# OpenStudio Results

# **Model Summary**

#### **Building Summary**

Information	Value	Units
Building Name	RESIDENTIAL BUILDING KENYA NO INSULATION	building_name
Net Site Energy	534,332	kBtu
Total Building Area	4,483	ft^2
EUI (Based on Net Site Energy and Total Building Area)	119.18	kBtu/ft^2
OpenStudio Standards Building Type		

#### Weather Summary

	Value	
Weather File	MOMBASA/MOI_INTL - KEN SWERA WMO#=638200	
Latitude	-4.0	
Longitude	39.62	
Elevation	180 (ft)	
Time Zone	3.00	
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
MOMBASA/MOI_INTL ANN CLG .4% CONDNS DB=>MWB	91.4	13.14	77.36	Wetbulb [F]	11.63	90.0
MOMBASA/MOI_INTL ANN CLG .4% CONDNS DP=>MDB	82.04	13.14	77.54	Dewpoint [F]	11.63	90.0
MOMBASA/MOI_INTL ANN CLG .4% CONDNS ENTH=>MDB	86.54	13.14	35.47	Enthalpy [Btu/lb]	11.63	90.0
MOMBASA/MOI_INTL ANN CLG .4% CONDNS WB=>MDB	86.18	13.14	79.52	Wetbulb [F]	11.63	90.0
MOMBASA/MOI_INTL ANN HTG 99.6% CONDNS DB	67.82	0.0	67.82	Wetbulb [F]	4.47	240.0
MOMBASA/MOLINTL ANN HTG WIND 99.6% CONDNS WS=>MCDB	79.16	0.0	79.16	Wetbulb [F]	21.92	240.0
MOMBASA/MOI_INTL ANN HUM_N 99.6% CONDNS DP=>MCDB	78.08	0.0	62.24	Dewpoint [F]	4.47	240.0

#### 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

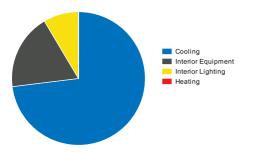
#### Unmet Hours Tolerance

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

## **Annual Overview**

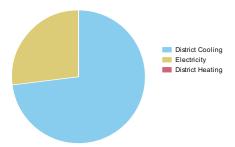
#### End Use - view table

End Use	Consumption (kBtu)
Heating	19
Cooling	390,311
Interior Lighting	45,581
Exterior Lighting	0
Interior Equipment	98,431
Exterior Equipment	0
Fans	0
Pumps	0
Heat Rejection	0
Humidification	0
Heat Recovery	0
Water Systems	0
Refrigeration	0
Generators	0



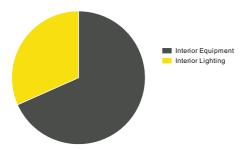
### Energy Use - view table

Fuel	Consumption (kBtu)
Electricity	144,011
Natural Gas	0
Additional Fuel	0
District Cooling	390,311
District Heating	19



#### EUI - Electricity - view table

End Use	Consumption (kWh)
Heating	0
Cooling	0
Interior Lighting	13,358
Exterior Lighting	0
Interior Equipment	28,847
Exterior Equipment	0
Fans	0
Pumps	0
Heat Rejection	0
Humidification	0
Heat Recovery	0
Water Systems	0
Refrigeration	0
Generators	0

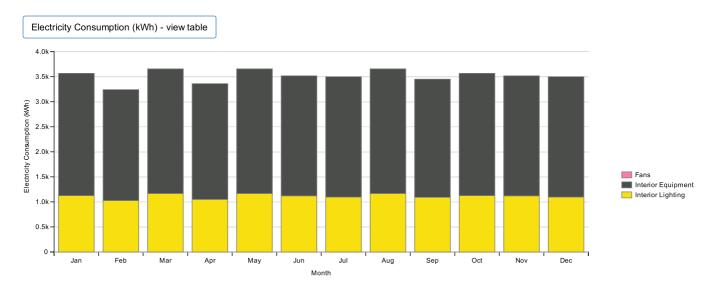


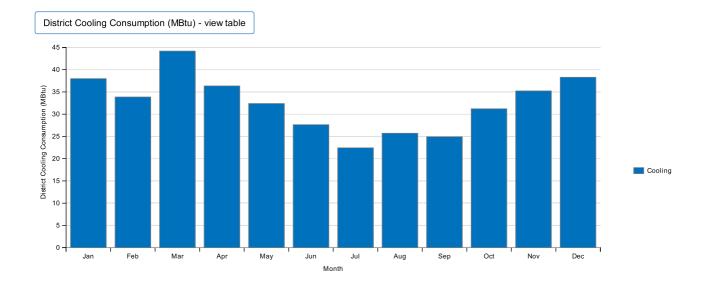
#### EUI - Gas - view table

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

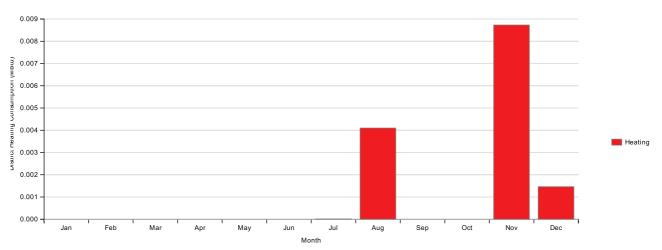
Refrigeration	0
Generators	0

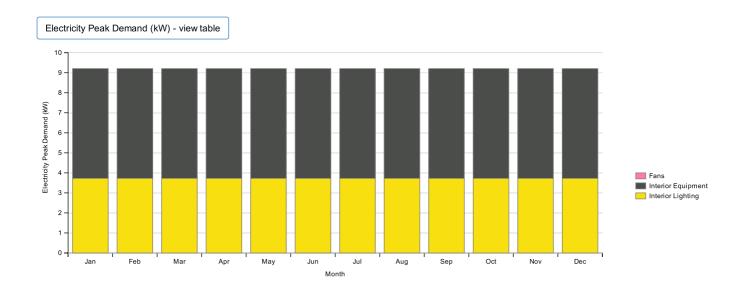
## Monthly Overview

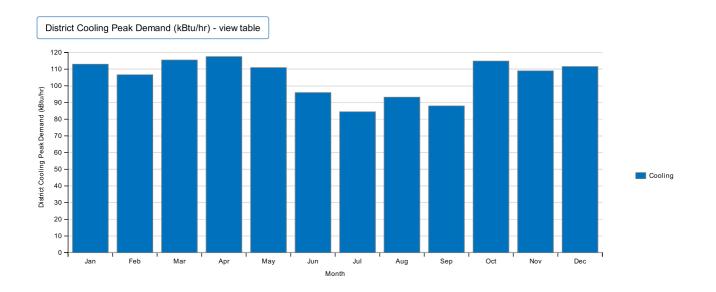




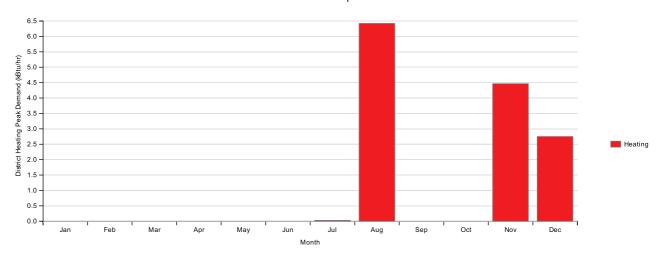
District Heating Consumption (MBtu) - view table







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

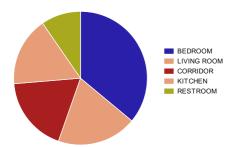
Description	Total (%)	North (%)	East (%)	South (%)	West (%)
Gross Window-Wall Ratio	13.73	11.99	7.38	23.03	8.27
Gross Window-Wall Ratio (Conditioned)	13.73	11.99	7.38	23.03	8.27
Skylight-Roof Ratio	0.0				

# 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



# 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	61.85	61.85	0.0000	847.22
BEDROOM 1 2F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 1 2F	0.99	262.94	OFFICE BLDG LIGHT	61.85	61.85	0.0000	847.22
BEDROOM 1 GF 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 1 GF	0.99	262.94	OFFICE BLDG LIGHT	61.85	61.85	0.0000	847.22
BEDROOM 2 1F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 1F	0.99	270.35	OFFICE BLDG LIGHT	61.85	61.85	0.0000	872.22
BEDROOM 2 2F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 2F	0.99	270.35	OFFICE BLDG LIGHT	61.85	61.85	0.0000	872.22
BEDROOM 2 GF 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 GF	0.99	270.35	OFFICE BLDG LIGHT	61.85	61.85	0.0000	872.22
CORRIDOR 1F 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR 1F	0.45	122.96	OFFICE BLDG LIGHT	61.85	61.85	0.0000	397.22
CORRIDOR 2F 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR 2F	0.45	122.96	OFFICE BLDG LIGHT	61.85	61.85	0.0000	397.22
CORRIDOR GF 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR GF	0.45	122.96	OFFICE BLDG LIGHT	61.85	61.85	0.0000	397.22
KITCHEN 1F 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN 1F	1.08	270.17	OFFICE BLDG LIGHT	61.85	61.85	0.0000	872.22
KITCHEN 2F 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN 2F	1.08	270.17	OFFICE BLDG LIGHT	61.85	61.85	0.0000	872.22

KITCHEN GF 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN GF	1.08	270.17	OFFICE BLDG LIGHT	61.85	61.85	0.0000	872.22
LIVING ROOM 1F 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM 1F	1.17	338.02	OFFICE BLDG LIGHT	61.85	61.85	0.0000	1088.89
LIVING ROOM 2F 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM 2F	1.17	338.02	OFFICE BLDG LIGHT	61.85	61.85	0.0000	1088.89
LIVING ROOM GF 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM GF	1.17	338.02	OFFICE BLDG LIGHT	61.85	61.85	0.0000	1088.89
RESTROOM 1F 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM 1F	0.81	116.22	OFFICE BLDG LIGHT	61.85	61.85	0.0000	375.0
RESTROOM 2F 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM 2F	0.81	116.22	OFFICE BLDG LIGHT	61.85	61.85	0.0000	375.0
RESTROOM GF 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM GF	0.81	116.22	OFFICE BLDG LIGHT	61.85	61.85	0.0000	375.0

## Plug Loads Summary

#### Electric Plug Load Consumption

	Electricity Annual Value (kWh)
InteriorEquipment:Electricity:Zone:BEDROOM 1 1F	1963.89
InteriorEquipment:Electricity:Zone:BEDROOM 1 2F	1963.89
InteriorEquipment:Electricity:Zone:BEDROOM 1 GF	1963.89
InteriorEquipment:Electricity:Zone:BEDROOM 2 1F	2016.67
InteriorEquipment:Electricity:Zone:BEDROOM 2 2F	2016.67
InteriorEquipment:Electricity:Zone:BEDROOM 2 GF	2016.67
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	5283.33
InteriorEquipment:Electricity:Zone:KITCHEN 2F	5283.33
InteriorEquipment:Electricity:Zone:KITCHEN GF	5283.33
InteriorEquipment:Electricity:Zone:LIVING ROOM 1F	94.44
InteriorEquipment:Electricity:Zone:LIVING ROOM 2F	94.44
InteriorEquipment:Electricity:Zone:LIVING ROOM GF	94.44
InteriorEquipment:Electricity:Zone:RESTROOM 1F	47.22
InteriorEquipment:Electricity:Zone:RESTROOM 2F	47.22
InteriorEquipment:Electricity:Zone:RESTROOM GF	47.22

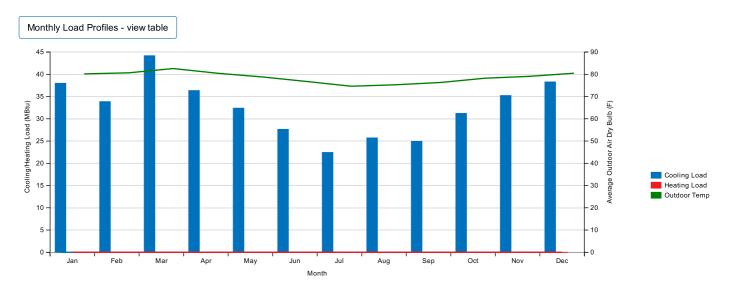
## **Exterior Lighting**

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	0	0	0	0	0	0	4795	152	3813	0	0	0	77.3 (F)
BEDROOM 1 2F	0	0	0	0	0	0	0	0	6	4795	186	3773	0	0	0	77.2 (F)
BEDROOM 1 GF	0	0	0	0	0	0	0	9	94	5414	1158	2085	0	0	0	76.4 (F)
BEDROOM 2 1F	0	0	0	0	0	0	0	0	0	4792	44	3924	0	0	0	77.3 (F)
BEDROOM 2 2F	0	0	0	0	0	0	0	0	5	4791	51	3913	0	0	0	77.3 (F)
BEDROOM 2 GF	0	0	0	0	0	0	0	9	36	5151	1397	2167	0	0	0	76.5 (F)
CORRIDOR 1F	0	0	0	0	0	0	0	0	8	4863	687	3202	0	0	0	76.9 (F)
CORRIDOR 2F	0	0	0	0	0	0	0	4	6	4858	640	3252	0	0	0	77.0 (F)
CORRIDOR GF	0	0	0	0	0	0	9	99	1048	6288	1095	221	0	0	0	75.1 (F)
KITCHEN 1F	0	0	0	0	0	0	0	0	0	4784	0	3976	0	0	0	77.4 (F)
KITCHEN 2F	0	0	0	0	0	0	0	0	0	4784	0	3976	0	0	0	77.4 (F)
KITCHEN GF	0	0	0	0	0	0	0	0	0	4792	364	3604	0	0	0	77.1 (F)
LIVING ROOM 1F	0	0	0	0	0	0	0	0	0	4844	249	3667	0	0	0	77.2 (F)
LIVING ROOM 2F	0	0	0	0	0	0	0	0	4	4846	256	3654	0	0	0	77.2 (F)
LIVING ROOM GF	0	0	0	0	0	0	0	21	217	5428	1177	1917	0	0	0	76.3 (F)
RESTROOM 1F	0	0	0	3	6	6	7	16	223	5531	1192	1776	0	0	0	76.2 (F)
RESTROOM 2F	0	0	0	3	6	6	7	13	193	5455	1117	1960	0	0	0	76.3 (F)
RESTROOM GF	0	0	0	4	12	6	22	297	1013	5722	1003	681	0	0	0	75.2 (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	5	3	21	354	3806	668	924	1278	889	567	179	55.2 (%)
BEDROOM 1 2F	5	3	17	139	3600	818	740	1082	1204	805	267	56.6 (%)
BEDROOM 1 GF	4	2	5	40	2450	992	686	548	554	541	864	64.4 (%)
BEDROOM 2 1F	5	3	15	359	3933	660	1115	1496	825	241	78	54.2 (%)
BEDROOM 2 2F	5	3	15	161	3708	747	848	1244	1318	536	137	55.9 (%)
BEDROOM 2 GF	4	1	5	52	2375	1084	650	598	596	610	926	64.1 (%)
CORRIDOR 1F	5	1	9	45	2389	1091	1118	985	804	956	847	60.7 (%)
CORRIDOR 2F	5	3	8	40	2071	1168	1116	1030	820	994	947	61.5 (%)
CORRIDOR GF	3	1	1	7	32	75	318	1228	1028	732	742	79.2 (%)
KITCHEN 1F	4	6	174	2402	1441	1220	1500	1932	79	2	0	51.8 (%)
KITCHEN 2F	6	5	28	243	847	2162	3022	2350	93	4	0	56.2 (%)
KITCHEN GF	4	2	11	52	182	526	1415	3805	1475	706	406	63.3 (%)
LIVING ROOM 1F	5	6	14	312	3015	1143	1422	1247	667	461	283	56.4 (%)
LIVING ROOM 2F	5	4	14	84	2721	1103	1199	1456	974	613	369	58.1 (%)
LIVING ROOM GF	5	1	7	23	732	824	977	1667	830	659	876	68.2 (%)
RESTROOM 1F	5	1	6	13	12	26	47	210	809	1718	1775	78.6 (%)
RESTROOM 2F	5	1	6	13	13	29	46	226	908	1795	1843	78.0 (%)
RESTROOM GF	4	2	4	6	14	14	28	108	351	1082	1463	83.8 (%)

### **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	0.5 (ton)	0.57 (ton)	305.12	351.73	3/21 16:00:00	90.61	0.02
BEDROOM 1 1F	Heating	0.71 (kBtu/h)	0.89 (kBtu/h)	19.07	23.31	7/21 19:00:00	67.82	0.01
BEDROOM 1 2F	Cooling	0.53 (ton)	0.61 (ton)	324.19	370.8	3/21 16:45:00	89.82	0.02
BEDROOM 1 2F	Heating	0.79 (kBtu/h)	0.98 (kBtu/h)	21.19	25.43	7/21 19:00:00	67.82	0.01
BEDROOM 1 GF	Cooling	0.38 (ton)	0.44 (ton)	233.08	269.1	3/21 16:00:00	90.61	0.02
BEDROOM 1 GF	Heating	1.0 (kBtu/h)	1.26 (kBtu/h)	27.55	33.9	7/21 19:00:00	67.82	0.01
BEDROOM 2 1F	Cooling	0.47 (ton)	0.55 (ton)	290.29	332.66	3/21 17:15:00	89.24	0.02
BEDROOM 2 1F	Heating	0.66 (kBtu/h)	0.83 (kBtu/h)	16.95	21.19	7/21 19:00:00	67.82	0.01
BEDROOM 2 2F	Cooling	0.51 (ton)	0.58 (ton)	309.36	355.97	3/21 17:45:00	88.57	0.02
BEDROOM 2 2F	Heating	0.74 (kBtu/h)	0.92 (kBtu/h)	19.07	25.43	7/21 19:00:00	67.82	0.01
BEDROOM 2 GF	Cooling	0.36 (ton)	0.42 (ton)	222.48	254.27	3/21 17:00:00	89.56	0.02
BEDROOM 2 GF	Heating	0.96 (kBtu/h)	1.2 (kBtu/h)	25.43	31.78	7/21 19:00:00	67.82	0.01

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CORRIDOR 1F	Cooling	0.29 (ton)	0.33 (ton)	175.87	201.29	3/21 18:00:00	88.25	0.02
CORRIDOR 1F	Heating	0.52 (kBtu/h)	0.65 (kBtu/h)	14.83	16.95	7/21 19:00:00	67.82	0.01
CORRIDOR 2F	Cooling	0.33 (ton)	0.38 (ton)	201.29	230.96	3/21 18:00:00	88.25	0.02
CORRIDOR 2F	Heating	0.61 (kBtu/h)	0.77 (kBtu/h)	16.95	21.19	7/21 19:00:00	67.82	0.01
CORRIDOR GF	Cooling	0.16 (ton)	0.18 (ton)	95.35	110.18	3/21 18:00:00	88.25	0.02
CORRIDOR GF	Heating	0.89 (kBtu/h)	1.11 (kBtu/h)	23.31	29.66	7/21 19:00:00	67.82	0.01
KITCHEN 1F	Cooling	0.99 (ton)	1.14 (ton)	603.88	694.99	3/21 15:15:00	91.2	0.02
KITCHEN 1F	Heating	0.43 (kBtu/h)	0.54 (kBtu/h)	10.59	188.58	7/21 19:00:00	67.82	0.01
KITCHEN 2F	Cooling	1.02 (ton)	1.17 (ton)	622.95	716.18	3/21 15:30:00	91.0	0.02
KITCHEN 2F	Heating	0.51 (kBtu/h)	0.63 (kBtu/h)	12.71	188.58	7/21 19:00:00	67.82	0.01
KITCHEN GF	Cooling	0.88 (ton)	1.01 (ton)	540.31	620.83	3/21 15:15:00	91.2	0.02
KITCHEN GF	Heating	0.74 (kBtu/h)	0.92 (kBtu/h)	19.07	188.58	7/21 19:00:00	67.82	0.01
LIVING ROOM 1F	Cooling	0.52 (ton)	0.6 (ton)	317.83	366.57	3/21 20:15:00	84.54	0.02
LIVING ROOM 1F	Heating	0.78 (kBtu/h)	0.98 (kBtu/h)	21.19	42.38	7/21 19:00:00	67.82	0.01
LIVING ROOM 2F	Cooling	0.56 (ton)	0.64 (ton)	341.14	391.99	3/21 20:15:00	84.54	0.02
LIVING ROOM 2F	Heating	0.87 (kBtu/h)	1.08 (kBtu/h)	23.31	42.38	7/21 19:00:00	67.82	0.01
LIVING ROOM GF	Cooling	0.4 (ton)	0.45 (ton)	241.55	277.57	3/21 20:15:00	84.54	0.02
LIVING ROOM GF	Heating	1.07 (kBtu/h)	1.34 (kBtu/h)	29.66	42.38	7/21 19:00:00	67.82	0.01
RESTROOM 1F	Cooling	0.32 (ton)	0.37 (ton)	197.06	226.72	3/21 15:15:00	91.2	0.02
RESTROOM 1F	Heating	0.56 (kBtu/h)	0.7 (kBtu/h)	14.83	137.73	7/21 19:00:00	67.82	0.01
RESTROOM 2F	Cooling	0.34 (ton)	0.39 (ton)	207.65	239.43	3/21 15:30:00	91.0	0.02
RESTROOM 2F	Heating	0.61 (kBtu/h)	0.76 (kBtu/h)	16.95	137.73	7/21 19:00:00	67.82	0.01
RESTROOM GF	Cooling	0.26 (ton)	0.3 (ton)	161.03	186.46	3/21 15:15:00	91.2	0.02
RESTROOM GF	Heating	0.75 (kBtu/h)	0.93 (kBtu/h)	19.07	137.73	7/21 19:00:00	67.82	0.01

## 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	0.161	0.003	0.298	0.007
BEDROOM 1 2F	0.51	1.33	2656	0.0	0.0	0.277	0.005	0.298	0.007
BEDROOM 1 GF	0.51	1.33	2656	0.0	0.0	0.161	0.003	0.298	0.007
BEDROOM 2 1F	0.53	1.37	2731	0.0	0.0	0.142	0.003	0.298	0.007
BEDROOM 2 2F	0.53	1.37	2731	0.0	0.0	0.257	0.005	0.298	0.007
BEDROOM 2 GF	0.53	1.37	2731	0.0	0.0	0.141	0.003	0.298	0.007
CORRIDOR 1F	0.15	0.27	2732	0.0	0.0	0.084	0.002	0.298	0.007
CORRIDOR 2F	0.15	0.27	2732	0.0	0.0	0.2	0.004	0.298	0.007
CORRIDOR GF	0.15	0.27	2732	0.0	0.0	0.084	0.002	0.297	0.007
KITCHEN 1F	4.81	12.51	2502	0.0	0.0	0.085	0.002	1.317	0.006
KITCHEN 2F	4.81	12.51	2502	0.0	0.0	0.2	0.004	1.317	0.006
KITCHEN GF	4.81	12.51	2502	0.0	0.0	0.085	0.002	1.316	0.006
LIVING ROOM 1F	1.11	2.89	2889	0.0	0.0	0.195	0.004	0.263	0.001
LIVING ROOM 2F	1.11	2.89	2889	0.0	0.0	0.311	0.006	0.263	0.001
LIVING ROOM GF	1.11	2.89	2889	0.0	0.0	0.195	0.004	0.263	0.001
RESTROOM 1F	0.55	1.43	1435	0.0	0.0	0.082	0.001	5.715	0.134
RESTROOM 2F	0.55	1.43	1435	0.0	0.0	0.197	0.004	5.715	0.134
RESTROOM GF	0.55	1.43	1435	0.0	0.0	0.082	0.001	5.71	0.134

### 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	534331.9	119.2	119.2
Net Site Energy	534331.9	119.2	119.2
Total Source Energy	868162.6	193.6	193.6
Net Source Energy	868162.6	193.6	193.6

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

