SUPPLEMENTAL GUIDANCE TO THE MINIMUM PROGRAM REQUIREMENTS

Revision 2

LAST UPDATED:
September 1, 2011

LEED 2009 MPR

SUPPLEMENTAL GUIDANCE

Revision 2
Originally released: November 2009
Last Updated: September 1, 2011

Contents

INTRODUCTION

The US Green Building Council (USGBC) writes and maintains the LEED 2009 Minimum Program Requirements (MPRs) Supplemental Guidance to help project teams understand if their building or space can meet the MPRs. The Supplemental Guidance builds on the MPRs by establishing exceptions, providing direction for specific situations, defining key terms, and describing the intent behind each MPR. It is the dynamic partner of the MPRs: it will evolve over time to respond to a changing and complex industry while the requirements themselves – highlighted in grey boxes throughout this document - will remain the same.

When registering a project, first read the MPRs themselves carefully. If a project's compliance with a particular MPR is in question, then review this guidance to find out more. If a project team still has questions, they should contact the Green Building Certification Institute (GBCI) through the online customer service forms at gbci.org

About the MPRs

The MPRs list the basic characteristics that a project must possess to be eligible for certification under the LEED 2009 rating systems, therefore defining a broad category of buildings and spaces that the LEED 2009 rating systems were designed to evaluate. USGBC staff and committee members developed them, with the LEED Steering Committee (LSC) officially approving them in April 2009. In November 2009, the LSC and the USGBC Executive Committee approved of additional MPR language that clarified, but did not add to, the existing requirements. When new rating system versions become available, the MPRs will be completely revised and re-approved. Project teams can find the LEED 2009 MPRs at the following locations:

- At the beginning of each section in this document
- On usgbc.org via each LEED 2009 rating system page

Rating Systems Subject to the MPRs

The MPRs apply to projects registering under the following LEED rating systems, including those that upgrade from past versions:
LEED for New Construction and Major Renovations 2009 (LEED-NC)
LEED for Core & Shell 2009 (LEED-CS)
LEED for Schools 2009 (LEED-SCH)
LEED for Commercial Interiors 2009 (LEED-CI)
LEED for Existing Buildings: Operations & Maintenance 2009 (LEED-EB: O&M)
LEED for Retail – New Construction 2009 (LEED-Retail: NC)
LEED for Retail – Commercial Interiors 2009 (LEED-Retail: CI)
LEED for Healthcare 2009 (LEED-HC)
The MPRs do NOT apply to LEED for Homes, LEED for Neighborhood Development, and pre-LEED 2009 rating systems.

Revisions of this Document

If necessary, this document will be updated on a quarterly schedule, along with the addenda, to provide any additional clarification on the intent and application of the MPRs. Retired versions will be archived and accessible at usgbc.org. Projects must comply with the version of this

document that is current at the time that the project is registered. It is the project team's responsibility to be familiar with the current version when registering a project. Project teams will always have the option to reference versions published after a project's registration date.

Changes Made in Revision 1

The following list includes some of the most significant changes and additions in revision 1, released June 1, 2011.

- Under MPR #2, revised guidance on attached buildings situations
- Under MPR #2, new direction on defining a single building when dealing with a mega-structure
- Under MPR #3, guidance on achieving site credits for projects with overlapping site boundaries aligned with the Application Guide for Multiple Buildings and On Campus Projects
- Parking added to the list of space types which do not meet the definition of '*gross floor area*', and therefore cannot contribute to compliance with MPR #4
- New direction on how to achieve compliance with MPR #6
- Editing to reduce overall length of the document as much as possible

Changes Made in Revision 2

The following list includes some of the most significant changes and additions in revision 2, released September 1, 2011.

- Under MPR #2, revised guidance on construction scope that may be excluded from a LEED-CI boundary
- Addition of LEED-Retail: CI under restrictions for buildings attached to LEED-certified buildings under MPR #2
- Under MPR #6, new guidance on the process of data collection
- Under MPR #6, new guidance on data reporting with the Building Performance Partnership
- Editing to clarify guidance and align document with terms found in other USGBC/LEED publications

How to Submit Questions about the MPRs

USGBC cannot write guidance for every situation in the building arena. However, this guidance is not meant to exclude a building or space that could be fairly evaluated through the LEED certification process if the exclusion is based on a technicality. If a project team is unsure of whether or not a project is in compliance with an MPR, they are encouraged to make a decision based on the language provided here and their own sound judgment. Then, write an explanation of rationale that includes a description of how the project meets the *intent* of the MPR. Upload this explanation in Project Information Form 1 (PIf1) in LEED Online v3 and it will be reviewed when the protect team submits for project review. Any problems with MPR compliance will be addressed during the preliminary review. If the project team wants an official decision before registering a project or before first submittal, please submit a Formal Inquiry for a Project CIR and (if desired) a LEED Interpretation. General guidance only can be provided through regular communications with the USGBC or GBCI customer service team.

Read about Project CIRs at gbci.org under building certification, resources and fees. Read about LEED Interpretations at usgbc.org/leedinterpretations.

If MPR Compliance is Called into Question

If GBCI learns that a LEED project is or was in violation of an MPR, certification may be revoked, or the certification process may be halted. These situations will be handled on a case by case basis according to GBCI's challenge policy, which is within the Certification Policy Manual at gbci.org under building certification, resources and fees. To avoid delays, project teams should keep GBCI informed of any changes that occur to the project during the construction, performance period, or certification process that might call into question compliance with a MPR.

Dealing with Prohibitive Characteristics Not Addressed by the MPRs

The decision not to attempt certification is at a project team's discretion alone. GBCI will not prevent a project team from attempting certification for a building or space because of an unusual characteristic that is not addressed by the MPRs.

Dealing with Building Types Not Specifically Accommodated for in the LEED Rating Systems

The LEED rating systems do not specifically address many building types, such as manufacturing facilities. Buildings types that are not specifically accommodated for may still apply for LEED certification if they meet all of the MPRs.

NOTE: LEED Interpretations #10079 and #10080 posted May 9th, 2011(updated August 12, 2011) specifically prohibits the certification of parking garages. This document discusses this issue in more detail under MPR 2.

How to Select a Rating System

The MPRs do not deal specifically with rating system selection, but they can inform the selection process. Please find specific guidance on this topic in the Rating System Selection Guidance, found on the rating system page at usgbc.org. Please read the MPRs, MPR Supplemental Guidance, and the Rating System Selection Guidance before registering a project.

Precertification (LEED-CS) and Recertification (LEED-EB: O&M) Projects are subject to the MPRs

Precertification and recertification projects are not exempt from any MPRs. Projects pre-certifying under LEED-CS must meet the MPRs applicable to all LEED-CS projects (although data reporting to satisfy MPR #6 only happens after full certification). Projects re-certifying under LEED-EB: O&M must meet the MPRs that are applicable to all LEED-EB: O&M projects and that are in place at the time of the recertification registration.

How to Document Compliance with the MPRs

The LEED project owner must personally confirm that the project complies with each of the MPRs either by completing checkboxes and an initial box in the PIf1 in LEED Online v3, or by signing a letter that states compliance, which is then uploaded to that form. Unless there is a

special circumstance, project teams are not required to submit additional documentation to prove compliance.

How to Deal with Multiple Buildings Situations

All buildings and spaces must meet all the MPRs at the individual building level. If working in a multiple building situation, this document will help project teams understand how a project(s) can comply with the MPRs. The Guidance for Multiple Buildings and On Campus Projects, available at www.usgbc.org/campusguidance, also lists this information, along with instructions for certifying multiple buildings simultaneously.

Please find *underlined and italicized terms* in the glossary at the end of this document.

1. MUST COMPLY WITH ENVIRONMENTAL LAWS.

MPR Language

All Rating Systems:

A lapse in a project's compliance with a building-related environmental law or regulation that results from an unforeseen and unavoidable circumstance shall not necessarily result in non-compliance with this MPR. Such lapses shall be excused so long as they are remediated as soon as feasibly possible.

New Construction, Core & Shell, Schools, Commercial Interiors, Retail – New Construction, Retail – Commercial Interiors, Healthcare:

The *LEED project building or space*, all other *real property* within the *LEED project boundary*, and all *project work* must comply with applicable federal, state, and local building-related environmental laws and regulations in place where the project is located. This condition must be satisfied from the date of *LEED project registration* or the commencement of *schematic design*, whichever comes first, up to and until the date that the building receives a *certificate of occupancy* or similar official indication that it is fit and ready for use.

Existing Buildings: O&M:

The LEED project building, all other real property within the LEED project boundary, any project work, and all *normal building operations* occurring within the LEED project building and the LEED project boundary must comply with applicable federal, state, and local building-related environmental laws and regulations in place where the project is located. This condition must be satisfied from the commencement of the LEED project's initial LEED-EB: O&M *performance period* through the expiration date of the LEED Certification.

INTENT:

The purpose of this MPR is to highlight the importance of environmental laws and regulations that apply to LEED projects. Such legislation establishes a baseline standard for sustainability.

SPECIFIC ALLOWED EXCEPTIONS:

- **Short- term lapses in compliance are acceptable**
  GBCI will not immediately revoke a certification if a lapse in compliance with an environmental law resulting from unforeseen and unavoidable circumstances occurs. However, project teams must demonstrate a dedicated effort to return the building to compliance as soon as feasibly possible. As a precaution and at the project team's discretion, the building owner may notify GBCI of any lapse in compliance and efforts to bring the building back into compliance. Use the Special Circumstances section of PIf1 in LEED Online v3 for this purpose. If the lapse occurs after certification (applicable only to LEED-EB: O&M certified projects), the project team may contact GBCI via the 'contact us' pages at gbci.org to receive additional guidance in this situation.

- **USGBC will recognize exemptions granted by authorities**
  If governmental authorities exempt the project from a building-related environmental law for any reason, then that project is exempt from this MPR in regards to that particular law. In the event that this occurs, a description of the situation leading to the exemption and proof of the exemption (such as an official letter from the granting authority) must be provided in the Special Circumstances section of PIf1 in LEED Online v3.

- **USGBC will recognize settlements granted by authorities on a case-by-case basis**
  It is recognized that, in the case of an alleged environmental law violation, building owners sometimes agree on a settlement with a governmental agency to make reparations for their actions. These situations are treated on a case by case basis in terms of compliance with this MPR. Please contact GBCI via the 'contact us' pages at gbci.org to receive additional guidance in this situation.

- **Special considerations for LEED for Commercial Interiors projects**
  Only the *gross floor area* within the LEED project boundary of a LEED-CI project must comply with this MPR, NOT the building in which the project is located.

- **Special consideration for projects with unfinished spaces**
  For projects with unfinished spaces (typically, LEED-CS projects), interior fit-out work conducted post-certification is NOT subject to this MPR unless strategies implemented in the fit-out space contribute to earned prerequisites or credits for that project via the tenant sales and lease agreement or owner letter of commitment path.

ADDITIONAL INFORMATION AND CLARIFICATIONS:

- **How to identify building-related environmental laws**

  DEFINITION

  For the purposes of this MPR, an 'environmental law' is considered to be a statute, rule, treaty, convention, executive order, regulation, or ordinance that seeks to protect the

natural environment and/or human health which may be negatively impacted by activities surrounding the design, construction, development, or operation of a building.

LOCATION

This MPR applies to ALL LEED projects, regardless of location, and includes all existing building-related environmental laws in the jurisdiction where the LEED project is located. For US projects, this includes laws at the federal, state, and local level.

CATEGORIES

Categories containing laws that fall under the purview of this MPR include, but are not limited to the following: wetlands, noise, runoff, asbestos, air quality, pollution, sewage, pesticides, safety, and forestry.

EXAMPLES

This list includes examples of US federal building-related environmental laws and regulations that fall under the purview of this MPR. This list is not intended to be exhaustive, only illustrative. **It is the project team's responsibility to know which laws apply to the building and to verify that the project is in compliance.**

- Clean Water Act
- Endangered Species Act
- OSHA Safety and Health Regulations for Construction
- OSHA Recording and Reporting Occupational Injuries and Illness

- **New laws and regulations**
  This MPR includes new laws, regulations, and ordinances as they are enacted.

- **Addressing conflicts between LEED 2009 requirements and laws**
  In the rare case that a building-related environmental law covered by this MPR conflicts with another MPR, a LEED prerequisite or credit, the law will take precedence. Project teams may still comply with the MPR and achieve the prerequisite or credit by requesting approval of an Alternative Compliance Path (ACP) during the regular review process, a Project CIR or, if desired, a LEED Interpretation. The ACP must satisfy both the environmental law and the intent of the LEED requirement.

- **USGBC and GBCI will not act in a law enforcement capacity**
  By verifying that a LEED project complies with this MPR, USGBC, and GBCI assume that project owners are accurately and willingly attesting that the LEED project complies with applicable building-related environmental laws. LEED is a voluntary program that rewards exemplary building performance. In no way will USGBC or GBCI act as law enforcement. With this MPR, USGBC and GBCI are using established laws only to ascertain that the LEED project is meeting the appropriate environmental standards.

- **The relationship between MPR #1 and SS Credit 1: Site Selection**
  The intent and requirements of SSc1 Site Selection in whole building design and construction rating systems differ from that of this MPR. This MPR requires compliance with environmental laws, and SSc1 rewards voluntary land use choices. A point may be earned under SSc1 if the LEED project complies with a series of criteria. Projects that do not meet these criteria demonstrate unsustainable, but not illegal development practices. SSc1 essentially builds on the requirements of MPR #1.

2. MUST BE A COMPLETE, PERMANENT BUILDING OR SPACE

MPR Language

All Rating Systems:

All LEED projects must be designed for, constructed on, and operated on a permanent location on already existing *land*. LEED projects shall not consist of mobile structures, equipment, or vehicles. No building or space that is designed to move at any point in its lifetime may pursue LEED Certification.

New Construction, Core & Shell, Schools, Retail – New Construction, Healthcare:

LEED projects must include the new, ground-up design and construction, or *major renovation*, of at least one commercial, institutional, or high-rise residential building in its *entirety*.

Commercial Interiors, Retail – Commercial Interiors:

The LEED project scope must include a *complete interior space* distinct from other spaces within the same building with regards to at least one of the following characteristics: ownership, management, lease, or *party wall separation*.

Existing Buildings: O&M:

LEED projects must include at least one existing commercial, institutional, or high-rise residential building in its entirety.

INTENT:

The LEED rating systems were designed to evaluate complete buildings and spaces in fixed locations. Partial buildings or spaces are unsuitable for LEED certification because when analyzed under the requirements of LEED prerequisites and credits, they create results inconsistent with those of whole buildings or spaces. Also, partial certification can easily appear to encompass an entire building or space, sending a false message to the occupants.

Permanency is important because a significant percentage of LEED prerequisites and credits are dependent on location, making a mobile building or space unacceptable. The stipulation for already existing land responds to the fact that artificial land masses displace and disrupt marine ecosystems. Buildings that generate the need to develop such land do not meet the overall intent of the LEED rating system. Anything less than a distinct, complete, and permanent project on existing land will not be able to accurately demonstrate compliance with LEED.

SPECIFIC ALLOWED EXCEPTIONS:

Attached Buildings

MPR#2 requires a LEED project to be a building in its *entirety* for use of all but the Commercial Interiors Rating Systems. This section allows for buildings (such as additions) that do not meet the definition of *entirety* to comply with MPR#2 if certain conditions are met. The conditions listed below are written to prevent two kinds of problems that attached buildings can lead to: 1) compromised technical integrity of LEED certification and 2) misperception of certification boundaries.

This section lists conditions and guidance in three parts. All attached buildings should comply with part I, and those buildings attached to buildings that are already LEED-certified should comply with part II; whereas those attached to buildings that are not already LEED-certified should comply with part III.

I. ALL attached buildings
II. Buildings attached to LEED-certified buildings
III. Buildings attached to non LEED-certified buildings

I. ALL ATTACHED BUILDINGS

1) DRAWING A PROJECT BOUNDARY

The majority of the certifying floor area vs. the non-certifying floor area is often clear, as a result of construction, ownership, management, or space usage type boundaries. Often, one or more of the following occurs, making it difficult to draw the exact line of the LEED project boundary:

1. Minor construction work is occurring outside of the area intended to be LEED certified
2. Circulation space serves several attached buildings
3. New core mechanical systems that serve several attached buildings are being installed

Project teams must use their own judgment to make reasonable decisions about these situations on a case by case basis. Generally, construction work or space that serves buildings other than the one certifying should be excluded from the LEED project boundary. Note that construction work extending into non-certifying area must be consistently excluded from the certification process.

See guidance under MPR #3 for more information on determining the LEED project boundary in terms of surrounding land.

2) TREATING ENERGY SYSTEMS
For prerequisites and credits that deal with mechanical systems, the project team has three choices:
   a) Separate systems
   Mechanical systems are completely separate from those in the existing building (emergency generators excepted) and can be modeled separately.
   b) Shared central systems located outside of the structures in question
   The District and Campus Thermal Energy Treatment guidance, available at usgbc.org under the 'Energy and Atmosphere' section of any whole building rating system page, explains how to create an energy model in this situation.
   c) Shared central systems located inside the structures in question
   LEED-CI EAc1.3 Option 2 gives guidance on modeling the entire addition and all systems serving the addition.

3) CHOOSING A RATING SYSTEM
As with any project that does not clearly fit into a given rating system, the project team should consult the Rating System Selection Guidance (at usgbc.org, under 'rating systems'). The certifying gross floor area, and only that area, should be used to determine which rating system is appropriate.

4) ALLOWING FOR A SMOOTH REVIEW
The documentation of the certifying project must not create technical barriers to the completion of the certification review. It is incumbent upon the project team to ensure the following:
   a) The distinction between the certifying and non-certifying gross floor area (in particular, the LEED project boundary) is clearly delineated on all relevant documents.
   b) All building components of the LEED project that are addressed by LEED prerequisites and pursued credits (systems, materials, etc) are separate or separable for the purposes of the LEED review, from the building to which it is attached.

5) The LEED project, as defined by the LEED project boundary, must meet all MPR, prerequisite, and credit requirements independent of any building it may be attached to.

6) The certifying gross floor area must be contiguous. Multiple floors are acceptable, but non-certifying floors between certifying floors are not.

   NOTE: please see page 19 for multiple floor exceptions.

7) Fire safety infrastructure such as sprinklers, stairwells, and alarm systems may be shared with the non-certifying building.

8) LEED-EB: O&M project teams are encouraged to carefully review the requirements for EA Prerequisite 2 and Credit 1: Minimum/Optimize Energy Efficiency Performance before registering an attached building.

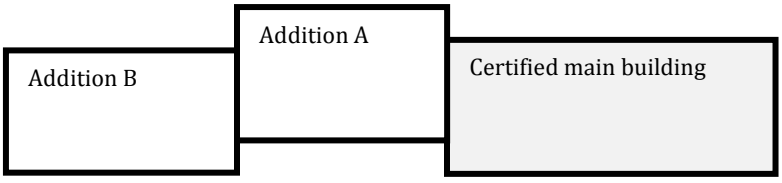
II. BUILDINGS ATTACHED TO LEED CERTIFIED BUILDINGS

If a wing or tower is connected to a building that is already LEED certified, the addition/attached building may be considered a separate building for LEED purposes if the following conditions are met.

1) RESTRICTION ON RATING SYSTEMS
The existing, previously certified building may have been certified under any version of one of the following rating systems.
   - LEED-EB: O&M
   - LEED-NC
   - LEED-CS
   - LEED-SCH
   - LEED-HC
   - LEED-Retail: NC
   - LEED-CI &/or LEED-Retail: CI (ONLY if at least 90% of the existing building's total gross floor area was certified)

The currently certifying attached building should use a design and construction whole building rating system.

2) PREVIOUS LEED CERTIFICATION
All buildings physically attached to the building currently pursuing certification must already be LEED certified. In the plan view below, this exception applies to Addition A in relation to the main building ONLY– the project team would need to meet the conditions listed for buildings attached to non-LEED certified buildings for the Wing A/Wing B connection.



III. BUILDINGS ATTACHED TO NON-LEED CERTIFIED BUILDINGS

1) VERTICALLY ATTACHED, LEED-EB: O&M, AND MAJOR RENOVATION PROJECTS
If the certifying project is certifying under LEED-EB: O&M OR is a major renovation AND/OR is vertically attached to the non-certifying building, then it must be separated from the attached building by the following:
a) Ownership
AND
b) Management OR space usage type

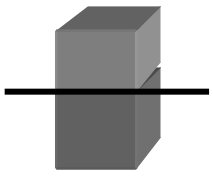
2) SEPARATE NAME
A separate name (including, if a horizontally attached project, a word such as 'addition', or 'wing' that indicates a physical difference) must be given to the certifying building. The same name must be used for all purposes – title of the LEED project as registered with USGBC / GBCI, in formal publications, internal and external property listings and databases, signage, etc.

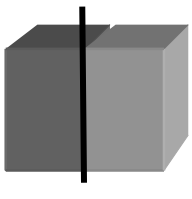
3) ACCURATE LEED REPRESENTATION
LEED certification must be accurately communicated to building users. All promotional and descriptive material produced by the owner or on the owner's behalf clearly distinguish the LEED certified building from any other that it is attached to. This includes clearly marking the distinction between the two spaces with signage. Alternatively, if the LEED certification of the building is confidential, the project team may opt to not communicate the achievement of LEED certification. In this situation, no signage, marketing, or publicity of any kind would announce the LEED certification.

4) VERTICALLY ATTACHED BUILDINGS ONLY: 20% OF THE TOTAL GROSS FLOOR AREA REQUIRED
The certifying gross floor area must include at least 20% of the gross floor area of the overall structure. If the entirety of the certifying project OR the entirety of the non-certifying gross floor area is public infrastructure (such as a subway station) then this rule does not apply.

5) VERTICALLY ATTACHED BUILDINGS ONLY: METERS REQUIRED TO BE SEPARATE
a. Energy usage meter - Every energy source servicing the building must be separately metered (emergency generators excepted).
b. Water usage meter

The definitions of vertically and horizontally attached buildings are further illustrated below.





- **Previously developed support structures and artificial land mass**
  - Buildings located on previously constructed docks, piers, jetties, infill, and other manufactured structures in or above water are permissible, provided that artificial land is previously developed (i.e., the land once supported another building or hardscape constructed for a purpose other than the development of the LEED project).
  - Buildings cantilevered over water, highways, or other bodies are acceptable.
  - Existing dry land (i.e. not wetlands) to which soil or other material has been added complies with this MPR.

- **10% exemption for multi-tenant buildings certifying under LEED-EB: O&M**
  Multi-tenant buildings certifying under LEED-EB: O&M may exclude up to 10% of the *gross floor area* from some prerequisites and credits as outlined in the LEED-EB: O&M reference guide and the submittal forms in LEED Online v3.

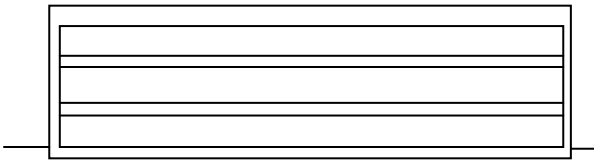
- **Construction scope that may be excluded from a LEED-CI project boundary**
  Sometimes elements of the *exterior shell*, *primary structural components*, or core mechanical systems that are being renovated or installed in parallel to the *interior fit-out* or *alteration* make up the bulk of the LEED project. Spaces containing these elements may be excluded from the LEED project space if those elements are not under the control of the entity conducting the *interior fit-out* or *alteration*.

  The line between certifying floor area and non-certifying floor area is not always clear. Project teams must use their own judgment to make reasonable decisions about these situations on a case by case basis. Generally, construction work or space that serves spaces other than the one certifying may be excluded from the LEED project boundary. Note that construction work extending into non-certifying area must be consistently excluded from the certification process.

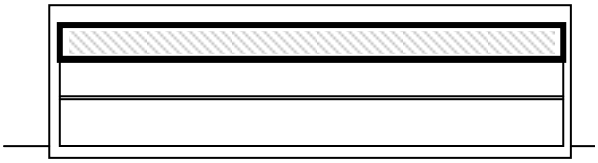
- **Understanding "complete interior space"**
  Basic Definition
  For commercial interiors projects, this MPR states:

  > "The LEED project scope must include a *complete interior space* distinct from other spaces within the same building with regards to at least one of the following characteristics: ownership, management, lease, or *party wall separation*."

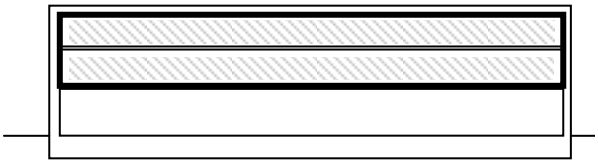
  The glossary gives the definition of '*complete interior space*' as "At a minimum, all the *gross floor area* within the exterior walls of a building that is within a single occupant's control and contains all building components altered as part of the same construction scope." In addition to those attributes listed above, floors can be used to distinguish a complete interior space, if one floor is unaffected by construction work. This is illustrated below.



This is a section drawing of a three story office building, all under the same ownership and management.



Scenario 1: Only the third floor is undergoing construction (shaded), so it can be considered a complete interior space by itself, and the LEED project boundary will be limited to that floor.



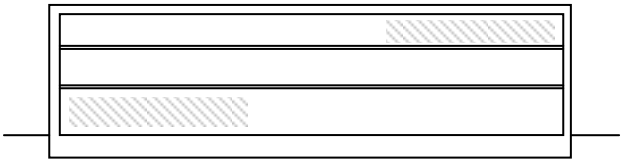
Scenario 2: Both the second and third floors are undergoing construction, so one floor by itself cannot be considered a complete interior space. They both must be included within the LEED project boundary.

Exceptions

There are many situations in which a single entity owns, manages, and/or occupies an entire building, and wishes to certify a renovated portion of the building that is not separate from other portions by one of the attributes listed above. This can include, but is not limited to, the following:

- Part of one floor
- Multiple, non-contiguous parts of one floor
- Multiple certifying floors separated by non-certifying floors

For example, multiple unconnected office spaces within a warehouse may be renovated, but not the main warehouse floor area. In the section drawing of an academic science building below, only the labs (shaded) on the first and third floors are undergoing an *alteration*:



Such spaces are not automatically disqualified from attempting to certify under LEED-CI. Project teams with this situation must submit a narrative in PIf1 in LEED Online v3 confirming that the conditions below are met.

a) It is unreasonable or impossible to draw a project boundary where there is separation by ownership, management, lease, or party wall separation. This often happens when the edge of the construction work does not coincide with such a boundary.

b) The construction work is being conducted under a single contract.
c) The project boundary includes 100% of the construction scope (it may extend beyond the construction scope. However, at least 60% of the total certifying gross floor area must be undergoing *alteration*).
d) The LEED project boundary is drawn at a clear, functional, AND physical barrier.
e) Signage will be provided to clearly demarcate the LEED space.
f) The LEED project boundary is not drawn in such a way as to create an unreasonably difficult review process that results from the reviewer's inability to distinguish between strategies, services, or materials in the LEED certifying space and the non-LEED certifying space. For example, it would be best if the LEED project boundary coincided with an HVAC zone boundary.

ADDITIONAL INFORMATION AND CLARIFICATION

- **Ensuring compliance with the 'entirety' requirement**
  For whole building rating systems (all but LEED-CI), this MPR states:
  > "LEED projects must include the new, ground-up design and construction, or *major renovation*, of at least one commercial, institutional, or high-rise residential building in its *entirety*."

  In the glossary, relevant definitions include:
  - Entirety
  - Physically distinct
  - Party wall
  - Major renovation

  Relevant additional guidance includes:
  - The attached buildings guidance above, which defines exceptions for horizontally and vertically connected buildings.

- **The "already existing land" requirement is applicable to the entire LEED project**
  This MPR requires that "All LEED projects must be designed for, constructed on, and operated on a permanent location on already existing *land*." This requirement is applicable to all land within the LEED project boundary. See additional guidance for artificial land masses on page 18 of this document.

- **How to treat parking garages**
  Parking garages may not earn LEED certification
  A revised May 9, 2011 LEED Interpretation states
  > "Parking garages for cars and trucks may not pursue LEED certification. More specifically, buildings that dedicate more than 75% of floor area all square footage, to the storage and circulation of cars and/or trucks are ineligible for LEED. Square footage should be considered even if it is not covered, enclosed, or conditioned. This LEED Interpretation does NOT apply to vehicle maintenance shops of any kind, airport hangers, border facilities, car salesrooms, transit

centers, or other buildings that deal with cars and trucks in a capacity other than parking, OR with vehicles other than cars and trucks."

Parking garages may not be included in the *gross floor area* of the LEED project building

The definition of *gross floor area* in the glossary specifically disallows the inclusion of parking.

Parking garages may be included within the LEED project boundary

If parking is within, connected to, or on the site of the LEED project building, it may be (and sometimes, must be) included within the LEED project boundary. The MPR #3 section gives more guidance on this issue.

- **Modular buildings elements are allowed**
  Prefabricated or modular structures and building elements of any variation may be certified once permanently installed and/or established as part of the *LEED project building* in the location that they are intended to stay for the life of the entire structure.

- **Buildings with movable parts are allowed**
  Large movable parts, such as a retracting ceiling in a stadium, do not violate this MPR.

- **Movable buildings are prohibited**
  - Structures not compliant with this MPR include cars, motor homes, trains, boats, ships, planes, and transient exhibits of any kind.
  - If for any reason a LEED 2009 certified building is moved from the location cited at the time of LEED certification, it will no longer be in compliance with this MPR and the certification will become invalid.

- **Special considerations for commercial interiors projects**
  MOBILITY

  Buildings in which commercial interior projects are located, must be immobile and are subject to the same guidance on the subject of permanency as projects that are certifying under whole building rating systems.

  ALREADY EXISTING LAND

  Buildings in which commercial interiors projects are located are NOT required to be built on already existing land.

- **Planned obsolescence**
  While USGBC does not encourage planned obsolescence, the amount of time that a building or space is intended to remain standing does not affect compliance with this MPR. The purpose is to disallow a project to certify that is intended to be mobile over the course of its lifetime.

- **Multi-party ownership**
  Multiple-party ownership of a certifying building or space is acceptable. Proper accountability for MPR and rating system conformance must be in place.

- **No exceptions for projects with IEQp2 conflicts**
  Some project buildings, such as casinos, typically have difficulty achieving LEED certification due to a smoking policy that conflicts with Indoor Environmental Quality prerequisite 2, Environmental Tobacco Smoke Control (IEQp2). There will be no exceptions to this MPR to allow for partial building certification of such buildings. Project teams are encouraged to carefully review Option 2 in IEQp2 to explore opportunities to achieve LEED certification despite a smoking room located within a project.

- **Multiple buildings**
  This MPR states that "LEED projects must include the new, ground-up design and construction, or *major renovation*, of at least one….building in its *entirety*", thus, a LEED project may only include ONE building unless the project qualifies for a multiple-building submission through the 2010 Application Guide for Multiple Buildings and On-Campus Building Projects (AGMBC). Part 2 of the 2010 AGMBC (due to be released by the end of 2011), which will contain additional guidance to help project teams certify a group of buildings as a package where the entire building set will receive a single rating, can be located at usgbc.org/campusguidance.

- **Defining 'one building'**
  Super-structures can often be perceived as either a string of multiple buildings, or as a single building. This is typically due to light physical connections, such as a single hallway between buildings that are otherwise physically distinct. Such super-structures may, for the purposes of LEED, be considered a single building if both of the following criteria are met.
  a) Space that can be included in the *gross floor area* of the project that serves a purpose other than parking or the circulation of people is *contiguous* throughout the structure.
  b) All building components of the LEED project that are addressed by LEED prerequisites and pursued credits (systems, materials, etc) can be treated as one, such that separate reviews of the same issues are not required for different portions of the super-structure.

  If these criteria are not met, the project may be considered a set of multiple buildings, regardless of whether or not it can satisfy the 'attached building' criteria on pages 13-16. The AGMBC gives direction on the certification process for such projects.

- **LEED for Core & Shell projects and 'entirety'**
  For a project certifying under LEED-CS, the project is considered a 'building in its entirety' without interior fit-outs being complete.

3. MUST USE A REASONABLE SITE BOUNDARY

MPR Language

New Construction, Core and Shell, Schools, Retail – New Construction, Retail – Commercial Interiors, Healthcare, Existing Buildings: Operations & Maintenance

1. The *LEED project boundary* must include all contiguous land that is associated with and supports normal building operations for the LEED project building, including all land that was or will be disturbed for the purpose of *undertaking the LEED project*.

2. The LEED project boundary may not include land that is owned by a party other than that which owns the LEED project unless that land is associated with and supports normal building operations for the LEED project building.

3. LEED projects located on a campus must have project boundaries such that if all the buildings on campus become LEED certified, then 100% of the gross land area on the campus would be included within a LEED boundary. If this requirement is in conflict with MPR #7, Must Comply with Minimum Building Area to Site Area Ratio, then MPR #7 will take precedence.

4. Any given parcel of *real property* may only be attributed to a single LEED project building.

5. *Gerrymandering* of a LEED project boundary is prohibited: the boundary may not unreasonably exclude sections of land to create boundaries in unreasonable shapes for the sole purpose of complying with prerequisites or credits.

Commercial Interiors

If any land was or will be disturbed for the purpose of undertaking the LEED project, then that land must be included within the LEED project boundary.

INTENT:

In order to ensure fair and consistent evaluation for all projects - particularly under the Sustainable Sites credit category - it is necessary to have guidelines for an acceptable LEED project boundary. All site conditions and impacts related to a building must be considered and addressed in the certification process to ensure a complete and thorough examination of the environmental impacts of a building.

SPECIFIC ALLOWED EXCEPTIONS:

- **Land assigned to previous projects may be re-assigned to LEED-EB: O&M projects**
  Any land associated with a previous LEED project may be re-assigned to a LEED-EB: O&M project with no restrictions.

- **When non-contiguous parcels may be included in the LEED project boundary**
  Non-contiguous parcels of land may be included within the LEED project boundary if the conditions below are met.
  a) The parcel(s) where the LEED project building resides is separated by land that is owned or controlled by an entity different than the owner of the land associated with the LEED project building (e.g. a public right-of-way through the site controlled by the city).
  b) Those parcels separated from the parcel on which the LEED building resides directly supports or are associated with ***normal building operations*** of the LEED building. See additional guidance on the following page of this document.
  c) The non-contiguous parcels are no more than ¼ mile (0.40 kilometer) walking distance apart.
  d) There is a clear and safe walking path between the parcels.
  e) In aggregate, the parcels meet the requirements of all MPRs, prerequisites, and attempted credits.
  f) All parcels share the same common regulatory jurisdiction and are owned, leased, or managed by the same organizational entity.
  g) The project team provides a narrative and a map to demonstrate compliance with items (a) through (f) above. The Additional Details section of PIf1 LEED Online v3 should be used for this purpose.

- **When land included in submittals may be excluded from the *LEED project boundary***
  Land described in this section is not required to be included in the LEED project boundary, and therefore is not subject to consideration for prerequisite, other credit, or other MPR compliance.

  ALL RATING SYSTEMS: STORM WATER DESIGN CREDITS
  Any land used solely to earn this credit, but not otherwise required to be included by MPR #3.

  LEED-EB: O&M, SUSTAINABLE SITES CREDIT 5 SITE DEVELOPMENT-PROTECT OR RESTORE HABITAT
  Any land used solely to earn this credit, but not otherwise required to be included by MPR #3.

  LEED–RETAIL: NC, SUSTAINABLE SITES CREDIT 5.1 SITE DEVELOPMENT-PROTECT OR RESTORE HABITAT
  Any land donated to a land trust to meet the requirements of option 2.

- **When facilities included in submittals may be excluded from the LEED project boundary**
  Occasionally, project buildings use facilities (e.g. parking lots) that are outside of the LEED project boundary as part of their calculations the parking, bicycle storage, shower/changing rooms, and/or on-site renewable energy credits. This is allowable when the facilities serve the LEED project, and at least one of the following two conditions is met:
  a) The facilities are not a part of the LEED project construction scope.
  b) The facilities are physically separate from the LEED project by land not owned by the LEED project owner (or, if on a campus, physically separate such that the inclusion of the facilities in the LEED project boundary would be difficult or unreasonable).

  If the facilities meet one of these conditions, they may be excluded from the LEED project boundary, and therefore they will not be considered for other prerequisite, credit, or MPR compliance. However, those facilities also cannot be used to show compliance for other LEED projects, unless the sufficient capacity is present.

  EXAMPLE

  There are showers in a building adjacent to the LEED project building. The showers may be excluded from the LEED project boundary even if they are used to show compliance with Sustainable Sites credit 4.2: Alternative Transportation, Bicycle Storage and Changing Rooms in LEED-NC, but they may not be included in the calculations for Water Efficiency prerequisite 1. In addition, the showers cannot be used to earn this credit for an additional LEED project unless the required shower-to-Full Time Equivalent (FTE) ratio is met for both projects.

- **Real property no longer attributed to a certified building**
  If a certified building is demolished, all property attributed to that LEED project may be assigned to another LEED project.

- **When land not owned by the LEED project owner may be included**
  Land that the LEED project owner does not own (i.e., leases, has an easement on, or has no claim to) may be included within the LEED project boundary if it can very clearly be shown to support building functions (this includes stormwater management strategies) or is a part of the construction scope. Otherwise, it should be excluded.

- **Project boundaries that include other buildings**
  There are many situations in which it is appropriate for the LEED project boundary to include another building. These include:
  - An addition to an existing building, when the entire structure is surrounded by land that supports the addition and therefore could be included within the LEED project boundary.
  - The site of the LEED project includes several smaller, supporting buildings.

In such cases, the LEED rating will only officially apply to the project building, although the ancillary structures (other buildings) may have to be accounted for in the calculations for the LEED

project. The following guidance addresses these situations, breaking them into two categories: 1) LEED-certifiable building on site and 2) not LEED-certifiable building on site.

LEED-CERTIFIABLE BUILDING ON SITE

If there is another LEED-certifiable building on the same site as the LEED project building, it is not required to certify, but in order to take credit for aspects of the site that are shared between the buildings, the project(s) should refer to the 2010 Application Guide for Multiple Buildings and On-Campus Building Projects (AGMBC). The 2010 AGMBC describes the certification process for multiple building situations. It allows for all site attributes to contribute to LEED certification by the use of a Master Site project to document shared Campus Credit strategies. Note that this guidance can be applied to vertically attached buildings, in which case the *master site boundary* and the individual site boundaries can coincide on all edges.

NON-LEED-CERTIFIABLE BUILDING ON SITE

If there is a non-LEED-certifiable building within the LEED project boundary, the project team can include the non-certifying building within the project boundary in ALL relevant submittals that are allowed and appropriate for each individual credit and prerequisite, essentially treating the non-certifying building as an extension of the certifying building.

- **Temporary structures**
  Temporary structures erected for the purposes of supporting construction administration work that will be removed at construction completion, are not subject to this MPR and will not be required to certify.

ADDITIONAL INFORMATION AND CLARIFICATIONS

- **How to define land that is associated with and directly supports a building**
  This MPR requires that 'The *LEED project boundary* must include all contiguous land that is associated with and supports normal building operations for the LEED project building....'. This includes land altered in any way as a result of the LEED project construction, with exceptions as detailed above, and features enjoyed primarily by the building users, such as:
    - Hardscape, such as parking and sidewalks
    - Septic treatment equipment
    - Stormwater treatment equipment
    - Landscaping

  Often, land is shared with other buildings, extends into large areas of land, or has other attributes such that it is unclear where the project boundary should be drawn. Although many of these situations are addressed in this document, there will always be unique circumstances that cannot be anticipated. In this case, it is the responsibility of the project

team to determine a reasonable boundary that meets the intent of LEED and the available guidance as much possible.

EXAMPLE

Two neighboring stores are being constructed, and one is pursuing LEED certification. A new parking lot with fifty spaces will be shared by the two stores. The certifying store estimates that it will use twenty parking spaces on a regular basis to serve its employees and customers. Therefore, the project team must draw its LEED project boundary to include twenty spaces and forty percent (20/50 = 40%) of the supporting hardscape (driveways, sidewalks, etc).

EXAMPLE

A construction project on a college campus will result in a new student center and a new storm-water infrastructure, including drainage pipes and a retention pond. The infrastructure will serve the new building as well as other buildings on campus. It is at the project team's discretion to include this infrastructure in their LEED project boundary or not. However, if it is included it must be included consistently for all applicable prerequisites and attempted credits.

- **Understanding *gerrymandering***
  Gerrymandering is defined in the document's glossary below as 'To divide and assign land in such a way as to give unfair, inconsistent representation to one parcel over another.' Gerrymandering can also be described as the exclusion of site area from the *LEED Project Boundary* that is associated with or directly supports building functions in order to achieve a LEED pre-requisite or credit.

4. MUST COMPLY WITH MINIMUM FLOOR AREA REQUIREMENTS.

MPR Language

New Construction, Core and Shell, Schools, Retail – New Construction, Healthcare Existing Buildings: Operations and Maintenance

The LEED project must include a minimum of 1,000 square feet (93 square meters) of gross floor area.

Commercial Interiors, Retail – Commercial Interiors

The LEED project must include a minimum of 250 square feet (22 square meters) of gross floor area.

INTENT:

The thresholds and calculations that make up the system of evaluation in LEED begin to break down and lose meaning once the building or space being evaluated reaches relatively diminutive proportions.

SPECIFIC ALLOWED EXCEPTIONS

None

ADDITIONAL INFORMATION AND CLARIFICATIONS

- **Specific building type guidance**
  Open air stadiums, kiosks, and similar building types satisfy this MPR if the minimum required amount of *gross floor area* is met for some part of the structure. The definition of *gross floor area* must be carefully reviewed when considering such a building for compliance with this MPR.

5. MUST COMPLY WITH MINIMUM OCCUPANCY RATES

MPR Language

All rating systems

Full Time Equivalent Occupancy

The LEED project must serve 1 or more *Full Time Equivalent* (FTE) occupant(s), calculated as an annual average in order to use LEED in its entirety. If the project serves less than 1 annualized FTE, optional credits from the Indoor Environmental Quality category may not be earned (the prerequisites must still be earned).

Additionally, for Existing Buildings: O&M:

Minimum Occupancy Rate

The LEED project must be in a state of *typical physical occupancy*, and all building systems must be operating at a capacity necessary to serve the current occupants, for a period that includes all performance periods as well as at least the 12 continuous months immediately preceding the first submission for a review.

INTENT:

Many prerequisites and credits throughout the LEED rating systems evaluate the impact of the LEED project building on the building users, particularly those prerequisites and credits in the IEQ credit category. It is therefore appropriate and necessary to require that a minimum number of people benefit from the strategies implemented in a LEED project building in order to earn any credits.

In LEED-EB: O&M, compliance with many prerequisites and credits is evaluated based on actual usage patterns. Therefore, it is necessary to require that typical usage of the LEED project building is underway during the performance periods, so that accurate measurements can be taken.

SPECIFIC ALLOWED EXCEPTIONS

MINIMUM OCCUPANCY RATE *APPLICABLE TO LEED-EB: O&M ONLY*

- **Unexpected and temporary decline in occupancy**
  If occupancy unexpectedly and temporarily falls below the required threshold within the period of time subject to this MPR[1], but still meets the requirement using a weighted average (as described below), the project team must submit a description of the situation as well as the measures they have taken to keep the reduced occupancy numbers from affecting the results for each prerequisite and credit that deals with occupancy. Explanations specific to a prerequisite or credit should be given in the optional section for that prerequisite or credit, and general descriptions should be given in PIf1 in LEED Online v3.

  Any building that experiences occupancy of less than 100% during a performance period should refer to the LEED-EB: O&M Reduced Occupancy Guidance located on the LEED-EB: O&M rating system page at usgbc.org when completing submittal requirements.

- **Determining compliance with fluctuating occupancy rates**
  All buildings, except for hotels, are considered to be in compliance with this MPR if more than 50% of its floor area is fully occupied (e.g., in a state of typical physical occupancy). This should be time-averaged over the performance period for all prerequisites and attempted credits, including the 12 months leading up to the initial submittal of application for review. The threshold for hotels is 55%.

  EXAMPLE

  A hotel has 100 equally sized rooms and no common space aside from a small lobby. Since the hotel was built, sixty of the rooms have been full as an annual average, taking into account all seasons. Therefore, it is considered to be in compliance with this MPR because sixty percent (60/100 = 60%) exceeds the minimum threshold of 55%.

  EXAMPLE

  There is a school with nine equally sized classrooms and circulation space equal to the square footage of one classroom. Four of the classrooms are not being used, but the other five are being fully used. Therefore, occupancy for the entire building is at sixty percent (5+1/10 = 60%). If attendance in three of the classrooms drops to 50% each, then occupancy for the entire building drops to 45%, and compliance with this MPR is in question.

[1] As stated in the MPR language, the period of time subject to this MPR includes at least the 12 continuous months immediately preceding the first submission for a review and all performance periods.

The following formula may be used for more precise calculations in determining compliance:

[(number of days at x% capacity * x%) + (number of days at y% capacity * y%) + (…)] / total days in operation

EXAMPLE

An office building with ten equally sized floors submits for preliminary review on January 1; exactly a year after its earliest performance period began. It is open 260 days a year. The building operated at full capacity for the first 150 work days of that year. Unexpectedly, six floors become vacant (occupancy drops to 40%) for 50 days. Then, those six floors become occupied again, each operating at half its capacity for the last 60 days (occupancy for the entire building rises to 60%).

[(150*1) + (50*.4) + (60*.6)] / 260 = 79%

Because offices are required to be at 50% capacity at a minimum, this building is in compliance with this MPR.

- **Minimum Occupancy Rate Threshold Change**

  In fall 2009, the minimum occupancy rate threshold for LEED-EB: O&M changed from 75% to 55% and 50%, as detailed above. This change was a result of current marketplace conditions, and was approved by the LSC. This threshold is not expected to change in the foreseeable future. If and when it does change, the revision will only apply to projects registered after the date the change is posted.

ADDITIONAL INFORMATION AND CLARIFICATIONS

FULL TIME EQUIVALENT OCCUPANCY *APPLICABLE TO ALL RATING SYSTEMS*

- **Calculation method for determining annual *FTE* in design and construction projects**

  Although each building varies in regular occupancy, the purpose of setting the baseline annual FTE is to ensure sufficient occupancy to warrant awarding points in the IEQ credit category.

  Annual FTE is based on the average 40 hour work week, assuming 48 total work weeks in the year. Based on this assumption, one annual FTE is defined as one person spending eight hours a day for 240 days in the building, or 1920 hours annually. The calculation can be done by average FTE occupants per day, week, or month:

  By day, must be greater than or equal to 240: (total occupant hours in an average day/8) x number of occupied days

By week, must be greater than or equal to 48: (total occupant hours in an average week/40) x number of occupied weeks
By month, must be greater than or equal to 12: (total occupant hours in an average month/160) x number of occupied months

EXAMPLE

A religious worship facility has an hour-long service once a week for a year and an average of thirty people attends each service. The building stands empty the remainder of the time. The annual *FTE* calculation for this building is:

(30 total occupant hours in an average day / 8) x 52 occupied days = 195

(40 total occupant hours in an average day / 8) x 52 occupied days = 260

Therefore, the combined occupant (employee, staff, student, visitor) hours result in the equivalent of one person spending 195 eight hour days in the facility. IEQ credits may not be pursued. However, if it gains 10 new members, this MPR would be satisfied:

- Only occupant hours that the building expects to accommodate under *normal building operations* shall be included in annual FTE calculations. The project team must make a reasonable projected estimate when determining FTE.

- For projects using rating systems other than LEED-EB: O&M, the projected date of full occupancy is irrelevant to this MPR.

MINIMUM OCCUPANCY RATE *APPLICABLE TO LEED-EB: O&M ONLY*

- **Space types subject to this MPR**
  Gross floor area that is designed to be *regularly occupied* should be the focus when determining compliance with this MPR.

  Any common space such as a lobby or bathroom that receives regular use, as well as any space that does not typically have occupants (such as closets or mechanical rooms), counts toward compliance with this MPR. Common space that is not receiving any use (e.g. a bathroom on a floor completely devoid of occupants) does not count toward compliance.

- **Determining typical physical occupancy**
  The definition of *typical physical occupancy* is 'The state in which normal building operations are underway and the building is in use by the average number of FTE occupants for which it was designed.'

  To determine the average number of FTE occupants the building was designed for, project teams must assess buildings on a case by case basis, using reasonable judgment. Design intentions, floor area capacity, and building system capacity must all be considered. Atypical or indeterminate cases must be described in the PIf1 in LEED Online v3.

Space is considered occupied based on actual usage, NOT leasing. Leased space is only considered occupied if it is physically occupied.

6. MUST COMMIT TO SHARING WHOLE-BUILDING ENERGY AND WATER USAGE DATA

MPR Language

All certified projects must commit to sharing with USGBC and/or GBCI all available actual whole-project energy and water usage data for a period of at least 5 years. This period starts on the date that the LEED project begins typical physical occupancy if certifying under New Construction, Core & Shell, Schools, or Commercial Interiors, or the date that the building is awarded certification if certifying under Existing Buildings: Operations & Maintenance. Sharing this data includes supplying information on a regular basis in a free, accessible, and secure online tool or, if necessary, taking any action to authorize the collection of information directly from service or utility providers. This commitment must carry forward if the building or space changes ownership or lessee.

INTENT:

The goal of decreased energy and water use consumption is a major component of LEED certification. Tracking actual building consumption and comparing it to the usage proposed in design cases, or tracked during a performance period, is essential to the individual success of each LEED certified building and the ongoing evaluation and development of the LEED program.

By providing usage data, LEED project owners will not only be taking a very active part in advancing the green building movement, but they will also be provided feedback about the performance of their building in the context of comparable buildings. In addition, buildings that achieve LEED certification in a design and construction rating system will be able to streamline their certification under LEED-EB: O&M with readily available performance data.

Access to complete and accurate performance on every LEED building project will allow the USGBC to aggregate individual building information and perform program evaluations, such as average LEED energy and water savings relative to national and regional averages. Aggregate figures on carbon emissions, costs, and other environmental impacts associated with building energy usage are of significant interest to USGBC, GBCI, green building advocates, builders, owners, and operators. USGBC will use all building data to inform the continuous improvement of the LEED rating systems, develop related educational programming, identify key areas of needed research, and present clear, unbiased results to the building community. Building performance feedback will be provided to LEED project owners as part of this MPR.

SPECIFIC ALLOWED EXCEPTIONS:

- **When whole project meters are cost-prohibitive or physically impractical to install**
  Owners of LEED project buildings or spaces that do not have meters in place that measure energy and/or water usage for the entire LEED-certified gross floor area are not expected to supply energy and/or water usage data unless such meters are installed. Many commercial interiors projects, higher education campuses, and military bases will fall into this category. In PIf1 in LEED Online v3, the project team will need to detail the reasons why whole project meters are cost-prohibitive or physically impractical to install.

  If meters are installed post-certification, the project owner is expected to report data for whatever time is remaining on the 5 year period, which begins at the beginning of typical physical occupancy for design and construction projects and the date certification is awarded for LEED-EB: O&M projects.

- **Complying with this MPR when there is a transfer of ownership**
  To own a LEED certified project is to participate in the ongoing evolution of the green building movement. In that spirit, and in keeping with the intent of this MPR, the owner's commitment to provide whole-building energy and usage data is expected to carry forward to the next owner if all or part of a LEED certified project is sold, re-assigned or otherwise transferred. However, it is recognized that this may not always be possible, and USGBC will respect the realities of situations in which reasonable efforts to maintain the commitment are not successful. In this situation, the initial building owner will no longer be required to provide the data or access to the data.

ADDITIONAL INFORMATION AND CLARIFICATIONS

- **Correlation of actual performance to design performance is not required**
  Data collection is for research purposes only, and project teams are required simply to share data, NOT to show that design cases submitted during certification were accurate. For projects using rating systems other than LEED-EB: O&M, actual performance may vary from projected performance. This MPR addresses the act of data sharing, not the content of the data. Projects will not be de-certified based on performance.

  NOTE: projects certifying under LEED-EB: O&M are required to submit performance data during the certification process, and this does affect if, and what level of, certification will be achieved.

- **The reporting timeline for design and construction projects**
  For projects certifying under design and construction rating systems, data tracking must begin when the project reaches 50% of typical physical occupancy, and the first data report must be submitted within two months of that date. However, project teams can begin tracking any time before that, and are encouraged to do so. If tracking begins prior to 100%

typical physical occupancy, project teams are asked to make note of occupancy rates in the tool they are using to submit data.

Project teams should submit data on a monthly basis unless they are unable to do so because of a utility billing cycle. In this case, submissions aligning with that cycle are acceptable.

- **How to determine typical physical occupancy**
  The definition of '*Typical Physical Occupancy*', as given in the definitions section below, is: "The state in which normal building operations are underway and the building is in use by the average number of people that it was designed for."

  To determine the average number of full time equivalent occupants that the building was designed for, project teams must assess buildings on a case by case basis, using reasonable judgment. Design intentions, floor area capacity, and building system capacity must all be considered.

- **The process of data collection**
  All project teams (including international project teams) have three options for sharing data with USGBC. These choices are indicated on PIf1in LEED Online v3. For details on the MPR#6 Options, refer to the Sample Form download section of LEED Online v3 and the MPR#6 FAQs located on the LEED 2009 Minimum Program Requirements page at usgbc.org.

- **How to change compliance method post-certification**
  Project teams can change their method of data sharing at any time by contacting LEEDPerformance@usgbc.org.

- **Publication of data will be anonymized**
  Analysis of aggregated data will be made publicly available on a regular basis (schedule to be determined).

- **Commercial Interior projects should report data only for LEED space**
  LEED-CI projects need not, and should not, report data unless there are meters in place that can measure usage for the entire LEED *project space*, and only the LEED project space.

- **LEED Core & Shell projects do not require special treatment**
  Metering and data collection for LEED-CS projects does not differ from other projects. Data may be collected from spaces that the LEED project team did not fit out as part of their core and shell design and construction – this is normal and acceptable.

- **Major renovations negate the need to report data**
  If the LEED project building undergoes a post-certification renovation or change significant enough to alter the energy and water usage patterns, than data sharing is no longer necessary.

- **Reporting periods are not additive for buildings certifying multiple times**
  The data sharing 'clock' starts over each time a building is certified. If, for example, a building certifies under a design and construction rating system, and then certifies under LEED-EB: O&M three years later, the project owner is only required to report five years of data from the date of LEED-EB: O&M certification, not seven years.

- **Data Reporting with the Building Performance Partnership**
  MPR#6 data-sharing requirements is not the same as participating the Building Performance Partnership (BPP). Read more about the BPP program at usgbc.org/bpp.

7. MUST COMPLY WITH A MINIMUM BUILDING AREA TO SITE AREA RATIO

MPR Language

The *gross floor area* of the LEED project building must be no less than 2% of the *gross land area* within the LEED project boundary.

INTENT:

Because LEED is a rating system for buildings, it is appropriate to restrict the amount of land associated with a LEED certified project.

SPECIFIC ALLOWED EXCEPTIONS

None

ADDITIONAL INFORMATION AND CLARIFICATIONS

- **Calculation method for determining gross floor area to site area ratio**

  [Gross Floor Area (gsf) / Site Area (sf)] x 100

  EXAMPLE

  A 4,000 square foot building is located on a five acre (217,800 sq ft) site:

  [4,000/ 217,800] x 100 = 1.8%

  This building must claim only 4.6 acres (200,000 sq ft) within its LEED project boundary to meet the 2% building area to site area minimum.

- **There is no maximum ratio**
  There is no maximum building area to site area ratio.

- **Addressing conflicts with MPR #3**
  If a LEED project boundary must be adjusted in order to meet this MPR, the adjustment must be done such that the new boundary also complies with MPR #3, Must Use a Reasonable Site Boundary. If there is a conflict, this MPR takes precedence. In other words, the project team may eliminate land that is usually required by MPR #3 to be within the project boundary, in order to comply with this MPR. However, the elimination must be done

in a reasonable fashion; the project team cannot remove land specifically because it would not comply with another MPR, prerequisite, or credit requirement.

- **Projects without land in the LEED project boundary comply by default**
  If there is not any land included within the LEED project boundary (as will typically be the case with LEED-CI projects), the project will be in compliance with this MPR by default.

- **Treatment of land used with SSc5 Site Development –Protect or Restore Habitat in LEED-EB: O&M**
  Off-site land used to earn Sustainable Sites credit 5 in LEED-EB: O&M must be included in the calculations for this MPR.

GLOSSARY

Alteration: Includes *improvement* work in addition to the rearrangement of any interior space by the construction of non-bearing walls, partitions, ceilings, and floors, the addition or elimination of any interior door or window, the extension or rearrangement of any mechanical, electrical, and plumbing (MEP) or service system (peripheral or core), and the installation of any additional equipment or fixtures. Work does not extend to the *primary structural components*, *exterior shell*, or roof of the building.

Certificate of Occupancy: A document issued by a local authority indicating that premises complies with provisions of zoning, building ordinances, building code, and/or approved plans and specifications. This is often required before premises can be occupied and title transferred.

Complete Interior Space: At a minimum, all the *gross floor area* within the exterior walls of a building that is within a single occupant's control and contains all building components altered as part of the same construction scope. This is also referred to as the 'completed design area'.

Contiguous: Touching, in contact.

Design and Construction Rating Systems: Any LEED rating system that addresses both the design and construction of a building or interior space. Includes LEED for New Construction and Major Renovation, LEED for Core & Shell, LEED for Schools, LEED for Commercial Interiors, LEED for Retail, and LEED for Healthcare.

Entirety: The sum of the constructed components that make up a building which is *physically distinct* from another building.

Enclosed space: Floor area that is 100% separated (or separable with existing components) from outside space by walls, windows, and doors.

Exterior shell: Any part of a building structure that acts as a barrier between the interior and exterior.

Fit-out: *See 'interior fit-out'*

Full Time Equivalent (FTE): A regular building occupant who spends 40 hours per week in the building or space, or the equivalent. Part-time or overtime occupants have FTE values based on their hours per day.

Gerrymander: To divide and assign land in such a way as to give unfair, inconsistent representation to one parcel over another.

Gross Floor Area: *(based on ASHRAE definition)* Sum of the floor areas of the spaces within the building, including basements, mezzanine and intermediate-floored tiers, and penthouses with

headroom height of 7.5 ft (2.2 meters) or greater. Measurements must be taken from the exterior faces of exterior walls OR from the centerline of walls separating 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, chimneys and floor area dedicated to the parking and circulation of motor vehicles.

NOTE: while excluded features may not be part of the gross floor area, and therefore technically not part of the LEED project building, they may still be required to be part of the overall LEED project and subject to MPRs, prerequisites, and credits.

Gross Land Area: Measure of the total amount of land within the *LEED Project Boundary,* including land under the footprint of the building. Also called '*site area*'.

Gross Square Feet/Square Meters: see '*Gross floor area*'.

Improvement: The restoration or application of interior finishes and fixtures, MEP and service system equipment repair/replacement/upgrades, minor space-use changes, and preventative or corrective maintenance.

Interior Fit-Out: The installation or application of interior finishes, floor and ceiling systems, non-bearing partitions, furniture, interior doors and windows, and other components that make a space fully usable for the purpose it is intended. A complete interior fit-out is such that no further construction work is needed or intended for occupancy.

Land: Any part of the earth's surface not covered by a body of water.

LEED Campus Boundary: The boundary that encompasses all of the individual buildings and individual project boundaries certifying as a multiple building project under the 2010 Application Guide for Multiple Buildings and On-Campus Building Projects.

LEED Project: All real property within the LEED project boundary, including the building(s) or space(s), all structures, land, etc. which collectively are attempting or have earned certification.

LEED Project Boundary: The line that indicates the limits of the *real property* for which the project team is attempting or has earned certification.

LEED Project Building: The structure which is attempting or has earned certification.

LEED Project Space: The *gross floor area* which is attempting or has earned certification.

LEED Project Registration: The process through which the project team establishes a LEED project in LEED Online v3. This process is considered complete once payment is received by USGBC and/or GBCI.

Major Renovation: Includes extensive *alteration* work in addition to work on the *exterior shell* of the building and/or *primary structural components* and/or the core and peripheral MEP and service

systems and/or site work. Typically, the extent and nature of the work is such that the *primary function space* cannot be used for its intended purpose while the work is in progress and where a new certificate of occupancy is required before the work area can be reoccupied.

Master Site Boundary: See '*LEED Campus Boundary*'.

Normal Building Operations: The complete activities and functions intended to take place within the building and on associated property.

Operational Activities: See '*Normal Building Operations*'.

Parking: Square footage dedicated to the storage and movement of motor vehicles.

Party Wall: A wall without openings erected as a common support to structures on both sides.

Performance Period: The continuous, unbroken time during which sustainable operations performance for a building and/or site is being measured.

Physically Distinct: The condition in which a building has both of the following:

a) Exterior walls that are *party walls* or are separate from adjoining buildings by air space.
b) Lighting, HVAC, plumbing, and other mechanical systems that are separate from the systems of adjoining buildings.

LEED project boundary lines that "slice" through party walls must not pass through any MEP service infrastructure. Exceptions include buildings served by a common or shared chiller plant or heating water, or steam supply pipes (i.e., not air ducts), and only if the thermal energy serving the structure to be separated is sub-metered.

Primary Function Space: The floor area that serves the main purpose of the building or space.

Primary Structural Component: Any component of the load-bearing structure of a building including footings, piles, foundations, columns, girders, beams, joists, wind, or seismic bracing.

Project Work: See 'Undertaking the LEED Project'.

Regularly occupied spaces: Areas where workers are seated or standing as they work inside a building. In residential applications, these areas are all spaces except bathrooms, utility areas, and closets or other storage rooms. In schools, they are areas where students, teachers, or administrators are seated or standing as they work or study inside a building.

Real Property: Land and land alterations that are a direct result of human activities that subsequently support an active land use, including structures of any kind.

Schematic Design: The initial phase of architectural work that establishes the scope and physical outline of the project.

Site Area: See '*gross land area*'.

Substantial Completion of Construction: The point at which work on the building project is sufficiently complete in accordance with all construction contract documents, and any strategies that the project is receiving recognition for under LEED are fully implemented, except for operations-related strategies (such as a thermal comfort survey).

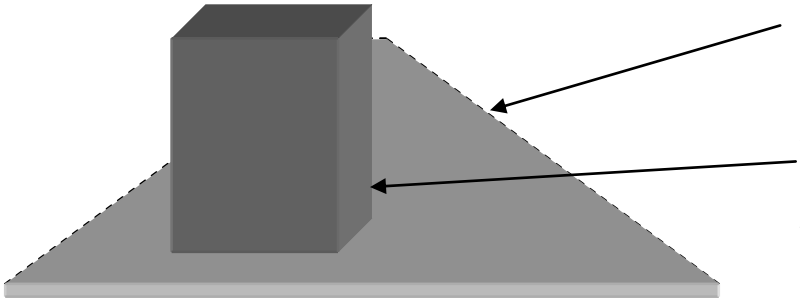
Tenant Space: Please see '*LEED Project Space*'.

Typical Physical Occupancy: The state in which *normal building operations* are underway and the building is being used by the average number of *full time equivalent occupants* for which it was designed.

Undertaking the LEED Project: All design, construction, and development work that contribute to the creation of the *LEED project building*.

ILLUSTRATIONS OF COMMONLY USED TERMS

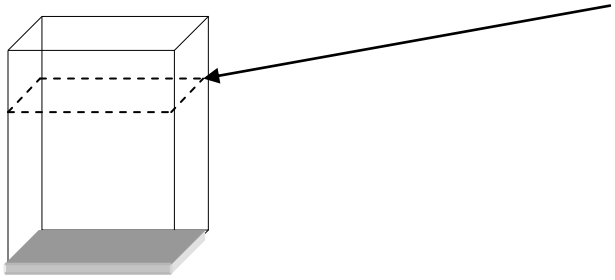
Typical situation for a project using a non-commercial interiors rating system:



The *LEED project boundary*. Everything within the boundary is considered, collectively, the *LEED Project*.

The *LEED Project Building*. Within the building, all floor area that meets the definition of *Gross Floor Area* is considered the *LEED Project Space*.

Typical situation for a project using a commercial interiors rating system:



The *LEED project boundary*. Simultaneously, it is also the boundary of the *LEED Project Space*. Everything within it is considered, collectively, the *LEED Project*. Within it, all floor area that meets the definition of *Gross Floor Area* is considered the *LEED Project Space*.