City of Brentwood
Planning and Codes Department
5211 Maryland Way (37027)
P.O. Box 788
Brentwood, TN 37024-0788

Office (615) 371-2204
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www.brentwood-tn.org/planning

Created March 1 (modified March 5), 2013

♦ ***Residential Window Replacement*** ♦

Attention Window Replacement Contractors

Window replacement improvements are not exempt from permit application submittal, review by the City of Brentwood Planning & Codes Department and permit issuance. The adopted Residential Building Code exempts certain construction improvements from permitting, however the replacement of windows *is not exempt*. See Section R105 of the *2012 International Residential Code for One- and Two-Family Dwellings (IRC)*.

In addition, under the Environmental Protection Agency's (EPA) mandated lead-safe rules as of April 2010, contractors completing work on pre-1978 structures: shall be an "EPA Certified Renovator"; shall have the "EPA Firm Certification"; and, follow specific guidelines to prevent lead based contamination, should it test positive. In the absence of these two certifications, a contractor can hire a "State of TN Certified Risk Assessor" to perform the test for potential lead-based paint. The EPA requires notification of results to property owner(s). Documentation shall also be provided to the City of Brentwood Planning & Codes Department, prior to issuance of a permit.

Emergency escape and rescue openings from sleeping rooms require a minimum net clear opening of 5.7 square feet; grade floor window openings are allowed to be reduced to 5.0 square feet. Sill heights cannot exceed 44 inches from the finished floor to the bottom of the clear opening. Review Sections R310 & R312 of the 2012 International Residential Code. The net clear opening area of an existing window in a bedroom shall not be reduced; at a minimum, it shall remain the same clear opening size for window inserts. When the entire window is replaced, every attempt should be made to meet the current adopted code clear opening requirements. Please contact our office in advance to discuss technically infeasible installation locations when replacing emergency and escape bedroom window. Replaced windows must also comply with the *2009 International Energy Conservation Code (IECC)*.

TABLE 402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR[b]	SKYLIGHT[b] *U*-FACTOR	GLAZED FENESTRATION SHGC[b, e]	CEILING *R*-VALUE	WOOD FRAME WALL *R*-VALUE	MASS WALL *R*-VALUE[i]	FLOOR *R*-VALUE	BASEMENT[c] WALL *R*-VALUE	SLAB[d] *R*-VALUE & DEPTH	CRAWL SPACE[c] WALL *R*-VALUE
1	1.2	0.75	0.30	30	13	3/4	13	0	0	0
2	0.65[j]	0.75	0.30	30	13	4/6	13	0	0	0
3	0.50[j]	0.65	0.30	30	13	5/8	19	5/13[f]	0	5/13
4 except Marine	0.35	0.60	NR	38	13	5/10	19	10 /13	10, 2 ft	10/13
5 and Marine 4	0.35	0.60	NR	38	20 or 13+5[h]	13/17	30[g]	10/13	10, 2 ft	10/13
6	0.35	0.60	NR	49	20 or 13+5[h]	15/19	30[g]	15/19	10, 4 ft	10/13
7 and 8	0.35	0.60	NR	49	21	19/21	38[g]	15/19	10, 4 ft	10/13

For SI: 1 foot = 304.8 mm.

a. *R*-values are minimums. *U*-factors and SHGC are maximums. R-19 batts compressed into a nominal 2 × 6 framing cavity such that the *R*-value is reduced by R-1 or more shall be marked with the compressed batt *R*-value in addition to the full thickness *R*-value.

b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

c. "15/19" means R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulated sheathing on the interior or exterior of the home. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.

d. R-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs.

e. There are no SHGC requirements in the Marine Zone.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure 301.1 and Table 301.1.

g. Or insulation sufficient to fill the framing cavity, R-19 minimum.

h. "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.

i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.

j. For impact rated fenestration complying with Section R301.2.1.2 of the *International Residential Code* or Section 1608.1.2 of the *International Building Code*, the maximum *U*-factor shall be 0.75 in Zone 2 and 0.65 in Zone 3.

The building permit fee for window replacement is based on the valuation of the material and labor costs for the project. See permit fee table schedule below.

NOTE: A minimum of one inspection, a final inspection, will be completed to verify bedroom egress window openings and compliance to the 2009 International Energy Conservation Code.

Schedule of Permit Fees

Total valuation	Building permit fee
$2,000.00 and less	No fee, unless inspection required, in which case a $25.00 fee shall be charged
$2,001.00 to $15,000.00	$60.00 for the first $2,000.00 plus $5.50 for each additional thousand or fraction thereof to and including $15,000.00
$15,001.00 to $50,000.00	$131.50 for the first $15,000.00 plus $3.75 for each additional thousand or fraction thereof to and including $50,000.00
$50,001.00 to $100,000.00	$262.75 for the first $50,000.00 plus $3.75 for each additional thousand or fraction thereof to and including $100,000.00
$100,001.00 to $500,000.00	$450.25 for the first $100,000.00 plus $2.75 for each additional thousand or fraction thereof to and including $500,000.00
$500,001.00 to $1,000,000.00	$1550.25 for the first $500,000.00 plus $2.00 for each additional thousand or fraction thereof to and including $1,000,000.00
$1,000,001.00 and up	$2550.25 for the first $1,000,000.00 plus $1.00 for each additional thousand or fraction thereof

Sincerely,

Tim J. Harrington
Building Code Official
City of Brentwood, Tennessee

City of Brentwood
Planning and Codes Department
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P.O. Box 788
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Begin using this document ***March 1, 2013***

Residential

♦ Window Replacement Permit Application ♦

2012 International Residential Code for One- and Two-Family Dwellings (IRC) 2012 edition with 2009 ICC IECC

1.) GENERAL INFORMATION

The year the house was constructed: _____ **(*required to ensure compliance with EPA-Lead Based Paint RRP Law)**

Subdivision Name: _____ Lot #: _____

Property Street Address: _____

Total Project Valuation: $ _____

2.) CONTRACTOR'S INFORMATION

Contractor's Name: _____

Mailing Address: _____

City/State/Zip Code: _____

Physical Address: _____

City/State/Zip Code: _____

Tennessee Contractor's License No.: _____ Expiration Date: _____

Workmen's Compensation Policy No.: _____ Expiration Date: _____

Brentwood License Business Tax License No.: _____ Expiration Date: _____

Telephone Number: (____)_____ Fax #: (____)_____

Contact Person: _____

Contact Person's Phone Number: (____)_____ Ext #: _____

Email Address: _____

3.) PROPERTY OWNER'S INFORMATION

Property Owner's Name(s): _____

Address: _____

City/State/Zip Code: _____

Property Owner's Telephone Number: (____)_____

Email Address: _____

4.) DOCUMENT SUBMITTAL REQUIREMENTS

- On a floor and/or elevation plan, identify the location and size of window(s) to be replaced.
- **Bedroom replacement window(s**) shall comply with Section R310 of the 2012 International Residential Code to the **greatest extent possible**, but in no case be reduced from the current egress minimum opening area size. If existing windows are to be replaced with larger windows, compliance is mandatory.
    a. Every sleeping room shall have at least one operable window or an exterior door approved for emergency escape.

4.) DOCUMENT SUBMITTAL REQUIREMENTS (CONTINUED)

b. The emergency escape window or door shall be operable from the inside to provide a full, clear opening without the use of separate tools.
c. The emergency escape window or door shall have a minimum net clear opening area of 5.7 square feet; exception, grade floor window openings shall have a minimum net clear opening of 5.0 square feet.
d. The minimum net clear opening height shall be 24 inches and the minimum net clear opening width shall be 20 inches.
e. The sill height of emergency escape windows shall not be more than 44 inches above the interior finished floor.

- **Safety glazing shall be installed at hazardous locations** as specified in Section R308 of the 2012 IRC. Specify locations of all windows requiring safety glazing. Tempered glazing shall be permanently marked by the manufacturer. (Except tempered spandrel glass)

  The following is not an all-inclusive list of hazardous locations. **Review 2012 IRC/SectionR308**
  Glazing in doors and enclosures for hot tubs (both inside and outside), whirlpools, saunas, steam rooms, bathtubs and showers or any part of a wall enclosing these areas where the bottom of the glass is 60 inches or less off the drain, needs to have tempered glass.

  If a window meets all four of the following criteria the glass shall be safety-glazed.
  a. Exposed area of an individual pane is greater than 9 sq. ft. and
  b. The bottom edge is less than 18" above the floor and
  c. The top edge of the same piece of glass is 36" or more above the floor and
  d. If one or more walking surfaces are within 36" horizontally of the glazing.

- **Maximum fenestration U-Factor is 0.35.** Review 2009 International Energy Conservation Code, Section 402.1.1.

This completed and signed permit application, along with two (2) sets of plans/documentation, is required for a plans review to be completed by the Planning & Codes Department.

5.) ACKNOWLEDGE (READ BEFORE SIGNING)

- *I acknowledge and certify that the information provided on this application is true and complete. Any information not provided on this application may result in an immediate rejection of the plan.*

- *Further, I understand under Section R110.1 of the 2012 International Residential Code for One- and Two-Family Dwellings, that a final inspection is required for window replacement inserts. If structural, plumbing, mechanical and/or electrical are completed for window replacement(s), a rough-in inspection is also required.*

- *All requirements from the City of Brentwood Planning & Codes Department shall be satisfied.*

- *If house was constructed pre-1978, compliance with EPA's Renovation, Repair and Painting (RRP) is required. For more info: http://www.epa.gov/opptintr/lead/pubs/renovation.htm*

APPLICANT'S SIGNATURE _____ **DATE:** _____

APPLICANT'S NAME (PRINT CLEARLY) _____

OFFICE USE ONLY: REVIEWED BY: _____ DATE: _____