

# California Climate Zone 3



Reference City: Oakland  
San Francisco  
Latitude: 37.75 N  
Longitude: 122.2 W  
Elevation: 10 ft

## Design Day Data

	Oakland (F)	RH	San Francisco (F)	RH
Winter 99%	34		35	
Winter 97.5%	35		38	
Summer 1%	85	MCWB 64	82	MCWB 64
Summer 2.5%	80	MCWB 64	77	MCWB 63

## Degree Days

	OAK	SFO	Half Moon Bay	Redwood City
HDD	2909	3042	3770	2563
CDD	128	108	11	486

HDD = Heating Degree Days (base 65F)  
CDD = Cooling Degree Days (base 80F)

## Climatic Design Priorities

Winter: Insulate  
Reduce Infiltration  
Passive Solar  
Summer: Shade  
Allow natural ventilation

## Title 24 Requirements

Package	C	D
Ceiling Insulation	R38	R30
Wood Frame Walls	R25	R13
Glazing U-Value	0.42	0.67
Maximum Total Area	14%	20%

## Basic Climate Conditions

	OAK	SFO
Summer Temperature Range (F)	29	23
Record High Temperature	113	106
	(1960)	(1961)
Record Low Temperature	14	20
	(1930)	(1932)

## Climate

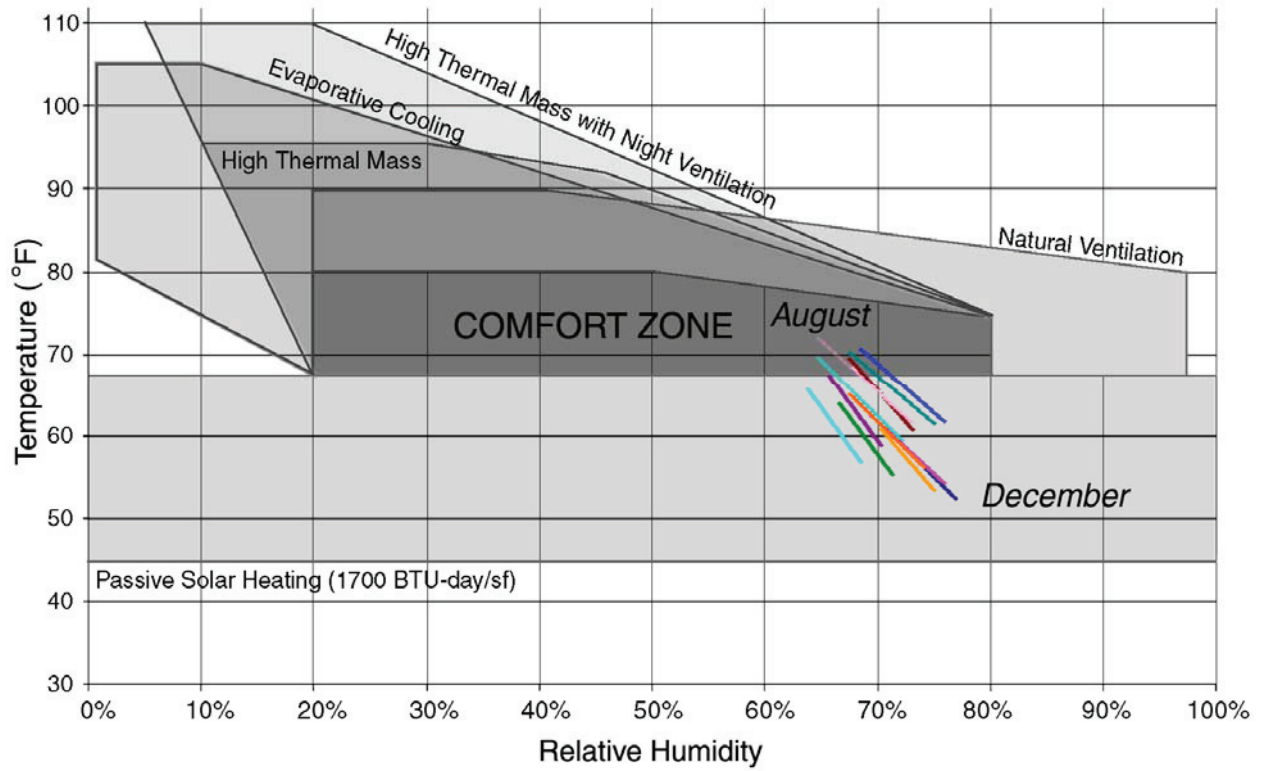
The climate of Zone 3 varies greatly with elevation and the amount of coastal influence. Areas with more coastal influence experience moderate temperatures year round with precipitation in the winter and fog likely from June through mid-August.

Inland from the beaches and sea cliffs, local geography may reduce the fog cover, lessen the winds, and boost summer heat.

Winters are moderately cold with most of the annual rain falling between October and March. Winter sunshine nevertheless is plentiful. Summers are warm and dry, but the nights are cool. Rain is rare during the summer months.

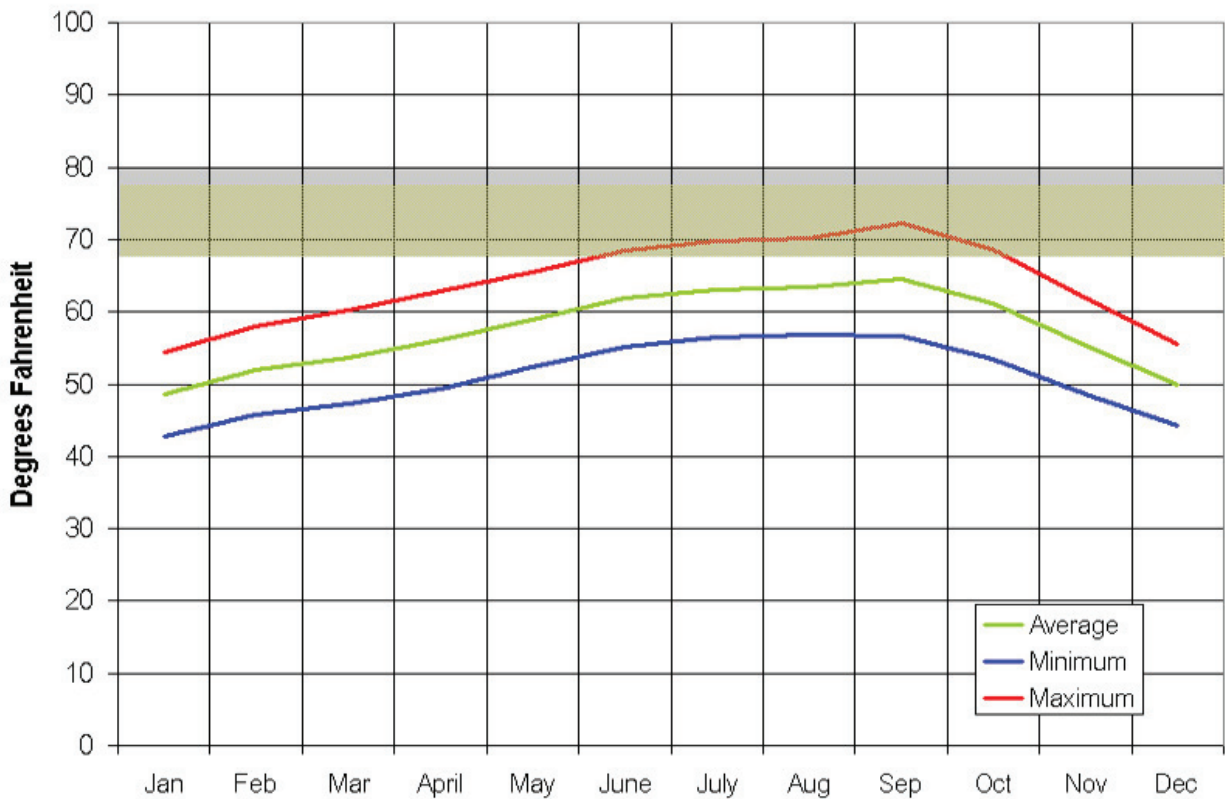
A need for heating is the dominant design concern, but the climate is mild enough that energy consumption is relatively low.

### Bioclimatic Chart (Oakland)

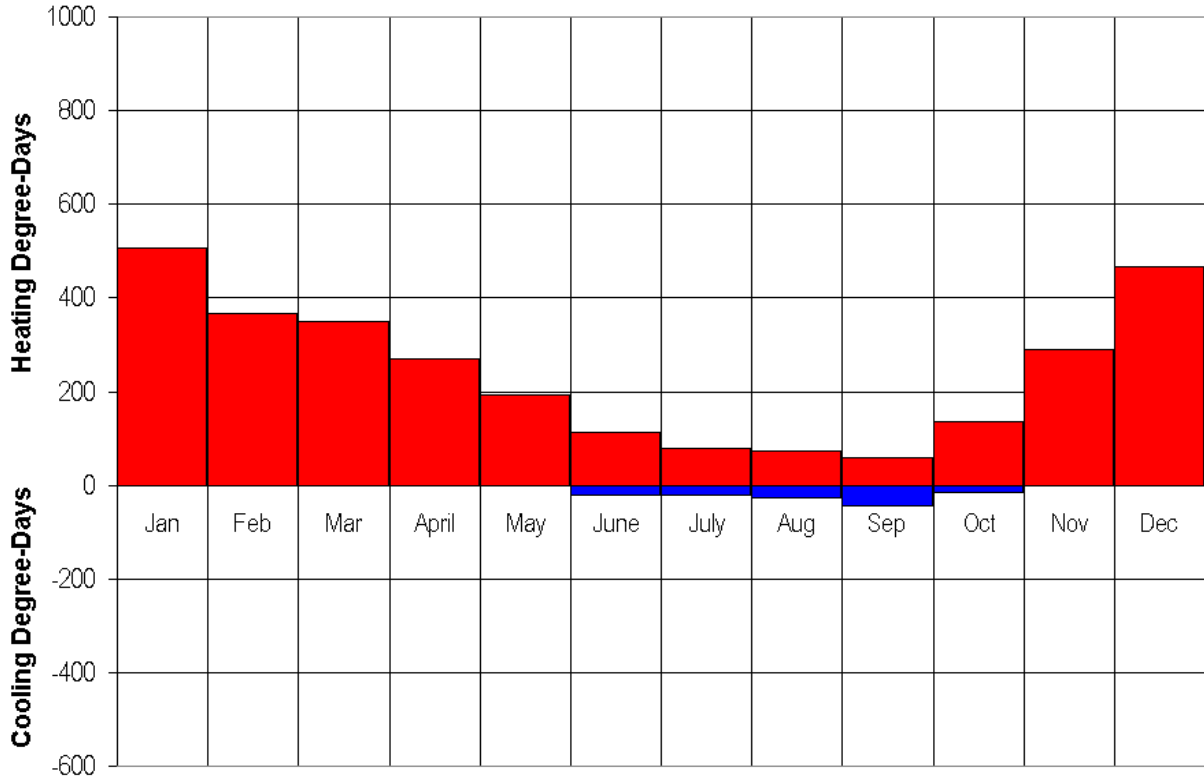


### Temperature

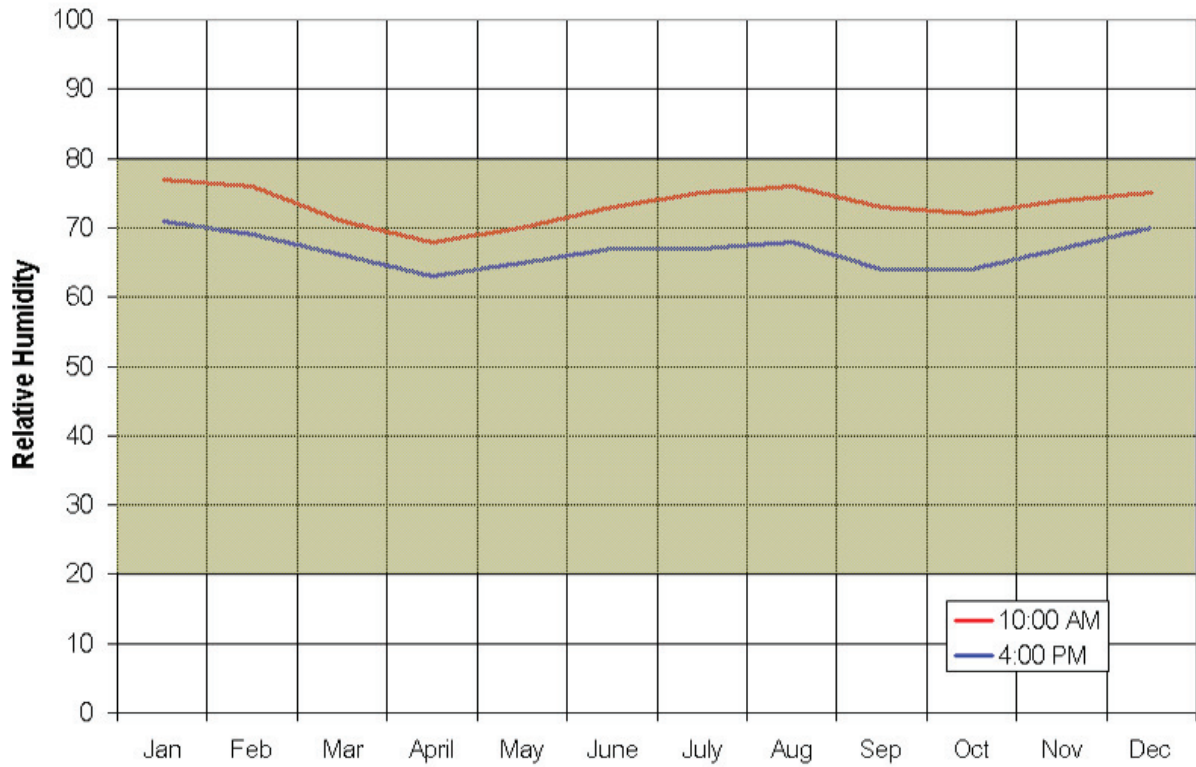
(Typical Comfort Zone: 68-80°F)



**Degree Day**  
(Base 65°)

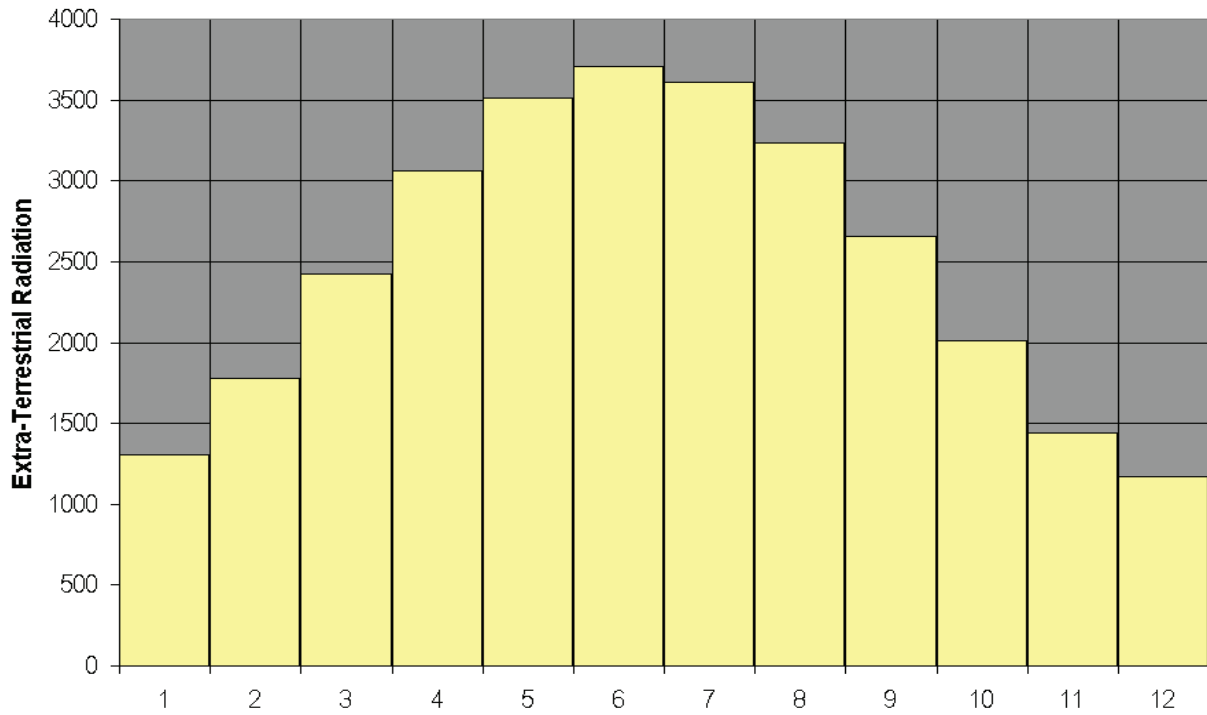


**Relative Humidity**  
(Typical Comfort Zone: 20-80%)

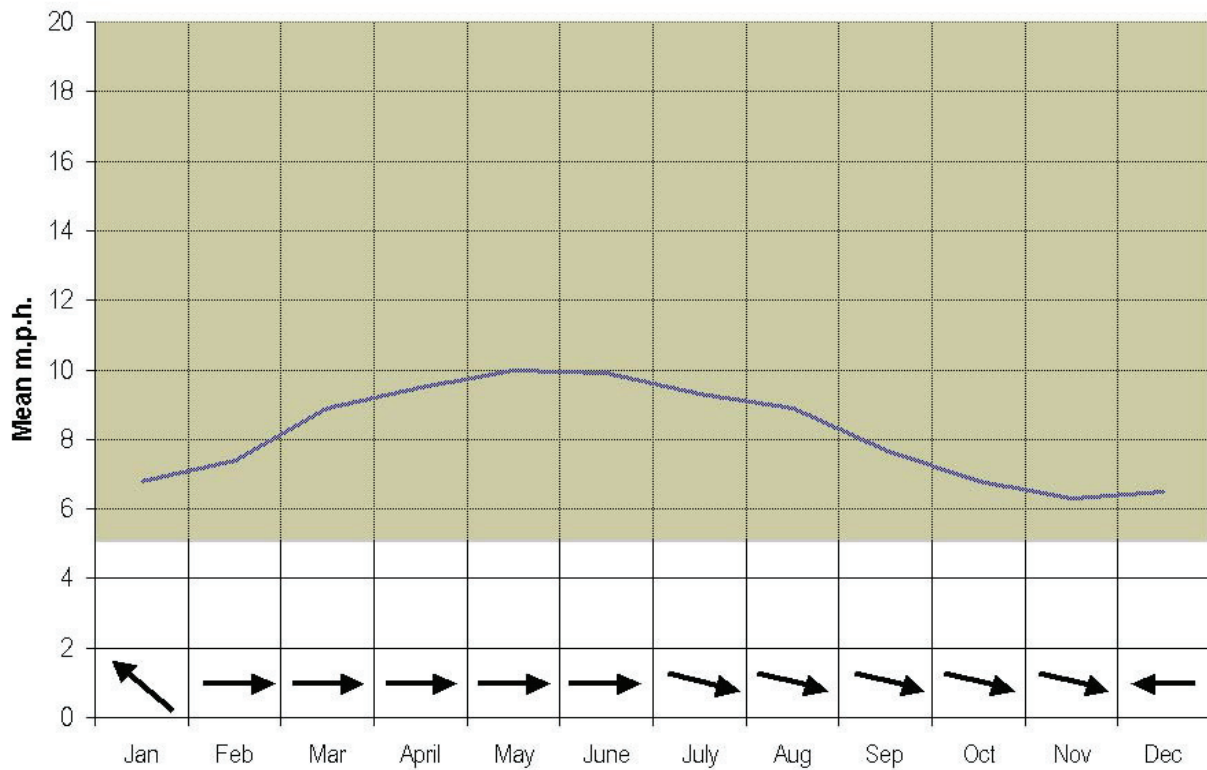


### Extra-Terrestrial Radiation

TO BE REPLACED Daily Mean ETR: 2493



### Wind Speed



#### Prevailing Wind Direction

Summer: WNW

Winter: E / W

Natural Ventilation is most effective when wind speed is 5 mph or greater.