DOCUMENT ADDENDA

For the documents titled: **LEED Reference Guide for Green Building Operations and Maintenance**, **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/addenda.

Page	Location	Credit	Credit Title	Issue	Post Date
n/a	n/a	n/a	n/a	Replace all instances of "[LEED] Registered Project Tools [website]" with "LEED Resources & Tools [website]"; the website (www.usgbc.org/projecttools) remains unchanged	1/8/2010
n/a	n/a	n/a	n/a	Replace all instances of "LEED-Online" with "LEED Online"	1/8/2010
i	Consensus-focused	n/a	n/a	In the fourth line of the second paragraph, replace the text “Washington, DC 20036” with “Washington, DC 20037”	4/14/2010
ii	DISCLAIMER	n/a	n/a	In the fourth line of the third paragraph, replace the text “Washington, DC 20036” with “Washington, DC 20037”	11/2/2009
vii	Water Efficiency (WE)	n/a	n/a	In the fifth line, replace “Credit 4 Cooling Tower Water Management” with “Credit 4.1 Cooling Tower Water Management – Chemical Management” and, in a new line below, “Credit 4.2 Cooling Tower Water Management – Nonpotable Water Use;” both lines end in “115” as the page number	4/14/2010
viii	Materials and Resources (MR)	n/a	n/a	In the fourth line, replace “Credit 2 Sustainable Purchasing – Durable Goods” with “Credit 2.1 Sustainable Purchasing – Electric-Powered Equipment” and, in a new line below, “Credit 2.2 Sustainable Purchasing – Furniture;” both lines end in “259” as the page number	4/14/2010
xiv	When to Use LEED for Existing Buildings: Operations & Maintenance	n/a	n/a	Remove the text of the section and replace with the following: **(see below text)**	4/14/2010

Page	Location	Credit	Credit Title	Issue	Post Date
	(text relating to above issue) LEED for Existing Buildings: Operations & Maintenance was designed to certify the sustainability of ongoing operations of existing commercial and institutional buildings. If it is unclear that this rating system, as opposed to another, is appropriate for a particular project, please refer to the Rating System Selection Policy. This can be found at www.usgbc.org. LEED for Existing Buildings: Operations & Maintenance encourages owners and operators of existing buildings to implement sustainable practices and reduce the environmental impacts of their buildings over their functional life cycles. Specifically, the rating system addresses exterior building site maintenance programs, water and energy use, environmentally preferred products and practices for cleaning and alterations, sustainable purchasing policies, waste stream management, and ongoing indoor environmental quality. LEED for Existing Buildings: Operations & Maintenance is targeted at single buildings, whether owner occupied, multitenanted, or multiple-building campus projects. It is a whole-building rating system; individual tenant spaces are ineligible.				
xiv*	Minimum Program Requirements	n/a	n/a	Replace the last sentence of the first paragraph with "To view the MPRs and the MPR Supplemental Guidance, visit the LEED Resources and Tools section of www.usgbc.org/projecttools."	11/3/2010
xv	First paragraph (begins with "program, and")	n/a	n/a	Remove the last two lines of the paragraph and insert the text "The complete MPRs can be found at www.usgbc.org. Definitions and more extensive guidance are provided in a separate document, titled MPR Supplemental Guidance, also available at www.usgbc.org. "	4/14/2010
xv	Credit Interpretation Requests and Rulings	n/a	n/a	Replace the section with the following: 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. All communications related to Project CIRs and LEED Interpretations will be in electronic format.	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
xiv	Above Registration section	n/a	n/a	Insert the following text: **Multiple Buildings and On-Campus Projects** The 2010 LEED Application Guide for Multiple Buildings and On-Campus Building Projects (available at www.usgbc.org/campusguidance) provides guidance on applying the LEED rating systems to multiple-building and on-campus projects that are on a shared site under the control of a single entity; for example, a corporate or educational campus or government installation. The 2010 LEED Application Guide for Multiple Buildings and On-Campus Building Projects provides guidance for the certification of projects under the Design and Construction and Interior Design and Construction rating systems as well as the LEED for Existing Buildings: Operations & Maintenance rating system. The guidance does not create a new rating system. Users may follow this guidance and apply it to existing rating system requirements for projects on a campus.	11/3/2010
xiv	Registration	n/a	n/a	In the fifth line of the paragraph, replace “errata” with “addenda”	11/3/2010
xvi	Updates and Addenda	n/a	n/a	Remove the text of the second paragraph and replace with "Project teams are subject to Rating System addenda requirements based on registration date. It is strongly recommended that project teams adhere to the Reference Guide and Reference Guide addenda based on registration date. Rating System and Reference Guide addenda can be found on the USGBC’s LEED Addenda website, www.usgbc.org/addenda. "	1/8/2010
xviii	Second paragraph on page (begins with “When registering”)	n/a	n/a	Remove the following text: There is no registration fee for registering a recertification project, but recertification project teams must contact GBCI to ensure that the registration fee is waived. The recertification fee is 50% of the fee for the project’s LEED for Existing Buildings: Operations & Maintenance initial certification. This fee is due when the application for recertification review is submitted.	11/3/2010
xix	VI. PERFORMANCE PERIOD	n/a	n/a	Following the first paragraph, change the font, size, and boldness of the text “Requirements for Initial Certification” to match the other sub-headers	12/2/2009
xix	Requirements for Initial Certification	n/a	n/a	In the second line of the second paragraph, replace remainder of the paragraph starting with “However” with the text “However, all performance periods must overlap and terminate within 30 calendar days of each other, as illustrated in **Table 1**. In this example, each performance period is at least 3 months, and the termination dates range from April 1 through April 26.”	12/2/2009

Page	Location	Credit	Credit Title	Issue	Post Date
xx	Table 1	n/a	n/a	Replace the table with the table below so it becomes: **(see below table)**	12/2/2009
	(table relating to above issue)				

Credit	Start	End*	Duration**
WEc3, Water-Efficient Landscaping	February 22, 2009	April 20, 2010	14 months
SSc6, Stormwater Management	April 6, 2009	April 22, 2010	12.5 months
EAp2, Minimum Energy Efficiency Performance	April 1, 2009	April 1, 2010	12 months
SSc2, Building Exterior and Hardscape Management Plan	August 25, 2009	April 25, 2010	8 months
WEp1, Minimum Indoor Plumbing Fixture and Fitting Efficiency	January 12, 2010	April 26, 2010	3.5 months
* All performance periods must end within the same 30-day interval. ** Minimum duration = 3 months; maximum duration = 24 months.			

xx	Application Submittal upon Completion of the Performance Period	n/a	n/a	In the paragraph, replace the last two sentences with the text “In the example above, the termination interval ends on April 26, 2010. The certification application therefore must be submitted on or before June 25, 2010.”	12/2/2009
xxi	Project Narrative	n/a	n/a	In item 2 b, replace the text with “Document the footprint of the vehicle parking area if any.”	4/14/2010
xxi	Project Narrative	n/a	n/a	Remove the entire text of item 3	4/14/2010
xxii	Below the section “Credit Substitution”	n/a	n/a	Add the following section: **Units of Measurement Guidance** In order to facilitate certification review by U.S.-based reviewers, it is necessary to submit pertinent aspects of review-related documentation in English and convert units to U.S. Standard (i.e. Imperial) units of measure, unless noted otherwise in the credit or prerequisite description. It is not necessary to translate every aspect of every construction document into English and imperial units, but only those necessary for evaluation of LEED criteria. The project team should be prepared to provide additional translation(s) if requested by the reviewer in their preliminary review comments.	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
xxiii	IX. FACILITY ALTERATIONS AND ADDITIONS	n/a	n/a	In the first bulleted item, replace the text with "Maximum. Please refer to the Rating System Selection policy, available at www.usgbc.org."	4/14/2010
xxiv	Water Efficiency	n/a	n/a	Replace the third line "WE Credit 4, Option 2 Cooling Tower Water Management – Nonpotable Water Source Use" with "WE Credit 4.2 Cooling Tower Water Management – Nonpotable Water Source Use"	4/14/2010
xxiv	Materials and Resources	n/a	n/a	Replace the second line "MR Credit 2 Sustainable Purchasing – Durable Goods" with "MR Credit 2.1 or 2.2 Sustainable Purchasing – Durable Goods"	4/14/2010
xxiv	Materials and Resources	n/a	n/a	Below the sixth line, insert the text "MR Credit 8 Solid Waste Management – Durable Goods" as a new line	4/14/2010
xxv	XIII. TOOLS FOR REGISTERED PROJECTS	n/a	n/a	Replace the first paragraph with the following: LEED offers additional resources for LEED project teams on the USGBC website, at www.usgbc.org/projecttools. The LEED Resources and Tools website provides resources for starting the project, including rating system addenda, documentation requirements, and referenced industry standards.	11/3/2010
xxv	XIII. TOOLS FOR REGISTERED PROJECTS	n/a	n/a	Make the first sentence of the second, third, and fourth paragraphs bold so it becomes "**Minimum Narrative Requirements, Policy, Program, and Plan Models**, and **Declarant Definitions and Other Definitions** ," respectively	11/3/2010
xxvi	Licensed Professional Exemption Form	n/a	n/a	In this third paragraph of the page, replace the text so it becomes the following: **Licensed Professional Exemption.** Licensed Professional Exemptions (LPEs) can be used by a project team's registered professional engineer, registered architect, registered interior designer, or registered landscape architect as a streamlined path for documenting certain credits, or bypassing otherwise-required submittals. License information and an Exemption Signature in LEED Online are required to document each exemption the project team wishes to claim. Licensed Professional Exemptions are noted in the corresponding credit documentation section of LEED Online.	11/2/2009

Page	Location	Credit	Credit Title	Issue	Post Date
xxvi	XIV. HOW TO USE THIS REFERENCE GUIDE	n/a	n/a	In the fourth line of the paragraph, remove the text "case studies of buildings that have implemented these strategies successfully,"	1/8/2010
5*	Requirements	SSc1	LEED Certified Design and Construction	Add the following text after OPTION 3: "OR OPTION 4 Show that the building has been previously certified under LEED for Retail: New Construction and Major Renovations. OR OPTION 5 Show that the building has been previously certified under LEED for Healthcare New Construction and Major Renovations. OR OPTION 6 Show that the building has previously been certified under any version of LEED for Existing Buildings and that ongoing performance has been tracked during the entire recertification period (from initial certification until the recertification application)."	11/1/2011
6	4. Implementation	SSc1	LEED Certified Design and Construction	Replace the section's first paragraph with the following text: "Buildings that have been previously certified for LEED for New Construction, LEED for Schools, LEED for Retail: New Construction, or LEED for Healthcare (rating systems that address design and construction activities for both new buildings and major renovations of existing buildings) can easily achieve this credit. If the building is not currently LEED certified for New Construction, Schools, Retail, or Healthcare, consider pursuing certification under the appropriate rating system during any major renovations to the HVAC system, envelope, or interior."	11/1/2011
6	4. Implementation	SSc1	LEED Certified Design and Construction	Add the following paragraph after the second paragraph (before the last paragraph): "This credit is available to LEED for Existing Buildings projects that recertify using data from the entire recertification period (the period from initial certification until recertification application). It is not available to projects that certify once, stop tracking performance, then certify again with a new, three-month performance period."	11/1/2011
7	7. Documentation Guidance	SSc1	LEED Certified Design and Construction	Add the following as a third bulleted item under the second bulleted item: "For projects pursuing Option 6 (recertification of LEED for Existing Buildings projects), please provide with the application a narrative describing the measures that have been in place for ongoing tracking and any lapses in this tracking during the performance period."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
23*	Requirements	SSc4	Alternative Commuting Transportation	In the third line of the first paragraph, replace the word "includesincludes" with "includes"	1/8/2010
27	OPTIONS 1 and 2	SSc4	Alternative Commuting Transportation	In the last line of the paragraph, replace the period with a semicolon and add text so it becomes the following: "…performance rates; confirm the program is of equivalent or greater stringency than SCAQMD; and demonstrate that the program encompasses a small and cohesive enough area to assume reasonable similarity of transportation options across the participating buildings."	11/2/2009
28	APPROACH 1	SSc4	Alternative Commuting Transportation	Replace section with that of the supplementary document: https://www.usgbc.org/ShowFile.aspx?DocumentID=9315	5/9/2011
31	Second paragraph (section 8. Examples)	SSc4	Alternative Commuting Transportation	In the fifth line of the paragraph, replace "4" with "5" so the text becomes "(100 occupants x 2 trips per day x 5 days per week)"	7/19/2010
31	9. Exemplary Performance	SSc4	Alternative Commuting Transportation	Replace 95% with 80% and remove "trips equivalent to an average vehicle ridership (as defined by SCAQMD) of 20"	5/9/2011
32	11. 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
32	11. Resources	SSc4	Alternative Transportation	Change the California Air Resources Board (CARB), Cleaner Car Guide website to "http://www.driveclean.ca.gov/"	11/1/2011
38	Equation 2	SSc5	Site Development – Protect or Restore Open Habitat	Replace with "Natural Vegetated Roof Area ≥ 0.05 (Total Site Area)"	11/3/2010
40	12. Definitions	SSc5	Site Development-Protect or Restore Habitat	Revise the text for "Building footprint" to be "**Building footprint** is the area on a project site used by the building structure, defined by the perimeter of the building plan. Parking lots, parking garages, landscapes, and other nonbuilding facilities are not included in the building footprint."	8/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
~~44~~	~~6. Calculations~~	~~SSc6~~	~~Stormwater Quantity Control~~	~~Replace the text in the second paragraph titled "Volume Captured via Collection Facilities" with the following:~~ ~~"For less complex sites without detention facilities, teams can perform a water balance to determine if a proposed reduction in impervious area and/or rain capture systems will result in the required reduction in site runoff. However, in order to determine the discharge rate and quantity from a site with a wet or dry detention facility, project teams should make a detailed analysis of the stage-storage relationship of the detention facility, coupled with an analysis of any control structures used to regulate discharge. Drawdown rates due to infiltration and therefore geotechnical conditions will also need to be considered. While it is possible to perform these types of calculations by hand, a computer simulation model is more typically used and recommended."~~ **(removed 2/22/2010, see below item)**	~~1/8/2010~~
44	6. Calculations	SSc6	Stormwater Quantity Control	**(correction to above item)** Replace the text in the third paragraph titled "Volume Captured via Retention Facilities" with the following: "For less complex sites without detention facilities, teams can perform a water balance to determine if a proposed reduction in impervious area and/or rain capture systems will result in the required reduction in site runoff. However, in order to determine the discharge rate and quantity from a site with a wet or dry detention facility, project teams should make a detailed analysis of the stage-storage relationship of the detention facility, coupled with an analysis of any control structures used to regulate discharge. Drawdown rates due to infiltration and therefore geotechnical conditions will also need to be considered. While it is possible to perform these types of calculations by hand, a computer simulation model is more typically used and recommended."	2/22/2010
46	8. Examples	SSc6	Stormwater Quantity Control	Revise the third equation box to: Qr = (800 cf / 259,200 sec) = (0.003 cfs or 1.35 gpm)	11/1/2011
52	Table 1	SSc7.1	Heat Island Effect, Non-Roof	Replace SRI for "Typical new gray concrete" with 38	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
57*	OPTION 1	SSc7.2	Heat Island Effect-Roof	Below equation, add the text and equation: Alternatively, the following equation may be used to calculate compliance: (see https://www.usgbc.org/ShowFile.aspx?DocumentID=9758)	8/1/2011
57*	OPTION 3	SSc7.2	Heat Island Effect-Roof	Below equation, add the text and equation: Alternatively, a weighted average approach may be used to calculate compliance for multiple materials: (see https://www.usgbc.org/ShowFile.aspx?DocumentID=9759)	8/1/2011
61	STEP 2	SSc7.2	Heat Island Effect-Roof	Add "skylights" to the list of things deducted from the roof area so that the sentence reads, "Determine the area of the roof covered by mechanical equipment, solar energy panels, skylights, and other appurtenances, and deduct these areas from the total roof surface area."	8/1/2011
62	9. Exemplary Performance	SSc7.2	Heat Island Effect-Roof	Replace the term "photovoltaic panels" with "solar energy panels" and add "other appurtenances" to the list of things deducted from the roof area so that the sentence reads "Projects may earn an Innovation in Operations (IO) credit for exemplary performance by demonstrating that 95% of the project's roof area (excluding any mechanical equipment, solar energy panels, skylights, and other appurtenances) consists of a vegetated roof system."	8/1/2011
63	12. Definitions	SSc7.2	Heat Island Effect-Roof	In alphabetical order, add the term "An **appurtenance** is any built-in, nonstructural portion of a roof system, such as skylights, ventilators, mechanical equipment, partitions, and solar energy panels."	8/1/2011
63	12. Definitions	SSc7.2	Heat Island Effect-Roof	In alphabetical order, add the term, "**Roof area** is the area of the uppermost surface of the building which covers enclosed Gross Floor Area, as measured when projected onto a flat, horizontal surface (i.e. as seen in Roof Plan view). 'Roofs', or portions of roofs, covering unenclosed areas (e.g. roofs over porches and open covered parking structures) are not included in the areas used to evaluate compliance with SSc7.2, though they may be applicable to SSc7.1."	8/1/2011
69	Rule 3	SSc8	Light Pollution Reduction	Replace the second to last sentence to read, "Finally, measure the angle between this fixture line of sight and the perpendicular with the vertex located at the fixture edge."	8/1/2011
69	Figure 3	SSc8	Light Pollution Reduction	See revised image: https://www.usgbc.org/ShowFile.aspx?DocumentID=9760	8/1/2011
70	OPTION 2	SSc8	Light Pollution	At end of the second paragraph, add the sentence "Lighting of flags must also meet the shielding requirements."	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
75	Definitions	SSc8	Light Pollution	In alphabetical order, insert the term "emergency lighting" with the text "Emergency lighting as defined by the Illuminating Engineering Society of North America is lighting designed to supply illumination essential to the safety of life and property in the event of failure of the normal supply."	5/9/2011
79	Table	n/a	n/a	In the sixth row, replace "WE Credit 4 Cooling Tower Water Management" with "WE Credit 4.1 Cooling Tower Water Management – Chemical Management" and, below as a new row, "WE Credit 4.2 Cooling Tower Water Management – Nonpotable Water Source Use"	4/14/2010
81*	Requirements	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the section, replace the three instances of "1993" with "1994"	7/19/2010
82	1. Benefits and Issues to Consider	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the first line of the first paragraph, remove the word "potable"	7/19/2010
82	Environmental Issues	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the first line of the second paragraph, remove the word "potable"	7/19/2010
82	2. Related Credits	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the fourth bulleted item, replace the text "WE Credit 4: Cooling Tower Water Management" with "WE Credit 4.1: Cooling Tower Water Management – Chemical Management" and, below as a new line, "WE Credit 4.2: Cooling Tower Water Management – Nonpotable Water Source Use"	4/14/2010
84	Table 1	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the fourth row of the table in the "EPA WaterSense Standards" column, replace "1.5 - 2.0 ^ b" with "2.0 ^ b"	7/19/2010
84	Table 1	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the eighth row of the table in the "Fixture" column, remove the text "and janitor" so it becomes "Kitchen sink faucets"	11/2/2009
84	Table 1	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In footnote "b," replace "2.0 gmp" with "2.0 gpm"	7/19/2010

Page	Location	Credit	Credit Title	Issue	Post Date
84	Paragraph below Table 1	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Replace the paragraph with the following: In certain cases, faucets with low-flow rates are not appropriate. For example, in kitchen sinks, faucets are used to fill pots and buckets. Using a low-flow rate for tasks where the volume of water is predetermined does not save water and will likely cause user dissatisfaction and inefficiencies. Consider alternative strategies to reduce water use, such as installing special-use pot fillers and faucets or foot pedal–operated faucets.	7/19/2010
84	Second paragraph below Table 1	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Remove the paragraph beginning with, "Although water-efficient dishwashers…"	5/9/2011
84	4. Implementation	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Insert the following paragraph at the bottom of the page: “For hospitality projects, commercial kitchen sinks and bar sinks including pot sinks, prep sinks, wash down, and cleaning sinks are considered process water and are not included in the water use calculations. Hand washing sinks located in commercial kitchen areas that do not pass through a grease interceptor should be included in the water use calculations under the kitchen sink category.”	11/1/2011
85	Fixture Usage Groups	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	At the end of the section, insert the following text as a new paragraph: “For hospitality projects, fixture usage groups generally include a usage group for guest rooms and a usage group for common areas and back of house. For the purposes of the credit calculations, assume that hotel guests use the fixtures and fittings in their room, employees use back of house and / or common areas, and transient guests use common area restrooms."	11/1/2011

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85	Occupancy	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	After the first paragraph, insert the following text as a new paragraph: "For lodging projects, FTE and transient occupants are calculated per the typical methodology for the respective occupancy types. Hotel guests may be determined based on the number and size of guest room units in the project. Generally, assume 1.5 occupants per guest room and multiply the resulting total by 60% (average hotel occupancy per American Hotel & Lodging Association information) to determine the total number of hotel guests. Alternatively, occupants may be derived from actual historical occupancy numbers. Fixture use assumptions for hotel guests follow the fixture assumptions for residential occupants. Accordingly, lavatories located in guest rooms are considered to be private lavatories. Additionally, day use guests at the hotel should be included in the value for transient / visitor occupants and are assumed to use common area restrooms. Per typical fixture use assumptions, this category of occupants assumes zero shower uses throughout the day. Example: 123 room hotel Total Hotel Guests = 123*1.5 * 60% Total Hotel Guests = 111"	11/1/2011
87	Table 3	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Replace the table with two tables so it becomes: **(see below tables)**	11/2/2009 *(updated 2/2/2011)*

Page	Location	Credit	Credit Title	Issue	Post Date
	(tables relating to above issue) **Table 3a.** Non-residential Default Fixture Uses, by Occupancy Type				

Fixture Type	Duration (sec)	Uses / Day		
		FTE	Transient (Student / Visitor)	Retail Customer
Water Closet (Female)	n/a	3	0.5	0.2
Water Closet (Male)	n/a	1	0.1	0.1
Urinal (Female)	n/a	0	0	0
Urinal (Male)	n/a	2	0.4	0.1
Lavatory Faucet *	15*	3	0.5	0.2
Shower	300	0.1	0	0
Kitchen Sink	15	1	0	0

* Default duration is 12 seconds for lavatory faucet with autocontrol

Table 3b. Residential Default Fixture Uses

Fixture Type	Duration (sec)	Uses / Day
Water Closet (Female)	n/a	5
Water Closet (Male)	n/a	5
Lavatory Faucet	60	5
Shower	480	1
Kitchen Sink	60	4

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87	Table 3a (see above)	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the sixth row (“Lavatory Faucet”) row of the table in the 11/2/2009 addenda, replace the duration (sec) of 15 with 30	2/2/2011
87	Table 4	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the fifth row of the table in the “Flow rate” column, replace “1.8 gpm” with “”≤ 2.2 gpm”	7/19/2010
87	Table 4	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the seventh row of the table in the “Flow Fixture” column, replace "Low-flow shower" with "WaterSense shower”	7/19/2010

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87	Table 4	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the seventh row of the table in the “Flow Rate” column, replace "1.8 gpm" with "≤ 2.0 gpm”	7/19/2010
88	First paragraph on page (above “Baseline Case Water Consumption” section)	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Replace the first sentence with “Private or private use applies to plumbing fixtures in residences, apartments, and dormitories, to private (non-public) bathrooms in transient lodging facilities (hotels and motels), and to private bathrooms in hospitals and nursing facilities.”	7/19/2010
88	Below “Baseline Case Water Consumption”	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Add in the following section: **Eligible Fixtures** This prerequisite is limited to savings generated by the following water using fixtures and fixture fittings as applicable to the project: water closets, urinals, lavatory faucets, showers, kitchen sink faucets and pre-rinse spray valves, as shown in Table 1. The “Kitchen sinks” category encompasses all sinks in public or private buildings that are used with patterns and purposes similar to a sink in a residential kitchen; break room sinks would be included. However professional grade / commercial faucets such as those used in a commercial kitchen would not be included. The “Public lavatory faucets” and “Private lavatory faucets” categories encompass all sinks used primarily for hand-washing regardless of location. Faucets whose usage patterns and flow rates are regulated for medical or industrial purposes (e.g. laboratory sinks) and do not fall under the definition of private or public use are not included. Faucets used exclusively for filling operations (e.g. pot-filler) can be excluded. All other fixtures and fixtures fittings must be included in the calculations unless there are special circumstances that justify excluding them.	2/2/2011
90	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In alphabetical order, insert the following text: **Alliance for Water Efficiency** http://www.allianceforwaterefficiency.org/ The Alliance for Water Efficiency provides information and assistance on water conservation efforts.	7/19/2010

Page	Location	Credit	Credit Title	Issue	Post Date
90	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Remove the following text: **Fine Homebuilding Choosing a Toilet** http://www.taunton.com/finehomebuilding/pages/h00042.asp This article includes several varieties of water-efficient toilets.	7/19/2010
90	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the resource "Rocky Mountain Institute, Water," replace the text below the resource header with the following: http://www.rmi.org/rmi/pid172 This portion of RMI's website is devoted to water resource efficiency.	7/19/2010
90	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the resource "U.S. EPA, Watersense," underline the website "http://www.epa.gov/watersense/."	7/19/2010
91	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Remove the following text: **U.S. EPA, Water Use Efficiency Program** http://www.epa.gov/owm/water-efficiency This website provides an overview of EPA's Water Use Efficiency Program and information about using water more efficiently.	7/19/2010
91	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Replace the resource "Water Closet Performance Testing," with the following: **Water Studies** http://www.ebmud.com/resource-center/publications/studies The site provides a variety of studies related to water.	7/19/2010
94	2. Related Credits	WEc1	Water Performance Measurement	In the fourth bulleted item, replace the text "WE Credit 4: Cooling Tower Water Management" with "WE Credit 4.1: Cooling Tower Water Management – Chemical Management" and, below as a new line, "WE Credit 4.2: Cooling Tower Water Management – Nonpotable Water Source Use"	4/14/2010

Page	Location	Credit	Credit Title	Issue	Post Date
105	Project Site Viability Calculation	WEc3	Water Efficient Landscaping	Replace the second and third sentences of the paragraph with "A site without vegetation or ecologically appropriate features on the grounds is eligible for this credit if its roof and/or courtyard garden space or outdoor planters constitute at least 5% of the total area. Project site viability is determined by calculating the portion of the total building site area covered with planters and/or gardens."	7/19/2010
105	Irrigation Water Use Calculation	WEc3	Water Efficient Landscaping	At the end of the third paragraph, add the following text: Additionally the credit can be met when landscape irrigation is provided by raw water (excluding naturally occurring surface bodies of water, streams, or rivers, and ground water) that would otherwise be treated specifically for nonpotable uses. Only ponds designed solely for the purposes of stormwater retention or detention can be used for this credit.	2/2/2011
109	Equation 5	WEc3	Water Efficient Landscaping	Replace "CE" with "(1 – CE)"	2/2/2011
115 – **121***	n/a	WEc4	Cooling Tower Water Management	Replace all instances of "WE Credit 4" and "Credit 4" with "WE Credits 4.1 – 4.2" and "Credits 4.1 – 4.2" respectively	2/1/2010
115*	Requirements	WEc4	Cooling Tower Water Management	Remove the following text: OPTION 1. Chemical Management (1 point) Replace with: WE Credit 4.1 (1 point): Chemical Management	2/1/2010
115*	Requirements	WEc4	Cooling Tower Water Management	Remove the following text: OR OPTION 2. Nonpotable Water Source Use (1 point) Replace with: AND/OR WE Credit 4.2 (1 point): Nonpotable Water Source Use	2/1/2010

Page	Location	Credit	Credit Title	Issue	Post Date
115*	Requirements	WEc4	Cooling Tower Water Management	Remove the following text: OR OPTION 3. (2 points) Achieve both Options 1 and 2.	2/1/2010
118	Nonpotable Water Supply	WEc4	Cooling Tower Water Management	In the last line of the first paragraph, replace “WE Credit 4, Option 2, Nonpotable Water Source Use” with “WE Credit 4.2 Cooling Tower Water Management - Nonpotable Water Source Use”	4/14/2010
118	Nonpotable Water Supply	WEc4	Cooling Tower Water Management	In the first line of the third paragraph, replace “WE Credit 4, Option 1, Chemical Management” with “WE Credit 4.1 Cooling Tower Water Management – Chemical Management”	4/14/2010
118	Nonpotable Water Supply	WEc4	Cooling Tower Water Management	In the third line of the third paragraph, replace “WE Credit 4, Option 2, Nonpotable Water Source Use” with “WE Credit 4.2 Cooling Tower Water Management - Nonpotable Water Source Use”	4/14/2010
141*	CASE 1	EAp2	Minimum Energy Efficiency Performance	In the third line of the second paragraph, remove the text “both” and “and all comparable buildings used for the benchmark" so the paragraph becomes the following: “Have energy meters that measure all energy use throughout the performance period of all buildings to be certified. Each building’s energy performance must be based on actual metered energy consumption for the LEED project building(s). A full 12 months of continuous measured energy data is required.”	1/8/2010
141*	CASE 2, OPTION 1	EAp2	Minimum Energy Efficiency Performance	Replace the paragraph with the following text: Demonstrate energy efficiency performance that is better than 69% of similar buildings (69th percentile or better) by benchmarking against national source energy data provided in the Portfolio Manager tool as an alternative to energy performance ratings. Follow the detailed instructions in the LEED Reference Guide for Green Building Operations & Maintenance, 2009 Edition.	11/3/2010
143	3. Summary of Referenced Standards	EAp2	Minimum Energy Efficiency Performance	Replace the text with “Refer to the Summary of Referenced Standards section in EA Credit 1."	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
146	4. Implementation	EAp3	Fundamental Refrigerant Management	After the first sentence, add, "HCFCs are not part of this prerequisite."	5/9/2011
151*	CASE 1	EAc1	Optimize Energy Performance	In the third line of the fourth paragraph, remove the text “both” and “and all comparable buildings used for the benchmark" so it becomes the following: “Have energy meters that measure all energy use throughout the performance period of buildings to be certified. Each building’s energy performance must be based on actual metered energy consumption for the LEED project. A full 12 months of continuous measured energy data is required.”	1/8/2010
152*	CASE 2, OPTION 1	EAc1	Optimize Energy Performance	Replace the paragraph with the following text: Demonstrate energy efficiency performance that is better than 71% of similar buildings (71st percentile or better) by benchmarking against national source energy data provided in the Portfolio Manager tool as an alternative to energy performance ratings. Follow the detailed instructions in the LEED Reference Guide for Green Building Operations & Maintenance, 2009 Edition.	11/3/2010
157	First paragraph on page (begins with “EPA continues”)	EAc1	Optimize Energy Performance	Replace the last sentence of the paragraph with "If the location for an international project is not listed, consult ASHRAE 90.1-2007 Appendices B and D to determine a comparable US city."	11/3/2010
160	CASE 2, OPTION 1: Adjusted Benchmark Score	EAc1	Optimize Energy Performance	In the fifth line of the first paragraph, replace "average" with "mean" so the text becomes "…better than the national mean to calculate…"	11/3/2010
160	CASE 2, OPTION 2A	EAc1	Optimize Energy Performance	In header, remove the text "(maximum 2 points)" and replace with "(EAp2 compliance option)" so the text becomes "CASE 2, OPTION 2A: Streamlined Baseline (EAp2 compliance option)"	1/8/2010
161	CASE 2, OPTION 2B	EAc1	Optimize Energy Performance	In header, replace the "7" with a "9" so the text becomes "CASE 2, OPTION 2B: Energy Baseline Including Historical Data (maximum 9 points)"	1/14/2010
161	CASE 2, OPTION 2B	EAc1	Optimize Energy Performance	Remove the last paragraph "If this process results in fewer than 2 points under EA Credit 1, then a refined baseline in Option 2C should be considered."	8/1/2011
162	Recent Energy Efficiency Improvements	EAc1	Optimize Energy Performance	Remove the last line of the section's paragraph (starts with "If the minimum")	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
163	Sharing Access to ENERGY STAR Portfolio Manager Data	EAc1	Optimize Energy Efficiency Performance	In this section, replace all instances of “USGBC” with “GBCI” so the text becomes: **(see below text)**	11/2/2009
	(text relating to above issue) Project teams have the option of sharing data directly from ENERGY STAR Portfolio Manager with GBCI to minimize the number of supporting documents that must be uploaded in the certification application. GBCI keeps these data in confidence and uses them for the sole purpose of verifying credit compliance. To share facility data, follow these steps: 1. Log into Portfolio Manager and go to Home > My Portfolio. 2. Click on the "Share Facilities" link under "Work with Facilities." 3. Under "Select a Portfolio Manager Master Account," select "GBCI - LEED_EB:O&M" and click "Add and Modify." 4. Select the access rights being granted to the GBCI master account. It is recommended that project teams provide read-only access and not grant any of the option rights listed. Click "Continue." 5. Select the LEED EB: O&M project facility whose data you wish to share from the list of facilities in your account and click "Continue." 6. Review the confirmation page and click "Save." 7. You will be notified by e-mail when GBCI accepts the shared data into its master account.				
208	First paragraph (begins with “can purchase”)	EAc4	On-Site and Off-Site Renewable Energy	In the third line, insert "of" after "purchase" so the text becomes "The purchase of Green-e certified RECs…"	11/3/2010
209	6. Calculations	EAc4	On-Site and Off-Site Renewable Energy	In the tenth line of the first paragraph, replace both instances of “25 MBtus” with “12.5 MBtus” so it becomes “…performance period is 12.5 MBtus for electricity and 12.5 MBtus for natural gas”	11/2/2009
210	Equation 1	EAc4	On-Site and Off-Site Renewable Energy	In the seventh line of the paragraph, replace "(1 MBtus/1,000 MBtus)" with "(10 MBtus/1,000 MBtus)"	11/3/2010
211	11. Resources	EAc4	On-Site and Off-Site Renewable Energy	Add the following resource: Low Impact Hydropower Institute http://lowimpacthydro.org The Low Impact Hydropower Institute is a non-profit organization and certification body that establishes criteria against which to judge the environmental impacts of hydropower projects in the United States.	5/9/2011
220	Table 2	EAc5	Enhanced Refrigerant Management	In the column header on the far right, replace “Absorption” with “Centrifugal” so the header becomes “23-Year Life (Screw, Centrifugal Chillers)”	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
221	Paragraph that begins with “Refrigerant leakage”	EAc5	Enhanced Refrigerant Management	Add the following after the first sentence, "If new equipment is being installed, use a default leakage rate of 2%."	11/1/2011
221	Paragraph that begins with “Refrigerant leakage”	EAc5	Enhanced Refrigerant Management	Remove the last sentence: "Guidance for submitting approval for nondefault leakage rates can be found on the LEED Registered Project Tools page (http://www.usgbc.org/projecttools)."	11/3/2010
223	Sample Calculation 2	EAc5	Enhanced Refrigerant Management	In the first line of the first bullet item, replace “absorption” with “centrifugal”	11/3/2010
223	Sample Calculation 3	EAc5	Enhanced Refrigerant Management	In the first bullet item, replace “absorption” with “centrifugal”	11/3/2010
237	Table	n/a	n/a	In the fifth row, replace the text “MR Credit 2 Sustainable Purchasing – Durable Goods” with “MR Credit 2.1 Sustainable Purchasing – Electric-Powered Equipment” and, below as a new row, “MR Credit 2.2 Sustainable Purchasing – Furniture”	4/14/2010
239*	Requirements	MRp1	Sustainable Purchasing Policy	In the first bulleted item, replace the text “MR Credit 2: Sustainable Purchasing – Durable Goods” with “MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment” and, below as a new bulleted item, “MR Credit 2.2: Sustainable Purchasing – Furniture”	4/14/2010
240	2. Related Credits	MRp1	Sustainable Purchasing Policy	In the second bulleted item, replace the text “MR Credit 2: Sustainable Purchasing – Durable Goods” with “MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment” and, below as a new bulleted item, “MR Credit 2.2: Sustainable Purchasing – Furniture”	4/14/2010
241	4. Implementation	MRp1	Sustainable Purchasing Policy	In the second paragraph, replace the third sentence with the following: The sustainable purchasing policy must adhere to the LEED 2009 for Existing Buildings: Operations & Maintenance policy model located in the Introduction section of this Reference Guide.	7/19/2010
249	11. Resources	MRp2	Solid Waste Management Policy	Replace "U.S. EPA WasteWise Program" title, website and description with the following: U.S. EPA WasteWise Program www.epa.gov/wastewise WasteWise is a free, voluntary EPA program that U.S. organizations can use to track, manage, and reduce their municipal solid waste and select industrial wastes.	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
251*	Requirements	MRc1	Sustainable Purchasing - Ongoing Consumables	In the fifth line of the first paragraph, remove the second period following "Food" so the text becomes "...Sustainable Purchasing - Food. For materials…"	1/8/2010
251*	Requirements	MRc1	Sustainable Purchasing - Ongoing Consumables	In the sixth line of the first paragraph, replace the text “(see MR Credit 2)” with “(see MR Credits 2.1 and 2.2)”	4/14/2010
251*	Requirements	MRc1	Sustainable Purchasing - Ongoing Consumables	In the seventh line of the first paragraph, replace the text “Credit 2” with “Credits 2.1 and 2.2”	4/14/2010
251*	Requirements	MRc1	Sustainable Purchasing - Ongoing Consumables	In the first line of the second paragraph, replace the text "A template calculator for MR Credit 1 is available in the LEED Reference Guide for Green Building operations & Maintenance, 2009 Edition" with the following: "A template calculator for MR Credit 1 is available in LEED Online 3 as a credit submittal"	1/8/2010
252	2. Related Credits	MRc1	Sustainable Purchasing - Ongoing Consumables	In the third line of the first paragraph, replace “MR Credit 2: Durable Goods” with “MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment and MR Credit 2.2: Sustainable Purchasing – Furniture”	4/14/2010
259-267*	n/a	MRc2	Sustainable Purchasing - Durable Goods	Replace all instances of “MR Credit 2” and “Credit 2” with “MR Credits 2.1 – 2.2” and “Credits 2.1 – 2.2” respectively	2/1/2010

Page	Location	Credit	Credit Title	Issue	Post Date
259*	Requirements	MRc2	Sustainable Purchasing - Durable Goods	Remove the following text: OPTION 1. Electric-Powered Equipment (1 point) Achieve sustainable purchases of at least 40% of total purchases of electric-powered equipment1 (by cost) during the performance period. Sustainable purchases shall meet 1 of the following criteria: Replace with: MR Credit 2.1 (one point): Electric-Powered Equipment. Achieve sustainable purchases of at least 40% of total purchases of electric-powered equipment (by cost) during the performance period. Examples of electric-powered equipment include, but are not limited to, office equipment (computers, monitors, copiers, printers, scanners, fax machines), appliances (refrigerators, dishwashers, water coolers), external power adapters, and televisions and other audiovisual equipment. Sustainable purchases are those that meet one of the following criteria:	2/1/2010
259*	Requirements	MRc2	Sustainable Purchasing - Durable Goods	Remove the following text: OR OPTION 2. Furniture (1 point) Achieve sustainable purchases of at least 40% of total purchases of furniture (by cost) during the performance period. Sustainable purchases shall meet 1 or more of the following criteria: Replace with: AND/OR MR Credit 2.2 (one point): Furniture. Achieve sustainable purchases of at least 40% of total purchases of furniture (by cost) during the performance period. Sustainable purchases are those that meet one or more of the following criteria:	2/1/2010
259*	Requirements	MRc2	Sustainable Purchasing - Durable Goods	Remove the following text: OR OPTION 3. Combination (2 points) Achieve the requirements of both Option 1 & Option 2.	2/1/2010

Page	Location	Credit	Credit Title	Issue	Post Date
265	9. Exemplary Performance	MRc2	Sustainable Purchasing - Durable Goods	Remove the entire section's text and replace with the following: **(see below text)**	11/2/2009 *(updated 4/14/2010)*
	(text relating to above issue) Project teams can earn an additional point by meeting 1 of the following requirements: For MR Credit 2.1, project teams can earn 1 additional point by increasing sustainable purchases of electrical equipment to 80% of total electronics purchases. Or, project teams can earn 1 additional point by purchasing EPEAT-rated desktops, laptops and monitors for 40% of their durable goods total. For MR Credit 2.2, project teams can earn 1 additional point by increasing sustainable purchases of furniture to 80% of total furniture purchases.				
283*	Requirements	MRc4	Sustainable Purchasing - Mercury in Lamps	*Update from addenda issue ID# 100000250, originally posted 1/8/2010* Remove the third paragraph. ~~In the first line of the third paragraph, remove "template calculator to aid in documenting performance" and replace with "sample calculation" so the text becomes "A sample calculation for this credit is available…"~~	1/8/2010 *(Updated 8/1/2011)*
300	2. Related Credits	MRc6	Solid Waste Management – Waste Stream Audit	In the second bulleted item, replace the text "MR Credit 2: Sustainable Purchasing – Durable Goods" with "MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment" and, below as a new bulleted item, "MR Credit 2.2: Sustainable Purchasing – Furniture"	4/14/2010
304	11. Resources	MRc6	Solid Waste Management – Waste Stream Audit	Replace "U.S. EPA WasteWise Program" title, website and description with the following: U.S. EPA WasteWise Program www.epa.gov/wastewise WasteWise is a free, voluntary EPA program that U.S. organizations can use to track, manage, and reduce their municipal solid waste and select industrial wastes.	5/9/2011
306	2. Related Credits	MRc7	Solid Waste Management – Ongoing Consumables	In the second bulleted item, replace the text "MR Credit 2: Sustainable Purchasing – Durable Goods" with "MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment" and, below as a new bulleted item, "MR Credit 2.2: Sustainable Purchasing – Furniture"	4/14/2010

Page	Location	Credit	Credit Title	Issue	Post Date
309	11. Resources	MRc7	Solid Waste Management – Ongoing Consumables	Replace "U.S. EPA WasteWise Program" title, website and description with the following: U.S. EPA WasteWise Program www.epa.gov/wastewise WasteWise is a free, voluntary EPA program that U.S. organizations can use to track, manage, and reduce their municipal solid waste and select industrial wastes.	5/9/2011
311*	Requirements	MRc8	Solid Waste Management – Durable Goods	In the last line of the first paragraph, replace the text "MR Credit 2: Sustainable Purchasing – Durable Goods" with "MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment and MR Credit 2.2: Sustainable Purchasing – Furniture"	4/14/2010
312	2. Related Credits	MRc8	Solid Waste Management – Durable Goods	In the second bulleted item, replace the text "MR Credit 2: Sustainable Purchasing – Durable Goods" with "MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment" and, below as a new bulleted item, "MR Credit 2.2: Sustainable Purchasing – Furniture"	4/14/2010
314	9. Exemplary Performance	MRc8	Solid Waste Management – Durable Goods	Remove the text and replace with "Project teams can earn an additional point by diverting 95% or more of waste generated by durable goods from disposal to landfills and incineration facilities."	4/14/2010
315	11. Resources	MRc8	Solid Waste Management – Durable Goods	Replace "U.S. EPA WasteWise Program" title, website and description with the following: U.S. EPA WasteWise Program www.epa.gov/wastewise WasteWise is a free, voluntary EPA program that U.S. organizations can use to track, manage, and reduce their municipal solid waste and select industrial wastes.	5/9/2011
318	2. Related Credits	MRc9	Solid Waste Management – Facility Alterations and Additions	In the second bulleted item, replace the text "MR Credit 2: Sustainable Purchasing – Durable Goods" with "MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment" and, below as a new bulleted item, "MR Credit 2.2: Sustainable Purchasing – Furniture"	4/14/2010
337	12. Definitions, Breathing zone	IEQp1	Minimum Indoor Quality Performance	Replace the text with "**Breathing zone** is the region within an occupied space between 3 and 6 feet above the floor. Note that this definition varies from that of ASHRAE 62.1-2007, which states that the breathing zone is between 3 inches and 6 feet from the floor, and 2 feet from the walls as well as fixed air conditioning equipment."	4/14/2010

Page	Location	Credit	Credit Title	Issue	Post Date
339*	Requirements	IEQp2	Environmental Tobacco Smoke (ETS) Control	Remove the text “CASE 1. Non-Residential Projects” and insert below the text “OPTION 2”	4/14/2010
340*	Second bulleted item	IEQp2	Environmental Tobacco Smoke (ETS) Control	Replace the text “leakage from outdoors” with “air leakage into the hallway” so the text becomes “Weather-strip all doors in the residential units leading to common hallways to minimize air leakage into the hallway[1].”	4/14/2010
340*	End of page	IEQp2	Environmental Tobacco Smoke (ETS) Control	At the end of page, insert the footnote “[1]If the common hallways are pressurized with respect to the residential units then doors in the residential units leading to the common hallways need not be weather-stripped provided that the positive differential pressure is demonstrated as in Option 2, Case 1 above, considering the residential unit as the smoking room.”	4/14/2010
342	3. Summary of Referenced Standards	IEQp2	Environmental Tobacco Smoke (ETS) Control	In the second resource listed, replace the website "http://www.energy.ca.gov/HERS/%20" with “http://www.energy.ca.gov/title24/2005standards/residential_acm/index.html”	4/14/2010
344	10. Regional Variations	IEQp2	Environmental Tobacco Smoke (ETS) Control	In the text above the figure, add footnote “34” so the text becomes “**Figure 3.** Smoking Bans, by State[34]”	11/2/2009
345	12. Definitions	IEQp2	Environmental Tobacco Smoke (ETS) Control	Insert the term “Lodging” in alphabetical order with the accompanying text “**Lodging** are facilities that provide overnight accommodations to customers or guests, including hotels, motels, inns and resorts.”	12/2/2009
365	Ventilation Airflow Monitoring in Nondensely Occupied Spaces	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	Delete the last sentence in the section, "Outdoor air delivery monitoring within nondensely occupied spaces may be counted..."	5/9/2011
368	12. Definitions, Breathing zone	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	Replace the text with “**Breathing zone** is the region within an occupied space between 3 and 6 feet above the floor. Note that this definition varies from that of ASHRAE 62.1-2007, which states that the breathing zone is between 3 inches and 6 feet from the floor, and 2 feet from the walls as well as fixed air conditioning equipment.”	4/14/2010
369	12. Definitions,	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	Revise the definition for **densely occupied spaces** to be, "Densely occupied spaces are areas with a design occupant density of 25 people or more per 1,000 square feet (40 square feet or less per person)."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
369	12. Definitions,	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for **non-densely occupied space**, "Non-densely occupied spaces are areas with a design occupant density of less than 25 people per 1,000 square feet (40 square feet or more per person)."	11/1/2011
369	12. Definitions,	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for **nonoccupied spaces**, "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011
369	12. Definitions,	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for **occupied spaces**, "Occupied Spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011
371*	CASE 2	IEQc1.3	Indoor Air Quality Best Management Practices – Increased Ventilation	In the first paragraph, remove the text "Design natural ventilation systems for occupied spaces to meet the recommendations set forth in the Carbon Trust "Good Practice Guide 237" (1998)."	12/2/2009
371*	OPTION 1	IEQc1.3	Indoor Air Quality Best Management Practices – Increased Ventilation	Remove the text in the paragraph and insert: "Show that the natural ventilation systems design meets the recommendations set forth in the CIBSE manuals appropriate to the project space. PATH 1. CIBSE Applications Manual 10: 2005, Natural Ventilation in Non-domestic Buildings. PATH 2. CIBSE AM 13:2000, Mixed Mode Ventilation."	12/2/2009
373	3. Summary of Referenced Standards	IEQc1.3	Indoor Air Quality Best Management Practices – Increased Ventilation	Remove the following text in the section: **(see below text)**	12/2/2009

Page	Location	Credit	Credit Title	Issue	Post Date
	(text relating to above issue) **The Carbon Trust Good Practice Guide 237: Natural Ventilation in Non-Domestic Buildings — A Guide for Designers; Developers and Owners (1998)** http://www.carbontrust.co.uk According to the Carbon Trust, "Carefully designed, naturally ventilated buildings can be cheaper to construct, maintain and operate than more heavily serviced equivalents. Occupants generally prefer windows that can be opened, and natural light, both of which are features of well designed, naturally ventilated buildings. The Guide summarizes the benefits of natural ventilation and considers the commercial implications, illustrating the issues by means of case studies." To obtain a copy, search for "GPG 237" on the Carbon Trust Energy website or go to www.carbontrust.co.uk/Publications/publicationdetail.htm?productid=GPG237&metaNoCache=1.				
379*	Requirements	IEQc1.4	Indoor Air Quality Best Management Practices – Reduce Particulates in Air Distribution	Replace the paragraph with the following: In mechanically ventilated buildings, each ventilation system that supplies outdoor air shall comply with the following during the performance period: • Particle filters or air cleaning devices shall clean the outdoor air at any location prior to its introduction to occupied spaces. • These filters or devices shall be rated a minimum efficiency reporting value (MERV) of 13 in accordance with ASHRAE Standard 52.2 or greater for all outside air intakes and inside air recirculation returns. • Establish and follow a regular schedule for maintenance and replacement of these filtration media according to the manufacturer's recommended interval.	11/3/2010
382	Definitions	IEQc1.4	Indoor Air Quality Best Management Practices – Reduce Particulates in Air Distribution	In alphabetical order, add the following definition for **nonoccupied spaces**, "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011
382	Definitions	IEQc1.4	Indoor Air Quality Best Management Practices – Reduce Particulates in Air Distribution	In alphabetical order, add the following definition for **occupied spaces**, "Occupied Spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
402	Definitions	IEQc2.2	Controllability of Systems: Lighting	Revise the definition for **individual occupant spaces** to be, "In individual occupant spaces, occupants perform distinct tasks from one another. Such spaces may be contained within multi-occupant spaces and should be treated separately where possible. Individual occupant spaces may be regularly or non-regularly occupied spaces."	11/1/2011
402	Definitions	IEQc2.2	Controllability of Systems: Lighting	In alphabetical order, add the following definition for **multi-occupant spaces**, "Multi-Occupant Spaces are places of egress, congregation, or where occupants pursue overlapping or collaborative tasks. Multi occupant spaces may be regularly or non-regularly occupied spaces."	11/1/2011
408	Definitions	IEQc2.3	Occupant Comfort – Thermal Monitoring	In alphabetical order, add the following definition for **nonoccupied spaces**, "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011
408	Definitions	IEQc2.3	Occupant Comfort – Thermal Monitoring	In alphabetical order, add the following definition for **occupied spaces**, "Occupied Spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011
Entire section*	All	IEQc2.4	Daylight and Views	Replace section with that of the supplementary document: https://www.usgbc.org/ShowFile.aspx?DocumentID=9378	5/9/2011
~~412~~	~~2. Related Credits~~	~~IEQc2.4~~	~~Daylight and Views~~	~~In the first bulleted item, replace the text "MR Credit 2: Sustainable Purchasing – Durable Goods" with "MR Credit 2.1: Sustainable Purchasing – Electric-Powered Equipment" and, below as a new bulleted item, "MR Credit 2.2: Sustainable Purchasing – Furniture"~~	~~4/14/2010~~
~~424~~	~~12. Definitions~~	~~IEQc2.4~~	~~Daylight and Views~~	~~Insert the term "Bay" in alphabetical order with the accompanying text "A **bay** is a component of a standard, rectilinear building design. It is the open area defined by a building element such as columns or a window. Typically, there are multiple identical bays in succession."~~	~~12/2/2009~~
424	Definitions	IEQc2.4	Daylight and Views	In alphabetical order, add the following definition for **non-regularly occupied space**, "Non-regularly occupied spaces are spaces that occupants pass through, or spaces used in pursuit of focused activities for less than one hour per person per day (on average)."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
424	Definitions	IEQc2.4	Daylight and Views	In alphabetical order, add the following definition for **nonoccupied spaces**, "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011
424	Definitions	IEQc2.4	Daylight and Views	In alphabetical order, add the following definition for **occupied spaces**, "Occupied Spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011
424	Definitions	IEQc2.4	Daylight and Views	Revise the definition for **regularly occupied spaces** to be, "Regularly occupied spaces 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."	11/1/2011
431	12. Definitions, Green cleaning	IEQc3.1	Green Cleaning - High-Performance Cleaning Program	Replace the term description with the text "**Green cleaning** is the use of cleaning products and practices that have lower environmental impacts and more positive indoor air quality impacts than conventional products and practices."	11/2/2009
435	STEP 2	IEQc3.2	Green Cleaning - Custodial Effectiveness Assessment	In third line of the paragraph, replace entire last sentence "For any space types where…" with "For any space types with fewer than 5 rooms, include all 5 rooms in the audit."	12/2/2009
436	STEP 6	IEQc3.2	Green Cleaning - Custodial Effectiveness Assessment	In the fourth line of the paragraph, remove the text "or utilize tools provided in LEED Online"	12/2/2009
438	12. Definitions, Green cleaning	IEQc3.2	Green Cleaning - Custodial Effectiveness Assessment	Replace the term description with the text "**Green cleaning** is the use of cleaning products and practices that have lower environmental impacts and more positive indoor air quality impacts than conventional products and practices."	11/2/2009
446	12. Definitions, Green cleaning	IEQc3.3	Green Cleaning - Purchase of Sustainable Cleaning Products and Materials	Replace the term description with the text "**Green cleaning** is the use of cleaning products and practices that have lower environmental impacts and more positive indoor air quality impacts than conventional products and practices."	11/2/2009

Page	Location	Credit	Credit Title	Issue	Post Date
451	12. Definitions, Green cleaning	IEQc3.4	Green Cleaning - Sustainable Cleaning Equipment	Replace the term description with the text "**Green cleaning** is the use of cleaning products and practices that have lower environmental impacts and more positive indoor air quality impacts than conventional products and practices."	11/2/2009
453*	Requirements	IEQc3.5	Green Cleaning – Indoor Chemical and Pollutant Source Control	Remove the second paragraph: Provide containment drains plumbed for appropriate disposal of hazardous liquid wastes in places where water and chemical concentrate mixing occurs for laboratory purposes.	7/19/2010
455	Maintenance	IEQc3.5	Green Cleaning – Indoor Chemical and Pollutant Source Control	Remove the second paragraph: Give special consideration to the location of containment drains to ensure that hazardous waste is disposed of properly and prevent environmental damage or contamination of water systems.	7/19/2010
459	4. Implementation	IEQc3.6	Green Cleaning – Indoor Chemical and Pollutant Source Control	In fourth paragraph, replace the "http://www.sfgov.org" link with "http://www.sfenvironment.org/ipmchecklist"	11/2/2009
461	11. Resources	IEQc3.6	Green Cleaning – Indoor Chemical and Pollutant Source Control	Revise the entry for Integrated Pest Management Institute of North America, Inc to read: IPM Institute of North America Inc. The IPM Institute is an independent non-profit organization formed in 1998 to foster recognition and rewards in the marketplace for goods and service providers who practice Integrated Pest Management.	11/1/2011
461	11. Resources	IEQc3.6	Green Cleaning – Indoor Chemical and Pollutant Source Control	Under San Francisco Pest Management Program: -Replace the first hyperlink with "http://www.sfenvironment.org/ipmchecklist" -Remove the last sentence "The 2007 list of reduced-risk pesticides is online at http://www.up3project.org/documents/2007rpplbyaicomplete.pdf."	11/2/2009
462	12. Definitions, Green cleaning	IEQc3.6	Green Cleaning – Indoor Chemical and Pollutant Source Control	Replace the term description with the text "**Green cleaning** is the use of cleaning products and practices that have lower environmental impacts and more positive indoor air quality impacts than conventional products and practices."	11/2/2009

Page	Location	Credit	Credit Title	Issue	Post Date
463	n/a	IEQp2	Environmental Tobacco Smoke (ETS) Control	At the end of the list of footnotes, insert the following text: 34 Americans for Non-Smokers' Rights. "Americans for Non-Smokers' Rights: Smokefree Lists, Maps and Data." http://www.no-smoke.org/goingsmokefree.php?id=519 (accessed September 2008). This information is subject to change based on the ongoing indoor smoking legislation of each state.	11/2/2009
467*	PATH 1	IOc1	Innovation in Operations	In the first line of the second paragraph, replace "IDc1" with "IOc1"	12/2/2009
467*	PATH 2	IOc1	Innovation in Operations	In the second line of the second paragraph, replace "IDc1" with "IOc1"	12/2/2009
467*	Requirements	IOc1	Innovation in Operations	Below the text of the "PATH 2" section text, insert the following section: Path 3. Pilot Credit (1 point) Attempt a pilot credit available in the Pilot Credit Library at www.usgbc.org/pilotcreditlibrary. Register as a pilot credit participant and complete the required documentation. Projects may pursue more than 1 pilot credit; however, a maximum of 1 point will be awarded.	4/14/2010 *(updated 2/2/2011)*
467*	Requirements	IOc1	Innovation in Operations	In the header, change "(1 point)" to "(1 – 4 Points)"	2/2/2011
467*	Requirements	IOc1	Innovation in Operations	Replace the last sentence of the paragraph with "Projects may pursue up to 4 Pilot Credits total."	2/2/2011
487*	Requirements	RPc1	Regional Priority	In the second paragraph, replace the last sentence with "The USGBC has prioritized credits for projects located in the U.S., Puerto Rico, the U.S. Virgin Islands, and Guam. All other international projects should check the database for eligible Regional Priority credits."	11/3/2010
489	Glossary	n/a	n/a	In alphabetical order, add the term "An **appurtenance** is any built-in, nonstructural portion of a roof system, such as skylights, ventilators, mechanical equipment, partitions, and solar energy panels."	8/1/2011
490	Glossary	n/a	n/a	Insert the term "Bay" in alphabetical order with the accompanying text "A **bay** is a component of a standard, rectilinear building design. It is the open area defined by a building element such as columns or a window. Typically, there are multiple identical bays in succession."	12/2/2009

Page	Location	Credit	Credit Title	Issue	Post Date
490	Glossary, Breathing zone	n/a	n/a	Replace the text with "**Breathing zone** is the region within an occupied space between 3 and 6 feet above the floor. Note that this definition varies from that of ASHRAE 62.1-2007, which states that the breathing zone is between 3 inches and 6 feet from the floor, and 2 feet from the walls as well as fixed air conditioning equipment."	4/14/2010
491	Glossary, Building footprint	n/a	n/a	Revise the text for "Building footprint" to be "**Building footprint** is the area on a project site used by the building structure, defined by the perimeter of the building plan. Parking lots, parking garages, landscapes, and other nonbuilding facilities are not included in the building footprint."	8/1/2011
493	Glossary	n/a	n/a	Revise the definition for **densely occupied spaces** to be, "Densely occupied spaces are areas with a design occupant density of 25 people or more per 1,000 square feet (40 square feet or less per person)."	11/1/2011
494	Glossary	n/a	n/a	In alphabetical order, insert the term "**emergency lighting**" with the text "Emergency lighting as defined by the Illuminating Engineering Society of North America is lighting designed to supply illumination essential to the safety of life and property in the event of failure of the normal supply."	5/9/2011
497	Glossary, Green cleaning	n/a	n/a	Replace the term description with the text "**Green cleaning** is the use of cleaning products and practices that have lower environmental impacts and more positive indoor air quality impacts than conventional products and practices."	11/2/2009
497	Glossary	n/a	n/a	In alphabetical order, add the term "**Gross floor area** (based on ASHRAE definition) is the sum of the floor areas of the spaces within the building, including basement s, mezzanine and intermediate-floored tiers, and penthouses with headroo m height of 7.5 ft (2.2 meters) or greater. Measurements must be taken fro m the exterior 39 faces of exterior walls OR from the centerline of walls sep arating buildings, OR (for LEED CI certifying spaces) from the centerline of walls separating spaces. Excludes non-enclosed (or non-enclosable) roofed -over areas such as exterior covered walkways, porches, terraces or steps, roof overhangs, and similar features. Excludes air shafts, pipe trenches, an d chimneys. Excludes floor area dedicated to the parking and circulation of motor vehicles. (Note that while excluded features may not be part of the gross floor area, and therefore technically not a part of the LEED project building, they may still be required to be a part of the overall LEED project and subject to MPRs, prerequisites, and credits.)	8/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
497	Glossary	n/a	n/a	Insert the term “Hospitality industry” in alphabetical order with the accompanying text “The **hospitality industry** consists of companies within the food services, accommodations, recreation, and entertainment sectors.”	12/2/2009
498	Glossary	n/a	n/a	Revise the definition for **individual occupant spaces** to be, "In individual occupant spaces, occupants perform distinct tasks from one another. Such spaces may be contained within multi-occupant spaces and should be treated separately where possible. Individual occupant spaces may be regularly or non-regularly occupied spaces."	11/1/2011
500	Glossary	n/a	n/a	Insert the term “Lodging” in alphabetical order with the accompanying text “**Lodging** are facilities that provide overnight accommodations to customers or guests, including hotels, motels, inns and resorts.”	12/2/2009
501	Glossary	n/a	n/a	In alphabetical order, insert the term "**movable furniture and partitions**" with the text "Movable furniture and partitions are those that can be moved to provide access to the view by the user without the need for tools or assistance from special trades and facilities management."	5/9/2011
501	Glossary	n/a	n/a	Replace the definition for **group multioccupant spaces** with the following definition for **multi-occupant space**, "Multi occupant spaces are places of egress, congregation, or where occupants pursue overlapping or collaborative tasks. Multi occupant spaces may be regularly or non-regularly occupied spaces."	11/1/2011
501	Glossary	n/a	n/a	In alphabetical order, add the following definition for **non-densely occupied** space, "Non-densely occupied spaces are areas with a design occupant density of less than 25 people per 1,000 square feet (40 square feet or more per person)."	11/1/2011
501	Glossary	n/a	n/a	Revise the definition for **nonoccupied spaces** to be, "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011
501	Glossary	n/a	n/a	In alphabetical order, add the following definition for **non-regularly occupied space,** "Non-regularly occupied spaces are spaces that occupants pass through, or spaces used in pursuit of focused activities for less than one hour per person per day (on average)."	11/1/2011
501	Glossary	n/a	n/a	In alphabetical order, add the following definition for **occupied spaces**, "Occupied spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
503-504	Glossary	n/a	n/a	In alphabetical order, insert the terms: **Private** or **private use** applies to plumbing fixtures in residences, apartments, and dormitories, to private (non-public) bathrooms in transient lodging facilities (hotels and motels), and to private bathrooms in hospitals and nursing facilities. **Public** or **public use** applies to all buildings, structures, or uses that are not defined as private or private use.	12/2/2009
505	Glossary	n/a	n/a	Revise the definition for **regularly occupied spaces** to be, "Regularly occupied spaces 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."	11/1/2011
506	Glossary	n/a	n/a	In alphabetical order, add the term, "**Roof area** is the area of the uppermost surface of the building which covers enclosed Gross Floor Area, as measured when projected onto a flat, horizontal surface (i.e. as seen in Roof Plan view). 'Roofs', or portions of roofs, covering unenclosed areas (e.g. roofs over porches and open covered parking structures) are not included in the areas used to evaluate compliance with SSc7.2, though they may be applicable to SSc7.1."	8/1/2011
510	Glossary, Waste disposal	n/a	n/a	In the term description, remove the phrase "dumping at sea"	11/2/2009

*Shaded rows denote rating system and reference guide changes. The purpose of these rating system changes within the rating system portions of the *LEED Reference Guide for Green Building Operations and Maintenance* is to align with the LEED Rating System that comprises the guide: http://www.usgbc.org/ShowFile.aspx?DocumentID=5545

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.