



DOCUMENT ADDENDA

For the documents titled: **LEED Reference Guide for Green Building Design and Construction—Retail Supplement, 2009 Edition**
(first edition)

Note: This document contains addenda to the reference guide listed above and will be published on a quarterly basis beginning in April 2010. For more information, visit the USGBC website <http://www.usgbc.org/leed/tools/interpretations>.

Page	Location	Credit	Credit Title	Issue	Post Date
xiii*	Introduction, "When to Use LEED for Retail: New Construction"	n/a	n/a	Delete: "If a project is designed and constructed to be partially occupied by the owner or developer, then the owner or developer has direct influence over that portion of the interior build-out. For these projects, LEED for New Construction may be more appropriate."	4/1/2013
xiv	Credit Interpretation Requests and Rulings	n/a	n/a	<p>Replace the section with the following:</p> <p>In some cases, a LEED project team may encounter challenges when interpreting the requirements of a Minimum Program Requirement (MPR), prerequisite or credit for their project because a specific issue, situation, or a conflict is not addressed by available materials. To address such issues, two processes have been established for each LEED rating system: Project Credit Interpretation Rulings (Project CIR) and LEED Interpretations. See the USGBC and GBCI websites for more information, at www.usgb.org and www.gbci.org. Project CIRs and LEED Interpretations must be submitted online. Provide a brief but clear description of the challenge encountered, refer to the MPR, prerequisite or credit information found in the rating system, reference guide, or supporting documentation and emphasize the intent of the MPR, prerequisite or credit. If possible, the project team should offer potential solutions to the problem or a proposed interpretation.</p> <p>All communications related to Project CIRs and LEED Interpretations will be in electronic format.</p>	5/9/2011
3*	Requirements	SSc1	Site Selection	Add the following sentence to the end of the first bullet: "Projects outside the U.S. may use a local equivalent."	10/1/2012
3*	Requirements	SSc1	Site Selection	Add the following to the end of the second bullet: ", an equivalent local regulatory agency, or a professional hydrologist."	10/1/2012
3*	Requirements	SSc1	Site Selection	Add the following sentence to the end of the third bullet: "Projects outside the U.S. may use a local equivalent."	10/1/2012

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3*	Requirements	SSc1	Site Selection	Add the following to the end of the first sentence of the fourth bullet: "or a local equivalent definition outside the U.S.,"	10/1/2012
3*	Requirements	SSc1	Site Selection	Replace "fish" with "aquatic life" in the fifth bullet.	10/1/2012
3*	Requirements	SSc1	Site Selection	The parenthetical in the sixth bullet should read: "(park authority projects and projects which are operated by and support the function of the park are exempt)."	10/1/2012
10*	OPTION 3, OPTION 4	SSc4	Alternative Transportation	Add a superscript for footnote 2 to each occurrence of the term "preferred parking".	11/1/2011
7*	Option 1	SSc3	Brownfield Redevelopment	Remove parentheses surrounding "by an ASTM E1903-97 Phase II Environmental Site Assessment or a local voluntary cleanup program"	10/1/2012
7*	Option 1	SSc3	Brownfield Redevelopment	Add "Projects outside the U.S. may use a local equivalent to ASTM E1903-97 Phase II Environmental Site Assessment." after first sentence.	10/1/2012
7*	Option 2	SSc3	Brownfield Redevelopment	Option 2 should read: "Develop on a site defined as a brownfield by a local, state, tribal or national government agency, whichever is most stringent."	10/1/2012
9*	Option 1 Path 1	SSc4	Alternative Transportation	The Path 1 title should read: "OPTION 1. Rail Station, Bus Rapid Transit Station & Ferry Terminal Proximity"	10/1/2012
9*	Option 1 Path 1	SSc4	Alternative Transportation	Remove "or" before "subway station"	10/1/2012
9*	Option 1 Path 1	SSc4	Alternative Transportation	Add "bus rapid transit ¹ station or commuter ferry terminal." to the end of the option.	10/1/2012
9*	Option 1	SSc4	Alternative Transportation	<p>After Path 2, add the following:</p> <p>"OR</p> <p>Path 3. Rideshare Proximity</p> <p>Projects outside the U.S. may locate the project within 1/4-mile (400-meter) walking distance (measured from a main building entrance) of 1 or more stops for 2 or more existing rideshare options² that that meet the definition of public transportation³ and are authorized by the local transit authority if one exists."</p>	10/1/2012

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10*	OPTION 3, PATH 2, OPTION 4, PATH 2	SSc4	Alternative Transportation	Delete the following text in the subparagraph, "Providing a discounted parking rate is an acceptable substitute for preferred parking for carpool or vanpool vehicles. To establish a meaningful incentive in all potential markets, the parking rate must be discounted at least 20%. The discounted rate must be available to all customers (i.e., not limited to the number of customers equal to 5% of the vehicle parking capacity), publicly posted at the entrance of the parking area, and available for a minimum of 2 years."	11/1/2011
10*	Footnote 1	SSc4	Alternative Transportation	Change footnote text to, "For the purposes of this credit, low-emitting vehicles are defined as vehicles that are classified as Zero Emission Vehicles (ZEV) by the California Air Resources Board. Fuel-efficient vehicles are defined as vehicles that have achieved a minimum green score of 40 on the American Council for an Energy Efficient Economy (ACEEE) annual vehicle rating guide."	11/1/2011
10*	Footnote 2	SSc4	Alternative Transportation	Change footnote text to, "For customer parking, preferred parking refers to the parking spots that are closest to the main entrance of the project (exclusive of spaces designated for handicapped) or parking passes provided at a discounted price. For employee parking, preferred parking refers to the spots that are closest to the entrance used by employees or parking passes provided at a discounted price. To establish a meaningful incentive in all potential markets, the parking rate must be discounted at least 20%. The discounted rate must be available to all eligible customers (i.e. not limited to the number of customers equal to 5% of the vehicle parking capacity), publicly posted at the entrance of the parking area, and available for a minimum of 2 years. For projects that are part of a development for which there is no "assigned" parking, the number of parking spaces to be used in calculations under SS Credit 4 is determined by dividing the square footage of the retail project by the total square footage of the development (buildings only, excluding common areas). This percentage is the percentage of total parking spaces to be used in calculations."	11/1/2011
16	12. Resources	SSc4	Alternative Transportation	Change the California Air Resources Board, Certified Vehicles List website from " http://www.arb.ca.gov/msprog/ccvl/ccvl.htm " to " http://www.arb.ca.gov/ ".	8/1/2011
16	12. Resources	SSc4	Alternative Transportation	Change the California Air Resources Board (CARB), Cleaner Car Guide website to " http://www.driveclean.ca.gov/ "	11/1/2011
23*	CASE 1	SSc5.1	Site Development – Protect or Restore Habitat	Revise the first bulleted item to say "40 feet beyond the building perimeter and parking garages"	8/1/2011
23*	Requirements: footnotes	SSc5.1	Site Development-Protect or Restore Habitat	Delete footnote 2 (previously developed sites) and renumber footnotes	4/1/2013

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23*	Requirements: footnotes	SSc5.1	Site Development-Protect or Restore Habitat	Footnote 1, delete: "those that are not previously developed or graded and remain in a natural state." Replace with: "sites not previously developed or graded that could support open space, habitat, or agriculture."	4/1/2013
27*	Case 1	SSc6.1	Stormwater Design – Quantity Control	Add a heading for "Option 1. Design Storms" before Case 1.	10/1/2012
27*	Case 1	SSc6.1	Stormwater Design – Quantity Control	Rename "Option 1" "Path 1"	10/1/2012
27*	Case 1	SSc6.1	Stormwater Design – Quantity Control	Rename "Option 2" "Path 2"	10/1/2012
27*	Case 1	SSc6.1	Stormwater Design – Quantity Control	Add a new option below Case 2. "OR" OPTION 2. Percentile Rainfall Events CASE 1. Non-Zero Lot Line Projects In a manner best replicating natural site hydrology ¹ processes, manage onsite ² the runoff from the developed site for the 95th percentile of regional or local rainfall events using Low Impact Development ³ (LID) and green infrastructure ⁴ . Use daily rainfall data and the methodology in the United States Environmental Protection Agency's Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act to determine the 95th percentile amount. OR CASE 2: Zero Lot Line Projects For zero lot line projects located in urban areas with a minimum density of 1.5 FAR (13,800 square meters per hectare net), in a manner best replicating natural site hydrology processes, manage onsite the runoff from the developed site for the 85th percentile of regional or local rainfall events using LID and green infrastructure."	10/1/2012

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27*	Footnotes	SSc6.1	Stormwater Design – Quantity Control	<p>Add the following footnotes to SSc6.1:</p> <p>¹ Natural Site Hydrology is defined as the natural land cover function of water occurrence, distribution, movement, and balance.</p> <p>² Manage Onsite refers to capturing and retaining the specified volume of rainfall to mimic natural hydrologic function. This includes, but is not limited to, strategies that manage volume through evapotranspiration, infiltration, or capture and reuse.</p> <p>³ Low Impact Development (LID) is defined as an approach to managing stormwater runoff that emphasizes on-site natural features to protect water quality by replicating the natural land cover hydrologic regime of watersheds and addressing runoff close to its source. Examples include better site design principles such as minimizing land disturbance, preserving vegetation, minimizing impervious cover, and design practices like rain gardens, vegetated swales and buffers, permeable pavement, rainwater harvesting, and soil amendments. These are engineered practices that may require specialized design assistance.</p> <p>⁴ Green Infrastructure is a soil and vegetation-based approach to wet weather management that is cost-effective, sustainable, and environmentally friendly. Green infrastructure management approaches and technologies infiltrate, evapotranspire, capture and reuse stormwater to maintain or restore natural hydrologies (US EPA).</p>	10/1/2012
33 (Ref guide only)	Table under credit heading	SSc7.2	Heat Island Effect-Roof	Replace "1-2 points" with "1 point"	8/1/2011
33*	OPTION 1	SSc7.2	Heat Island Effect-Roof	<p>Below equation, add the text and equation:</p> <p>Alternatively, the following equation may be used to calculate compliance:</p> <p>(see image: https://www.usgbc.org/ShowFile.aspx?DocumentID=9756)</p>	8/1/2011
33*	OPTION 3	SSc7.2	Heat Island Effect-Roof	<p>Below equation, add the text and equation:</p> <p>Alternatively, a weighted average approach may be used to calculate compliance for multiple materials:</p> <p>(see image: https://www.usgbc.org/ShowFile.aspx?DocumentID=9757)</p>	8/1/2011
35*	Requirements: footnotes and "For Exterior Lighting"	SSc8	Light Pollution Reduction	Replace "Addenda I" and "Addenda 1" with "Addenda i"	4/1/2013

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39*	Fixtures, Fittings, and Appliances Table	WEp1	Water Use Reduction	Add “Imperial Units” after “Current Baseline” in the second column	10/1/2012										
39*	Fixtures, Fittings, and Appliances Table	WEp1	Water Use Reduction	<div>Add a third column to the table, reading as follows:</div> <table><tr><td>Current Baseline (Metric Units)</td></tr><tr><td>6 liters per flush (lpf)</td></tr><tr><td>Except blow-out fixtures: 13.5 lpf</td></tr><tr><td>4.0 lpf</td></tr><tr><td>8.5 liters per minute (lpm) at 4 bar (58 psi), private applications only (hotel or motel guest rooms, hospital patient rooms)</td></tr><tr><td>2.0 lpm at 4 bar (58 psi), all others except private applications</td></tr><tr><td>1 liter per cycle for metering faucets</td></tr><tr><td>9.5 lpm at 5.5 bar (80 psi) per shower stall</td></tr><tr><td>8.5 lpm at 4 bar (58 psi)</td></tr><tr><td>Flow rate ≤ 6 lpm (no pressure specified; no performance requirement)</td></tr></table>	Current Baseline (Metric Units)	6 liters per flush (lpf)	Except blow-out fixtures: 13.5 lpf	4.0 lpf	8.5 liters per minute (lpm) at 4 bar (58 psi), private applications only (hotel or motel guest rooms, hospital patient rooms)	2.0 lpm at 4 bar (58 psi), all others except private applications	1 liter per cycle for metering faucets	9.5 lpm at 5.5 bar (80 psi) per shower stall	8.5 lpm at 4 bar (58 psi)	Flow rate ≤ 6 lpm (no pressure specified; no performance requirement)	10/1/2012
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40*	Requirements; Table 2: Equipment Performance Requirements Table	WEp1	Water Use Reduction	<div>Add a third column to the table under 'Commercial Process Water Use' with metric unit conversions, titled: 'Baseline (Metric Units).'</div> <table><thead><tr><th>Baseline (Metric Units)</th></tr></thead><tbody><tr><td>1,200 liters/m3/cycle</td></tr><tr><td>7.50 liters/rack</td></tr><tr><td>7.38 liters/rack</td></tr><tr><td>5.45 liters/rack</td></tr><tr><td>7.00 liters/rack</td></tr><tr><td>4.28 liters/rack</td></tr><tr><td>4.66 liters/rack</td></tr><tr><td>4.16 liters/rack</td></tr><tr><td>3.75 liters/rack</td></tr><tr><td>681 liters/hour</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td>Must be on closed cooling loop</td></tr><tr><td>Not allowed</td></tr><tr><td>30.28 liters/hour/pan</td></tr><tr><td>30.28 liters/hour/pan</td></tr><tr><td>151.42 lph</td></tr><tr><td>151.42 lph</td></tr><tr><td>227.12 lph</td></tr><tr><td>Performance baseline based on industry standards</td></tr></tbody></table>	Baseline (Metric Units)	1,200 liters/m3/cycle	7.50 liters/rack	7.38 liters/rack	5.45 liters/rack	7.00 liters/rack	4.28 liters/rack	4.66 liters/rack	4.16 liters/rack	3.75 liters/rack	681 liters/hour	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	Must be on closed cooling loop	Not allowed	30.28 liters/hour/pan	30.28 liters/hour/pan	151.42 lph	151.42 lph	227.12 lph	Performance baseline based on industry standards	4/2/2014
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41	6. Calculations, Occupancy	WEp1	Water Use Reduction	<p>Replace the entire Occupancy paragraph with the following: “Identify the number of building occupants by occupancy type using actual occupant counts or historical data or projections. Use occupancy numbers that are a representative daily average over the course of the year. If the occupancy is not known and historical data or projections are unavailable, use LEED-CS Appendix 1: Default Occupancy Counts in the LEED Reference Guide for Green Building Design and Construction to calculate the default occupancy. For project types that are not listed in LEED-CS Appendix 1, use code occupancy. Use a balanced 1:1 male to female gender ratio. Use whole occupant values (round female values up and male values down to adjust for half values when there is an odd number of occupants).</p> <p>Calculate the number of Full-Time Equivalent (FTE) building occupants based on a standard 8-hour occupancy period for full-time and part-time staff. An 8-hour occupant has an FTE value of 1.0, and part-time occupants have an FTE value based on their hours per day divided by 8. In retail projects with multiple shifts, use the daily average number of FTE from all shifts.</p> <p>Estimate the daily average number of retail customers who enter the project building or space. Retail customers should be reported as daily average totals. Include only retail customers who enter the project building or space. Drive through customers or customers who only visit the project exterior and do not enter the retail project building should be excluded from the water use calculations.</p> <p>Refer to the Calculating Occupancy section within WEp1 in the LEED Reference Guide for Green Building Design and Construction, 2009 edition or Green Interior Design and Construction, 2009 edition. for further details.”</p>	4/1/2013
45*	Requirements	WEc1	Water-Efficient Landscaping	Add “or using the month with the highest irrigation demand” to the end of the first sentence.	10/1/2012
45*	Footnote 1	WEc1	Water Efficient Landscaping	<p>Replace the footnote text with the following:</p> <p>If the percent reduction of potable water is 100% AND the percent reduction of total water is equal to or greater than 50%, then Option 2 is earned, for a total of 4 points.</p>	5/9/2011
51*	Fixtures, Fittings, and Appliances Table	WEc3	Water Use Reduction	Add “Imperial Units” after “Current Baseline” in the second column	10/1/2012

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52*	Requirements; Table 2: Equipment Performance Requirements Table	WEc3	Water Use Reduction	<div>Add a third column to the table under 'Commercial Process Water Use' with metric unit conversions, titled: 'Baseline (Metric Units).'</div> <table><tr><th>Baseline (Metric Units)</th></tr><tr><td>1,200 liters/m3/cycle</td></tr><tr><td>7.50 liters/rack</td></tr><tr><td>7.38 liters/rack</td></tr><tr><td>5.45 liters/rack</td></tr><tr><td>7.00 liters/rack</td></tr><tr><td>4.28 liters/rack</td></tr><tr><td>4.66 liters/rack</td></tr><tr><td>4.16 liters/rack</td></tr><tr><td>3.75 liters/rack</td></tr><tr><td>681 liters/hour</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td><95 liters/46 kg ice</td></tr><tr><td>Must be on closed cooling loop</td></tr><tr><td>Not allowed</td></tr><tr><td>30.28 liters/hour/pan</td></tr><tr><td>30.28 liters/hour/pan</td></tr><tr><td>151.42 lph</td></tr><tr><td>151.42 lph</td></tr><tr><td>227.12 lph</td></tr><tr><td>Performance baseline based on industry standards</td></tr></table>	Baseline (Metric Units)	1,200 liters/m3/cycle	7.50 liters/rack	7.38 liters/rack	5.45 liters/rack	7.00 liters/rack	4.28 liters/rack	4.66 liters/rack	4.16 liters/rack	3.75 liters/rack	681 liters/hour	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	<95 liters/46 kg ice	Must be on closed cooling loop	Not allowed	30.28 liters/hour/pan	30.28 liters/hour/pan	151.42 lph	151.42 lph	227.12 lph	Performance baseline based on industry standards	
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59*	OPTION 1	EAp2	Minimum Energy Performance	Add the following second paragraph: For projects that registered after April 7, 2016 and are subject to the four point mandatory minimum, demonstrate an 18% improvement in the proposed building performance rating for new buildings, or a 14% improvement in the proposed building performance rating for major renovations to existing buildings, compared with the baseline building performance rating.	7/1/2016
59*	Option 1	EAp2	Minimum Energy Performance	Add the following sentence to the end of the first paragraph: "Projects outside the U.S. may use a USGBC approved equivalent standard ⁵ ."	10/1/2012
59*	Option 1	EAp2	Minimum Energy Performance	Add "or USGBC approved equivalent." to the end of the first bullet.	10/1/2012
59*	Option 1	EAp2	Minimum Energy Performance	Add "or USGBC approved equivalent." after the parentheses in the third bullet.	10/1/2012
59*	Option 1	EAp2	Minimum Energy Performance	Add "or USGBC approved equivalent." after the parentheses in the third paragraph after the bullets.	10/1/2012
59*	Option 1	EAp2	Minimum Energy Performance	Add "If USGBC approved equivalent addresses process loads within the standard rather than using an exceptional calculation method, demonstrate how the requirements of Tables 1-4 are being met by the standard." to the end of the fourth paragraph after the bullet list.	10/1/2012
59*	Option 2	EAp2	Minimum Energy Performance	Add the following sentence to the end of the option: "Projects outside the U.S. may use ASHRAE/ASHRAE/IESNA Standard 90.1-2007 Appendices B and D to determine the appropriate climate zone."	10/1/2012
59*	Option 3	EAp2	Minimum Energy Performance	Add the following sentence to the end of the option: "Projects outside the U.S. may use ASHRAE/ASHRAE/IESNA Standard 90.1-2007 Appendices B and D to determine the appropriate climate zone."	10/1/2012
59*	Footnotes	EAp2	Minimum Energy Performance	Add the following footnote to the bottom of the page: "Projects outside the U.S. may use an alternative standard to ANSI/ASHRAE/IESNA Standard 90.1-2007 if it is approved by USGBC as an equivalent standard using the process located at www.usgbc.org/leedglobal "	10/1/2012
60*	OPTION 2	EAp2	Minimum Energy Performance	Add the following note above the first paragraph: "*Please note that Option 2 currently is not an eligible compliance option for projects that registered after April 7, 2016 to meet the four point mandatory minimum."	7/1/2016

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60*	OPTION 3	EAp2	Minimum Energy Performance	Add the following note above the first paragraph: “*Please note that Option 3 currently is not an eligible compliance option for projects that registered after April 7, 2016 to meet the four point mandatory minimum.”	7/1/2016
65*	Points	EAc1	Optimize Energy Performance	Add the following note next to point breakdown: “(4 points mandatory for projects registered after April 7, 2016)”	7/1/2016
65*	Option 1	EAc1	Optimize Energy Performance	Add “Projects outside the U.S. may use a USGBC approved equivalent standard.” Before the last sentence of the first paragraph.	10/1/2012
65*	Option 1	EAc1	Optimize Energy Performance	Add “or USGBC approved equivalent” to the end of the first bullet.	10/1/2012
66*	Option 1	EAc1	Optimize Energy Performance	Add “or USGBC approved equivalent” to the end of the first sentence of the third bullet.	10/1/2012
66*	Option 1	EAc1	Optimize Energy Performance	Add “or USGBC approved equivalent” after the parenthetical in the third paragraph after the bulleted list.	10/1/2012
67*	OPTION 2	EAc1	Optimize Energy Performance	Add the following note above the first paragraph: “*Please note that Option 2 currently is not an eligible compliance option for projects that registered after April 7, 2016 to meet the four point mandatory minimum.”	7/1/2016
67*	Option 2	EAc1	Optimize Energy Performance	Add the following sentence to the end of the first paragraph in Option 2: “Projects outside the U.S. may use ASHRAE/ASHRAE/IESNA Standard 90.1-2007 Appendices B and D to determine the appropriate climate zone.”	10/1/2012
67*	Option 3	EAc1	Optimize Energy Performance	Add the following sentence to the end of Option 3, before AND: “Projects outside the U.S. may use ASHRAE/ASHRAE/IESNA Standard 90.1-2007 Appendices B and D to determine the appropriate climate zone.”	10/1/2012
67*	OPTION 3	EAc1	Optimize Energy Performance	Add the following note above the first paragraph: “*Please note that Option 3 currently is not an eligible compliance option for projects that registered after April 7, 2016 to meet the four point mandatory minimum.”	7/1/2016
67*	Footnotes	EAc1	Optimize Energy Performance	Add the following footnote to the bottom of the page: “Projects outside the U.S. may use an alternative standard to ANSI/ASHRAE/IESNA Standard 90.1-2007 if it is approved by USGBC as an equivalent standard using the process located at www.usgbc.org/leedglobal ”	10/1/2012
68*	Table 1	EAc1	Optimize Energy Performance	Replace table with the one in the supplementary document: https://www.usgbc.org/ShowFile.aspx?DocumentID=9314	5/9/2011
68*	Requirements- Table 1.	EAc1	Optimize Energy Performance	Replace table with the one in the supplementary document: http://www.usgbc.org/resources/eac1-table-1-commercial-kitchen-appliance-prescriptive-measures-and-baseline-energy-cost-b	10/1/2013

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79*	Option 2	EAc4	Enhanced Refrigerant Management	<div>Add the following metric units to the third table:</div> <div><div>Calculation definitions for [$\sum (\text{LCGWP} + \text{LCODP} \times 10^5) \times \text{Qunit}$] / Qtotal ≤ 13 (Metric units)</div><div>Qunit = Eurovent Certified cooling capacity of an individual HVAC or refrigeration unit (kW)</div><div>Qtotal = Total Eurovent Certified cooling capacity of all HVAC or refrigeration (kW)</div></div>	10/1/2012
81*	Requirements	EAc5	Measurement and Verification	<div>Add the following language:</div> <div>"Option 3 (1 point)</div> <div>Meet MPR 6 through compliance Option 1: Energy and Water Data Release Form. Projects must register an account in ENERGY STAR's Portfolio Manager tool and share the project file with the USGBC master account."</div>	10/1/2013
83*	Requirements	EAc6	Green Power	<div>Add "or an equivalent" to the end of the first sentence.</div>	10/1/2012
83*	Requirements	EAc6	Green Power	<div>Add the following after the second paragraph: "If the green power is not Green-e Energy certified, equivalence must exist for both major Green-e Energy program criteria: 1) current green power performance standards, and 2) independent, third-party verification that those standards are being met by the green power supplier over time."</div>	10/1/2012
101*	Requirements	MRc5	Regional Materials	<div>Replace "500 miles" with "a specified distance" in the first sentence.</div>	10/1/2012
101*	Requirements	MRc5	Regional Materials	<div>Add new Option 1 after the Regional Materials table:</div> <div>"OPTION 1</div> <div>All building materials or products have been extracted, harvested or recovered, as well as manufactured within a 500 mile (800 kilometer) radius of the project site."</div>	10/1/2012

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101*	Requirements	MRC5	Regional Materials	<p>Add new Option 2 after Option 1:</p> <p>“OR</p> <p>OPTION 2</p> <p>Building materials or products shipped by rail or water have been extracted, harvested or recovered, as well as manufactured within a 500 mile (800 kilometer) total travel distance of the project site using a weighted average determined through the following formula:</p> <p>(Distance by rail/3) + (Distance by inland waterway/2) + (Distance by sea/15) + (Distance by all other means) ≤ 500 miles [800 kilometers]”</p>	10/1/2012
101*	Requirements	MRC5	Regional Materials	Replace “this calculation” with “all calculations” in the first sentence after Option 2.	10/1/2012
107*	Requirements	IEQp1	Minimum Indoor Air Quality Performance	Add “Projects outside the U.S. may use a local equivalent to ASHRAE Standard 62.1-2007 for breathing zone minimum ventilation rates.” after the first sentence.	10/1/2012
107*	Case 1	IEQp1	Minimum Indoor Air Quality Performance	Add “ OPTION 1. ASHRAE Standard 62.1-2007 or Non-U.S. Equivalent ” directly under “CASE 1. Mechanically Ventilated Spaces”	10/1/2012
107*	Case 1	IEQp1	Minimum Indoor Air Quality Performance	Add “as defined by ASHRAE 62.1-2007,” after “ventilation rate procedure” in the second sentence.	10/1/2012
107*	Case 1	IEQp1	Minimum Indoor Air Quality Performance	Add “Projects outside the U.S. may use a local equivalent to ASHRAE Standard 62.1-2007 for breathing zone minimum ventilation rates.” to the end of the first paragraph.	10/1/2012
107*	Case 1	IEQp1	Minimum Indoor Air Quality Performance	<p>Add the following after the first paragraph:</p> <p>“OR</p> <p>OPTION 2. CEN Standard EN 15251: 2007</p> <p>Projects outside the U.S. may modify or maintain each outside air intake, supply air fan and/or ventilation distribution system to supply at least the outdoor air ventilation rate required by Annex B of Comité Européen de Normalisation (CEN) Standard EN 15251: 2007, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics.”</p>	10/1/2012

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113*	Case 1	IEQc1	Outdoor Air Delivery Monitoring	Replace “as defined by ASHRAE Standard 62.1-2007 (with errata but without addenda)” with “based on the value determined in IEQ Prerequisite 1: Minimum Indoor Air Quality Performance” in the second paragraph.	10/1/2012
113*	Footnote 2	IEQc1	Outdoor Air Delivery Monitoring	Remove Footnote, “CO2 monitoring is required in densely occupied spaces, in addition to outdoor air intake flow measurement.”	5/9/2011
115*	Case 1	IEQc2	Increased Ventilation	Add “ OPTION 1. ASHRAE Standard 62.1-2007 or Non-U.S. Equivalent ” directly under “CASE 1. Mechanically Ventilated Spaces”	10/1/2012
115*	Case 1	IEQc2	Increased Ventilation	Add “Projects outside the U.S. may use a local equivalent to ASHRAE Standard 62.1-2007, if the same is used for IEQ Prerequisite 1: Minimum Indoor Air Quality Performance.” to the end of the first paragraph.	10/1/2012
115*	Case 1	IEQc2	Increased Ventilation	Add the following after the first paragraph: “OR OPTION 2. CEN Standard EN 15251: 2007 Projects outside the U.S. may earn this credit by increasing breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by Annex B of Comité Européen de Normalisation (CEN) Standard EN 15251: 2007, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics, as determined by IEQ Prerequisite 1: Minimum Indoor Air Quality Performance.”	10/1/2012
115*	Case 2 Option 1	IEQc2	Increased Ventilation	Add “CIBSE or Non-U.S. Equivalent” to the “Option 1” heading.	10/1/2012
115*	Case 2 Option1	IEQc2	Increased Ventilation	Path 1 should read: “Use CIBSE Applications Manual 10: 2005, Natural Ventilation in Non-domestic Buildings. Projects outside the U.S. may use a local equivalent.”	10/1/2012
115*	Case 2 Option 1	IEQc2	Increased Ventilation	Path 2 should read: “Use CIBSE AM 13:2000, Mixed Mode Ventilation. Projects outside the U.S. may use a local equivalent.”	10/1/2012
115*	Case 2 Option 2	IEQc2	Increased Ventilation	Add “Airflow Model” to the “Option 2” heading.	10/1/2012
115*	Case 2 Option 2	IEQc2	Increased Ventilation	In the first paragraph, replace “Chapter 6” with “section 6”	10/1/2012

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115*	Case 2 Option 2	IEQc2	Increased Ventilation	Add the following to the end of the option: "Projects outside the U.S. may use Annex B of Comité Européen de Normalisation (CEN) Standard EN 15251: 2007, or a local equivalent to section 6 of ASHRAE Standard 62.1-2007 to define the minimum ventilation rates."	10/1/2012
117*	Requirements	IEQc3.1	Construction Indoor Air Quality Management Plan – During Construction	The third bullet should read as follows: "If permanently installed air handlers are used during construction, filtration media must be used at each return air grille that meets one of the following criteria below. Replace all filtration media immediately prior to occupancy."	10/1/2012
117*	Requirements	IEQc3.1	Construction Indoor Air Quality Management Plan – During Construction	Add three bullets, indented, below the third bullet.	10/1/2012
117*	Requirements	IEQc3.1	Construction Indoor Air Quality Management Plan – During Construction	The first new bullet should read: "Filtration media with a minimum efficiency reporting value (MERV) of 8 as determined by ASHRAE Standard 52.2-1999 (with errata but without addenda)"	10/1/2012
117*	Requirements	IEQc3.1	Construction Indoor Air Quality Management Plan – During Construction	The second new bullet should read: "Filtration media is Class F5 or higher, as defined by CEN Standard EN 779-2002, Particulate air filters for general ventilation, Determination of the filtration performance"	10/1/2012
117*	Requirements	IEQc3.1	Construction Indoor Air Quality Management Plan – During Construction	The third new bullet should read: "Filtration media with a minimum dust spot efficiency of 30% or higher and greater than 90% arrestance on a particle size of 3–10 µg"	10/1/2012
119*	OPTION 2. Air Testing	IEQc3.2	Construction IAQ Management Plan- Before Occupancy	(1) In the first sentence of the paragraph, replace the text "and as additionally detailed in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition" with "or the ISO method listed in the table below. Testing must be done in accordance with one standard; project teams may not mix requirements from the EPA Compendium of Methods with ISO" (2) In the table, insert two columns to the right (refer to supplementary guidance) (3) In the third bullet item, replace the second sentence (begins with "For each portion") with "The number of sampling locations must include the entire building and all representative situations."	5/9/2011

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119-120*	OPTION 2. Air Testing	IEQc3.2	Construction Indoor Air Quality Management Plan – Before Occupancy	<p>1. Modify the first paragraph in Option 2. Air Testing so it reads: "Conduct baseline IAQ testing, after construction ends and within 14 days following occupancy, using testing protocols consistent with the EPA Compendium of Methods for the Determination of Air Pollutants in Indoor Air or as the ISO method listed in the table below. Testing must be done in accordance with one standard; project teams may not mix requirements from the EPA Compendium of Methods with ISO."</p> <p>2. Modify the first bullet in Option 2. Air Testing so it reads: "All measurements must be conducted prior to occupancy or within 14 days following occupancy, but during normal occupied hours with the building ventilation system started at the normal daily start time and operated at the minimum outside air flow rate for the occupied mode throughout the test."</p>	1/4/2016
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	The first bullet should read: "All carpet installed in the building interior must meet one of the following requirements:"	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	Add three bullets, indented, below the first bullet	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	The first new bullet should read: "Meets the testing and product requirements of the Carpet and Rug Institute Green Label Plus program."	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	The second new bullet should read: "Maximum VOC concentrations are less than or equal to those specified in the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda, using the office scenario as defined in Table 7.5 within the practice. The additional VOC concentration limits listed in Section 9.1a must also be met."	10/1/2012

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124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	<p>The third new bullet should read:</p> <p>“Maximum VOC concentrations meet the California requirements specified above based on the following:</p> <ul style="list-style-type: none"> ○ California Department of Public Health (CDPH) Standard Method V1.1-2010 using test results obtained at the 14 day time point ○ Projects outside the U.S. may use the German AgBB/DIBt testing method and all testing methods based on AgBB/DIBt method (GUT, EMICODE, Blue Angel) using test results obtained at the 3 day or 7 day or 14 day time point. For caprolactam, if test results obtained at the 3 day or 7 day time point is used, the emission concentration must be less than ½ of the concentration limit specified above because the emission may not have peaked at the measured time points.” 	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	<p>Add a paragraph below the third new bullet that reads:</p> <p>“If a European testing method (AgBB/DIBt GUT, EMICODE, Blue Angel) had used parameters for calculating test results different from those specified in the referenced California method, then the European test results for carpets or floorings need to be converted into California air concentrations by multiplication with 0.7.”</p>	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	The fourth original bullet should read “All hard surface flooring installed in the building interior must meet one of the following requirements:”	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	Add three new bullets below the fourth original bullet.	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	<p>The first new bullet should read:</p> <p>“Meet the requirements of the Floor Score standard (current as of the date of this rating system, or more stringent version) as shown with testing by an independent third-party.”</p>	10/1/2012

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124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	The second new bullet should read: “Demonstrate maximum VOC concentrations less than or equal to those specified in the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda, using the office scenario as defined in Table 7.5 within the practice.”	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	The third new bullet should read: “Maximum VOC concentrations meet the California requirements specified above based on the following: <ul style="list-style-type: none"> ○ California Department of Public Health (CDPH) Standard Method V1.1-2010 using test results obtained at the 14 day time point ○ Projects outside the U.S. may use the German AgBB/DIBt testing method and all testing methods based on AgBB/DIBt method (GUT, EMICODE, Blue Angel) using test results obtained at the 3 day or 7 day or 14 day time point. For caprolactam, if test results obtained at the 3 day or 7 day time point is used, the emission concentration must be less than ½ of the concentration limit specified above because the emission may not have peaked at the measured time points.” 	10/1/2012
124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	Add a new paragraph after the third new bullet that reads: “If a European testing method (AgBB/DIBt GUT, EMICODE, Blue Angel) had used parameters for calculating test results different from those specified in the referenced California method, then the European test results for carpets or floorings need to be converted into California air concentrations by multiplication with 0.7.”	10/1/2012

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124*	Option 3 Path 1	IEQc4	Low-Emitting Materials	<p>Below the final bullet, add the following:</p> <p>“□ For carpet adhesive, concrete, wood, bamboo and cork floor finishes, and tile setting adhesives, compliance can be demonstrated with test results of:</p> <ul style="list-style-type: none"> • Total volatiles fraction, based on one of the following, provided that water and exempt compounds are subtracted from total volatiles test results and the mass VOC content is calculated consistent with SCAQMD Rule 1113 and Rule 1168: <ul style="list-style-type: none"> ○ ASTM D2369 ○ EPA method 24 ○ ISO 11890 part 1 • Total volatile organic compounds fraction, based on one of the following, provided that all VOCs with a boiling point up to 280°C (536°F) are included, and exempt compounds are subtracted from total volatiles test results and the mass VOC content is calculated consistent with SCAQMD Rule 1113 and Rule 1168. <ul style="list-style-type: none"> ○ ASTM D6886 ○ ISO 11890 part 2” 	10/1/2012

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135*	Requirements	IEQc5	Indoor Chemical and Pollutant Source Control	<p>The third bullet should read:</p> <ul style="list-style-type: none"> “In mechanically ventilated buildings, install new air filtration media in regularly occupied areas prior to occupancy; these filters must meet one of the following criteria: <ul style="list-style-type: none"> Filtration media is rated at a minimum efficiency reporting value (MERV) of 13 or higher in accordance with ASHRAE Standard 52.2 Filtration media is Class F7 or higher, as defined by CEN Standard EN 779: 2002, Particulate air filters for general ventilation, Determination of the filtration performance Filtration media has a minimum dust spot efficiency of 80% or higher and greater than 98% arrestance on a particle size of 3–10 µg. <p>Filtration should be applied to process both return and outside air that is to be delivered as supply air.”</p>	10/1/2012
137*	Requirements	IEQc6	Controllability of Systems – Lighting and Thermal Comfort	<p>Add a new paragraph below the first paragraph that reads:</p> <p>“Conditions for thermal comfort are described in IEQ credit 7.1: Thermal Comfort—Design and include the primary factors of air temperature, radiant temperature, air speed and humidity.”</p>	10/1/2012
143*	Requirements	IEQc7.1	Thermal Comfort – Design	<p>The Requirements section should read as follows:</p> <p>“Design heating, ventilating and air-conditioning (HVAC) systems to meet the requirements of one of the options below.”</p>	10/1/2012
143*	Requirements	IEQc7.1	Thermal Comfort – Design	<p>Add a new option that reads:</p> <p>“OPTION 1. ASHRAE Standard 55-2004 or Non-U.S. Equivalent</p> <p>Meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy (with errata but without addenda). Demonstrate design compliance in accordance with the Section 6.1.1 documentation. Projects outside the U.S. may use a local equivalent to ASHRAE Standard 55-2004 Thermal Comfort Conditions for Human Occupancy Section 6.1.1.”</p>	10/1/2012

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143*	Requirements	IEQc7.1	Thermal Comfort – Design	Add a new option that reads: “OPTION 2. ISO 7730: 2005 & CEN Standard EN 15251: 2007 Projects outside the U.S. may earn this credit by designing heating, ventilating and air conditioning (HVAC) systems and the building envelope to meet the requirements of International Organization for Standardization (ISO) 7730: 2005 Ergonomics of the thermal environment, Analytical determination and interpretation of thermal comfort using calculation of the PMV and PPD indices and local thermal comfort criteria; and CEN Standard EN 15251: 2007, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics.”	10/1/2012
145*	Requirements	IEQc7.2	Thermal Comfort – Verification	Replace “ASHRAE Standard 55-2004 (with errata but without addenda)” with “the standard used for design in IEQ Credit 7.1: Thermal Comfort – Design.”	10/1/2012
Entire section	All	IEQc8.1	Daylight and Views-Daylight	Replace section with that of the supplementary document: https://www.usgbc.org/ShowFile.aspx?DocumentID=9340	5/9/2011
152	Definitions, regularly occupied spaces	IEQc8.2 /8.3/8.4	Daylight and Views-Views	Replace the definition of "regularly occupied spaces" with "are areas where one or more individuals normally spend time (more than one hour per person per day on average) seated or standing as they work, study, or perform other focused activities inside a building."	10/1/2012
160	Glossary, regularly occupied spaces	n/a	n/a	Replace the definition of "regularly occupied spaces" with "are areas where one or more individuals normally spend time (more than one hour per person per day on average) seated or standing as they work, study, or perform other focused activities inside a building."	10/1/2012

*Shaded rows denote rating system changes. The purpose of these Rating System changes within the Rating System portions of the *LEED Reference Guide for Neighborhood Development* is to align with the LEED 2009 Rating System that comprises the guide.

Note: The online version of the rating system takes precedent over the rating system portions of the LEED Reference Guides in project guidance and application; project teams are required to adhere to the rating system and rating system addenda effective at the time of the project's registration date.