

LEED v4 for Homes Design and Construction

Summary of changes from LEED 2008

Integrative Process		<ul style="list-style-type: none"> Combines 3 options 'Integrative Project Team' and 'Design Charrette' from 2008 language Option 'Trades Training' rewards projects for training subcontractors
LOCATION AND TRANSPORTATION		
Prerequisite	Floodplain Avoidance	<ul style="list-style-type: none"> New prerequisite for avoiding building within 100 feet of a floodplain or mitigation through floodplain insurance requirements
Credit	LEED for Neighborhood Development	<ul style="list-style-type: none"> No substantive technical changes
Credit	Site Selection	<ul style="list-style-type: none"> Combined Site Selection, Preferred Locations, and Access to Open Space credits Street Network is a new option, rewarding credit for locating near many intersections Bicycle Network and Storage is a new option, rewarding locating building near a bicycle friendly network and providing storage for bicycles Changed definition of infill for urban/suburban projects to look at development from a wider view (1/2 mile from project) rather than immediate project boundary
Credit	Compact Development	<ul style="list-style-type: none"> No substantive technical changes
Credit	Community Resources	<ul style="list-style-type: none"> No substantive technical changes
Credit	Access to Transit	<ul style="list-style-type: none"> Pulled out from Community Resources Credit Added weekend trip requirements, modified some weekday trip thresholds

SUSTAINABLE SITES		
Prerequisite	Construction Activity Pollution Prevention	<ul style="list-style-type: none"> Added requirement to control dust and particulate matter air pollution Steep slope defined as 15% grads
Prerequisite	No Invasive Plants	<ul style="list-style-type: none"> No substantive technical changes
Credit	Heat Island Reduction	<ul style="list-style-type: none"> Added in requirements for roof, to meet ENERGY STAR or have vegetative roofing Metric shifted from SRI (Solar Reflectance Index) to SR (Solar Reflectance) to use standard industry provided information Option for 3 year aged solar reflectance of hardscapes
Credit	Rainwater Management	<ul style="list-style-type: none"> Added option for minimizing total impermeable area Added option for NPDES projects
Credit	Non-Toxic Pest Control	<ul style="list-style-type: none"> Additional options

WATER EFFICIENCY		
Prerequisite	Water Metering	<ul style="list-style-type: none"> New prerequisite, requiring projects to meter their water use
Credit	Total Water Use	<ul style="list-style-type: none"> New credit that combines indoor and outdoor water calculators
Credit	Indoor Water Use	<ul style="list-style-type: none"> Increased stringency of requirements
Credit	Outdoor Water Use	<ul style="list-style-type: none"> Replaces irrigation system and water reuse credits Prescriptive pathway only, and increased stringency to discourage turf use

ENERGY AND ATMOSPHERE		
Prerequisite	Performance of ENERGY STAR for Homes	<ul style="list-style-type: none"> Updated to new ENERGY STAR version 3 requirements Midrise: Updated to 5% improvement over ASHRAE 90.1-2010 from 15% improvement over ASHRAE 90.1-2007
Prerequisite	Energy Metering	<ul style="list-style-type: none"> New prerequisite, requiring projects to meter their energy use Multifamily projects must have a meter or sub-meter for each unit
Prerequisite	Education of Homeowner/Tenant	<ul style="list-style-type: none"> No substantive technical changes
Credit	Annual Energy Use	<ul style="list-style-type: none"> New option to award points based on annual energy reduction based on LEED Energy Budget HERS option starts rewarding points at HERS 70 Linear scoring of Home Size Adjuster for HERS option, 1 point per 4% change in home size
Credit	Efficient Hot Water Distribution System	<ul style="list-style-type: none"> Moved from EA Water Heating credit Efficient Hot Water Distribution <ul style="list-style-type: none"> Simplified credit to two pathways New option for performance testing of water volume Pipe Insulation, added requirement for protecting buried piping
Credit	Solar Ready Design	<ul style="list-style-type: none"> New credit, rewards projects for wiring for PV or solar water heating
Credit	HVAC Commissioning	<ul style="list-style-type: none"> New credit, points awarded for having HVAC installation contractor be credentialed or participate in quality assurance program
Credit	Advanced Utility Tracking	<ul style="list-style-type: none"> New credit, points awarded for having an advanced utility meter, or reporting energy and water use data to USGBC
Credit	Building Orientation for Solar Design	<ul style="list-style-type: none"> Removed roof size requirements
Prerequisite	Home Size	<ul style="list-style-type: none"> Adjusted home size adjustment calculation to be exclusively in the energy section for the prescriptive energy pathway Linear scoring of Home Size Adjuster, 1 point per 4% change in home size
Credit	Air Infiltration	<ul style="list-style-type: none"> Increased stringency to align with ENERGY STAR for Homes requirements

Credit	Envelope Insulation	<ul style="list-style-type: none"> Changed title from 'Insulation' to 'Envelope Insulation' Increased stringency to align with ENERGY STAR for Homes requirements
Credit	Windows	<ul style="list-style-type: none"> Increased stringency to align with ENERGY STAR for Homes requirements
Credit	Space Heating & Cooling Equipment	<ul style="list-style-type: none"> Increased stringency to align with ENERGY STAR for Homes requirements
Credit	Heating & Cooling Distribution Systems	<ul style="list-style-type: none"> Removed some compliance pathways Added relaxed requirement for duct leakage levels in small homes and units
Credit	Efficient Domestic Hot Water Equipment	<ul style="list-style-type: none"> Moved distribution of hot water into a standalone credit Edited thresholds of tankless and storage tank systems
Credit	Lighting	<ul style="list-style-type: none"> Modifying indoor lighting credit to lighting power density Multi-family projects follow EPA High-Rise lighting worksheets Requirement for outdoor lighting to be Dark Sky certified
Credit	High-Efficiency Appliances	<ul style="list-style-type: none"> Combined Water efficient clothes washers credit and High-Efficiency clothes washers into a single option
Credit	Renewable Energy	<ul style="list-style-type: none"> Reward points for every 500 kWh of energy production on site

MATERIALS AND RESOURCES		
Prerequisite	Certified Tropical Wood	<ul style="list-style-type: none"> No substantive technical changes
Prerequisite	Durability Management	<ul style="list-style-type: none"> Adapted from ID Durability Management prereq and credit The Interior Moisture Control Measures are not substantively changed Projects must complete the ESv3 Builder and Rater Water Management System Checklists
Credit	Durability Management Verification	<ul style="list-style-type: none"> No substantive technical changes.
Credit	Environmentally Preferable Products	<ul style="list-style-type: none"> Redefined local production threshold from 500 miles to 100 miles Local credit available for significant construction materials (framing, cement/aggregate, drywall/interior finish) EPP available for the major construction material components.
Credit	Construction Waste Management	<ul style="list-style-type: none"> New calculation methodology based on total waste reduction from a baseline Waste can be measured by weight or volume.
Credit	Material Efficient Framing	<ul style="list-style-type: none"> Changed requirement for optimum value engineering option in exterior walls, removing the greater than 16" on center framing Credit is not available for Midrise projects

INDOOR ENVIRONMENTAL QUALITY		
Prerequisite	Ventilation	<ul style="list-style-type: none"> Multifamily projects to meet ASHRAE 62.1 for non-unit space Multifamily projects must specify intake air location, and pressurized corridors are prohibited

Prerequisite	Combustion Venting	<ul style="list-style-type: none"> Added diagnostic testing of backdraft potential for fireplaces and woodstoves requirement
Prerequisite	Garage Pollutant Protection	<ul style="list-style-type: none"> No substantive technical changes
Prerequisite	Radon Resistant Construction	<ul style="list-style-type: none"> Non-residential space exempted Clarified requirements for retrofits where no slab work is performed
Prerequisite	Air Filtering	<ul style="list-style-type: none"> Aligned MERV 8 and 6 requirements with ASHRAE 62.2-2010
Prerequisite	Environmental Tobacco Smoke	<ul style="list-style-type: none"> New prerequisite, limited to Multi-Family projects
Prerequisite	Compartmentalization	<ul style="list-style-type: none"> New prerequisite, which requires multifamily and attached single family project to air seal to neighboring units, not just outdoors
Credit	Enhanced Ventilation	<ul style="list-style-type: none"> Combined local and whole-house ventilation credits Removed credit for automatic timers on local exhaust Credit for enhanced local and whole-house ventilation
Credit	Contaminant Control	<ul style="list-style-type: none"> Combined contaminant control during construction and contaminant control credits Added pathway for testing of VOCs from commercial rating system
Credit	Balancing of Heating & Cooling Distribution Systems	<ul style="list-style-type: none"> Added pathway for pressure balancing testing
Credit	Ban Environmental Tobacco Smoke (Mid-Rise only)	<ul style="list-style-type: none"> New credit, which rewards projects for banning smoking in the building
Credit	Enhanced Compartmentalization	<ul style="list-style-type: none"> New credit, which rewards projects for having exceptional air sealing between units
Credit	Combustion Venting	<ul style="list-style-type: none"> No substantive technical changes.
Credit	Garage Pollutant Prevention	<ul style="list-style-type: none"> Added case for multifamily garages
Credit	Low Emitting Products	<ul style="list-style-type: none"> Simplified to allow credit for only major building components Requirements to meet California Department of Public Health 2010 Standard Method 01350