



# Level 2 Checklist



## Checklist for Building a Level 2 Home

\_\_\_\_\_  
Co. Name of Builder/Designer

\_\_\_\_\_  
Name of Applicant

\_\_\_\_\_  
Phone number and e-mail

\_\_\_\_\_  
Address of Home

\_\_\_\_\_  
Model Name/Number (if applicable)

\_\_\_\_\_  
Lot Sq. Ft.<sup>5</sup>

\_\_\_\_\_  
House "footprint" Sq. Ft.

\_\_\_\_\_  
Impervious Sq. Ft.

\_\_\_\_\_  
EARZ location?

\_\_\_\_\_  
Conditioned Sq. Ft.<sup>5</sup>

\_\_\_\_\_  
Review Fee (see below)

### PURPOSE

#### REFER TO GUIDELINES

This checklist is a quick form builders or designers can use to determine whether an individual home can meet the minimum requirement to receive Level 2 certification. For detailed description of each of these requirements, refer to the "Level 2 Guidelines."

#### LEVEL 1 OR LEVEL 2?

The "Level 2 Guidelines" describes the scoring process and a basic comparison with Level 1 criteria.

#### USING THE CHECKLIST

For Level 2 Certification, each home must incorporate all items listed on this checklist according to the size of the house submitted. For assistance with this checklist, contact Build San Antonio Green staff at 210-224-7278.

### Statement of Intent

In submitting this home for Level 2 certification, the applicant assures the Metropolitan Partnership for Energy that the home will adhere to all the requirements listed for Level 2 certification. All substitutions, if required, will be noted and signed by the applicant and the Build San Antonio Green Coordinator before the construction is completed.

\_\_\_\_\_  
Applicant signature (typed name ok on electronic submittals)

\_\_\_\_\_  
Date

### Review Fee Calculation

A Review Fee payment must accompany this checklist before your review can be performed. There are two parts to the Review Fee, the First Model Charge Fee and the Repeating Model Fee. Both are based on the square footage of each model and home. The First Model Charge Fee is only charged the first time a home model is reviewed. A Repeating Model Fee is required for each home review using a model previously reviewed. Calculate the First Model Charge Fee based on the area of conditioned space<sup>5</sup> using the fee table below. For homes built in developments of 30 or more lots that require Build San Antonio Green certification for all lots, use the Repeating Model Fee for all homes (the First Model Fee is not required). Please make your check payable to "Metropolitan Partnership for Energy". Remember, one set of construction documents should accompany the submittal for the first unit of a particular model being considered.

Conditioned Space (sq. ft.)	First Model Charge Fee	Repeating Model Fee
up to 1,200	4¢ per sq. ft.	\$ 20.00
1,201 - 1,800	5¢ per sq. ft.	\$ 30.00
1,801 - 2,500	7¢ per sq. ft.	\$ 50.00
2,501 - 3,500	10¢ per sq. ft.	\$ 150.00
3,501+	10¢ per sq. ft.	\$ 300.00

# Level 2 for houses 2201sf - 4000sf

## ENERGY

Building Envelope	House must achieve ENERGY STAR (E.S.) rating*	<input checked="" type="checkbox"/>
	70 Maximum HERS Index (or 85 where a ground source heat pump is installed)*	
	0.45 Roofing minimum Solar Reflectance Value*	
	90% of Windows and Doors must be 0.34 max. SHGC and 0.55 max. U-factor*	
	Blower Door test max. 4 ACH @50 pascals*	
	Code-approved unvented attic assembly is required	
Mechanical Equipment & Water Heating	Provide natural gas where available	<input type="checkbox"/>
	HVAC minimum 16 SEER (or ground source heat pump installed)	
	HVAC: 9.0 HSPF rating min. (or system options)	
	HVAC: 90 AFUE rating min. (or system options)	
	Non-CFC or non-HCFC cooling system refrigerant	
	Solar water heater installation RECOMMENDED	
	Tankless water heaters required (except where there is no access to natural gas or propane)	
Lighting & Appliances	Builder-installed appliances are ENERGY STAR®	<input type="checkbox"/>
	85% of hard-wired lighting fixtures must be ENERGY STAR® rated fixtures*	
	Ceiling Fans - 100% must be ENERGY STAR®*	
	Gas-fired lamps are prohibited	
	Exterior security illumination (if installed) and grid-connected is motion-detector activated Exterior security illumination (if installed) and non-grid-connected is not activation restricted Rough-in for future renewable energy system	

## SITE

Comply w/ COSA Tree Protection Ordinance	<input type="checkbox"/>
Re-use mulch on site or within development	
Protect tree root zones during construction	
Walks, decks, and patios: Min. 50% pervious or semi-pervious deck surfaces. Impervious not > 15% of lot area minus house + garage footprint. No % restrictions in Conservation Subdivision	
Shading and reflection of hardscapes: Preserve existing and plant additional shade	
Provide a construction waste plan	

## WATER

Indoor Conservation	1.5 gpm max. flow rate of all bathroom lavatory faucets or EPA WaterSense labeled	<input checked="" type="checkbox"/>
	Maximum 2.0 gpm flow rate for showerheads	
	Only one showerhead per shower	
	Insulate all exposed water lines	
	Locate all hot water fixtures an average distance of 20ft from the hot water source	
	Install HET WaterSense dual-flush type toilets	
	Water softeners are discouraged Sodium-based softeners are prohibited	
Outdoor Conservation	Use only turf & plants approved by the SAWS list	<input type="checkbox"/>
	Less than 50% of yard dedicated to turf grass Maximum 10,000sf turf regardless of lot size	
	Artificial turf is prohibited	
	Downspouts (if installed) drain into pervious	
	Irrigation (supplied by other than RWH): Refer to Level 2 Guidelines for requirements Landscape elements: Install a "rain garden" or a minimum 50% mower-free landscape Rainwater Harvesting is optional	

## HEALTH

IAP	Comply with ENERGY STAR Indoor Air Package	<input type="checkbox"/>
HVAC System & Appliances	Sealed combustion for gas appliances	
	Min. 11 MERV rating for system filter (if present)	
	If present, any dehumidification system must be independent of the cooling system	
	Ozone generating systems are prohibited	
	Ducts sealed during construction; vacuumed. Refer to Indoor Air Package #4.7 and #4.8. Fiber duct board only from approved list See Level 2 Guidelines for requirements A central (whole house) vacuum system is required if carpeted area >20% conditioned space (IAP#4.20) Provide whole-house ventilation including all ASHRAE 62.2 requirements (IAP #4.15)	

\* Documentation to be submitted as a part of the required "Post-Construction Submittal."

GSHP - ground-source (geothermal) heat pump  
HSPF - heating seasonal performance factor for heat pump heating  
AFUE - Annual Fuel utilization efficiency for furnace heating

All items are required to obtain a Level 2 certificate. As with the Level 1, substitutions to specific requirements can be considered at MPE's discretion.

continues

# Level 2 for houses 2201 sf - 4000sf

## HEALTH (continued)

Installed Material	E.S. Thermal Bypass Checklist inspection
	Carbon Monoxide detectors are required
	Fireplaces are discouraged. Wood-burning units must be listed on the EPA list of Certified Wood Stoves. Gas units must be direct-vent only.
	Carpeting is discouraged, but if installed must be listed on the Green Label Plus** list of approved carpets. All padding and adhesives, if used, must also be labeled Green Label Plus.
	Carpet installed maximum 40 % of conditioned space
	Zero VOC interior wall paint.*
	No VOC restriction on trim paint (max. 15%)
	Finish Carpentry (cabinets, shelving, trim, mdg)
	Pest Management: Termite barrier or borate*** (no toxic material within 36" of slab)
	Fan delay timer switch required for ventilation in all bathrooms and laundry room
	ENERGY STAR® ventilation fans max. 0.8 sone (one fan allowed to rate max. 1.8 sone)
	Slab construction that minimizes moisture.
	Wood deck support (if present) must not be in contact w/ grade or concrete support.
	Roofing: Install Class 4, UL 2218 Impact-resistant material.****



Level 2 houses must conform to the ENERGY STAR® Indoor Air Package (available online [www.energystar.gov/homes/iap](http://www.energystar.gov/homes/iap)) This column refers the criteria listed at the left to the item number in the Indoor Air Package document.

IAP #6.6-7, #6.9  
Natural fibers (wool) are also allowed

IAP #6.3-5

\* Documentation to be submitted as a part of the required "Post-Construction Submittal."

\*\* Green Label Plus is a rating administered by the Carpet and Rug Institute (CRI). To access the current list of Green Label Plus carpeting, cushions, and adhesive, go to: [www.carpet-rug.org](http://www.carpet-rug.org)

IAP #4.16

\*\*\* Borate treatment may be substituted with sodium-silicate treatment

IAP #1.1-7

\*\*\*\*Follow the installation documentation requirements carefully as the documents showing proper proof of installation is required for significant reduction in home-owners insurance.

## Pre-Construction Requirements

1. Provide a set of plans for each home model submitted for the first time Build San Antonio Green reviews the model.
2. Provide a site plan for each house submitted. Indicate the lot and paving area information on the first sheet of this Checklist.
3. Provide a construction waste plan.
4. The HVAC system shall be properly sized using the ACCA Manual "J" version 8.0 or later. Version 7.0 will no longer be accepted. A copy of the document indicating the HVAC sizing must be submitted to MPE.

## Substitutions

We realize there may be situations where your submission may be close to obtaining a Level 2 designation, but the prescriptive aspects of Level 2 requirements may be too limiting. Don't despair. Your BSAG plan reviewer is available to help you find possible substitutions from the list of elements present in the Comprehensive Program format. Your reviewer is also available to help with any questions or suggestions you may have during your self-evaluation process. Split-scoring is also an option. For more information on split-scoring, read the details found in the Level 2 Guidelines.

*Refer to the Level 2 Guidelines for further explanation of the items on this Level 2 Checklist. All items are required to obtain a Level 2 Certificate.*

# Post-Construction Submittal

## Post-Construction Requirements

1. The applicant must submit a copy of the HERS rating for each home tested.
2. The applicant must submit a copy of the ENERGY STAR® Homes Certificate and the ENERGY STAR® Home Report for each house.
3. Each house must be tested. BSAG certification will not be awarded on the basis of sampling.

## Post-Construction Packet for the Homeowner

The Build San Antonio Green staff will provide to the applicant, a Certificate, a SAWS Landscape Care Guide and Homeowner's Manual for each home. The applicant must insert or attach copies of HERS testing and ENERGY STAR® documentation as well as copies of warranty and operational instruction information for all builder installed appliances and materials (such as roofing and fixture warranties) and the HVAC system to include with the Homeowner's Manual.

Deliver this completed set of documents to the homeowner upon closing. The MPE will charge an additional fee to the applicant should a duplicate Certificate or Homeowner's Manual be required.



The Build San Antonio Green Program is wholly owned and administered by the **Metropolitan Partnership for Energy**.

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San Antonio, Texas 78205  
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[www.buildsagreen.org](http://www.buildsagreen.org)

## Marketing the Home

### BSAG Yard Sign

Build San Antonio Green yard signs are available to use for the applicant to show the public during construction that the house is pending certification with the Build San Antonio Green program. Because final certification is not earned until the house is finished and the results of the testing are submitted, a provided paper notice must be taped to the inside of a street-facing window during construction. The Build San Antonio Green yard signs are made from metal and are the property of the Metropolitan Partnership for Energy. For each yard sign the applicant wants to use, the applicant must provide a deposit of \$50 per sign. The deposit will be held by MPE until the applicant returns the yard sign to MPE in good condition.

### BSAG Web Presence

A new version of the Build San Antonio Green website is currently being developed. After the new version is available, it will contain the listing of available certified homes complete with the contact information of the home seller as well as the certification score and location. It is the upmost responsibility of the applicant to inform MPE with all information regarding the status of each home. Once a home sells or is otherwise preferred to not be listed, the applicant must inform MPE staff so that the website information can be timely updated. MPE does not act as a seller or seller's representative of any certified home.

## GENERAL INFORMATION

### Digital or Paper Submissions

At the present time, we are accepting both paper and digital materials for most submissions. Providing digital files is preferred, especially considering architectural plans and elevations. This saves on archive space as well as saving paper resources. Remember, however, the materials required for the post-construction warranties and manuals that accompany the Homeowner's manual will need to be paper versions in 8-1/2" x 11" format.