



for Homes

Project

Building Type: **Multi-family**

# of Units: **3**

Project type: **Custom**

Avg. Home Size Adjustment: **-5**

## LEED for Homes Project Checklist

|                                   |                                 |
|-----------------------------------|---------------------------------|
| Builder Name:                     | <b>Deltec Homes/Ecobuilders</b> |
| Project Team Leader:              | <b>Rob Moody, Ecobuilders</b>   |
| Home Address (Street/City/State): | <b>Secret, New Orleans, LA</b>  |

### Adjusted Certification Thresholds

|            |             |           |             |
|------------|-------------|-----------|-------------|
| Certified: | <b>40.5</b> | Gold:     | <b>70.5</b> |
| Silver:    | <b>55.5</b> | Platinum: | <b>85.5</b> |

|   |   |               |               |               |
|---|---|---------------|---------------|---------------|
| <b>Project Point Total</b>                            | <b>Final Credit Category Point Totals</b>               |               |               |               |
| Prelim: <b>84.5 + 10 maybe pt.</b> Final: <b>88.5</b> | ID: <b>5.5</b>  | SS: <b>17</b> | EA: <b>24</b> | EQ: <b>14</b> |
| <b>Certification Level</b>                            | LL: <b>10</b>   | WE: <b>8</b>  | MR: <b>8</b>  | AE: <b>2</b>  |
| Prelim: <b>Gold</b> Final: <b>Platinum</b>            | <i>All Minimum Credit Category Point Thresholds Met</i> |               |               |               |

### Notes:

1. Details for each measures are provided in the LEED for Homes Rating System
2. Indicates measures that must be documented using the Accountability Form

| Max Pts. Available | Preliminary Rating |       |    | Notes | Project Points |
|--------------------|--------------------|-------|----|-------|----------------|
|                    | Y / Pts            | Maybe | No |       |                |

| Innovation & Design Process (ID)  | (Minimum 0 ID Points Required) | Max: 11 | Y:5.5 | M:0   | Final: 5.5 |
|---|--------------------------------|---------|-------|---|------------|
| <b>1. Integrated Project Planning</b>   |                                |         |       |   |            |
| 1.1 Preliminary Rating  | Prereq.                        | Y       |       |   | Y          |
| Target performance tier: <input type="text" value="Gold"/>  |                                |         |       |   |            |
| 1.2 Integrated Project Team (meet all of the following)   | 1                              | 1       | 0     |   | 1          |
| <input checked="" type="checkbox"/> a) Individuals or organizations with necessary capabilities   |                                |         |       | <input checked="" type="checkbox"/> c) Regular meetings held with project team                              |            |
| <input checked="" type="checkbox"/> b) All team members involved in various project phases        |                                |         |       |   |            |
| 1.3 Professional Credentialed with Respect to LEED for Homes                                      | 1                              | 0       | 0     |   | 0          |
| 1.4 Design Charrette  | 1                              | 0       | 0     | multiple discussions, no charrette  | 0          |
| 1.5 Building Orientation for Solar Design (meet all of the following)                             | 1                              | 0       | 0     |   | 0          |
| <input type="checkbox"/> a) Glazing area on north/south walls 50% greater than on east/west walls |                                |         |       | <input type="checkbox"/> c) At least 450 sq. ft. of south-facing roof area, oriented for solar applications |            |
| <input type="checkbox"/> b) East-west axis is within 15 degrees of due east-west                  |                                |         |       | <input type="checkbox"/> d) 90% of south-facing glazing is shaded in summer, unshaded in winter             |            |
| <b>2. Quality Management for Durability</b>   |                                |         |       |   |            |
| 2.1 Durability Planning (meet all of the following)   | Prereq.                        | Y       |       |   | Y          |
| <input checked="" type="checkbox"/> a) Durability evaluation completed                            |                                |         |       | <input checked="" type="checkbox"/> d) Durability strategies incorporated into project documentation        |            |
| <input checked="" type="checkbox"/> b) Strategies developed to address durability issues          |                                |         |       | <input checked="" type="checkbox"/> e) Durability measures listed in durability inspection checklist        |            |
| <input checked="" type="checkbox"/> c) Moisture control measures from Table 1 incorporated        |                                |         |       |   |            |
| 2.2 Durability Management (meet one of the following)   | Prereq.                        | Y       |       |   | Y          |
| <input type="checkbox"/> Builder has a quality management process in place                        |                                |         |       | <input checked="" type="checkbox"/> Builder conducted inspection using durability inspection checklist      |            |
| 2.3 Third-Party Durability Management Verification  | 3                              | 3       | 0     |   | 3          |

| <b>3. Innovative or Regional Design</b>                            |  |  |                |             |            |   |
|--|--|--|----------------|-------------|------------|---|
| 3.1  | Innovation 1 (ruling #):   | <i>extra credit in WE 2.1</i>  | 1              | 1           | 0          | 1   |
| 3.2  | Innovation 2 (ruling #):   | <i>extra credit in SS 5</i>  | 1              | 0.5         | 0          | 0.5   |
| 3.3  | Innovation 3 (ruling #):   |  | 1              | 0           | 0          | 0   |
| 3.4  | Innovation 4 (ruling #):   |  | 1              | 0           | 0          | 0   |
| <b>Location &amp; Linkages (LL)</b> (Minimum 0 LL Points Required) |  |  | <i>Max: 10</i> | <i>Y:10</i> | <i>M:0</i> | <i>Final: 10</i>  |
| <b>1. LEED for Neighborhood Development</b>                        |  |  |                |             |            |   |
| 1  | LEED for Neighborhood Development  |  | 10             | 0           | 0          | 0   |
| <b>2. Site Selection</b>   |  |  |                |             |            |   |
| 2  | Site Selection ( <i>meet all of the following</i> )  |  | 2              | 2           | 0          | <i>have letters, etc.</i> 2   |
|  | <input checked="" type="checkbox"/> a) Built above 100-year floodplain defined by FEMA           |  |                |             |            | <input checked="" type="checkbox"/> d) Not built on land that was public parkland prior to acquisition                  |
|  | <input checked="" type="checkbox"/> b) Not built on habitat for threatened or endangered species |  |                |             |            | <input checked="" type="checkbox"/> e) Not built on land with prime soils, unique soils, or soils of state significance |
|  | <input checked="" type="checkbox"/> c) Not built within 100 ft of water, including wetlands      |  |                |             |            |   |
| <b>3. Preferred Locations</b>                                      |  |  |                |             |            |   |
| 3.1  | Edge Development   |  | 1              | 0           | 0          | 0   |
| OR   | 3.2  | Infill   | 2              | 2           | 0          | <i>visually verified by Amy</i> 2   |
| AND/OR   | 3.3  | Previously Developed   | 1              | 1           | 0          | <i>watched demolition of previous home</i> 1  |
| <b>4. Infrastructure</b>   |  |  |                |             |            |   |
| 4  | Existing Infrastructure  |  | 1              | 1           | 0          | <i>previous home had water, sewer</i> 1   |
| <b>5. Community Resources / Transit</b>                            |  |  |                |             |            |   |
| 5.1  | Basic Community Resources / Transit ( <i>meet one of the following</i> )                         |  | 1              | 0           | 0          | 0   |
|  | <input type="checkbox"/> a) Within 1/4 mile of 4 basic community resources                       |  |                |             |            | <input type="checkbox"/> c) Within 1/2 mile of transit services providing 30 rides per weekday                          |
|  | <input type="checkbox"/> b) Within 1/2 mile of 7 basic community resources                       |  |                |             |            |   |
| OR   | 5.2  | Extensive Community Resources / Transit ( <i>meet one of the following</i> )   | 2              | 0           | 0          | 0   |
|  | <input type="checkbox"/> a) Within 1/4 mile of 7 basic community resources                       |  |                |             |            | <input type="checkbox"/> c) Within 1/2 mile of transit services providing 60 rides per weekday                          |
|  | <input type="checkbox"/> b) Within 1/2 mile of 11 basic community resources                      |  |                |             |            |   |
| OR   | 5.3  | Outstanding Community Resources / Transit ( <i>meet one of the following</i> ) | 3              | 3           | 0          | <i>verified in-person by Amy</i> 3  |
|  | <input type="checkbox"/> a) Within 1/4 mile of 11 basic community resources                      |  |                |             |            | <input type="checkbox"/> c) Within 1/2 mile of transit services providing 125 rides per weekday                         |
|  | <input checked="" type="checkbox"/> b) Within 1/2 mile of 14 basic community resources           |  |                |             |            |   |
| <b>6. Access to Open Space</b>                                     |  |  |                |             |            |   |
| 6  | Access to Open Space   |  | 1              | 1           | 0          | <i>verified by Amy - nearby park</i> 1  |

**1. Site Stewardship**

|     |   |         |   |  |                                  |   |
|-----|---|---------|---|--|----------------------------------|---|
| 1.1 | Erosion Controls During Construction <i>(meet all of the following)</i> | Prereq. | Y |  | flat site, mostly not applicable | Y |
|-----|---|---------|---|--|----------------------------------|---|

- a) Stockpile and protect disturbed topsoil from erosion.
- b) Control the path and velocity of runoff with silt fencing or equivalent.
- c) Protect sewer inlets, streams, and lakes with straw bales, silt fencing, etc.
- d) Provide swales to divert surface water from hillsides
- e) Use tiers, erosion blankets, compost blankets, etc. on sloped areas.

|     |  |   |   |   |  |   |
|-----|--|---|---|---|--|---|
| 1.2 | Minimize Disturbed Area of Site <i>(meet the appropriate requirements)</i> | 1 | 1 | 0 | small lot - roughly 1/20 acre per unit | 1 |
|-----|--|---|---|---|--|---|

Where the site is not previously developed, meet all the following:

- a) Develop tree / plant preservation plan with "no-disturbance" zones
- b) Leave 40% of buildable lot area, not including area under roof, undisturbed

**OR** Where the site is previously developed, meet all the following:

- c) Develop tree / plant preservation plan with "no-disturbance" zones AND
- Rehabilitate lot; undo soil compaction and remove invasive plants AND
- Meet the requirements of SS 2.2

**OR**  d) Build on a lot of 1/7 acre or less, or 7 units per acre.

**2. Landscaping**

|     |                    |         |   |  |  |   |
|-----|--------------------|---------|---|--|--|---|
| 2.1 | No Invasive Plants | Prereq. | Y |  |  | Y |
|-----|--------------------|---------|---|--|--|---|

|     |   |   |   |   |  |   |
|-----|---|---|---|---|--|---|
| 2.2 | Basic Landscaping Design <i>(meet all of the following)</i> | 2 | 2 | 0 |  | 2 |
|-----|---|---|---|---|--|---|

- a) Any turf must be drought-tolerant.
- b) Do not use turf in densely shaded areas.
- c) Do not use turf in areas with slope of 25%
- d) Add mulch or soil amendments as appropriate.
- e) All compacted soil must be filled to at least 6 inches.

|        |     |                         |   |   |   |               |   |
|--------|-----|-------------------------|---|---|---|---------------|---|
| AND/OR | 2.3 | Limit Conventional Turf | 3 | 3 | 0 | St. Augustine | 3 |
|--------|-----|-------------------------|---|---|---|---------------|---|

Percentage of landscape area that is turf

|        |     |                         |   |   |   |   |   |
|--------|-----|-------------------------|---|---|---|---|---|
| AND/OR | 2.4 | Drought-Tolerant Plants | 2 | 0 | 1 | claimed by landscape pro. but hard to v | 0 |
|--------|-----|-------------------------|---|---|---|---|---|

Percentage of installed plants that are drought-tolerant

|    |     |  |   |   |   |  |   |
|----|-----|--|---|---|---|--|---|
| OR | 2.5 | Reduce Overall Irrigation Demand by at Least 20% | 6 | 0 | 0 |  | 0 |
|----|-----|--|---|---|---|--|---|

Percentage reduction in estimated irrigation water demand

**3. Reduce Local Heat Island Effects**

|   |   |   |   |   |  |   |
|---|---|---|---|---|--|---|
| 3 | Reduce Local Heat Island Effects <i>(meet one of the following)</i> | 1 | 0 | 1 | 550 sf dark pavers, 800 sf gray concrete | 1 |
|---|---|---|---|---|--|---|

- a) Locate trees / plantings to provide shade for 50% of hardscapes
- b) Install light-colored, high-albedo materials for 50% of hardscapes

| <b>4. Surface Water Management</b>                          |  |                |            |            |   |                 |
|---|--|----------------|------------|------------|---|-----------------|
| <b>4.1</b>  | <b>Permeable Lot</b>   | <b>4</b>       | <b>3</b>   | <b>1</b>   | <b>permeable walkway; deep gravel driveway</b>  | <b>2</b>        |
|   | <input type="text" value="75%"/> vegetative landscape  |                |            |            |   |                 |
|   | <input type="text" value="10%"/> permeable paving  |                |            |            |   |                 |
|   | <input type="text" value="0%"/> impermeable surfaces directed to infiltration features                                 |                |            |            |   |                 |
| <b>4.2</b>  | <b>Permanent Erosion Controls (meet one of the following)</b>  | <b>1</b>       | <b>0</b>   | <b>1</b>   | <b>4 trees, 20 3-gal shrubs, 55 5-gal shrubs</b>  | <b>1</b>        |
|   | <input type="checkbox"/> a) For portions of lot on steep slope, use terracing and retaining walls                      |                |            |            | <input checked="" type="checkbox"/> b) Plant trees, shrubs, or groundcover                                      |                 |
| <b>4.3</b>  | <b>Management of Runoff from Roof (meet any, see Rating System for pts)</b>  | <b>2</b>       | <b>1</b>   | <b>0</b>   | <b>12 50-gallon rain barrels - 594 gallons</b>  | <b>1</b>        |
|   | <input checked="" type="checkbox"/> a) Install permanent stormwater controls to manage runoff from the home            |                |            |            | <input type="checkbox"/> c) Install vegetated roof to cover 100% of roof area                                   |                 |
|   | <input type="checkbox"/> b) Install vegetated roof to cover 50% of roof area   |                |            |            | <input type="checkbox"/> d) Have lot designed by professional to manage runoff from home on-site                |                 |
| <b>5. Nontoxic Pest Control</b>                             |  |                |            |            |   |                 |
| <b>5</b>  | <b>Pest Control Alternatives (meet any of the following, 1/2 pt each)</b>  | <b>2</b>       | <b>2</b>   | <b>0</b>   |   | <b>2</b>        |
|   | <input checked="" type="checkbox"/> a) Keep all wood at least 12" above soil   |                |            |            | e) In 'moderate' to 'very heavy' termite risk areas:  |                 |
|   | <input checked="" type="checkbox"/> b) Seal external cracks, joints, etc. with caulking and install pest-proof screens |                |            |            | <input checked="" type="checkbox"/> i) Treat all cellulosic material with borate product to 3' above foundation |                 |
|   | <input checked="" type="checkbox"/> c) Include no wood-to-concrete connections, or separate connections with dividers  |                |            |            | <input type="checkbox"/> ii) Install sand or diatomaceous earth barrier   |                 |
|   | <input type="checkbox"/> d) Install landscaping so mature plants are 24" from home                                     |                |            |            | <input type="checkbox"/> iii) Install steel mesh barrier termite control system                                 |                 |
|   |  |                |            |            | <input type="checkbox"/> iv) Install non-toxic termite bait system  |                 |
|   |  |                |            |            | <input type="checkbox"/> v) Use noncellulosic wall structure  |                 |
|   |  |                |            |            | <input checked="" type="checkbox"/> vi) Use solid concrete foundation walls or pest-proof masonry wall design   |                 |
| <b>6. Compact Development</b>                               |  |                |            |            |   |                 |
| <b>6.1</b>  | <b>Moderate Density</b>  | <b>2</b>       | <b>0</b>   | <b>0</b>   |   | <b>0</b>        |
| <b>OR</b>   | <b>6.2 High Density</b>  | <b>3</b>       | <b>0</b>   | <b>0</b>   |   | <b>0</b>        |
| <b>OR</b>   | <b>6.3 Very High Density</b>   | <b>4</b>       | <b>4</b>   | <b>0</b>   | <b>3 units on ~1/7 acre buildable land</b>  | <b>4</b>        |
| <b>Water Efficiency (WE)</b> (Minimum 3 WE Points Required) |  | <b>Max: 15</b> | <b>Y:8</b> | <b>M:1</b> |   | <b>Final: 8</b> |
| <b>1. Water Reuse</b>                                       |  |                |            |            |   |                 |
| <b>1.1</b>  | <b>Rainwater Harvesting System</b>   | <b>4</b>       | <b>2</b>   | <b>0</b>   | <b>12 54-gallon drums; 50% = 800 gallons</b>  | <b>2</b>        |
|   | <input type="text" value="41%"/> Percentage of roof area used for harvesting   |                |            |            |   |                 |
|   | <input type="text" value="Outdoor only"/> Application  |                |            |            |   |                 |
| <b>AND/OR</b>   | <b>1.2 Graywater Reuse System</b>  | <b>1</b>       | <b>0</b>   | <b>0</b>   |   | <b>0</b>        |
| <b>OR</b>   | <b>1.3 Use of Municipal Recycled Water System</b>  | <b>3</b>       | <b>0</b>   | <b>0</b>   |   | <b>0</b>        |

| 2. Irrigation System                                    |  |  |   |   |   |    |
|---|--|--|---|---|---|----|
| 2.1   | High-Efficiency Irrigation System ( <i>meet any of the following, 1 pt each</i> )  | 3  | 3   | 0 | <i>waiting on this</i>                            | 3  |
|   | <input type="checkbox"/> a) Irrigation system designed by EPA Water Sense certified professional<br><input type="checkbox"/> b) Irrigation system with head-to-head coverage<br><input type="checkbox"/> c) Install central shut-off valve<br><input type="checkbox"/> d) Install submeter for the irrigation system<br><input checked="" type="checkbox"/> e) Use drip irrigation for 50% of planting beds<br><input checked="" type="checkbox"/> f) Create separate zones for each type of bedding |  | <input checked="" type="checkbox"/> g) Install timer or controller for each watering zone<br><input checked="" type="checkbox"/> h) Install pressure-regulating devices<br><input checked="" type="checkbox"/> i) High-efficiency nozzles with distribution uniformity of at least 0.70.<br><input type="checkbox"/> j) Check valves in heads<br><input type="checkbox"/> k) Install moisture sensor or rain delay controller |   |   |    |
| AND/OR  | 2.2 Third-party Inspection   | 1  | 0   | 1 |   | 0  |
|   | 2.3 Reduce Overall Irrigation Demand by at Least 45%   | 4  | 0   | 0 |   | 0  |
|   | <input type="checkbox"/> Full points earned in SS 2.3<br><input type="text" value="0%"/> Percentage reduction in estimated irrigation water demand   |  |   |   |   |    |
| 3. Indoor Water Use                                     |  |  |   |   |   |    |
| 3.1   | High-Efficiency Fixtures and Fittings ( <i>meet any of the following, 1 pt each</i> )  | 3  | 1   | 0 | <i>mix-and-match of 1.1 and dual-flush toilet</i> | 1  |
|   | <input type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 2 gpm<br><input checked="" type="checkbox"/> b) Average flow rate for all showers is ≤ 2.0 gpm per stall  |  | <input type="checkbox"/> c) Average flow rate for all toilets is ≤ 1.3 gpf; OR<br><input type="checkbox"/> Toilets are dual-flush; OR<br><input type="checkbox"/> Toilets meet the EPA Water Sense specification  |   |   |    |
| 3.2   | Very High-Efficiency Fixtures and Fittings ( <i>meet any, 2 pts each</i> )   | 6  | 2   | 0 |   | 2  |
|   | <input checked="" type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 1.5 gpm; OR<br><input type="checkbox"/> Lavatory faucets meet the EPA Water Sense specification  |  | <input type="checkbox"/> b) Average flow rate for all showers ≤ 1.75 gpm per stall<br><input type="checkbox"/> c) Average flow rate for all toilets is ≤ 1.1 gpf  |   |   |    |
| Energy & Atmosphere (EA) (Minimum 0 EA Points Required) |  | Max: 38 Y:22 M:2                           |   |   | Final: 24   |    |
| 1. Optimize Energy Performance                          |  |  |   |   |   |    |
| 1.1   | Performance of ENERGY STAR for Homes   | Prereq.                                    |   |   |   |    |
| 1.2   | Exceptional Energy Performance   | 34   | 17  | 0 | <i>ended up using prescriptive path</i>           | 17 |
|   | <input type="text" value="2"/> IECC climate zone   | <input type="text" value="63"/> HERS Index |   |   |   |    |
| 7. Water Heating  |  |  |   |   |   |    |
| 7.1   | Efficient Hot Water Distribution System ( <i>meet one of the following</i> )   | 2  | 0   | 2 |   | 0  |
|   | <input type="checkbox"/> a) Structured plumbing system<br><input type="checkbox"/> b) Central manifold distribution system   |  | <input checked="" type="checkbox"/> c) Compact design of conventional system  |   |   |    |
| 7.2   | Pipe Insulation  | 1  | 0   | 0 |   | 0  |
| 11. Residential Refrigerant Management                  |  |  |   |   |   |    |
| 11.1  | Refrigerant Charge Test  | Prereq.                                    |   |   | Y   | Y  |
| 11.2  | Appropriate HVAC Refrigerants ( <i>meet one of the following</i> )   | 1  | 1   | 0 |   | 1  |
|   | <input type="checkbox"/> a) Use no refrigerants<br><input type="checkbox"/> b) Use non-HCFC refrigerants   |  | <input type="checkbox"/> c) Use refrigerants that complies with global warming potential equation   |   |   |    |

**1. Material-Efficient Framing**

|            |   |         |   |   |   |
|------------|---|---------|---|---|---|
| 1.1        | Framing Order Waste Factor  | Prereq. | Y |   | Y   |
| 1.2        | Detailed Framing Documents  | 1       | 0 | 0 | 0   |
| 1.3        | Detailed Cut List and Lumber Order  | 1       | 0 | 0 | 0   |
|            | <input type="checkbox"/> Requirements of MR 1.2 have been met               |         |   |   | <input type="checkbox"/> Detailed cut list and lumber order corresponding to framing plans or scopes                  |
| AND/OR 1.4 | Framing Efficiencies (meet any of the following, see Rating System for pts) | 3       | 0 |   | 0   |
|            | <input type="checkbox"/> Precut framing packages                            |         |   |   | <input type="checkbox"/> Stud spacing greater than 16" on center  |
|            | <input type="checkbox"/> Open-web floor trusses                             |         |   |   | <input type="checkbox"/> Ceiling joist spacing greater than 16" on center   |
|            | <input type="checkbox"/> Structural insulated panel walls                   |         |   |   | <input type="checkbox"/> Floor joist spacing greater than 16" on center   |
|            | <input type="checkbox"/> Structural insulated panel roof                    |         |   |   | <input type="checkbox"/> Roof rafter spacing greater than 16" on center   |
|            | <input type="checkbox"/> Structural insulated panel floors                  |         |   |   | <input type="checkbox"/> Two of the following: Size headers for loads; ladder blocking; drywall clips; 2-stud corners |
| OR 1.5     | Off-site Fabrication (meet one of the following)                            | 4       | 4 | 0 | Deltec panels 4   |
|            | <input checked="" type="checkbox"/> a) Panelized construction               |         |   |   | <input type="checkbox"/> b) Modular, prefabricated construction   |

**2. Environmentally Preferable Products**

|     |  |   |                        |                                     |   |
|-----|--|---|------------------------|-------------------------------------|---|
| 2.1 | FSC Certified Tropical Wood (meet both of the following)   | Prereq.                                   | Y                      |                                     | Y   |
|     | <input checked="" type="checkbox"/> a) Provide wood suppliers with a notice of preference for FSC-certified products |   |                        |                                     | <input checked="" type="checkbox"/> b) Only use tropical wood that is FSC-certified |
| 2.2 | Environmentally Preferable Products (meet any, 1/2 pt each)  | 8   | 4                      | 0                                   | <10 % carpeting 4   |
|     | <b>Assembly : component</b>  | <b>(a) EPP</b>                            |                        | <b>(b) Low emission</b>             | <b>(c) Local production</b>   |
|     | Exterior wall: framing   | <input type="checkbox"/>                  | type: _____            |                                     | <input type="checkbox"/>  |
|     | Exterior wall: siding or masonry   | <input type="checkbox"/>                  | type: _____            |                                     | <input type="checkbox"/>  |
|     | Floor: flooring  | <input checked="" type="checkbox"/> (45%) | type: bamboo           | <input checked="" type="checkbox"/> | <input type="checkbox"/> (45%)  |
|     | Floor: flooring  | <input checked="" type="checkbox"/> (90%) | type: bamboo           | <input type="checkbox"/>            | <input type="checkbox"/> (90%)  |
|     | Floor: carpet  |   | type: _____            | <input type="checkbox"/>            | <input type="checkbox"/>  |
|     | Floor: framing   | <input type="checkbox"/>                  | type: _____            | <input type="checkbox"/>            | <input type="checkbox"/>  |
|     | Foundation: aggregate  |   |                        |                                     | <input checked="" type="checkbox"/>   |
|     | Foundation: cement   | <input type="checkbox"/>                  |                        |                                     | <input type="checkbox"/>  |
|     | Interior wall: framing   |   | type: _____            |                                     | <input type="checkbox"/>  |
|     | Interior wall, ceiling: gypsum board   | <input type="checkbox"/>                  |                        |                                     | <input checked="" type="checkbox"/>   |
|     | Interior wall, ceiling, millwork: paint  | <input type="checkbox"/>                  |                        | <input type="checkbox"/>            | <input type="checkbox"/>  |
|     | Landscape: decking or patio  | <input checked="" type="checkbox"/>       | type: recycled content |                                     | <input type="checkbox"/>  |
|     | Other: cabinet   | <input checked="" type="checkbox"/>       | type: recycled content |                                     | <input type="checkbox"/>  |
|     | Other: counter   | <input type="checkbox"/>                  | type: _____            |                                     | <input type="checkbox"/>  |
|     | Other: door  | <input type="checkbox"/>                  | type: _____            |                                     | <input type="checkbox"/>  |
|     | Other : trim   | <input type="checkbox"/>                  | type: _____            |                                     | <input type="checkbox"/>  |
|     | Other : adhesive, sealant  |   |                        |                                     | <input type="checkbox"/>  |
|     | Other : window frame   | <input type="checkbox"/>                  | type: _____            |                                     | <input type="checkbox"/>  |
|     | Roof: framing  | <input type="checkbox"/>                  |                        |                                     | <input type="checkbox"/>  |
|     | Roof: roofing  | <input type="checkbox"/>                  |                        |                                     | <input type="checkbox"/>  |
|     | Roof, floor, wall: insulation  | <input type="checkbox"/>                  |                        | <input type="checkbox"/>            | <input checked="" type="checkbox"/>   |
|     | Roof, floor, wall (2 of 3): sheathing  | <input type="checkbox"/>                  | type: _____            |                                     | <input type="checkbox"/>  |

| 3. Waste Management  |   |  |   |   |                        |
|--|---|--|---|---|------------------------|
| 3.1  | Construction Waste Management Planning ( <i>meet both of the following</i> )  | Prereq.  | Y   | recycled cardboard, bottles   | Y                      |
|  | <input checked="" type="checkbox"/> a) Investigate local options for waste diversion                                  |  |   | <input checked="" type="checkbox"/> b) Document diversion rate for construction waste                     |                        |
| 3.2  | Construction Waste Reduction ( <i>use one of the following methods</i> )  | 3  | 0.00  | 0   | 0                      |
|  | <input type="text" value="4.0"/> a) pounds waste / square foot  |  |   |   |                        |
|  | <input type="text" value="25.5"/> cubic yards waste / 1,000 square feet   |  |   |   |                        |
|  | <input type="text" value="0%"/> b) percentage of waste diverted   |  |   |   |                        |
| Indoor Environmental Quality (EQ) (Minimum 6 EQ Points Required) |   |  |   |   |                        |
|  |   |  | Max: 21   | Y:14  | M:2                    |
| <b>Final: 14</b>   |   |  |   |   |                        |
| 1. ENERGY STAR with Indoor Air Package                           |   |  |   |   |                        |
| 1  | ENERGY STAR with Indoor Air Package   | 13   | 0   | 0   | 0                      |
| 2. Combustion Venting  |   |  |   |   |                        |
| 2.1  | Basic Combustion Venting Measures ( <i>meet all of the following</i> )  | Prereq.  | Y   |   | Y                      |
|  | <input checked="" type="checkbox"/> a) no unvented combustion appliances  |  |   | <input checked="" type="checkbox"/> d) space, water heating equipment designed with closed combustion; OR |                        |
|  | <input checked="" type="checkbox"/> b) carbon monoxide monitors on each floor   |  |   | <input type="checkbox"/> space and water heating equipment has power-vented exhaust; OR                   |                        |
|  | <input checked="" type="checkbox"/> c) all fireplaces and woodstoves have doors                                       |  |   | <input type="checkbox"/> space and water heating equipment located in detached or open-air facility; OR   |                        |
|  |   |  |   | <input type="checkbox"/> no space- or water-heating equipment with combustion                             |                        |
| 2.2  | Enhanced Combustion Venting Measures ( <i>meet one of the following</i> )   | 2  | 2   | 0   | 2                      |
|  | <b>Type of Fireplace or stove</b>   | <b>Better practice (1 pt)</b>  | <b>Best practice (2 pts)<br/>(must also meet Better Practice)</b> |   |                        |
|  | None  |  | <input type="checkbox"/> granted automatically                    |   |                        |
|  | Masonry wood-burning fireplace  | <input type="checkbox"/> masonry heater  | <input type="checkbox"/> back-draft potential test                |   |                        |
|  | Factory-built wood-burning fireplace  | <input type="checkbox"/> listed by testing lab and meets EPA standards           | <input type="checkbox"/> back-draft potential test                |   |                        |
|  | Woodstove and fireplace insert  | <input type="checkbox"/> listed by testing lab and meets EPA standards           | <input type="checkbox"/> back-draft potential test                |   |                        |
|  | Natural gas, propane, or alcohol stove  | <input checked="" type="checkbox"/> listed, power- or direct-vented, fixed doors | <input checked="" type="checkbox"/> electronic pilot              |   |                        |
|  | Pelle stove   | <input type="checkbox"/> EPA certified or meets safety requirements              | <input type="checkbox"/> power- or direct-venting                 |   |                        |
| 3. Moisture Control  |   |  |   |   |                        |
| 3  | Moisture Load Control ( <i>meet one of the following</i> )  | 1  | 0   | 0   | 0                      |
|  | <input type="checkbox"/> a) Additional dehumidification system  |  |   | <input type="checkbox"/> b) Central HVAC system equipped with additional dehumidification mode            |                        |
| 4. Outdoor Air Ventilation                                       |   |  |   |   |                        |
| 4.1  | Basic Outdoor Air Ventilation ( <i>meet one of the following</i> )  | Prereq.  | Y   |   | Y                      |
|  | <input type="checkbox"/> a) Located in a climate with $\leq 4,500$ infiltration degree days                           |  |   | <input checked="" type="checkbox"/> c) Intermittent ventilation   |                        |
|  | <input type="checkbox"/> b) Continuous ventilation  |  |   | <input type="checkbox"/> d) Passive ventilation   |                        |
| 4.2  | Enhanced Outdoor Air Ventilation ( <i>meet one of the following</i> )   | 2  | 2   | 0   | ERV system installed 2 |
|  | <input type="checkbox"/> a) In climates with $\leq 4,500$ infiltration degree days, install active ventilation system |  |   | <input checked="" type="checkbox"/> b) Install heat recovery system                                       |                        |
| 4.3  | Third-Party Performance Testing   | 1  | 1   | 0   | Tested by Amy Musser 1 |

|   |   |         |  |
|---|---|---------|--|
| <b>5. Local Exhaust</b>                             |   |         |  |
| 5.1   | Basic Local Exhaust ( <i>meet all of the following</i> )  | Prereq. | Y Y  |
|   | <input checked="" type="checkbox"/> a) Bathroom and kitchen exhaust meets ASHRAE Std. 62.2 air flow requirement |         | <input checked="" type="checkbox"/> c) Air exhausted to outdoors                                 |
|   | <input checked="" type="checkbox"/> b) Fans and ducts designed and installed to ASHRAE Std. 62.2                |         | <input checked="" type="checkbox"/> d) ENERGY STAR labeled bathroom exhaust fans                 |
| 5.2   | Enhanced Local Exhaust ( <i>meet one of the following</i> )   | 1 1 0   | 1  |
|   | <input type="checkbox"/> a) Occupancy sensor  |         | <input checked="" type="checkbox"/> c) Automatic timer tied to switch                            |
|   | <input type="checkbox"/> b) Automatic humidistat controller   |         | <input type="checkbox"/> d) Continuously operating exhaust fan                                   |
| 5.3   | Third-Party Performance Testing   | 1 1 0   | 1  |
| <b>6. Distribution of Space Heating and Cooling</b> |   |         |  |
| 6.1   | Room-by-Room Load Calculations  | Prereq. | Y Y  |
| 6.2   | Return Air Flow / Room-by-Room Controls ( <i>meet one of the following</i> )                                    | 1 1 0   | 1  |
|   | A. Forced-Air Systems   |         | B. Nonducted HVAC Systems  |
|   | <input checked="" type="checkbox"/> a) Return air opening of 1 sq. inch per cfm of supply                       |         | <input type="checkbox"/> Flow control valves on every radiator                                   |
|   | <input type="checkbox"/> b) Limited pressure differential between closed room and adjacent spaces               |         |  |
| 6.3   | Third-Party Performance Test / Multiple Zones ( <i>meet one of the following</i> )                              | 2 0 0   | <i>slightly low in the main room downstairs:</i> 0   |
|   | A. Forced-Air Systems   |         | B. Nonducted HVAC Systems  |
|   | <input type="checkbox"/> Have supply air flow rates in each room tested and confirmed                           |         | <input type="checkbox"/> Install at least two distinct zones with independent thermostat control |
| <b>7. Air Filtering</b>                             |   |         |  |
| 7.1   | Good Filters  | Prereq. | Y Y  |
| 7.2   | Better Filters  | 1 0 1   | 1  |
| OR  | 7.3 Best Filters  | 2 2 0   | 0  |
| <b>8. Contaminant Control</b>                       |   |         |  |
| 8.1   | Indoor Contaminant Control during Construction  | 1 1 0   | 1  |
| 8.2   | Indoor Contaminant Control ( <i>meet any of the following, 1 pt each</i> )                                      | 2 0 0   | 0  |
|   | <input type="checkbox"/> a) Design and install permanent walk-off mats at each entry                            |         | <input type="checkbox"/> c) Install central vacuum system with exhaust to outdoors               |
|   | <input type="checkbox"/> b) Design shoe removal and storage space near primary entryway                         |         |  |
| 8.3   | Preoccupancy Flush  | 1 0 1   | 1  |
| <b>9. Radon Protection</b>                          |   |         |  |
| 9.1   | Radon-Resistant Construction in High-Risk Areas   | Prereq. | N/A  |
| 9.2   | Radon-Resistant Construction in Moderate-Risk Areas   | 1 0 0   | 0  |

| <b>10. Garage Pollutant Protection</b>                               |             |  |                |   |
|--|-------------|--|----------------|---|
|  | <b>10.1</b> | No HVAC in Garage  | <i>Prereq.</i> | <b>Y</b>  |
|  | <b>10.2</b> | Minimize Pollutants from Garage ( <i>meet all of the following</i> )                       | <b>2</b>       | <b>0 0</b>  |
|  |             | a) In conditioned spaces above garage:   |                | b) In conditioned spaces next to garage   |
|  |             | <input type="checkbox"/> Seal all penetrations and connecting floor and ceiling joist bays |                | <input type="checkbox"/> Weather-strip all doors  |
|  |             | <input type="checkbox"/> Paint walls and ceilings of shared walls, including garage        |                | <input type="checkbox"/> carbon monoxide detectors in rooms that share a door with garage |
|  |             |  |                | <input type="checkbox"/> Seal all penetrations and cracks at the base of walls            |
| <b>AND/OR</b>  | <b>10.3</b> | Exhaust Fan in Garage ( <i>meet one of the following</i> )                                 | <b>1</b>       | <b>0 0</b>  |
|  |             | <input type="checkbox"/> a) Fan runs continuously  |                | <input type="checkbox"/> b) Fan designed with automatic timer control                     |
| <b>OR</b>  | <b>10.4</b> | Detached Garage or No Garage   | <b>3</b>       | <b>3 0</b>  |
| <b>Awareness &amp; Education (AE)</b> (Minimum 0 AE Points Required) |             |  | <b>Max: 3</b>  | <b>Y:1 M:1</b>  |
| <b>Final: 2</b>  |             |  |                |   |
| <b>1. Education of the Homeowner or Tenant</b>                       |             |  |                |   |
|  | <b>1.1</b>  | Basic Operations Training ( <i>meet both of the following</i> )                            | <i>Prereq.</i> | <b>Y</b>  |
|  |             | <input checked="" type="checkbox"/> a) Operations and training manual                      |                | <input checked="" type="checkbox"/> b) One-hour walkthrough with occupant(s)              |
|  | <b>1.2</b>  | Enhanced Training  | <b>1</b>       | <b>0 1</b>  |
|  |             |  |                | <b>3 hours total by builder &amp; landscape prc</b>                                       |
|  | <b>1.3</b>  | Public Awareness ( <i>meet three of the following</i> )                                    | <b>1</b>       | <b>1 0</b>  |
|  |             | <input type="checkbox"/> a) Open house on at least four weekends                           |                | <input checked="" type="checkbox"/> c) Newspaper article on the project                   |
|  |             | <input checked="" type="checkbox"/> b) Website about features and benefits of LEED homes   |                | <input type="checkbox"/> d) Display LEED signage on the exterior of the home              |
|  |             |  |                | <b>national television show</b>   |
| <b>2. Education of the Building Manager</b>                          |             |  |                |   |
|  | <b>2</b>    | Education of the Building Manager ( <i>meet both of the following</i> )                    | <b>1</b>       | <b>0 0</b>  |
|  |             | <input type="checkbox"/> a) Operations and training manual                                 |                | <input type="checkbox"/> b) One-hour walkthrough with building manager                    |

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been met for the indicated credits and will, if audited, provide the necessary supporting documents.

|                     |                  |         |                    |
|---------------------|------------------|---------|--------------------|
| Project Team Leader | <b>Rob Moody</b> | Company | <b>Ecobuilders</b> |
| Signature           |                  | Date    |                    |

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the required inspections and performance testing for the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been completed, and will provide the project documentation file, if requested.

|             |                   |         |                           |
|-------------|-------------------|---------|---------------------------|
| Green Rater | <b>Amy Musser</b> | Company | <b>Vandmusser Designs</b> |
| Signature   |                   | Date    |                           |

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the required inspections and performance testing for the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been completed, and will provide the project documentation file, if requested.

|                      |                            |         |                                   |
|----------------------|----------------------------|---------|-----------------------------------|
| Provider's Certifier | <b>LaTaunynia Campbell</b> | Company | <b>Southface Energy Institute</b> |
| Signature            |                            | Date    |                                   |



for Homes

## LEED for Homes Project Checklist

### Addendum: Prescriptive Approach for Energy and Atmosphere (EA) Credits

Points are earned by meeting both the Prescriptive (below) and the Performance paths of the LEED for Homes system.

**Max Pts. Available**    **Preliminary Rating**  
 Y / Pts    Maybe    No

**Notes**    **Project Points**

| Energy & Atmosphere (EA) (Minimum 0 EA Points Required)   | <b>Max: 38</b>  | <b>Y:22</b> | <b>M:2</b> | <b>Final: 24</b>                                 |
|---|---|-------------|------------|--|
| <b>2. Insulation</b>  |   |             |            |  |
| <b>2.1 Basic Insulation (meet both of the following)</b>  | <i>Prereq.</i>  |             |            |  |
| <input type="checkbox"/> a) Insulation meets R-value requirements of IECC                                       | <input type="checkbox"/> b) Insulation meets HERS Grade II specifications for installation      |             |            |  |
| <b>2.2 Enhanced Insulation (meet both of the following)</b>   | <b>2</b>  | <b>2</b>    | <b>0</b>   | <b>used UA overall</b>                           |
| <input type="checkbox"/> a) Insulation exceeds R-value requirements of IECC by 5%                               | <input type="checkbox"/> b) Insulation meets HERS Grade I specifications for installation       |             |            |  |
| <b>3. Air Infiltration</b>  |   |             |            |  |
| <b>3.1 Reduced Envelope Leakage</b>   | <i>Prereq.</i>  |             |            |  |
| <input type="checkbox"/> <b>3.5</b> Air leakage rate in ACH50   | <b>Y</b>  |             |            |  |
| <b>3.2 Greatly Reduced Envelope Leakage</b>   | <b>2</b>  | <b>2</b>    | <b>0</b>   | <b>2</b>   |
| <b>OR 3.3 Minimal Envelope Leakage</b>  | <b>3</b>  | <b>0</b>    | <b>0</b>   | <b>0</b>   |
| <b>4. Windows</b>   |   |             |            |  |
| <b>4.1 Good Windows (meet all of the following)</b>   | <i>Prereq.</i>  |             |            |  |
| <input checked="" type="checkbox"/> a) Windows and glass doors meet ENERGY STAR BOP window specifications       | <input type="checkbox"/> b) Skylight glazing area is ≤ 3% of floor area AND                     |             |            |  |
|   | <input type="checkbox"/> Skylights meet ENERGY STAR requirements for skylights                  |             |            |  |
| <b>4.2 Enhanced Windows</b>   | <b>2</b>  | <b>0</b>    | <b>0</b>   | <b>0</b>   |
| <b>OR 4.3 Exceptional Windows</b>   | <b>3</b>  | <b>3</b>    | <b>0</b>   | <b>3</b>   |
| <b>5. Heating and Cooling Distribution System</b>   |   |             |            |  |
| <b>5.1 Reduced Distribution Losses (meet all of the following, as appropriate)</b>                              | <i>Prereq.</i>  |             |            |  |
| <b>A. Forced-Air Systems</b>  | <b>B. Nonducted HVAC Systems</b>  |             |            |  |
| <input type="checkbox"/> a) Duct leakage of ≤ 4.0 CFM at 25 Pascals per 100 sq.ft.                              | <input type="checkbox"/> At least R-3 insulation around pipes in unconditioned spaces           |             |            |  |
| <input checked="" type="checkbox"/> b) No ducts in exterior walls unless extra insulation is added              |   |             |            |  |
| <input checked="" type="checkbox"/> c) At least R-6 insulation around ducts in unconditioned spaces             |   |             |            |  |
| <b>5.2 Greatly Reduced Distribution Losses (meet the following, as appropriate)</b>                             | <b>2</b>  | <b>0</b>    | <b>0</b>   | <b>0</b>   |
| <b>A. Forced-Air Systems</b>  | <b>B. Nonducted HVAC Systems</b>  |             |            |  |
| <input type="checkbox"/> Duct leakage of ≤ 3.0 CFM at 25 Pascals per 100 sq.ft.                                 | <input type="checkbox"/> Keep the boiler and pipes entirely within conditioned envelope         |             |            |  |
| <b>OR 5.3 Minimal Distribution Losses (meet one of the following, as appropriate)</b>                           | <b>3</b>  | <b>3</b>    | <b>0</b>   | <b>ductwork in conditioned spaces; 0.23 C. 3</b> |
| <b>A. Forced-Air Systems</b>  | <b>B. Nonducted HVAC Systems</b>  |             |            |  |
| <input type="checkbox"/> a) Duct leakage of ≤ 1.0 CFM at 25 Pascals per 100 sq.ft.                              | <input type="checkbox"/> Outdoor reset control to set distribution temp. based on outdoor temp. |             |            |  |
| <input type="checkbox"/> b) Air-handler and all ductwork is within conditioned envelope and EA 3.3 is met       |   |             |            |  |
| <input type="checkbox"/> c) Air-handler and all ductwork visibly within conditioned spaces (not in walls, etc.) |   |             |            |  |

| 6. Space Heating and Cooling Equipment |   |   |  |   |  |
|--|---|---|--|---|--|
| 6.1                                    | Good HVAC Design and Installation ( <i>meet all of the following</i> )                                  | Prereq.   |  |   | Y  |
|  | <input checked="" type="checkbox"/> a) Design and size HVAC equipment using ACCA Manual J or equivalent |   | <input type="checkbox"/> c) Install ENERGY STAR programmable thermostat OR                                   |   |  |
|  | <input checked="" type="checkbox"/> b) Install efficient heating and cooling equipment (see Table)      |   | <input checked="" type="checkbox"/> Heat pump or hydronic installed and exempted from part (c)               |   |  |
|  | <input type="text" value=""/> heat pump   | Type of HVAC  |  |   |  |
|  | <input type="text" value="16.0"/> Cooling efficiency (SEER / EER)                                       | <input type="text" value="8.35 HSPF"/> Heating Efficiency (AFUE / HSPF / COP)   |  |   |  |
| 6.2                                    | High-Efficiency HVAC  | 2   | 0  | 0 | 0  |
| OR                                     | 6.3 Very High Efficiency HVAC   | 3   | 0  | 0 | highest eff cooling = half credit 2      |
| 7. Water Heating                       |   |   |  |   |  |
| 7.1                                    | Efficient Hot Water Distribution System ( <i>meet one of the following</i> )                            | 2   | 2  | 0 | 2  |
|  | <input type="checkbox"/> a) Structured plumbing system  |   | <input checked="" type="checkbox"/> c) Compact design of conventional system                                 |   |  |
|  | <input type="checkbox"/> b) Central manifold distribution system  |   |  |   |  |
| 7.2                                    | Pipe Insulation   | 1   | 0  | 0 | 0  |
| 7.3                                    | Efficient Domestic Hot Water Equipment  | 3   | 3  | 0 | solar + back-up is instantaneous, 82% 3  |
|  | <input type="text" value=""/> Solar w / preheat tank  | Type of DHW system  |  |   |  |
|  | <input type="text" value=""/> Efficiency  | <input type="text" value="40.0"/> Solar: Percentage of annual DHW load          |  |   |  |
| 8. Lighting                            |   |   |  |   |  |
| 8.1                                    | ENERGY STAR Lights  | Prereq.   |  |   |  |
| 8.2                                    | Improved Lighting ( <i>meet one of the following, see Rating System for pts</i> )                       | 1.5   | 0  | 0 | 0  |
|  | <input type="checkbox"/> a) Indoor lighting - 3 additional ENERGY STAR lights in high-use rooms         |   | <input type="checkbox"/> b) Exterior lighting - motion sensor controls or integrated PV                      |   |  |
| OR                                     | 8.3 Advanced Lighting Package ( <i>meet one of the following</i> )                                      | 3   | 3  | 0 | 3  |
|  | <input type="checkbox"/> a) 60% of fixtures are ENERGY STAR fixtures                                    |   | <input checked="" type="checkbox"/> b) 80% of lamps are ENERGY STAR CFLs                                     |   |  |
| 9. Appliances                          |   |   |  |   |  |
| 9.1                                    | High-Efficiency Appliances ( <i>meet any, see Rating System for pts</i> )                               | 2   | 2  | 0 | frigidaire ES dishwasher 3.8 gal/cycle 2 |
|  | <input checked="" type="checkbox"/> a) ENERGY STAR labeled refrigerator                                 |   | <input checked="" type="checkbox"/> c) ENERGY STAR labeled dishwasher using 6.0 gallons per cycle or less    |   |  |
|  | <input type="checkbox"/> b) ENERGY STAR labeled ceiling fans in living/family room and all bedrooms     |   | <input checked="" type="checkbox"/> d) ENERGY STAR clothes washer  |   |  |
| 9.2                                    | Water-Efficiency Clothes Washer   | 1   | 1  | 0 | Kenmore 4996 - MEF 2.13; WF 4.49 1       |
| 10. Renewable Energy                   |   |   |  |   |  |
| 10                                     | Renewable Energy System   | 10  | 0  | 0 | 0.0                                      |
|  | <input type="text" value="0"/> Reference electric load, kWh/yr (based on HERS model)                    | <input type="text" value="0"/> Electricity supplied by renewable system, kWh/yr |  |   |  |
|  | <input type="text" value="0.0%"/> Percentage of annual reference electric load met by renewable system  |   |  |   |  |
| 11. Residential Refrigerant Management |   |   |  |   |  |
| 11.1                                   | Refrigerant Charge Test   | Prereq.   |  |   |  |
| 11.2                                   | Appropriate HVAC Refrigerants ( <i>meet one of the following</i> )                                      | 1   | 1  | 0 | 1  |
|  | <input type="checkbox"/> a) Use no refrigerants   |   | <input checked="" type="checkbox"/> c) Use refrigerants that complies with global warming potential equation |   |  |
|  | <input type="checkbox"/> b) Use non-HCFC refrigerants   |   |  |   |  |