LEED v4.1 BD+C: Single Family

Step 1.
Ensure this project is registered in LEED Online.

Step 2.

Enable macros

Note: This workbook is for use with Excel for Mac 2011 and Excel 2007 or later.

Step 3.

Unit of measure	IP units

Step 4.

Project rating system	LEED BD+C: Homes – Single Family v4.1
Project type	Individual
Total homes in submittal	1
Construction type	New Construction
Subdivision/Development Name	
Project team leader name	Suzanne and Jeffery Watters
Project team leader organization name	Homeowners
Project team leader Email address	sjwatters@comcast.net
Provider Organization name	Green Building Consulting
Green rater	Jason Puffenbarger
Green rater	
Energy Rater	Jason Puffenbarger
Provider QAD	Abby Adams
Mid-construction visit date(s)	4/16/2019 *ex: 1/1/2015, 2/27/2015*
Date final visit completed	10/2/20, 3/10/21, 4/29/21, 5-25-21 *ex: 3/31/2016*

Step 5.
The following information must be consistent with project details in LEED Online:

Individual Project Information

Project ID #	1000139510
Project name	15 Longfellow
Project address	15 Longfellow Avenue
City	Mayville
State	NY
Country	USA
Zip Code	14757
Building type	Single family detached
Number of stories	2
Number of bedrooms	6
Conditioned floor area (sq ft)	3822
Gross floor area (sq ft)	4862

Additional Resources

- Resources & Tools section of the Homes Guide to Certification (http://www.usgbc.org/cert-guide/homes#tools)
- Credit Library (http://www.usgbc.org/credits)

LEED v4.1 BD+C Single Family

15 Longfellow Scorecard (ID: 1000139510)

Project Address **15 Longfellow Avenue, Mayville, NY 14757, USA**

Note: The information on this tab is READ-ONLY. To edit this information, see the Credit Category tabs.

		Preliminary	Y		M		Verified	
Integrative Process			Y	1 of 2	M	0	Verified	1
IPc	**Integrative Process**			1 of 2		0		1
Location and Transportation		Preliminary	Y	7 of 10	M	0	Verified	7
LTp	Floodplain Avoidance			Required				Verified
LTc	LEED for Neighborhood Development			0 of 10		0		
LTc	Site Selection			6 of 6		0		6
LTc	Compact Development			0 of 1		0		
LTc	Community Resources			1 of 1		0		1
LTc	Access to Transit			0 of 2		0		
Sustainable Sites		Preliminary	Y	4 of 5	M	0	Verified	4
SSp	Construction Activity Pollution Prevention			Required				Verified
SSc	Heat Island Reduction			0 of 1		0		
SSc	Rainwater Management			2 of 2		0		2
SSc	Nontoxic Pest Control			2 of 2		0		2
Water Efficiency		Preliminary	Y	11 of 15	M	0	Verified	11
WEp	Water Use			Required				Verified
WEp	Water Metering			Required				Verified
WEc	Total Water Use			0 of 15		0		
WEc	Indoor Water Use			7 of 11		0		7
WEc	Outdoor Water Use			4 of 4		0		4
Energy and Atmosphere		Preliminary	Y	33 of 40	M	0	Verified	33
EAp	Minimum Energy Performance			Required				Verified
EAp	Energy Metering			Required				Verified
EAp	Education of the Homeowner, Tenant or Building Manager			Required				Verified
EAc	Annual Energy Use			31 of 36		0		31
EAc	Efficient Hot Water Distribution System			1 of 2		0		1
EAc	HVAC Start-Up Credentialing			0 of 1		0		
EAc	Refrigerant Management			1 of 1		0		1
Materials and Resources		Preliminary	Y	5 of 12	M	0	Verified	5
MRp	Certified Tropical Wood			Required				Verified
MRp	Durability Management			Required				Verified
MRc	Durability Management Verification			1 of 3		0		1
MRc	Environmentally Preferable Products			3 of 5		0		3
MRc	Construction Waste Management			0 of 2		0		
MRc	Material-Efficient Framing			1 of 2		0		1
Indoor Environmental Quality		Preliminary	Y	13 of 16	M	0	Verified	13
EQp	Ventilation			Required				Verified
EQp	Combustion Venting			Required				Verified
EQp	Garage Pollutant Protection			Required				Verified
EQp	Radon-Resistant Construction			Required				Verified
EQp	Air Filtering			Required				Verified
EQp	Compartmentalization			Required				Not Verified
EQc	Enhanced Ventilation			1 of 3		0		1
EQc	Contaminant Control			3 of 3		0		3
EQc	Balancing of Heating and Cooling Distribution Systems			5 of 6		0		5
EQc	Low-Emitting Products			4 of 4		0		4
Innovation		Preliminary	Y	6 of 6	M	0	Verified	6
INp	Preliminary Rating			Required				Verified
INc	Innovation			5 of 5		0		5
INc	LEED Accredited Professional			1 of 1		0		1
Regional Priority		Preliminary	Y	4 of 4	M	0	Verified	4
RPc	Regional Priority			4 of 4		0		4
Total		Preliminary	Y	84 of 110	M	0	Verified	84.0

Certification Thresholds Certified: 40-49, Silver: 50-59, Gold: 60-79, Platinum: 80-110

Integrative Process

	Preliminary	Y	1	Maybe	0	Verified	1

IP Credit Integrative Process

Up to 2 points
Exemplary Performance: Achieve all three options

Preliminary	Y	1	M	0	Verified	1

Option 1. Integrative Project Team (1 point)

Y	1	M		V	1

True — Team members include capabilities in at least three of the following skill sets:
architecture or residential building design;
mechanical or energy engineering;
building science or performance testing;
green building or sustainable design; and
civil engineering, landscape architecture, habitat restoration, or land-use planning.

True — All team members referenced above were involved in at least three of the following phases of the design and construction process:
conceptual or schematic design;
LEED planning;
preliminary design;
energy and envelope systems analysis or design;
design development;
final design, working drawings or specifications;
and construction.

True — Meetings were conducted with the project team at least monthly to review project status, introduce new team members to project goals, discuss problems, formulate solutions, review responsibilities, and identify next steps.

AND/OR

Option 2. Design Charrette (1 point)

Y		M		V	

☐ A full-day workshop (or two half-day workshops) was conducted with the project team, as defined in Option 1, no later than the design development phase.

Date(s)
Duration

AND/OR

Option 3. Trades Training (1 point)

Y		M		V	

☐ At least eight hours of training on the green aspects of the project and how the trades can contribute to achieving each LEED for Homes prerequisite and attempted credit was conducted before construction but after trades have been hired for the project.

Date(s)
Duration
Trainer

Location and Transportation

Preliminary Y **7** Maybe **0** **Verified** **7**

LT Prerequisite Floodplain Avoidance

Required **Required** **Verified** Y

Select one of the following:

(Select one) The project is not built on land within a flood hazard area.

True The project is built on land within a flood hazard area and in accordance with flood provisions.

(Select one) The project is built on land within a flood hazard area and is a previously developed building and hardscape.

LT Credit LEED for Neighborhood Development

10 points **Preliminary** Y M **Verified**

Name of LEED for Neighborhood Development project

LEED ND project ID number

Rating system and version

LEED ND certification date

LT Credit Site Selection

Up to 6 points **Preliminary** Y 6 M 0 **Verified** 6

Exemplary Performance: Earn more than the maximum 6 points

Option 1. Sensitive Land Protection (3-4 points) Y 4 M 0 V 4

Path 1. Previously Developed (4 points) Y 4 M V 4

20898.27 Total buildable land area (acre or sq ft)

20898.27 Previously developed buildable land area (acre or sq ft)

100.00% Percentage of lot previously developed (%)

OR

Path 2. Avoidance of Sensitive Land (3 points) Y M V

All new buildings, hardscapes, roads, or parking areas of the project are located on land that meets the following criteria:

(Select one) Does not consist of prime farmland, unique farmland, or farmland of statewide of local importance.

(Select one) Was not public parkland prior to acquisition.

(Select one) Is not in a flood hazard area shown on a legally adopted flood hazard map or otherwise legally designated by the local jurisdiction or state.

(Select one) Is not on land specifically identified as habitat for species listed in the U.S. Endangered Species Act; the state's endangered species act; NatureServe GH, G1, or G2 lists; or those listed under local equivalent standards (for projects outside the U.S.) that are not covered by NatureServe data.

(Select one) Is not on land within 50 ft (15 m) of wetlands or within the setback distance from wetlands prescribed by local, state or national regulations, whichever is more stringent.

(Select one) Is not on land within 100 ft (30 m) of water bodies, including seas, lakes, rivers, streams and tributaries.

AND/OR

Option 2. Infill Development (2 points) Y 2 M V 2

99.00% Percent of land within a 1/2 mile (800 meters) from the project boundary that is previously developed

For projects within city limits or towns with populations less than 20,000

Percent of land adjacent to the project boundary that is previously developed

AND/OR

Option 3. Open Space (1 point) Y 1 M V 1

Select one of the following:

Yes	Built within 1/2 mile (800 meters) of open space that is at least 3/4 acres (0.3 hectares)
(Select one)	Create publically available open space on the project site

AND/OR

Option 4. Street Network (1 point) Y M V

	Qualifying intersection density (intersections per square mile)

AND/OR

Option 5. Bicycle Network and Storage (1 point) Y M V

Bicycle Network

Select one of the following. The project has a functional entry and/or bicycle storage within 200 yd (180 m) of a bicycle network that connects to:

(Select one)	At least 10 uses
(Select one)	A school or employment center
(Select one)	A bus rapid transit stops, rail stations, and/or ferry terminals

Bicycle Storage for Single Family Homes

(Select one)	The project is a single family home with garage, or has secure and covered bicycle storage.

AND/OR

Option 6. Existing Infrastructure (1 point) Y 1 M V 1

Yes	Lot is within 1/2 mile of existing water service and sewer service lines

AND/OR

Option 7. Sidewalks (1 point) Y M V

	Lot has qualifying sidewalks

LT Credit Compact Development

1 point **Preliminary** Y M **Verified**

Exemplary Performance: 12 DU/acre (30 DU/hectare)

	Buildable land area (acre)
	Number of dwelling units
0.00	DU/acre of buildable land

LT Credit Community Resources

1 point **Preliminary** Y 1 M **Verified** 1

Exemplary Performance: ≥ 12 uses

14	Number of community resources within a 1/2 mile (800 meters) walking distance

LT Credit Access to Transit

Up to 2 points **Preliminary** Y M **Verified**

Exemplary Performance: For multiple transit types, 360 weekday trips and 216 weekend trips

For projects with multiple transit types

	Number of weekday trips
	Number weekend day trips

For projects with commuter rail or ferry service only

	Number of weekday trips

Sustainable Sites

Preliminary Y **4** Maybe **0** **Verified** **4**

SS Prerequisite Construction Activity Pollution Prevention

Required **Required** **Verified** Y

Confirm all of the following measures were implemented on the project, as applicable:

True	Stockpiled and protected disturbed topsoil from erosion.
True	Controlled the path and velocity of runoff with silt fencing or comparable measures.
True	Protected on-site storm sewer inlets, streams, and lakes with straw bales, silt fencing, silt sacks, rock filters, or comparable measures.
True	Provided swales to divert surface water from hillsides.
True	Used tiers, erosion blankets, compost blankets, filter socks, berms, or comparable measures to stabilize soils in any area with a slope of 15% (6.6:1) or more that was disturbed during construction.

For construction sites larger than 1 acre

Select one of the following:

(Select one)	The project team created an implemented an Erosion and Sedimentation Control (ESC) plan that conforms to the requirements of the 2012 U.S. Environmental Protection Agency Construction General Permit (CGP).
(Select one)	The project team created an implemented an Erosion and Sedimentation Control (ESC) plan that conforms to local standards and codes, which are as or more stringent than the 2012 EPA Construction General Permit (CGP).

SS Credit Heat Island Reduction

1 point **Preliminary** Y 0 M 0 **Verified** 0

Exemplary Performance: Meet Options 1 or 2 AND Option 3; OR meet 75% tier for Options 1 or 2.

Option 1. Shading (1 point)

	Area of hardscape shaded by plant canopy within 10 years of planting (sq ft)

AND/OR

Option 2. Nonabsorptive Materials (1 point)

	Area of ENERGY STAR qualified roof products (sq ft)
	Area of vegetated roof (sq ft)
	Area of vegetation in open pavers (sq ft)
	Area of paving materials with a 3-year aged SR value of at least 0.28 or initial SR value of at least 0.33 (sq ft)

Summary Y M V

0	Total shaded area (sq ft)
0	Total area of nonabsorptive materials (sq ft)
0	Total area with shading or nonabsorptive material (sq ft)
	Total hardscape area (sq ft)
	Total roof area (sq ft)
0.00%	Percentage of area with shading or nonabsorptive material (%)

AND/OR

Option 3. Tree Planting (1 point) Y M V

(Select one)	Install tree with canopy width of 20 feet, or trees with shading area of 315 square feet.

SS Credit Rainwater Management

Up to 2 points **Preliminary** Y 2 M 0 **Verified** 2

Exemplary Performance: For Case 1, manage 80% of all stormwater on-site or the total impermeable area is less than or equal to 33% of Reference Home

Water Efficiency

Preliminary Y **11** Maybe **0** **Verified** **11**

WE Prerequisite Water Use

Required **Required** **Verified** Y

Option 1. Total Water Use
Reduce total indoor and outdoor water consumption by at least 20% over standard practices

0.00% Total reduction of indoor and outdoor water consumption as calculated in the Water Reduction Calculator (%)

OR
Option 2. Indoor and Outdoor Water Use
Achieve 3 points in WE credit Indoor Water Use and/or WE credit Outdoor Water Use

11 Total points in WE credit Indoor Water Use and WE credit Outdoor Water Use

WE Prerequisite Water Metering

Required **Required** **Verified** Y

Select one of the following:
True A whole-house water meter is installed.
(Select one) The house uses only well water and is not connected to a municipal water system.

WE Credit Total Water Use

3 to 15 points **Preliminary** Y M **Verified**

Exemplary Performance: 85% reduction of indoor and outdoor water consumption

0.00% Total reduction of indoor and outdoor water consumption as calculated in the Water Reduction Calculator (%)

(Select one) The water pressure has been tested. There are no detectable water leaks. Any installed water softeners are demand initiated.

WE Credit Indoor Water Use

Up to 11 points **Preliminary** Y 7 M **Verified** 7

True The water pressure has been tested. There are no detectable water leaks. Any installed water softeners are demand initiated.

Meet any of the following:
Lavatory Faucet (2-3 points)
True All installed lavatory faucets and/or faucet aerators are WaterSense labeled.
1.00 Average rated flow volume across all lavatory faucets (gpm)

Showerheads (1-3 points)
True All installed showerhead fixtures and fittings are WaterSense labeled.
2.00 Total rated flow volume per shower compartment, averaged across all shower compartments (gpm)

Toilets (1-3 points)
True All installed toilet fixtures and fittings are WaterSense labeled.
1.28 Average rated flush volume across all toilets (gpf)

Clothes Washers (2 points)
True All clothes washers are ENERGY STAR qualified or performance equivalent

WE Credit Outdoor Water Use

Up to 4 points **Preliminary** Y 4 M 0 **Verified** 4

Case 1. Efficient Landscaping (1-4 points) Y 4 M V 4

0.00 Turf grass area as a percentage of landscape area (%)
100.00 Native or adapted plant area as a percentage of landscape area (%)

OR
Case 2. Efficient Irrigation (1-2 points) Y M V

Design and install a high-efficiency irrigation such that any of the following are met (1 point per measure):

(Select one) Use of pressure regulation for every zone (valve or sprinkler)
(Select one) Use of check valves on sloped irrigation zones, where needed to prevent low head drainage
(Select one) Flow sensing with a master valve and irrigation controller that responds to a high-flow occurrence
(Select one) Use of smart irrigation control technology (weather based, soil moisture sensors, rain sensors, etc.)
(Select one) Create separate zones for each type of bedding area based on watering needs
(Select one) Use of drip irrigation for at least 50% of planting area

Energy and Atmosphere

Preliminary Y **33** Maybe **0** **Verified** **33**

EA Prerequisite Minimum Energy Performance

Required **Required** **Verified** Y

1. ENERGY STAR for Homes version 3
True ENERGY STAR version 3 checklists are complete
HERS Index Rating
ENERGY STAR HERS Index Target (SAF Adjusted)

2. ENERGY STAR Qualified Appliances
Select at least one of the following:
True ENERGY STAR refrigerator is installed.
True ENERGY STAR dishwasher is installed.
True ENERGY STAR clothes washer is installed.

3. Duct Runs
True All duct runs are fully ducted.

EA Prerequisite Energy Metering

Required **Required** **Verified** Y

True A whole-house electric meter is installed.
True A whole-house gas meter is installed.

EA Prerequisite Education of Homeowner, Tenant, or Building Manager

Required **Required** **Verified** Y

True An operations and maintenance manual, binder, or CD has been/will be provided to all individuals or organizations responsible for the maintenance of the home.
True A minimum one-hour walkthrough of the home with the occupants has been conducted.

EA Credit Annual Energy Use

Up to 36 points **Preliminary** Y 31 M 0 **Verified** 31

Exemplary Performance: For Option 1, 100% reduction; For Option 2, -10 HERS Index Rating.

Option 1. LEED Energy Budget (1-36 points) Y 31 M V 31

347.70 LEED Energy Budget (MBtu/year)
178.10 Annual energy consumption (MBtu/year)
48% Percent reduction below LEED Energy Budget (%)
31 **Total Points**

OR
Option 2. HERS Index (SAF Adjusted) (1-36 points) Y 0 M V 0

Case 1: New Construction
HERS Index Rating
0 HERS Index impact of the Size Adjustment Factor (SAF)
0 HERS Index (SAF Adjusted)
0 **Points for achieving HERS Index Rating**

ENERGY STAR HERS Index Target (SAF Adjusted)
0 HERS Index (SAF Adjusted)
HERS Index points below ENERGY STAR HERS Index Target (SAF Adjusted)
0 **Points for HERS Index points below ENERGY STAR HERS Index Target (SAF Adjusted)**

Case 2: Major Renovation
HERS Index Rating
0 HERS Index impact of the Size Adjustment Factor (SAF)
0 HERS Index (SAF Adjusted)
0 **Points for achieving HERS Index Rating**

EA Credit Efficient Hot Water Distribution System

Up to 2 points — **Preliminary** Y 1 M 0 — **Verified** 1

Option 1. Efficient Hot Water Distribution (1 point) — Y 0 M 0 V 0

For projects using circulating systems

(Select one) Circulating pump does not operate continuously, is on a timer, or is on a water temperature sensor.

(Select one) Circulating pump is demand activated by a momentary contact switch, motion sensor, flow switch, door switch or voice command.

(Select one) After the pump starts, the controls allow the pump to operate until the water temperature in the return pipe rises not more than 10ºF (6 ºC) above the initial temperature of the water in the pipe. Controls limit the water temperature to a maximum of 105ºF (40 ºC). Controls limit pump operation to not more than 5 minutes per activation in the event that both means of shutting off the pump have failed.

(Select one) Circulating hot water systems have with an automatic or readily accessible manual switch to turn off the hot water circulating pump when not in use.

For projects using heat-traced piping systems

(Select one) Piping is insulated.

Path 1. Maximum Allowable Pipe Length (1 point) — Y M V

Pipe or tube length installed (ft)

Nominal pipe size (in)

Maximum pipe or tube length allowed for water heaters, boilers with no circulation loop or heat traced pipe or in multifamily buildings a central circulation loop or heat traced pipe (ft)

Maximum pipe or tube length allowed for circulation loop or heat traced pipe serving a single unit or house (ft)

OR

Path 2. Maximum Allowable Pipe Volume (1 point) — Y M V

Volume of hot or tempered water from source to termination (oz)

OR

Option 2. Performance Test (1 point) — Y 0 M 0 V 0

Note: Projects using heat traces that serve a single unit or house are awarded only half credit.

Case 1. Hot water source is a water heater or boiler with no circulation loop or heat traced pipe; or in multifamily buildings a central circulation loop or heat traced pipe. — Y M V

(Select one) Meets WaterSense Labeled New Homes requirements

Tested volume of water stored in piping (gal)

OR

Case 2. Hot water source is a circulation loop or heat traced pipe serving a single unit or house — Y M V

Tested volume of water stored in piping (gal)

For projects using heat-traced piping systems

(Select one) Piping is insulated.

AND/OR

Option 3. Pipe Insulation (1 point) — Y 1 M V 1

R-4 Insulation R-value

EA Credit HVAC Start-Up Credentialing

1 point — **Preliminary** Y M — **Verified**

Name of technician

Company of technician

Technician commissioning all heating, cooling, and ventilation systems has the following credential

Materials and Resources

Preliminary Y **5** Maybe **0** **Verified** **5**

MR Prerequisite Certified Tropical Wood

Required **Required** **Verified** Y

True — All wood in the building is nontropical, reused or reclaimed, or certified by the Forest Stewardship Council, or USGBC-approved equivalent.

MR Prerequisite Durability Management

Required **Required** **Verified** Y

True — ENERGY STAR for Homes, version 3, water management system builder requirements are met.

Confirm all of the following have been implemented on the project:

True — Nonpaper-faced backer board, or a product or coating over wallboard that meets standard ASTM D 3273 standard, was installed on the area above bathtub, spa or shower, and in areas behind fiberglass enclosures where wallboard is installed.

True — Water-resistant flooring was installed in the kitchen, bathroom(s), laundry room, spa area(s). No carpet was installed in these areas.

True — Water-resistant flooring was installed in entryways within 3 feet of exterior door(s).

True — A drain and drain pan, drain pan and automatic water shut-off or flow restrictors, or floor drain with floor sloped to drain was installed for all tank water heaters in or over living space.

True — A stainless steel washer hose, drain and drain pan, drain pan and automatic water shut-off or flow restrictors, or floor drain with floor sloped to drain was installed for clothes washer in or over living space.

True — Conventional clothes dryers exhaust directly to outdoors.

MR Credit Durability Management Verification

Up to 3 points **Preliminary** Y 1 M 0 **Verified** 1

Option 1: Water Management System (1 point) Y M V

(Select one) — Each measure in the ENERGY STAR for Homes, version 3, water management system builder requirements were verified by the verification team.

AND/OR
Option 2. Overhangs (1 point) Y M V

(Select one) — Each exterior door is protected by compliant overhang, roof or awning

AND/OR
Option 3. Plumbing Condensation Control (1 point) Y 1 M V 1

Select one of the following:

(Select one) — R-4 insulation install on all domestic cold water piping in unconditioned space

OR

True — No cold water piping installed in unconditioned spaces

MR Credit Environmentally Preferable Products

Up to 5 points **Preliminary** Y 3 M 0 **Verified** 3

Exemplary Performance: Earn more than the maximum 5 points

Option 1. Local Production **Preliminary** Y M **Verified**

Select which the following were extracted, processed, and manufactured within 100 miles (160 km) of the project site:

- Percentage of locally produced framing (%) (1 point)
- Percentage of locally produced aggregate for concrete and foundation (%) (1 point)
- Percentage of locally produced drywall and interior sheathing (%) (1 point)

AND/OR
Option 2. Environmentally Preferable Products **Preliminary** Y 3 M **Verified** 3

Select the criteria met by at least 50% of the component for 1 point. At least 90% for 2 points.

		Percentage of Component
No Floor Covering		
Floor Covering		
Insulation		
Sheathing		

Framing		
Drywall	For synthetic, 95% recycled content (pre-, post-, or combination)	100%
Concrete		
Roofing		
Siding		

Select criteria for any of the following additional components for at least 90% of the component (1 point per component):

Doors	At least 25% postconsumer or 50% preconsumer recycled content	100%
Cabinets		
Counters		
Interior Trim		
Decking/Patio		
Windows		

MR Credit Construction Waste Management

Up to 2 points **Preliminary** Y 0 M 0 **Verified** 0

Exemplary Performance: For renovation projects using Option 2, track and divert at least 50% of demolition waste.

Option 1. Diversion (1-2 points) Y M V

Diverted material streams

Path 1. Divert 50% and three material streams (1 point)

Diversion rate of the total construction and demolition material

OR

Path 2. Divert 75% and four material streams (2 points)

Diversion rate of the total construction and demolition material

OR

Option 2. Reduction of total waste material (2 points) Y M V

16,800.00 LEED Reference Home Baseline Waste (lbs)

Total Waste (lbs)
Recycled Waste (lbs)
Project Construction Waste (lbs)
0.00% Percent reduction below baseline (%)

MR Credit Material-Efficient Framing

Up to 2 points **Preliminary** Y 1 M **Verified** 1

Exemplary Performance: Earn more than the maximum 2 points

Select one of the following for at least 90% of each component: (1 point)

(Select one) No more than one horizontal 2x top plate on walls by aligning studs with joists and roof rafters was installed.
(Select one) Window and door headers were placed in the rim joist.
(Select one) Raised (directly beneath the top plate), single-ply headers not more than 2 inches nominal thickness in a 2x4 wall or 4 inches nominal thickness in a 2x6 wall, were installed.
(Select one) Structural insulated panels (SIPs) were installed for walls.

Select at least 2 of the following for at least 90% of each component: (1 point)

(Select one) Headers were sized for actual loads.
TRUE Ladder blocking or drywall clips were used.
TRUE Two-stud corners or California corners were used.

Select all that apply for at least 90% of each component: (1 point each)

(Select one) Interior wall studs were spaced greater than 16 inches (400 mm) o.c.
(Select one) Floor joists were spaced greater than 16 inches (400 mm) o.c.
(Select one) Roof rafters were spaced greater than 16 inches (400 mm) o.c

Indoor Environmental Quality

Preliminary Y **13** Maybe **0** **Verified** **13**

EQ Prerequisite Ventilation

Required **Required** **Verified** Y

(Select one) The project has earned the EPA Indoor airPLUS label V

OR

Local Exhaust V Y

Confirm all of the following have been implemented on the project:

True Local exhaust systems designed and third-party tested to meet the requirements of ASHRAE Standard 62.2–2010, Sections 5 and 7 or local equivalent, whichever is more stringe were installed in all bathrooms (including half-baths) and the kitchen.

True Local exhaust systems exhaust air directly to the outdoors.

True All bathroom exhaust fans are ENERGY STAR-labeled or an HRV or ERV is used.

True For exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute (188 liters per second), makeup air is provided at a rate approximately equal to the exhaust air rate. Makeup air systems have a means of closure and can be automatically controlled to start and operate simultaneously with the exhaust system.

AND

Whole House Mechanical Ventilation

True The building is designed and third-party tested to meet ASHRAE Standard 62.2-2010 Sections 4 and 7 or local equivalent, whichever is more stringent.

EQ Prerequisite Combustion Venting

Required **Required** **Verified** Y

(Select one) The project has earned the EPA Indoor airPLUS label

OR

True No unvented combustion appliances were installed (ovens and ranges excluded).

True A carbon monoxide (CO) monitor is installed on each floor, hard-wired with a battery backup.

For projects with fireplaces or woodstoves installed

N/A Provide doors that close or a solid glass enclosure.

For projects where space and water heating equipment involving combustion are installed

Select one of the following:

True Equipment is installed with closed combustion (i.e. sealed supply air and exhaust ducting)

(Select one) Equipment is installed with power-vented exhaust

(Select one) Equipment is located in a detached utility building or open-air facility

EQ Prerequisite Garage Pollutant Protection

Required **Required** **Verified** Y

(Select one) The project has earned the EPA Indoor airPLUS label

OR

True All air-handling equipment and ductwork is placed outside the fire-rated envelope of the garage.

True Shared surfaces between the garage and conditioned spaces are tightly sealed.

Conditioned Spaces Above Garage

True All penetrations and all connecting floor and ceiling joist bays are sealed.

Conditioned Spaces Next to Garage

True All doors are weather-stripped.

True Carbon monoxide detectors are installed in rooms that share a door with the garage

True All penetrations and all cracks at the base of the walls are sealed.

EQ Prerequisite Radon-Resistant Construction

Required **Required** **Verified** Y

Exemplary Performance: For projects in radon zones 2 and 3, install a qualifying passive radon ventilation system.

EPA Indoor airPLUS label V

(Select one) The project has earned the EPA Indoor airPLUS label

OR

Case 1. New Construction V Y

1 EPA radon zone

For projects in EPA radon zone 1

True There is a capillary break per the Indoor airPLUS specifications.

True An electrical outlet has been provided near vent piping in the attic to facilitate future fan installation.

True A gas-tight vertical vent pipe extending up through the conditioned spaces and terminating above the roof opening has been installed.

OR

(Select one) The house is elevated by at least 2 feet (600 millimeters) with open air space between building and ground or there is a garage under the building.

OR

Case 2. Renovation of Existing Building V

EPA radon zone

For renovation projects in EPA radon zone 1 with no slab work being performed

Radon test results (pCi/L)

(Select one) If results are greater than 4 pCi/L, an active ventilation system has been installed.

EQ Prerequisite Air Filtering

Required **Required** **Verified** Y

(Select one) The project has earned the EPA Indoor airPLUS label

OR

8 MERV rating of filters on recirculating space conditioning systems

6 MERV rating of filters on mechanically supplied outdoor air systems with 10 ft (3 m) or more of ductwork

EQ Prerequisite Compartmentalization

Required **Required** **Verified** N

For attached single-family projects

(Select one) Each residential unit has sealed penetrations through walls, ceilings, and floors and vertical chases adjacent to units.

(Select one) All doors in the residential units leading to common hallways have weather-stripping.

(Select one) All exterior doors and operable windows have weather-stripping.

Blower door test results (cfm50)

Envelope enclosure area (sq ft)

0.00 Leakage per area of enclosure (cfm50/sq ft)

EQ Credit Enhanced Ventilation

Up to 3 points **Preliminary** Y 1 M 0 **Verified** 1

Exemplary Performance: Earn more than the maximum 3 points

Option 1. Enhanced Local Exhaust (1 point) Y 1 M V 1

occupancy sensor Bathroom exhaust fan control type in every bathroom with a shower, bathtub, or spa

AND/OR

Option 2. Enhanced Whole-House Ventilation (2 points) Y M V

(Select one) A balanced whole-house ventilation system was designed and installed that meets ASHRAE 62.2-2010 sections 4 and 7 in each home or unit.

AND/OR

Option 3. Humidity Control (1 point) Y M V

(Select one) Dehumificiation controls installed for the whole-house ventilation system.

EQ Credit Contaminant Control

Up to 3 points **Preliminary** Y 3 M 0 **Verified** 3

Exemplary Performance: Earn more than the maximum 3 points

Option 1. Walk-off Mats (1 point) Y M V

(Select one) For all primary entryways, a permanent walk-off mat that is at least 4 feet (1.2 meters) long and allows access for cleaning has been installed.

AND/OR

Option 2. Shoe Removal and Storage (1 point) Y 1 M V 1

True A shoe removal and storage space is near the primary entryway.

True No conventional carpet is installed in shoe removal and storage area.

AND/OR

Option 3. Preoccupancy Flush (1 point) Y 1 M V 1

(Select one) The project has earned the EPA Indoor airPLUS label

OR

True At installation, all permanent ducts and vents were sealed to minimize contamination from construction.

After construction ends and before occupancy

True Any dust and debris was removed from ducts.

True The home was flushed out for 48 hours, with all windows open, a fan run continuously or all HVAC fans and exhaust fans.

AND/OR

Option 4. Exhaust Fan in Laundry Room, Utility Room or Garage (1 point) Y 0 M 0 V 0

Meet one of the following:

Case 1. Garage Exhaust Y M V

(Select one) The project has earned the EPA Indoor airPLUS label

OR

(Select one) 75 cfm exhaust installed that meets ENERGY STAR cfm/w performance requirements.

(Select one) Qualifying fan control is installed

OR

Case 2. No attached garage Y M V

(Select one) Do not construct a garage.

(Select one) Install a detached garage, defined as a structure that does not share a wall with the home.

(Select one) Install a carport, defined as an open-air space with one complete wall, which may be shared with the home.

OR

Case 3. Utility room exhaust Y M V

(Select one) Energy star qualified exhaust fan installed in the laundry or utility room.

AND/OR

Option 5. Filtration (1 point) Y M V

(Select one) MERV 10 or higher filters installed on all recirculating space conditioning systems.

(Select one) Air filter housings are airtight to prevent bypass or leakage.

AND/OR

Option 6. Enhanced Combustion Venting Measures (1 point) Y 1 M V 1

Meet one of the following:

(Select one) The project has earned the EPA Indoor airPLUS label

True No fireplaces or woodstoves have been installed.

(Select one) EPA qualified wood- or pellet-burning fireplaces with either power or direct venting have been installed.

(Select one) A natural gas, propane, or alcohol stove approved by a safety testing facility and has power or direct venting has been installed.

(Select one) A natural gas, propane, or alcohol stove has a permanently fixed glass front or gasketed door and an electronic pilot.

EQ Credit Balancing of Heating and Cooling Distribution Systems

Up to 6 points **Preliminary** Y 5 M 0 **Verified** 5

Option 1. Multiple Zones (1 point) Y 1 M V 1

True A system with at least two space-conditioning zones with independent thermostatic controls has been installed.

OR

(Select one) The project is a single family home less than 800 sq ft (74 sq m).

Option 2. Supply Air-Flow Testing (1 point) Y M V

Exemplary Performance: Total supply air-flow rates in each room tested using a flow hood with doors closed, or another acceptable method, per RESNET or ACCA Quality Installation Specifications; results within +/- 20% (or +/- 25 cfm or 11 lps) of calculated values from ACCA Manual J.

Each heating/cooling system meets one of the following:

(Select one) Rater tested airflow at the air handler; results within the 10% or installer-tested airflow or 15% of design.

(Select one) Ductless heating and cooling system

(Select one) Radiative systems have room-by-room thermostatic controls

AND/OR

Option 3. Pressure Balancing (1 point) Y 1 M V 1

True The pressure differential between each bedroom and rest of the house is less than 3 Pa.

AND/OR

Option 4. Moisture load control (1 point). Y 1 M V 1

Dehumidification

True Qualifying dehumidification equipment installed

Option 5. Remote Access Thermostat (1 point) Y M V

Exemplary Performance: Install an ENERGY STAR qualified smart thermostat.

(Select one) Remote access thermostat installed for all space heating and cooling systems.

AND/OR

Option 6. Multistage Equipment (2 points) Y 2 M 0 V 2

Case 1. Two stage equipment. (1 point) Y M V

(Select one) All space heating and cooling systems have at least 2 speeds.

OR

Case 2. Multi-stage equipment (2 points) Y 2 M V 2

True All space heating and cooling systems have more than 2 speeds.

AND/OR

Option 7. Static Pressure Test (1 point) Y M V

Meet one of the following:

(Select one) External static pressure no greater than 0.1 IWC compared to the design total external static pressure

(Select one) All heating and cooling systems are ductless and/or radiative systems

AND/OR

Option 8. Quiet Heating and Cooling Systems (1 point) Y M V

(Select one) Maximum background noise levels from heating and cooling systems are at or below 35 dBA for living areas and 40 dBA for kitchens and baths.

EQ Credit Low-Emitting Products

Up to 4 points **Preliminary** Y 4 M **Verified** 4

Exemplary Performance: Earn more than the maximum 4 points

Select all that apply. At least 50% of a component must meet the requirement for 1 point, 90% for 2 points:

The following components should be tested and determined compliant with the California Department of Public Health Standard Method V1.1–2010, using the Appendix B, New Single-Family Residence Scenario.

1 Site-applied interior paints and coatings

1 Flooring

2 Insulation

(Select one) Site-applied adhesives and sealants

(Select one) Composite wood products have been tested and meet the California Air Resources Board requirements for ultra-low-emitting formaldehyde (ULEF) resins or no-added formaldehyde based resins.

Innovation

Preliminary Y **6** Maybe **0** **Verified** **6**

IN Prerequisite Preliminary Rating

Required **Required** **Verified** Y

True — Preliminary rating and meeting are complete.

IN Credit Innovation

To achieve all five innovation points, a project team must achieve at least one pilot credit, at least one innovation credit and no more than two exemplary performance credits.

Up to 5 points **Preliminary** Y 5 M 0 **Verified** 5

Option 1. Innovation (1 point) Y 1 M V 1

Describe the intent of the proposed innovation credit.
Certified Wildlife Habitat

AND/OR

Option 2. Pilot (1 point) Y 1 M V 1

Food Garden — Pilot credit name

AND/OR

Option 3. Additional Strategies (1-3 points) Y 3 M V 3

Exemplary Performance: 1-2 points

Exemplary Performance	Strategy
LT Site Selection	Credit name
Exemplary Performance	Strategy
LT Community Resources	Credit name
Innovation	Strategy
Green Vehicles	Credit name
	Strategy
	Credit name

IN Credit LEED Accredited Professional

1 point **Preliminary** Y 1 M **Verified** 1

Amanda Tolliver — Name of credential holder

Regional Priority

Notes

Preliminary Y **4** Maybe **0** **Verified** **4**

RP Credit Regional Priority

RP Credit Regional Priority

Up to 4 points **Preliminary** Y 4 M **Verified** 4

Regional priority credits may be found on www.usgbc.org/rpc. Alternative Regional Priority Credits can be used if justification is provided.

Regional Priority Credit Name	Point Threshold	
Annual Energy Use	5	yes
Community Resources	1	yes
Access to Transit	1	no
Construction Waste Management	1	no
Rainwater Management	1	yes
Total Water Use**	8	N/A
Indoor Water Use	4	yes