



2006 Georgia State Energy Code Compliance Tables Simplified Residential Energy Code Compliance

Builder: _____

Physical Address: _____

City, State & Zip Code: _____

Subdivision: _____

Lot/Block: _____

Plan Name: _____

Calculations for tables are valid only for the products and manufacturers listed.

Calculations allow for 25% of the wall area to use Plywood or OSB (for structural corner bracing) and Gypsum applied directly to studs on garage walls. Formula calculations are based upon using two foam filled (steel and/or fiberglass) exterior doors and has built in allowance for one glazed door. If there is to be more than one glazed door, the additional glazed door shall be equal to or less than the window U-Factor.

Window & Door (Fenestration) Square Footage _____

Total Exterior Wall Square Footage _____

Percentage of Window & Door Area _____

Please denote below envelope system used:

Sheathing Type

OSB or Plywood _____

DOW or Sturdi-R _____

Fiber-Brace or Insulated Sheathing _____

Wall Cavity Insulation

R-11 _____

R-13 _____

Ceiling Insulation

R-19 _____

R-30 _____

R-38 _____

Magbee Contractors Supply used an Independent Energy Code Consultant to review all calculations. The tables have been found to be in compliance with the 2000 International Energy Conservation Code (IECC) and Georgia State Supplements and Amendments to the 2000 IECC. For questions and comments, please call 678.425.2600



Directions For Using The Magbee Contractors Supply Energy Code Compliance Tables

1. Using the "Take-Off Worksheet" on the back page of the tables, enter the quantity of windows and doors (openings) next to the call size in the corresponding block.
2. Multiply the quantity of each opening by the square footage listed for each unit and extend in the "Sq. Ft." column beside the appropriate size.
3. Enter any special size/custom windows and doors or additional glazed doors (base calculations include one glazed/glass door) in the "specials/additions" area of the worksheet. For special wood windows and millwork, add 2-1/2" to the width and 4" to the height to calculate the square footage for the opening. For additional glazed doors, add 2" to the height and 2" to the width to calculate the square footage of the opening. This step has already been accounted for in the standard sizes on the Take-Off worksheet. Extend total square footage for specials in the appropriate column as outlined in Step 2.
4. Add all total extensions for all windows and doors used and place sum in "Total Sq Ftg" at bottom of columns for each product used.
5. Add above totals to the "Total All Openings" block at right of Take-Off sheet.
6. Determine the **gross wall area** (defined as the normal projection of all exterior walls, including the area of all windows and doors installed in the envelope) by measuring the width and height for each exterior wall. This calculation is to include the walls separating the garage, above grade basement walls and knee walls in the bonus room and dormers.

Exterior wall area is to be defined as an above grade wall enclosing conditioned air space. This includes floor spandrels, peripheral edges of the floors, roof and basement knee walls, dormer walls, gable end walls and basement walls which is less than 50% of the total area of that enclosing side.

7. Divide the "Total all Openings" from #5 by the Gross Wall Area calculated in #6 to calculate the percentage of window and door area (fenestration) for the house.
8. Using the chart at the bottom of the Compliance Tables, determine what zone is located by county the home is to be located.
9. Refer to the appropriate table by the window product to determine what wall and ceiling insulation and exterior sheathing that is used to meet or exceed the maximum percentage of fenestration allowable and place an "X" in the corresponding box to the right of the system used.
10. Transfer the calculations from the "Take-Off Worksheet" to the cover page of the tables and fill out the information regarding Builder and Lot.



2006 Georgia Energy Code Compliance Table Maximum Allowable Window and Door Area

SilverLine Vinyl Low-E 2900 with Grid

Maximum allowable % of window & door area
Climate Zone 7A

Sheathing Type	R-13 Wall Cavity		R-13 Wall Cavity		R-13 Wall Cavity	
	X	R-19 Ceiling	X	R-30 Ceiling	X	R-38 Ceiling
OSB or Plywood		22.7%		27.6%		29.2%
Fiberboard Sheathing		23.3%		28.1%		29.7%
1/2" R-2 Foam Sheathing		24.0%		28.7%		30.3%
1/2" R-3 Foam Sheathing		24.8%		29.4%		30.9%

Climate Zone 8

OSB or Plywood	19.7%	24.6%	26.2%
Fiberboard Sheathing	20.4%	25.2%	26.8%
1/2" R-2 Foam Sheathing	21.2%	25.9%	27.5%
1/2" R-3 Foam Sheathing	22.0%	26.6%	28.1%

Magbee Wood Low-E

Maximum allowable % of window & door area
Climate Zone 7A

Sheathing Type	R-13 Wall Cavity		R-13 Wall Cavity		R-13 Wall Cavity	
	X	R-19 Ceiling	X	R-30 Ceiling	X	R-38 Ceiling
OSB or Plywood		19.1%		23.1%		24.4%
Fiberboard Sheathing		19.6%		23.5%		24.9%
1/2" R-2 Foam Sheathing		20.3%		24.2%		25.4%
1/2" R-3 Foam Sheathing		21.0%		24.8%		26.0%

Climate Zone 8

OSB or Plywood	16.7%	20.6%	22.0%
Fiberboard Sheathing	17.3%	21.2%	22.5%
1/2" R-2 Foam Sheathing	17.9%	21.8%	23.1%
1/2" R-3 Foam Sheathing	18.6%	22.4%	23.7%

Calculations allow 40% of gross wall area to use Plywood or OSB (for corner bracing) and gypsum fastened direct to studs on garage walls.

Calculations based on minimum two (Magbee furnished) foam filled exterior doors and allow one (Magbee) glazed door. Ga Energy Code allows one door or up to When there is more than one glazed door, the additional glazed door(s) U-factors shall be equal to or less than window U-factor

Calculations allow R-19 insulation in sloped ceiling (maximum 25% of ceiling area).

Calculation based on R-0 Insulation on un-heated slab.

Insulate floor over unconditioned space with R-19; or insulate conditioned/semi-conditioned basement walls with R-11 in bands & stud knee (cripple) wall & mass When calculating % door & window area, total all sq ft of windows and doors including openings in conditioned/semi-conditioned basement and exclude the opaque

Calculations valid only for the manufacturer's products listed above and insulated doors from Magbee Contractors Supply

R. A. Edwards, Consultant, (770-942-9454 - raeds@bellsouth.net) did calculations & prepared the Tables.

The Magbee Contr Supply Tables are in compliance with the 2000 IECC and Georgia supplements.

Company Name _____ Date _____ Permit # _____
 Street Address _____ Lot _____
 City, State & Zip _____ Subdivision _____

Window And Door Square Footage From Take-off Table on back _____
 Divided by Total Exterior Wall Square Footage From Take-off Table on back _____
 Equals Percentage Of Window & Door Area _____

Place and "X" by the building envelope used to comply with the energy code.

Climate Zone 7 Counties

Banks, Barrow, Bartow, Butts, Carroll, Cherokee, Clarke, Clayton, Cobb, Coweta, DeKalb, Douglas, Elbert, Fayette, Floyd, Forsyth, Franklin, Fulton, Gwinnett, Hall, Haralson, Hart, Henry, Jackson, Madison, Newton, Oconee, Oglethorpe, Paulding, Polk, Rockdale

Climate Zone 8 Counties

Catoosa, Chattooga, Dade, Fannin, Gilmer, Gordon, Habersham, Lumpkin, Murray, Pickens, Rabun, Towns, Union, Walker, White, Whitfield



Take – Off Worksheet Window and Door Square Footage

Magbee Shop Built Wood Windows				Magbee Wood/Non-Rot Millwork				Magbee Vinyl Windows Silverline 2900				Exterior Doors			
Size	Quantity	Sq. Ft.	Total Ftg	Size	Quantity	Sq. Ft.	Total Ftg	Size	Quantity	Sq. Ft.	Total Ftg	Size	Quantity	Sq. Ft.	Total Ftg
18x32		6.5		18x10		2.2		20x30		6		20x68		13.3	
20x32		7.7		20x10		2.6		24x30		7		26x68		16.7	
24x32		8.9		24x10		3		28x30		8		28x68		17.8	
28x32		10.1		28x10		3.4		30x30		9		30x68		20	
30x32		11.2		30x10		3.7		31x30		9.3		50x68		33.3	
18x310		7.8		40x10		4.9		20x40		8		54x68		35.6	
20x310		8.2		50x10		6.1		24x40		9.3		60x68		40	
24x310		9.5		54x10		6.5		28x40		10.7		Sidelight		5.6	
28x310		10.7		60x10		7.3		30x40		12		20x80		16	
30x310		12		Flankers				31x40		12.3		24x80		18.7	
34x310		13.2		10x32		4		20x44		8.7		26x80		20	
18x46		9.1		10x310		5		24x44		10.1		28x80		21.3	
20x46		10.7		10x46		5.8		28x44		11.6		30x80		24	
24x46		12.3		10x52		6.6		30x44		13		50x80		40	
28x46		13.9		10x56		7		31x44		13.4		54x80		42.7	
30x46		15.5		10x62		7.9		18x50		8.3		60x80		48	
34x46		17.1		Radius Heads				20x50		10		Other			
18x52		10.3		20		1.6		24x50		11.7		Total			
20x52		12.1		24		2.1		28x50		13.3		Special Windows and Doors			
24x52		14		26		2.5		30x50		15		Size	Quantity	Sq. Ft.	Total Ftg
28x52		15.8		28		2.8		31x50		15.4					
30x52		17.6		30		3.5		20x60		12					
34x52		19.5		2/0 TW/40		6.3		24x60		14					
18x56		10.9		2/4 TW		8.6		28x60		16					
20x56		12.9		50		9.8		30x60		18					
24x56		14.8		2/8 TW/54		11.2		31x60		18.5					
28x56		16.8		3/0 TW/60		14.1		40x40		16		Total			
30x56		18.7		Radius Picture Windows				Vinyl Stationary Windows				For wood windows add + 2.5" width + 4" height For custom sized half rounds 3.14 x radius (in inches) divided by 144 x .5 = Percentage Calculation Table Wood Wdw Sq. Ftg _____ Vinyl Wdw Sq. Ftg. _____ Special Wdw & Door Sq. Ftg. _____ Door Sq. Ftg. _____ Total Wdw & Door Sq Ftg. _____ Divided By _____ Gross Wall Area _____ Percentage of Openings _____ Perimeter Slab lineal ftg _____ Ceiling Area R-38 sf _____ Ceiling Area R-30 sf _____ Sloped Ceil. R-19 sf _____ Floor Area sf (or Y) _____ Basement Knee Walls (R-19) _____ Basement Knee Walls (min R-5) _____ Attic Knee Walls (R-19) _____			
18x62		12.2		28x52		14.8		3040		12					
20x62		14.4		28x62		17.7		3140		12.3					
24x62		16.5		30x46		14.2		2850		13.3					
28x62		18.7		30x52		16.3		3050		15					
30x62		20.9		30x62		19.5		3150		15.4					
34x62		23		40x46		18.3		3160		18.5					
Fixed Windows				40x52		21.1		4040		16					
30x46		17.1		40x62		25.3		4050		20					
30x52		17.6		50x46		22		4060		24					
30x62		20.9		50x52		25.5		5050		25					
40x310		17.6		50x62		30.7		5060		30					
40x40		18.2		50x70		35		1040		4					
40x52		23.2		50x80		40.2		1050		5					
40x62		27.4		60x46		25.5		1060		6					
50x46		25.2		60x52		29.4		2010		2					
50x52		28.7		60x62		35.9		2410		2.3					
50x62		33.9		60x70		41		2810		2.7					
60x46		30		60x80		47.2		3010		3					
60x52		34.2		Total				2/0 Oct		3.7					
60x62		40.4						2/0.Rnd		3.2					
Total								Total							