

1 CITY OF SANTA FE, NEW MEXICO

2 BILL NO. 2016-38

3 INTRODUCED BY:

4 Councilor Peter N. Ives

5 Councilor Carmichael A. Dominguez

6 Councilor Renee D. Villarreal

7 AN ORDINANCE

8  
9  
10 AMENDING SECTION 7-4.2 SFCC 1987, RESIDENTIAL GREEN BUILDING CODE BY  
11 REPEALING EXHIBIT A TO CHAPTER VII SFCC 1987; ADDING A REQUIREMENTS  
12 SECTION; AND AMENDING SECTION 14-8.2(D) BEST MANAGEMENT PRACTICES  
13 FOR GRADING BEFORE AND DURING CONSTRUCTION.  
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15  
16 BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF SANTA FE

17 Section 1. Section 7-4.2 SFCC 1987 (being Ord. #2009-9, as amended) is amended  
18 to read:

19 7-4.2 Residential Green Building Code

20 A. Purpose. The purpose of this section is to:

21 (1) Provide criteria for rating the environmental performance of single- family  
22 residential construction and site design practices and provide guidelines for documentation  
23 that demonstrates conformance with those criteria;

24 (2) Encourage cost-effective and sustainable building methods by encouraging  
25 conservation of fossil fuels, water and other natural resources, reduction of greenhouse gas

1 emissions, recycling of construction materials, reducing solid waste and improving indoor air  
2 quality;

3 (3) Identify the specific requirements for complying with the requirements of the  
4 Residential Green Building Code; and

5 (4) Encourage more aggressive green building development through incentives  
6 and rewards to work toward the goals of the 2030 challenge as adopted by the governing  
7 body by Resolution No. 2006-55.

8 B. *Residential Green Building Code; Applicability.*

9 (1) ~~[Exhibit A attached to the end of this chapter is adopted. Exhibit A shall be~~  
10 ~~referred to as the Santa Fe Residential Green Building Code.]~~ The provisions of the Santa Fe  
11 Residential Green Building Code shall apply to:

12 (a) ~~[all]~~ new single-family, attached and detached, residential units as defined  
13 by the 2009 International Residential Code or its successor as adopted by the city;

14 (b) modular homes which are built off-site and brought onto the site,  
15 provided that the land use director may approve exceptions to specific code  
16 requirements upon a showing by the applicant or modular home supplier that  
17 compliance would cause undue burden; and

18 (c) Residential additions that provide for living, sleeping, eating, cooking  
19 and sanitation. Only the addition is subject to the code provisions, not the existing  
20 structure.

21 ([3]2) Upon request of an applicant, applications for permits submitted prior to  
22 ~~[July 1, 2012]~~ January 1, 2017, may be issued in compliance with the prior version of  
23 Residential Green Building Code.

24 C. *Relationship to Other Codes; Compliance; Exceptions.*

25 (1) The requirements of this section are in addition to and do not replace the

1 requirements of other sections of this chapter and other chapters of this Code, including  
2 without limitation, all of the life safety codes, historic preservation ordinance, land  
3 development code and adopted building codes and development standards.

4 (2) ~~[No person shall fail to comply with the requirements of this section. No~~  
5 ~~person shall construct in violation of a Residential Green Building Code approval. All~~  
6 ~~approvals in inspections of Residential Green Code applications and requirements shall be~~  
7 ~~done in conjunction with a residential building permit application and field inspections. An~~  
8 ~~application shall be made on a form approved by the land use department director.] All~~  
9 ~~submittals and approvals required under this Residential Green Building Code shall be~~  
10 ~~rendered in conjunction with a residential building permit application and related field~~  
11 ~~inspections. The application shall be on a form approved by the land use director.~~ The  
12 applicant shall demonstrate compliance with all of the provisions of this section prior to the  
13 issuance of a certificate of occupancy by the land use director.

14 (3) For a structure located in an historic overlay district where it can be  
15 demonstrated that strict compliance with the requirements of this section cannot be achieved  
16 without an exception to the historic overlay district requirements, the requirements of this  
17 section may be adjusted so as to resolve the conflict between the two (2) sections of the Code.

18 D. Administration.

19 ~~[(1) The Residential Green Building Code shall be administered by the city as set~~  
20 ~~forth in the administrative procedures adopted by resolution of the governing body. All~~  
21 ~~changes to the administrative procedures shall be reviewed and approved by the governing~~  
22 ~~body. The administrative procedures shall set forth responsibilities, procedures and standards~~  
23 ~~for administrative actions necessary to implement the Residential Green Building Code,~~  
24 ~~which include, without limitation, the following:]~~

25 ~~[(a) Submitting and reviewing applicable residential building permit~~

1 requests and determining conditions of approval related to the requirements of the  
2 Residential Green Building Code;]

3 [(b) Reviewing and certifying Residential Green Building Code  
4 checklists with property owners to ensure compliance with the Residential Green  
5 Building Code and the administrative procedures;]

6 [(c) Monitoring the performance of property owners subject to such  
7 agreements or other requirements of the Residential Green Building Code and the  
8 administrative procedures; and taking appropriate action in the event of  
9 noncompliance; and]

10 [(d) Collecting and distributing any payments resulting from getting a  
11 worse index than the required home energy rating index.]

12 ((2)1) The land use director [or its agents] shall:

13 (a) [Be responsible for the administration of the Residential Green  
14 Building Code.

15 (b) Administer and enforce [all other building code and land use  
16 ordinances that apply to development requests that are subject to this section] the  
17 Residential Green Building Code; and

18 ((e)b) Require[; as part of the building permit submittals, the] an applicant  
19 for a building permit, to prepare and submit [a] Residential Green Building Code  
20 [checklist] documentation to the green code administrator or designee to assure  
21 compliance with this section[; and

22 (d) Where applicable, invoke sanctions for noncompliance with this  
23 section at the request of the city manager].

24 E. Requirements.

25 (1) Energy performance levels.

1                   A documented analysis of the building's energy performance using software  
2 in accordance with 2009 ICC IECC Section 405 is required. A projected Home  
3 Energy Rating System (HERS) index, or equivalent, shall be submitted as part of a  
4 building permit application and a report of the confirmed HERS index, or equivalent,  
5 meeting the standards of this section is required prior to issuance of a certificate of  
6 occupancy. The required HERS index for residences up to and including 3000  
7 square feet of conditioned space shall be 65 until January 1, 2018, when it shall be  
8 reduced to 60. The required HERS index for residences over 3000 feet of  
9 conditioned space shall be reduced by one point for each 100 square feet of  
10 conditioned space over 3000, or pro-rata portion thereof, until the required HERS  
11 index is zero and shall be zero for those and larger residences.

12                   (2)   HERS raters.

13                   HERS raters shall be licensed and certified to conduct HERS analysis by  
14 passing educational courses and obtaining annual continuing education credits as  
15 required by the land use director. In addition HERS raters shall:

- 16                   a.       confirm ventilation rates of the ventilation equipment used to satisfy  
17 the required house ventilation and report the findings to the land use  
18 department;
- 19                   b.       supply a report that includes the building components contributing to  
20 achievement of the required HERS index to be compared to the building  
21 plans submitted for a building permit. Reports approved to supply this  
22 information shall be approved by the land use director; and
- 23                   c.       supply an estimation of the greenhouse gas emissions avoided and  
24 the electricity and natural gas usage avoided when submitting the final or  
25 confirmed HERS index. Reports approved to supply this information shall

1 be approved by the land use director.

2 (3) Building envelope insulation values.

3 Building insulation levels shall meet the requirements of overall UA for 2015 IECC.  
4 A report of compliance shall be provided to the city as part of a building permit  
5 application. Reports approved to supply this information shall be approved by the  
6 land use director.

7 (4) Building thermal envelope insulation confirmation.

8 The insulation installers shall provide a certification complying with a template to be  
9 provided by the land use department listing the type, manufacturer and R-value of  
10 insulation installed in each element of the building thermal envelope. For blown or  
11 sprayed insulations (fiberglass and cellulose), the initial installed thickness, settled  
12 thickness, settled R-value, installed density, coverage area and number of bags  
13 installed shall be listed on the certification. For insulated siding, the R-value shall be  
14 listed on the product's package and shall be listed on the certification. The insulation  
15 installer shall sign, date and provide the certification in a conspicuous location on the  
16 job site. (consistent with 2015 IRC Section N1101.10.1)

17 (5) Air sealing and insulation.

18 The air barrier and insulation installation criteria from Table 402.4.2 from the 2009  
19 International Energy Conservation Code shall be visually inspected pursuant to  
20 Section 402.4.2.2 whether or not the testing option from Section 402.4.2.1 has been  
21 achieved. Insulation values shall be verified to match those used to obtain the  
22 required HERS rating.

23 (6) Duct installation.

24 The installation instructions for heating, ventilation and air conditioning equipment  
25 shall be made available to the inspector conducting the duct installation inspection to

1 ensure ducting meets the manufacture's specifications. It shall be located on the  
2 equipment or in a conspicuous location adjacent to the equipment to be easily located  
3 by the inspector.

4 (7) Duct leakage.

5 Duct tightness shall be verified in accordance with 2009 IECC section 403.2.2 and  
6 shall not exceed 6 percent of total fan flow.

7 (8) Duct protection during construction.

8 All boots, ducts and ventilation openings shall be sealed during construction to  
9 prevent dust and debris from entering them and shall remain sealed until they are put  
10 into operation.

11 (9) Water conservation levels.

12 Water conservation features are implemented to achieve conservation performance  
13 shall be required. A documented analysis using the water efficiency rating score  
14 (WERS) tool showing a maximum score of 70 shall be submitted to the land use  
15 department as part of a building permit application and a report of the confirmed  
16 rating with a maximum score of 70 shall be submitted to the land use department  
17 prior to receiving a certificate of occupancy.

18 (10) Whole-house mechanical ventilation requirement.

19 Mechanical ventilation shall be required at a rate based on the following formula:  
20 required cubic feet per minute of ventilation = (total heated floor area X .01) +  
21 ((number of bedrooms + 1) X 7.5)

22 (11) Heating and cooling equipment sizing and system design.

23 2009 IRC Section M1401.3 requires that heating and cooling equipment be sized in  
24 accordance with ACCA Manual S based on building loads calculated in accordance  
25 with ACCA Manual J or other approved heating and cooling methodologies.

1 Completed Manual S and J forms, along with the brand, model and capacity of the  
2 selected equipment, shall be submitted to the land use department either at time of  
3 building permit application or as soon as available but in no case after selected  
4 equipment is ordered.

5 (12) Disclosure of building performance and homeowner's manual.

6 The following items shall be documented and included in a homeowners manual  
7 provided to the first homeowner and available for review for homes that are for sale  
8 on forms provided by the land use director:

- 9 a. the confirmed HERS index;
- 10 b. the blower door result at ACH 50;
- 11 c. the required amount of ventilation and the archived ventilation rate  
12 in air changes per hour;
- 13 d. the type of ventilation system used;
- 14 e. the percentage better that the UA is above the 2015 IECC maximum  
15 requirement;
- 16 f. the confirmed WERS;
- 17 g. a diagram showing the location of shut off valves for water,  
18 electricity and any combustions fuels (natural gas or propane) with labels in  
19 english and spanish;
- 20 h. the manuals for all major equipment and fixtures in english and in  
21 spanish if available; and
- 22 i. All other homeowner manual items available from the land use  
23 department at the time of certificate of occupancy for that purpose.

24 F. *Permit Fee.*

- 25 (1) Applicants for residential building permits shall pay a green building code



1                    permit fee of one hundred dollars (\$100.00) for each residential unit, subject to the  
2                    provisions for fee waivers under Subsection 14-8.11(G)(2)(a).

3                    [E]G. *Effective Date.*

4                    (1)        Section 7-4.1 SFCC 1987 shall be effective [~~July 1, 2009~~] September 15,  
5                    2016.

6                    **Section 2.        Section 14-8.2(D) SFCC 1987 (being Ord. #2011-37, as amended) is**  
7 **amended to read:**

8                    **14-8.2 Terrain and Stormwater Management**

9                    **(D)        Standards for All Grading**

10                    (7)        Best Management Practices.

11                    The following best management practices shall be used before and during the  
12                    construction process:

13                    (a)        disturbed areas shall be protected from *erosion* during construction  
14                    by diverting stormwater around the disturbed area, dissipating the energy of  
15                    stormwater adequate to prevent *erosion*, retaining sediment on the disturbed  
16                    area or other means adequate to retain soil on site;

17                    (b)        except as necessary to install temporary *erosion* and sediment control  
18                    devices, land shall not be *graded* or cleared of vegetation until all such  
19                    temporary devices have been properly installed and inspected. Temporary  
20                    *erosion* and sediment control devices may include silt fencing, *swales*, straw  
21                    bales, berms, geotextiles, sediment basins or traps and fencing. Control  
22                    devices shall be kept in place and [~~used~~] functional until the disturbed area is  
23                    permanently stabilized; or notice of termination (NOT) is filed;

24                    (c)        all *significant trees*, and other trees and vegetation, areas with  
25                    substantial grass coverage and *drainageways* that are to remain undisturbed

1 shall be fenced off prior to the use of any heavy machinery on-site and shall  
2 remain fenced during the entire construction process. Fencing material may  
3 include snow fencing, plastic mesh or other similar fencing material. To  
4 protect the root zone of all significant trees, and other trees and vegetation,  
5 fencing shall be placed five (5) feet to the outside of their dripline;

6 (d) to prevent soil from leaving a site, soil stockpiles shall be protected  
7 from wind and water *erosion* throughout the [~~construction process~~] time the  
8 stockpile remains by using appropriate *erosion* control techniques. Staging  
9 and soil stockpile areas shall be clearly designated on the site. All topsoil  
10 shall be kept on site, within the disturbance zone of a construction site and  
11 then reintroduced into planting areas to the extent possible. Stockpiled soil  
12 shall not be allowed to enter arroyos or other *drainageways*;

13 (e) techniques to prevent the blowing of dust or sediment from the site,  
14 such as watering down exposed areas, are required for projects that disturb  
15 greater than five thousand (5,000) square feet; and alternate forms shall be  
16 readily available and used if watering is not sufficient;

17 (f) protection for storm drain inlets, *drainageways* and any stormwater  
18 conveyance shall be provided to prevent the entry of sediment and pollutants  
19 from the site while still allowing the entry of stormwater; and

20 (g) protection from drainage from canales, downspouts and drip edges  
21 shall be achieved in accordance with all of the following:

22 (i) an impermeable liner shall be installed under the splash area  
23 under the canale; and

24 (ii) a liner or other collector shall be installed that guides water  
25 away from the structure sloping a minimum of 6 inches over 6 feet

1 for a minimum of 6 feet away from the structure or to an interceptor  
2 swale.

3 APPROVED AS TO FORM:

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6 KELLEY A. BRENNAN, CITY ATTORNEY

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