

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

FORM 600A-01

Residential Whole Building Performance Method A

SOUTH 7 8 9

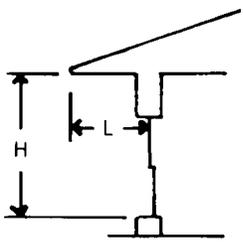
PROJECT NAME: AND ADDRESS:	BUILDER: PERMITTING OFFICE:	CLIMATE ZONE: 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>
OWNER:	PERMIT NO.: <input type="text"/>	JURISDICTION NO.: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

1. **New construction or addition**
2. **Single family detached or Multifamily attached**
3. **If Multifamily—No. of units covered by this submission**
4. **Is this a worst case? (yes / no)**
5. **Conditioned floor area (sq. ft.)**
6. **Predominant eave overhang (ft.)**
7. **Glass type and area:**
 - a. Clear glass
 - b. Tint, film or solar screen
8. **Floor type and insulation:**
 - a. Slab-on-grade (R-value + perimeter)
 - b. Wood, raised (R-value + sq. ft.)
 - c. Concrete, raised (R-value)
9. **Net Wall type, area and insulation:**
 - a. **Exterior:**
 1. Concrete block (Insulation R-value)
 2. Wood frame (Insulation R-value)
 3. Steel frame (Insulation R-value)
 4. Log (Insulation R-value)
 5. Other: _____
 - b. **Adjacent:**
 1. Concrete block (Insulation R-value)
 2. Wood frame (Insulation R-value)
 3. Steel frame (Insulation R-value)
 4. Log (Insulation R-value)
10. **Ceiling type, area and insulation:**
 - a. Under attic (Insulation R-value)
 - b. Single assembly (Insulation R-value)
 - c. Radiant barrier, IRCC or white roof installed?
11. **Air distribution system:**
 - a. Ducts (Insulation + Location)
 - b. Air Handler (Location)
12. **Cooling system:**
(Types: central-split, central-single pkg., room unit, PTAC., gas, none)
13. **Heating system:**
(Types: heat pump, elec. strip, nat. gas, L.P. gas, gas h.p., room or PTAC, none)
14. **Hot water system:**
(Types: elec., natural gas, solar, L.P. gas, none)
15. **Hot Water Credits:**
 - a. Heat Recovery (HR)
 - b. Dedicated Heat Pump(DHP)
 - c. Solar
16. **HVAC Credits**
(Use: CF-Ceiling Fan, CV-Cross vent, PT-Programmable thermostat, HF-Whole house fan, MZ-Multizone)
17. **COMPLIANCE STATUS:** (PASS if As-Built Pts. are less than Base Pts.)
 - a. Total As-Built points
 - b. Total Base points

	Please Type	CK
1. _____		_____
2. _____		_____
3. _____		_____
4. _____		_____
5. _____ sq. ft.		_____
6. _____ ft.		_____
	Single Pane Double Pane	
7a. _____ sq. ft.	_____ sq. ft.	_____
7b. _____ sq. ft.	_____ sq. ft.	_____
8a. R= _____ , _____ l. ft.		_____
8b. R= _____ , _____ sq. ft.		_____
8c. R= _____ , _____ sq. ft.		_____
9a-1 R= _____ sq. ft.		_____
9a-2 R= _____ sq. ft.		_____
9a-3 R= _____ sq. ft.		_____
9a-4 R= _____ sq. ft.		_____
9b-1 R= _____ sq. ft.		_____
9b-2 R= _____ sq. ft.		_____
9b-3 R= _____ sq. ft.		_____
9b-4 R= _____ sq. ft.		_____
10a. R= _____ sq. ft.		_____
10b. R= _____ sq. ft.		_____
10c. _____		_____
11a. R= _____ , _____ (cond./uncond.)		_____
11b. _____ (cond./uncond.)		_____
12a. Type: _____		_____
12b. SEER/EER/COP: _____		_____
12c. Capacity: _____		_____
13a. Type: _____		_____
13b. HSPF/COP/AFUE: _____		_____
13c. Capacity: _____		_____
14a. Type: _____		_____
14b. EF: _____		_____
15a. _____		_____
15b. _____		_____
15c. _____		_____
16. _____		_____
17. _____		_____
17a. _____		17b. _____

I hereby certify that the plans and specifications covered by the calculation are in compliance with the Florida Energy Code. PREPARED BY: _____ DATE: _____ I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER AGENT: _____ DATE: _____	Review of plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed, this building will be inspected for compliance in accordance with Section 553.908, F.S. BUILDING OFFICIAL: _____ DATE: _____
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SUMMER CALCULATIONS

GLASS	ORIENTATION	OVERHANG LENGTH OH (FEET)	GLASS AREA (SQ. FT.)	SINGLE-PANE		OR DOUBLE-PANE		SUMMER OH FACTOR (from 6A-1)	= AS-BUILT GLASS SUMMER PTS
				SUMMER POINT MULTIPLIER		SUMMER POINT MULTIPLIER			
				CLEAR	TINT ²	CLEAR	TINT ²		
 <p>OVERHANG RATIO = $\frac{\text{OH LENGTH}}{\text{OH HEIGHT}}$</p>	N			33.94	27.68	31.47	25.96		
	NE			51.65	42.92	46.68	38.98		
	E			73.03	61.31	65.05	54.69		
	SE			74.09	62.23	65.99	55.50		
	S			62.19	52.00	55.75	46.76		
	SW			68.17	57.13	60.92	51.17		
	W			65.53	54.85	58.70	49.26		
	NW			45.04	37.22	41.05	34.16		
	H ¹			125.30	103.70	114.85	95.74		

GLASS	.18	COND FLOOR AREA	x	WEIGHTED GLASS MULTIPLIER	=	BASE GLASS SUBTOTAL
	.18					

AS-BUILT GLASS SUBTOTAL

COMPONENT DESCRIPTION		AREA	x	BASE SUMMER POINT. MULT.	=	BASE SUMMER POINTS
WALL	EXTERIOR ADJACENT			2.7		
				1.0		

COMPONENT DESCRIPTION		AREA	x	SUMMER POINT. MULT. (6A-2 THRU 6A-6)	=	AS-BUILT SUMMER POINTS

DOORS		AREA	x	BASE SUMMER POINT. MULT.	=	BASE SUMMER POINTS
DOORS	EXTERIOR ADJACENT			6.4		
				2.6		

COMPONENT DESCRIPTION		AREA	x	SUMMER POINT. MULT. (6A-2 THRU 6A-6)	=	AS-BUILT SUMMER POINTS

CEILING		AREA	x	BASE SUMMER POINT. MULT.	=	BASE SUMMER POINTS
CEILING	UNDER ATTIC OR SINGLE ASSEMBLY			2.8		

COMPONENT DESCRIPTION		AREA	x	SUMMER POINT. MULT. (6A-2 THRU 6A-6)	=	AS-BUILT SUMMER POINTS
	RBS/IRCC/white roof ³					

BASE CEILING AREA EQUALS FLOOR AREA DIRECTLY UNDER CEILING, AS-BUILT CEILING AREA EQUALS ACTUAL CEILING SQUARE FOOTAGE.

FLOOR		AREA	x	BASE SUMMER POINT. MULT.	=	BASE SUMMER POINTS
FLOOR	SLAB (PERIMETER)			-20.0		
	RAISED (AREA)			-2.16		

COMPONENT DESCRIPTION		AREA	x	SUMMER POINT. MULT. (6A-2 THRU 6A-6)	=	AS-BUILT SUMMER POINTS

FOR SLAB ON GRADE USE PERIMETER LENGTH AROUND CONDITIONED FLOOR. FOR RAISED FLOORS USE AREA OVER UNCONDITIONED SPACE.

INFILTRATION & INTERNAL GAINS		AREA	x	BASE SUMMER POINT. MULT.	=	BASE SUMMER POINTS
				18.79		

COMPONENT DESCRIPTION		AREA	x	SUMMER POINT. MULT. (6A-2 THRU 6A-6)	=	AS-BUILT SUMMER POINTS
				18.79		

USE TOTAL FLOOR AREA OF CONDITIONED SPACE.

TOTAL COMPONENT BASE SUMMER POINTS	
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TOTAL COMPONENT AS-BUILT SUMMER POINTS	
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COOLING SYSTEM	Base Cooling System Multiplier	x	Total Base Summer Points	=	BASE COOLING POINTS
	.43				

TOTAL AS-BUILT SUM. PTS.	As-Built DM (6A-8)	x	As-Built DSM (6A-20)	x	As-Built AHU (6A-7)	x	As-Built CSM (6A-9)	x	As-Built CCM (6A-19)	=	AS-BUILT COOLING POINTS
			1.16 or 1.0								

HOT WATER SYSTEM	Number of bedrooms	x	Base Hot Water Multiplier	=	BASE HOT WATER POINTS
			2369		

AS-BUILT HOT WATER SYSTEM DESC.	Number of bedrooms	x	As-Built HWM (6A-22)	x	As-Built HWCM (6A-23)	=	AS-BUILT HOT WATER POINTS

¹H = HORIZONTAL GLASS (SKYLIGHTS)

²FOR GLASS WITH KNOWN SHGC, SEE SECTION 2.1.1 APPENDIX C. TINT MULTIPLIERS MAY BE USED FOR GLASS WITH SOLAR SCREENS, FILM, OR TINT.

³MUST MEET CRITERIA OF S. 607.1.A.

SUMMER POINT MULTIPLIERS (SPM)

6A-1 SUMMER OVERHANG FACTORS (SOF) FOR SINGLE AND DOUBLE PANE GLASS.

SELECT BY OR	OH Ratio	.00-11	.12-17	.18-26	.27-35	.36-46	.47-57	.58-70	.71-83	.84-1.18	1.19-1.72	1.73-2.73	2.74 & up
	North	1.00	0.993	0.971	0.932	0.891	0.847	0.810	0.774	0.745	0.692	0.646	0.606
	Northeast	1.00	0.995	0.966	0.909	0.849	0.782	0.726	0.673	0.633	0.561	0.504	0.459
	East	1.00	0.993	0.964	0.904	0.837	0.759	0.691	0.625	0.574	0.484	0.415	0.462
	Southeast	1.00	0.999	0.960	0.881	0.799	0.713	0.645	0.585	0.542	0.471	0.422	0.386
	South	1.00	0.995	0.945	0.854	0.770	0.689	0.630	0.581	0.546	0.492	0.455	0.428
	Southwest	1.00	0.997	0.958	0.882	0.805	0.723	0.657	0.599	0.555	0.482	0.427	0.386
	West	1.00	0.994	0.965	0.905	0.840	0.767	0.704	0.645	0.599	0.518	0.455	0.404
	Northwest	1.00	0.995	0.967	0.914	0.861	0.805	0.760	0.718	0.686	0.629	0.583	0.545
OH Length	0.0'	1.0'	1.5'	2.0'	3.0'	3.5'	4.5'	5.5'	6.5'	9.5'	14.0'	20.0'	

6A-2 WALL SUMMER POINT MULTIPLIERS (SPM)

FRAME					CONCRETE BLOCK (NORMAL WT)				FACE BRICK				LOG		
WOOD		STEEL			INTERIOR INSULATION			EXT. INSUL.	R-VALUE	WOOD FR	R-VALUE	BLOCK	6 INCH		8 INCH
R-VALUE	EXT	ADJ	EXT	ADJ	R-VALUE	EXT	ADJ	EXT	0-6.9	4.6	0-2.9	2.3	R-VALUE	EXT	EXT
0-6.9	8.5	3.4	11.6	4.4	0-2.9	4.2	1.9	4.2	7-10.9	1.3	3-6.9	1.6	0-2.9	2.8	1.9
7-10.9	3.2	1.3	5.5	2.1	3-4.9	2.7	1.3	1.7	11-18.9	1.1	7-9.9	.9	3-6.9	1.9	1.4
11-12.9	2.7	1.0	4.2	1.6	5-6.9	2.0	1.1	1.2	19-25.9	.6	10 & UP	.7	7 & Up	1.5	1.2
13-18.9	2.4	.9	3.9	1.5	7-10.9	1.6	.8	.7	26 & Up	.3					
19-25.9	1.6	.6	3.4	1.3	11-18.9	1.0	.6	.3							
26 & Up	1.0	.3	1.9	.7	19-25.9	.5	.3								
					26 & Up	.3	.2								

NOTE: SEE SECTION 2.0 OF APPENDIX C FOR MULTIPLIERS OF ENVELOPE COMPONENTS NOT ON THIS FORM.

6A-3 DOOR SUMMER POINT MULTIPLIERS (SPM)

DOOR TYPE	EXTERIOR	ADJACENT
WOOD	9.4	3.8
INSULATED	6.4	2.6

6A-4 CEILING SUMMER POINT MULTIPLIERS (SPM)

UNDER ATTIC		SINGLE ASSEMBLY		CONCRETE DECK ROOF		
R-VALUE	SPM	R-VALUE	SPM	CEILING TYPE		
		R-VALUE		EXPOSED	DROPPED	
19-21.9	3.72	10-10.9	13.67	10-13.9	14.73	13.67
22-25.9	3.36	11-12.9	12.90	14-20.9	10.96	10.46
26-29.9	3.02	13-18.9	11.59	21 & Up	7.86	7.54
30-37.9	2.77	19-25.9	9.24			
38 & Up	2.43	26-29.9	7.85			
RBS Credit	0.700	30 & Up	7.27			
IRCC Credit	0.865					
White Roof Credit	0.550					

6A-5 FLOOR SUMMER POINT MULTIPLIERS (SPM)

SLAB-ON-GRADE EDGE INSULATION		RAISED CONCRETE		RAISED WOOD			
R-VALUE	SPM	R-VALUE	SPM	POST OR PIER CONSTRUCTION		STEM WALL w/ UNDER FLOOR INSULATION	ADJACENT
				R-VALUE	SPM	SPM	SPM
0-2.9	-20.0	0-2.9	.8	0-6.9	5.02	-4.2	3.4
3-4.9	-17.4	3-4.9	-3	7-10.9	2.58	-9	1.3
5-6.9	-16.6	5-6.9	-4	11-18.9	2.08	-6	1.0
7 & Up	-16.0	7 & Up	-5	19 & Up	1.58	-4	.6

6A-6 INFILTRATION & INTERNAL GAINS (SPM)

Air Infiltration	7.43
Internal Gains	+11.36
Infiltration/Internal Gains	18.79

6A-8 DUCT MULTIPLIERS (DM) See Table 6-10 for Code minimums.

SUPPLY DUCTS IN:	DUCT R-Value	RETURN DUCTS In:				
		Unconditioned space	Attic/RBS	Attic/IRCC	Attic/White roof	Conditioned space
Unconditioned Space	4.2	1.095	1.090	1.091	1.090	1.087
	6.0	1.073	1.069	1.070	1.069	1.067
	8.0	1.058	1.055	1.055	1.055	1.053
Attic/Radiant Barrier (RBS)	4.2	1.062	1.057	---	---	1.053
	6.0	1.048	1.044	---	---	1.041
	8.0	1.039	1.036	---	---	1.033
Attic/Interior Radiation Control Coatings (IRCC)	4.2	1.083	---	1.078	---	1.072
	6.0	1.064	---	1.061	---	1.056
	8.0	1.052	---	1.049	---	1.045
Attic/White Roof	4.2	1.059	---	---	1.054	1.051
	6.0	1.045	---	---	1.041	1.038
	8.0	1.035	---	---	1.032	1.030
Conditioned Space	4.2	1.005	1.004	1.006	1.002	1.000
	6.0	1.004	1.003	1.004	1.002	1.000
	8.0	1.003	1.003	1.003	1.001	1.000

6A-7 AIR HANDLER MULTIPLIERS (SPM)

Located in garage	1.00
Located in conditioned area	0.90
Located on exterior of building	1.03
Located in attic	1.08

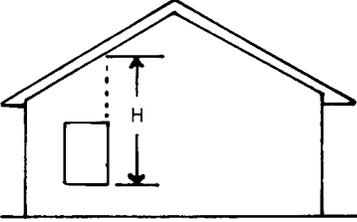
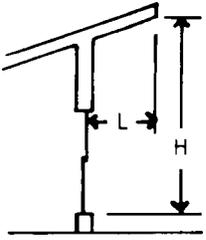
6A-9 COOLING SYSTEM MULTIPLIERS (CSM)

SYSTEM TYPE See Table 6-3 for Code minimums	COOLING SYSTEM MULTIPLIERS (CSM)											
	Rating		7.5-7.9	8.0-8.4	8.5-8.8	8.9-9.4	9.5-9.9	10.0-10.4	10.5-10.9	11.0-11.4	11.5-11.9	12.0-12.4
Central Units (SEER)	CSM		.45	.43	.40	.38	.36	.34	.32	.31	.30	.28
PTAC & Room Units (EER)	Rating	12.5-12.9	13.0-13.4	13.5-13.9	14.0-14.4	14.5-14.9	15.0-15.4	15.5-15.9	16.0-16.4	16.5-16.9	17.0-17.4	17.5 & Up
	CSM	.27	.26	.25	.24	.24	.23	.22	.21	.21	.20	.19

WINTER CALCULATIONS

CLIMATE ZONES 7 8 9

GLASS	ORIENTATION	OVERHANG LENGTH OH (FEET)	GLASS AREA (SQ. FT.)	SINGLE-PANE		OR DOUBLE-PANE		WINTER OH FACTOR (from 6A-10)	AS-BUILT GLASS WINTER PTS
				WINTER POINT MULTIPLIER		WINTER POINT MULTIPLIER			
				CLEAR	TINT ²	CLEAR	TINT ²		
	N			4.91	4.87	2.60	2.66		
	NE			4.71	4.81	2.40	2.48		
	E			3.76	3.99	1.64	1.83		
	SE			3.29	3.58	1.26	1.51		
	S			3.55	3.80	1.49	1.71		
	SW			4.09	4.27	1.97	2.11		
	W			4.47	4.60	2.26	2.37		
	NW			4.88	4.96	2.58	2.64		
	H ¹			5.08	5.28	2.38	2.55		



GLASS	.18 x	COND FLOOR AREA	x	WEIGHTED GLASS MULTIPLIER	=	BASE GLASS SUBTOTAL
	.18			2.36		

AS-BUILT GLASS SUBTOTAL

COMPONENT DESCRIPTION	AREA	x	BASE WINTER POINT. MULT.	=	BASE WINTER POINTS
WALL EXTERIOR			.6		
WALL ADJACENT			.5		

COMPONENT DESCRIPTION	AREA	x	WINTER POINT. MULT. (6A-11THRU 6A-15)	=	AS-BUILT WINTER POINTS

DOORS	EXTERIOR	ADJACENT	BASE WINTER POINT. MULT.
			1.8
			1.3

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CEILING	UNDER ATTIC OR SINGLE ASSEMBLY	BASE WINTER POINT. MULT.
		.1

	RBS/IRCC/white roof ³		x		

BASE CEILING AREA EQUALS FLOOR AREA DIRECTLY UNDER CEILING, AS-BUILT CEILING AREA EQUALS ACTUAL CEILING SQUARE FOOTAGE.

FLOOR	SLAB (PERIMETER)	RAISED (AREA)	BASE WINTER POINT. MULT.
			-2.1
			-2.8

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FOR SLAB ON GRADE USE PERIMETER LENGTH AROUND CONDITIONED FLOOR. FOR RAISED FLOORS USE AREA OVER UNCONDITIONED SPACE.

INFILTRATION & INTERNAL GAINS			-0.06
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			-0.06
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USE TOTAL FLOOR AREA OF CONDITIONED SPACE.

TOTAL COMPONENT BASE WINTER POINTS

TOTAL COMPONENT AS-BUILT WINTER POINTS
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HEATING SYSTEM	Base Heating System Multiplier	x	Total Base Summer Points	=	BASE HEATING POINTS
	.63				

TOTAL AS-BUILT SUM. PTS.	As-Built DM (6A-17)	x	As-Built DSM (6A-20)	x	As-Built AHU (6A-16)	x	As-Built HSM (6A-18)	x	As-Built HCM (6A-21)	=	AS-BUILT HEATING POINTS
			1.14 or 1.0								

TOTAL	BASE COOLING POINTS (From P. 2)	+	BASE HEATING POINTS	+	BASE HOT WATER POINTS (From P. 2)	=	TOTAL BASE POINTS (Enter on P. 1)
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TOTAL	AS-BUILT COOLING POINTS (From P. 2)	+	AS-BUILT HEATING POINTS	+	AS-BUILT HOT WATER POINTS (From P. 2)	=	TOTAL AS-BUILT POINTS (Enter on P. 1)
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¹H = HORIZONTAL GLASS (SKYLIGHTS) ²FOR GLASS WITH KNOWN SHGC, SEE SECTION 2.1.1 APPENDIX C. ³MUST MEET CRITERIA OF S. 607.1.A. TINT MULTIPLIERS MAY BE USED FOR GLASS WITH SOLAR SCREENS, FILM, OR TINT.

WINTER POINT MULTIPLIERS (WPM)

CLIMATE ZONES 7 8 9

6A-10 WINTER OVERHANG FACTORS (WOF)

SELECT BY OR	OH Ratio	00-11	12-17	18-26	27-35	36-46	47-57	58-70	71-83	84-118	119-172	173-273	274 & up
	North	1.00	0.998	0.995	0.991	0.986	0.982	0.977	0.973	0.969	0.962	0.955	0.948
	Northeast	1.00	0.999	0.999	0.998	0.997	0.996	0.994	0.993	0.991	0.985	0.978	0.969
	East	1.00	1.009	1.015	1.023	1.032	1.044	1.057	1.073	1.090	1.136	1.203	1.291
	Southeast	1.00	1.017	1.027	1.046	1.067	1.097	1.130	1.171	1.215	1.333	1.485	1.647
	South	1.00	0.994	1.001	1.024	1.060	1.115	1.174	1.238	1.290	1.376	1.425	1.443
	Southwest	1.00	0.999	1.003	1.012	1.024	1.041	1.059	1.078	1.096	1.132	1.164	1.191
	West	1.00	0.998	0.998	0.999	1.001	1.005	1.011	1.018	1.023	1.030	1.032	1.032
	Northwest	1.00	0.997	0.995	0.992	0.989	0.985	0.982	0.978	0.974	0.967	0.959	0.952
OH Length	0.0'	1.0'	1.5'	2.0'	3.0'	3.5'	4.5'	5.5'	6.5'	9.5'	14.0'	20.0'	

6A-11 WALL WINTER POINT MULTIPLIERS (WPM)

FRAME					CONCRETE BLOCK (NORMAL WT)				FACEBRICK				LOG		
WOOD		STEEL			INTERIOR INSULATION			EXT. INSUL.	R-VALUE	WOOD FR	R-VALUE	BLOCK	LOG		
R-VALUE	EXT	ADJ	EXT	ADJ	R-VALUE	EXT	ADJ	EXT	0-6.9	2.4	0-2.9	.9	R-VALUE	6 INCH	8 INCH
0-6.9	2.5	1.7	3.4	2.2	0-2.9	1.9	.7	1.9	7-10.9	.6	3-6.9	.6	0-2.9	.6	.2
7-10.9	.8	.6	1.5	1.0	3-4.9	1.2	.5	.6	11-18.9	.5	7-9.9	.4	0-2.9	.6	.2
11-12.9	.6	.5	1.1	0.8	5-6.9	.9	.4	.3	19-25.9	.2	10 & UP	.2	3-6.9	.3	.1
13-18.9	.6	.5	1.0	0.7	7-10.9	.7	.4	.2	26 & Up	.1			7 & Up	.2	.1
19-25.9	.3	.3	0.9	0.6	11-18.9	.4	.2	.0							
26 & Up	.2	.2	0.4	0.3	19-25.9	.2	.1								
					26 & Up	.1	.0								

NOTE: SEE SECTION 2.0 OF APPENDIX C FOR MULTIPLIERS OF ENVELOPE COMPONENTS NOT ON THIS FORM.

6A-12 DOOR WINTER POINT MULTIPLIERS (WPM)

DOOR TYPE	EXTERIOR	ADJACENT
WOOD	2.8	1.9
INSULATED	1.8	1.3

6A-13 CEILING WINTER POINT MULTIPLIERS (WPM)

UNDER ATTIC		SINGLE ASSEMBLY		CONCRETE DECK ROOF		
R-VALUE	WPM	R-VALUE	WPM	CEILING TYPE		
R-VALUE	WPM	R-VALUE	WPM	R-VALUE	EXPOSED	DROPPED
19-21.9	.14	10-10.9	.16	10-13.9	0.18	0.16
22-25.9	.12	11-12.9	.15	14-20.9	0.13	0.12
26-29.9	.11	13-18.9	.14	21 & Up	0.09	0.08
30-37.9	.10	19-25.9	.11			
38 & Up	.08	26-29.9	.09			
RBS Credit	0.850	30 & Up	.08			
IRCC Credit	0.899					
White Roof Credit	1.044					

6A-14 FLOOR WINTER POINT MULTIPLIERS (WPM)

SLAB-ON-GRADE EDGE INSULATION		RAISED CONCRETE		RAISED WOOD			
R-VALUE	WPM	R-VALUE	WPM	POST OR PIER CONSTRUCTION		STEM WALL w/ UNDER FLOOR INSULATION	ADJACENT
R-VALUE	WPM	R-VALUE	WPM	R-VALUE	WPM	WPM	WPM
0-2.9	-2.1	0-2.9	1.0	0-6.9	0.99	0.3	1.7
3-4.9	-2.6	3-4.9	.3	7-10.9	0.24	0	.6
5-6.9	-2.7	5-6.9	.1	11-18.9	0.12	0	.5
7 & Up	-2.7	7 & Up	.0	19 & Up	-0.01	-.1	.3

6A-17 DUCT MULTIPLIERS (DM) See Table 6-10 for Code minimums.

SUPPLY DUCTS IN:	DUCT R-Value	RETURN DUCTS In:				
		Unconditioned space	Attic/RBS	Attic/IRCC	Attic/White roof	Conditioned space
Unconditioned Space	4.2	1.135	1.123	1.125	1.128	1.116
	6.0	1.099	1.091	1.092	1.094	1.085
	8.0	1.076	1.070	1.071	1.073	1.066
Attic/Radiant Barrier (RBS)	4.2	1.095	1.083	---	---	1.073
	6.0	1.072	1.063	---	---	1.056
	8.0	1.057	1.050	---	---	1.044
Attic/Interior Radiation Control Coatings (IRCC)	4.2	1.122	---	1.110	---	1.096
	6.0	1.091	---	1.083	---	1.072
	8.0	1.071	---	1.065	---	1.056
Attic/White Roof	4.2	1.151	---	---	1.139	1.120
	6.0	1.111	---	---	1.102	1.088
	8.0	1.085	---	---	1.078	1.068
Conditioned Space	4.2	1.012	1.010	1.012	1.012	1.000
	6.0	1.009	1.008	1.009	1.009	1.000
	8.0	1.007	1.006	1.007	1.007	1.000

6A-15 INFILTRATION & INTERNAL GAINS (WPM)

Air Infiltration	0.32
Internal Gains	+ -0.38
Infiltration/Internal Gains	-0.06

6A-16 AIR HANDLER MULTIPLIERS (WPM)

Located in garage	1.00
Located in conditioned area	0.91
Located on exterior of building	1.08
Located in attic	1.14

6A-18 HEATING SYSTEM MULTIPLIERS (HSM)

SYSTEM TYPE	HEATING SYSTEM MULTIPLIERS (HSM)									
Central Heat Pump Units	HSPF	6.40-6.79	6.80-6.89	6.90-7.39	7.40-7.89	7.90-8.39	8.40-8.89	8.9-9.39	9.4-9.89	
	HSM	.53	.50	.49	.46	.43	.41	.38	.36	
	HSPF	9.90-10.39	10.40-10.89	10.90-11.39	11.40-11.89	11.90-12.39	12.40 & up			
	HSM	.34	.33	.31	.30	.29	.28			
PTHP	COP	2.50-2.69	2.70-2.89	2.90-3.09	3.10-3.29	3.30-3.49	3.50-3.69	3.70-3.89	3.90-4.19	
	HSM	.40	.37	.34	.32	.30	.29	.27	.26	
Electric Strip & Gas		1.0 (for gas credit multipliers, see Table 6A-21)								

ADDITIONAL TABLES

6A-19 COOLING CREDIT MULTIPLIERS (CCM)

SYSTEM TYPE	Cooling credit multipliers (CCM)
Ceiling Fans	.95*
Cross Ventilation	.95*
Whole House Fan	.95*
Multizone	.95
Programmable Thermostat	.95

*Credit may be taken for only one of these system types concurrently.

6A-20 AIR DISTRIBUTION SYSTEM CREDIT MULTIPLIERS

TYPE CREDIT	Prescriptive requirements	Multiplier
Airtight Duct credit ¹	610.1.A.1	1.00
Factory-sealed AHU credit ²	610.2.A.2.1	0.95

¹Duct Sealing Multiplier (DSM) shall be 1.16 (summer) or 1.14 (winter) unless Airtight Duct credit is demonstrated by test report.

²Multiply Factory-sealed AHU credit by summer (Table 6A-7) or winter (Table 6A-16) AHU multiplier. Insert total in the "AS-Built AHU" box on page 2 or 4.

6A-21 HEATING CREDIT MULTIPLIERS (HCM)

SYSTEM TYPE	HEATING CREDIT MULTIPLIERS (HCM)						
Programmable Thermostat	HCM	.95					
Multizone	HCM	.95					
Natural Gas	AFUE	.68-.72	.73-.77	.78-.82	.83-.87	.88-.92	.93 & Up
	HCM	.56	.52	.49	.46	.44	.41
LP Gas	HCM	.71	.66	.62	.58	.55	.52

6A-22 HOT WATER MULTIPLIERS (HWM)

SYSTEM TYPE	HOT WATER MULTIPLIERS (HWM)												
Electric Resistance	EF					.80-.81	.82-.83	.84-.85	.86-.87	.88-.90	.91-.93	.94-.96	.97 & Up
	HWM					2606	2543	2482	2424	2369	2290	2218	2149
Natural Gas	EF	.43-.47	.48-.49	.50-.51	.52-.53	.54-.55	.56-.57	.58-.59	.60-.61	.62-.63	.64-.65	.66 & Up	
	HWM	1848	1655	1589	1528	1471	1419	1370	1324	1281	1241	1203	
LP Gas	HWM	2353	2107	2023	1945	1874	1806	1744	1686	1631	1581	1533	
	Ded. HP or Solar System with Tank	EF	1.0-1.49	1.5-1.99	2.0-2.49	2.5-2.99	3.0-3.49	3.5-3.99	4.0-4.49	4.5-4.99	5.0-Up		
	HWM	2085	1390	1042	834	695	596	521	463	417			

6A-23 HOT WATER CREDIT MULTIPLIERS (HWCN)

SYSTEM TYPE	HOT WATER CREDIT MULTIPLIERS (HWCN)										
Heat Recovery Unit	With	Air Conditioner			Heat Pump						
	HWCN	.84			.78						
Add-on Dedicated Heat Pump (without tank)	EF	2.0-2.49		2.5-2.99		3.0-3.49		3.5 & Up			
	HWCN	.44		.35		.29		.25			
Add-on Solar Water Heater (without tank)	EF	1.0-1.9		2.0-2.9		3.0-3.9		4.0-4.9		5.0 & Up	
	HWCN	.84		.42		.28		.21		.17	

A HWM MUST BE USED IN CONJUNCTION WITH ALL HWCN. SEE TABLE 6A-22. EF MEANS ENERGY FACTOR.

6A-24 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Max: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls & floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Seal: Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with <2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-25 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 6-12. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required for vertical pipe risers.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower Heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 minimum insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings–Min. R-19. Common walls–Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	