Exhibit A

Santa Fe Residential Green Building Code

This Code requires all new single family residential units, as defined by the 2006 International Residential Code, to be tested and certified according to the Enhancements to the National Home Energy Rating Standards (HERS) as adopted by the Residential Energy Services Network (RESNET). As RESNET updates and adopts new standards, this code shall use the standards in effect at the time of building permit application.

NOTHING IN THIS CODE SHALL PREVENT THE USE OF NEW TECHNOLOGY THAT IS LISTED BY APPROPIATE TESTING AGENCIES.

This Code addresses six categories relating to green building. The categories include: Project Implementation Plan and Lot Development; Resource Efficiency; Energy Efficiency; Water Efficiency; Indoor Environmental Quality and; Operation, Maintenance, and Sustainable Practices. Each rating level requires minimum point totals for each category.

The Code offers eight levels of certification:

Silver: In the Energy Efficiency Category this home shall achieve a HERS Index no greater than 70 and perform 30% better than the RESNET "American Standard Building". In addition it shall be required to earn 349 total points for sites under ½ acre or 353 for sites ½ acre or larger.

Silver Plus: Same as silver but with a HERS index no greater than 60.

Gold: In the Energy Efficiency Category this home shall achieve a HERS Index no greater than 50 and perform 50% better than the RESNET "American Standard Building". In addition it shall be required to earn 435 total points for sites under ½ acre or 439 for sites ½ acre or larger.

Gold Plus: Same as gold but with a HERS index no greater than 40.

Platinum: In the Energy Efficiency Category this home shall achieve a HERS Index no greater than 25 and perform 75% better than the RESNET "American Standard Building". In addition it shall be required to earn 526 total points for sites under ½ acre or 530 for sites ½ acre or larger.

Platinum Plus: Same as platinum but with a HERS index no greater than 15.

Emerald: In the Energy Efficiency Category this home shall achieve a HERS Index no greater than 0 and shall therefore, perform in a manner that produces no greenhouse gases to meet it's operational energy needs. In addition it shall be required to earn 604 total points for sites under ½ acre or 610 for sites ½ acre or larger.

Emerald Plus: Same as Emerald but with a HERS index no greater than minus10.

New Mexico Green Building Code

This Code has been designed to be consistent with the State of New Mexico Green Building Code. This code is not intended to supersede any state requirements.

Residential Green Building Code Checklist

This Code consists of six (6) sections. Each section consists of subsections and line items with associated point values and a method required to verify that the line item was implemented. The *verification* column requires review by either the City's Green Building Code Administrator or a city-approved third-party.

Point System

Each of the six sections of the code includes items that have point values associated with them. The Code requires each new residence to achieve a minimum point totals for each section and level of green building. New buildings shall, at a minimum, meet one of the levels based on their heated gross floor area as follows:

- Silver: up to 3,000 square feet
- Gold: 3,001 to 5,000 square feet
- Platinum: 5,001 to 8,000 square feet
- Emerald: 8,001 square feet and greater

The table below outlines the required point totals for each level.

	SILVER		GOLD		PLATINUM		EMERALD	
Section 1: Implementation Plan and Lot Development	Sites ≥ ½ acre: 20 pts	Sites < ½ acre: 16pts	Sites ≥ ½ acre: 24 pts	Sites < ½ acre: 20pts	Sites ≥ ½ acre: 28pts	Sites < ½ acre: 24pts	Sites ≥ ½ acre: 34pts	Sites < ½ acre: 28pts
Section 2: Resource Efficiency	60 pts		75 pts		85 pts		90 pts	
Section 3: Energy Efficiency	70 pts		100 pts		135pts		170 pts	
Section 4: Water Efficiency	45 pts		50 pts		60 pts		70 pts	
Section 5: Indoor Environmental Quality	54 pts		72 pts		90 pts		100 pts	
Section 6: Operation, Maintenance, and Sustainable Practices	14 pts		18 pts		22 pts		26 pts	
Additional points from sections of your choice	90 pts		100 pts		110 pts		120 pts	
TOTALS	353 pts	349 pts	439 pts	435 pts	530 pts	526 pts	610 pts	604 pts

In addition, new buildings shall meet the home energy rating system (HERS) index based on the number of heated square feet as shown in Table A:

Table A
Required HERS Indices

Heated Square Footage	HERS Requirement
0-3000	70
3001-3500	65
3501-4000	60
4001-4500	55
4501-5000	50
5001-5600	45
5601-6200	40
6201-6800	35
6801-7400	30
7401-8000	25
8001-8500	20
8501-9000	15
9001-9500	10
9501-10,000	5
10,001 +	0

The User's Guide to the Santa Fe Residential Green Building Code
The User's Guide is included in the Administrative Procedures. The User's Guide further explains each checklist item.

Santa Fe Residential Green Building Certification Process
The City of Santa Fe Green Building Code Administrator or city-approved third party shall confirm certification of homes.

Recourse for Higher Confirmed HERS index
In recognition that events during construction can inadvertently result in confirmed HERS indexes higher than projected, the applicant may either fix the problem to reduce the number or, for every index point higher than the required index, the applicant may pay a fee in the amount of one dollar ($1.00) for every square foot of heated floor area multiplied by the number of index point higher than the required number for a maximum of 5 points.

Posting of Green Building Code Facts
A fact sheet including the level achieved under this code (silver, gold, platinum or emerald), the Home Energy Rating System (HERS) index, and the points required and points achieved in each of the six categories of this code shall be posted on the dwelling in a conspicuous location where it can be seen when approaching the main entrance. The information provided in the posting shall comply with the land use department's standard form for the posting. Such posting shall not be removed except by the first occupant of the unit.

Section 1
Project Implementation Plan and Lot Development

	ITEM	PTS	HOW TO VERIFY
note: in section 1, where item is marked with * , points are only available to 1/2 acre (21,780 square feet) lots or larger .			
1.1	**Identify goals with design and development team**	Required	Written project mission statement, goals, development approach and team member roles. Signature of responsible person required for sections that say "Builder certified" or if other methods of verification are not available. Green Building Code Administrator may request signatures for items as needed.
1.1.1	Create an Implementation Plan (complete all of the items below)	Required	
	A. Create a mission statement that includes the project's goals and objectives.	Required	
	B. Assemble a knowledgeable team.	Required	
	C. Identify team member roles and how they relate to various goals.	Required	
	D. Submit a plan to the City of Santa Fe. The Plan must include signatures of the person(s) identified as responsible for line item verifications. A signature page for subcontractors to acknowledge that they have received a copy of the Implementation Plan is also required.	Required	
1.2	**Select the site and building location on the site**		
*1.2.1	Avoid environmentally sensitive areas as identified through site foot-printing process or existing third party data.	2	Set of site plans showing disturbed ground in relation to environmentally sensitive areas such as arroyos, steep slopes and heavily vegetated areas.
1.2.2	Choose an infill site (vacant or underutilized lots of land, served by existing roads, mass transit, power lines, sewer and water).	6	As shown on a map of infill sites maintained by the City Of Santa Fe
1.2.3	Choose and infill site of less than 6,000 s.f.	9	Development or site plan
1.2.4	Choose a Gray field site (any site previously developed with at least 50% of the surface area covered with impervious material).	9	Improvement Survey

	ITEM	PTS	HOW TO VERIFY
1.2.5	Choose an EPA-recognized Brownfield.	9	Confirmation from a federal, state, or local Brownfield's site inventory list.
1.3 Design the site			
	Minimize environmental impacts; protect, restore, and enhance the natural features and environmental quality of the site (points for each item are only rewarded upon implementation of these plans).		
1.3.1	Conserve natural resources.		
*	A. Complete a natural resources inventory used to create/design the site plan.	7	Pre- and post-development natural resources inventory by a qualified professional (ecologist, biologist, environmental engineer)
*	B. Create a protection and maintenance plan for priority natural resources/areas during construction. See Section 1.4 for guidance in forming the plan.	1	Protection and maintenance plan
	C. Participate in a natural resources conservation program, e.g., NRCS, Arbor Day Foundation, Climate Guardians, etc.	2	Certificate or letter indicating active participation (not donation) in a natural resources conservation program .
	D. Protect a minimum of 4 existing, healthy trees in place with fencing.	2	Site plan showing protected trees and responsible person's signature on the Implementation Plan.
	E. Provide basic training in tree and other natural resource protection to onsite supervisor.	2	Proof of training in indigenous vegetation, solar orientation, and wildlife habitats.

	ITEM	PTS	HOW TO VERIFY
	F. All tree pruning on site is conducted by a Certified Arborist.	2	Statement or receipt from certified arborist including site address and description of work performed.
1.3.2	Site the home and other built features to optimize solar resource without blocking neighbors solar access.	3	Show on site plan.
1.3.3	Minimize slope disturbance.		
*	A. Complete a hydrological/soil stability study for steep slopes and use this study to guide the design of all structures on site. Applies to slopes between 20-30%.	1	Hydrological/soil stability study results
*	B. Align road or extended driveway with natural topography to minimize its grade and reduce cut and fill.	1	Grading plan with existing and proposed contours. Note: Driveways cannot exceed 10% slope.
	C. Reduce long-term erosion effects through the design and implementation of terracing, retaining walls, landscaping, and restabilization techniques.	1	Grading and drainage plan and/or site plan
	D. 100% of disturbed area is on 0-10% slopes. OR	3	Grading and drainage plan and/or site plan
	E. No more than 5% of disturbed area for building and driveway construction is on 0-10% slopes and all other disturbed rea is on slopes of 0-10%.	1	Grading and drainage plan and/or site plan
1.4 Protect site during lot development and building construction			
Minimize environmental intrusion during onsite construction.			
1.4.1	Minimize soil disturbance and erosion.		
	A. Use alternative means to install utilities, such as tunneling instead of trenching, use of smaller equipment, shared trenches or easements, and placement of utilities under streets and driveways instead of on yards.	1	Utility installation details on site plan

	ITEM	PTS	HOW TO VERIFY
	B. Demarcate limits of clearing and grading and install silt fences and other means of controlling sheet flow.	2	Show on site or Stormwater Pollution Prevention (SWPP) and/or grading and drainage plan and installation builder certified
	C. Stabilize exposed soil as soon as possible and install and maintain temporary sediment and erosion controls.	2	Show on SWPP and/or grading and drainage plan.
	D. Reduce soil compaction from construction equipment outside of the building footprint through laying mulch, chipped wood, or plywood sheets.	2	Show SWPP and/or grading and drainage plan and installation builder certified.
	E. Stabilize disturbed areas with best management practices within the EPA recommended 14-day period.	2	Show on site or SWPP and/or grading and drainage plan and installation builder certified.
1.4.2	Conserve existing onsite vegetation.		Develop a site vegetation management plan with a municipal inspection for verification.
*	A. Define and separate, with fencing, the zone of construction activities including staging and storage areas from the remainder of the site which is not to be disturbed.	2	Show on SWPP and/or grading and drainage plan.
*	B. Stockpile top soil to proper stabilized heights and protect from biological degradation.	2	Show on site or SWPP plan.
	C. Stabilize land slopes with biodegradable materials.	1	Show on site or SWPP plan.
	D. Require onsite tree trimmings of regionally appropriate trees to be used as protective mulch during construction or as a base on paths.	2	Show on site or SWPP plan.
	E. Onsite supervision and coordination is provided during clearing, grading, trenching, paving and installation of utilities to ensure that specified green development practices are implemented.	2	Builder certified.
1.5	**Install permanent site conservation measures**		
1.5.1	Storm Water Management		

	ITEM	PTS	HOW TO VERIFY
	A. Rainwater harvesting from areas of site with impermeable surfaces (see Section 4 for points regarding collection from roofs).		Permanent storm water management plan and/or grading and drainage plan
	- passive systems (ponding, pumice wick, etc.)	1	
	- active systems (having storage capacity and pumps, irrigation etc.)	2	
	B. Curbs with outflow breaks to direct drainage off of impermeable surfaces	1	Permanent storm water management plan and/or grading and drainage plan
	C. Develop and implement grading and drainage plan with storm water management that minimize concentrated flows and seek to mimic natural hydrology.	2	Permanent storm water management plan and/or grading and drainage plan
	D. Natural water and drainage features are preserved and used.	2	Show on site plan and/or grading and drainage plan
	E. Minimize impervious surfaces and use permeable materials for driveways, parking areas, walkways, and patios. At least 1/3 of the area above (that apply) must be pervious to get the points.	4	Show on Landscape Plan
	F. Share driveway or parking.	4	Show on site plan.
	G. Construction activities are scheduled to install permanent erosion control measures at the earliest possibility to minimize length of time soils are exposed. (i.e. install permanent retaining walls as early as possible)	2	Provide construction schedule
1.5.2	Devise landscape plans to limit water and energy demand while preserving or enhancing the natural environment:		Show on landscape plan and plant list
	A. Formulate a plan to restore or enhance natural vegetation that is cleared during development. Within this plan, phase landscaping to ensure disturbed areas are quickly vegetated.	1	
	B. Select native or regionally appropriate vegetation that complements the natural setting.	1	
	C. Improve the soil with organic amendments and mulch.	1	
	D. Eliminate cool season turf area and native and regionally appropriate trees and vegetation are selected so as to complement the natural setting.	2	
	E. Group plants with similar watering needs (hydrozoning).	1	

	ITEM	PTS	HOW TO VERIFY
	F. Specify and plant trees, of 1 1/2" caliper minimum and irrigate for 1 year, to increase site shading and moderate temperatures (see also Energy Efficiency guideline 3.3.5.1.D specifying siting of trees to reduce the energy consumption of the home). Chinese Elm, Siberian Elm, Russian Olive, Tree of Heaven, and Salt Cedar shall not be allowed.	2	
	G. Design vegetative wind breaks as appropriate to site conditions.	1	
	H. Heat Island Mitigation. Any combination of the following strategies are provided for at least 50 percent of the horizontal surface area of the hardscape: 1. Shading of hardscaping: Shade from existing or new vegetation (within 5 years) or trellises are provided when measured at June 21st at noon. 2. Light colored hardscaping: Horizontal hardscaping materials are installed with a solar reflectance index of 29 or greater.	2	Show on site plan
1.5.3	Improve wildlife habitat. Enhance the quality of habitat, provide increasing food sources, diversity of habitat, and protective areas (i.e. leaving dead tree snags).	3	Submit wildlife management plan. Points are available for smaller lots if the wildlife management plan is for developments with common areas of more than 1 acre.
1.5.4	An integrated pest management plan to minimize chemical use in pesticides and fertilizers is established.	1	Submit integrated pest management plan.
1.6	**Innovative options** *Seek to obtain waivers or variances from local development regulations to enhance green building.*		
1.6.1	Develop system to prevent pollution from the development	TBD	Submit pollution prevention plan.

Required points (Sites < 1/2 acre / ≥ 1/2 acre):	**Silver**	**Gold**	**Platinum**	**Emerald**
	16/20	**20/24**	**24/28**	**28/34**

Section 2
Resource Efficiency

	ITEM	PTS	HOW TO VERIFY
2.1	**Reduce quantity of materials and waste**		
2.1.1	Create an efficient home floor plan smaller than the national average. 9 points are available based on points in the "Guidelines for Efficient Floor Plan Design" in Section 2.1.1 of the Users Guide to the Santa Fe Residential Green Building Code.	9	Architectural plans
2.1.2	Use advanced framing techniques that reduce the amount of building material that are building code compliant (see User Guide for examples). Builders need to employ at least two advanced framing techniques in order to get 4 points.	4	Plans with advanced framing details or photographs of completed framing.
2.1.3	Use incremental building dimensions and layouts that maximize the use of the resources by minimizing material cuts. At least 75% of the design must be based on 2' increments or nominal dimensions.	2	Architectural plans
2.1.4	Create a detailed framing plan and detailed material takeoffs.	2	Framing plan showing all bearing walls at a minimum
2.1.5	Use no trim on 50% of doors and windows counting both interior and exterior, or both sides if internal doors.	2	Show detail on plans
2.1.6	Use finished floor slab as finished floor (no carpeting, wood floor, tile, vinyl, etc.) on 80% of ground floor.	2	Show on plans
2.1.7	Use pre-cut or pre-assembled building systems or methods		Framing plan and/or details
	A. Provide a pre-cut (joist) or pre-manufactured (truss) floor and roof framing package. 3 points provided for each package used.	6	
	B. Provide a panelized wall framing system	4	
	C. Provide a panelized roof system	4	
	D. Or provide modular construction for the entire house	13	
2.1.8	Use a frost-protected shallow foundation	4	Architectural details
2.2	**Enhance durability and reduce maintenance** *Building design minimizes degradation and weathering of materials/enhances life expectancy.*		
2.2.1	Provide a covered entry (e.g., awning, covered porch, mud room) at all exterior doors 18-inch minimum designed to prevent water intrusion and subsequent rotting of joists, sills, and finishes.	6	Architectural plans
2.2.2	Use recommended-sized roof overhangs for the climate. (12-inch min. in Santa Fe)	7	Architectural plans

	ITEM	PTS	HOW TO VERIFY
2.2.3	Install perimeter drain for all basement footings sloped to discharge to daylight, dry well, or sump pit.	7	Architectural plans
2.2.4	Install drip edge at eave and gable roof edges.	6	Architectural plans
2.2.5	Install gutter and downspout system to divert water 5' away from foundation and from there into the overall onsite drainage area or directly into water catchment system.	6	Architectural plans
2.2.6	Install continuous and physical foundation termite barrier with no use of chemical pesticides.	7	Architectural details
2.2.7	Use termite-resistant materials for walls, floor joists, trusses, exterior decks, etc.	7	Specifications
2.2.8	Install continuous flashing over parapets to roof surface in addition to code-required water resistive barrier i.e. foam over parapet or continuous torched-down roofing material over parapet top.	5	Architectural details
2.2.9	Install enhanced foundation waterproofing i.e. Green Guard, waterproofing membrane, socked drain tile.	7	Architectural plans
2.2.10	Employ and show on plans the following flashing details (use all that apply):	9	Architectural details
	A. Around windows, doors and skylights		
	B. Valleys		
	C. Deck/house juncture		
	D. Roof/wall junctures, chimneys step flashing		
	E. Drip cap above windows and doors		
	F. Flashing at canales, scuppers and downspouts		
2.3	**Reuse materials**		
2.3.1	Disassemble existing on-site buildings (deconstruction) instead of demolishing.	9	Builder certified
2.3.2	Reuse salvaged materials, where possible. Points can be provided if the total cost of the salvaged materials (including material costs and labor costs, i.e., installed costs) is equal to or greater than 1% of construction costs.	8	List of components - Builder certified
2.4	**Use Recycled content materials**		
2.4.1	Use recycled-content building materials. (maximum of 8 total points)		Specifications
	-use recycled content insulation	3	
	-use minimum of 2 different types of recycled content non-structural building materials	3	
	-use of additional recycled content materials - one point each	2	
2.5	**Recycle waste materials during construction** *See Part 2, Guide to the Santa Fe Residential Green Code*		

	ITEM	PTS	HOW TO VERIFY
2.5.1	Develop and implement a construction and demolition (C & D) waste management plan that is posted at jobsite and sets goals to recycle or salvage a minimum of 50% (by weight) of construction, demolition, and land clearing waste.	5	Copy of Construction & Demolition waste management plan
2.5.2	Recycle and use onsite, 50% (by weight) of construction, demolition, and land clearing waste from the landfill, thus reducing transportation-related costs. Grind up waste and use for mulch, aggregate for drives and walks, or soil amendments.	5	Copy of C & D waste management plan including information on what materials are going to be ground at the project
2.5.3	Recycle construction waste offsite, e.g., wood, cardboard, metals, drywall, plastics, asphalt roofing shingles, concrete, block, other. One point available for each material. A minimum of two materials must be recycled to receive points with a maximum of 5 points available.	5	Copy of Contractual agreement between the recycling firm and the builder.
2.6 Use renewable materials			
2.6.1	Use materials manufactured from renewable resources other than wood products (e.g., agricultural byproduct; bamboo; wood-waste products; straw bale). Maximum point total available is ten points. Products must also comply with the low-formaldehyde requirements in section 5.1.10.		Specifications
	-use organic straw bales for building walls	5	
	-use two renewable materials (e.g. agricultural by-product based products such as soy based insulation; bamboo)	3	
	-each additional type of renewable material	2	
2.6.2	Use certified wood for wood and wood-based materials and products from all credible third party certified sources for one major or at least two minor building components, including:	4	Copy of certificate from Program
	A. The Sustainable Forestry Initiative® Program		
	B. The American Tree Farm System®		
	C. The Canadian Standards Association's Sustainable Forest Management System Standards (CAN/CSA Z809)		
	D. Forest Stewardship Council (FSC)		
	E. Program for the Endorsement of Forest Certification Systems (PEFC), and		
	F. Other such credible programs as they are developed and implemented.		

	ITEM	PTS	HOW TO VERIFY
2.6.3	Wood harvested within 500 mile radius of construction site for one major or at least two minor building components.	4	Copy of certificate from Program
2.7 Use resource-efficient materials			
2.7.1	Use products that contain fewer resources to meet the same end-use as traditional products i.e. engineered lumber, I-joists, hollow brick, and local structural vigas (from less than 500 miles away) 3 points for each material, 9 points max. If using both I-joists and vigas - no points shall be given.	9	Specifications, framing plans
2.8 Innovative options			
2.8.1	Use locally available, indigenous materials such as adobe, and rammed earth, from less than 500 miles radius of site. Twenty-seven total points available.		Builder certified
	◆use locally available, indigenous materials for 50% of the wall structure	15	
	◆use the soil from the site for adobe or compressed block without removing it.	7	
	◆use one type of locally available, indigenous material for non-structural and non-decorative item	3	
	◆use of additional indigenous materials-one point each	2	
2.8.2	Use a life cycle assessment (LCA) tool to compare the environmental burden of building materials and, based on the analysis, use the most environmentally preferable product for that building component. 3 points for each material, 15 points max.	15	Provide BEES or ATHENA output to show use of an environmentally preferable product
2.8.3	Product manufacturer's operations and business practices include environmental management system concepts (the product line, plant, or company must be ISO 14001 certified). Minimum of 2 product suppliers.	6	ISO 14001 certification
2.8.4	Use recycled content materials for 50% of the wall assembly. (not for finger jointed studs, engineered lumber or cellulose insulation or for reclaimed lumber from a building that was deconstrcuted for which points were taken under titems 2.3.1 or 2.3.2.)	10	Specifications
2.8.5	Use Universal Design - for future resource efficiency. One point per element, maximum of 6 points.	6	Show on plans and/or specifications

Required points:	**Silver**	**Gold**	**Platinum**	**Emerald**
	60	**75**	**85**	**90**

Section 3
Energy Efficiency

3.1 Integrated energy-efficient design

Implement an integrated and comprehensive approach to energy-efficient design of building site, building envelope, and mechanical space conditioning systems.

REQUIREMENTS – The home shall meet the following conditions listed in 3.1.1 through 3.1.6 below and achieve at least a HERS index as required by the size of the home you are building (i.e. HERS of 70 for homes 3,000 heated s.f. or under). Additional points in this section are also required and one additional point shall be given for each point the home is lower on the HERS index than the target index (i.e. if you need a HERS of 70 and get a HERS of 65, you shall get 5 extra points).

	ITEM	PTS	HOW TO VERIFY
3.1.1	Plan analysis that shows HERS Index	Required	REM/Rate or other program as approved by RESNET. A projected HERS index shall be submitted at the time of building permit application AND a confrmed HERS index shall be subitted to obtain a Certificate of Occupancy and included in the posting required uder "Posting of Green Building Facts" on page 2 of this document.
3.1.2	Size space heating and cooling system/equipment according to building heating and cooling loads calculated using ANSI/ACCA Manuals J, D, S and T, where appropriate for the system type. (7th or 8th Edition or equivalent, Computerized software recognized by ACCA as being in compliance with Manual J 8th Edition).	Required	Manual J load calculations or calculations from other software approved by the Green Building Code Administrator. Manuals J, D, S, and T are required when appropriate for system type.

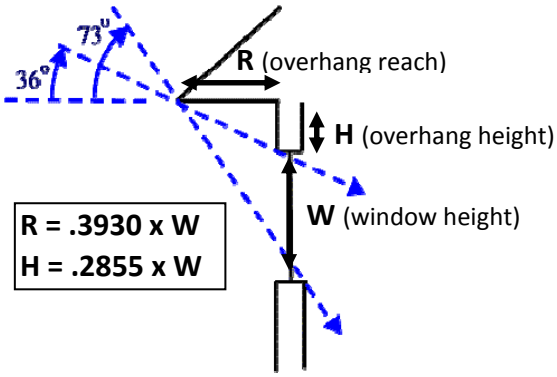
	ITEM	PTS	HOW TO VERIFY
3.1.3	Heating, ventilation, or air conditioning (HVAC) equipment that uses electricity instead of natural gas or propane such that the net greenhouse gas emissions from the system are greater than for the code-minimum equipment for the same purpose, such as ground source heat pumps or electric space heating, unless it receives at least 20% of its electric load from photovoltaic or other renewable electric source or enough to off-set the additional greenhouse gas emissions using local data, documenting the actual efficiency of the equipment. (For example, ground-source heat pumps with a Coefficient of Performance of 3.75 would have the same greenhouse gas emissions as a code-minimum 80% efficient natural gas furnace or boiler with a 95% efficient blower and would not receive negative points nor need to off-set with renewable energy.)	-5	Show on HVAC plan
3.1.4	No building cavities, including platforms that HVAC equipment sits on, are to be used as supply or return ductwork. "Jumper" ducts are excepted.	Required	Show on building plans and details
3.1.5	Prevent thermal bypass, complete and submit to the City a thermal bypass checklist (checklist can be obtained at www.energystar.gov), and pass a thermal bypass inspection.	Required	Municipality Inspection or approved Third Party Inspection Report
3.1.6	Building Envelope air leakage testing (Blower Door) and Central HVAC Duct Leakage Testing	Required	See Section 3.3.6 for further requirements regarding testing and sampling.
3.2 Measured Performance			

	ITEM	PTS	HOW TO VERIFY
3.2.1	Home performs at X% of energy savings as compared to the RESNET model home. (Must use ASTM test for thermal conductance for R-values, not effective R-values that are sometimes provided. For materials for which no test has yet been conducted, R-value must be calculated using the R-values of the component materials.) <u>Heated Square Footage</u> <u>HERS Requirement</u>: 0-3000 70 3001-3500 65 3501-4000 60 4001-4500 55 4501-5000 50 5001-5600 45 5601-6200 40 6201-6800 35 6801-7400 30 7401-8000 25 8001-8500 20 8501-9000 15 9001-9500 10 9501-10,000 5 10,001 + 0	Required	REM/Rate or other RESNET approved software report: A projected HERS index shall be submitted at the time of building permit application AND a confirmed HERS index shall be submitted to obtain a Certificate of Occupancy and included in the posting required under "Posting of Green Building Facts" on page 2 of this document.
3.3 Additional Points			
3.3.1	One point will be given for each point below 100 (e.g., A HERS 70 would get 100-70=30 points)	30 min, no max	HERS rating
3.3.2	HVAC design, equipment, and installation:		
	A. Design radiant or hydronic space heating systems using industry-approved guidelines, e.g., *Guidelines for the Design and Installation of Radiant Panel Heating and Snow/Ice Melting Systems* by the Radiant Panel Association, Heat Loss Guide (H-22), by the Hydronics Institute Division of GAMA or accredited design professionals and manufacturer's recommendations.	8	Documentation of design or design signed by professional
	B. Verify performance of the heating/cooling system. HVAC contractor to perform all of the following that apply: • Start-up procedure according to manufacturer's instructions • Refrigerant charge verified by super-heat and/or sub-cooling method • Burner set to fire at nameplate input • Air handler setting/fan speed is set per manufacturer's instructions. • Total air flow within 10% of design flow	8	Certification by HVAC contractor

ITEM	PTS	HOW TO VERIFY
• Total external system static should not exceed equipment capability at rated airflow.		
C. Use HVAC installer, service technician, or plumber certified by a nationally or regionally recognized program such as NATE, BPI, RPA, or manufacturers' training or other program approved by the Green Building Code Administrator.	6	HVAC certification
D. Radiant heat installed per plan as designed in 3.3.2.A above.	6	Builder-certified
E. Ducts are sealed with UL 181 tape, mastic, gaskets, or an approved system as required by the IRC (Section M1601.3.1) or IMC (Section 603.9) to reduce leakage.	Required	City HVAC inspector
F. When installing ductwork, do all of the following: 1. Install all heating and cooling ducts and mechanical equipment within the conditioned building envelope. If doing so, power vented or sealed combustion appliances are required. 2. No ductwork installed in exterior walls or exterior to thermal envelope. 3. Install return ducts or transfer grilles in every room having a door except closets, pantries.	8	Report from third-party inspector
G. When installing radiant heat:		
1. Install an easily-accessible Heat-recovery ventilator with a HEPA filter. OR	10	Show on details and/or specifications
2. Install an easily-accessible Heat-recovery ventilator with a MERV 8 filter or certified equivalent.	5	Show on details and/or specifications
H. Install night sky radiant cooling	5	Builder-certified
I. Install ENERGY STAR labeled mechanical exhaust from every bathroom ducted to the outside or to Heat/Energy recovery ventilators.	8	Builder-certified
J. Crawlspace Walls. Where insulated, crawlspace wall insulation is permanently attached to walls. Exposed earth in unvented crawlspaces is covered with continuous vapor retarder with overlapping joints taped.	Required	Builder-certified
K. Windows and Doors. Caulk/foam and insulation is installed between window and door jambs and framing.	Required	Builder-certified
L. HVAC equipment operates using an alternate refrigerant containing no HCFCs. Points awarded until January 20, 2010.	1	Provide copy of unit receipt and page(s) from manual describing refrigerant used.

	ITEM	PTS	HOW TO VERIFY
	M. Manufacturer's label on sealed air handler (excluding furnaces) states leakage is ≤ 2% of design air flow at a pressure of 1-inch w.g. Where installed, air handler is tested with inlets, outlets and condensate drain ports sealed, and filter box in place.	4	Builder-certified
3.3.3	Water Heating Design, Equipment and Installation		
	A. Insulate all hot water lines with a minimum of R-4.	4	Installer-certified
	B. Install heat trap on cold and hot water lines to and from the water heater (if not integral to the water heater).	3	Installer-certified
	C. Install manifold plumbing system with parallel piping configuration (aka "home run") using smallest diameter piping allowed by code.	5	Installer-certified
	D. Install one unit for both space heating and domestic hot water.	4	Installer-certified
3.3.4	Lighting		
	A. Install all interior lighting fixtures within the conditioned envelope of the building, e.g., housing does not penetrate insulated ceiling.	7	Builder-certified
	B. Install motion sensors, daylight sensors, and/or timers on more than 50% of outdoor lighting wattage.	7	Builder-certified
	C. Install tubular or sealed, insulated, low E glass skylights in rooms without windows.	4	Builder-certified
3.3.5 3.3.5.1	Renewable energy/solar heating and cooling Solar space heating and cooling		Builder spec sheet
	A. Use sun-tempered design: Building orientation, sizing of glazing, design of overhangs to provide shading are in accordance with guidelines below: • Long side of the home faces within 20° of south; • Glazing area between 5 and 7% of Finished Floor Area (FFA) on south face (Low-E, Energy Star) • Glazing area < 2% of FFA on west face (Low-E, Low SHGC, Energy Star); • Glazing area < 4% of FFA on east face (Low-E, Low SHGC, Energy Star); • Glazing area < 4% of FFA on north face (Low-E, Energy Star); • Standard skylights less than 1% of finished ceiling area, with shades and insulated wells; • Overhangs designed to provide shading on south-facing glass (at a minimum), or adjustable canopies or awnings in accordance with the diagram in item 3.3.5.1.D below.	7	Show on details and/or window specifications - include calculations of glazing are to wall or finished floor area.

ITEM	PTS	HOW TO VERIFY
B. Use full passive solar design with all items below: • Sun-tempered design as outlined in 3.3.5.1(A) above except additional glazing permitted on south wall • For any room with south-facing glazing > 12%, but not exceeding 20%, of finished floor area, properly sized thermal mass shall be used, which is at least 4" thick masonry material with the surface area 6 times that of south glazing and located in direct sun in winter or line of sight of other thermal mass. Where the ground floor slab is used for solar mass, it shall be insulated below. • Trombe walls, or other indirect gain systems are recommended for a portion of the south-facing glazing to avoid over-glare and nighttime heat loss. All indirect gain systems are recommended to use an overhang as described below in 3.3.5.1(D). • Glazing on west walls shall not exceed 2% of floor area or 4% on north and east walls unless use of high thermal efficient windows are used such that the net energy loss is the same as if standard double pane windows were used based on the HERS analysis. • Provision for forced air flow to adjoining areas as needed. *Note: All applicable items in 3.3.5.1.A except south-facing glazing must also be done in order to receive points for 3.3.5.1.B.*	10	Builder spec sheet specifying passive solar design features Documentation of design process
C. Solar protection provides shading for windows		Show on building plans and details
• Manual or	3	
• Automatic	5	
D. Use all passive cooling elements below: • Exterior shading on east and west windows, e.g., deciduous shade trees, moveable awnings or louvers, covered porches, vine-covered trellises. Vegetation must be separated from face of building a minimum of 1 foot. (Chinese Elm, Siberian Elm, Russian Olive, Tree of Heaven, and Salt Cedar shall not be allowed.)	6	Builder spec sheet Documentation of design process
• Overhangs designed to provide shading on south-facing glazing that are consistent with this diagram:		Builder-certified

	ITEM	PTS	HOW TO VERIFY
			
	• Windows located to facilitate cross ventilation. • Additional points if no cooling system is installed. All passive cooling elements above must be used.	6	
	• Roofing materials are installed with a min. 3/4" continuous air space offset from the roof deck from eave to ridge.	4	Show on roofing detail drawing
3.3.5.2	Solar water heating		
	Install solar water heating system. Solar fraction:		Installer-certified
	1. Unrated systems	6	
	2. Between 0.3 and 0.4	8	
	3. Between 0.41 and 0.5	10	
	4. Between 0.51 and 0.6	12	
	5. 0.61 and higher	14	
3.3.5.3	Solar space heating		
	Install solar water space heating system. Must use SRCC rated system. Solar fraction:		Installer-certified
	1. Unrated systems	8	
	2. Between 0.3 and 0.4	10	
	3. Between 0.41 and 0.5	12	
	4. Between 0.51 and 0.6	14	
	5. 0.61 and higher	16	
3.3.5.4	Additional renewable energy options		
	A. Supply electricity needs by onsite renewable energy source such as photovoltaic, wind or hydro whereby the system is estimated to produce the following kWh per year:		Installer-certified
	800 to 1,999	12	
	2,000 to 3,999	16	
	4,000 to 5,999	20	
	6,000 + (Equipment should carry all applicable IEEE and UL certifications. Installation shall be in accordance with local utility and electrical code requirements.)	24	

	ITEM	PTS	HOW TO VERIFY
	B. Provide solar-ready sleeved penetrations in accordance with Section 712.2.1 of the New Mexico Green Building Code IRC.	Required	Builder-certified
	C. Provide clear and unshaded roof area (+/-30°of south or flat) for future solar collector or photovoltaic. Minimum area of 200 s.f. Provide a rough-in of piping from the roof to the utility area:		Builder-certified
	• Conduit (if not installing solar electric panels)	3	
	• Insulated piping (If not installing solar hydronic panels)	5	
	D. Provide Homeowner with information about the benefits of solar energy, repayment for investment in solar, etc.	1	Provide copy of written materials provided
3.3.6	Verification (RESNET sampling protocols may be used.)	Required	Inspections may be performed by HERS Rater, energy program administrator, architect, engineer, or other party outside of the Builder's company and acceptable to the Green Building Code Administrator.
3.3.6.1	Conduct onsite third party inspection to verify installation of energy related features such as:	8	Report from third party inspector (likely to be the HERS professional)
	A. Installation of insulation including no gaps, voids, or compression as per manufacturer's specifications.		
	B. Windows and doors flashed, caulked, and sealed properly.		
3.3.6.2	Conduct third party testing to verify performance	Required	Report from third party inspector
	A. Building envelope air leakage must be deterined by a RESNET-certified rater using a RESNET-approved testing protocol (blower door test) and the results must be entered into, and become part of, the confirmed HERS index.	Required	Builders following RESNET sampling protocol must submit sampling test results.
	B. Central HVAC duct leakage:		

	ITEM	PTS	HOW TO VERIFY
	• Ducts must be sealed and tested to be ≤ 6 cfm to outdoors/100 sf. ft. of conditioned floor area, as determined and documented by a RESNET-certified rater using a RESNET-approved testing protocol. If total duct leakage is ≤ 6 CFM/100 sf. ft. of conditioned floor area, then leakage to outdoors does not need to be tested. Duct leakage testing can be waived if all ducts and air handling equipment are located in conditioned space (i.e., within the home's air and thermal barriers) AND the envelope leakage has been tested to be ≤ 3 ACH50 OR ≤ .25 DFM50 per sq. ft. of the building envelope. Note that mechanical ventilation will be required in this situation.	Required	Builders following RESNET sampling protocol must submit sampling test results.
	C. Balanced HVAC air flows with a flow hood test:		Report from third party inspector
	• Measured flow at each supply and return register within 25% of design flow.	2	
	• Total air flow within 10% of design flow	2	
3.3.7	Innovative options:		
	A. Install drain water heat-recovery system.	2	Installer-certified
	B. Install de-superheater in conjunction with ground source heat pump.	10	Installer-certified
	C. Install occupancy sensors for lighting control. (Points per sensor.)	4	Builder-certified
3.3.8	Reduce phantom loads with outlets tied to switches at room entries or comparable method	4	Show on electrical plan
3.3.9	Use smart meter technology to allow home occupants to track energy usage in real time.	4	Show on electrical plan and specifications

Required points:	**Silver**	**Gold**	**Platinum**	**Emerald**
	70	**100**	**135**	**170**

Section 4
Water Efficiency

	ITEM	PTS	HOW TO VERIFY
4.1 Water Source and Offsetting New Water Usage within City of Santa Fe			
4.1.1	Retrofit toilets within the limits of the City of Santa Fe: Lots up to 6,000 s.f. shall retrofit 8 toilets, lots between 6,001 and 8,000 must retrofit 10 toilets, and lots above 8,000 must retrofit 12 toilets to receive points. These points are available to affordable homes (Santa Fe Home unit, Housing Opportunity Program unit or a low priced dwelling unit as defined in the Santa Fe City Code 1987).	20	N/A - verified by the Water Budget Office staff
4.1.2	Transfer water rights to the City of Santa Fe in accordance with the City's water rights transfer ordinance.	10	N/A - verified by the water retrofit staff
4.1.3	Consistent with City Code, use of shared well with a meter and meter readings submitted to City of Santa Fe yearly. Well must be shared by a minimum of 4 housing units and use no more than 0.21 acre-feet per unit per year.	5	Show on plumbing plan and provide well-sharing agmt.
4.1.4	Install in an existing home within the limits of the City of Santa Fe a rainwater collection system. (minimum storage of 500 gallons)	5	Provide certificate of retrofit.
4.1.5	Install in an existing home in the limits of the City of Santa Fe a control-activated hot water re-circulation system or an on-demand hot water heater.	3	Provide certificate of retrofit.
4.1.6	Retrofit an existing home in the limits of the City of Santa Fe with a gray water re-use system, such as sink to toilet usage.	3	Provide certificate of retrofit.
4.2 Indoor Water Use			
4.2.1	Hot water delivery to remote locations aided by installation of:		Installer-certified
	A. On-demand water heater at point of use served by cold water only. (6 Points per unit installed, quantity of 3 maximum)	18	
	B. Control-activated recirculation system.	2	
4.2.2	Centralized (not on-demand) water heater located within 30 feet pipe run of all bathrooms and kitchen and the minimum pipe size allowed by code OR;	3	Show on plumbing plan
	All hot water pipe runs from centralized (not on-demand) water heater to fixtures in the kitchen and bathrooms are 40-feet or less from the water heater and the minimum hot water piping sizing allowed by code for the application is used OR;	2	

	ITEM	PTS	HOW TO VERIFY
	Centralized (not on-demand) water heater distribution sytem utilizes one of the structured piping systems designs as follows: (a) Use structured plumbing with demand controlled hot water loops, all fixture fittings contain no more than 2 cups (28.9 cubic inches = 0.125 gallons) of the recirculation trunk line OR;	4	
	(b) Implement an engineered parallel piping system (i.e. manifold system) in which the hot water line distance from water heater to the parallel piping system is less than 5 feet and the parallel piping to the fixture fittings contains no more than 4 cups (58 cubic inches = 0.25 gallons) OR;	4	
	(c) Use a central core plumbing system with all fixture fittings (faucets & showerheads) each containing no more than 3 cups (43.3 cubic inches = 0.2 gallons) pipe volume from the water heater.	5	
4.2.3	Energy Star® water-conserving appliances installed, e.g., dishwasher, washing machine. 7 per appliance, quantity 2 max.	14	Installer-certified
4.2.4	Water efficient showerhead using conventional aerator or venturi technology for flow rate of < 2.5 gpm:		Installer-certified
	· 100% of showerheads	8	
	· Per-showerhead if not 100% of showerheads (2 points each/max. quantity of 3)	6	
	1.6 to less than 2.0 gallons and 100% of showerheads	2 additional	
	· Shower head with shut off (2 points each, max. quantity of 3)	6	
4.2.5	Water-efficient sink faucets/aerators < 2.2 gallons/minute for kitchen and < 1.5 gallons/minute for bathrooms:		Installer-certified
	· 100% of the faucets OR	10	
	· Kitchen sink faucets (2 points each/max quantity 2)	4	
	· Bathroom sink faucets (1 points each/max. quantity 4)	4	
4.2.6	Ultra low flow (< 1.3 gpm/flush) toilets installed:		Installer-certified
	A. Power Assist or other low flow alternatives:		
	· 100% of toilets in the house OR	12	
	· per toilet (4 points each/max. quantity of 2)	8	
	B. Dual Flush Toilets:		
	· 100% of toilets in the house OR	18	
	· per toilet (6 points each/max. quantity of 2)	12	
4.2.7	Use rain water for toilet flushing	12	Installer-certified

	ITEM	PTS	HOW TO VERIFY
4.3	**Outdoor Water Use**		
4.3.1	Distribution Systems:		
	A. Low-volume, non-spray irrigation system installed, e.g., drip irrigation, bubblers, drip emitters, and stream-rotator heads. All irrigation systems served by potable water shall have backflow prevention.	7	Designer and installer certified and meeting the guidelines of the Irrigation Association.
	B. Irrigation system zoned in accordance with hydrozoning Section 1.5.2.E separately for native, cool season turf grass bedding areas and trees. (City of Santa Fe allows only 1,000 s.f. of cool season grasses.)	6	Installer-certified
	C. Smart irrigation controllers, e.g. with computer-based weather monitors, moisture sensors, etc.	7	Installer-certified
	D Rainwater distribution system that uses a renewable energy source or gravity (minimum storage capacity of 200 gallons).	4	Installer-certified
4.3.2	Collection Systems		
4.3.2.1	Collect, store, and use rainwater for landscape irrigation or other uses as permitted by local code. Percentages between the examples given below shall be awarded points on a proportional basis.		Roof plan and designers calculations
	-collect 1 gallon per square foot for 100% of the roofed area	12	
	-collect 1 gallon per square foot for 75% of the roofed area of the house.	9	
	-collect 1 gallon per square foot for 50% of the roofed area.	6	
4.3.2.2	Collect, in a passive collection system (i.e. pumice wick or depressed garden area with swale), rain water to use for irrigation.		Show on Site or Drainage Plan
	-collect 1 gallon per square foot for 100% of the roofed area	8	
	-collect 1 gallon per square foot for 75% of the roofed area of the house.	6	
	-collect 1 gallon per square foot for 50% of the roofed area.	4	
4.3.3	Innovative wastewater technology as permitted by local code, e.g., constructed wetland, sand filter, and aerobic system.	7	Submit plan approved by local code or health department official
4.4	**Innovative options**		
4.4.1	Shut-off valve, motion sensor, or pedal-activated sink and lavatory faucet to enable intermittent on/off operation. (3 pts each, 6 pts max.)	6	Installer-certified

	ITEM	PTS	HOW TO VERIFY
4.4.2	Separate and re-use grey water as permitted by local code.	6	Installer-certified
4.4.3	Composting or waterless toilet as permitted by state or local codes.	6	Installer-certified
4.4.4	Evaporative cooling using cistern water	6	Installer certified
4.4.5	Use dual stage evaporative coolers with HEPA filters and moisture management	6	Installer certified
4.4.6	One of the following automatically shut-off water supply devices is installed (1) Excess Water Flow Shutoff or (2) Leak Detection System.	2	Installer certified
4.4.7	A real-time water use meter device is intalled where the home occupant can easily see and monitor the home's water use like a KopyKap	4	Show on plans and provide copy of product information sheet or manual
4.4.8	The project water offset requirement of SFCC Section 14-8.13(F) is accomplished using the alternative development water budget (Option B) and the agreement includes using one-half of the average water use in the city. (Average water use is 0.21 acre-feet per year).	25	Provide copy of executed water budget agreement.

Required points:	**Silver**	**Gold**	**Platinum**	**Emerald**
	45	**50**	**60**	**70**

Section 5
Indoor Environmental Quality

	ITEM	PTS	HOW TO VERIFY
5.1	**Minimize potential sources of pollutants**		
5.1.1	Install sealed combustion appliances for space and water heating	6	Builder spec sheet
5.1.2	Install induced/mechanical draft combustion equipment for space and water heating.	4	Builder spec sheet
5.1.3	Install combustion space heating and water heating equipment in an isolated mechanical room or closet with an outdoor source of combustion and ventilation air.	2	Builder spec sheet
5.1.4	Air handling equipment or return ducts are not located in the garage, unless placed in isolated /air sealed mechanical rooms with an outside air source.	2	
5.1.5	Install direct-vent, sealed-combustion gas fireplace(s), sealed wood fireplace(s), or sealed woodstove(s). OR No fireplace or woodstove installed.	6	Builder spec sheet
5.1.6	Use no central forced air HVAC system (use radiant heat or passive solar). Adequate ventilation is highly recommended. See section 3.3.2(G)	6	Builder spec sheet
5.1.7	Detached garage or no garage	6	Plans
5.1.8	Ensure a tightly-sealed door between the garage and living area and provide continuous air barrier between garage and living areas including air sealing penetrations, walls, ceilings, and floors.	2	Builder-certified
5.1.9	Attached garages have a 100 cfm or greater ducted, or 70 cfm or greater unducted wall exhaust fan vented to the outdoors, designed and installed for continuous operation, or has controls that activate (motion detectors, pressure switches, etc.) operation for at least one our when either human passage door or roll-up doors are operated.	4	

	ITEM	PTS	HOW TO VERIFY
5.1.10	Ensure particleboard, OSB, medium density fiberboard (MDF) and hardwood plywood substrates, used in the conditioned area, are certified to low formaldehyde emission standards ANSI A208.1, ANSI A208.2 and ANSI/HPVA HP1, respectively. Composite wood/agrifiber panel products must all either contain no added urea-formaldehyde resins or must be third party certified for low formaldehyde emissions for entire house.	8	Manufacturer's spec sheet or third party listing
5.1.11	Use non PVC materials for water supply lines.	8	Specifications
5.1.12	Install carpet, carpet pad, and floor covering adhesives that hold "Green Label" from Carpet and Rug Institute's indoor air quality testing program or meet equivalent thresholds verified by a third party. Must have all three.	3	Manufacturer's spec sheet
5.1.13	Use no carpet or vinyl flooring	6	Specifications
5.1.14	Carpeting is not installed in bathrooms (Exception: Dressing Areas) (This point cannot be taken if points are taken for 5.1.13)	1	Builder certified
5.1.15	85 percent of installed non-carpet flooring is certified by a third party as compliant with the emission levels in accordance with the Resilient Floor Covering Institute's FloorScore Indoor Air Certification Program and/or Environmental Institutes GREENGUARD Indoor Air Quality Certification Program.	3	
5.1.16	Mask HVAC outlets during construction and vacuum ducts, boots, and grilles, and replace filter if necessary, before turning on central heating/cooling system.	5	Builder certified
5.1.17	Use low VOC emitting wallpaper.	3	Builder spec sheet
5.1.18	Use low VOC finishes other than paint or wallpaper.	3	Builder spec sheet
	Choose low- or no-VOC indoor paints. VOC concentrations (grams/liter) of interior paints should be equal to or less than those specified by the EPA's Environmentally Preferable Purchasing Program: • Interior latex coatings: Flat: <100 grams/liter Non-flat: <150 grams/liter • Interior oil-based paints: < 380 grams/liter	6	Builder's spec Manufacturer's spec or third-party listing

	ITEM	PTS	HOW TO VERIFY
5.1.19	Use low VOC sealants. VOC concentrations for construction adhesives and sealants should meet the limits specified in the California Air Resources Board Regulation for Reducing Volatile Organic Compound Emissions from Consumer Products: • Construction adhesives: the greater of 15% by weight or 200 grams/liter • Sealants and caulks: the greater of 4% by weight or 60 grams/liter • Contact adhesives: the greater of 80% by weight or 650 grams/liter	6	Manufacturer's spec or third-party listing
5.2 Manage potential pollutants generated in the home			
5.2.1	Pollutants generated in the building are controlled in accordance with one or more of the following:		Builder spec sheet
	(a) The minimum ventilation rate shall be 50 cfm for bathrooms and 100 cfm for kitchens exhausted to the outdoors.	Required	
	(b) Bathroom and/or laundry exhaust fan is a minimum of 50 cfm and linked to the light switch or has an automatic timer and/or humidistat.	6 for first device + 2 per additional	
	(c) Kitchen range, bathroom and laundry exhaust are verified to specification. Ventilation airflow at the point of exhaust is tested to a minimum of 100 cfm for kitchens and 50 cfm for bathrooms and laundry.	8	
5.2.2	Vent kitchen range exhaust to the outside with a damper.	7	Builder spec sheet
5.2.3	Provide mechanical ventilation at a rate of 7.5 cfm per bedroom + 7.5 cfm and controlled automatically or continuous with manual override. (or per ASHRAE 62.2) The ventilation equipment may be:(points also available in section 3.3.2.G for HRV and ERV.):		Builder spec sheet
	A. Exhaust or supply fan(s), OR	7	
	B. Balanced exhaust and supply fans, OR	9	
	C. When installing forced air systems, install a HRV or ERV with a HEPA filter	8	
5.2.4	Install a HEPA filter on central air system. Filters must be easily accessible to homeowner, OR	6	Specifications and HVAC Plan
5.2.5	Install MERV 8 or certified equivalent filters on central air or ventilation systems. Filters must be easily accessible to homeowner.	3	Show access on plans and installation verified by builder
5.2.6	Install humidistat to control whole-house humidification system.	4	Builder-certified

	ITEM	PTS	HOW TO VERIFY
5.2.7	Install a radon mitigation system.	6	Builder spec sheet or other documentation demonstrating the system.
5.2.8	Verify all exhaust flows meet design specifications after installation	9	Third party test report
5.2.9	Central vacuum system is installed and vented to the outside.	5	Show on building plans
5.3 Moisture management (vapor, rainwater, plumbing, HVAC)			
5.3.1	Control bathroom exhaust fan with a timer, humidistat or motion sensor. (cannot take these points if taking points for item 5.2.1(b))	6	Builder spec sheet
5.3.2	Install vapor retarder directly under slab (6-mil) or on crawl space floor (8-mil). In crawl spaces, extend poly up wall and affix with glue and furring strips, or damp-proof wall below grade. Joints lapped 12 inches.	9	Builder spec sheet
5.3.3	Walls not enclosed (e.g. with drywall) if the insulation has a high moisture content: Wet applied insulation products to follow the manufacturer's instruction for drying.	2 Required	Builder certified
5.3.4	Protect unused moisture-sensitive materials from water damage through just-in-time delivery, storing unused materials in a dry area, or tenting materials and storing on a raised platform.	6	Builder's moisture management practice or plan
5.3.5	Keep plumbing supply lines out of exterior walls excluding hose bibs.	5	Plumbing Plan
5.3.6	Insulate cold water pipes in unconditioned spaces with R-4 insulation or other coating that comparably prevents condensation OR	4	Builder's Specs
	Plumbing is not installed in unconditioned spaces	5	
5.3.7	Insulate HVAC ducts, plenums, and trunks in unconditioned basements and crawl spaces to avoid condensation.	4	Builder's Specs
5.3.8	Check moisture content of wood before it is enclosed on both sides and ensure it is below 19% and ensure moisture content of subfloor/substrate meets the appropriate industry standard for the finish flooring material to be installed.	4	Builder's moisture management practice or plan
5.3.9	Building materials with visible mold not installed	Required	Builder certified
5.3.10	Moisture and moisture effects are controlled in accordance with one or more of the following:		
	(a) Tile backing materials installed under tiled surfaces in wet areas shall be in accordance with ASTM C1178, C1278, or C1325. *Paper-faced sheathing shall not qualify for points.	Required	

	ITEM	PTS	HOW TO VERIFY
	(b) A capillary break shall be installed at all concrete slabs in accordance with one of the following; (a) A 4-inch bed of 1/2 inch diameter or greater clean aggregate, (b) A minimum 4 inch uniform layer of sand overlain with a layer of strips of geotextile drainage matting. Exception: In areas with free-drainage soils, identified as group 1 in the IRC by a certified hydrologist, soil scientist, or engineer through a site visit, a gravel bed or geotextile matting is not required.	3	
	(c) Exterior drain tile is installed in accordance with the IRC/IBC for crawlspaces below grade. Exception: Dry climates as defined by the IECC Figure 301.1 and Table 301.1	3	
	(d) Crawlspace that is built as a conditioned area is sealed to prevent outside air infiltration and provided with conditioned air at a rate not less than 0.02 cfm per square foot of horizontal area and one of the following is implemented:		
	(i) A concrete slab over lapped 6 mil polyethylene or polystyrene.	8	
	(ii) 6-mil polyethylene sheeting lapped, 12 inches and taped at the seams.	7	
5.4	**Innovative options**		
5.4.1	For kitchen exhaust units that equal or exceeds 400 cfm, provide make-up air.	2	Specifications

Required points:	**Silver**	**Gold**	**Platinum**	**Emerald**
	54	**72**	**90**	**100**

Section 6
Operation, Maintenance, and Sustainable Practices

ITEM	PTS	HOW TO VERIFY
6.1 Provide Home Owner's Manual to owners/occupants		
Manual must include all items below:	9	Copy of the Home Owner's Manual
A. Narrative detailing the importance of maintenance and operation to keep a green built home green		
B. Local Green Building Program certificate (if applicable).		
C. Warranty, operation, and maintenance instructions for equipment and appliances		
D. Household recycling opportunities		Provided by the City of Santa Fe
E. Information on how to enroll in a program so that the home receives energy from a renewable energy provider		
F. Explanation of the benefits of using energy efficient lighting in high usage areas		
G. A list of habits/actions to optimize water and energy use		
H. Local public transportation options (if applicable)		
I. Clearly labeled diagram showing safety valves and controls for major house systems.		Provide Diagram
J. Information about protecting the home from fire danger		Provided by the City of Santa Fe
K. List of green building features		Builder Provided
6.2 Optional information to include in the Home Owner's		
A. A list of local service providers that focus on regularly scheduled maintenance and proper operation of equipment and the structure (sealants, caulks, gutter and downspout system; shower/tub surrounds, irrigation systems, etc).	1	Copy of information provided
B. A photo record of framing with utilities installed. Photos should be taken prior to installing insulation, clearly marked, and provided in home owner's manual.	2	
C. List of line items receiving points in the Santa Fe Residential Green Building Code	1	
D. User-friendly maintenance checklist	1	
E. Instructions for proper handling and disposal of hazardous materials including sources and schedules for disposal at local waste sites.	1	
F. Information on organic pest control, fertilizers, de-icers and cleaning products.	1	

	ITEM	PTS	HOW TO VERIFY
	G. Information about native or low-water landscape	1	
	H. Information on how to keep a home's relative humidity in the range of 30-60%	1	
	I. Instructions for checking crawlspace for termite tubes periodically	1	
	J. Instructions for keeping gutters clean. Instructions should note that downspouts should divert water at least five feet away from foundation or into water catchment.	1	
	K. Instructions for maintaining water catchment systems and how to keep downspouts and canales clean.	1	
	L. Instructions for maintaining solar systems.	1	
	M. Provide homeowner with information about mulching and composting	1	
	N. Information on the maintenance of the irrigation system, if one is installed, including the need for on-going adjustment for maturing landscape needs and for conintual maintenance to prevent water loss due to leaks.	1	
6.3 Homeowner education			
	A. Instruct homeowner/occupants about the building's goals and strategies and occupant's impacts on costs of operating the building. Provide training to owners/occupants for all control systems in the house. Explain variability of costs of energy vs. usage including, but not limited to, (1) Furnace filters; (2) Thermostat operation and programming; (3) Lighting controls; (4) Appliances and settings; and (5) Water heating settings.	3	Provide handouts included in education activity and certify education by builder
	B. Translate homeowner documents into Spanish and provide both to homeowner.	6	Provide copy of materials in Spanish
6.4 Solid waste			
6.4.1	Encourage homeowners/occupants to recycle by providing built-in space in the home's design (e.g., kitchen, garage, covered outdoor space) for recycling containers.	3	Show on building plans
6.5 Innovative options			
6.5.1	Builder's operations and business practices include environmental management system concepts (the builder must be ISO 14001 certified)	4	ISO 14001 certification
6.5.2	Builder or owner/builder that applies for the building permit uses hybrid or alternative fuel vehicle(s).	3	Copy of title or registration

	ITEM	PTS	HOW TO VERIFY
6.5.3	Builder participation in a clean energy program (i.e. purchase energy from PNM Sky Blue).	3	Copy of utility billing (proprietary information redacted)
6.5.4	Develop an educational program for employees and sub-contractors to teach about green living practices in business and personal life.	3	Provide copies of educational materials and builder certify that program occurred

Required points:	**Silver**	**Gold**	**Platinum**	**Emerald**
	14	**18**	**22**	**26**