

10CFR 434 - Federal Commercial Building Energy Code - May 1998
Santa Maria, CA #194 IP

TABLE 301.1 EXTERIOR DESIGN CONDITIONS	
WINTER Design Dry Bulb: 31°F	HDD65: 3041
SUMMER Design Dry Bulb:76°F;Mean Coincident Wet Bulb:63°F	CDD65: 92
Annual Operating Hours, 8AM - 4PM when 55°F<=T<=69°F: 2016	

TABLE 402.3.1(A) MAX. THERMAL TRANSMITTANCE (U)	
Roof	0.090
Wall adjacent to unconditioned space	0.220
Floor over unconditioned space	0.099

TABLE 402.3.1(B) MAX. EXEMPT SKYLIGHT AREA AS % OF ROOF AREA					
Visible Light Transmittance (VLT)	Light level Ft. Candles	Range of Lighting Power Densities			
		<1.00	1.00 - 1.50	1.51 - 2.00	>2.00
0.75	30	2.3	3.4	4.5	5.6
	50	2.5	4.0	5.5	7.0
	70	2.8	4.6	6.4	8.2
0.50	30	3.6	5.1	6.6	8.1
	50	3.9	6.0	8.1	10.2
	70	4.2	6.9	9.6	12.3

TABLE 402.3.2 MINIMUM THERMAL RESISTANCE (R-VALUE)				
Slab on grade: Unheated / Heated:	24 inches	36 inches	48 inches	
	Horizontal	R-11/R-13	R-9/R-11	R-8/R-10
	Vertical	R-6/R-8	R-5/R-7	R-4/R-6
Wall below grade:		R-7		

TABLE 402.4.1.1 MAX. WALL THERMAL TRANSMITTANCE (Uow)				
ILD Range	WWR	HC Range	Insulation Position	
			Interior/Integral	Exterior
All	0 to 100	0.0 - 4.9	0.141	0.141
0.00 to 1.50	21	5.0 - 9.9	0.195	0.220
		10.0 - 14.9	0.318	0.383
		15.0 +	0.407	0.416
	74	5.0 - 9.9	0.176	0.220
		10.0 - 14.9	0.256	0.350
		15.0 +	0.350	0.368
1.51 to 3.00	17	5.0 - 9.9	0.220	0.220
		10.0 - 14.9	0.397	0.506
		15.0 +	0.541	0.563
	77	5.0 - 9.9	0.187	0.220
		10.0 - 14.9	0.308	0.378
		15.0 +	0.404	0.413
3.01 to 3.50	14	5.0 - 9.9	0.220	0.220
		10.0 - 14.9	0.420	0.540
		15.0 +	0.579	0.606
	75	5.0 - 9.9	0.190	0.220
		10.0 - 14.9	0.319	0.389
		15.0 +	0.416	0.426

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TABLE 402.4.1.2 MAXIMUM WINDOW WALL RATIO (WWR)										
Internal Load Density (ILD) Range	Projection Factor (PF) Range	Solar Heat Gain Coefficient (SHGC) Range	Fenestration U-Factor (Uof)							
			Base Case			Perimeter Daylighting				
			0.72 to 0.53	0.52 to 0.47	0.46 to 0.00	0.72 to 0.53	0.52 to 0.47	VLT>=SC to 0.46 to 0.00		
0.00 - 1.50	0.00 - 0.25	0.87 - 0.63	21	21	22	23	24	24		
		0.62 - 0.53	25	26	26	28	29	30		
		0.52 - 0.44	29	31	31	32	34	35		
	0.26 - 0.50	0.43 - 0.34	0.43 - 0.34	34	36	37	37	40	41	
			0.33 - 0.23	43	46	47	46	50	53	
			0.22 - 0.00	57	65	68	61	70	74	
		0.87 - 0.63	0.62 - 0.53	0.87 - 0.63	29	31	31	32	34	35
				0.62 - 0.53	35	37	38	38	41	42
				0.52 - 0.44	40	43	44	44	47	49
0.50 +	0.43 - 0.34	0.43 - 0.34	46	51	52	50	55	58		
		0.33 - 0.00	56	63	66	60	68	72		
		0.87 - 0.63	38	40	41	41	44	46		
1.51 - 3.00	0.00 - 0.25	0.62 - 0.53	45	48	49	48	52	55		
		0.52 - 0.44	51	55	57	54	60	63		
		0.43 - 0.00	57	64	67	61	69	73		
	0.26 - 0.50	0.87 - 0.63	0.87 - 0.63	17	17	17	23	24	25	
			0.62 - 0.53	21	21	21	28	29	30	
			0.52 - 0.44	24	25	25	32	34	36	
		0.50 +	0.43 - 0.34	0.43 - 0.34	28	29	29	38	40	42
				0.33 - 0.23	36	38	38	47	51	54
				0.22 - 0.00	51	55	57	63	71	77
3.01 - 3.50	0.26 - 0.50	0.87 - 0.63	24	24	24	32	34	35		
		0.62 - 0.53	29	30	30	39	41	43		
		0.52 - 0.44	34	35	35	44	47	50		
	0.50 +	0.43 - 0.34	0.43 - 0.34	39	41	42	51	56	59	
			0.33 - 0.00	49	53	54	62	69	75	
			0.87 - 0.63	31	32	32	41	44	47	
3.01 - 3.50	0.00 - 0.25	0.62 - 0.53	37	39	39	49	53	56		
		0.52 - 0.44	43	45	46	55	61	65		
		0.43 - 0.00	50	54	55	62	70	75		
	0.26 - 0.50	0.87 - 0.63	0.87 - 0.63	14	14	14	22	22	24	
			0.62 - 0.53	17	18	18	27	27	29	
			0.52 - 0.44	21	21	21	31	32	34	
		0.50 +	0.43 - 0.34	0.43 - 0.34	24	25	25	36	38	41
				0.33 - 0.23	31	32	33	45	48	53
				0.22 - 0.00	45	48	49	60	68	75
0.26 - 0.50	0.62 - 0.53	0.87 - 0.63	20	21	21	31	32	34		
		0.62 - 0.53	25	25	25	37	39	42		
		0.52 - 0.44	29	30	30	42	45	49		
	0.50 +	0.43 - 0.34	0.43 - 0.34	34	35	36	48	53	58	
			0.33 - 0.00	43	45	46	59	66	72	
			0.87 - 0.63	27	27	27	39	42	45	
0.50 +	0.62 - 0.53	0.62 - 0.53	32	33	33	46	50	55		
		0.52 - 0.44	37	39	39	52	58	63		
		0.43 - 0.00	43	46	47	59	67	73		