

## APPENDIX J PRESCRIPTIVE COMPLIANCE WORKSHEET

This worksheet(s) shall be provided on all one and two family dwellings and/or room additions. Trade-off calculations for any component shall be attached with this sheet showing a BTU-for BTU evaluation. Trade off calculations may be performed by satisfying the requirements of the 1995 MEC Check Version 2.0-1995 except that high efficiency equipment may not be traded off against envelope components. A worksheet shall be provided for each different assembly. The entries in this Appendix do not include all products. Alternate materials (other) can be qualified in accordance with Section 108.

### PRESCRIPTIVE COMPLIANCE FOR CEILING

COMPONENT	PRODUCTS	R-VALUE BETWEEN FRAMING	TO BE USED
Inside Air Film	(to be included for all situations)	0.61	not counted
Interior Finish	½” Drywall	0.45	not counted
	5/8” Drywall	0.56	
	(Other)		
Mineral Fiber or loose fill or cellulose	R-19 Batts	19.00	
	R-22 Batts	22.00	
	R-30 Batts	30.00	
	R-38 Batts	38.00	
	(Other)		
Insulation Sheathing on Inside or Rafter	1” Expanded Polystyrene Foam	3.80	
	1” Extruded Polystyrene Foam	5.00	
	1” Polyurethane	7.20	
	1” Polyisocyanurate	7.20	
	(Other)		
Outside Air Film	(to be included for all situations)	0.17	not counted
<b>R-Value Between Framing of Ceiling</b>			
		Zones 6, 7, 8, & 9	must be R30 or more: _____
		Zones 11	must be R38 or more: _____

Trade-off calculations (Section 3901.7) must be attached for cathedral ceilings of less than R-30 for Zones 6, 7, 8, &9 or R-38 for Zone 11. Use of skylights will require trade off calculations.

### PRESCRIPTIVE COMPLIANCE FOR FLOOR

COMPONENT	PRODUCTS	R-VALUE BETWEEN FRAMING	TO BE USED
Inside Air Film	(to be included for all Situations)	0.61	not counted
Mineral Fiber	R-19 batts	19.00	
Flooring	(sub-floor + finished floor value)		not counted
Outside Air Film	(to be included for all situations)	0.17	not counted
<b>R-Value Between Framing of Floor</b>			
		Zones 6,7 8, 9, and 11,	must be 19 or more: _____

SLAB-ON-GRADE must have R-5 perimeter insulation extending a total linear distance of at least 24”. Slab insulation must extend 1) down from the top of the slab, or 2) down from the top of the slab to the bottom of the slab and then horizontally underneath the slab, or 3) down from the top of the slab and then horizontally away from the slab, with pavement or at least 10 inches of soil covering the horizontal insulation.

A heated slab requires a minimum R-7 perimeter insulation.

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PRESCRIPTIVE COMPLIANCE FOR OPAQUE WALL

		R-VALUE BETWEEN	TO BE
COMPONENT	PRODUCTS	FRAMING	USED
Inside Air Film	(to be included for all situations)	0.68	not counted
Interior Finish	1/2" Drywall 5/8" Drywall Interior Paneling (Other)	0.45 0.56 0.25	not counted
Mineral Fiber w/Vapor Retarder	R-11 Batts R-13 Batts R-15 Batts R-19 Batts (compressed to 5 1/2") R-21 Batts	11.00 13.00 15.00 18.00 21.00	
Loose Fill	Cellulose fiber insulation (3.5 pcf x 3 1/2") (Other)	12.00	
Sheathing*	1/2" Reg. Density fiber insulation board 1/2" Inter. Density fiber insulation board 25/32" Reg. Density fiber insulation board 3/8" Plywood/OSB 1/2" Plywood/OSB 5/8" Plywood/OSB 3/4" Plywood/OSB 1/2" Expanded Polystyrene Foam 3/4" Expanded Polystyrene Foam 1" Expanded Polystyrene Foam 1/2" Extruded Polystyrene Foam 3/4" Extruded Polystyrene 1" Extruded Polystyrene Foam 3/4" Polyurethane with impermeable facing 1" Urethane 3/4" Urethane (other)	1.32 1.22 2.06 0.47 0.62 0.77 0.93 1.90 2.85 3.80 2.50 3.75 5.00 5.40 7.20 5.40	
Exterior Finish	1/2" Hardboard 3/8" Plywood Alum., Vinyl, or Steel siding (hollow-backed) 1/2" Beveled, 8" lapped siding 3/4" Beveled, 10" lapped siding 4" Face Brick Veneer + air space (other)	0.67 0.47 0.62 0.81 1.05 1.38	not counted
Outside Air Film	(to be included for all situations)	0.17	not counted
<b>Value Between Framing of Opaque Wall</b>			
Zones 6, 7, 8, or 9 must be 14 or more: _____			
Zones 11 must be 16 or more: _____			
or complies with Section 3902 Exception 1 2 3			

\*Sheathing is not counted if it is the exterior finish.

In determining wall insulation compliance with Table 3905, wood structural sheathing may be substituted for fiberboard sheathing or other insulated sheathing of R1.3 or greater at corners of walls and every 25 feet of wall length as required for structural wall bracing per Table 602.9 without requiring a trade off calculation for:

1. Zones 6, 7, 8, and 9 when using an R13 insulation batt in the wall cavity, or
2. Zone 11 when using an R15 insulation batt in the wall cavity.

**PRESCRIPTIVE COMPLIANCE FOR UNGLAZED DOOR, GLASS, DOOR & WINDOW UNITS**

1. A<sub>gross wall</sub>: Gross Area of Exterior Wall Enclosing Conditional Space (includes the nominal area of all doors and windows in these walls): \_\_\_\_\_ ft<sup>2</sup>

**Note:** The wall between an unconditional garage and conditional space is counted because it is part of the building's thermal envelope. The exterior wall separating the unconditional garage from the outdoors would not be counted.

1. Total area of windows and doors separating space from unconditional space or the outdoors:

- a. Nominal area of unglazed doors \_\_\_\_\_ ft<sup>2</sup>
- b. Nominal area of doors with glazing \_\_\_\_\_ ft<sup>2</sup>
- c. Nominal area of windows \_\_\_\_\_ ft<sup>2</sup>
- Total nominal area of windows and doors \_\_\_\_\_ ft<sup>2</sup>

2. Percent (%) window and door opening =

$$\frac{\text{Total Nominal Area of Windows and Doors (See2)}}{\text{A}_{\text{gross wall}}} \times 100 = \quad \times 100 = \text{_____} \%$$

3. Identify your Thermal Zone. Zone 6  
(Refer to Figure 3901.)

4. Identify your window unit types and U values.  
Enter a check mark in the column for your types.

CHECK IF APPLICABLE	WINDOW TYPE	DEFAULT U VALUE OR ENTER ACTUAL U VALUE
	Double glazed metal frame with thermal break	0.67 or _____
	Double glazed wood vinyl	0.56 or _____
	Double glazed wood vinyl with low emissivity coating	0.52 or _____
	Triple glazed wood vinyl with low emssivity coated and inert gas fill in spaces	0.35 or _____
	Other	_____

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5. Identify the largest U value from Window Unit Types (See 5) and its corresponding column in the Table below. Identify your Thermal Zone (See 4) for entering correct line of Table. The intersection of your Thermal Zone line with your window U value column entry identifies percent (%) window and door opening allowed compared to gross wall area.

Enter % from table: \_\_\_\_\_

% WINDOW & DOOR OPENINGS ALLOWED				
ZONE	METAL/THERMAL BREAK U=0.67	WOOD VINYL U=0.56	WOOD WIDTH LOW U=0.52	WOOD VINYL LOW-E-INERT GAS HIGH PERFORMANCE U=0.35
6	17	21	23	33
7	15	18	20	28
8	14	16	18	25
9	13	15	16	23
11	9	13	14	17

Enter % of actual area of windows and doors form 3: \_\_\_\_\_

If % for Table is less than % from 3, then trade-off calculations are required. Recommend use MEC check 1995 version 2.0. If % form Table is equal to or greater than % from 3, then the prescriptive requirement is met for window and door openings.