Calculations

Virginia Tech

Virginia Tech Project Code WO# 26-819490
Forestry Research Operations Center

CN Project No. 11053

October 23, 2026

CLARKNEXSEN
A JMT Company

213 South Jefferson, Suite 1011
Roanoke, VA 2401

Architectural Calculations

Computations

Title Plumbing fixture calculations

Date 260812 Computed By NK

Comm. No. 11053 Checked By JS

Project VT Forest Harvesting Lab Sheet No. 1 of 2 sheets

VT FOREST HARVEST REPLACEMENT BUILDING

OCCUPANCY CALCULATIONS:

- Business: $\frac{417}{150} = 2.78 \approx 3$ occupants
- FACTORY-1: $\frac{1240}{100} = 12.4 \approx 13$ occupants
- STORAGE-1: $\frac{1863}{300} = 6.21 \approx 7$ occupants

21.39 23 occupants

PLUMBING FIXTURE COUNTS:

Water Closets:
- Business = 1 per 25 for first 50
  2.78/25 = 0.1112
- Factory = 1 per 100
  12.4/100 = 0.124
- Storage = 1 per 100
  6.21/100 = 0.0621

0.1112
0.124
+0.0621
0.2973

LAVATORIES:
- Business = 1 per 40 for first 80
  2.78/40 = 0.0695
- Factory = 1 per 100
  12.4/100 = 0.124
- Storage = 1 per 100
  6.21/100 = 0.0621

0.0695
0.1240
+0.0621
0.2556

Computations

Title Plumbing fixture calculations

Date 260812 Computed By NK

Comm. No. 11053 Checked By JS

Project VT Forest Harvesting Lab Sheet No. 2 of 2 sheets

DRINKING FOUNTAINS:

- BUSINESS - 1 per 100 = 2.78/100 = 0.0278
- FACTORY - 1 per 400 = 12.4/400 = 0.031
- STORAGE - 1 per 1,000 = 6.21/1,000 = 0.00621

+ 0.06501

ALLOWABLE AREA FACTOR:

B = 23,000 NS TYPE IIB

F-1 = 15,500 NS TYPE IIB

S-1 = 17,500 NS TYPE IIB

ALLOWABLE HEIGHT:

B, F, S = 55 NS TYPE IIB

Plumbing Calculations

Building WSFU DFU Demand Calculation - IPC Derived

Client:	ClarkNexen
Project Number:	25153.1
Project:	VT Timber Harvesting Lab
Design Phase:	WD
Designer:	TBG
Reviewer:	JN
Date:	10/28/2026

Fixture Type	Use Profile	Quantity	Domestic Load Values (WSFU)			Drainage Values (DFU)	Comments
			Cold	Hot	Total		
Bathroom Group - Flush Tank	Private						
Bathroom Group - Flushometer	Private						
Bathtub	Private						
Bathtub	Public						
Bidet	Private						
Combination Fixture	Private						
Dishwashing Machine	Private						
Drinking Fountain	Public						
Kitchen Sink	Private						
Kitchen Sink	Public	1	3	3	4	2	
Pantry or Bar Sink	Public						
Laundry Tray	Private						
Cuspidor	Public						
Lavatory	Private						
Lavatory	Public	2	3	3	4	2	
Wash Sink (per Faucet)	Public						
Service Sink	Public	1	2.25	2.25	3	2	
Shower Head	Private						
Shower Head	Public	1	3	3	4	2	
Urinal - 3/4" Flushometer	Public						
Urinal - Waterless	Public						
Urinal - 1" Flushometer	Public						
Urinal - Flush Tank	Public						
Washing Machine (Residential)	Private						
Washing Machine (8 lb)	Public						
Washing Machine (15 lb)	Public						
Water Closet - Flushometer	Private						
Water Closet - Flush Tank	Private						
Water Closet - Pressure Tank	Private						
Water Closet - Flushometer	Public	2	20	0	20	8	
Water Closet - Flush Tank	Public						
Water Closet - Pressure Tank	Public						
Emergency Floor Drain	Drainage	8				0	
Floor Drain	Drainage	2				4	
Drainage Fixture - 2" Trap	Drainage						
Drainage Fixture - 3" Trap	Drainage						
Drainage Fixture - 4" Trap	Drainage						

Undefined Program Fixture Unit Assumptions	Wet Stacks					
	Amenity					
	Retail					
	Foodservice					
	Future					

Building WSFU DFU Demand Calculation - IPC Derived

Client:	ClarkNexen
Project Number:	25153.1
Project:	VT Timber Harvesting Lab
Design Phase:	WD
Designer:	TBG
Reviewer:	JN
Date:	10/28/2026

Building Use Type (DHW Curve):	IPC Derived
Predominate Flushing Method:	Flushometer
Domestic Service Water Temp:	40 °F

Design Totals - Fixture Units		31.25	11.25	35	20	
GPM Conversion		42.8	16.0	44.0	10.0	
Flow Based Domestic Demand	Hose Bibbs	20		20		5 GPM per hose bib
	Irrigation					
	Mechanical					
	Pool					
	Misc					
Design Domestic GPM Demand Totals		62.8	16.0	64.0		

Domestic Service Pipe Size (L Copper)	2	Sanitary Service Lateral Pipe Size	3
Domestic Service Flow Velocity (fps)	6.63	Sanitary Service Lateral Pipe Slope	1.0%
Domestic Service Pressure Drop (ft/100')	8.13	Quantity of Sanitary Service Laterals	1

Water Heater Calculation - Average Hourly Demand Method

Client:	Clark Nexen
Project Number:	25153.1
Project:	VT Timber Harvesting Lab
Design Phase:	WD
Designer:	TBG
Reviewer:	JN
Date:	10/27/2026

Building Type:	Office Building			
Incoming Water Temperature:	40	°F	Electric	Water Heater Source
Storage Water Temperature:	140	°F		Combustion Efficiency (Fuel Gas Only)

Fixture Type	Fixture Qty	Fixture Demand GPH	Adjusted Fixture Demand	Line Total Demand GPH	Comments / Notes
Basin, private lavatory		2		0	
Basin, public lavatory	2	6		12	adjusted for .5 gpm rather than 2 gpm
Bathtub		0		0	
Dishwasher		0		0	adjust for fixture to be utilized
Foot basin		0		0	
Kitchen sink	1	20		20	
Laundry, stationary tub		0		0	
Pantry sink		10		0	
Shower	4	30		120	updated for emergency shower of 30gpm for 15 minues
Service sink	1	20		20	
Hydrotherapeutic shower		0		0	
Hubbard bath		0		0	
Leg bath		0		0	
Arm bath		0		0	
Sitz bath		0		0	
Continuous-flow bath		0		0	
Circular wash sink		20		0	
Semi-circular wash sink		10		0	

Design Capacities				Comments / Notes
Possible Maximum Hourly Demand		**172**	**gph**	
Probable Maximum Demand	Demand Factor	0.3		
	Design Demand	**52**	**gph**	
Design Water Heater Storage	Storage Factor	2		
	Design Storage	**104**	**gal**	
Estimated First Hour Gallons:		**125**	**gal**	
Temperature Rise:		**100**	**°F**	
Input Energy Capacity Required:		**12.7**	**kW**	
Electrical Voltage Required:		**208V-3Ø-60Hz**		120V-1Ø-60Hz if Gas Fired, confirm w/ Electrical

Basis of Design Water Heater Selection			Comments / Notes
Manufacturer	Bradford White		
Model	CEHD120(A)(kW)3CF		
Input Energy Rating	24	kW	
Equipment Voltage	**208V-3Ø-60Hz**		
Storage Volume	119	gal	
Demand Rating	99	gph	
Temperature Rise	100	°F	

Save copy of Basis of Design Water Heater Selections in this folder and in equipment folder

Sand & Oil Interceptor Calculator

Client:	**ClarkNexen**
Project Number:	**25153.1**
Project:	**VT Timber Harvesting Lab**
Design Phase:	**WD**
Designer:	**TBG**
Reviewer:	**JN**
Date:	**10/28/2026**

Sand / Oil Interceptor Sizing - Flow Based Inputs			Comments / Notes
Storm Drainage Area to Basin		sq. ft.	Surface area drained through interceptor
Rainfall Rate		in. / hr.	Design rainfall rate through interceptor
		gpm	Total storm flow rate through interceptor
Subsurface Dewatering Flow Rate		gpm	Based on Geotech report
Elevator Sump Pump Flow Rate		gpm	Based on largest operating ESP pump only
Condensate Flow Rate		gpm	Confirm with mechanical
Garage Drain Flow Rate		gpm	Typically 50 gpm for incidental flow
Additional Flows to Basin		gpm	Include hose bibbs and other potenital inflow sources
Total Interceptor Flow Rate	**0**	**gpm**	

Oil Interceptor Sizing - Transformer Vault			Comments / Notes
Largest Transformer Oil Volume		gallons	
Interceptor Minimum Storage Capacity		**cu. ft.**	
		gallons	

Oil Interceptor Sizing - Vehicle Service Areas (2021 IPC 1003.4.2.2)			Comments / Notes
Service Area	1200.00	sq. ft.	
Interceptor Minimum Storage Capacity	**17**	**cu. ft.**	
	128	**gallons**	

Sand & Oil Interceptor Calculator

Client:	ClarkNexen
Project Number:	25153.1
Project:	VT Timber Harvesting Lab
Design Phase:	WD
Designer:	TBG
Reviewer:	JN
Date:	10/28/2026

Basis of Design Sand / Oil Interceptor Selection			Comments / Notes
Equipment Tag			
Manufacturer			
Model			
Maximum Flow Rate		gpm	
Total Storage Capacity		gallons	
Oil Storage Capacity		gallons	
Sand Storage Capacity		gallons	

Save copy of Basis of Design Pump and Basin Selections in this folder and in equipment folder

Mechanical Calculations

Location	
Building owner	
Program user	
Company	
Comments	

By	**2RW**
Dataset name	**C:\Users\ZacharyD\Desktop\Trace 700 Files\VTTIMBERLAB.TRC**
Calculation time	**09:28 AM on 10/28/2026**
TRACE® 700 version	**6.3.5**

Location	**Roanoke, Virginia**	
Latitude	**37.0**	**deg**
Longitude	**80.0**	**deg**
Time Zone	**5**	
Elevation	**1,174**	**ft**
Barometric pressure	**28.6**	**in. Hg**
Air density	**0.0727**	**lb/cu ft**
Air specific heat	**0.2444**	**Btu/lb·°F**
Density-specific heat product	**1.0659**	**Btu/h·cfm·°F**
Latent heat factor	**4,691.8**	**Btu·min/h·cu ft**
Enthalpy factor	**4.3604**	**lb·min/hr·cu ft**
Summer design dry bulb	**91.0**	**°F**
Summer design wet bulb	**74.0**	**°F**
Winter design dry bulb	**10.0**	**°F**
Summer clearness number	**0.95**	
Winter clearness number	**0.95**	
Summer ground reflectance	**0.20**	
Winter ground reflectance	**0.20**	
Carbon Dioxide Level	**400**	**ppm**

Design simulation period	**January - December**
Cooling load methodology	**TETD-TA1**
Heating load methodology	**UATD**

Entered Values

TRACE® 700 version 6.3.5

By 2RW

Project Name: 25153
Dataset Name: C:\Users\ZacharyD\Desktop\Trace 700 Files\VTTIMBERLAB.TRC
Location:
Building Owner:
Program User:
Company:
Comments:

Cooling Design Period:	January thru December
Peak Hour Override:	0
Daylight Savings Period:	
Summer Period:	
Cooling Methodology:	TETD-TA1
Heating Methodology:	UATD
Infiltration Methodology:	Vary with wind speed
Outside Film Methodology:	Vary with wind speed
Terrain Methodology:	Center of a large city
Room Circ Rate:	Medium
Wall Load To Plenum:	YES
Building Orientation:	240 degrees from north

Location:	Roanoke, Virginia	
Summer Design Dry Bulb:	91.00	°F
Summer Design Wet Bulb:	74.00	°F
Winter Design Dry Bulb:	10.00	°F
Summer Clearness Number:	0.95	
Winter Clearness Number:	0.95	
Summer Ground Reflectance:	0.20	
Winter Ground Reflectance:	0.20	
Carbon Dioxide Level:	400	ppm

Force VAV Min => Nominal Ventilation at Design:	No
Allow Energy Recovery/Transfer at Design:	No
Retest Design Peaks:	Yes
Calculate Building Block Loads:	No

ENTERED VALUES
ROOM BY ROOM
By 2RW

Room Description: 102 Open Workspace **Zone Description: No Zone** **System Description: BAY**

GENERAL INFORMATION

Floor Area: 736 ft² Flr-Flr Height: 18.5 ft
Plenum Height: 0.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 85.0 °F / 85.0 °F
Design Htg DB / Drift Point: 65.0 °F / 64.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: None
# of People: 0 sq ft/person
People Sensible: 250 Btu/h
People Latent : 250 Btu/h
People Schedule: Cooling Only (Design)

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: Recessed fluorescent, not vented, 80% load to space
Fixture Type: RECFL-NV
% Load to RA: 20 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 0.530 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	60.00 cfm	60.00 cfm
Vent Schedule:	Available (100%)	
Infil Type:	Neutral, Tight Const.	Neutral, Tight Const.
Infil Value:	1.50 air changes/hr	1.50 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	701 ft²	180	71	90.1-13 Min Roof Nonres	0.0520	0.70		0			Overhang - None	None					
Roof - 2	96 ft²	0	71	90.1-13 Min Roof Nonres	0.0520	0.70		0			Overhang - None	None					
Wall - S	507 ft²	180	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Window			90.1-2013 Window	72	0.52	0.32	Overhang - None	None	0.00				
PW	179 ft²			90.1-07 Min Wall Semi	0.0770								Constant	72	65		
Floor - 1																27	0.80

ENTERED VALUES
ROOM BY ROOM
By 2RW

Room Description: 103 Vehicle Bays **Zone Description: No Zone** **System Description: BAY**

GENERAL INFORMATION

Floor Area: 1,710 ft² Flr-Flr Height: 18.5 ft
Plenum Height: 0.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 85.0 °F / 85.0 °F
Design Htg DB / Drift Point: 65.0 °F / 64.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: None
# of People: 0 sq ft/person
People Sensible: 250 Btu/h
People Latent : 250 Btu/h
People Schedule: Cooling Only (Design)

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: Recessed fluorescent, not vented, 80% load to space
Fixture Type: RECFL-NV
% Load to RA: 20 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 0.530 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	0.00 cfm	0.00 cfm
Vent Schedule:	Available (100%)	
Infil Type:	Neutral, Average Const.	Neutral, Average Const.
Infil Value:	0.60 air changes/hr	0.60 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
PN	944 ft²	0	71	90.1-13 Min Roof Nonres	0.0520	0.70		0			Overhang - None	None					
PS	944 ft²	180	71	90.1-13 Min Roof Nonres	0.0520	0.70		0			Overhang - None	None					
Wall - N	703 ft²	0	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Door			90.1-13 Min	21	0.00	0.37	Overhang - None	None	0.00				
Opening - 2				Door			90.1-13 Min	172	0.00	0.50	Overhang - None	None	0.00				
Wall - E	1,050 ft²	90	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Window			90.1-2013 Window	54	0.52	0.32	Overhang - None	None	0.00				
Wall - S	703 ft²	180	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Door			90.1-13 Min	123	0.00	0.50	Overhang - None	None	0.00				
Opening - 2				Door			90.1-13 Min	172	0.00	0.50	Overhang - None	None	0.00				
Opening - 3				Door			90.1-13 Min	21	0.00	0.37	Overhang - None	None	0.00				
Floor - 1																122	0.80

ENTERED VALUES
ROOM BY ROOM
By 2RW

Room Description: 104 Machine Shop **Zone Description: No Zone** **System Description: BAY**

GENERAL INFORMATION

Floor Area: 510 ft² Flr-Flr Height: 22.3 ft
Plenum Height: 0.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 85.0 °F / 85.0 °F
Design Htg DB / Drift Point: 65.0 °F / 64.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: None
# of People: 11 People
People Sensible: 250 Btu/h
People Latent : 250 Btu/h
People Schedule: Cooling Only (Design)

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: Recessed fluorescent, not vented, 80% load to space
Fixture Type: RECFL-NV
% Load to RA: 20 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 0.530 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	260.00 cfm	260.00 cfm
Vent Schedule:	Available (100%)	
Infil Type:	Neutral, Tight Const.	Neutral, Tight Const.
Infil Value:	1.50 air changes/hr	1.50 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	561 ft²	0	71	90.1-13 Min Roof Nonres	0.0322	0.70		0			Overhang - None	None					
Wall - N	472 ft²	0	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Window			90.1-2013 Window	72	0.52	0.32	Overhang - None	None	0.00				
Floor - 1																26	0.80

ENTERED VALUES
ROOM BY ROOM
By 2RW

Room Description: Space Above Office/Toilets/Entry **Zone Description: No Zone** **System Description: BAY**

GENERAL INFORMATION

Floor Area: 510 ft² Flr-Flr Height: 8.5 ft
Plenum Height: 0.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 85.0 °F / 85.0 °F
Design Htg DB / Drift Point: 65.0 °F / 64.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: None
# of People: 0 sq ft/person
People Sensible: 250 Btu/h
People Latent : 250 Btu/h
People Schedule: Cooling Only (Design)

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: Recessed fluorescent, not vented, 80% load to space
Fixture Type: RECFL-NV
% Load to RA: 20 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 0.530 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	0.00 cfm	0.00 cfm
Vent Schedule:	Available (100%)	
Infil Type:	Neutral, Tight Const.	Neutral, Tight Const.
Infil Value:	1.50 air changes/hr	1.50 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Roof - 1	344 ft²	0	71	90.1-13 Min Roof Nonres	0.0520	0.70		0			Overhang - None	None					
Roof - 2	284 ft²	180	71	90.1-13 Min Roof Nonres	0.0520	0.70		0			Overhang - None	None					
Wall - N	108 ft²	0	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Wall - W	576 ft²	270	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Window			90.1-2013 Window	105	0.46	0.32	Overhang - None	None	0.00				
Wall - S	98 ft²	180	0	90.1-13 Min Wall Nonres	0.0770	0.90											

ENTERED VALUES
ROOM BY ROOM
By 2RW

Room Description: 105 Utility | **Zone Description: No Zone** | **System Description: ELECTRIC UNIT HEAT**

GENERAL INFORMATION

Floor Area: 140 ft² Flr-Flr Height: 10.0 ft
Plenum Height: 0.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 85.0 °F / 95.0 °F
Design Htg DB / Drift Point: 65.0 °F / 55.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: None
# of People: 0 sq ft/person
People Sensible: 250 Btu/h
People Latent : 250 Btu/h
People Schedule: Cooling Only (Design)

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: LED Lighting 100% load to space

Fixture Type: LED Lighting
% Load to RA: 0 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 0.530 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	0.00 cfm	0.00 cfm
Vent Schedule:	Available (100%)	
Infil Type:	Neutral, Tight Const.	Neutral, Tight Const.
Infil Value:	0.30 air changes/hr	0.30 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Wall - N	130 ft²	0	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Wall - W	108 ft²	270	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Floor - 1																24	0.80

Room Description: A02 ADA Toilet | **Zone Description: No Zone** | **System Description: ELECTRIC UNIT HEAT**

GENERAL INFORMATION

Floor Area: 55 ft² Flr-Flr Height: 10.0 ft
Plenum Height: 1.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 75.0 °F / 81.0 °F
Design Htg DB / Drift Point: 70.0 °F / 64.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: None
# of People: 0 sq ft/person
People Sensible: 250 Btu/h
People Latent : 200 Btu/h
People Schedule: Cooling Only (Design)

Workstation: 0.0 workstations

LIGHTS

Lighting Type: LED Lighting 100% load to space

Fixture Type: LED Lighting
% Load to RA: 0 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 0.530 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	0.00 air changes/hr	0.00 air changes/hr
Vent Schedule:	Available (100%)	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef

ENTERED VALUES
ROOM BY ROOM
By 2RW

Room Description: A03 Toilet **Zone Description: No Zone** **System Description: ELECTRIC UNIT HEAT**

GENERAL INFORMATION

Floor Area: 35 ft² Flr-Flr Height: 10.0 ft
Plenum Height: 1.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 75.0 °F / 81.0 °F
Design Htg DB / Drift Point: 70.0 °F / 64.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: None
# of People: 0 sq ft/person
People Sensible: 250 Btu/h
People Latent : 200 Btu/h
People Schedule: Cooling Only (Design)

Workstation: 0.0 workstations

LIGHTS

Lighting Type: LED Lighting 100% load to space

Fixture Type: LED Lighting
% Load to RA: 0 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 0.530 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	0.00 air changes/hr	0.00 air changes/hr
Vent Schedule:	Available (100%)	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Wall - W	76 ft²	270	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Floor - 1																8	0.80

ENTERED VALUES
ROOM BY ROOM
By 2RW

Room Description: 101 Office **Zone Description: No Zone** **System Description: HP**

GENERAL INFORMATION

Floor Area: 195 ft² Flr-Flr Height: 10.0 ft
Plenum Height: 1.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 75.0 °F / 78.0 °F
Design Htg DB / Drift Point: 70.0 °F / 62.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: Office space
# of People: 2 People
People Sensible: 245 Btu/h
People Latent : 155 Btu/h
People Schedule: Base Util - Office

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: LED Lighting 100% load to space

Fixture Type: LED Lighting
% Load to RA: 0 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 0.530 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	50.00 cfm	50.00 cfm
Vent Schedule:	Available (100%)	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Wall - S	110 ft²	180	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Window			90.1-2013 Window	35	0.46	0.32	Overhang - None	None	0.00				
Wall - W	178 ft²	270	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Window			90.1-2013 Window	35	0.46	0.32	Overhang - None	None	0.00				
Misc Load 1	0.50 W/sq ft			Cooling Only (Design)			Electricity							100	100	0	60.00
PE	185 ft²			90.1-07 Min Wall Semi	0.0770								Constant	85	65		
Floor - 1																29	0.80

ENTERED VALUES
ROOM BY ROOM
By 2RW

Room Description: A01 Entry **Zone Description: No Zone** **System Description: HP**

GENERAL INFORMATION

Floor Area: 85 ft² Flr-Flr Height: 10.0 ft
Plenum Height: 1.0 ft Height Above Flr:
Slab Cnstr Type: 4* LW Concrete
Room Mass: Time delay based on actual mass
Ceiling R-Value: 1.786 hr·ft²·°F/Btu
Is There Carpet?: NO
Design Clg DB / Drift Point: 75.0 °F / 81.0 °F
Design Htg DB / Drift Point: 70.0 °F / 64.0 °F
Design Relative Humidity: 50 %
Moisture Capacitance: Medium
Clg Tstat: None
Htg Tstat: None

Thermostat Location: Room Floor Multiplier: 1
Humidistat Location: Room Room Multiplier: 1
CO2 Sensor Location: None
Room Type: Conditioned

PEOPLE

People Type: None
# of People: 0 sq ft/person
People Sensible: 250 Btu/h
People Latent : 200 Btu/h
People Schedule: Cooling Only (Design)

Workstation: 1.0 workstation/person

LIGHTS

Lighting Type: Recessed fluorescent, not vented, 80% load to space
Fixture Type: RECFL-NV
% Load to RA: 20 %
Lighting Schedule: Cooling Only (Design)
Lighting Amount: 1.000 W/sq ft
Ballast Factor: 1.0

AIRFLOW INFORMATION

	Cooling	Heating
Vent Type:	None	None
Vent Value:	0.00 cfm	0.00 cfm
Vent Schedule:	Available (100%)	
Infil Type:	None	None
Infil Value:	0.00 air changes/hr	0.00 air changes/hr
Infil Schedule:	Available (100%)	
Vav Airflow:		
Vav Sched:	Available (100%)	
Supply:	To be calculated	To be calculated
Aux Supply:	To be calculated	To be calculated
Room Exhaust:		
Rm Exh Sched:	Available (100%)	

Description	Area/ Amount	Dir	Tilt	Const Type / Schedule	U Value Btu/h·ft²·°F	Alpha	Glass Type / Energy Type	Glass Area ft²	Glass Shade Coef	Glass U Value Btu/h·ft²·°F	Glass External Shading	Glass Internal Shading	Adj Temp/ Grnd Refl	Pct Sen/ Cool Tmp	Pct Rm/ Heat Tmp	Pct Ret/ Perm Len	Rad Frc/ Loss Coef
Wall - W	79 ft²	270	0	90.1-13 Min Wall Nonres	0.0770	0.90											
Opening - 1				Window			90.1-2013 Window	42	0.46	0.32	Overhang - None	None	0.00				
Misc Load 1	430.0 W			Cooling Only (Design)			None							100	100	0	0 0.00
Floor - 1																8	0.80

SYSTEM ENTERED VALUES

By 2RW

BAY - Unit Heaters

Design Air Conditions

	Max	Min				
Cooling supply:			Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:	85.0 °F	80.0 °F				

Advanced Options

Cooling coil sizing method:	No Coil	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Draw Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	No Fan		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	ROOMDK	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	Sum Room OA Reqs

Reset per worst case room schedule:	Off (0%)		Supply air path / duct location:	Return Air
Max reset:			Space convective gains to occupied layer:	
Use system default outside air reset:	Yes		Underfloor plenum height:	
			Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
			Upstream nominal leakage fraction:	0 %
			Downstream constant leakage fraction:	0 %
	Control Method	Control Type	Aux cooling coil losses to plenum:	0 %
Auxiliary cooling coil	Activate After Primary System	None		
Auxiliary heating coil	Activate After Primary System	None		
Auxiliary fan	No Fan			

Coils

	Capacity	Schedule	Diversity	
Main cooling:	0.0 % of Design Capacity by adjusting	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	90.1 SP Adj	Full Load Energy Rate	Schedule	Efficiency	Priority
Primary	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	90	
Secondary	None	0.0 in. wg	NA	0.00000 kW	Available (100%)	85	
Return	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	NA	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	NA	0.00000 kW	Available (100%)	85	
Fan Cycling					Cycle with occupancy 0.0 ft		

SYSTEM ENTERED VALUES

By 2RW

HP - Single Zone

Design Air Conditions

	Max	Min				
Cooling supply:	55.0 °F	54.0 °F	Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:	92.0 °F	85.0 °F				

Advanced Options

Cooling coil sizing method:	Peak	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Zone	Return fan motor location:	Return	Optimum start schedule:	Off (0%)
Block cooling airflow:		Supply fan cofiguration:	Draw Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	Peak		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	PLENUM	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	Sum Room OA Reqs

Reset per worst case room schedule:	Off (0%)		Supply air path / duct location:	Return Air
Max reset:			Space convective gains to occupied layer:	100 %
Use system default outside air reset:	Yes		Underfloor plenum height:	
			Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
			Upstream nominal leakage fraction:	0 %
			Downstream constant leakage fraction:	0 %
	Control Method	Control Type	Aux cooling coil losses to plenum:	0 %
Auxiliary cooling coil	Activate After Primary System	None		
Auxiliary heating coil	Activate After Primary System	None		
Auxiliary fan	No Fan			

Coils

	Capacity	Schedule	Diversity	
Main cooling:	100.0 % of Design Capacity by adjusti	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	90.1 SP Adj	Full Load Energy Rate	Schedule	Efficiency	Priority
Primary	None	0.6 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	90	
Secondary	None	0.0 in. wg	NA	0.00000 kW	Available (100%)	85	
Return	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	0.0 in. wg	NA	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	NA	0.00000 kW	Available (100%)	85	
Fan Cycling					Cycle with occupancy 0.0 ft		

SYSTEM ENTERED VALUES

By 2RW

ELECTRIC UNIT HEAT - Unit Heaters

Design Air Conditions

	Max	Min				
Cooling supply:			Supply duct temperature diff:	0.0 °F	Design humidity ratio diff:	
Leaving cooling coil:			Reheat Temperature diff:	0.0 °F	Min room relative humidity:	
Heating supply:	92.0 °F	85.0 °F				

Advanced Options

Cooling coil sizing method:	No Coil	Supply fan motor location:	Supply	Night purge schedule:	Off (0%)
Cooling coil location:	Room	Return fan motor location:	Return	Optimum start schedule:	Available (100%)
Block cooling airflow:		Supply fan cofiguration:	Blow Thru	Optimum stop schedule:	Off (0%)
Ventilation deck location:	Return/Outdoor Deck	Supply fan sizing:	No Fan		
Supply duct location:	Return Air	Fan mechanical efficiency :	75%	CO2-based DCV:	None
Return air path:	ROOMDK	Apply Std62 People Avg:	No		
		Std62 Max Vent (Z) Ratio:		System ventilation flag:	Sum Room OA Reqs

Reset per worst case room schedule:	Off (0%)		Supply air path / duct location:	Return Air
Max reset:			Space convective gains to occupied layer:	100 %
Use system default outside air reset:	Yes		Underfloor plenum height:	
			Conductive resistance of raised floor:	0.8 hr·ft²·°F/Btu
			Upstream nominal leakage fraction:	0 %
			Downstream constant leakage fraction:	0 %
	Control Method	Control Type	Aux cooling coil losses to plenum:	0 %
Auxiliary cooling coil	Activate After Primary System	None		
Auxiliary heating coil	Activate After Primary System	None		
Auxiliary fan	No Fan			

Coils

	Capacity	Schedule	Diversity	
Main cooling:	0.0 % of Design Capacity by adjusting	Available (100%)	People	100%
Aux cooling:		Available (100%)	Lights	100%
Main heating:	100.0 % of Design Capacity	Available (100%)	Misc loads	100%
Aux heating:		Available (100%)		
Preheat:	100.0% of Design Capacity	Available (100%)		
Reheat:	100.0 % of Design Capacity	Available (100%)		
Humidification:	100.0 % of Design Capacity	Available (100%)		

Fans

	Type	Static Press.	90.1 SP Adj	Full Load Energy Rate	Schedule	Efficiency	Priority
Primary	None	0.0 in. wg	0.0 in. wg	0.00000 kW/Cfm-in wg	Available (100%)	90	
Secondary	None	0.0 in. wg	NA	0.00000 kW	Available (100%)	85	
Return	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	90	
System Exhaust	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	90	
Room Exhaust	None	0.0 in. wg	0.0 in. wg	0.00000 kW	Available (100%)	85	
Optional ventilation	None	1.0 in. wg	NA	0.00000 kW	Available (100%)	90	
Auxiliary	None	0.0 in. wg	NA	0.00000 kW	Available (100%)	85	
Fan Cycling					Cycle with occupancy 0.0 ft		

System Checksums

By 2RW

BAY **Unit Heaters**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-10,467	-10,467	7.97
Glass Solar	0	0	0.00
Glass/Door Cond	-18,546	-18,546	14.11
Wall Cond	-14,427	-14,427	10.98
Partition/Door	0	0	0.00
Floor	-7,711	-7,711	5.87
Adjacent Floor	0.00	0.00	0.00
Infiltration	-61,484	-61,484	46.79
Sub Total ==>	-112,635	-112,635	85.72
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	-18,759	14.28
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-112,635	-131,394	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	61.7
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	5,284
Terminal	0	5,284
Main Fan	0	5,284
Sec Fan	0	0
Nom Vent	0	320
AHU Vent	0	320
Infil	0	1,049
MinStop/Rh	0	0
Return	0	6,333
Exhaust	0	1,369
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	6.1
cfm/ft²	0.00	1.52
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-37.91
No. People	11	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	3,466		
Part	179		
Int Door	1		
ExFlr	175		
Roof	3,874	0	0
Wall	3,710	303	8
Ext Door	508	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-131.4	5,284	61.7	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-131.4			

System Checksums

By 2RW

ELECTRIC UNIT HEAT — **Unit Heaters**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-1,315	-1,358	42.74
Partition/Door	0	0	0.00
Floor	-1,413	-1,413	44.47
Adjacent Floor	0.00	0.00	0.00
Infiltration	-406	-406	12.78
Sub Total ==>	-3,135	-3,178	100.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-43	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-3,178	-3,178	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	92.0
Ra Plenum	0.0	66.4
Return	0.0	66.4
Ret/OA	0.0	66.4
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	117
Terminal	0	117
Main Fan	0	117
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	7
MinStop/Rh	0	0
Return	0	124
Exhaust	0	7
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.51
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-13.82
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	230		
Part	0		
Int Door	1		
ExFlr	31		
Roof	0	0	0
Wall	314	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-3.2	117	66.4	92.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-3.2			

System Checksums

By 2RW

HP **Single Zone**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 8 / 11
Outside Air: OADB/WB/HR: 81 / 71 / 101

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	8,786	0	8,786	54
Glass/Door Cond	-45	0	-45	0
Wall Cond	1,570	271	1,841	11
Partition/Door	142		142	1
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	10,454	271	10,725	66
Internal Loads				
Lights	585	58	643	4
People	800	0	800	5
Misc	1,800	0	1,800	11
Sub Total ==>	3,185	58	3,243	20
Ceiling Load	35	-35	0	0
Ventilation Load	0	0	2,063	13
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		-21	-21	0
Sup. Fan Heat			227	1
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	13,674	273	16,238	100.00

CLG SPACE PEAK

Mo/Hr: Sum of
OADB: Peaks

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	9,020	66
Glass/Door Cond	-73	-1
Wall Cond	1,607	12
Partition/Door	142	1
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	10,697	79
Internal Loads		
Lights	585	4
People	490	4
Misc	1,800	13
Sub Total ==>	2,875	21
Ceiling Load	36	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	13,608	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	-2,112	-2,112	15.60
Wall Cond	-1,011	-1,180	8.72
Partition/Door	-71	-71	0.53
Floor	-1,764	-1,764	13.03
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-4,959	-5,128	37.87
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-20	0	0.00
Ventilation Load	0	-3,198	23.61
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	-5,227	-5,227	38.60
Exhaust Heat		12	-0.09
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-10,206	-13,542	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	85.0
Ra Plenum	75.4	69.8
Return	75.4	69.8
Ret/OA	75.9	65.1
Fn MtrTD	0.0	0.0
Fn BldTD	0.1	0.0
Fn Frict	0.2	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	638	638
Terminal	638	638
Main Fan	638	638
Sec Fan	0	0
Nom Vent	50	50
AHU Vent	50	50
Infil	0	0
MinStop/Rh	0	0
Return	638	638
Exhaust	50	50
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	7.8	7.8
cfm/ft²	2.28	2.28
cfm/ton	471.76	
ft²/ton	206.93	
Btu/hr·ft²	57.99	-48.36
No. People	2	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	1.4	16.2	14.3	638	75.9	61.1	60.7	54.7	52.1	56.4
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1.4	16.2								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	280		
Part	185		
Int Door	1		
ExFlr	37		
Roof	0	0	0
Wall	368	112	30
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-13.5	638	65.1	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-13.5			

Zone Checksums

By 2RW

101 Office

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 11
Outside Air: OADB/WB/HR: 83 / 72 / 109

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	4,235	0	4,235	44
Glass/Door Cond	129	0	129	1
Wall Cond	1,288	195	1,483	15
Partition/Door	142		142	1
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	5,795	195	5,990	62
Internal Loads				
Lights	353	0	353	4
People	800	0	800	8
Misc	333	0	333	3
Sub Total ==>	1,486	0	1,486	15
Ceiling Load	24	-24	0	0
Ventilation Load	0	0	2,063	21
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		-21	-21	0
Sup. Fan Heat			121	1
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	7,305	150	9,638	100.00

CLG SPACE PEAK

Mo/Hr: 8 / 11
OADB: 81

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	4,469	62
Glass/Door Cond	100	1
Wall Cond	1,325	18
Partition/Door	142	2
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	6,037	83
Internal Loads		
Lights	353	5
People	490	7
Misc	333	5
Sub Total ==>	1,176	16
Ceiling Load	25	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	7,238	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	-1,320	-1,320	15.18
Wall Cond	-876	-1,009	11.60
Partition/Door	-71	-71	0.82
Floor	-1,384	-1,384	15.92
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-3,651	-3,784	43.53
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-14	0	0.00
Ventilation Load	0	-3,198	36.78
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	-1,764	-1,764	20.29
Exhaust Heat		12	-0.13
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		40	-0.45
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-5,429	-8,694	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	85.0
Ra Plenum	75.4	69.8
Return	75.4	69.8
Ret/OA	76.5	61.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.1	0.0
Fn Frict	0.2	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	340	340
Terminal	340	340
Main Fan	340	340
Sec Fan	0	0
Nom Vent	50	50
AHU Vent	50	50
Infil	0	0
MinStop/Rh	0	0
Return	340	340
Exhaust	50	50
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	14.7	14.7
cfm/ft²	1.74	1.74
cfm/ton	422.76	
ft²/ton	242.78	
Btu/hr·ft²	49.43	-44.59
No. People	2	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.8	9.6	7.7	340	76.5	62.7	67.2	54.7	52.9	59.6
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.8	9.6								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	195		
Part	185		
Int Door	1		
ExFlr	29		
Roof	0	0	0
Wall	288	70	24
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-8.7	340	61.0	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-8.7			

Zone Checksums

By 2RW

102 Open Workspace

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-2,281	-2,281	7.59
Glass Solar	0	0	0.00
Glass/Door Cond	-1,245	-1,245	4.14
Wall Cond	-1,843	-1,843	6.13
Partition/Door	0	0	0.00
Floor	-1,206	-1,206	4.02
Adjacent Floor	0.00	0.00	0.00
Infiltration	-19,955	-19,955	66.41
Sub Total ==>	-26,530	-26,530	88.29
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	-3,517	11.71
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-26,530	-30,048	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	62.4
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	1,245
Terminal	0	1,245
Main Fan	0	1,245
Sec Fan	0	0
Nom Vent	0	60
AHU Vent	0	60
Infil	0	340
MinStop/Rh	0	0
Return	0	1,585
Exhaust	0	400
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	4.8
cfm/ft²	0.00	1.69
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-40.83
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	736		
Part	179		
Int Door	1		
ExFlr	27		
Roof	798	0	0
Wall	507	72	14
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-30.1	1,245	62.4	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-30.1			

Zone Checksums

By 2RW

103 Vehicle Bays

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-5,397	-5,397	10.46
Glass Solar	0	0	0.00
Glass/Door Cond	-14,241	-14,241	27.61
Wall Cond	-8,021	-8,021	15.55
Partition/Door	0	0	0.00
Floor	-5,383	-5,383	10.43
Adjacent Floor	0.00	0.00	0.00
Infiltration	-18,545	-18,545	35.95
Sub Total ==>	-51,587	-51,587	100.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-51,587	-51,587	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	65.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	2,420
Terminal	0	2,420
Main Fan	0	2,420
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	316
MinStop/Rh	0	0
Return	0	2,736
Exhaust	0	316
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	1.42
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-30.17
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	1,710		
Part	0		
Int Door	1		
ExFlr	122		
Roof	1,887	0	0
Wall	1,948	54	3
Ext Door	508	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-51.6	2,420	65.0	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-51.6			

Zone Checksums

By 2RW

104 Machine Shop

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-993	-993	2.69
Glass Solar	0	0	0.00
Glass/Door Cond	-1,245	-1,245	3.37
Wall Cond	-1,693	-1,693	4.58
Partition/Door	0	0	0.00
Floor	-1,122	-1,122	3.04
Adjacent Floor	0.00	0.00	0.00
Infiltration	-16,630	-16,630	45.04
Sub Total ==>	-21,683	-21,683	58.72
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	-15,242	41.28
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-21,683	-36,925	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	50.9
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	1,017
Terminal	0	1,017
Main Fan	0	1,017
Sec Fan	0	0
Nom Vent	0	260
AHU Vent	0	260
Infil	0	284
MinStop/Rh	0	0
Return	0	1,301
Exhaust	0	544
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	25.6
cfm/ft²	0.00	1.99
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-72.40
No. People	11	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	510		
Part	0		
Int Door	1		
ExFlr	26		
Roof	561	0	0
Wall	472	72	15
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-36.9	1,017	50.9	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-36.9			

Zone Checksums

By 2RW

105 Utility

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-1,000	-1,010	42.18
Partition/Door	0	0	0.00
Floor	-1,049	-1,049	43.81
Adjacent Floor	0.00	0.00	0.00
Infiltration	-406	-406	16.97
Sub Total ==>	-2,455	-2,465	102.96
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	60	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		71	-2.96
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-2,394	-2,394	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	92.0
Ra Plenum	0.0	66.4
Return	0.0	65.0
Ret/OA	0.0	65.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	83
Terminal	0	83
Main Fan	0	83
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	7
MinStop/Rh	0	0
Return	0	90
Exhaust	0	7
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.59
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-17.10
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	140		
Part	0		
Int Door	1		
ExFlr	24		
Roof	0	0	0
Wall	238	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-2.4	83	65.0	92.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-2.4			

Zone Checksums

By 2RW

A01 Entry

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 11 / 12
Outside Air: OADB/WB/HR: 63 / 52 / 42

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	4,551	0	4,551	69
Glass/Door Cond	-173	0	-173	-3
Wall Cond	282	76	358	5
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	4,659	76	4,735	72
Internal Loads				
Lights	232	58	290	4
People	0	0	0	0
Misc	1,468	0	1,468	22
Sub Total ==>	1,700	58	1,758	27
Ceiling Load	11	-11	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			106	2
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	6,370	123	6,599	100.00

CLG SPACE PEAK

Mo/Hr: 11 / 12
OADB: 63

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	4,551	71
Glass/Door Cond	-173	-3
Wall Cond	282	4
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	4,659	73
Internal Loads		
Lights	232	4
People	0	0
Misc	1,468	23
Sub Total ==>	1,700	27
Ceiling Load	11	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	6,370	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	-792	-792	16.34
Wall Cond	-135	-172	3.54
Partition/Door	0	0	0.00
Floor	-380	-380	7.84
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-1,308	-1,344	27.73
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-6	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	-3,464	-3,464	71.46
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-40	0.82
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-4,777	-4,847	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	85.0
Ra Plenum	75.4	69.8
Return	75.4	69.8
Ret/OA	75.4	69.8
Fn MtrTD	0.0	0.0
Fn BldTD	0.1	0.0
Fn Frict	0.2	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	299	299
Terminal	299	299
Main Fan	299	299
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	0
MinStop/Rh	0	0
Return	299	299
Exhaust	0	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	3.52	3.52
cfm/ton	543.33	
ft²/ton	154.56	
Btu/hr·ft²	77.64	-57.03
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.6	6.6	6.6	299	75.4	59.3	53.3	54.7	51.2	53.2
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.6	6.6								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	85		
Part	0		
Int Door	1		
ExFlr	8		
Roof	0	0	0
Wall	79	42	53
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-4.9	299	69.8	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-4.9			

Zone Checksums

By 2RW

A02 ADA Toilet

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	0	0	0.00
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	0	0	0.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-63	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-63	100.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-63	-63	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	92.0
Ra Plenum	0.0	66.4
Return	0.0	70.0
Ret/OA	0.0	70.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	3
Terminal	0	3
Main Fan	0	3
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	0
MinStop/Rh	0	0
Return	0	3
Exhaust	0	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.05
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-1.15
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	55		
Part	0		
Int Door	1		
ExFlr	0		
Roof	0	0	0
Wall	0	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-0.1	3	70.0	92.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-0.1			

Zone Checksums

By 2RW

A03 Toilet

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-316	-349	48.39
Partition/Door	0	0	0.00
Floor	-364	-364	50.58
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-680	-713	98.97
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-40	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-7	1.03
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-720	-720	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	92.0
Ra Plenum	0.0	66.4
Return	0.0	70.0
Ret/OA	0.0	70.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	31
Terminal	0	31
Main Fan	0	31
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	0
MinStop/Rh	0	0
Return	0	31
Exhaust	0	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.88
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-20.58
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	35		
Part	0		
Int Door	1		
ExFlr	8		
Roof	0	0	0
Wall	76	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-0.7	31	70.0	92.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-0.7			

Zone Checksums

By 2RW

Space Above Office/Toilets/Entry

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-1,796	-1,796	14.00
Glass Solar	0	0	0.00
Glass/Door Cond	-1,815	-1,815	14.14
Wall Cond	-2,870	-2,870	22.36
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	-6,353	-6,353	49.50
Sub Total ==>	-12,834	-12,834	100.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-12,834	-12,834	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	65.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	602
Terminal	0	602
Main Fan	0	602
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	108
MinStop/Rh	0	0
Return	0	710
Exhaust	0	108
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	1.18
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-25.17
No. People	0	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	510		
Part	0		
Int Door	1		
ExFlr	0		
Roof	628	0	0
Wall	783	105	13
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-12.8	602	65.0	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-12.8			

Room Checksums

By 2RW

101 Office

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 11
Outside Air: OADB/WB/HR: 83 / 72 / 109

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	4,235	0	4,235	44
Glass/Door Cond	129	0	129	1
Wall Cond	1,288	195	1,483	15
Partition/Door	142		142	1
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	5,795	195	5,990	62
Internal Loads				
Lights	353	0	353	4
People	800	0	800	8
Misc	333	0	333	3
Sub Total ==>	1,486	0	1,486	15
Ceiling Load	24	-24	0	0
Ventilation Load	0	0	2,063	21
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		-21	-21	0
Sup. Fan Heat			121	1
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	7,305	150	9,638	100.00

CLG SPACE PEAK

Mo/Hr: 8 / 11
OADB: 81

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	4,469	62
Glass/Door Cond	100	1
Wall Cond	1,325	18
Partition/Door	142	2
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	6,037	83
Internal Loads		
Lights	353	5
People	490	7
Misc	333	5
Sub Total ==>	1,176	16
Ceiling Load	25	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Exhaust Heat		
Sup. Fan Heat		
Ret. Fan Heat		
Duct Heat Pkup		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	7,238	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	-1,320	-1,320	15.18
Wall Cond	-876	-1,009	11.60
Partition/Door	-71	-71	0.82
Floor	-1,384	-1,384	15.92
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-3,651	-3,784	43.53
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-14	0	0.00
Ventilation Load	0	-3,198	36.78
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	-1,764	-1,764	20.29
Exhaust Heat		12	-0.13
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		40	-0.45
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-5,429	-8,694	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	85.0
Ra Plenum	75.4	69.8
Return	75.4	69.8
Ret/OA	76.5	61.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.1	0.0
Fn Frict	0.2	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	340	340
Terminal	340	340
Main Fan	340	340
Sec Fan	0	0
Nom Vent	50	50
AHU Vent	50	50
Infil	0	0
MinStop/Rh	0	0
Return	340	340
Exhaust	50	50
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	14.7	14.7
cfm/ft²	1.74	1.74
cfm/ton	422.76	
ft²/ton	242.78	
Btu/hr·ft²	49.43	-44.59
No. People	2.0	10.3/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.8	9.6	7.7	340	76.5	62.7	67.2	54.7	52.9	59.6
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.8	9.6								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	195		
Part	185		
Int Door	1		
ExFlr	29		
Roof	0	0	0
Wall	288	70	24
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-8.7	340	61.0	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-8.7			

Room Checksums

By 2RW

102 Open Workspace

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-2,281	-2,281	7.59
Glass Solar	0	0	0.00
Glass/Door Cond	-1,245	-1,245	4.14
Wall Cond	-1,843	-1,843	6.13
Partition/Door	0	0	0.00
Floor	-1,206	-1,206	4.02
Adjacent Floor	0.00	0.00	0.00
Infiltration	-19,955	-19,955	66.41
Sub Total ==>	-26,530	-26,530	88.29
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	-3,517	11.71
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-26,530	-30,048	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	62.4
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	1,245
Terminal	0	1,245
Main Fan	0	1,245
Sec Fan	0	0
Nom Vent	0	60
AHU Vent	0	60
Infil	0	340
MinStop/Rh	0	0
Return	0	1,585
Exhaust	0	400
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	4.8
cfm/ft²	0.00	1.69
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-40.83
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	736		
Part	179		
Int Door	1		
ExFlr	27		
Roof	798	0	0
Wall	507	72	14
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-30.1	1,245	62.4	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-30.1			

Room Checksums

By 2RW

103 Vehicle Bays

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-5,397	-5,397	10.46
Glass Solar	0	0	0.00
Glass/Door Cond	-14,241	-14,241	27.61
Wall Cond	-8,021	-8,021	15.55
Partition/Door	0	0	0.00
Floor	-5,383	-5,383	10.43
Adjacent Floor	0.00	0.00	0.00
Infiltration	-18,545	-18,545	35.95
Sub Total ==>	-51,587	-51,587	100.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-51,587	-51,587	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	65.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	2,420
Terminal	0	2,420
Main Fan	0	2,420
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	316
MinStop/Rh	0	0
Return	0	2,736
Exhaust	0	316
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	1.42
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-30.17
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	1,710		
Part	0		
Int Door	1		
ExFlr	122		
Roof	1,887	0	0
Wall	1,948	54	3
Ext Door	508	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-51.6	2,420	65.0	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-51.6			

Room Checksums

By 2RW

104 Machine Shop

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-993	-993	2.69
Glass Solar	0	0	0.00
Glass/Door Cond	-1,245	-1,245	3.37
Wall Cond	-1,693	-1,693	4.58
Partition/Door	0	0	0.00
Floor	-1,122	-1,122	3.04
Adjacent Floor	0.00	0.00	0.00
Infiltration	-16,630	-16,630	45.04
Sub Total ==>	-21,683	-21,683	58.72
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	-15,242	41.28
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-21,683	-36,925	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	50.9
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	1,017
Terminal	0	1,017
Main Fan	0	1,017
Sec Fan	0	0
Nom Vent	0	260
AHU Vent	0	260
Infil	0	284
MinStop/Rh	0	0
Return	0	1,301
Exhaust	0	544
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	25.6
cfm/ft²	0.00	1.99
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-72.40
No. People	11.0	21.6/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	510		
Part	0		
Int Door	1		
ExFlr	26		
Roof	561	0	0
Wall	472	72	15
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-36.9	1,017	50.9	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-36.9			

Room Checksums

By 2RW

105 Utility

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-1,000	-1,010	42.18
Partition/Door	0	0	0.00
Floor	-1,049	-1,049	43.81
Adjacent Floor	0.00	0.00	0.00
Infiltration	-406	-406	16.97
Sub Total ==>	-2,455	-2,465	102.96
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	60	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		71	-2.96
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-2,394	-2,394	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	92.0
Ra Plenum	0.0	66.4
Return	0.0	65.0
Ret/OA	0.0	65.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	83
Terminal	0	83
Main Fan	0	83
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	7
MinStop/Rh	0	0
Return	0	90
Exhaust	0	7
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.59
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-17.10
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	140		
Part	0		
Int Door	1		
ExFlr	24		
Roof	0	0	0
Wall	238	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-2.4	83	65.0	92.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-2.4			

Room Checksums

By 2RW

A01 Entry

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 11 / 12
Outside Air: OADB/WB/HR: 63 / 52 / 42

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	4,551	0	4,551	69
Glass/Door Cond	-173	0	-173	-3
Wall Cond	282	76	358	5
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	4,659	76	4,735	72
Internal Loads				
Lights	232	58	290	4
People	0	0	0	0
Misc	1,468	0	1,468	22
Sub Total ==>	1,700	58	1,758	27
Ceiling Load	11	-11	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			106	2
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	6,370	123	6,599	100.00

CLG SPACE PEAK

Mo/Hr: 11 / 12
OADB: 63

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	4,551	71
Glass/Door Cond	-173	-3
Wall Cond	282	4
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	4,659	73
Internal Loads		
Lights	232	4
People	0	0
Misc	1,468	23
Sub Total ==>	1,700	27
Ceiling Load	11	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Grand Total ==>	6,370	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	-792	-792	16.34
Wall Cond	-135	-172	3.54
Partition/Door	0	0	0.00
Floor	-380	-380	7.84
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-1,308	-1,344	27.73
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-6	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	-3,464	-3,464	71.46
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-40	0.82
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-4,777	-4,847	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	85.0
Ra Plenum	75.4	69.8
Return	75.4	69.8
Ret/OA	75.4	69.8
Fn MtrTD	0.0	0.0
Fn BldTD	0.1	0.0
Fn Frict	0.2	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	299	299
Terminal	299	299
Main Fan	299	299
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	0
MinStop/Rh	0	0
Return	299	299
Exhaust	0	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	3.52	3.52
cfm/ton	543.33	
ft²/ton	154.56	
Btu/hr·ft²	77.64	-57.03
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.6	6.6	6.6	299	75.4	59.3	53.3	54.7	51.2	53.2
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.6	6.6								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	85		
Part	0		
Int Door	1		
ExFlr	8		
Roof	0	0	0
Wall	79	42	53
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-4.9	299	69.8	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-4.9			

Room Checksums

By 2RW

A02 ADA Toilet

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	0	0	0.00
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	0	0	0.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-63	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-63	100.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-63	-63	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	92.0
Ra Plenum	0.0	66.4
Return	0.0	70.0
Ret/OA	0.0	70.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	3
Terminal	0	3
Main Fan	0	3
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	0
MinStop/Rh	0	0
Return	0	3
Exhaust	0	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.05
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-1.15
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	55		
Part	0		
Int Door	1		
ExFlr	0		
Roof	0	0	0
Wall	0	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-0.1	3	70.0	92.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-0.1			

Room Checksums

By 2RW

A03 Toilet

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
System Plenum Heat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	0	0.00
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	-316	-349	48.39
Partition/Door	0	0	0.00
Floor	-364	-364	50.58
Adjacent Floor	0.00	0.00	0.00
Infiltration	0	0	0.00
Sub Total ==>	-680	-713	98.97
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-40	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		-7	1.03
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-720	-720	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	92.0
Ra Plenum	0.0	66.4
Return	0.0	70.0
Ret/OA	0.0	70.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	31
Terminal	0	31
Main Fan	0	31
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	0
MinStop/Rh	0	0
Return	0	31
Exhaust	0	0
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	0.88
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-20.58
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	35		
Part	0		
Int Door	1		
ExFlr	8		
Roof	0	0	0
Wall	76	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-0.7	31	70.0	92.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-0.7			

Room Checksums

By 2RW

Space Above Office/Toilets/Entry

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 0 / 0
Outside Air: OADB/WB/HR: 0 / 0 / 0

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	0	0	0
Glass Solar	0	0	0	0
Glass/Door Cond	0	0	0	0
Wall Cond	0	0	0	0
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0.00	0.00	0.00	0.00
Infiltration	0		0	0
Sub Total ==>	0	0	0	0
Internal Loads				
Lights	0	0	0	0
People	0	0	0	0
Misc	0	0	0	0
Sub Total ==>	0	0	0	0
Ceiling Load	0	0	0	0
Ventilation Load	0	0	0	0
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	0	0	0	100.00

CLG SPACE PEAK

Mo/Hr: 0 / 0
OADB: 0

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	0	0
Glass/Door Cond	0	0
Wall Cond	0	0
Partition/Door	0	0
Floor	0.00	0
Adjacent Floor	0.00	0.00
Infiltration	0	0
Sub Total ==>	0	0
Internal Loads		
Lights	0	0
People	0	0
Misc	0	0
Sub Total ==>	0	0
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		0
OA Preheat Diff.		0
RA Preheat Diff.		0
Additional Reheat		0
System Plenum Heat		0
Underflr Sup Ht Pkup		0
Supply Air Leakage		0
Grand Total ==>	0	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 10

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-1,796	-1,796	14.00
Glass Solar	0	0	0.00
Glass/Door Cond	-1,815	-1,815	14.14
Wall Cond	-2,870	-2,870	22.36
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0.00	0.00	0.00
Infiltration	-6,353	-6,353	49.50
Sub Total ==>	-12,834	-12,834	100.00
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	0	0	0.00
Ventilation Load	0	0	0.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
System Plenum Heat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-12,834	-12,834	100.00

TEMPERATURES

	Cooling	Heating
SADB	0.0	85.0
Ra Plenum	0.0	65.0
Return	0.0	65.0
Ret/OA	0.0	65.0
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	0	602
Terminal	0	602
Main Fan	0	602
Sec Fan	0	0
Nom Vent	0	0
AHU Vent	0	0
Infil	0	108
MinStop/Rh	0	0
Return	0	710
Exhaust	0	108
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	0.0	0.0
cfm/ft²	0.00	1.18
cfm/ton	0.00	
ft²/ton	0.00	
Btu/hr·ft²	0.00	-25.17
No. People	0.0	0.0/1000 ft²

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter gr/lb	Leave DB °F	Leave WB °F	Leave gr/lb
Main Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	510		
Part	0		
Int Door	1		
ExFlr	0		
Roof	628	0	0
Wall	783	105	13
Ext Door	0	0	0

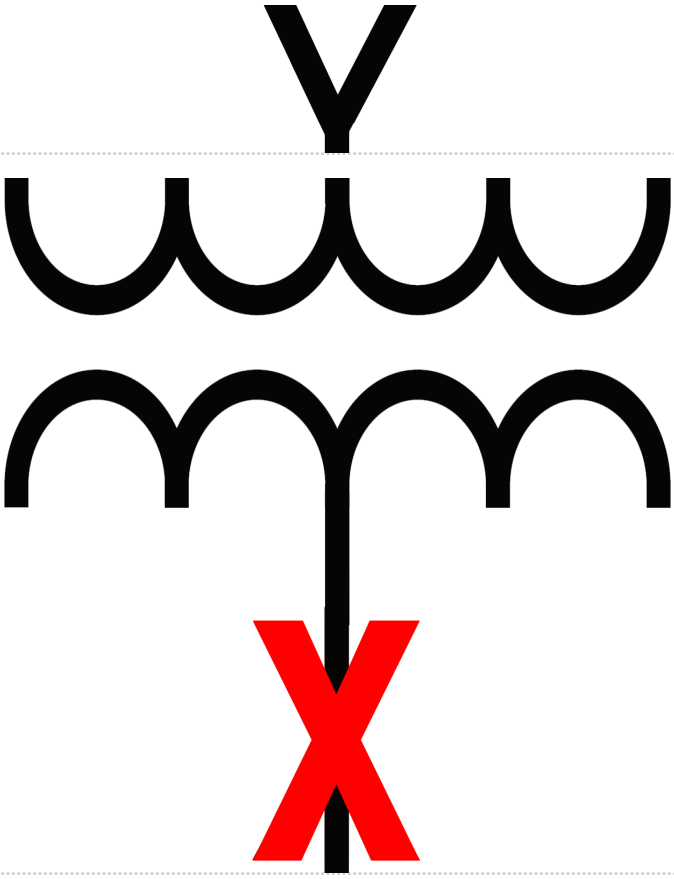
HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-12.8	602	65.0	85.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-12.8			

Electrical Calculations

Your System Details

Project Name	: VT Timber
System Type	: Three-Phase
Creator Name	: Adrienne
Creator Email	: adornbyadrienne@gmail.com
Creator Company/Organization	: 2RW
Creator Function	: Engineering
Creation Date	: Aug 20, 2026 @ 02:14pm



INFINITE PRIMARY SOURCE

TRANSFORMER - T1

KVA	150
Voltage $_{secondary}$	208
%Z	3.0
%Z TOL	-10% (Max Fault)

FAULT - Utility XFMR

$I_{total\ s.c.\ (L\text{-}L\text{-}L)}$	15422 AMPS
Voltage (L-L)	208 V



CONDUCTOR RUN - C1	
LENGTH	115 FT
SIZE	600
QTY (per phase)	1
TYPE	Three Single Conductors
CONDUIT	Nonmagnetic
WIRE	Cu, 600 V

FAULT - MDP	
$I_{total\ s.c.\ (L\text{-}L\text{-}L)}$	10101 AMPS
Voltage (L-L)	208 V



CONDUCTOR RUN - C2	
LENGTH	10 FT
SIZE	4/0
QTY (per phase)	1
TYPE	Three Single Conductors
CONDUIT	Steel
WIRE	Cu, 600 V

FAULT - L1	
$I_{total\ s.c.\ (L\text{-}L\text{-}L)}$	9567 AMPS
Voltage (L-L)	208 V

Fault current at busway will be less than at panel L1 as it is farther from panel MDP.

Southwire Voltage Drop Calculator

Inputs

User Mode	Commercial 75°C
Current Type	AC
Units for Length	Feet
Phase	Three
Conductor	Copper
Installation	Cable, Conduit (non-Steel), & Direct Burial
Length of Cable Run	100.0 Feet
Conductor Size	600 KCMIL
Voltage	208 Volts
Max Voltage Drop	3 %
Current at end of Cable Run	297 Amps
Power Factor	0.9

Results for Voltage Drop Calculation
Voltage drop will be limited to 0.90% or less with 1 parallel (set) of 600 KCMIL copper conductor delivering a total of 297 amps on a 208 volt three phase system for a distance of 100 feet.

Engineering Information

420	Amps Rated ampacity of selected conductor
0.0214	Ohms Resistance (Ohms per 1000 feet)
0.0390	Ohms Reactance (Ohms per 1000 feet)
0.9	Power Factor

This voltage drop calculator is applicable only to NEC applications and is designed for applications using AWG and KCMIL sizes only. It does not optimize conductor sizes for several different loads at various points in a circuit. The total combined load and length of the circuit must be used. Consult with an engineer if your application does not fit into one of the following categories and/or requires more complex engineering calculations.

** Note to User:
COMMERCIAL MODE CALCULATIONS: All ampacity values are taken from NEC 310.15. The conductor characteristics are taken from Chapter 9, Tables 8 & 9 of the NEC. No calculations consider temperature correction factors or conductor de-rating for number of current-carrying conductors in a raceway. These calculations are not optimized for medium voltage or high voltage installations (2400 Volts or more). These calculations do not apply to flexible cords.

Southwire Voltage Drop Calculator

Inputs

User Mode	Commercial 75°C
Current Type	AC
Units for Length	Feet
Phase	Three
Conductor	Copper
Installation	Cable, Conduit (non-Steel), & Direct Burial
Length of Cable Run	35.0 Feet
Conductor Size	1 AWG
Voltage	208 Volts
Max Voltage Drop	3 %
Current at end of Cable Run	13 Amps
Power Factor	0.9

Results for Voltage Drop Calculation
Voltage drop will be limited to 0.06% or less with 1 parallel (set) of 1 AWG copper conductor delivering a total of 13 amps on a 208 volt three phase system for a distance of 35 feet.

Engineering Information

130	Amps Rated ampacity of selected conductor
0.1540	Ohms Resistance (Ohms per 1000 feet)
0.0460	Ohms Reactance (Ohms per 1000 feet)
0.9	Power Factor

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** Note to User:
COMMERCIAL MODE CALCULATIONS: All ampacity values are taken from NEC 310.15. The conductor characteristics are taken from Chapter 9, Tables 8 & 9 of the NEC. No calculations consider temperature correction factors or conductor de-rating for number of current-carrying conductors in a raceway. These calculations are not optimized for medium voltage or high voltage installations (2400 Volts or more). These calculations do not apply to flexible cords.

Southwire Voltage Drop Calculator

Inputs

User Mode	Commercial 75°C
Current Type	AC
Units for Length	Feet
Phase	Three
Conductor	Copper
Installation	Cable, Conduit (non-Steel), & Direct Burial
Length of Cable Run	10.0 Feet
Conductor Size	4/0 AWG
Voltage	208 Volts
Max Voltage Drop	3 %
Current at end of Cable Run	201 Amps
Power Factor	0.9

Results for Voltage Drop Calculation
Voltage drop will be limited to 0.12% or less with 1 parallel (set) of 4/0 AWG copper conductor delivering a total of 201 amps on a 208 volt three phase system for a distance of 10 feet.

Engineering Information

230	Amps Rated ampacity of selected conductor
0.0608	Ohms Resistance (Ohms per 1000 feet)
0.0410	Ohms Reactance (Ohms per 1000 feet)
0.9	Power Factor

This voltage drop calculator is applicable only to NEC applications and is designed for applications using AWG and KCMIL sizes only. It does not optimize conductor sizes for several different loads at various points in a circuit. The total combined load and length of the circuit must be used. Consult with an engineer if your application does not fit into one of the following categories and/or requires more complex engineering calculations.

** Note to User:
COMMERCIAL MODE CALCULATIONS: All ampacity values are taken from NEC 310.15. The conductor characteristics are taken from Chapter 9, Tables 8 & 9 of the NEC. No calculations consider temperature correction factors or conductor de-rating for number of current-carrying conductors in a raceway. These calculations are not optimized for medium voltage or high voltage installations (2400 Volts or more). These calculations do not apply to flexible cords.

COM*check* Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2021 IECC
Project Title: VT Timbers Harvesting
Project Type: New Construction

Construction Site: Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Credits: 10.0 Required 0.0 Proposed

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-School/University	3517	0.72	2532
		Total Allowed Watts =	2532

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-School/University				
LED: L1: 2x2 LED Troffer: Other:	1	3	31	93
LED: L2: 2x4 LED Troffer: Other:	1	4	37	148
LED: L3: 4' Industrial Strip: Other:	1	2	53	106
LED: L3A: 2' Industrial Strip: Other:	1	1	19	19
LED: L4: 4' Industrial Strip: Other:	1	8	94	752
LED: L5: 8' Industrial Strip: Other:	1	8	131	1048
LED: UC1: 14" Under Cabinet Linear: Other:	1	1	8	8
LED: UC2: 22" Under Cabinet Linear: Other:	1	1	12	12
LED: X1: Red/Green Exit Sign: Other:	1	7	1	7
			Total Proposed Watts =	2193

Interior Lighting PASSES: Design 13% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

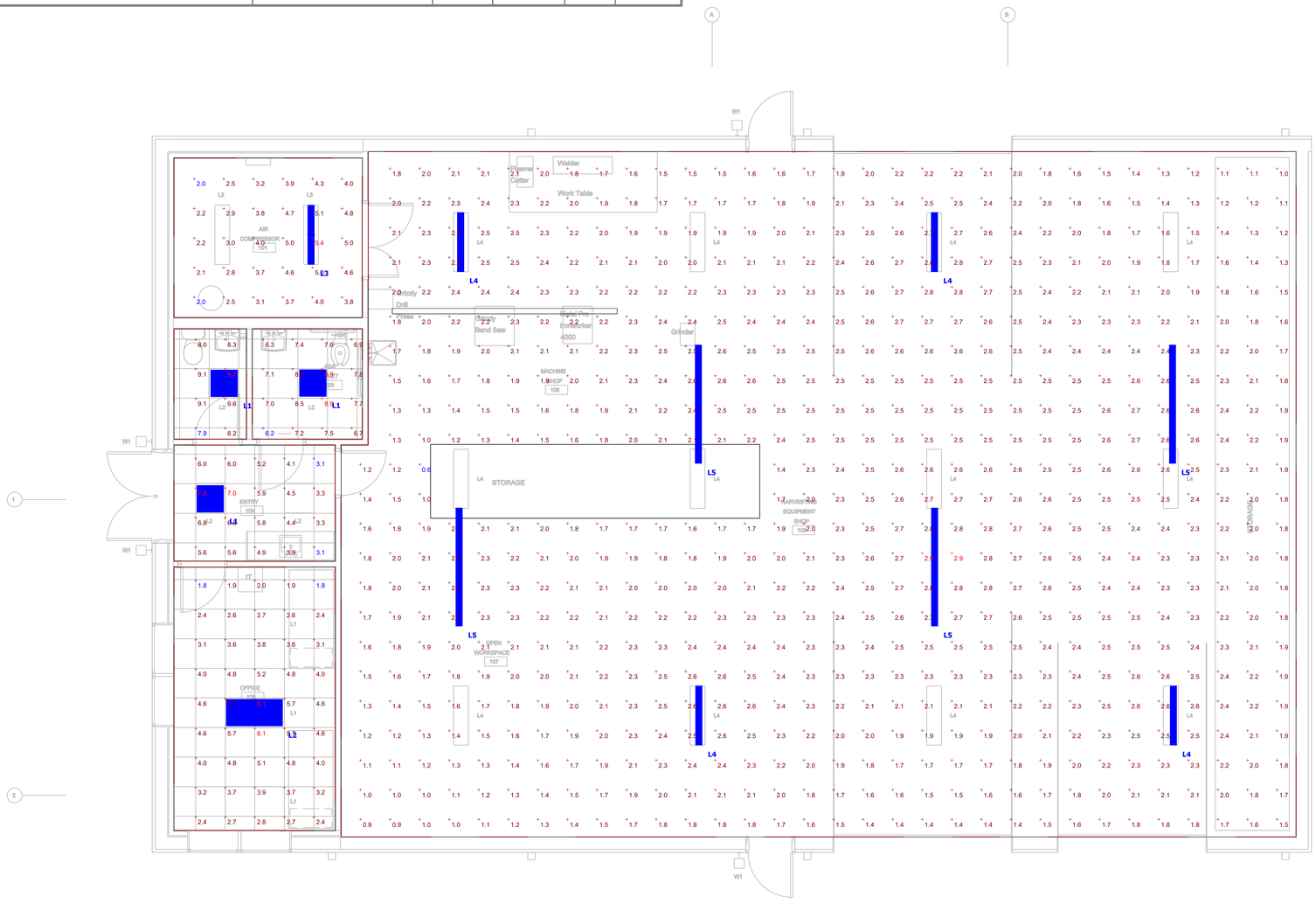
Name - Title Signature Date

Polar Plot

Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage
	L1	3	55L-XX-D-22-ASO-XX-35K-D40-D01-UNV-XX	Ryvl 55L 2x2 Direct	Seoul 80CRI 3500K LEDs	1	4010	0.27	30.5
	L2	1	55L-XX-D-24-ASO-XX-35K-D50-D01-UNV-XX	Ryvl 55L 2x4 Direct	Seoul 80CRI 3500K LEDs	1	5064	0.23	36.8
	L3	1	CSVT L48 6000LM LPPFL MD 40K 80CRI	Contractor Select LED Vaportight,48IN,6,000LM,Polycarbonate, low profile frosted lens,Medium,4000K,80 color rendering index		1	6648	0.16	52.9535
	L4	4	CSVT L48 12000LM LPPFL MD 40K 80CRI	Contractor Select LED Vaportight,48IN,12,000LM,Polycarbonate, low profile frosted lens,Medium,4000K,80 color rendering index		1	12457	0.09	93.8479
	L5	4	CSVT L96 16000LM LPPFL MD 40K 80CRI	Contractor Select LED Vaportight,96IN,16,000LM,Polycarbonate, low profile frosted lens,Medium,4000K,80 color rendering index		1	18267	0.06	130.5936

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
ADA TOILET 103	+	7.5 fc	8.9 fc	6.2 fc	1.4:1	1.2:1
AIR COMPRESSOR 101	+	3.7 fc	5.4 fc	2.0 fc	2.7:1	1.9:1
ENTRY 104	+	5.1 fc	7.0 fc	3.1 fc	2.3:1	1.6:1
OFFICE 105	+	3.8 fc	6.1 fc	1.8 fc	3.4:1	2.1:1
SHOP 108	+	2.1 fc	2.9 fc	0.6 fc	4.8:1	3.5:1
TOILET 102	+	8.7 fc	9.7 fc	7.9 fc	1.2:1	1.1:1



Plan View
Scale - 1/4" = 1ft

VT Timbers Normal Calcs

Designer
CGS
Date
8/13/2026
Scale
Not to Scale
Drawing No.

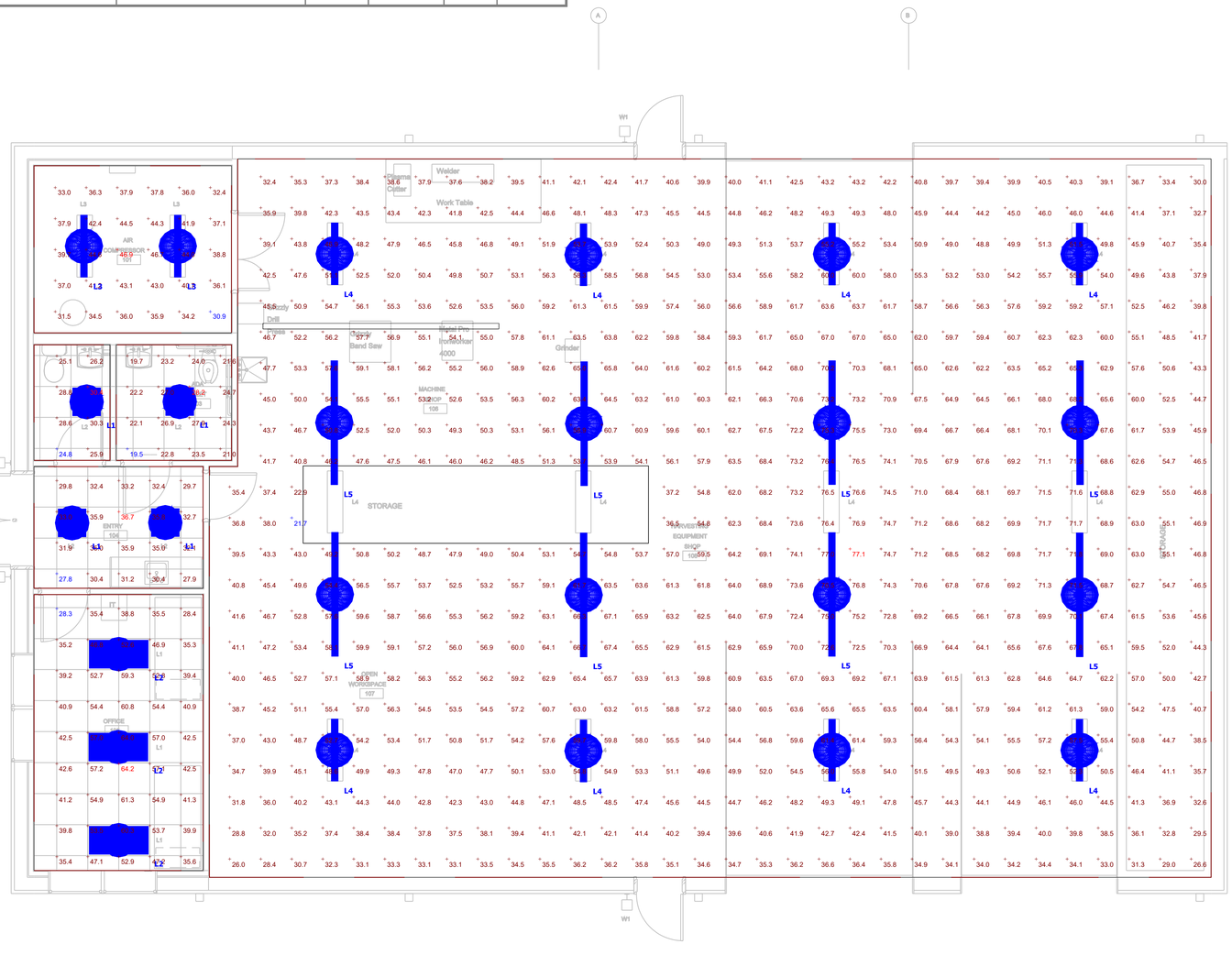
Summary

Polar Plot

Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage
	L1	4	55L-XX-D-22-ASO-XX-35K-D40-D01-UNV-XX	Ryvl 55L 2x2 Direct	Seoul 80CRI 3500K LEDs	1	4010	0.85	30.5
	L2	3	55L-XX-D-24-ASO-XX-35K-D50-D01-UNV-XX	Ryvl 55L 2x4 Direct	Seoul 80CRI 3500K LEDs	1	5064	0.85	36.8
	L3	2	CSVT L48 6000LM LPPFL MD 40K 80CRI	Contractor Select LED Vaportight,48IN,6,000LM,Polycarbonate, low profile frosted lens,Medium,4000K,80 color rendering index		1	6648	0.85	52.9535
	L4	8	CSVT L48 12000LM LPPFL MD 40K 80CRI	Contractor Select LED Vaportight,48IN,12,000LM,Polycarbonate, low profile frosted lens,Medium,4000K,80 color rendering index		1	12457	0.85	93.8479
	L5	8	CSVT L96 16000LM LPPFL MD 40K 80CRI	Contractor Select LED Vaportight,96IN,16,000LM,Polycarbonate, low profile frosted lens,Medium,4000K,80 color rendering index		1	18267	0.85	130.5936

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
ADA TOILET 103	+	23.7 fc	28.2 fc	19.5 fc	1.4:1	1.2:1
AIR COMPRESSOR 101	+	38.9 fc	46.9 fc	30.9 fc	1.5:1	1.3:1
ENTRY 104	+	32.5 fc	36.7 fc	27.8 fc	1.3:1	1.2:1
OFFICE 105	+	47.2 fc	64.2 fc	28.3 fc	2.3:1	1.7:1
SHOP 108	+	53.8 fc	77.1 fc	21.7 fc	3.6:1	2.5:1
TOILET 102	+	27.5 fc	30.4 fc	24.8 fc	1.2:1	1.1:1



Plan View
Scale - 1/4" = 1ft

VT Timbers Normal Calcs

Designer
CGS
Date
8/13/2026
Scale
Not to Scale
Drawing No.

Summary