0.0
Glass	-202	0	0	-202	11.5
Door	0	0	0	0	0.0
Wall	0	-347	0	-347	19.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-236	0	-236	13.4
Exterior Floor	0	-33	0	-33	1.9
Interior Floor	0	1	0	1	-0.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-131	0	0	-132	7.5
Envelope Subtotal	-334	-1,396	0	-1,730	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-24	0	-24	1.4
Grand Total	-334	-1,420	0	-1,754	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	56
Cooling ACH	5.05
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	11
Calculated Ventilation ACH	0.99
Infiltration cfm	2
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	56
Heating ACH	5.05
Sec Fan cfm	0
Input Ventilation cfm	0
Calculated Ventilation cfm	9
Calculated Ventilation ACH	0.81
Infiltration cfm	2
Min Stop/RH (%)	100

Areas	ft²
Roof	56
Other Roof	56
Ceiling	0
Window	3
Door	0
Wall	58
Below-Grade Wall	0
Other Wall	58
Partition	435
Exterior Floor	14
Internal Floor	42
Slab	0
Other Floor	42

Engineering Checks For Cooling

Cooling tons	0.10	No People(max)	0.05
%OA	19	People per 1000 ft²	1
cfm/ft²	1.18	Volume (ft³)	665
cfm/ton	539		
ft²/ton	457		
Btu/h-ft²	26.26		

Engineering Checks For Heating

Heating Mbh	-1.75	No People(max)	0.05
%OA	17	People per 1000 ft²	1
cfm/ft²	1.18	Volume (ft³)	665
cfm/Mbh	-32		
ft²/Mbh	-27		
Btu/h-ft²	-37.04		

ROOM_Room 01-14

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 18:00:00					
Outside	DB / WB / HR	82.8	°F /	71.3	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	48.9	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	1,912	0	1,912	23.3
Other Roof	0	0	0	0	0.0
Glass	256	2,581	0	2,837	34.6
Door	0	0	0	0	0.0
Wall	0	-164	0	-164	-2.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-264	0	-264	-3.2
Exterior Floor	0	94	0	94	1.1
Interior Floor	0	519	0	519	6.3
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	145	0	369	514	6.3
Envelope Subtotal	401	4,678	369	5,449	-
People	216	195	412	824	10.0
Lights	372	382	0	754	9.2
Miscellaneous Loads	531	250	0	781	9.5
Internal Subtotal	1,120	827	412	2,359	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-29	0	-29	-0.3
Grand Total	1,521	5,477	782	7,779	100.0
RA Sensible (Lights)	427	0	0	427	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		100.8	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-5,865	0	-5,865	55.4
Other Roof	0	0	0	0	0.0
Glass	-1,758	0	0	-1,758	16.6
Door	0	0	0	0	0.0
Wall	0	-2,051	0	-2,051	19.4
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	436	0	436	-4.1
Exterior Floor	0	-183	0	-183	1.7
Interior Floor	0	131	0	131	-1.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-1,138	0	0	-1,143	10.8
Envelope Subtotal	-2,896	-7,533	0	-10,433	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-159	0	-159	1.5
Grand Total	-2,896	-7,692	0	-10,592	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	328
Cooling ACH	3.41
Sec Fan cfm	0
Input Ventilation cfm	35
Calculated Ventilation cfm	62
Calculated Ventilation ACH	0.64
Infiltration cfm	14
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	328
Heating ACH	3.41
Sec Fan cfm	0
Input Ventilation cfm	35
Calculated Ventilation cfm	55
Calculated Ventilation ACH	0.57
Infiltration cfm	14
Min Stop/RH (%)	100

Areas	ft²
Roof	433
Other Roof	433
Ceiling	0
Window	27
Door	0
Wall	364
Below-Grade Wall	0
Other Wall	364
Partition	812
Exterior Floor	83
Internal Floor	350
Slab	0
Other Floor	350

Engineering Checks For Cooling

Cooling tons	0.65	No People(max)	2.06
%OA	19	People per 1000 ft²	5
cfm/ft²	0.80	Volume (ft³)	5,769
cfm/ton	506		
ft²/ton	636		
Btu/h-ft²	18.87		

Engineering Checks For Heating

Heating Mbh	-10.59	No People(max)	2.06
%OA	17	People per 1000 ft²	5
cfm/ft²	0.80	Volume (ft³)	5,769
cfm/Mbh	-31		
ft²/Mbh	-39		
Btu/h-ft²	-25.64		

ROOM_Room 01-15

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	46.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		53.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	105	0	105	28.3
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	162	0	162	43.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	2	0	2	0.7
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	270	0	270	-
People	0	0	0	0	0.0
Lights	13	32	0	45	12.2
Miscellaneous Loads	21	21	0	42	11.3
Internal Subtotal	34	53	0	87	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-1	0	-1	-0.2
Grand Total	34	323	0	357	100.0
RA Sensible (Lights)	15	0	0	15	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		97.9	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-288	0	-288	59.3
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	0	0	0	0.0
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	-188	0	-188	38.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-6	0	-6	1.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	0	0	0	0	0.0
Envelope Subtotal	0	-482	0	-482	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-4	0	-4	0.8
Grand Total	0	-486	0	-486	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	17
Cooling ACH	4.53
Sec Fan cfm	0
Input Ventilation cfm	1
Calculated Ventilation cfm	3
Calculated Ventilation ACH	0.80
Infiltration cfm	0
Min Stop/RH (%)	100
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	17
Heating ACH	4.53
Sec Fan cfm	0
Input Ventilation cfm	1
Calculated Ventilation cfm	3
Calculated Ventilation ACH	0.80
Infiltration cfm	0
Min Stop/RH (%)	100

Areas	
	ft²
Roof	20
Other Roof	20
Ceiling	0
Window	0
Door	0
Wall	0
Below-Grade Wall	0
Other Wall	0
Partition	253
Exterior Floor	0
Internal Floor	20
Slab	0
Other Floor	20

Engineering Checks For Cooling

Cooling tons	0.03	No People(max)	0.00
%OA	19	People per 1000 ft²	0
cfm/ft²	1.04	Volume (ft³)	225
cfm/ton	562		
ft²/ton	540		
Btu/h-ft²	22.22		

Engineering Checks For Heating

Heating Mbh	-0.49	No People(max)	0.00
%OA	17	People per 1000 ft²	0
cfm/ft²	1.04	Volume (ft³)	225
cfm/Mbh	-34		
ft²/Mbh	-33		
Btu/h-ft²	-30.30		

ROOM_Room 01-16

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 19:00:00					
Outside	DB / WB / HR	80.2	°F /	70.6	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.1	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		52.0	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	759	0	759	30.9
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	290	0	290	11.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	192	0	192	7.8
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-4	0	-4	-0.2
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	93	0	311	404	16.4
Envelope Subtotal	93	1,237	311	1,641	-
People	71	71	134	276	11.2
Lights	85	103	0	188	7.7
Miscellaneous Loads	173	89	0	263	10.7
Internal Subtotal	329	263	134	727	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-9	0	-9	-0.4
Grand Total	423	1,491	445	2,358	100.0
RA Sensible (Lights)	98	0	0	98	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		128.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-1,990	0	-1,990	38.0
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-2,162	0	-2,162	41.3
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	64	0	64	-1.2
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-129	0	-129	2.5
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-990	0	0	-994	19.0
Envelope Subtotal	-990	-4,217	0	-5,211	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-22	0	-22	0.4
Grand Total	-990	-4,239	0	-5,233	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	199
Cooling ACH	6.34
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	12
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	199
Heating ACH	6.34
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	13
Min Stop/RH (%)	N/A

Areas	ft²
Roof	147
Other Roof	147
Ceiling	0
Window	0
Door	0
Wall	353
Below-Grade Wall	0
Other Wall	353
Partition	353
Exterior Floor	0
Internal Floor	147
Slab	0
Other Floor	147

Engineering Checks For Cooling

Cooling tons	0.20	No People(max)	0.67
%OA	0	People per 1000 ft²	5
cfm/ft²	1.48	Volume (ft³)	1,883
cfm/ton	1,011		
ft²/ton	684		
Btu/h-ft²	17.54		

Engineering Checks For Heating

Heating Mbh	-5.23	No People(max)	0.67
%OA	0	People per 1000 ft²	5
cfm/ft²	1.48	Volume (ft³)	1,883
cfm/Mbh	-38		
ft²/Mbh	-26		
Btu/h-ft²	-38.46		

ROOM_Room 01-17

Conditions at Time of Space Cooling Peak

Peak Time (Mo/D/H:M)		7/21 20:00:00					
Outside	DB / WB / HR	78.3	°F /	70.0	°F /	0.0	gr/lb
Room	DB / RH / HR	73.0	°F /	50.0	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		54.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	747	0	747	34.4
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	257	0	257	11.8
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	166	0	166	7.7
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-2	0	-2	-0.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	27	0	122	149	6.9
Envelope Subtotal	27	1,168	122	1,317	-
People	74	75	141	290	13.3
Lights	89	105	0	195	9.0
Miscellaneous Loads	181	92	0	273	12.6
Internal Subtotal	345	272	141	757	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-7	0	-7	-0.3
Grand Total	371	1,433	263	2,067	100.0
RA Sensible (Lights)	103	0	0	103	-

Conditions at Time of Space Heating Peak

Peak Time (Mo/D/H:M)		1/21 24:00:00					
Outside	DB / WB / HR	4.1	°F /	2.5	°F /	0.0	gr/lb
Room	DB / RH / HR	70.0	°F /	4.2	% /	0.0	gr/lb
Supply Air Dry Bulb Temp		120.2	°F				

	Instant Sensible (Btu/h)	Time Delay Sensible (Btu/h)	Latent (Btu/h)	Total (Btu/h)	Percent of Total (%)
Roof	0	-2,075	0	-2,075	43.6
Other Roof	0	0	0	0	0.0
Glass	0	0	0	0	0.0
Door	0	0	0	0	0.0
Wall	0	-2,195	0	-2,195	46.2
Below-Grade Wall	0	0	0	0	0.0
Other Wall	0	0	0	0	0.0
Partition	0	75	0	75	-1.6
Exterior Floor	0	0	0	0	0.0
Interior Floor	0	-146	0	-146	3.1
Slab	0	0	0	0	0.0
Other Floor	0	0	0	0	0.0
Infiltration	-388	0	0	-390	8.2
Envelope Subtotal	-388	-4,343	0	-4,732	-
People	0	0	0	0	0.0
Lights	0	0	0	0	0.0
Miscellaneous Loads	0	0	0	0	0.0
Internal Subtotal	0	0	0	0	-
RA (All Other)	0	0	0	0	0.0
DOA Direct to Room	0	0	0	0	0.0
Ceiling	0	0	0	0	0.0
Refrigeration	0	0	0	0	0.0
Service Water	0	0	0	0	0.0
HVAC Equipment Losses	0	0	0	0	0.0
Adj Air Transfer Heat	0	0	0	0	0.0
Sizing Factor Correction	0	0	0	0	0.0
Time Delay Correction	0	-23	0	-23	0.5
Grand Total	-388	-4,365	0	-4,755	100.0
RA Sensible (Lights)	0	0	0	0	-

Cooling Airflows	
Main Fan cfm	181
Cooling ACH	5.52
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	5
Min Stop/RH (%)	N/A
Ventilation Sizing Factor	1.00

Heating Airflows	
Main Fan cfm	181
Heating ACH	5.52
Sec Fan cfm	0
Input Ventilation cfm	N/A
Calculated Ventilation cfm	N/A
Calculated Ventilation ACH	N/A
Infiltration cfm	5
Min Stop/RH (%)	N/A

Areas	ft²
Roof	153
Other Roof	153
Ceiling	0
Window	0
Door	0
Wall	358
Below-Grade Wall	0
Other Wall	358
Partition	358
Exterior Floor	0
Internal Floor	153
Slab	0
Other Floor	153

Engineering Checks For Cooling

Cooling tons	0.17	No People(max)	0.70
%OA	0	People per 1000 ft²	5
cfm/ft²	1.28	Volume (ft³)	1,968
cfm/ton	1,048		
ft²/ton	816		
Btu/h-ft²	14.71		

Engineering Checks For Heating

Heating Mbh	-4.75	No People(max)	0.70
%OA	0	People per 1000 ft²	5
cfm/ft²	1.28	Volume (ft³)	1,968
cfm/Mbh	-38		
ft²/Mbh	-30		
Btu/h-ft²	-33.33		

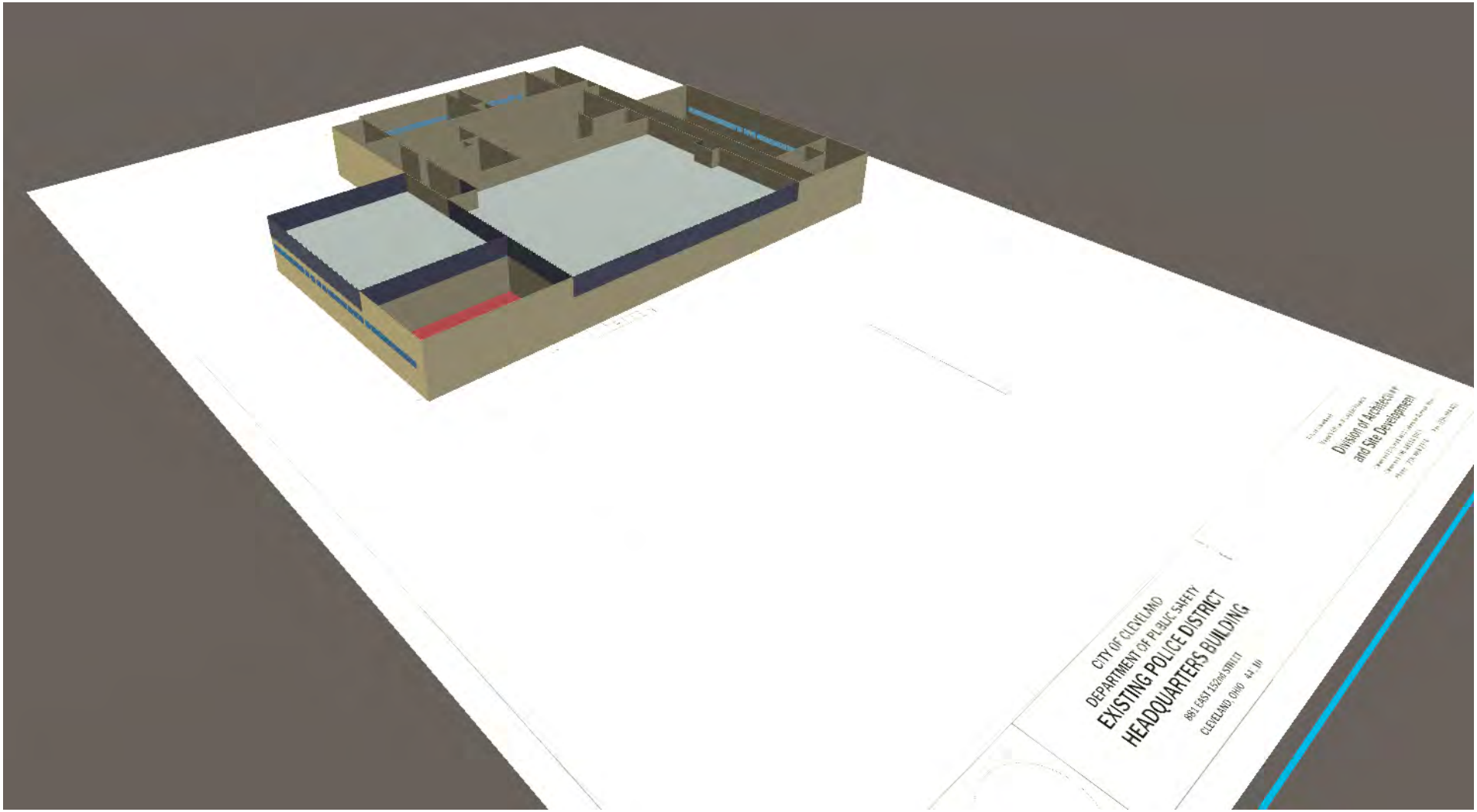
Model Renderings

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d. Energy Methodology



Model Renderings



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d. Energy Methodology

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e. Energy Methodology

Lighting Savings Calculations

Facility	Room	Space Type	HVAC Type	Ceiling Type	Fixture Height	Existing Fixture	ting Lamps Per Fixt	Quantity of Fixtures
1st District	Offices and Hallways	Police Station - Medium Hours	Heating & Cooling	Tile	8	4 lamp 2x4 troffer T8	4	235
1st District	Garage	On 24/7	Heating Only	TIle	12	2 lamp 8ft suspended T12	2	20
1st District	Mechanical Rooms & Storage	Storage Room	Heating & Cooling	None	10	2 lamp 1x4 troffer T8	2	50
2nd District	Offices and Hallways	Police Station - Low Hours	Heating & Cooling	Tile	8	4 lamp 2x4 troffer T8	4	200
2nd District	Garage	Police Station - Medium Hours	Heating Only	TIle	12	Metal halide 275W	1	20
2nd District	Mechanical Rooms & Storage	Storage Room	Heating & Cooling	None	10	2 lamp 1x4 troffer T8	2	50
3rd District	Offices and Hallways	Police Station - High Hours	Heating & Cooling	Tile	8	2 lamp 1x4 troffer T8	2	600
3rd District	Garage	Police Station - Medium Hours	Heating Only	None	12	2 lamp 1x4 troffer T8	2	36
3rd District	Mechanical Rooms & Storage	Storage Room	Heating & Cooling	None	12	2 lamp 1x4 troffer T8	2	60
4th District	Offices and Hallways	Police Station - Medium Hours	Heating & Cooling	Tile	8	4 lamp 2x4 troffer T8	4	235
4th District	Garage	On 24/7	Heating Only	TIle	12	2 lamp 8ft suspended T12	2	36
4th District	Mechanical Rooms & Storage	Storage Room	Heating & Cooling	None	10	2 lamp 1x4 troffer T8	2	50
5th District	Offices and Hallways	Police Station - Low Hours	Heating & Cooling	Tile	8	4 lamp 2x4 troffer T8	4	185
5th District	Garage	Conference Room	Heating Only	TIle	12	6 lamp high bay T8	6	20
5th District	Mechanical Rooms & Storage	Storage Room	Heating & Cooling	None	10	2 lamp 1x4 troffer T8	2	54
5th District	Exterior	Exterior - Dusk to Dawn	None	None	20	Metal halide 275W	1	6
1st District	Front Entry Lights	On 24/7	None	None	20	Metal halide 100W	1	8
3rd District	Exterior Door Lights	Exterior - Dusk to Dawn	None	None	8	Metal halide 70W	1	6

Facility	Room	Total # of Bulbs	Existing Number of Lamp Failures	% Fixture Fail	Existing Space Hours	Existing Total Fixture kW	Existing Total Fixture kWh
1st District	Offices and Hallways	940	235	25.00%	4,380	25.66	112,400
1st District	Garage	40	10	25.00%	8,760	2.68	23,488
1st District	Mechanical Rooms & Storage	100	25	25.00%	1,304	2.73	3,560
2nd District	Offices and Hallways	800	200	25.00%	2,920	21.84	63,773
2nd District	Garage	20	4	20.00%	4,380	5.14	22,524
2nd District	Mechanical Rooms & Storage	100	1	1.00%	1,304	3.33	4,349
3rd District	Offices and Hallways	1,200	12	1.00%	5,840	40.02	233,703
3rd District	Garage	72	1	1.00%	4,380	2.40	10,517
3rd District	Mechanical Rooms & Storage	120	1	1.00%	1,304	4.00	5,218
4th District	Offices and Hallways	940	235	25.00%	4,380	25.66	112,400
4th District	Garage	72	14	20.00%	8,760	5.05	44,229
4th District	Mechanical Rooms & Storage	100	25	25.00%	1,304	2.73	3,560
5th District	Offices and Hallways	740	185	25.00%	2,920	20.20	58,990
5th District	Garage	120	30	25.00%	1,304	3.28	4,272
5th District	Mechanical Rooms & Storage	108	27	25.00%	1,304	2.95	3,845
5th District	Exterior	6	0	0.00%	4,380	1.82	7,950
1st District	Front Entry Lights	8	3	33.00%	8,760	0.66	5,801
3rd District	Exterior Door Lights	6	0	0.00%	4,380	0.46	2,024

Lighting Savings Calculations

Facility	Room	Proposed Fixture	Proposed Total Fixture kW	Proposed Total Fixture kWh	Total Annual Fixture kW Savings	Total Annual Fixture kWh Savings	Heating Penalty (Btu)	Cooling Savings	Total kWh Savings
1st District	Offices and Hallways	New LED Fixture	12.63	55,335	114.65	57,064	70,988,639	2,378	59,442
1st District	Garage	New LED Fixture	1.32	11,563	14.97	11,925	14,834,252	0	11,925
1st District	Mechanical Rooms & Storage	New LED Fixture	1.34	1,753	13.72	1,807	2,248,353	75	1,883
2nd District	Offices and Hallways	New LED Fixture	10.75	31,396	85.38	32,377	40,277,242	1,349	33,726
2nd District	Garage	New LED Fixture	2.42	10,600	23.96	11,925	14,834,252	0	11,925
2nd District	Mechanical Rooms & Storage	New LED Fixture	1.34	1,753	19.71	2,596	3,229,452	108	2,704
3rd District	Offices and Hallways	New LED Fixture	16.13	94,188	236.51	139,515	173,558,296	5,813	145,328
3rd District	Garage	New LED Fixture	0.97	4,238	12.61	6,278	7,810,123	0	6,278
3rd District	Mechanical Rooms & Storage	New LED Fixture	1.61	2,103	23.65	3,115	3,875,343	130	3,245
4th District	Offices and Hallways	New LED Fixture	12.63	55,335	114.65	57,064	70,988,639	2,378	59,442
4th District	Garage	New LED Fixture	2.38	20,814	29.40	23,415	29,129,077	0	23,415
4th District	Mechanical Rooms & Storage	New LED Fixture	1.34	1,753	13.72	1,807	2,248,353	75	1,883
5th District	Offices and Hallways	New LED Fixture	9.95	29,041	78.97	29,949	37,256,449	1,248	31,197
5th District	Garage	New LED Fixture	1.61	2,103	14.64	2,169	2,698,023	0	2,169
5th District	Mechanical Rooms & Storage	New LED Fixture	1.45	1,893	14.82	1,952	2,428,221	81	2,033
5th District	Exterior	New LED Fixture	0.73	3,180	0.00	4,770	0	0	4,770
1st District	Front Entry Lights	New LED Fixture	0.35	3,084	3.41	2,717	0	0	2,717
3rd District	Exterior Door Lights	New LED Fixture	0.18	809	0.00	1,214	0	0	1,214

Interior Lighting Savings

Row Labels	Sum of Existing Total Fixture kW	Sum of Existing Total Fixture kWh	Sum of Total Annual Fixture kW Savings	Sum of Maintenance Savings	Sum of Total Retrofit Cost	Sum of Rebates	Sum of Heating Penalty (Btu)	Sum of Total kWh Savings
1st District	31.74	145,248	146.76	$1,456	$ 59,500.00	$3,675.68	88,071,243	75,967
2nd District	30.32	90,646	129.04	$842	$ 53,800.00	$2,344.88	58,340,946	48,355
3rd District	46.88	251,461	272.77	$3,692	$ 126,360.00	$7,506.14	185,243,762	156,066
4th District	33.44	160,189	157.77	$1,494	$ 60,300.00	$4,114.36	102,366,068	84,740
5th District	28.24	75,056	108.43	$759	$ 54,820.00	$1,941.96	42,382,693	40,168
Grand Total	**170.62**	**722,600**	**814.78**	**$8,243**	**$ 354,780.00**	**$19,583.02**	**476,404,713**	**405,296**

Exterior Lighting Savings

Row Labels	Sum of Proposed Total Fixture kW	Sum of Proposed Total Fixture kWh	Sum of Total Annual Fixture kW Savings	Sum of Total Annual Fixture kWh Savings	Sum of Maintenance Savings
3rd District	0.18	809.42	0.00	1,214.14	$71.18
5th District	0.73	3,179.88	0.00	4,769.82	$113.88
Grand Total	**0.91**	**3,989.30**	**0.00**	**5,983.96**	**$185.06**

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e. Energy Methodology

Water Savings Calculations

Facility	Fixture	Qty	Existing Flow	Units	Proposed Flow	Annual Usage	Usage Units	Baseline Adjustment	Annual Baseline Usage (Gal)	Annual Baseline Usage (ccf)	Annual Proposed Usage (Gal)	Savings (Gal)	Savings (ccf)
District 1	Lavatory	20	1	gpm	0.5	7,300	Minutes	-72%	40,880	55	20,440	20,440	27
District 1	Toilet	18	1.6	gpf	1.1	8,760	Flushes	-72%	70,641	94	48,565	22,075	30
District 1	Urinal	10	1	gpf	0.5	8,760	Flushes	-72%	24,528	33	12,264	12,264	16
District 1	Utility Sink	4	1	gpm	0.5	1,825	Minutes	-72%	2,044	3	1,022	1,022	1
District 1	Kitchen Sink	1	1	gpm	0.5	1,825	Minutes	-72%	511	1	256	256	0
District 1	Shower	13	2	gpm	1.25	10,950	Minutes	0%	284,700	381	177,938	106,763	143
District 2	Lavatory	21	1	gpm	0.5	7,300	Minutes	0%	153,300	205	76,650	76,650	102
District 2	Toilet	22	1.6	gpf	1.1	8,760	Flushes	0%	308,352	412	211,992	96,360	129
District 2	Urinal	7	1	gpf	0.5	8,760	Flushes	0%	61,320	82	30,660	30,660	41
District 2	Utility Sink	3	1	gpm	0.5	1,825	Minutes	0%	5,475	7	2,738	2,738	4
District 2	Kitchen Sink	1	1	gpm	0.5	1,825	Minutes	0%	1,825	2	913	913	1
District 2	Shower	4	2	gpm	1.25	10,950	Minutes	0%	87,600	117	54,750	32,850	44
District 3	Lavatory	32	1	gpm	0.5	7,300	Minutes	0%	233,600	312	116,800	116,800	156
District 3	Toilet	35	1.6	gpf	1.1	8,760	Flushes	0%	490,560	656	337,260	153,300	205
District 3	Urinal	7	1	gpf	0.5	8,760	Flushes	0%	61,320	82	30,660	30,660	41
District 3	Utility Sink	3	1	gpm	0.5	1,825	Minutes	0%	5,475	7	2,738	2,738	4
District 3	Kitchen Sink	3	1	gpm	0.5	1,825	Minutes	0%	5,475	7	2,738	2,738	4

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e. Energy Methodology

Facility	Fixture	Qty	Existing Flow	Units	Proposed Flow	Annual Usage	Usage Units	Baseline Adjustment	Annual Baseline Usage (Gal)	Annual Baseline Usage (ccf)	Annual Proposed Usage (Gal)	Savings (Gal)	Savings (ccf)
District 3	Shower	14	2	gpm	1.25	10,950	Minutes	0%	306,600	410	191,625	114,975	154
District 4	Lavatory	20	1	gpm	0.5	7,300	Minutes	0%	146,000	195	73,000	73,000	98
District 4	Toilet	18	1.6	gpf	1.1	8,760	Flushes	0%	252,288	337	173,448	78,840	105
District 4	Urinal	10	1	gpf	0.5	8,760	Flushes	0%	87,600	117	43,800	43,800	59
District 4	Utility Sink	3	1	gpm	0.5	1,825	Minutes	0%	5,475	7	2,738	2,738	4
District 4	Kitchen Sink	2	1	gpm	0.5	1,825	Minutes	0%	3,650	5	1,825	1,825	2
District 4	Shower	13	2	gpm	1.25	10,950	Minutes	0%	284,700	381	177,938	106,763	143
District 5	Lavatory	16	1	gpm	0.5	7,300	Minutes	-70%	35,040	47	17,520	17,520	23
District 5	Toilet	17	1.6	gpf	1.1	8,760	Flushes	-70%	71,482	96	49,144	22,338	30
District 5	Urinal	6	1	gpf	0.5	8,760	Flushes	-70%	15,768	21	7,884	7,884	11
District 5	Utility Sink	5	1	gpm	0.5	1,825	Minutes	-70%	2,738	4	1,369	1,369	2
District 5	Kitchen Sink	1	1	gpm	0.5	1,825	Minutes	-70%	548	1	274	274	0
District 5	Shower	10	2	gpm	1.25	10,950	Minutes	-70%	65,700	88	41,063	24,638	33
Total									**3,115,193**	**4,164**	**1,910,007**	**1,205,186**	**1,611**

Water Savings Calculations

Baseline Summary

Facility	Modeled Baseline (ccf)	Utility Baseline (ccf)	% error	sqft	Baseline cf/sqft
District 1	566	571	-1%	33,400	1.71
District 2	826	3,243	-293%	46,450	6.98
District 3	1,475	1,596	-8%	61,400	2.60
District 4	1,042	1,067	-2%	33,400	3.19
District 5	256	270	-6%	40,900	0.66

Savings Summary

Facility	Modeled Baseline (ccf)	Modeled Savings (ccf)	Savings %
District 1	566	218	38%
District 2	826	321	39%
District 3	1,475	563	38%
District 4	1,042	410	39%
District 5	256	99	39%

Renewable Energy

Solar Energy Rooftop Renderings

1st District



2nd District



Solar Energy Rooftop Renderings

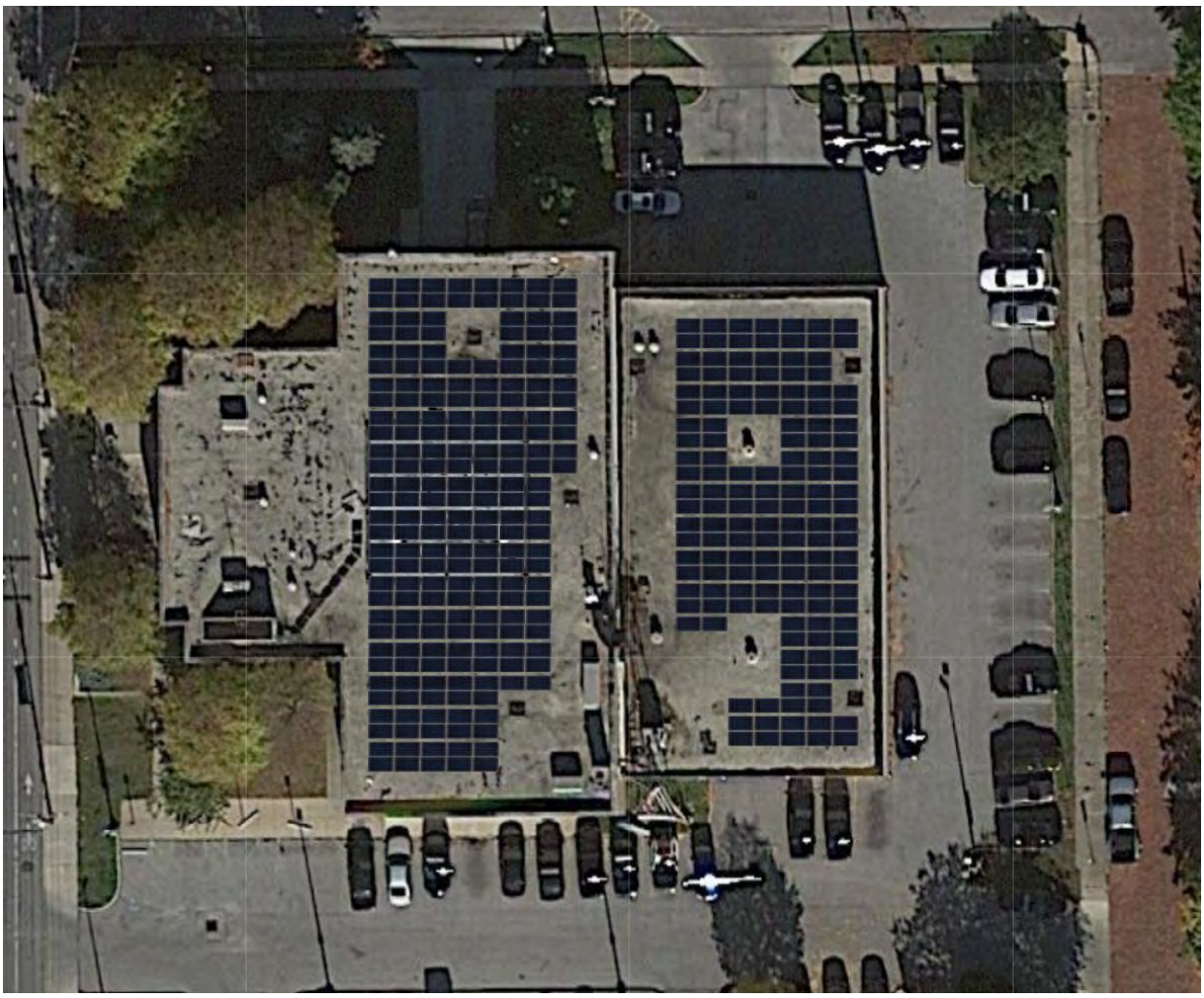
3rd District



4th District



5th District



Solar Array Production Summary

Facility	Array Capacity (kW)	Array Production (kWh/yr)
1st District	138	150,916
2nd District	124	134,830
3rd District	104	113,250
4th District	114	124,018
5th District	165	182,287

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e. Operations & Maintenance Savings Calculations

The City of Cleveland Division of Police provides a great deal of quality services to its citizens. In recent history, the Division of Police has spent over $236 million in the form of goods and operations to deliver services to the Cleveland population.

Leopardo spent a great deal of time with the Department of Finance as well as several other departments. It soon became clear the city does not have enough resources to effectively leverage its buying power and work on continuous improvement when it comes to procuring goods and services.

To better understand City operations and procedures, Leopardo worked with various departments and divisions to get a feel for the current procurement experience. The current processes and requirements for purchasing can be time consuming. Due to the lack of resources and quality tools, each department and division runs its own procurement to meet their needs. The purchasing and procurement tools lack automation and do not integrate with each other. Internal processes require a great deal of manual entry and actions to capture invoices and approvals.

Leopardo downloaded the 2024 budget from the City's financial software system. We examined and reviewed 85 budget line items and categorized each into spend categories and subcategories. The total cost and budget line items are summarized in the table below:

Object #	Object Name	Budgeted Amt	Total Budgetary Expenditures	Unobligated Budget Balance
5005	Full Time Permanent	$10,486,012.00	$10,989,615.47	($503,603.47)
5040	Military Leave	$100,000.00	$65,630.33	$34,369.67
5050	Part-Time Permanent	$457,942.00	$113,815.94	$344,126.06
5060	Student Trainees	$2,200,000.00	$3,040,387.77	($840,387.77)
5065	School Guards	$1,425,000.00	$857,699.22	$567,300.78
5070	Uniformed Personnel	$114,800,043.00	$102,225,834.96	$12,574,208.04
5075	Uniformed Overtime	$18,117,500.00	$26,919,283.24	($8,801,783.24)
5080	Longevity	$662,350.00	$627,350.00	$35,000.00
5083	Wage Settlements	$0.00	$368,194.58	($368,194.58)
5084	Vacation Conversion	$0.00	$2,893.71	($2,893.71)
5085	Separation Payments	$5,000,000.00	$5,653,105.17	($653,105.17)
5088	Bonus Incentive	$0.00	$446,561.00	($446,561.00)
5090	Overtime	$1,700,000.00	$2,736,485.15	($1,036,485.15)
5095	Deferred Overtime Payments	$600,000.00	$636,078.90	($36,078.90)
5110	Hospitalization	$18,841,556.00	$19,157,847.31	($316,291.31)
5112	Prescription	$4,771,549.00	$3,729,118.18	$1,042,430.82
5115	Dental	$864,139.00	$687,996.07	$176,142.93
5116	Vision Care	$154,492.00	$113,537.52	$40,954.48
5120	Public Employees Retire System	$1,947,726.00	$1,974,920.32	($27,194.32)
5125	Police & Firemen's Disab & Pens	$25,420,667.00	$24,865,046.90	$555,620.10
5131	FICA-Medicare	$2,162,148.00	$2,204,776.32	($42,628.32)
5140	Workers' Compensation	$2,967,691.00	$2,518,322.11	$449,368.89

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e. Operations & Maintenance Savings Calculations

Object #	Object Name	Budgeted Amt	Total Budgetary Expenditures	Unobligated Budget Balance
5150	Life Insurance	$83,636.00	$47,760.49	$35,875.51
5160	Unemployment Compensation	$60,000.00	$28,648.32	$31,351.68
5170	Clothing Allowance	$1,170,540.00	$608,243.41	$562,296.59
5175	Clothing Maintenance	$1,809,430.00	$967,320.87	$842,109.13
6210	Travel	$310,000.00	$195,011.27	$114,988.73
6220	Tuition & Registration Fees	$20,000.00	$76,533.23	($56,533.23)
6225	Other Training Supplies	$0.00	$4,670.18	($4,670.18)
6230	Professional Dues & Subscript	$10,000.00	$33,898.45	($23,898.45)
6231	Ohio Municipal League	$0.00	$0.00	$0.00
6300	Brokered Gas Supply	$26,588.00	$36,364.06	($9,776.06)
6314	Gas	$93,484.00	$27,738.10	$65,745.90
6315	Electricity - CPP	$1,147,771.00	$1,099,272.02	$48,498.98
6316	Electricity - Other	$72,751.00	$64,453.31	$8,297.69
6317	Steam	$70,774.00	$52,396.14	$18,377.86
6320	Professional Services	$2,651,880.00	$2,315,312.17	$336,567.83
6321	Court Reporter	$30,000.00	$18,972.16	$11,027.84
6322	Referee Services	$50,000.00	$7,805.45	$42,194.55
6326	Mileage (Private Auto)	$3,000.00	$350.80	$2,649.20
6331	Medical Services	$10,000.00	$0.00	$10,000.00
6340	Advertising And Public Notice	$12,000.00	$1,302.32	$10,697.68
6345	Parking In City Facilities	$120,000.00	$170,744.50	($50,744.50)
6360	Property Rental	$65,000.00	$65,656.64	($656.64)
6367	Towing	$250,000.00	$255,000.00	($5,000.00)
6380	Other Contractual	$100,000.00	$228,246.50	($128,246.50)
6397	Local Match-Grant Programs	$352,684.00	$466,398.97	($113,714.97)
6410	Office Supplies	$10,000.00	$9,690.58	$309.42
6411	Postage	$6,000.00	$1,330.55	$4,669.45
6414	Computer Hardware	$50,000.00	$4,219.19	$45,780.81
6415	Computer Software	$30,000.00	$0.00	$30,000.00
6420	Fuel	$75,000.00	$103,355.27	($28,355.27)
6440	Clothing	$285,000.00	$198,419.50	$86,580.50
6450	Hardware & Small Tools	$75,000.00	$4,397.16	$70,602.84
6455	Small Equipment	$31,200.00	$40,316.00	($9,116.00)
6456	Office Furniture & Equipment	$15,000.00	$51,420.16	($36,420.16)
6459	Ammunition	$250,000.00	$250,654.10	($654.10)
6460	Hygiene And Cleaning Supplies	$10,000.00	$40,000.00	($30,000.00)

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e. Operations & Maintenance Savings Calculations

Object #	Object Name	Budgeted Amt	Total Budgetary Expenditures	Unobligated Budget Balance
6469	Lumber, Glass, And Drywall	$2,000.00	$0.00	$2,000.00
6470	Medical Supplies	$8,000.00	$0.00	$8,000.00
6471	Food	$15,000.00	$3,675.42	$11,324.58
6472	Laboratory Supplies	$15,000.00	$1,816.40	$13,183.60
6473	Photographic Supplies	$40,000.00	$15,000.00	$25,000.00
6476	Printed Materials	$15,000.00	$11,517.75	$3,482.25
6480	Other Supplies	$110,000.00	$235,338.64	($125,338.64)
6495	Batteries	$1,000.00	$0.00	$1,000.00
6499	Just In Time Office Supplies	$55,000.00	$53,721.37	$1,278.63
6530	Misc Maintenance Supplies	$3,000.00	$0.00	$3,000.00
6610	Maintenance Office Equipment	$2,000.00	$0.00	$2,000.00
6612	Maintenance Contracts	$5,265,039.00	$4,962,142.99	$302,896.01
6616	Computer Software Maintenance	$0.00	$132,039.60	($132,039.60)
6620	Maintenance Machinery & Tools	$2,000.00	$0.00	$2,000.00
6634	Car Washes	$45,000.00	$11,480.00	$33,520.00
6650	Maintenance Misc. Equipment	$20,000.00	$15,000.00	$5,000.00
6660	Maintenance Building	$76,000.00	$67,895.37	$8,104.63
6661	Repair Of Overhead Doors	$24,000.00	$20,975.00	$3,025.00
6720	Judgements, Damages, & Claims	$0.00	$105,256.00	($105,256.00)
6730	Police Chief Expense Fund	$250,000.00	$143,685.87	$106,314.13
6802	Charges From Telephone Exch	$3,705,055.00	$3,319,410.67	$385,644.33
6807	Charges From Radio Comm System	$1,292,298.00	$1,109,130.46	$183,167.54
6830	Charges From Print & Repro	$512,890.00	$350,031.67	$162,858.33
6840	Charges From Central Storeroom	$140,309.00	$89,412.30	$50,896.70
6850	Charges From MVM	$3,123,903.00	$2,791,368.75	$332,534.25
6970	Other Equipment	$48,800.00	$36,000.00	$12,800.00
6985	Transfer To Capital Project	$91,400.00	$104,200.00	($12,800.00)
85		**$236,898,247.00**	**$230,989,500.30**	**$5,908,746.70**

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The Division of Purchases and Supplies is the central procurement office for the City of Cleveland. The mission of the Division is to procure quality commodities and services at the lowest possible cost and promptly. In accordance with the City Charter and Cleveland Codified Ordinances, the Division employs a range of methods to procure necessary items, including, but not limited to, competitive bidding, direct awards, and cooperative purchasing.

Leopardo met with several departments and divisions and has identified additional tools to compliment the City's procurement practices, which include the use of reverse auctions, consolidation with request for proposal and request for quotes, quality control management, vendor management and virtual card payment processing.

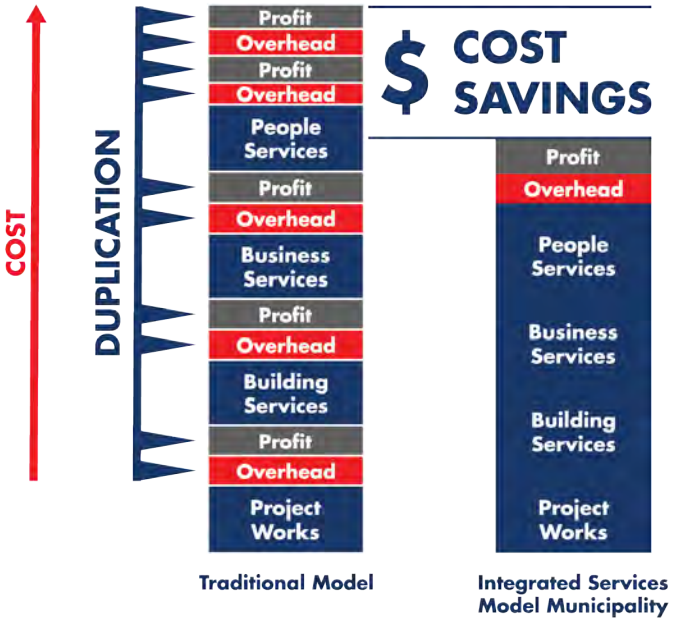
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PROCUREMENT SOLUTIONS

Throughout the investment grade audit (IGA) process we have focused on multiple approaches for procurement improvements and process changes. A major aspect of this is a movement toward providing the City with additional complimentary procurement methods. These are solutions that will match actual charges with contractual values to provide the Finance Department with the proper tools it needs.

A movement toward this procurement process will enable the city to leverage its buying power even more than it currently does. We are proposing a shift in the procurement process that fosters even more collaboration between each department, where possible. The graphic below illustrates the amount of savings that can be obtained with this process:



Additional benefits of these procurement solutions include even more control over the choice of suppliers, the specifications of the goods and services purchased, and the prices paid for products and services. It also provides the city additional savings for each department. Suppliers will be more willing to offer savings or specials because Cleveland's volume of needs provides a steady stream of larger orders.

The tables on the following pages show how we arrived at the savings numbers. During our preliminary analysis, we have examined the vendors listed above across several spend categories. This preliminary analysis is just the starting point for the Procurement Savings, as we move forward, we will continue to analyze vendors and categories for more savings opportunities.

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Leopardo and its partners have provided a solution to streamline procurement, saving the Cleveland Division of Police at least **$1,474,093** per year through the use of additional procurement practices. We have identified four specific approaches to generate savings and revenue related to procurement: reverse auctions, consolidation with RFP, quality control management, and revenue generation with electronic payment.

Reverse Auction

With procurement and sourcing, eSourcing is one of the most important solutions today. The goal with sourcing is to get quality products at a lower price to help save money while maintaining solid relationships with your suppliers. Using eAuction software has essentially become a must to streamline the procurement and sourcing process, and a reverse auction has become a popular way of sourcing products at lower costs.

In a regular auction, buyers bid on their supplier's goods and services, but a reverse auction is the exact opposite. In a reverse auction, the buyer puts up a request through the vendor management portal, and then suppliers compete against each other to sell you that good or service. Then, the buyer selects the winning bid.

Reverse auctions generate cost savings that, ultimately, lead to better business outcomes across the enterprise. This applies to organizations of all sorts and sizes; the U.S. General Services Administration reported resultant savings of 12-48% from using reverse auctions. Reverse auctions reduce purchasing costs, enhance the procurement process, and increase efficiency in the market.

There are many benefits of reverse auctions, and they can generate significant cost savings.

Increased Supplier Competition:
Reverse auction software provides many controls to create unique bidding strategies. This creates a higher sense of competition between the participating suppliers. Rank only or Lead Bid visibility are an example of the controls available for use to ensure participating suppliers provide their best possible price to win your business.

Increased Transparency:
To conduct an effective reverse auction, it is imperative to have clear and concise participation instructions as well as detailed specifications of the product/service you are looking to procure. This strategy ensures that all participating suppliers have the same information and are aligned on the procurement requirement. Since all this information is stored and disseminated via an online platform to all participating suppliers, there is consistency in communication.

Increased Cost Savings:
Reverse auctions when used appropriately and for the appropriate spend category can generate significant cost savings up to 40%. Reverse auctions are most suitable for your indirect spend categories such as Chemicals, Facility Maintenance, Fleet Fuel, Fleet Maintenance, Operating Supplies, Utilities, etc.

Increased Speed of Delivery
Given the current market conditions, pricing is changing faster than ever before. Most vendors won't hold their pricing for more than 30 days. This means by the time the City uses the existing process of selecting a vendor and

approving a contract, the pricing has already increased. The reverse auction process will significantly decrease the time to procure competitive pricing.

The Reverse Auction Process: The First Five Steps

- ✓ **Study the marketplace.** You want to be aware of the market before you set expectations.
- ✓ **Be clear about your requirements.** You can't build solid relationships with suppliers if you're unclear.
- ✓ **Similarly, set up supplier expectations—**ensure they know the auction rules and do's and don'ts. No one likes surprises, so make sure everyone is on the same page before you start.
- ✓ **Never skip auctions.** You may be very comfortable with a supplier, but that doesn't mean there isn't a better supplier out there for your needs.
- ✓ **Emphasize the pros of a reverse auction.** A benefit for suppliers is that reverse auctions to allow them to evaluate current markets.

Consolidation with Request for Proposals (RFP) and Request for Quotes (RFQ)

There are many benefits to "shortlisting" the vendors and suppliers for each category of items or services provided to the City. This approach benefits the City by reducing the numbers of vendors in its system and creating an environment of cost tracking that is more manageable. Working with less vendors for the same materials and services will also lead to consistent pricing and quality service. This approach benefits the vendors by providing a higher volume and steady stream of business which provides them the opportunity to pass on more attractive pricing to the city.

Leopardo will work with the Finance Department and the specific departments to understand each need for goods and services and develop the best structure for the RFP or RFQ that provides a quality result at a competitive price. If there's a preference to use certain local vendors, Leopardo can work with the city on tailoring the RFP and RFQ templates to meet these requests.

Quality Control Management

We often find prices paid do not match prices previously negotiated in contracts. Additionally, vendors may have terms in their contracts that allow them to adjust pricing under certain circumstances. This solution includes matching actual expenditures to contractual rates to make sure you are not over-paying. We will also help you establish contractual terms to protect you from unnecessary adjustments. An exercise of measurement and verification comparing baseline expenditures, newly contractual rates, and actual expenditures will provide you with the assurance that you are getting fair pricing and achieving savings. The efforts and benefits of this procurement solution include:

- ✓ Spend Management
- ✓ Vendor Negotiation
- ✓ Contract Evaluation and Management
- ✓ Category Management
- ✓ Procurement Analytics
- ✓ Transparency of Spends

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- ✓ Method of Measurement
- ✓ Savings Tracking
- ✓ Advanced Reporting

Vendor Management

We work with a nation-wide network of vendors to leverage partner-channel pricing for equipment and materials. However, this doesn't mean the City must forfeit all existing relationships with local or trusted vendors. In many cases, we work with the existing vendors to negotiate more cost-efficient contracts or select lower-cost equipment and materials that won't compromise on level of service or quality. During the procurement process, we will obtain letters of authorization to contact and negotiate with vendors on the City's behalf. In some cases, there will still be opportunities to bring in a lower-cost vendor for the same level of service. Leopardo will present these opportunities to the city during the procurement process.

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Procurement Savings Summary

The table below illustrates the savings projections of implementing these measures across multiple categories.

Object #	Object Name	Budgeted Amt	Total Savings
5005	Full Time Permanent	$10,486,012.00	$0.00
5040	Military Leave	$100,000.00	$0.00
5050	Part-Time Permanent	$457,942.00	$0.00
5060	Student Trainees	$2,200,000.00	$0.00
5065	School Guards	$1,425,000.00	$0.00
5070	Uniformed Personnel	$114,800,043.00	$0.00
5075	Uniformed Overtime	$18,117,500.00	$0.00
5080	Longevity	$662,350.00	$0.00
5083	Wage Settlements	$0.00	$0.00
5084	Vacation Conversion	$0.00	$0.00
5085	Separation Payments	$5,000,000.00	$0.00
5088	Bonus Incentive	$0.00	$0.00
5090	Overtime	$1,700,000.00	$0.00
5095	Deferred Overtime Payments	$600,000.00	$0.00
5110	Hospitalization	$18,841,556.00	$0.00
5112	Prescription	$4,771,549.00	$0.00
5115	Dental	$864,139.00	$0.00
5116	Vision Care	$154,492.00	$0.00
5120	Public Employees Retire System	$1,947,726.00	$0.00
5125	Police & Firemen's Disab & Pens	$25,420,667.00	$0.00
5131	FICA-Medicare	$2,162,148.00	$0.00
5140	Workers' Compensation	$2,967,691.00	$0.00
5150	Life Insurance	$83,636.00	$0.00
5160	Unemployment Compensation	$60,000.00	$0.00
5170	Clothing Allowance	$1,170,540.00	$0.00
5175	Clothing Maintenance	$1,809,430.00	$0.00
6210	Travel	$310,000.00	$0.00
6220	Tuition & Registration Fees	$20,000.00	$0.00
6225	Other Training Supplies	$0.00	$0.00
6230	Professional Dues & Subscript	$10,000.00	$0.00
6231	Ohio Municipal League	$0.00	$0.00
6300	Brokered Gas Supply	$26,588.00	$0.00
6314	Gas	$93,484.00	$0.00
6315	Electricity - CPP	$1,147,771.00	$0.00
6316	Electricity - Other	$72,751.00	$0.00
6317	Steam	$70,774.00	$0.00
6320	Professional Services	$2,651,880.00	$258,697.93
6321	Court Reporter	$30,000.00	$0.00
6322	Referee Services	$50,000.00	$0.00
6326	Mileage (Private Auto)	$3,000.00	$0.00
6331	Medical Services	$10,000.00	$0.00
6340	Advertising And Public Notice	$12,000.00	$0.00
6345	Parking In City Facilities	$120,000.00	$0.00
6360	Property Rental	$65,000.00	$0.00
6367	Towing	$250,000.00	$0.00
6380	Other Contractual	$100,000.00	$0.00
6397	Local Match-Grant Programs	$352,684.00	$0.00
6410	Office Supplies	$10,000.00	$491.88
6411	Postage	$6,000.00	$2,554.65
6414	Computer Hardware	$50,000.00	$0.00

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Object #	Object Name	Budgeted Amt	Total Savings
6415	Computer Software	$30,000.00	$0.00
6420	Fuel	$75,000.00	$0.00
6440	Clothing	$285,000.00	$53,205.29
6450	Hardware & Small Tools	$75,000.00	$38,098.43
6455	Small Equipment	$31,200.00	$0.00
6456	Office Furniture & Equipment	$15,000.00	$0.00
6459	Ammunition	$250,000.00	$0.00
6460	Hygiene And Cleaning Supplies	$10,000.00	$0.00
6469	Lumber, Glass, And Drywall	$2,000.00	$0.00
6470	Medical Supplies	$8,000.00	$0.00
6471	Food	$15,000.00	$0.00
6472	Laboratory Supplies	$15,000.00	$0.00
6473	Photographic Supplies	$40,000.00	$0.00
6476	Printed Materials	$15,000.00	$0.00
6480	Other Supplies	$110,000.00	$0.00
6495	Batteries	$1,000.00	$0.00
6499	Just In Time Office Supplies	$55,000.00	$2,492.09
6530	Misc. Maintenance Supplies	$3,000.00	$1,612.58
6610	Maintenance Office Equipment	$2,000.00	$0.00
6612	Maintenance Contracts	$5,265,039.00	$329,519.78
6616	Computer Software Maintenance	$0.00	$0.00
6620	Maintenance Machinery & Tools	$2,000.00	$0.00
6634	Car Washes	$45,000.00	$0.00
6650	Maintenance Misc. Equipment	$20,000.00	$3,191.56
6660	Maintenance Building	$76,000.00	$0.00
6661	Repair Of Overhead Doors	$24,000.00	$0.00
6720	Judgements, Damages, & Claims	$0.00	$0.00
6730	Police Chief Expense Fund	$250,000.00	$0.00
6802	Charges from Telephone Exchange	$3,705,055.00	$318,810.94
6807	Charges From Radio Comm System	$1,292,298.00	$0.00
6830	Charges From Print & Repro	$512,890.00	$184,805.06
6840	Charges From Central Storeroom	$140,309.00	$0.00
6850	Charges From MVM	$3,123,903.00	$272,523.09
6970	Other Equipment	$48,800.00	$8,089.77
6985	Transfer To Capital Project	$91,400.00	$0.00
85		**$236,898,247.00**	**$1,474,093.05**

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e. Operations & Maintenance Savings Calculations

FACILITY MAINTENANCE

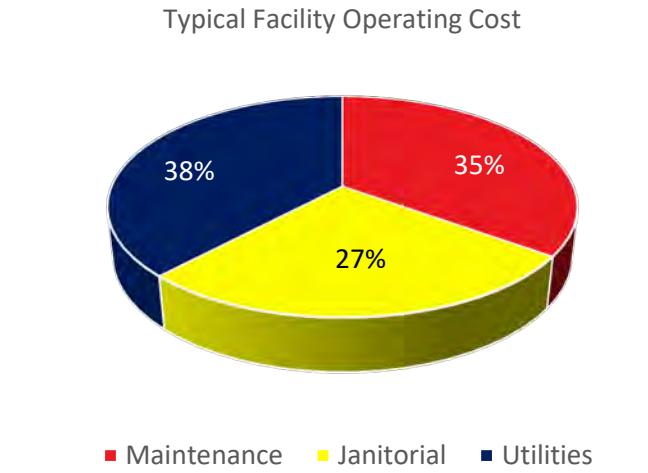
In 2024, the City spent $5,364,039 in maintenance services, parts and supplies. A significant portion of that cost is spent on exterior maintenance and HVAC repairs. This IGA Proposal includes replacement and upgrades to HVAC equipment therefore eliminating deferred and reactive maintenance, thus creating opportunities to leverage maintenance savings for capital improvement measures.

In a time of tightening budgets, being asked to do more with less is a common theme for municipalities across the country. Leopardo's Capital Creation Strategies ensures facility upkeep without sacrificing budget. Given Cleveland's size, the City knows it cannot afford to fall behind on facility upkeep. Using our Capital Creation Program, Cleveland can leverage existing maintenance spending to take a more proactive approach to address aging equipment and facilities.

We build a long-range master plan and never spend money or implement projects before the end of our equipment's useful life. At the same time, we do not wait for inevitable system failures that may have catastrophic consequences. In this IGA proposal Leopardo has identified HVAC upgrades, and building envelope upgrades at all five police districts.

Benefits of replacing equipment at the end of its useful life include:

- Minimize inefficient use of staff resources who are always in reactive mode
- Minimizes operational expenses and equipment downtime
- Lengthens the useful life of equipment
- Eliminates costs associated with equipment failure
- Avoids the challenges associated with facility maintenance staff retention and turnover
- Reduces deferred maintenance backlogs
- Avoids recurrent crises due to equipment failures
- Decreased cost due to unplanned downtime of equipment
- Decreased labor cost, especially if overtime is needed Eliminate/reduce cost involved with repair or replacement of equipment
- Minimize possible secondary equipment or process damage from equipment failure



Maintenance cost account for almost as large a percentage of a facility's operating budget as energy expenses.

The following facilities are included in the Leopardo program for various asset replacements

- 1st Police District
- 2nd Police District
- 3rd Police District
- 4th Police District
- 5th Police District

The following table is an estimate of maintenance savings by applying the developed scope of work in this program:

Total Budgeted Maintenance Cost	Estimated Savings
$5,364,039	**$222,809**

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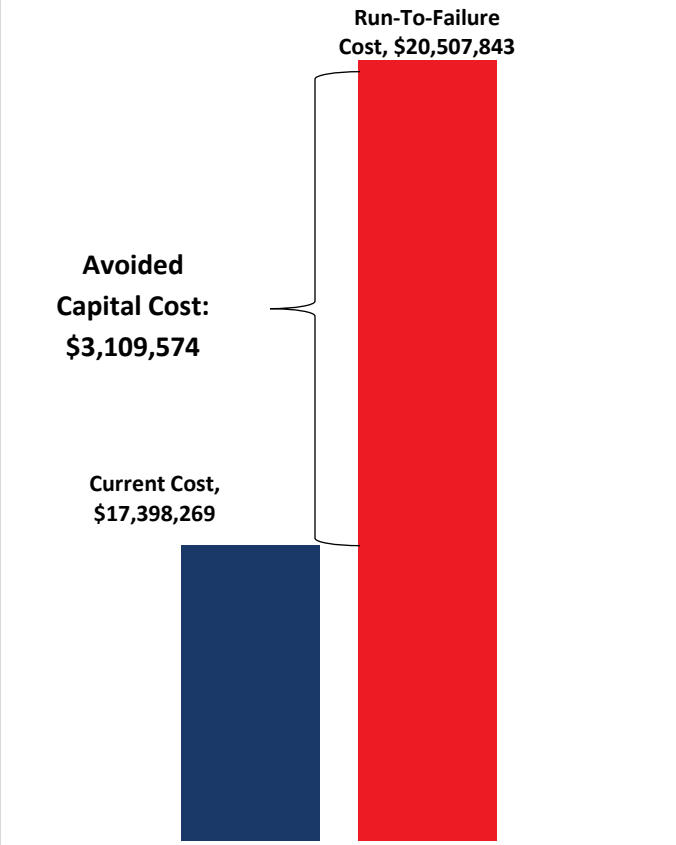
AVOIDED CAPTIONAL COST

During the investment grade audit, Leopardo has identified over $17M of facility assets at the police districts either near or past their useful lives.

By addressing these needs now instead of waiting until they fail, the city will realize an avoided capital cost savings. If the city decides to wait until these assets fail, it will pay a premium to replace these assets on an emergency basis. This emergency replacement cost is in addition to the increasing maintenance costs each year until failure and the general cost of inflation of waiting to replace the asset until the future.

Upon evaluation of all city assets at risk of failure, Leopardo predicts most, if not all will experience significant failures within 7 years. The table below shows the assumptions used for the capital cost avoidance calculation:

Cost of Investment:	**$17,398,269**
Period of Years:	**7**
Rate of Delay:	**5.0%**
Inflation:	**3.0%**



Where:
Period of Years – The estimated time to catastrophic failure
Rate of Delay – The premium costs associated with emergency repairs and increased maintenance
Inflation – The rate of cost increases for future replacement

The table below show the total avoided capital costs, and the savings realized over the 7-year period:

Total Avoided Capital Cost:	**$3,109,574**
Annual Avoided Capital Cost Over 7 Years:	**$444,225**

By utilizing a preventative maintenance approach and addressing the at-risk assets now, the city will realize significant savings in avoided capital cost in the future.