



for Homes

# LEED for Homes Project Checklist

Builder Name:	Foulger Pratt
Project Team Leader:	Matt Hopkins, StreetSense
Home Address (Street/City/State):	East Campus, College Park, MD

**Project Description**

Building Type: **Multi-family**  
# of Units: **836**

Project type: **Custom**  
Avg. Home Size Adjustment: **-10**

**Adjusted Certification Thresholds**

Certified: **35.0** Gold: **65.0**  
Silver: **50.0** Platinum: **80.0**

<b>Project Point Total</b> Prelim: 53 + 2 maybe pts Final: 53	<b>Final Credit Category Point Totals</b> ID: 4 SS: 14 EA: 10 EQ: 5 LL: 9 WE: 5 MR: 3 AE: 3 <i>Min. Point Thresholds Not Met for Prelim. OR Final Rating</i>
<b>Certification Level</b> Prelim: Silver Final: Not Certified	

Notes:

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

Max Pts. Available	Preliminary Rating Y / Pts	Maybe	No	Notes	Project Points
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**Innovation & Design Process (ID)** (Minimum 0 ID Points Required) **Max: 11 Y:4 M:0 Final: 4**

<b>1. Integrated Project Planning</b>					
1.1 Preliminary Rating	Prereq.	<b>Y</b>			
Target performance tier: <input type="text" value="Silver"/>					
1.2 Integrated Project Team (meet all of the following)	1	<b>1</b>	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	<b>1</b>	0		1
1.4 Design Charrette	1	<b>1</b>	0		1
1.5 Building Orientation for Solar Design (meet all of the following)	1	0	0	N	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.	<b>Y</b>		\$	
<input type="checkbox"/> a) Durability evaluation completed				<input type="checkbox"/> d) Durability strategies incorporated into project documentation	
<input type="checkbox"/> b) Strategies developed to address durability issues				<input type="checkbox"/> e) Durability measures listed in durability inspection checklist	
<input type="checkbox"/> c) Moisture control measures from Table 1 incorporated					
2.2 Durability Management (meet one of the following)	Prereq.	<b>Y</b>		\$	
<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		0
<b>3. Innovative or Regional Design</b>					
3.1 Innovation 1 (ruling #):	<b>&gt;90% covered/underground parkin</b>	1	<b>1</b>	0	1
3.2 Innovation 2 (ruling #):		1	0	0	0
3.3 Innovation 3 (ruling #):		1	0	0	0
3.4 Innovation 4 (ruling #):		1	0	0	0

**Location & Linkages (LL)** (Minimum 0 LL Points Required) **Max: 10 Y:9 M:2 Final: 9**

<b>1. LEED for Neighborhood Development</b>					
1 LEED for Neighborhood Development	10	0	0		0
<b>2. Site Selection</b>					
2 Site Selection (meet all of the following)	2	<b>2</b>	0	100' of wetland??PB=>100'	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	<b>1</b>	0		1
OR 3.2 Infill	2	0	2		0
AND/OR 3.3 Previously Developed	1	<b>1</b>	0		1
<b>4. Infrastructure</b>					
4 Existing Infrastructure	1	<b>1</b>	0		1
<b>5. Community Resources / Transit</b>					
5.1 Basic Community Resources / Transit (meet one of the following)	1	0	0		0
<input checked="" type="checkbox"/> a) Within 1/4 mile of 4 basic community resources				<input checked="" type="checkbox"/> c) Within 1/2 mile of transit services providing 30 rides per weekday	
<input checked="" 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 checked="" type="checkbox"/> a) Within 1/4 mile of 7 basic community resources				<input checked="" type="checkbox"/> c) Within 1/2 mile of transit services providing 60 rides per weekday	
<input checked="" 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	<b>3</b>	0		3
<input checked="" type="checkbox"/> a) Within 1/4 mile of 11 basic community resources				<input checked="" 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	<b>1</b>	0		1

**Sustainable Sites (SS)** (Minimum 5 SS Points Required) **Max: 22 Y:14 M:0 Final: 14**

<b>1. Site Stewardship</b>					
1.1 Erosion Controls During Construction (meet all of the following)	Prereq.	<b>Y</b>			
<input checked="" type="checkbox"/> a) Stockpile and protect disturbed topsoil from erosion.				<input checked="" type="checkbox"/> d) Provide swales to divert surface water from hillsides	
<input checked="" type="checkbox"/> b) Control the path and velocity of runoff with silt fencing or equivalent.				<input checked="" type="checkbox"/> e) Use tiers, erosion blankets, compost blankets, etc. on sloped areas.	
<input checked="" type="checkbox"/> c) Protect sewer inlets, streams, and lakes with straw bales, silt fencing, etc.					
1.2 Minimize Disturbed Area of Site (meet the appropriate requirements)	1	<b>1</b>	0	>45u/a	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  d) Build on a lot of 1/7 acre or less, or 7 units per acre.

**2. Landscaping**

2.1	No Invasive Plants	Prereq.	<b>Y</b>		
2.2	Basic Landscaping Design ( <i>meet all of the following</i> )	2	<b>2</b>	0	2
	<input checked="" type="checkbox"/> a) Any turf must be drought-tolerant.				
	<input checked="" type="checkbox"/> b) Do not use turf in densely shaded areas.				
	<input checked="" type="checkbox"/> c) Do not use turf in areas with slope of 25%				
	<input checked="" type="checkbox"/> d) Add mulch or soil amendments as appropriate.				
	<input checked="" type="checkbox"/> e) All compacted soil must be filled to at least 6 inches.				
AND/OR	2.3 Limit Conventional Turf	3	<b>3</b>	0	3
	<input type="text" value="20%"/> Percentage of landscape area that is turf				
AND/OR	2.4 Drought-Tolerant Plants	2	<b>1</b>	0	1
	<input type="text" value="50%"/> Percentage of installed plants that are drought-tolerant				
OR	2.5 Reduce Overall Irrigation Demand by at Least 20%	6	0	0	6
	<input type="text" value="95%"/> 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	<b>1</b>	0	<i>?do streets count or just drives and sid</i>	1
	<input type="checkbox"/> a) Locate trees / plantings to provide shade for 50% of hardscapes					
	<input checked="" type="checkbox"/> b) Install light-colored, high-albedo materials for 50% of hardscapes					

**4. Surface Water Management**

4.1	Permeable Lot	4	0	0	N	0
	<input type="text" value="15%"/> vegetative landscape					
	<input type="text" value="0%"/> permeable paving					
	<input type="text" value="10%"/> impermeable surfaces directed to infiltration features					
4.2	Permanent Erosion Controls ( <i>meet one of the following</i> )	1	0	0	N	<i>??-commercial system</i>
	<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	Management of Runoff from Roof ( <i>meet any, see Rating System for pts</i> )	2	0	0	N	<i>??-commercial SWM system?</i>
	<input checked="" type="checkbox"/> a) Install permanent stormwater controls to manage runoff from the home					
	<input type="checkbox"/> b) Install vegetated roof to cover 50% of roof area					
	<input type="checkbox"/> c) Install vegetated roof to cover 100% 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	<b>2</b>	0		2
	<input checked="" type="checkbox"/> a) Keep all wood at least 12" above soil					
	<input checked="" type="checkbox"/> b) Seal external cracks, joints, etc. with caulking and install pest-proof screens					
	<input checked="" type="checkbox"/> c) Include no wood-to-concrete connections, or separate connections with dividers					
	<input type="checkbox"/> d) Install landscaping so mature plants are 24" from home					
	e) In 'moderate' to 'very heavy' termite risk areas:					
	<input type="checkbox"/> i) Treat all cellulosic material with borate product to 3' above foundation					
	<input type="checkbox"/> ii) Install sand or diatomaceous earth barrier					
	<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					

**6. Compact Development**

6.1	Moderate Density	2	0	0		0
OR	6.2 High Density	3	0	0		0
OR	6.3 Very High Density	4	<b>4</b>	0		4

**Water Efficiency (WE)** (Minimum 3 WE Points Required)

Max: 15 Y:5 M:0

Final: 5

**1. Water Reuse**

1.1	Rainwater Harvesting System	4	0	0		0
	<input type="text" value="25%"/> Percentage of roof area used for harvesting					
	<input type="text" value="Outdoor only"/> Application					
AND/OR	1.2 Graywater Reuse System	1	0	0	N	0
OR	1.3 Use of Municipal Recycled Water System	3	0	0	N	0

**2. Irrigation System**

2.1	High-Efficiency Irrigation System ( <i>meet any of the following, 1 pt each</i> )	3	<b>2</b>	0		2
	<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 checked="" type="checkbox"/> d) Install submeter for the irrigation system					
	<input checked="" 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) 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
2.3	Reduce Overall Irrigation Demand by at Least 45%	4	0	0		0
	<input type="checkbox"/> Full points earned in SS 2.3					
	<input type="text" value="10%"/> 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	<b>1</b>	0		1
	<input type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 2 gpm					
	<input 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					
	<input type="checkbox"/> Toilets are dual-flush; OR					
	<input checked="" 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	<b>2</b>	0		2
	<input checked="" type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 1.5 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 ≤ 1.1 gpf					

**Energy & Atmosphere (EA)** (Minimum 0 EA Points Required)

Max: 38 Y:10 M:0

Final: 10

**1. Optimize Energy Performance**

1.1	Performance of ENERGY STAR for Homes	Prereq.	<b>Y</b>			\$\$\$
1.2	Exceptional Energy Performance	34	0	0		\$\$\$ <i>how high can split system get?</i>
	<input type="text" value="5"/> IECC climate zone					
	<input type="text" value="85"/> HERS Index					

**7. Water Heating**

7.1	Efficient Hot Water Distribution System ( <i>meet one of the following</i> )	2	0	0	N	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**





<b>5.1 Reduced Distribution Losses (meet all of the following, as appropriate)</b>		<b>Prereq.</b>	<b>Y</b>	<b>\$</b>
A. Forced-Air Systems		B. Nonducted HVAC Systems		
<input checked="" 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>
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		
<b>OR</b>	<b>5.3 Minimal Distribution Losses (meet one of the following, as appropriate)</b>	<b>3</b>	<b>0</b>	<b>0</b>
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 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.)				
<b>6. Space Heating and Cooling Equipment</b>				
<b>6.1 Good HVAC Design and Installation (meet all of the following)</b>		<b>Prereq.</b>	<b>Y</b>	
<input checked="" type="checkbox"/> a) Design and size HVAC equipment using ACCA Manual J or equivalent		<input checked="" type="checkbox"/> c) Install ENERGY STAR programmable thermostat OR		
<input checked="" 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"/> Type of HVAC				
<input type="text"/> Cooling efficiency (SEER / EER)		<input type="text"/> Heating Efficiency (AFUE / HSPF / COP)		
<b>6.2 High-Efficiency HVAC</b>		<b>2</b>	<b>2</b>	<b>0</b>
<b>OR</b>	<b>6.3 Very High Efficiency HVAC</b>	<b>3</b>	<b>0</b>	<b>0</b>
<b>7. Water Heating</b>				
<b>7.1 Efficient Hot Water Distribution System (meet one of the following)</b>		<b>2</b>	<b>0</b>	<b>0</b>
<input type="checkbox"/> a) Structured plumbing system		<input type="checkbox"/> c) Compact design of conventional system		
<input type="checkbox"/> b) Central manifold distribution system				
<b>7.2 Pipe Insulation</b>		<b>1</b>	<b>0</b>	<b>0</b>
<b>7.3 Efficient Domestic Hot Water Equipment</b>		<b>3</b>	<b>0</b>	<b>0</b>
<input type="text"/> Type of DHW system				
<input type="text"/> Efficiency		<input type="text"/> Solar: Percentage of annual DHW load		
<b>8. Lighting</b>				
<b>8.1 ENERGY STAR Lights</b>		<b>Prereq.</b>	<b>Y</b>	
<b>8.2 Improved Lighting (meet one of the following, see Rating System for pts)</b>		<b>1.5</b>	<b>0</b>	<b>0</b>
<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		
<b>OR</b>	<b>8.3 Advanced Lighting Package (meet one of the following)</b>	<b>3</b>	<b>0</b>	<b>0</b>
<input checked="" type="checkbox"/> a) 60% of fixtures are ENERGY STAR fixtures		<input type="checkbox"/> b) 80% of lamps are ENERGY STAR CFLs		
<b>9. Appliances</b>				
<b>9.1 High-Efficiency Appliances (meet any, see Rating System for pts)</b>		<b>2</b>	<b>2</b>	<b>0</b>
<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		
<b>9.2 Water-Efficiency Clothes Washer</b>		<b>1</b>	<b>1</b>	<b>0</b>
<b>10. Renewable Energy</b>				
<b>10 Renewable Energy System</b>		<b>10</b>	<b>0</b>	<b>0</b>
<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"/> Percentage of annual reference electric load met by renewable system				
<b>11. Residential Refrigerant Management</b>				
<b>11.1 Refrigerant Charge Test</b>		<b>Prereq.</b>	<b>Y</b>	
<b>11.2 Appropriate HVAC Refrigerants (meet one of the following)</b>		<b>1</b>	<b>1</b>	<b>0</b>
<input type="checkbox"/> a) Use no refrigerants		<input type="checkbox"/> c) Use refrigerants that complies with global warming potential equation		
<input checked="" type="checkbox"/> b) Use non-HCFC refrigerants				