# OpenStudio Results

# **Model Summary**

#### **Building Summary**

Information	Value	Units
Building Name	RESIDENTIAL BUILDING PIACENZA NO INSULATION	building_name
Net Site Energy	429,276	kBtu
Total Building Area	4,483	ft^2
EUI (Based on Net Site Energy and Total Building Area)	95.75	kBtu/ft^2
OpenStudio Standards Building Type		

#### Weather Summary

	Value
Weather File	Piacenza - ITA IGDG WMO#=160840
Latitude	44.92
Longitude	9.73
Elevation	440 (ft)
Time Zone	1.00
North Axis Angle	0.00
ASHRAE Climate Zone	

### Sizing Period Design Days

	Maximum Dry Bulb (F)	Daily Temperature Range (R)	Humidity Value	Humidity Type	Wind Speed (mph)	Wind Direction
PIACENZA ANN CLG .4% CONDNS DB=>MWB	91.58	21.42	72.86	Wetbulb [F]	5.14	90.0
PIACENZA ANN CLG .4% CONDNS DP=>MDB	81.32	21.42	73.4	Dewpoint [F]	5.14	90.0
PIACENZA ANN CLG .4% CONDNS ENTH=>MDB	86.54	21.42	32.2	Enthalpy [Btu/lb]	5.14	90.0
PIACENZA ANN CLG .4% CONDNS WB=>MDB	86.18	21.42	76.28	Wetbulb [F]	5.14	90.0
PIACENZA ANN HTG 99.6% CONDNS DB	21.02	0.0	21.02	Wetbulb [F]	4.47	250.0
PIACENZA ANN HTG WIND 99.6% CONDNS WS=>MCDB	42.44	0.0	42.44	Wetbulb [F]	19.91	250.0
PIACENZA ANN HUM_N 99.6% CONDNS DP=>MCDB	38.3	0.0	11.66	Dewpoint [F]	4.47	250.0

#### Unmet Hours Summary

Time Setpoint Not Met	Time (hr)
During Heating	0.0
During Cooling	0.0
During Occupied Heating	0.0
During Occupied Cooling	0.0

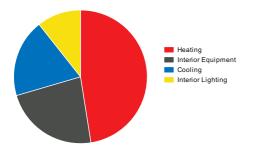
#### Unmet Hours Tolerance

Tolerance for Time Setpoint Not Met	Temperature (F)
Heating	0.36
Cooling	0.36

## **Annual Overview**

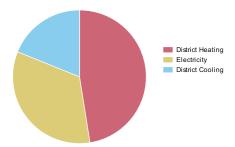
#### End Use - view table

End Use	Consumption (kBtu)
Heating	203,894
Cooling	81,076
Interior Lighting	45,723
Exterior Lighting	0
Interior Equipment	98,592
Exterior Equipment	0
Fans	0
Pumps	0
Heat Rejection	0
Humidification	0
Heat Recovery	0
Water Systems	0
Refrigeration	0
Generators	0



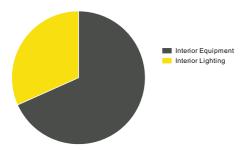
### Energy Use - view table

Fuel	Consumption (kBtu)
Electricity	144,315
Natural Gas	0
Additional Fuel	0
District Cooling	81,076
District Heating	203,894



#### EUI - Electricity - view table

End Use	Consumption (kWh)
Heating	0
Cooling	0
Interior Lighting	13,400
Exterior Lighting	0
Interior Equipment	28,894
Exterior Equipment	0
Fans	0
Pumps	0
Heat Rejection	0
Humidification	0
Heat Recovery	0
Water Systems	0
Refrigeration	0
Generators	0

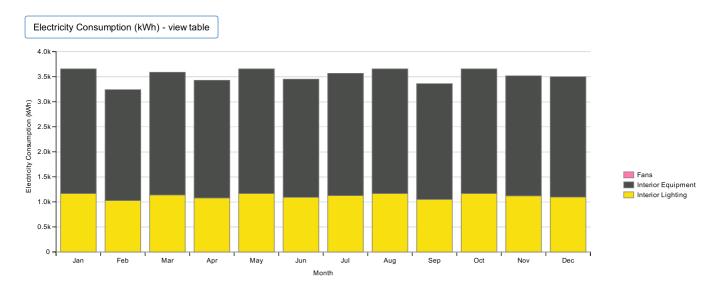


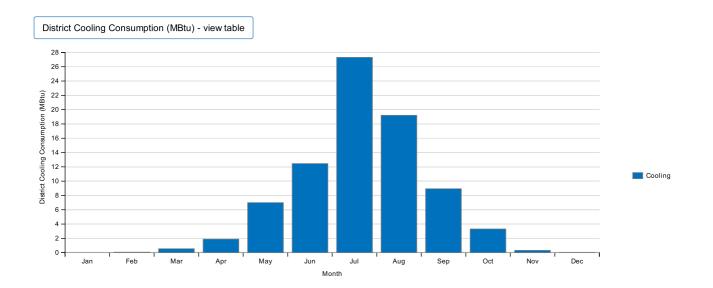
#### EUI - Gas - view table

End Use	Consumption (therms)
Heating	0
Cooling	0
Interior Lighting	0
Exterior Lighting	0
Interior Equipment	0
Exterior Equipment	0
Fans	0
Pumps	0
Heat Rejection	0
Humidification	0
Heat Recovery	0
Water Systems	0

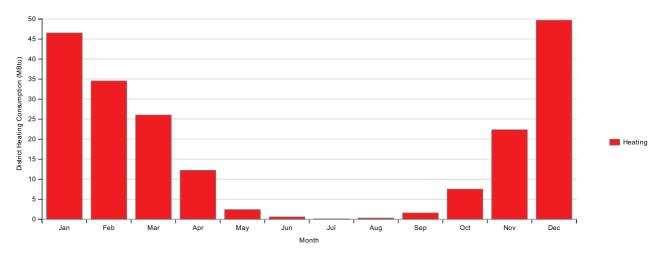
Refrigeration	0
Generators	0

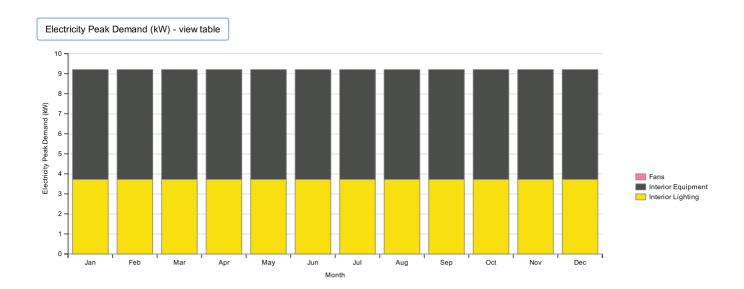
## Monthly Overview

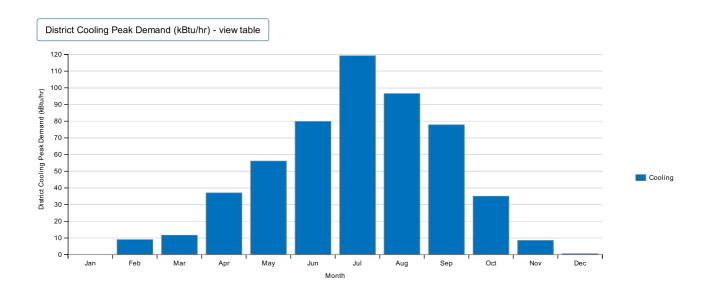




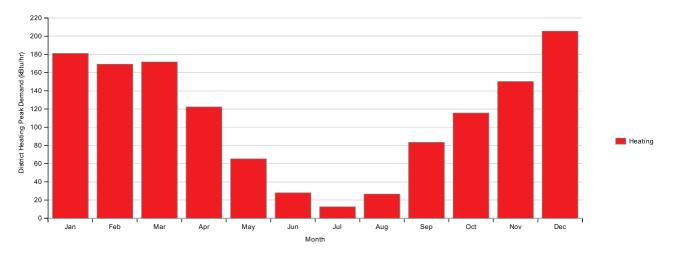
District Heating Consumption (MBtu) - view table







District Heating Peak Demand (kBtu/hr) - view table



### **Utility Bills/Rates**

No Data to Show for Utility Bills/Rates

## Envelope

Base Surface Constructions

Construction	Net Area (ft^2)	Surface Count	R Value (ft^2*h*R/Btu)
ASHRAE 189.1-2009 ExtRoof IEAD ClimateZone 1	1,494	6	19.96
ASHRAE 189.1-2009 ExtWall Mass ClimateZone 1	4,348	33	1.33

Sub Surface Constructions

Construction	Area (ft^2)	Surface Count	U-Factor (Btu/ft^2*h*R)
ASHRAE 189.1-2009 ExtWindow ClimateZone 1	692	33	

WWR & Skylight Ratio

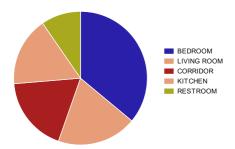
Description	Total (%)	North (%)	East (%)	South (%)	West (%)
Gross Window-Wall Ratio	13.73	11.99	7.38	23.03	8.27
Gross Window-Wall Ratio (Conditioned)	13.73	11.99	7.38	23.03	8.27
Skylight-Roof Ratio	0.0				

# Space Type Breakdown

Space Type Breakdown - view table

Space Type Name	Floor Area (ft^2)	Standards Building Type	Standards Space Type
BEDROOM	1,616	Office	IT_Room
CORRIDOR	820	Office	Corridor
KITCHEN	750	Office	BreakRoom
LIVING ROOM	867	Office	Lobby

RESTROOM	430	Office	Restroom
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# Space Type Summary

#### BEDROOM

(6 spaces and 6 thermal zones)

Definition	Value	Unit	Inst. Multiplier
189.1-2009 - Office - IT_Room - CZ1-3 People Definition	0.0050	people/ft^2	1.0
189.1-2009 - Office - IT_Room - CZ1-3 Electric Equipment Definition	1.5600	W/ft^2	1.0
189.1-2009 - Office - IT_Room - CZ1-3 Lights Definition	0.9900	W/ft^2	1.0
189.1-2009 - Office - IT_Room - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - IT_Room - CZ1-3 Ventilation (outdoor air method Sum)	0.0500	cfm/floor area ft^2	

#### CORRIDOR

(3 spaces and 3 thermal zones)

Definition	Value	Unit	Inst. Multiplier
189.1-2009 - Office - Corridor - CZ1-3 People Definition	0.0010	people/ft^2	1.0
189.1-2009 - Office - Corridor - CZ1-3 Electric Equipment Definition	0.1600	W/ft^2	1.0
189.1-2009 - Office - Corridor - CZ1-3 Lights Definition	0.4500	W/ft^2	1.0
189.1-2009 - Office - Corridor - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - Corridor - CZ1-3 Ventilation (outdoor air method Sum)	0.0500	cfm/floor area ft^2	

#### KITCHEN

(3 spaces and 3 thermal zones)

Definition	Value	Unit	Inst. Multiplier
189.1-2009 - Office - BreakRoom - CZ1-3 People Definition	0.0500	people/ft^2	1.0
189.1-2009 - Office - BreakRoom - CZ1-3 Electric Equipment Definition	4.4600	W/ft^2	1.0
189.1-2009 - Office - BreakRoom - CZ1-3 Lights Definition	1.0800	W/ft^2	1.0
189.1-2009 - Office - BreakRoom - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - BreakRoom - CZ1-3 Ventilation (outdoor air method Sum)	15.0000	cfm/person	

#### LIVING ROOM

(3 spaces and 3 thermal zones)

Definition	Value	Unit	Inst. Multiplier
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189.1-2009 - Office - Lobby - CZ1-3 People Definition	0.0100	people/ft^2	1.0
189.1-2009 - Office - Lobby - CZ1-3 Electric Equipment Definition	0.0700	W/ft^2	1.0
189.1-2009 - Office - Lobby - CZ1-3 Lights Definition	1.1700	W/ft^2	1.0
189.1-2009 - Office - Lobby - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - Lobby - CZ1-3 Ventilation (outdoor air method Sum)	15.0000	cfm/person	

#### RESTROOM

(3 spaces and 3 thermal zones)

Definition	Value	Unit	Inst. Multiplier
189.1-2009 - Office - Restroom - CZ1-3 People Definition	0.0100	people/ft^2	1.0
189.1-2009 - Office - Restroom - CZ1-3 Electric Equipment Definition	0.0700	W/ft^2	1.0
189.1-2009 - Office - Restroom - CZ1-3 Lights Definition	0.8100	W/ft^2	1.0
189.1-2009 - Office - Restroom - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - Restroom - CZ1-3 Ventilation (outdoor air method Sum)	0.9600	cfm/floor area ft^2	

# Interior Lighting Summary

Interior Lighting Summary

	Zone	Lighting Power Density (W/ft^2)	Total Power (W)	Schedule Name	Scheduled Hours/Week (hr)	Actual Load Hours/Week (hr)	Return Air Fraction	Consumption (kWh)
BEDROOM 1 1F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 1 1F	0.99	262.94	OFFICE BLDG LIGHT	62.05	62.05	0.0000	850.0
BEDROOM 1 2F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 1 2F	0.99	262.94	OFFICE BLDG LIGHT	62.05	62.05	0.0000	850.0
BEDROOM 1 GF 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 1 GF	0.99	262.94	OFFICE BLDG LIGHT	62.05	62.05	0.0000	850.0
BEDROOM 2 1F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 1F	0.99	270.35	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
BEDROOM 2 2F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 2F	0.99	270.35	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
BEDROOM 2 GF 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 GF	0.99	270.35	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
CORRIDOR 1F 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR 1F	0.45	122.96	OFFICE BLDG LIGHT	62.05	62.05	0.0000	397.22
CORRIDOR 2F 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR 2F	0.45	122.96	OFFICE BLDG LIGHT	62.05	62.05	0.0000	397.22
CORRIDOR GF 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR GF	0.45	122.96	OFFICE BLDG LIGHT	62.05	62.05	0.0000	397.22
KITCHEN 1F 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN 1F	1.08	270.17	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
KITCHEN 2F 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN 2F	1.08	270.17	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0

KITCHEN GF 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN GF	1.08	270.17	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
LIVING ROOM 1F 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM 1F	1.17	338.02	OFFICE BLDG LIGHT	62.05	62.05	0.0000	1094.44
LIVING ROOM 2F 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM 2F	1.17	338.02	OFFICE BLDG LIGHT	62.05	62.05	0.0000	1094.44
LIVING ROOM GF 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM GF	1.17	338.02	OFFICE BLDG LIGHT	62.05	62.05	0.0000	1094.44
RESTROOM 1F 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM 1F	0.81	116.22	OFFICE BLDG LIGHT	62.05	62.05	0.0000	375.0
RESTROOM 2F 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM 2F	0.81	116.22	OFFICE BLDG LIGHT	62.05	62.05	0.0000	375.0
RESTROOM GF 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM GF	0.81	116.22	OFFICE BLDG LIGHT	62.05	62.05	0.0000	375.0

## Plug Loads Summary

#### Electric Plug Load Consumption

	Electricity Annual Value (kWh)
InteriorEquipment:Electricity:Zone:BEDROOM 1 1F	1966.67
InteriorEquipment:Electricity:Zone:BEDROOM 1 2F	1966.67
InteriorEquipment:Electricity:Zone:BEDROOM 1 GF	1966.67
InteriorEquipment:Electricity:Zone:BEDROOM 2 1F	2022.22
InteriorEquipment:Electricity:Zone:BEDROOM 2 2F	2022.22
InteriorEquipment:Electricity:Zone:BEDROOM 2 GF	2022.22
InteriorEquipment:Electricity:Zone:CORRIDOR 1F	208.33
InteriorEquipment:Electricity:Zone:CORRIDOR 2F	208.33
InteriorEquipment:Electricity:Zone:CORRIDOR GF	208.33
InteriorEquipment:Electricity:Zone:KITCHEN 1F	5294.44
InteriorEquipment:Electricity:Zone:KITCHEN 2F	5294.44
InteriorEquipment:Electricity:Zone:KITCHEN GF	5294.44
InteriorEquipment:Electricity:Zone:LIVING ROOM 1F	97.22
InteriorEquipment:Electricity:Zone:LIVING ROOM 2F	97.22
InteriorEquipment:Electricity:Zone:LIVING ROOM GF	97.22
InteriorEquipment:Electricity:Zone:RESTROOM 1F	47.22
InteriorEquipment:Electricity:Zone:RESTROOM 2F	47.22
InteriorEquipment:Electricity:Zone:RESTROOM GF	47.22

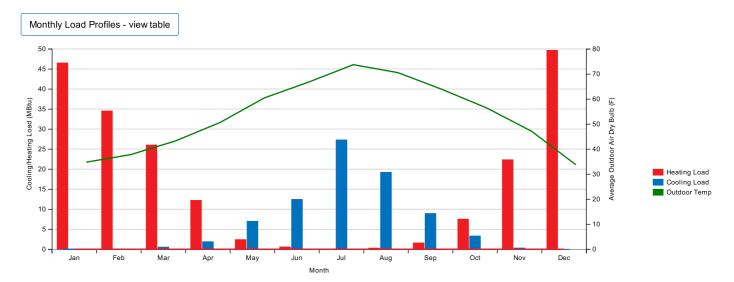
## **Exterior Lighting**

No Data to Show for Exterior Lighting

### Water Use Equipment

No Data to Show for Water Use Equipment

### **HVAC Load Profiles**



### **Zone Conditions**

Temperature (Table values represent hours spent in each temperature range)

Zone	Unmet Htg (hr)	Unmet Htg - Occ (hr)	< 56 (F)	56- 61 (F)	61- 66 (F)	66- 68 (F)	68- 70 (F)	70- 72 (F)	72- 74 (F)	74- 76 (F)	76- 78 (F)	78- 83 (F)	>= 88 (F)	Unmet Clg (hr)	Unmet Clg - Occ (hr)	Mean Temp (F)
BEDROOM 1 1F	0	0	0	1497	549	156	2428	498	460	2328	234	610	0	0	0	70.2 (F)
BEDROOM 1 2F	0	0	0	1642	486	167	2517	469	426	2265	221	567	0	0	0	70.0 (F)
BEDROOM 1 GF	0	0	0	1484	659	243	2587	663	571	2132	221	200	0	0	0	69.5 (F)
BEDROOM 2 1F	0	0	0	1529	558	176	2517	506	477	2247	218	532	0	0	0	70.0 (F)
BEDROOM 2 2F	0	0	0	1683	488	194	2566	510	435	2180	200	504	0	0	0	69.8 (F)
BEDROOM 2 GF	0	0	0	1496	689	282	2665	696	608	1995	193	136	0	0	0	69.3 (F)
CORRIDOR 1F	0	0	0	1489	687	264	3095	623	627	1491	231	253	0	0	0	69.2 (F)
CORRIDOR 2F	0	0	0	1656	600	236	3107	553	585	1505	232	286	0	0	0	69.1 (F)
CORRIDOR GF	0	0	0	1525	899	386	3572	813	670	824	66	5	0	0	0	68.2 (F)
KITCHEN 1F	0	0	0	503	616	286	1332	615	552	3253	292	1311	0	0	0	72.7 (F)
KITCHEN 2F	0	0	0	837	608	240	1471	544	508	3101	284	1167	0	0	0	72.1 (F)
KITCHEN GF	0	0	0	333	828	354	1411	746	785	3296	395	612	0	0	0	72.1 (F)
LIVING ROOM 1F	0	0	0	1698	472	193	2753	523	453	1927	214	527	0	0	0	69.7 (F)
LIVING ROOM 2F	0	0	0	1823	417	192	2799	499	433	1882	214	501	0	0	0	69.5 (F)
LIVING ROOM GF	0	0	0	1691	613	281	2954	659	605	1592	190	175	0	0	0	69.0 (F)
RESTROOM 1F	0	0	0	2305	630	237	3592	494	374	999	47	82	0	0	0	67.6 (F)
RESTROOM 2F	0	0	0	2318	610	224	3575	470	383	1037	54	89	0	0	0	67.7 (F)
RESTROOM GF	0	0	0	2415	729	222	3747	445	323	795	36	48	0	0	0	67.2 (F)

Humidity (Table values represent hours spent in each Humidity range)

Zone	< 30 (%)	30-35 (%)	35-40 (%)	40-45 (%)	45-50 (%)	50-55 (%)	55-60 (%)	60-65 (%)	65-70 (%)	70-75 (%)	>= 80 (%)	Mean Relative Humidity (%)
BEDROOM 1 1F	1523	861	882	1787	1483	967	714	352	147	38	6	42.4 (%)
BEDROOM 1 2F	1609	845	825	1628	1468	927	765	427	187	64	11	42.8 (%)
BEDROOM 1 GF	1506	860	772	1212	1390	948	801	640	405	152	63	44.7 (%)
BEDROOM 2 1F	1488	850	846	1553	1500	1012	834	445	184	38	10	43.2 (%)
BEDROOM 2 2F	1574	847	797	1389	1474	993	803	544	248	65	23	43.4 (%)
BEDROOM 2 GF	1468	852	764	1053	1283	964	884	706	476	202	86	45.5 (%)
CORRIDOR 1F	1715	834	729	862	1079	1022	974	849	481	167	35	45.0 (%)
CORRIDOR 2F	1774	817	707	891	1044	1007	941	855	456	205	49	45.0 (%)
CORRIDOR GF	1708	822	650	657	606	736	805	888	796	526	326	48.7 (%)
KITCHEN 1F	743	863	1728	2009	2093	888	339	89	8	0	0	42.1 (%)
KITCHEN 2F	866	920	1277	1856	2219	1064	424	124	10	0	0	42.5 (%)
KITCHEN GF	745	812	1135	1336	1821	1410	933	474	75	17	2	45.1 (%)
LIVING ROOM 1F	1106	850	800	1214	1540	1044	968	671	377	135	50	45.9 (%)
LIVING ROOM 2F	1225	880	807	1089	1444	1029	967	742	357	155	53	45.7 (%)
LIVING ROOM GF	1094	853	726	853	1028	850	1046	962	768	381	155	48.8 (%)
RESTROOM 1F	1840	774	618	600	654	588	665	700	676	714	475	49.5 (%)
RESTROOM 2F	1840	776	620	604	654	600	660	706	706	690	485	49.4 (%)
RESTROOM GF	1838	775	608	587	614	567	590	679	580	608	526	50.7 (%)

### **Zone Overview**

Zone Summary

	Area (ft^2)	Conditioned (Y/N)	Part of Total Floor Area (Y/N)	Volume (ft^3)	Multiplier	Gross Wall Area (ft^2)	Window Glass Area (ft^2)	Lighting (W/ft^2)	People (ft^2/person)	Plug and Process (W/ft^2)
BEDROOM 1 1F	265.55	Yes	Yes	2656.02	1.00	370.71	59.74	0.99	199.99	1.56
BEDROOM 1 2F	265.55	Yes	Yes	2656.02	1.00	370.71	59.74	0.99	199.99	1.56
BEDROOM 1 GF	265.55	Yes	Yes	2656.02	1.00	370.71	59.74	0.99	199.99	1.56
BEDROOM 2 1F	273.08	Yes	Yes	2730.88	1.00	334.65	24.22	0.99	199.99	1.56
BEDROOM 2 2F	273.08	Yes	Yes	2730.88	1.00	334.65	24.22	0.99	199.99	1.56
BEDROOM 2 GF	273.08	Yes	Yes	2730.88	1.00	334.65	24.22	0.99	199.99	1.56
CORRIDOR 1F	273.3	Yes	Yes	2732.3	1.00	200.1	43.27	0.45	999.97	0.16

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CORRIDOR 2F	273.3	Yes	Yes	2732.3	1.00	200.1	43.27	0.45	999.97	0.16
CORRIDOR GF	273.3	Yes	Yes	2732.3	1.00	200.1	43.27	0.45	999.97	0.16
KITCHEN 1F	250.15	Yes	Yes	2501.69	1.00	183.74	43.59	1.08	20.02	4.46
KITCHEN 2F	250.15	Yes	Yes	2501.69	1.00	183.74	43.59	1.08	20.02	4.46
KITCHEN GF	250.15	Yes	Yes	2501.69	1.00	183.74	43.59	1.08	20.02	4.46
LIVING ROOM 1F	288.9	Yes	Yes	2889.09	1.00	488.9	38.75	1.17	100.0	0.07
LIVING ROOM 2F	288.9	Yes	Yes	2889.09	1.00	488.9	38.75	1.17	100.0	0.07
LIVING ROOM GF	288.9	Yes	Yes	2889.09	1.00	488.9	38.75	1.17	100.0	0.07
RESTROOM 1F	143.48	Yes	Yes	1434.83	1.00	101.72	20.99	0.81	100.0	0.07
RESTROOM 2F	143.48	Yes	Yes	1434.83	1.00	101.72	20.99	0.81	100.0	0.07
RESTROOM GF	143.48	Yes	Yes	1434.83	1.00	101.72	20.99	0.81	100.0	0.07
Total	4483.38			44833.74		5039.34	691.69	0.92	75.46	1.36
Conditioned Total	4483.38			44833.74		5039.34	691.69	0.92	75.46	1.36
Unconditioned Total	0.0			0.0		0.0	0.0	0.0	0.0	0.0
Not Part of Total	0.0			0.0		0.0	0.0	0.0	0.0	0.0

#### Zone Sensible Cooling and Heating Sensible Sizing

	Heating/Cooling	Calculated Design Load	Design Load With Sizing Factor	Calculated Design Air Flow (ft^3/min)	Design Air Flow With Sizing Factor (ft^3/min)	Date/Time Of Peak	Outdoor Temperature at Peak Load (F)	Outdoor Humidity Ratio at Peak Load (IbWater/IbAir)
BEDROOM 1 1F	Cooling	0.59 (ton)	0.68 (ton)	364.45	419.54	8/21 16:45:00	89.01	0.01
BEDROOM 1 1F	Heating	9.01 (kBtu/h)	11.26 (kBtu/h)	243.67	305.12	1/21 06:00:00	21.02	0.0
BEDROOM 1 2F	Cooling	0.62 (ton)	0.72 (ton)	383.52	442.85	8/21 17:00:00	88.57	0.01
BEDROOM 1 2F	Heating	10.42 (kBtu/h)	13.02 (kBtu/h)	281.81	351.73	1/21 06:00:00	21.02	0.0
BEDROOM 1 GF	Cooling	0.46 (ton)	0.53 (ton)	281.81	324.19	8/21 16:45:00	89.01	0.01
BEDROOM 1 GF	Heating	8.48 (kBtu/h)	10.6 (kBtu/h)	228.84	286.05	1/21 06:00:00	21.02	0.0
BEDROOM 2 1F	Cooling	0.45 (ton)	0.52 (ton)	277.57	319.95	8/21 17:15:00	88.05	0.01
BEDROOM 2 1F	Heating	7.96 (kBtu/h)	9.94 (kBtu/h)	214.01	269.1	1/21 06:00:00	21.02	0.0
BEDROOM 2 2F	Cooling	0.49 (ton)	0.56 (ton)	300.88	345.38	8/21 18:00:00	86.43	0.01
BEDROOM 2 2F	Heating	9.39 (kBtu/h)	11.74 (kBtu/h)	254.27	317.83	1/21 06:00:00	21.02	0.0
BEDROOM 2 GF	Cooling	0.34 (ton)	0.39 (ton)	209.77	241.55	8/21 17:00:00	88.57	0.01
BEDROOM 2 GF	Heating	7.51 (kBtu/h)	9.39 (kBtu/h)	203.41	254.27	1/21 06:00:00	21.02	0.0

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CORRIDOR 1F	Cooling	0.25 (ton)	0.29 (ton)	152.56	175.87	8/21 18:30:00	84.83	0.01
CORRIDOR 1F	Heating	6.12 (kBtu/h)	7.65 (kBtu/h)	165.27	207.65	1/21 06:00:00	21.02	0.0
CORRIDOR 2F	Cooling	0.31 (ton)	0.35 (ton)	188.58	216.13	8/21 18:30:00	84.83	0.01
CORRIDOR 2F	Heating	7.64 (kBtu/h)	9.55 (kBtu/h)	205.53	258.5	1/21 06:00:00	21.02	0.0
CORRIDOR GF	Cooling	0.12 (ton)	0.14 (ton)	76.28	86.87	8/21 18:15:00	85.64	0.01
CORRIDOR GF	Heating	5.9 (kBtu/h)	7.37 (kBtu/h)	158.92	199.17	1/21 06:00:00	21.02	0.0
KITCHEN 1F	Cooling	1.07 (ton)	1.23 (ton)	656.85	756.44	8/21 15:30:00	90.93	0.01
KITCHEN 1F	Heating	4.75 (kBtu/h)	5.94 (kBtu/h)	129.25	188.58	1/21 06:00:00	21.02	0.0
KITCHEN 2F	Cooling	1.09 (ton)	1.26 (ton)	675.92	777.63	8/21 15:45:00	90.61	0.01
KITCHEN 2F	Heating	6.09 (kBtu/h)	7.62 (kBtu/h)	165.27	205.53	1/21 06:00:00	21.02	0.0
KITCHEN GF	Cooling	0.94 (ton)	1.08 (ton)	582.69	669.57	8/21 15:30:00	90.93	0.01
KITCHEN GF	Heating	4.48 (kBtu/h)	5.6 (kBtu/h)	120.78	188.58	1/21 06:00:00	21.02	0.0
LIVING ROOM 1F	Cooling	0.55 (ton)	0.63 (ton)	339.02	389.87	8/21 20:15:00	80.38	0.01
LIVING ROOM 1F	Heating	10.0 (kBtu/h)	12.49 (kBtu/h)	271.22	336.9	1/21 06:00:00	21.02	0.0
LIVING ROOM 2F	Cooling	0.59 (ton)	0.68 (ton)	362.33	417.42	8/21 20:00:00	80.87	0.01
LIVING ROOM 2F	Heating	11.52 (kBtu/h)	14.4 (kBtu/h)	311.48	389.87	1/21 06:00:00	21.02	0.0
LIVING ROOM GF	Cooling	0.41 (ton)	0.48 (ton)	256.38	294.52	8/21 20:00:00	80.87	0.01
LIVING ROOM GF	Heating	9.29 (kBtu/h)	11.61 (kBtu/h)	250.03	313.59	1/21 06:00:00	21.02	0.0
RESTROOM 1F	Cooling	0.3 (ton)	0.35 (ton)	186.46	214.01	8/21 15:15:00	91.26	0.01
RESTROOM 1F	Heating	10.55 (kBtu/h)	13.19 (kBtu/h)	283.93	355.97	1/21 06:00:00	21.02	0.0
RESTROOM 2F	Cooling	0.32 (ton)	0.37 (ton)	197.06	226.72	8/21 15:15:00	91.26	0.01
RESTROOM 2F	Heating	11.34 (kBtu/h)	14.18 (kBtu/h)	305.12	383.52	1/21 06:00:00	21.02	0.0
RESTROOM GF	Cooling	0.25 (ton)	0.29 (ton)	154.68	177.99	8/21 15:00:00	91.58	0.01
RESTROOM GF	Heating	10.45 (kBtu/h)	13.06 (kBtu/h)	281.81	351.73	1/21 06:00:00	21.02	0.0

## Zone Equipment Detail

No Data to Show for Zone Equipment Detail

### Air Loops Detail

No Data to Show for Air Loops Detail

## Plant Loops Detail

No Data to Show for Plant Loops Detail

### **Outdoor Air**

Average and Minimum Outdoor Air During Occupied Hours

	Average Number of Occupants	Nominal Number of Occupants	Zone Volume (ft^3)	Avg. Mechanical Ventilation (ach)	Min. Mechanical Ventilation (ach)	Avg. Infiltration (ach)	Min. Infiltration (ach)	Avg. Simple Ventilation (ach)	Min. Simple Ventilation (ach)
BEDROOM 1 1F	0.51	1.33	2656	0.0	0.0	0.167	0.002	0.31	0.005
BEDROOM 1 2F	0.51	1.33	2656	0.0	0.0	0.287	0.004	0.31	0.005
BEDROOM 1 GF	0.51	1.33	2656	0.0	0.0	0.167	0.002	0.31	0.005
BEDROOM 2 1F	0.52	1.37	2731	0.0	0.0	0.147	0.002	0.31	0.005
BEDROOM 2 2F	0.52	1.37	2731	0.0	0.0	0.266	0.003	0.31	0.005
BEDROOM 2 GF	0.52	1.37	2731	0.0	0.0	0.147	0.002	0.31	0.005
CORRIDOR 1F	0.15	0.27	2732	0.0	0.0	0.088	0.001	0.309	0.005
CORRIDOR 2F	0.15	0.27	2732	0.0	0.0	0.207	0.003	0.309	0.005
CORRIDOR GF	0.15	0.27	2732	0.0	0.0	0.087	0.001	0.309	0.005
KITCHEN 1F	4.79	12.51	2502	0.0	0.0	0.088	0.001	1.371	0.004
KITCHEN 2F	4.79	12.51	2502	0.0	0.0	0.208	0.003	1.371	0.004
KITCHEN GF	4.79	12.51	2502	0.0	0.0	0.088	0.001	1.371	0.004
LIVING ROOM 1F	1.11	2.89	2889	0.0	0.0	0.202	0.003	0.273	0.001
LIVING ROOM 2F	1.11	2.89	2889	0.0	0.0	0.322	0.004	0.273	0.001
LIVING ROOM GF	1.11	2.89	2889	0.0	0.0	0.202	0.003	0.273	0.001
RESTROOM 1F	0.55	1.43	1435	0.0	0.0	0.084	0.001	5.93	0.098
RESTROOM 2F	0.55	1.43	1435	0.0	0.0	0.204	0.003	5.93	0.098
RESTROOM GF	0.55	1.43	1435	0.0	0.0	0.084	0.001	5.927	0.098

### Cash Flow

No Data to Show for Cash Flow

## Site and Source Summary

Site and Source Energy

	Total Energy (kBtu)	Energy Per Total Building Area (kBtu/ft^2)	Energy Per Conditioned Building Area (kBtu/ft^2)
Total Site Energy	429275.9	95.7	95.7
Net Site Energy	429275.9	95.7	95.7
Total Source Energy	1279354.1	285.4	285.4
Net Source Energy	1279354.1	285.4	285.4

Site to Source Energy Conversion Factors

	Site=>Source Conversion Factor
Electricity	3.167
Natural Gas	1.084
District Cooling	1.056
District Heating	3.613

### Schedule Overview

