

# City of Santa Fe, New Mexico

# memo

**DATE:** August 8, 2016

**TO:** City Council Committees 

**VIA:** Lisa Martinez, Director, Land Use Department

**FROM:** Katherine Mortimer, Supervising Planner, Land Use Department 

**SUBJECT:** GREEN BUILDING CODE UPDATE & ESTABLISHING TARGET GOALS

## ITEM

**AMENDING SECTION 7-4.2 SFCC 1987, RESIDENTIAL GREEN BUILDING CODE BY REPEALING EXHIBIT A TO CHAPTER VII SFCC 1987; ADDING A REQUIREMENTS SECTION; AND AMENDING SECTION 14-8.2(D) BEST MANAGEMENT PRACTICES FOR GRADING BEFORE AND DURING CONSTRUCTION.**

This Bill would update the Residential Green Building Code, increasing the requirements for energy and water efficiency while simplifying the process for compliance and would ensure homes approved under the code are evaluated consistently.

**ESTABLISHING TARGET GOALS FOR THE CITY'S GREEN BUILDING CODE TO MEET THE GOALS SET FORTH IN THE U.S. MAYORS CLIMATE CHANGE PROTECTION AGREEMENT, THE CITY'S GOAL OF BECOMING CARBON NEUTRAL BY 2040, AND THE NEED TO CONSERVE WATER RESOURCES DUE TO THE PROJECTED EFFECTS OF CLIMATE CHANGE.**

This resolution sets forth targets for the green building code program to meet goals previously adopted by the governing body.

## BACKGROUND

The governing body adopted the first Residential Green Building Code in 2009 (Ordinance 2009-9). At that time the Code represented a major step towards reducing building energy and water efficiency along with cradle to grave impacts of building materials, ensuring healthy indoor air quality and providing homeowner education. The code has been amended several times with a significant streamlining in 2011 (Ordinance 2011-49). The proposed code changes would help achieve carbon neutrality by 2040.

The code was originally formatted to be consistent with the Build Green New Mexico (BGNM) program which is one of two programs that can be used to qualify for the New Mexico Sustainable Building (NMSB) Tax Credit. That program has undergone two updates and is expected to be continually updated over time. The current checklist used by the Santa Fe

Residential Green Building Code no longer aligns with the BGNM checklist.

This proposed bill would increase required energy and water conservation, demonstrated through computer modeling. Energy modeling has been a requirement for the NMSB Tax Credit. Additionally, a requirement for water efficiency modeling was added in 2015 NM legislation (SB279). The modeling required by the proposed bill is consistent with the requirements needed to take advantage of this tax credit.

The proposed code updates include key mandates and, together with the computer modeling, will create a simpler, more flexible program that can more predictably save energy and water. This program can be used to drive energy and water savings by changing the required home energy rating system (HERS) index and water efficiency rating score (WERS) requirements and can also be used as a model for developing green codes for other building types such as residential remodels and commercial buildings.

#### Applicability

This update will apply to all new single-family structures, attached and detached, including accessory dwellings and modular homes.

#### Summary of Code Changes:

1. Computer modeling will replace the current Residential Green Building Code Checklist
2. Lower (improve) HERS score requirement by 5 points now and 5 more effective 1/1/18
3. Building thermal envelope insulation shall meet the 2015 International Energy Conservation Code
4. Require training for HERS raters on local standards for the modeling software
5. Require computer water modeling using the newly created Water Efficiency Rating Score (WERS) tool with a score of 70 (30 percent better than building code) (More information on WERS below)
6. Incorporate requirements to preserve vegetation with fencing and to protect buildings from canale and gutter splashing into the City's Chapter 14, Development Code
7. Require air exchanges consistent with 2010 ASHRAE 62.2 standards
8. Provide consistent inspections of building thermal enclosure sealing and insulation by City staff
9. Confirm duct installations per manufacturer's specifications and ensure that leakage does not exceed 6% of total fan flow
10. Require duct protection from dust and debris during construction
11. Ensure heating and cooling system(s) are designed and selected per the Air Conditioning Contractors of America (ACCA) manuals
12. Ensure homeowner manuals include all relevant information and are bi-lingual
13. Establish a new \$100 green code permit fee for permits reviewed under the new program
14. Dedicate and train city green code staff to review, inspect and track program progress

#### Incorporation of Water Efficiency Rating Score

This bill includes incorporation of the new Water Efficiency Rating Score (WERS) tool which replaces the checklist section for Water Efficiency under the current code as directed by Resolution 2015-28. The WERS tool measures the projected water savings of different water fixtures and appliances, both inside and outside of the building, and compares that projected usage to the same home if it were built under minimum code standards. The initial recommended requirement is for all new homes to achieve a score of 70, which is 30% better than buildings subject to no green code requirements. The current green code requires

increased water efficiency using a checklist. It is estimated that a WERS of 70 will save about the same amount of water, or a little more, than the amount saved under the current green building code. While the tool calculates the water savings, should someone elect to install graywater or rainwater harvesting systems, such systems are not a requirement in order to achieve a score of 70. Once achieving a WERS 70, the Council may consider lowering the required score which would require additional water conserving measures.

#### Resolution Establishing Target Goals:

The Resolution aims to align with goals embodied in policy previously adopted by the governing body for reducing greenhouse gas emissions, creating more energy efficient buildings, and conserving water in incremental amounts over time. To achieve the goals of the resolution, staff will collect data about the effectiveness of the updated green building code and then use the new model and data to develop green building codes for other building types including commercial buildings and additions and remodels of all building types.

#### **FISCAL IMPACT**

##### Cost for City Administration:

City administration costs of the update will increase over the current program. Green code trained staff will review HERS and WERS submissions, identify those elements used to obtain the required score and subsequently inspect the construction. They will also ensure inclusion of the required components of the green building code which exceed the basic International Residential Code or Uniform Mechanical or Plumbing codes to ensure installation during construction. A higher level of oversight is needed to allow the flexibilities of the new program. To cover the additional costs, the bill includes a \$100 fee for each building permit issued under the updated code.

##### Land Use Department Budget Amendment

The Fiscal Impact Report (FIR) shows the need to increase the Land Use Department's budget by \$73,982 in the current fiscal year (2016/17), and by \$123,514 for fiscal year 2017/18 and beyond. The source of the funds comes from projected increases in construction permit fees from projects that have either received development approvals or are well along in that process.

##### Cost of Compliance:

The changes in the code will result in increased costs to builders in some areas and decreases in others. Whether or not there will be a net increase or decrease depends upon how builders used checklist points in the past and how they will reduce their energy use to reach the new HERS requirement. While the minimum HERS requirement has been 70, the average HERS index over time has lowered to 61. Due to this general decrease, most homes would not have an increased cost to achieve the proposed requirement of 65. The proposal would lower the required HERS index to 60 in 2018 and expects the additional costs to achieve that score to be minimal, if any, by that time.

For builders currently achieving a HERS of 70, increased costs to achieve a HERS of 65 could be \$5000. Additionally there would be a cost to obtain third-party WERS professional services of about \$500 to \$800 depending upon additional water conservation strategies they would need to employ. Finally with the new \$100 fee, a maximum estimated additional cost would be about \$5900. It is important to note that cost savings from program changes would offset most or all of that additional cost.

Additional cost savings include services the City would start providing, including thermal bypass inspections that are currently performed by third-parties. City staff will also provide most of the homeowner manual content, in a bi-lingual format. Elimination of the checklist and most of the documentation requirements for the points taken will also save money. Reductions in the requirements for resource efficiency and indoor air quality will further minimize costs. Points commonly taken in the areas which would no longer be checklist items include: covering all exterior entries, creation of waste management and recycling plans, hiring a professional to conduct HVAC start up testing and certification, programmable thermostats, rain barrels, sealed combustion furnaces and water heaters, energy star and humidistat-controlled bathroom fans, insulation of cold water pipes and increased insulation of hot water pipes. Those items would instead be included in a website of best construction practices. Savings will vary but would be expected to range from \$2800 to \$5900 per residence.

Program compliance costs have reduced over time as many energy and water saving technologies have become less expensive due to demand and producers realizing economies of scale. Programmable thermostats, efficient HVAC equipment and home appliances, low-flow toilets and other water fixtures were selling at a premium in 2009 when the green code first went into effect and are now closer in price to less efficient devices. Additionally, increases in both energy and water efficiency will save homeowners utility costs each month.

Log # <i>{Finance use only}</i> :	
Batch # <i>{Finance use only}</i> :	

## City of Santa Fe, New Mexico BUDGET AMENDMENT RESOLUTION (BAR)

DEPARTMENT / DIVISION NAME Land Use Department / Permit Division						DATE 08/03/2016
ITEM DESCRIPTION	BUSINESS UNIT	LINE ITEM	SUBSIDIARY {.000000}	SUBLEDGER {0000}	INCREASE	DECREASE
<b>EXPENDITURES</b>					<i>{enter as positive #}</i>	<i>{enter as negative #}</i>
Full time Classified	12079	500350			46,682	
Vehicles <1.5	12072	570950			20,000	
Gasoline	12072	531000			600	
Data Processing	12072	572800			2,000	
Advertising	12072	561850			1,500	
Communication	12072	514100			1,200	
Dues	12072	561900			450	
Training Fees	12072	432800			1,550	
<b>REVENUES</b>					<i>{enter as negative #}</i>	<i>{enter as positive #}</i>
Building Permits	11001	420300			(73,982)	

**JUSTIFICATION:** *(use additional page if needed)*  
*--Attach supporting documentation/memo*

As presented during the FY 16/17 budget hearings, increased recurring permit fees are expected both this year and beyond. In addition, the green code update includes a new fee which is expected to generate \$10,000 this year and \$15,000 per year thereafter. The amount expected increased revenue is well in excess of the \$73,982 budget amendment requested. The existing Department budget will cover staff time and other expenses required to administer the green building code update.

<i>{Complete section below if BAR results in a net change to ANY Fund}</i>	
Fund(s) Affected:	Fund Bal. Increase/ (Decrease):
1001	(73,982)
<b>TOTAL:</b>	

<b>{REQUIRED}</b>		<i>{Use this form for Finance Committee/ City Council agenda items ONLY}</i>	
Prepared By <i>{print name}</i>	Date	<b>CITY COUNCIL APPROVAL</b>	Budget Officer
		City Council	
Division Director <i>{optional}</i>	Date	Approval Date	Finance Director <i>{≤ \$5,000}</i>
		Agenda Item #: <b>{Budget will enter}</b>	
Department Director	Date		City Manager <i>{≤ \$50,000}</i>

1 CITY OF SANTA FE, NEW MEXICO

2 BILL NO. 2016-\_\_

3 INTRODUCED BY:

4  
5 Councilor Peter N. Ives

6 Councilor Carmichael A. Dominguez

7 Councilor Renee D. Villarreal

8  
9  
10 AN ORDINANCE

11 AMENDING SECTION 7-4.2 SFCC 1987, RESIDENTIAL GREEN BUILDING CODE BY  
12 REPEALING EXHIBIT A TO CHAPTER VII SFCC 1987; ADDING A REQUIREMENTS  
13 SECTION; AND AMENDING SECTION 14-8.2(D) BEST MANAGEMENT PRACTICES  
14 FOR GRADING BEFORE AND DURING CONSTRUCTION.

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 ~~[(e) 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:

4   
5 \_\_\_\_\_  
6 KELLEY A. BRENNAN, CITY ATTORNEY

1 **CITY OF SANTA FE, NEW MEXICO**

2 **RESOLUTION NO. 2016-\_\_**

3 **INTRODUCED BY:**

4  
5 Councilor Peter N. Ives

6 Councilor Carmichael A. Dominguez

7 Councilor Renee D. Villarreal

8  
9  
10 **A RESOLUTION**

11 **ESTABLISHING TARGET GOALS FOR THE CITY'S GREEN BUILDING CODE TO MEET**  
12 **THE GOALS SET FORTH IN THE U.S. MAYORS CLIMATE CHANGE PROTECTION**  
13 **AGREEMENT, THE CITY'S GOAL OF BECOMING CARBON NEUTRAL BY 2040, AND**  
14 **THE NEED TO CONSERVE WATER RESOURCES DUE TO THE PROJECTED EFFECTS**  
15 **OF CLIMATE CHANGE.**

16  
17 **WHEREAS**, on March 11, 2009, the Governing Body adopted Resolution No. 2009-45  
18 which approved target goals for the Santa Fe Residential Green Building Code; and

19 **WHEREAS**, on October 28, 2014, the Governing Body adopted Resolution No. 2014-85  
20 declaring the governing body's intent for the City of Santa Fe to become carbon neutral by the  
21 year 2040; and

22 **WHEREAS**, on May 31, 2006, the Governing Body adopted Resolution No. 2006-54  
23 that endorsed the U.S. Mayors Climate Change Protection Agreement; and

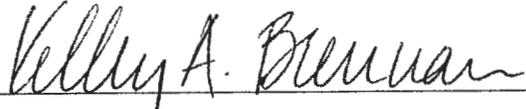
24 **WHEREAS**, on May 31, 2006, the Governing Body adopted Resolution No. 2006-55  
25 that adopted high performance energy efficient building standards; and



1 APPROVED AS TO FORM:

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KELLEY A. BRENNAN, CITY ATTORNEY

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*M:/Legislation/Resolutions 2016/Green Building Code Goals*

**City of Santa Fe  
Fiscal Impact Report (FIR)**

This Fiscal Impact Report (FIR) shall be completed for each proposed bill or resolution as to its direct impact upon the City's operating budget and is intended for use by any of the standing committees of and the Governing Body of the City of Santa Fe. Bills or resolutions with no fiscal impact still require a completed FIR. Bills or resolutions with a fiscal impact must be reviewed by the Finance Committee. Bills or resolutions without a fiscal impact generally do not require review by the Finance Committee unless the subject of the bill or resolution is financial in nature.

**Section A. General Information**

(Check) Bill: \_\_\_\_\_ Resolution:  X   
(A single FIR may be used for related bills and/or resolutions)

Short Title(s):  A RESOLUTION ESTABLISHING TARGET GOALS FOR THE CITY'S GREEN BUILDING CODE TO MEET THE GOALS SET FORTH IN THE U.S. MAYORS CLIMATE CHANGE PROTECTION AGREEMENT, THE CITY'S GOAL OF BECOMING CARBON NEUTRAL BY 2040, AND THE NEED TO CONSERVE WATER RESOURCES DUE TO THE PROJECTED EFFECTS OF CLIMATE CHANGE.

Sponsor(s):  Councilors Ives, Dominguez and Villarreal

Reviewing Department(s):  Land Use

Persons Completing FIR:  Katherine Mortimer  Date:  6/30/16  Phone:  x6635

Reviewed by City Attorney:  Kelly A. Burman  Date:  7/7/16   
(Signature)

Reviewed by Finance Director:  [Signature]  Date:  7-8-2016   
(Signature)

**Section B. Summary**

Briefly explain the purpose and major provisions of the bill/resolution:

To set policy regarding goals for the future of the green building codes

**Section C. Fiscal Impact**

**Note:** Financial information on this FIR does not directly translate into a City of Santa Fe budget increase. For a budget increase, the following are required:

- a. The item must be on the agenda at the Finance Committee and City Council as a "Request for Approval of a City of Santa Fe Budget Increase" with a definitive funding source (could be same item and same time as bill/resolution)
- b. Detailed budget information must be attached as to fund, business units, and line item, amounts, and explanations (similar to annual requests for budget)
- c. Detailed personnel forms must be attached as to range, salary, and benefit allocation and signed by Human Resource Department for each new position(s) requested (prorated for period to be employed by fiscal year)\*

**1. Projected Expenditures:**

- a. Indicate Fiscal Year(s) affected – usually current fiscal year and following fiscal year (i.e., FY 03/04 and FY 04/05)
- b. Indicate: "A" if current budget and level of staffing will absorb the costs  
"N" if new, additional, or increased budget or staffing will be required
- c. Indicate: "R" – if recurring annual costs  
"NR" if one-time, non-recurring costs, such as start-up, contract or equipment costs
- d. Attach additional projection schedules if two years does not adequately project revenue and cost patterns
- e. Costs may be netted or shown as an offset if some cost savings are projected (explain in Section 3 Narrative)

Finance Director: \_\_\_\_\_

X   Check here if no fiscal impact

Column #:	1	2	3	4	5	6	7	8
	Expenditure Classification	FY 2016/17	"A" Costs Absorbed or "N" New Budget Required	"R" Costs Recurring or "NR" Non-recurring	FY 2017/18	"A" Costs Absorbed or "N" New Budget Required	"R" Costs – Recurring or "NR" Non-recurring	Fund Affected

Personnel*	\$ _____	_____	_____	\$ _____	_____	_____	_____	_____
Fringe**	\$ _____	_____	_____	\$ _____	_____	_____	_____	_____
Capital Outlay	\$ _____	_____	_____	\$ _____	_____	_____	_____	_____
Land/ Building	\$ _____	_____	_____	\$ _____	_____	_____	_____	_____
Professional Services	\$ _____	_____	_____	\$ _____	_____	_____	_____	_____
All Other Operating Costs	\$ _____	_____	_____	\$ _____	_____	_____	_____	_____
Total:	\$ _____	_____	_____	\$ _____	_____	_____	_____	_____

\* Any indication that additional staffing would be required must be reviewed and approved in advance by the City Manager by attached memo before release of FIR to committees. \*\*For fringe benefits contact the Finance Dept.

**2. Revenue Sources:**

- a. To indicate new revenues and/or
- b. Required for costs for which new expenditure budget is proposed above in item 1.

Column #:	1	2	3	4	5	6
	Type of Revenue	FY 2016/17	"R" Costs Recurring or "NR" Non-recurring	FY 1017/18	"R" Costs – Recurring or "NR" Non-recurring	Fund Affected

_____	\$ _____	_____	\$ _____	_____	_____	_____
_____	\$ _____	_____	\$ _____	_____	_____	_____
_____	\$ _____	_____	\$ _____	_____	_____	_____
Total:	\$ _____	_____	\$ _____	_____	_____	_____

\*\* Assumes need to purchase 2 new vehicles. If vehicle pool or other existing vehicles can be used this may be lower or zero.

**3. Expenditure/Revenue Narrative:**

Explain revenue source(s). Include revenue calculations, grant(s) available, anticipated date of receipt of revenues/grants, etc. Explain expenditures, grant match(s), justify personnel increase(s), detail capital and operating uses, etc. (Attach supplemental page, if necessary.)

Expenditure: N/A

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**Section D.      General Narrative**

**1. Conflicts:** Does this proposed bill/resolution duplicate/conflict with/companion to/relate to any City code, approved ordinance or resolution, other adopted policies or proposed legislation? Include details of city adopted laws/ordinance/resolutions and dates. Summarize the relationships, conflicts or overlaps.

None identified.

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**2. Consequences of Not Enacting This Bill/Resolution:**

Are there consequences of not enacting this bill/resolution? If so, describe.

The policy indicating the future direction of the green building code would not be established.

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**3. Technical Issues:**

Are there incorrect citations of law, drafting errors or other problems? Are there any amendments that should be considered? Are there any other alternatives which should be considered? If so, describe.

None identified.

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**4. Community Impact:**

Briefly describe the major positive or negative effects the Bill/Resolution might have on the community including, but not limited to, businesses, neighborhoods, families, children and youth, social service providers and other institutions such as schools, churches, etc.

The goals identified would further reduce Santa Fe's contribution to greenhouse gas emissions and use of water over time, making the community more resilient to the effects of climate change.

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**City of Santa Fe  
Fiscal Impact Report (FIR)**

This Fiscal Impact Report (FIR) shall be completed for each proposed bill or resolution as to its direct impact upon the City's operating budget and is intended for use by any of the standing committees of and the Governing Body of a fiscal impact must be reviewed by the Finance Committee. Bills or resolutions without a fiscal impact generally do not require review by the Finance Committee unless the subject of the bill or resolution is financial in nature.

**Section A. General Information**

(Check) Bill:  X  Resolution:  X

(A single FIR may be used for related bills and/or resolutions)

Short Title(s):  AN ORDINANCE AMENDING SECTION 7-4.2 SFCC 1987, RESIDENTIAL GREEN BUILDING CODE BY REPEALING EXHIBIT A TO CHAPTER VII SFCC 1987; ADDING A REQUIREMENTS SECTION; AND AMENDING SECTION 14-8.2(D) BEST MANAGEMENT PRACTICES FOR GRADING BEFORE AND DURING CONSTRUCTION.

Sponsor(s):  Councilors Ives, Dominguez, and Villarreal

Reviewing Department(s):  Land Use

Persons Completing FIR:  Katherine Mortimer  Date:  08/10/16  Phone:  x 6635

Reviewed by City Attorney:  Kelly A. Brennan  Date:  8/10/16   
(Signature)

Reviewed by Finance Director:  [Signature]  Date:  8-10-2016   
(Signature)

**Section B. Summary**

Briefly explain the purpose and major provisions of the bill/resolution:

To update the residential green building code to simplify it, increase required energy and water conservation, and establish a new permit fee.

**Section C. Fiscal Impact**

**Note:** Financial information on this FIR does not directly translate into a City of Santa Fe budget increase. For a budget increase, the following are required:

- a. The item must be on the agenda at the Finance Committee and City Council as a "Request for Approval of a City of Santa Fe Budget Increase" with a definitive funding source (could be same item and same time as bill/resolution)
- b. Detailed budget information must be attached as to fund, business units, and line item, amounts, and explanations (similar to annual requests for budget)
- c. Detailed personnel forms must be attached as to range, salary, and benefit allocation and signed by Human Resource Department for each new position(s) requested (prorated for period to be employed by fiscal year)\*

**1. Projected Expenditures:**

- a. Indicate Fiscal Year(s) affected – usually current fiscal year and following fiscal year (i.e., FY 03/04 and FY 04/05)
- b. Indicate: "A" if current budget and level of staffing will absorb the costs  
"N" if new, additional, or increased budget or staffing will be required
- c. Indicate: "R" – if recurring annual costs  
"NR" if one-time, non-recurring costs, such as start-up, contract or equipment costs
- d. Attach additional projection schedules if two years does not adequately project revenue and cost patterns
- e. Costs may be netted or shown as an offset if some cost savings are projected (explain in Section 3 Narrative)

Finance Director: \_\_\_\_\_

\_\_\_\_\_ Check here if no fiscal impact

Column #:	1	2	3	4	5	6	7	8
	Expenditure Classification	FY 2016/17	"A" Costs Absorbed or "N" New Budget Required	"R" Costs Recurring or "NR" Non-recurring	FY 2017/18	"A" Costs Absorbed or "N" New Budget Required	"R" Costs – Recurring or "NR" Non-recurring	Fund Affected
	Personnel*	<u>\$28,828</u>	<u>N</u>	<u>R</u>	<u>\$57,656</u>	<u>N</u>	<u>R</u>	<u>12079</u>
	Fringe**	<u>\$17,854</u>	<u>N</u>	<u>R</u>	<u>\$35,708</u>	<u>N</u>	<u>R</u>	<u>12709-</u>
	Capital Outlay	<u>\$ 20,000</u>	<u>N</u>	<u>NR</u>	<u>\$20,000</u>	<u>NR</u>		<u>12079</u>
	Land/ Building	<u>\$</u>			<u>\$</u>			
	Professional Services	<u>\$</u>			<u>\$</u>			
	All Other Operating Costs	<u>\$ 7,300</u>	<u>N</u>	<u>\$2,500 NR</u> <u>\$4,800 R</u>	<u>\$10,150</u>	<u>N</u>	<u>R</u>	<u>12079</u>
	Total:	<u>\$73,982</u>			<u>\$123,514</u>			

\* Any indication that additional staffing would be required must be reviewed and approved in advance by the City Manager by attached memo before release of FIR to committees. \*\*For fringe benefits contact the Finance Dept.

**2. Revenue Sources:**

- a. To indicate new revenues and/or
- b. Required for costs for which new expenditure budget is proposed above in item 1.

Column #:	1	2	3	4	5	6
	Type of Revenue	FY 2016/17	"R" Costs Recurring or "NR" Non-recurring	FY 1017/18	"R" Costs – Recurring or "NR" Non-recurring	Fund Affected
	New Fee	<u>\$10,000</u>	<u>R</u>	<u>\$15,000</u>	<u>R</u>	<u>12079</u>
	Total:	<u>\$ 10,000</u>		<u>\$15,000</u>		

**3. Expenditure/Revenue Narrative:**

Explain revenue source(s). Include revenue calculations, grant(s) available, anticipated date of receipt of revenues/grants, etc. Explain expenditures, grant match(s), justify personnel increase(s), detail capital and operating uses, etc. (Attach supplemental page, if necessary.)

**Expenditure: FY16/17: \$46,682 for a new staff person (salary and benefits) for half of the year. \$20,000 for a new inspection vehicles (non-recurring). Other costs include purchase of 2 computers, 2 smart phones for reporting inspection results from the field (also non-recurring), staff training, inspection vehicle fuel, office supplies, and advertisement for the start-up of program.**

**FY17/18. Costs include a full year of new staff salary and benefits, on-going staff training, \$20,000 for a second new inspection vehicle (non-recurring), smart phone service costs, inspection vehicle fuel and maintenance, office supplies, ads for outreach, and membership in Green Building Advisory and US Green Building Council as sources for current information on green building technology and science.**

**Revenue: FY16/17: Establishment of \$100 application fee for permits under the green building code is estimated to generate \$10,000.**

**FY17/18: Income from fee would conservatively generate \$15,000 (would not apply to affordable homes).**

**NOTE: The source of the funds for the remainder of the expenditures comes from projected increases in recurring construction permit fees from projects that have either received development approvals or are well along in that process.**

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**Section D. General Narrative**

**1. Conflicts:** Does this proposed bill/resolution duplicate/conflict with/companion to/relate to any City code, approved ordinance or resolution, other adopted policies or proposed legislation? Include details of city adopted laws/ordinance/resolutions and dates. Summarize the relationships, conflicts or overlaps.

**None identified.**

**2. Consequences of Not Enacting This Bill/Resolution:**

Are there consequences of not enacting this bill/resolution? If so, describe.

**The green code would not be updated and the increased energy and water conservation represented by this code update would not be realized.**

**3. Technical Issues:**

Are there incorrect citations of law, drafting errors or other problems? Are there any amendments that should be considered? Are there any other alternatives which should be considered? If so, describe.

**None identified.**

**4. Community Impact:**

Briefly describe the major positive or negative effects the Bill/Resolution might have on the community including, but not limited to, businesses, neighborhoods, families, children and youth, social service providers and other institutions such as schools, churches, etc.

**The code update would further reduce energy and water use from new homes over code minimum homes and homes built under the current code version. Tradeoffs in requirements keep cost of compliance about the same as before. It should be noted that the fee being added would not apply to affordable housing units, similar to the fee waiver for other fees for these homes.**