



for Homes

LEED for Homes Project Checklist

Builder Name:	Paul Abueva
Project Team Leader:	Paul Abueva, Abueva Builders LLC
Home Address (Street/City/State):	1672 Sandy Cove Dr, Comstock, MI

Project Description

Building Type: **Single detached**
 # of Bedrooms: **4**

Project type: **Custom**
 Floor Area: **2,182**

Adjusted Certification Thresholds

Certified: **40.5** Gold: **70.5**
 Silver: **55.5** Platinum: **85.5**

Project Point Total		Final Credit Category Point Totals			
Prelim: 0 + 0 maybe pts	Final: 78.5	ID: 4	SS: 6	EA: 26	EQ: 17
Certification Level		LL: 6	WE: 3	MR: 14.5	AE: 2
Prelim: Not Certified	Final: Gold				
Date Most Recently Updated:		Updated by:			

☞ Indicates that an Accountability Form is required.

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

Innovation & Design Process (ID) (Minimum 0 ID Points Required)	Max: 11	Y:0	M:0	Notes	Final: 4
1. Integrated Project Planning					
1.1 Preliminary Rating	<i>Prereq.</i>				Y
Target performance tier:	Gold				
1.2 Integrated Project Team (<i>meet all of the following</i>)	1	0	0		0
<input type="checkbox"/> a) Individuals or organizations with necessary capabilities	<input type="checkbox"/> c) Regular meetings held with project team				
<input type="checkbox"/> b) All team members involved in various project phases					
1.3 Professional Credentialed with Respect to LEED for Homes	1	0	0	<i>please see ID 01-06 for details</i>	0
1.4 Design Charrette	1	0	0		0
1.5 Building Orientation for Solar Design (<i>meet all of the following</i>)	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				
2. Quality Management for Durability					
2.1 Durability Planning (<i>meet all of the following</i>)	<i>Prereq.</i>				Y

- a) Durability evaluation completed
- b) Strategies developed to address durability issues
- c-i) Nonpaper-faced backer board in tub, shower, spa areas
- c-ii) No carpet in kitchen, bathroom, laundry, and spa areas
- c-iii) No carpet within 3 ft of each entryway
- c-iv) Install drain and drain pans in tank water heaters in/over living spaces; OR
- no tank water heaters in/over living spaces

- c-v) Install drain and drain pans for clothes washers in/over living spaces; OR
- no clothes washers in/over living spaces
- c-vi) Exhaust conventional clothes dryers directly to outdoors
- c-vii) Install drain and drain pan for condensing clothes dryers
- d) Durability strategies incorporated into project documentation
- e) Durability measures listed in durability inspection checklist

2.2 Durability Management (meet one of the following)		Prereq.			Y	
<input type="checkbox"/> Builder has a quality management process in place		<input type="checkbox"/> Builder conducted inspection using durability inspection checklist				
2.3	Third-Party Durability Management Verification	3	0	0	3	
3. Innovative or Regional Design						
3.1	<input checked="" type="checkbox"/> Innovation 1 (ruling #): Exemplary Performance MR 1.4	1	0	0	1	
3.2	<input type="checkbox"/> Innovation 2 (ruling #):	1	0	0	0	
3.3	<input type="checkbox"/> Innovation 3 (ruling #):	1	0	0	0	
3.4	<input type="checkbox"/> Innovation 4 (ruling #):	1	0	0	0	
Location & Linkages (LL) (Minimum 0 LL Points Required)		Max: 10	Y:0	M:0	Notes	Final: 6
1. LEED for Neighborhood Development						
1	LEED for Neighborhood Development	10	0	0	0	
2. Site Selection						
2	<input checked="" type="checkbox"/> Site Selection (meet all of the following)	2	0	0	2	
<input 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						
3. Preferred Locations						
3.1	Edge Development	1	0	0	1	
OR	3.2 Infill	2	0	0	0	
AND/OR	3.3 Previously Developed	1	0	0	0	
4. Infrastructure						
4	Existing Infrastructure	1	0	0	1	
5. Community Resources / Transit						
5.1	<input checked="" type="checkbox"/> Basic Community Resources / Transit (meet one of the following)	1	0	0	1	
<input checked="" 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 (meet one of the following)	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 (meet one of the following)	3	0	0	0	
<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 type="checkbox"/> b) Within 1/2 mile of 14 basic community resources						
6. Access to Open Space						
6	Access to Open Space	1	0	0	1	

Sustainable Sites (SS) (Minimum 5 SS Points Required)		Max: 22	Y:0	M:0	Notes	Final: 6
1. Site Stewardship						
1.1	Erosion Controls During Construction (<i>meet all of the following</i>)				<i>Prereq.</i>	Y
	<input type="checkbox"/> a) Stockpile and protect disturbed topsoil from erosion.				<input type="checkbox"/> d) Provide swales to divert surface water from hillsides	
	<input type="checkbox"/> b) Control the path and velocity of runoff with silt fencing or equivalent.				<input type="checkbox"/> e) Use tiers, erosion blankets, compost blankets, etc. on sloped areas.	
	<input type="checkbox"/> c) Protect sewer inlets, streams, and lakes with straw bales, silt fencing, etc.					
1.2	Minimize Disturbed Area of Site (<i>meet the appropriate requirements</i>)	1	0	0		1
	Where the site is not previously developed, meet all the following:					
	<input type="checkbox"/> a) Develop tree / plant preservation plan with "no-disturbance" zones					
	<input type="checkbox"/> b) Leave 40% of buildable lot area, not including area under roof, undisturbed					
	OR Where the site is previously developed, meet all the following:					
	<input type="checkbox"/> c) Develop tree / plant preservation plan with "no-disturbance" zones AND					
	<input type="checkbox"/> Rehabilitate lot; undo soil compaction and remove invasive plants AND					
	<input type="checkbox"/> Meet the requirements of SS 2.2					
	OR <input type="checkbox"/> d) Build on a lot of 1/7 acre or less, or 7 units per acre.					
2. Landscaping						
2.1	<input checked="" type="checkbox"/> No Invasive Plants				<i>Prereq.</i>	Y
2.2	<input checked="" type="checkbox"/> Basic Landscaping Design (<i>meet all of the following</i>)	2	0	0		2
	<input type="checkbox"/> a) Any turf must be drought-tolerant.				<input type="checkbox"/> d) Add mulch or soil amendments as appropriate.	
	<input type="checkbox"/> b) Do not use turf in densely shaded areas.				<input type="checkbox"/> e) All compacted soil must be tilled to at least 6 inches.	
	<input type="checkbox"/> c) Do not use turf in areas with slope of 25%					
AND/OR	2.3 <input checked="" type="checkbox"/> Limit Conventional Turf	3	0	0		0
	<input type="text"/> Percentage of designed landscape softscape area that is turf					
AND/OR	2.4 <input checked="" type="checkbox"/> Drought-Tolerant Plants	2	0	0		0
	<input type="text"/> Percentage of installed plants that are drought-tolerant					
OR	2.5 <input checked="" type="checkbox"/> Reduce Overall Irrigation Demand by at Least 20%	6	0	0		0
	<input type="text"/> Percentage reduction in estimated irrigation water demand				<i>(calculate)</i>	
3. Reduce Local Heat Island Effects						
3	<input checked="" type="checkbox"/> Reduce Local Heat Island Effects (<i>meet one of the following</i>)	1	0	0		1
	<input type="checkbox"/> a) Locate trees / plantings to provide shade for 50% of hardscapes				<input type="checkbox"/> b) Install light-colored, high-albedo materials for 50% of sidewalks, patios, and driveways	

4. Surface Water Management						
4.1 <input checked="" type="checkbox"/> Permeable Lot		4	0	0		0
<input type="checkbox"/> vegetative landscape						
<input type="checkbox"/> permeable paving						
<input type="checkbox"/> impermeable surfaces directed to infiltration features						
<input type="checkbox"/> other impermeable surfaces (areas not counted towards credit)						
4.2 Permanent Erosion Controls (<i>meet one of the following</i>)		1	0	0		0
<input type="checkbox"/> a) For portions of lot on steep slope, use terracing and retaining walls		<input type="checkbox"/> b) Plant trees, shrubs, or groundcover				
4.3 <input checked="" type="checkbox"/> Management of Runoff from Roof (<i>meet any, see Rating System for pts</i>)		2	0	0		0
<input 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				
5. Nontoxic Pest Control						
5 Pest Control Alternatives (<i>meet any of the following, 1/2 pt each</i>)		2	0	0		2
<input type="checkbox"/> a) Keep all exterior wood at least 12" above soil		e) In 'moderate' to 'very heavy' termite risk areas:				
<input type="checkbox"/> b) Seal external cracks, joints, etc. with caulking and install pest-proof screens		<input type="checkbox"/> i) Treat all cellulosic material with borate product to 3' above foundation				
<input 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 type="checkbox"/> vi) Use solid concrete foundation walls or pest-proof masonry wall design				
6. Compact Development						
6.1 Moderate Density		2	0	0		0
<input type="checkbox"/> # of total units on the lot		<input type="checkbox"/> lot size (acres)		<input type="text" value="N/A"/> density (units/acre)		
OR	6.2 High Density	3	0	0		0
OR	6.3 Very High Density	4	0	0		0
Water Efficiency (WE) (Minimum 3 WE Points Required)		Max: 15	Y:0	M:0	Notes	Final: 3
1. Water Reuse						
1.1 Rainwater Harvesting System		4	0	0		0
<input type="text"/> Percentage of roof area used for harvesting						
<input type="text"/> Application						
AND/OR	1.2 Graywater Reuse System	1	0	0		0
OR	1.3 Use of Municipal Recycled Water System	3	0	0		0

2. Irrigation System			
2.1	≥ High-Efficiency Irrigation System (meet any of the following, 1 pt each)	3	0 0 0
	<input type="checkbox"/> a) Irrigation system designed by EPA Water Sense certified professional <input type="checkbox"/> b) Irrigation system with head-to-head coverage <input type="checkbox"/> c) Install central shut-off valve <input type="checkbox"/> d) Install submeter for the irrigation system <input type="checkbox"/> e) Use drip irrigation for 50% of planting beds <input type="checkbox"/> f) Create separate zones for each type of bedding	<input type="checkbox"/> g) Install timer or controller for each watering zone <input type="checkbox"/> h) Install pressure-regulating devices <input type="checkbox"/> i) High-efficiency nozzles with distribution uniformity of at least 0.70. <input type="checkbox"/> j) Install check valves in heads <input type="checkbox"/> k) Install moisture sensor or rain delay controller	
AND/OR	2.2 Third-party Inspection	1	0 0 0
OR	2.3 ≥ Reduce Overall Irrigation Demand by at Least 45%	4	0 0 0
	<input type="text"/> Percentage reduction in estimated irrigation water demand		(calculate)
3. Indoor Water Use			
3.1	High-Efficiency Fixtures and Fittings (meet any of the following, 1 pt each)	3	0 0 1
	<input type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 2.00 gpm <input type="checkbox"/> b) Average flow rate for all showers is ≤ 2.00 gpm per stall	<input type="checkbox"/> c) Average flow rate for all toilets is ≤ 1.30 gpf; OR <input type="checkbox"/> Toilets are dual-flush; OR <input type="checkbox"/> Toilets meet the EPA Water Sense specification	
3.2	Very High-Efficiency Fixtures and Fittings (meet any, 2 pts each)	6	0 0 2
	<input type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 1.50 gpm; OR <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 <input type="checkbox"/> c) Average flow rate for all toilets is ≤ 1.10 gpf	
Energy & Atmosphere (EA) (Minimum 0 EA Points Required)		Max: 38	Y:0 M:0
			Notes
			Final: 26
1. Optimize Energy Performance			
1.1	Performance of ENERGY STAR for Homes	Prereq.	Y
1.2	Exceptional Energy Performance	34	0 0 0
	<input type="text"/> IECC climate zone	<input type="text"/> HERS Index	
7. Water Heating			
7.1	≥ Efficient Hot Water Distribution System (meet one of the following)	2	0 0 0
	<input type="checkbox"/> a) Structured plumbing system <input type="checkbox"/> b) Central manifold distribution system	<input 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
11.2	Appropriate HVAC Refrigerants (meet one of the following)	1	0 0 0
	<input type="checkbox"/> a) Use no refrigerants <input type="checkbox"/> b) Use non-HCFC refrigerants	<input type="checkbox"/> c) Use refrigerants that complies with global warming potential equation	

Materials & Resources (MR) (Minimum 2 MR Points Required)

Max: 16 Y:0 M:0

Notes

Final: 14.5

1. Material-Efficient Framing

	1.1	Framing Order Waste Factor	<i>Prereq.</i>			Y
	1.2	Detailed Framing Documents	1	0	0	1
AND/OR	1.3	Detailed Cut List and Lumber Order	1	0	0	1
		<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 (<i>meet any of the following, see Rating System for pts</i>)	3	0	0	3
		<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 checked="" type="checkbox"/> Floor joist spacing greater than 16" on center			
		<input type="checkbox"/> Structural insulated panel roof	<input checked="" type="checkbox"/> Roof rafter spacing greater than 16" on center			
		<input type="checkbox"/> Structural insulated panel floors	<input checked="" type="checkbox"/> Two of the following: Size headers for loads; ladder blocking; drywall clips; 2-stud corners			
OR	1.5	Off-site Fabrication (<i>meet one of the following</i>)	4	0	0	0
		<input type="checkbox"/> a) Panelized construction	<input type="checkbox"/> b) Modular, prefabricated construction			

2. Environmentally Preferable Products

	2.1	≥ FSC Certified Tropical Wood (<i>meet all of the following</i>)	<i>Prereq.</i>			
		<input type="checkbox"/> a) Provide suppliers with a notice of preference for FSC products; AND <input type="checkbox"/> Request country of manufacture for each wood product	<input type="checkbox"/> b) No tropical wood installed (exceptions for FSC-certified or reclaimed wood)			
	2.2	≥ Environmentally Preferable Products (<i>meet any, 1/2 pt each</i>)	8	0	0	7

Assembly : component	(a) EPP	(b) Low emission	(c) Local production
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: <u>Chelsea Plank - FSC certified</u>	<input type="checkbox"/> (45%)
Floor: flooring	<input checked="" type="checkbox"/> (90%)	type: <u>Shaw carpet - C2C certified</u>	<input type="checkbox"/> (90%)
Floor: flooring	<input type="checkbox"/>	<input checked="" type="checkbox"/> Green Label Plus	<input type="checkbox"/>
Floor: framing	<input type="checkbox"/>	type: <u>Canfor - FSC certified</u>	<input type="checkbox"/>
Foundation: aggregate	<input type="checkbox"/>	type: _____	<input checked="" type="checkbox"/>
Foundation: cement	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Interior wall: framing	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Interior wall, ceiling: gypsum board	<input checked="" type="checkbox"/>	type: <u>Recycle Content</u>	<input checked="" type="checkbox"/>
Interior wall, ceiling, millwork: paint	<input type="checkbox"/>	type: _____	<input type="checkbox"/> type: <u>Low VOC</u>
Landscape: decking and patio	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Other: cabinet	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Other: counter	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Other: door	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Other : interior trim	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Other : adhesive, sealant	<input type="checkbox"/>	<input checked="" type="checkbox"/> type: <u>Low VOC</u>	<input type="checkbox"/>
Other : window frame	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Roof: framing	<input checked="" type="checkbox"/>	type: <u>Canfor - FSC certified</u>	<input type="checkbox"/>
Roof: roofing	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Roof, floor, wall: cavity insulation	<input checked="" type="checkbox"/>	type: <u>Recycle Content</u>	<input type="checkbox"/>
Roof, floor, wall (2 of 3): sheathing	<input type="checkbox"/>	type: _____	<input type="checkbox"/>
Other: water supply piping	<input checked="" type="checkbox"/>	type: <u>PEX</u>	<input type="checkbox"/>
Other: driveway	<input type="checkbox"/>	type: _____	<input type="checkbox"/>

3. Waste Management					
3.1	Construction Waste Management Planning (<i>meet both of the following</i>)	<i>Prereq.</i>			Y
	<input type="checkbox"/> a) Investigate local options for waste diversion			<input type="checkbox"/> b) Document diversion rate for construction waste	
3.2	Construction Waste Reduction (<i>use one of the following methods</i>)	3	0	0	2.5
	<input type="text"/> a) pounds waste / square foot				
	<input type="text" value="5.7"/> cubic yards waste / 1,000 square feet				
	<input type="text"/> b) percentage of waste diverted				
Indoor Environmental Quality (EQ) (Minimum 6 EQ Points Required)		Max: 21	Y:0	M:0	Notes
					Final: 17
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>)	<i>Prereq.</i>			
	<input type="checkbox"/> a) no unvented combustion appliances			<input type="checkbox"/> d) space, water heating equipment designed with closed combustion; OR	
	<input type="checkbox"/> b) carbon monoxide monitors on each floor (of each unit, if applicable)			<input type="checkbox"/> space and water heating equipment has power-vented exhaust; OR	
	<input type="checkbox"/> c) no fireplace installed, OR			<input type="checkbox"/> space and water heating equipment located in detached or open-air facility; OR	
	<input type="checkbox"/> all fireplaces and woodstoves have doors			<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	0	0	2
	Type of Fireplace or stove	Better practice (1 pt)	Best practice (2 pts) <i>(must also meet Better Practice)</i>		
	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 type="checkbox"/> listed, power- or direct-vented, fixed doors	<input type="checkbox"/> electronic pilot		
	Pellet 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	1
	<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	<input checked="" type="checkbox"/> Basic Outdoor Air Ventilation (<i>meet one of the following</i>)	<i>Prereq.</i>			Y
	<input type="checkbox"/> a) Qualifies under ASHRAE Std. 62.2-2007 climate exemption.			<input type="checkbox"/> c) Intermittent ventilation	
	<input type="checkbox"/> b) Continuous ventilation			<input type="checkbox"/> d) Passive ventilation	
4.2	<input checked="" type="checkbox"/> Enhanced Outdoor Air Ventilation (<i>meet one of the following</i>)	2	0	0	2
	<input type="checkbox"/> a) Meets EQ 4.1 part (a), active ventilation system installed			<input type="checkbox"/> b) Install heat recovery system	
4.3	Third-Party Performance Testing	1	0	0	1

5. Local Exhaust						
5.1	<input checked="" type="checkbox"/>	Basic Local Exhaust (meet all of the following)	Prereq.			Y
	<input 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 type="checkbox"/>	b) Fans and ducts designed and installed to ASHRAE Std. 62.2	<input type="checkbox"/>	d) ENERGY STAR labeled bathroom exhaust fans		
5.2		Enhanced Local Exhaust (meet one of the following)	1	0	0	1
	<input type="checkbox"/>	a) Occupancy sensor	<input type="checkbox"/>	c) Automatic timer tied to switch to operate fan for 20+ minutes post-occupancy		
	<input type="checkbox"/>	b) Automatic humidistat controller	<input type="checkbox"/>	d) Continuously operating exhaust fan		
5.3		Third-Party Performance Testing	1	0	0	1
6. Distribution of Space Heating and Cooling						
6.1	<input checked="" type="checkbox"/>	Room-by-Room Load Calculations	Prereq.			Y
6.2		Return Air Flow / Room-by-Room Controls (meet one of the following)	1	0	0	0
		A. Forced-Air Systems		B. Nonducted HVAC Systems		
	<input type="checkbox"/>	a) Return air opening of 1 sq. inch per cfm of supply	<input type="checkbox"/>	Flow control valves on every radiator; OR		
	<input type="checkbox"/>	b) Limited pressure differential between closed room and adjacent spaces	<input type="checkbox"/>	Radiant floor system with thermostatic controls in every room		
6.3		Third-Party Performance Test / Multiple Zones (meet one of the following)	2	0	0	2
		A. Forced-Air Systems		B. Nonducted HVAC Systems		
	<input type="checkbox"/>	Have supply air flow rates in each room tested and confirmed	<input checked="" type="checkbox"/>	Install at least two distinct zones with independent thermostat control		
7. Air Filtering						
7.1		Good Filters	Prereq.			Y
7.2		Better Filters	1	0	0	1
				MERV 12 ERV		
OR	7.3	Best Filters	2	0	0	0
8. Contaminant Control						
8.1	<input checked="" type="checkbox"/>	Indoor Contaminant Control during Construction	1	0	0	1
8.2		Indoor Contaminant Control (meet any of the following, 1 pt each)	2	0	0	1
	<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 checked="" type="checkbox"/>	b) Design shoe removal and storage space near primary entryway				
8.3	<input checked="" type="checkbox"/>	Preoccupancy Flush	1	0	0	1
9. Radon Protection						
9.1	<input checked="" type="checkbox"/>	Radon-Resistant Construction in High-Risk Areas	Prereq.			Y
				EPA Radon Zone 1		
9.2	<input checked="" type="checkbox"/>	Radon-Resistant Construction in Moderate-Risk Areas	1	0	0	0

10. Garage Pollutant Protection						
	10.1 No HVAC in Garage	<i>Prereq.</i>				Y
	10.2 Minimize Pollutants from Garage (meet all of the following)	2	0	0		0
	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"/> Carbon monoxide detectors in rooms that share a door with garage	
					<input type="checkbox"/> Seal all penetrations and cracks at the base of walls	
AND/OR	10.3 Exhaust Fan in Garage (meet one of the following)	1	0	0		0
	<input type="checkbox"/> a) Fan runs continuously				<input type="checkbox"/> b) Fan designed with automatic timer control	
OR	10.4 Detached Garage or No Garage	3	0	0	<i>Detached</i>	3
Awareness & Education (AE) (Minimum 0 AE Points Required)		Max: 3	Y:0	M:0	Notes	Final: 2
1. Education of the Homeowner or Tenant						
	1.1 ✓ Basic Operations Training (<i>meet both of the following</i>)	<i>Prereq.</i>				Y
	<input type="checkbox"/> a) Operations and training manual				<input checked="" type="checkbox"/> b) One-hour walkthrough with occupant(s)	
	1.2 ✓ Enhanced Training	1	0	0		1
	1.3 Public Awareness (<i>meet three of the following</i>)	1	0	0		1
	<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 checked="" type="checkbox"/> d) Display LEED signage on the exterior of the home	
2. Education of the Building Manager						
	2 ✓ Education of the Building Manager (<i>meet both of the following</i>)	1	0	0		0
	<input type="checkbox"/> a) Operations and training manual				<input type="checkbox"/> b) One-hour walkthrough with building manager	

USGBC LEGAL DISCLAIMER

USGBC makes no warranty with respect to any LEED certified project, including any warranty of habitability, merchantability, or fitness for a particular purpose. There are no warranties, express or implied, written or oral, statutory or otherwise, with respect to the certifications provided by USGBC. By way of example only, and without limiting the broad scope of the foregoing, it is understood that LEED certification, whether at the Certified level or any other level, does not mean that the project is structurally sound or safe, constructed in accordance with applicable laws, regulations or codes, free of mold or mildew, free of volatile organic compounds or allergens, or free of soil gases including radon.

SIGNATURES BY RESPONSIBLE PARTIES

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	Paul Abueva	Company	Abueva Builders LLC
Signature		Date	4/14/2016

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. I have evaluated this project's documentation package and conducted the necessary QA/QC procedures with the Green Rater, and I hereby declare and affirm to USGBC that the homes included in this submittal are ready to earn LEED for Homes certification, as per the attached checklist.

Provider QAD	Jason LaFluer	Company	Green Home Institute
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.

I also hereby confirm that all verification services were performed in accordance with the LEED for Homes [Verification & Submittal Guidelines and Addendum](#).

Green Rater	Michael Holcomb	Company	Home Inspector General
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.

I also hereby confirm that all verification services were performed in accordance with the LEED for Homes [Verification & Submittal Guidelines and Addendum](#).

Green Rater		Company	
Signature		Date	

LEED for Homes Project Checklist

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

Points cannot be earned in both the Prescriptive (below) and the Performance paths of the EA section.

	Max Pts. Available	Preliminary Rating			Notes	Project Points
		Y / Pts	Maybe	No		
Energy & Atmosphere (EA) (Minimum 0 EA Points Required)	Max: 38	Y:0	M:0		Notes	Final: 26
2. Insulation						
2.1 Basic Insulation (<i>meet both of the following</i>)	<i>Prereq.</i>					Y
<input type="checkbox"/> a) Insulation meets R-value requirements of IECC				<input checked="" type="checkbox"/> b) Insulation meets HERS Grade II specifications for installation		
2.2 Enhanced Insulation (<i>meet both of the following</i>)	2	0	0			2
<input checked="" type="checkbox"/> a) Insulation exceeds R-value requirements of IECC by 5%				<input checked="" type="checkbox"/> b) Insulation meets HERS Grade I specifications for installation		
3. Air Infiltration						
3.1 Reduced Envelope Leakage	<i>Prereq.</i>					Y
<input type="checkbox"/> Air leakage rate in ACH50						
3.2 Greatly Reduced Envelope Leakage	2	0	0			0
OR 3.3 Minimal Envelope Leakage	3	0	0			3
4. Windows						
4.1 Good Windows (<i>meet all of the following</i>)	<i>Prereq.</i>					Y
<input type="checkbox"/> a) Windows and glass doors meet ENERGY STAR BOP window specifications				<input checked="" type="checkbox"/> b) Skylight glazing area is ≤ 3% of floor area AND <input checked="" type="checkbox"/> Skylights meet ENERGY STAR requirements for skylights		
4.2 Enhanced Windows	2	0	0			0
OR 4.3 Exceptional Windows	3	0	0			3
5. Heating and Cooling Distribution System						
5.1 Reduced Distribution Losses (<i>meet all of the following, as appropriate</i>)	<i>Prereq.</i>					Y
A. Forced-Air Systems				B. Nonducted HVAC Systems		
<input type="checkbox"/> a) Duct leakage of ≤ 4.0 CFM at 25 Pascals per 100 sq.ft.				<input checked="" type="checkbox"/> At least R-3 insulation around pipes in unconditioned spaces		
<input type="checkbox"/> b) No ducts in exterior walls unless extra insulation is added						
<input type="checkbox"/> c) At least R-6 insulation around ducts in unconditioned spaces						
5.2 Greatly Reduced Distribution Losses (<i>meet the following, as appropriate</i>)	2	0	0			0
A. Forced-Air Systems				B. Nonducted HVAC Systems		
<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		
OR 5.3 Minimal Distribution Losses (<i>meet one of the following, as appropriate</i>)	3	0	0			3
A. Forced-Air Systems				B. Nonducted HVAC Systems		
<input type="checkbox"/> a) Duct leakage of ≤ 1.0 CFM at 25 Pascals per 100 sq.ft.				<input checked="" 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	<input checked="" type="checkbox"/> Good HVAC Design and Installation (<i>meet all of the following</i>)	<i>Prereq.</i>		Y
	<input 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 type="checkbox"/> b) Install efficient heating AND cooling equipment (see Table)	<input type="checkbox"/> Heat pump or hydronic installed and exempted from part (c)		
	<input type="text" value="Mini-split"/> Type of cooling system	<input type="text" value="Mini-split - Boiler"/> Type of heating system		
	<input type="text" value="21 SEER"/> Cooling efficiency (SEER / EER)	<input type="text" value="12 HSPF - 96%"/> Heating Efficiency (AFUE / HSPF / COP)		
6.2	High-Efficiency HVAC	2	0	0
OR	6.3 Very High Efficiency HVAC	4	0	0
7. Water Heating				
7.1	<input checked="" type="checkbox"/> Efficient Hot Water Distribution System (<i>meet one of the following</i>)	2	0	0
	<input type="checkbox"/> a) Structured plumbing system	<input type="checkbox"/> c) Compact design of conventional system		
	<input type="checkbox"/> b) Central manifold distribution system			
7.2	Pipe Insulation	1	0	0
7.3	Efficient Domestic Hot Water Equipment	3	0	0
	<input type="text" value="Gas, storage, 50 gal."/> Type of DHW system			
	<input type="text" value="1.0"/> Efficiency	<input type="text"/>	Solar: Percentage of annual DHW load	
8. Lighting				
8.1	ENERGY STAR Lights	<i>Prereq.</i>		Y
8.2	Improved Lighting (<i>meet one of the following, see Rating System for pts</i>)	1.5	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	0	0
	<input type="checkbox"/> a) 60% of fixtures are ENERGY STAR fixtures	<input 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	0	0
	<input type="checkbox"/> a) ENERGY STAR labeled refrigerator	<input 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 type="checkbox"/> d) ENERGY STAR clothes washer		
9.2	Water-Efficiency Clothes Washer	1	0	0
10. Renewable Energy				
10	<input checked="" type="checkbox"/> Renewable Energy System	10	0	0
	<input type="text"/> Reference electric load, kWh/yr (based on HERS model)	<input type="text"/> 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	<i>Prereq.</i>		Y
11.2	Appropriate HVAC Refrigerants (<i>meet one of the following</i>)	1	0	0
	<input type="checkbox"/> a) Use no refrigerants	<input type="checkbox"/> c) Use refrigerants that complies with global warming potential equation		
	<input type="checkbox"/> b) Use non-HCFC refrigerants			