



LEED RESIDENTIAL QUALITY ASSURANCE MANUAL

2023 EDITION

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1 Introduction

The LEED Residential Quality Assurance Manual establishes the quality assurance guidelines for the administration and verification of projects pursuing certification under the LEED for Homes and LEED Residential Rating Systems.

All professionals involved in the verification of LEED for Homes and LEED Residential projects are required to follow the guidance in this manual.

1.1 GUIDING PRINCIPLES

Green Business Certification Inc. employs five guiding principles to support the vision and mission of the organization. These provide a foundation for operational strategy and growth and serve as a tool for evaluating both successes and new challenges. These principles are particularly relevant for conducting LEED Residential verification services:

Assuring Validity and Quality

We ensure rigor in the design, development and implementation of the processes we use to measure green building performance (certification) and green building practice (credentialing). Our approaches and methodologies are designed for consistency and objectivity to assure the validity of our certifications and credentials.

Ensuring Transparency and Clarity

We are open and authentic in the way we do business and the information we make available. We operate within the standards and guidelines of our business. The way we conduct our business—with a deep sense of integrity and ethical responsibility—creates a sense of predictability in the marketplace. Our stakeholders know what they can expect from us.

Adapting to Change

We practice continuous improvement and adapt to the changing needs of the global marketplace, advancing our knowledge and expertise to move the green building industry forward.

Providing Excellence in Service

Our focus is on building relationships with those we serve. We provide excellence through high-quality responsiveness to our clients and customers. Our goal is to support and partner with our stakeholders for the long-term.

Driving Change to Create a Lasting Impact on the World

We affect the green building environment in an enduring way by verifying knowledge and performance. We influence long-term beneficial change by focusing on results that matter and recognizing leadership in the field. We feel a personal and organizational responsibility for creating global change that is economically, environmentally, and socially sustainable and lasting.

1.2 THIRD-PARTY ASSESSMENTS

One of the core strengths of the LEED Certification model is that the program features are all reviewed and assessed by an impartial third party. Third-party assessment is essential to the integrity of the program because it gives property owners confidence and reassurance that their project is being built as designed.

1.3 ROLE OF GBCI

Established in 2008, GBCI exclusively administers project certifications, professional credentials, and certificates within the framework of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) green building rating systems as well as the PEER standard for power systems, the WELL Building Standard, the Sustainable Sites Initiative (SITES®), the EDGE Green Building Certification system, TRUE Zero Waste, Investor Confidence Project IREE, City Climate Planner, ISSP – Sustainability Associate and ISSP – Certified Sustainability Professional which is used by institutional investors to improve the sustainability performance of the global property sector.

GBCI provides third-party verification services for certification and credentialing through a scientific process by which a product, process or service is reviewed by a reputable and unbiased third party to verify that a set of criteria, claims or standards are being met. Certification and credentialing are used within the global green building industry to demonstrate credibility, provide a metric for comparisons and add significant value. GBCI facilitates the LEED Residential certification process, oversees quality and consistency for each individual performing verification services and evaluates their work on an ongoing basis.

In addition to issuing all LEED Certifications, GBCI:

- i. Evaluates, authorizes, and oversees individuals and organizations performing LEED Residential verification services
- ii. Administers quality assurance policies and issues related policy documents
- iii. Issues and enforces GBCI Professional Conduct and Disciplinary Guidelines

1.4 DEFINITIONS

The following definitions are used consistently throughout this document to refer to parties involved in the LEED Certification process:

Project Team: individual or team seeking LEED Certification of a building or buildings

Owner: individual or entity that holds all legal right to possess and control the real and personal property associated with the building or buildings

U.S. Green Building Council (USGBC): organization responsible for developing the LEED Green Building Rating System

Green Business Certification Inc. (GBCI): organization that manages the accreditation of individuals and the certification of LEED buildings

LEED Green Rater (Green Rater): individual authorized by GBCI to provide verification and quality assurance services for LEED Residential projects

LEED Residential Rating Systems:

- a. LEED BD+C: Homes v2008
- b. LEED BD+C: Multifamily Midrise v2010
- c. LEED BD+C: Homes v4
- d. LEED BD+C: Multifamily Midrise v4
- e. LEED v4.1 Residential BD+C: Single Family
- f. LEED v4.1 Residential BD+C: Multifamily
- g. LEED v4.1 Residential BD+C: Multifamily Core and Shell Development

LEED Residential Provider: organization contracted with and authorized by GBCI to oversee the verification process and provide additional quality assurance services for LEED Residential projects

Qualified Energy Rater: qualified individual that conducts performance testing services required by LEED Residential Rating Systems. In the United States, the Residential Energy Services Network (RESNET) administers credentials and oversees the largest body of energy raters, called Home Energy Raters (HERS Raters). Other regions outside of the U.S. may have different credentials for these professionals. In regions where there are not Qualified Energy Raters, LEED Interpretation 10433 provides an alternative definition of a qualified professional to fulfill this role. In many cases, the Green Rater may also be a Qualified Energy Rater, or HERS Rater, and can provide both the required onsite verification and performance testing services.

1.5 EXPECTATIONS OF VERIFICATION PROFESSIONALS

Confidentiality of this document

This document is an internal work product and contains proprietary GBCI information and as such may only be shared with persons directly involved in conducting LEED Residential verification services.

Sufficient Demonstrated Competence

Individuals conducting LEED Residential verification services are expected to maintain current familiarity with LEED programs and published documents, all referenced industry standards and GBCI guidance documents. They are expected to check for updates often (at minimum on a quarterly basis).

Each individual providing verification services is responsible for maintaining sufficient expertise to verify compliance with all credits and prerequisites in the appropriate LEED rating system.

All Green Raters are officially recognized by GBCI and must meet the following requirements to receive and maintain their approved status:

- i. Have at least three years of relevant onsite work experience in the residential construction industry. Note experience in green building certification (such as LEED, ENERGYSTAR for Homes, etc.) with at least one certified project is preferred

- ii. Hold a current LEED BD+C or LEED AP Homes credential, as issued by the Green Business Certification Institute (GBCI)
- iii. Complete the Green Rater Training and pass the associated assessment
- iv. Agree to, and comply with, GBCI Terms + Conditions outlined in LEED Green Rater Agreement
- v. Maintain average GBCI quality scores of 4 (see section 5)
- vi. Maintain an average customer satisfaction rating (when available) of 4 stars (see Section 5)
- vii. Verify at least 2 LEED Residential projects every two years

All LEED Residential Providers are officially recognized by GBCI and must meet the following requirements to receive and maintain their LEED Residential Provider license:

- i. Have a designated LEED Green Rater on staff
- ii. Have at least one LEED Green Rater on staff who has taken the LEED Residential Quality Assurance Training.
- iii. Must have a robust Quality Management Plan, that complies with the QA Manual
- iv. Agree to, and comply with, GBCI Terms + Conditions outlined in LEED Residential Provider agreement, including insurance and liability requirements.
- viii. Maintain average GBCI quality scores of 4 (see section 5)
- ix. Maintain an average customer satisfaction rating (when available) of 4 stars (see Section 5)
- x. Verify at least 2 LEED Residential projects every two years

Document Access and Version Control

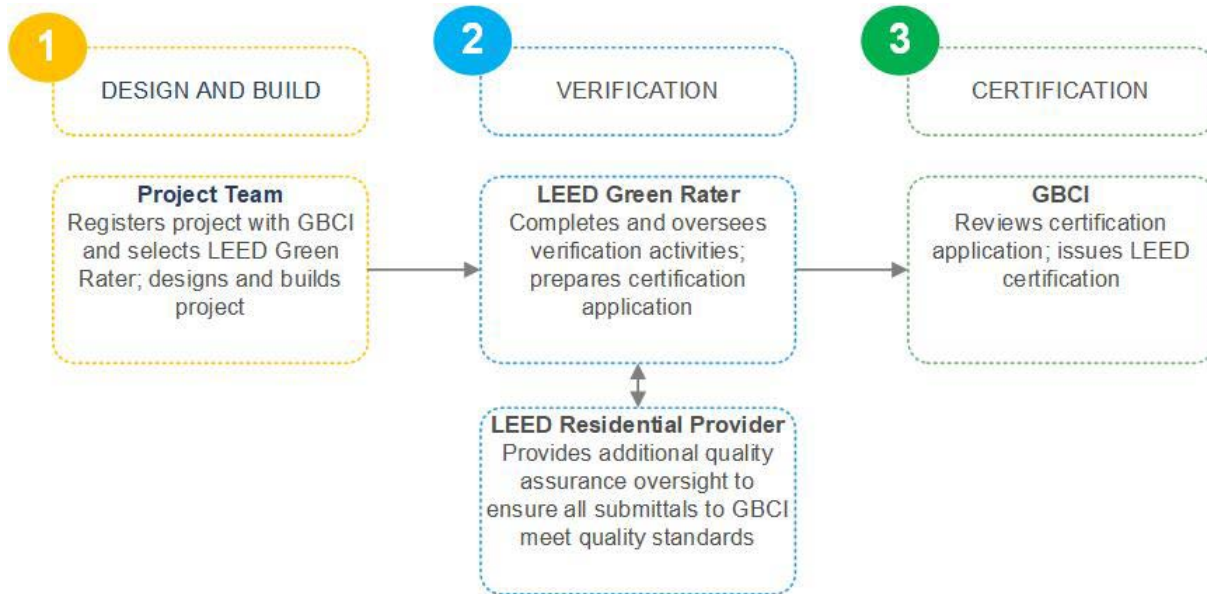
Each individual conducting LEED Residential verification services is responsible for ensuring that they have convenient access to all necessary reference documents, including, but not limited to:

- i. LEED Residential Rating Systems and Reference Guides
 - a. LEED BD+C: Homes v2008
 - b. LEED BD+C: Multifamily Midrise v2008
 - c. LEED BD+C: Homes v4
 - d. LEED BD+C: Multifamily Midrise v4
 - e. LEED v4.1 Residential BD+C: Single Family
 - f. LEED v4.1 Residential BD+C: Multifamily
 - g. LEED v4.1 Residential BD+C: Multifamily Core and Shell Development
- ii. Rating System, applicable LEED Reference Guides, and Reference Guide Supplements (e.g. Advanced Energy Modeling for LEED Technical Manual)
- iii. LEED Online forms, calculators, and workbooks
- iv. Any document that USGBC or GBCI publishes as additional guidance (e.g. Guide to Certification)
- v. Any standard that referenced in the LEED Rating System (e.g. ASHRAE Standard 90.1)

It is the responsibility of each Green Rater performing verification services to ensure they adhere to the most current versions of USGBC and GBCI guidance documents, including this document the 'LEED Residential Quality Assurance Manual'.

2 Overview

The following diagram highlights the roles of the project team, the Green Rater, and GBCI in the LEED Residential program.



2.1 VERIFICATION SERVICES

GBCI is committed to ensuring the integrity of the LEED Residential rating systems through the implementation of rigorous quality assurance measures throughout the verification and certification process. It is through third-party onsite verification, supplemental documentation review and performance testing that LEED Residential credit and prerequisite requirements are verified as met. Suitable quality assurance is required to ensure that the verification process for each project is technically accurate and adequately confirms the project's full compliance with the LEED Rating System requirements.

Green Raters are fully responsible for the quality of their verification services, for delivering high quality and timely customer service, and for ensuring a positive certification experience for the project team and owner. The Green Raters also work with a LEED Residential Provider, who is licensed with GBCI to provide holistic quality assurance throughout the verification process.

It should be noted that the scope of the required verification services includes only whether the LEED measures are installed in a project or not. The Green Rater's role is not to opine on the quality of design or the quality of construction of a LEED Residential project. The project team is wholly responsible for the design and construction quality of their LEED Residential project.

2.2 VERIFICATION PROCEDURES

LEED Residential projects require third-party verification services, mandatory onsite verification, performance testing and review of supplemental documentation. This section outlines the procedures for conducting verification services.

For specific verification requirements for each LEED credit and prerequisite, refer to the LEED Residential Reference Guide (LEED v4) and the Verification and Submittal Guidelines (LEED v2008 and LEED v4). For LEED v4.1 Residential BD+C: Multifamily and LEED v4.1 Residential BD+C: Multifamily Core and Shell Development, refer to the associate LEED credit and prerequisite forms and guidance documents.

Each project must have an assigned Green Rater, who is responsible for all verification services, and the entire certification application submittal to GBCI.

Early in the design process, the Green Rater conducts a meeting with the project team to conduct a preliminary rating of the project. As part of the meeting, an action plan will be created that identifies the following:

- i. The targeted LEED certification level
- ii. The LEED credits that you have selected to pursue in order to meet the targeted award level
- iii. The individuals accountable for meeting the LEED requirements for each selected prerequisite and credit

Preparation before going on site

The Green Rater should be familiar with the project LEED documentation, the project schedule, and ensure the project has reached a point of readiness for verification before going on site.

Prior to going on site, the Green Rater completes the following preparatory tasks:

- iv. Request the name of a primary point of contact on the site. This individual should have the authority to ensure that the Green Rater has access to all areas of the site associated with the assessment.
- v. Communicate with the project team regarding the date(s) and time(s) of a visit and clearly outline expectations including any steps the project team must take to prepare for the site visit.
- vi. Provide the project team with a site visit agenda to clearly communicate what activities will be done on site and approximately how long the site visit will take.
- vii. Prepare a site visit checklist of features to be verified and/or tested.
- viii. Prepare program required verification/supplemental materials (as applicable).
- ix. Ensure that all areas within the project scope are accessible and available for verification and/or testing.
- x. If the Green Rater assigns another qualified third-party individual to a specific verification task, the Green Rater must confirm the individual has the competency to accurately verify the identified measure(s). Additionally, the individual must remain third-party to the project team, and comply with the Conflict of Interest Policy.

The Green Rater is responsible for procuring and bringing the necessary verification and/or testing equipment to the project site.

Conduct while on-site

While on-site, the Green Rater and any assisting staff must maintain impartiality. The Green Rater can convey the outcomes of the site visit to the project team while on site, provided these outcomes are also communicated in writing afterwards, but may not convey whether a LEED credit or prerequisite has been earned since the results have not yet been submitted to GBCI. The Green Rater and any support staff must be professional, composed, able to quickly adapt to site conditions that might not have been expected, and calmly update the project team representative on any updates to the original site visit plan. The Green Rater is required to carefully record the verification observations for each credit/prerequisite evaluated and whether each credit/prerequisite has passed or failed.

As stated in the Conflict of Interest Policy (Section 6.1 of this Manual), the Green Rater is not permitted to provide consulting, design, construction and/or operational services or advice to the Owner or project team on design and construction techniques at any point during the certification process; this includes during site visits.

Documentation filled out and collected on-site by the Green Rater and/or supporting staff should capture the specific parameters and outcomes of the verification activities. Documentation should include:

- i. Records of verification outcomes for all credits/prerequisites verified on-site at all verification phases
- ii. Annotated documents identifying sampling locations
- iii. Photographs of verified credits/prerequisites
- iv. Photographs of the project site

Note: Photographs that will serve as official verification records, or required submittals to GBCI, must follow the Photo Documentation Guidelines outlined in Section 4.5.

Liability Disclosure

The project team is solely responsible for the selection, design, installation and operation of all strategies. The Green Rater is responsible only for reviewing and assessing compliance of the strategy as set forth in the rating system requirements. As such, the assessment in no way constitutes a warranty as to the appropriateness of the selected strategies nor the quality with which they have been implemented. The Green Rater may wish to consider including this language in their contract with the client.

Follow-up Post Site Visit

After the Green Rater has completed their in-house quality review of the on-site verification outcomes for quality and accuracy, the Green Rater must provide a summary of the outcomes in writing to the project team within 10 business days of the site visit. However, the Green Rater must not indicate or

imply that a credit/prerequisite has been earned for the purposes of LEED certification, or that the project will achieve certification.

Project teams may conduct corrective action in any areas with results that indicate that the project would not pass the credit/prerequisite requirements and request additional verification by the Green Rater.

When there are no outstanding items that need to be addressed by the project team, the Green Rater prepares the certification application and submits to GBCI for review within 30 calendar days of the site visit. The Green Rater is to notify the project team once they have been submitted to GBCI for review. It is important to keep the project team informed on the status of their project in the certification process. GBCI is the certification body authorized to issue certifications and will communicate the certification outcome directly to the project team.

3 Roles and Responsibilities

All LEED Residential projects require verification services to confirm the project's compliance with LEED Rating System requirements. The Green Rater holds the primary responsibility for conducting these verification services. The Green Rater will work with a LEED Residential Provider prior to submitting the project to GBCI for certification. The LEED Residential Provider works collaboratively with the Green Rater to provide quality assurance throughout the verification process, and in preparing the submittal to GBCI.

GBCI conducts quality check reviews and awards certification based on the project's demonstrated compliance with the LEED Rating Systems.

3.1 PROJECT TEAM ROLES

- i. Registers project in LEED Online
- ii. Pays registration and certification fees to GBCI
- iii. Contracts with Green Rater for verification services
- iv. Designs, builds and operates project, following all applicable code requirements
- v. Ensures compliance with all LEED requirements (prerequisites and credits)
- vi. Notifies Green Rater when project is ready for all phases of verification
- vii. Accepts final LEED Certification for the project

3.2 GREEN RATER ROLES

- i. Conducts Preliminary Rating with the Project Team
- ii. Provides and oversees all verification services (including on-site verification and collating and reviewing supplemental documentation) per the published rating system requirements
- iii. Ensures adequate competency of any staff that are assigned to support verification tasks, collects evidence of verification tasks performed, oversees their work, and confirms the specified measures meet LEED requirements
- iv. Works with a Qualified Energy Rater, as necessary, who provides verification and performance tests associated with the ENERGY STAR program and/or related LEED Interpretations
- v. Assembles final certification application and verifies that it is complete and that all elements meet the rating system requirements
- vi. Is knowledgeable of project timeline and key verification milestones; ensures high quality customer service and timeliness; implements robust quality control and quality assurance processes
- vii. Conducts a full quality assurance review of the final certification application before submitting to GBCI. This step is completed with the help of the LEED Residential Provider.

3.3 LEED RESIDENTIAL PROVIDER

- i. Works collaboratively with the LEED Green Rater to ensure positive customer experience and effective quality assurance throughout the verification process and preparation of the certification application prior to submittal to GBCI.

3.4 CERTIFICATION BODY (GBCI)

- i. Reviews and approves certification submissions
- ii. Maintains a public list of recognized Green Raters and LEED Residential Provider organizations
- iii. Reviews LEED submittals (e.g., documentation submittal), including all mandatory submittals for certification
- iv. Awards LEED Certification to projects that have demonstrated achievement of all prerequisites and attempted LEED credits
- v. Quality oversight of global verification network of Green Raters and LEED Residential Providers

4 Quality Management

GBCI requires the implementation of rigorous quality measures throughout the verification and certification process.

4.1 QUALITY EXPECTATIONS

Every LEED Residential Provider and LEED Green Rater organization is responsible for maintaining sufficient expertise to complete technically sound verification services for projects pursuing LEED Certification. Quality management measures must be employed to ensure that verification is completed accurately and with technical rigor in accordance with the rating system requirements (LEED Rating System, Reference Guide, and Guide to LEED Certification) and procedural consistency in accordance with the requirements of GBCI's LEED Residential Quality Assurance Manual (this document).

4.2 APPROACH TO QUALITY ASSURANCE

To ensure adequate quality assurance, all LEED Green Raters work in concert with a LEED Residential Provider. The Provider ensures that a robust quality management process is in place throughout the verification process, and in preparing the project's certification application to GBCI. Each Provider organization creates and maintains a Quality Assurance Plan that details the processes and protocols their organization has in place to ensure the quality requirements outlined in Section 4.3 are fulfilled.

4.3 QUALITY REQUIREMENTS

Each LEED Residential Provider organization must have an in-house quality assurance and quality control processes (outlined in their Quality Assurance Plan) to ensure:

- i. A team member is identified and assigned to serve as the primary contact with GBCI
- ii. Timely and professional communication and responsiveness to GBCI at all times
- iii. An accurate understanding of the LEED Residential Rating System requirements and supplemental guidance. Green Raters and other applicable supporting staff within the Provider organization must participate in LEED Residential bi-monthly meetings (hosted by GBCI) and remain current with all published program updates.
- iv. Green Raters accurately assess compliance with the LEED rating system, including visual verifications, calculations and performance testing; as well as special requirements, such as regional rating system differences and sampling protocols.
- v. Only qualified professionals (as prescribed by GBCI) perform verification services and quality assurance oversight.

- a. Green Raters are properly trained and authorized by GBCI and receive sufficient on-the-job mentoring. It is recommended that all new LEED Green Raters are mentored and supervised on their first two projects, at a minimum.
 - b. Qualified Energy Raters in the USA and Canada are properly trained, credentialed, and operating under quality assurance oversight, as required by Residential Energy Services Network (RESNET). Energy raters, or qualified professionals, outside of the USA and Canada need to meet the minimum qualifications outlined in LEED Interpretation 10443. Green Rater must confirm the energy rater qualifications and maintain a record of who the energy rater is.
 - c. All staff participating in LEED Residential verification activities have sufficient ongoing training and continuing education programs to ensure they possess and maintain sufficient competency.
- vi. Performance tests are conducted in accordance with quality assurance requirements.
 - a. Performance testing that falls under the RESNET protocol must be a confirmed rating, reported to HERS Provider and included in RESNET's quality assurance process via upload to RESNET registry (applies to projects in the USA and Canada only). For Multifamily projects, each unique unit type (using RESNET's referenced definition for unit model type) must be uploaded to registry; for single-family projects, each home needs to be uploaded.
 - b. Confirm that the outputs of the ENERGY STAR report related to LEED measures are reasonable, reflect the project parameters and meet rating system requirements. If there are questions related to the accuracy of the ENERGY STAR report, immediately follow-up with the HERS Rater and request additional information. A Green Rater is not required, nor advised, to accept performance test results wherein they have a significant concern.
- vii. A high standard of prompt, clear and courteous customer service is provided to LEED project team members throughout all project phases.
- viii. Verification activities are completed in accordance with the policies described in this Quality Assurance Manual, including conflict of interest and professional conduct policies.
- ix. Ensure timely submittals to GBCI, ideally within 30 days of verification tasks being completed (and no longer than 90 days).
- x. That the following is conducted or confirmed prior to any submittal to GBCI:
 - a. Quality review to ensure the technical accuracy and submittal completeness of all certification applications to GBCI
 - b. Confirmation that all LEED rating system requirements within each prerequisites and attempted credit has been adequately verified in accordance with GBCI's protocols
 - c. For credits wherein a calculation is required, quality review to ensure the calculation inputs and outputs reflect the as-built project parameters and the correct number of credit points are allocated
 - d. Quality review of ENERGY STAR reports ensuring inputs and outputs reasonably reflect project parameters and meet rating system requirements
 - e. For any areas where clarification is still necessary, the Green Rater should first reach out to their Provider; and when further clarification is still necessary, to GBCI, prior to submittal.

- xi. Maintain project and quality records to track compliance with all verification and quality protocols and prepare for annual reporting requirements to, and any future audits by, GBCI.
- xii. Have a system in place to gather and apply feedback and lessons learned in a continuous process improvement loop.

4.4 QUALITY ASSURANCE PLAN

Each LEED Residential Provider must develop, maintain and implement a Quality Assurance Plan (QA Plan). The Provider's QA Plan is an internal document that describes the process the organization will follow to ensure the required elements of quality oversight are fulfilled. The QA Plan is reviewed and approved by GBCI prior to a Provider Contract being executed. If a Provider Organization's QA Plan is updated after the contract is executed, it must be promptly resubmitted to GBCI.

The QA Plan must:

- i. Clearly identify quality goals and specific quality tasks (to achieve goals)
- ii. Describe the process by which all quality assurance requirements will be implemented
- iii. Specify who is responsible for completing each quality task
- iv. Describe the process for consistent and high-quality oversight through the design and construction phases of LEED Residential project

4.5 RECORD KEEPING

Record keeping is a critical aspect of quality management and ensures that key aspects of the project verification process are properly documented and available for reference. There are two types of records that must be reliably maintained by all organizations providing verification and quality management services: project-specific records and quality management records.

The following records must be kept for each project:

- i. Records of communications between Green Rater and Project Team during all project phases
- ii. All photo documentation
- iii. Supplementation documentation gathered to confirm project compliance with LEED Rating System requirements
- iv. Sampling records documenting sample sets and exact units sampled within each set; all verification results including any verification failures; and records of measures taken in response to failures, when applicable
- v. Conflict of Interest issues documentation of required reporting to GBCI, when applicable

The following records of the quality assurance process must be retained by LEED Residential Providers:

- i. Any quality issues identified in the verification of LEED Residential projects, including findings and steps taken to address any issues found
- ii. In-house trainings held for Green Raters
- iii. In-house communications to Green Raters and supporting staff regarding program calls, policies, and updates

- iv. Green Rater and (as applicable) supporting staff attendance to GBCI monthly program calls or review of call archive
- v. Copies of customer service issues and/or complaints received, and corrective action steps taken
- vi. Any compliance, competency or professional conduct issues found with Green Raters and/or supporting staff, and corrective action steps taken
- vii. Education/mentoring and qualifications of individuals that support verification services, other than the designated LEED Green Rater (GBCI may request such documentation)

Records must be maintained and available for submittal to GBCI for a minimum of 3 years after project completion. Aside from certification submittal requirements, these need not be provided to GBCI, but must be made available in case GBCI requests them in the event of an audit, or if there is a complaint or Certification Challenge according to GBCI's Certification Challenge Policy.

4.6 ANNUAL REPORTING

GBCI requires annual QA reporting be prepared by the LEED Residential Provider Organization and submitted to GBCI on an annual basis. A QA Reporting Template is provided in the appendix section of this QA Manual.

The QA reporting includes the following:

- i. Statement of Compliance with Quality Assurance Protocols
- ii. Records of all Green Raters under the Provider Organization's oversight, including:
 - a. Status of applicable credentials,
 - b. Number of LEED Residential projects, and
 - c. Quality audits conducted, and related findings
- iii. Any professional conduct or areas of non-compliance found
- iv. Any areas where further continued education is needed

4.7 PHOTO-DOCUMENTATION

Subject to the discretion of the Green Rater and the requirements described here, in some cases photo-documentation may be used as a substitute for onsite verification.

Photo-documentation is also used as a risk management tool, permanently archiving exactly what was observed while performing an onsite verification visit.

Photo documentation may also be used to streamline the verification process. At the Green Rater's discretion, an experienced member of the project team or other qualified professional may be requested to photo-document an installed LEED measure. This can be particularly helpful in the case that the Green Rater would otherwise be visiting a project site to verify a single measure. For example, the foundation drainage measures (possibly part of a project's durability plan) may be installed and buried prior to a Green Rater's normal first visit.

Note: While photo-documentation may be used to supplement onsite verification, it may not replace onsite verification altogether.

When photo-documentation is used, the LEED measures in the photographs should be readily identifiable in the following manner:

- i. The photos shall be date-stamped and geo-tagged.
- ii. The LEED measures in the photos shall be labeled with label and direction also identified on a corresponding site plan or floor plan.
- iii. The photos shall be clear and in-focus.
- iv. Several photos shall be taken for each LEED measure - at varying levels of proximity to the LEED measure. In this manner, both the general location and the specifics of the LEED measure can be observed.
- v. Photos of the whole house (or whole project site) shall be included as part of each set of photos taken. Location of photo within project site must be verifiable.
- vi. Photos in each set shall be arranged in a logical sequence.

The Green Rater must thoroughly verify all photo documentation that is used to supplement on-site visual verification.

4.8 QUALITY AUDITS OF GREEN RATERS

In order to ensure ongoing compliance and competency of Green Raters, LEED Residential Providers perform quality audits of their verification efforts.

Audit requirements vary based on the Green Rater's experience and demonstrated competencies. The following audit guidelines apply:

- i. Onsite QA audits include project site visits in which the Green Rater's verification on the project selected for audit is checked for accuracy and consistency with rating system requirements and V&S Guidelines. Any inconsistencies in verification or errors in verification findings on the part of the Green Rater must be documented and recorded by the auditor. Corrective action measures (e.g. additional education, follow-up auditing, etc.) must be taken to reduce the risk of future errors in the Green Rater's verification activities. These corrective action measures must also be documented by the auditor.
- ii. When required, audits are to include both pre-drywall and final verification phases.
- iii. In cases wherein an onsite QA audit of a given Green Rater is not possible or may be cost prohibitive, a remote quality audit may be performed following the procedures for Remote QA audits (see Appendix D).
- iv. All new LEED Green Raters must have a minimum of one quality audit conducted in each calendar year wherein they perform verification services on LEED Residential projects. This is required for the first 2 years, or a minimum of 5 projects, whichever represents the longer term.
- v. LEED Green Raters who have consistently held the designation for more than 2 years, AND provided verification services on a minimum of 5 projects are required to receive a quality audit once every 24 months.

5 GBCI Quality Oversight

GBCI is committed to ensuring the integrity of all its certification programs through the implementation of rigorous quality assurance and quality control measures throughout the assessment and certification process. GBCI will monitor the work submitted by Green Raters to assess the ongoing quality of their work product. Additionally, LEED Residential Providers are assessed based on the cumulative outcomes of projects submitted, communications, and customer feedback.

The following are examples of parameters that may be evaluated (list is not exhaustive), to monitor the quality of work and performance.

- i. Quality and completeness of applications submitted to GBCI.
- ii. Adherence to GBCI protocols and procedures, and responsiveness to GBCI staff.
- iii. Timeliness: Projects are submitted to GBCI for certification review in a timely manner following the final verification visit, ideally within 30 days, and no longer than 90 days. If circumstances arise that prevent the project certification application from being submitted within this timeframe, the circumstances and correspondences pertaining to the delay are fully documented.
- iv. Customer experience: consistently delivering high quality customer service to LEED Residential project team.

5.1 QUALITY EVALUATION METRICS

The quality of the application submitted to GBCI will be evaluated based on two core competencies:

- i. Technical Competency: evaluation of the technical accuracy of the certification application submitted to GBCI
- ii. Submittal quality and adherence to GBCI protocols: evaluation of the completeness and consistency of the application submitted to GBCI

Each of these competencies is scored on a scale of 1-5, with 1 representing very poor quality and 5 representing excellent quality. The following table outlines the quantitative significance of the scores with respect submittal application. All Green Raters and LEED Residential Providers are expected to maintain an average quality score of 4 or above in each category. If quality expectations are not met, GBCI may remove the Green Rater or LEED Residential Provider from the approved list.

Score	Technical Accuracy	Submittal Quality
5 (excellent)	No technical issues and all credits and prerequisites are earned	Perfect or near perfect work, no clarifications required
4 (Good)	Technical issues resulting in the denial of 1-2 credits or points	Less than 5 documentation issues that require clarification
3 (Fair)	Technical issues resulting in the denial of greater than 2 credits or points	5-10 documentation issues that require clarification

2 (Poor)	Technical issues resulting in the denial of a prerequisite or the reduction of a certification level	More than 10 documentation issues that require clarification
1 (Very Poor)	Technical issues resulting in the failure of the project to earn certification (after appeal)	Widespread documentation issues, application rejected

5.2 CUSTOMER EXPERIENCE EVALUATION METRICS

The quality of the customer experience will also be evaluated based on customer satisfaction ratings and periodic feedback surveys sent by GBCI to the customer, and other direct customer input. The results from the ratings and the surveys will be considered in the overall quality evaluation of the Green Rater's work.

Customer Satisfaction Rating

During the certification process, the Owner/project team may complete a customer satisfaction rating on a scale of 1 to 5 stars, with 1 representing poor customer satisfaction and 5 high customer satisfaction.

Customer Feedback Survey

GBCI will periodically send surveys to owners/project teams to gather more detailed feedback on their customer experience. The customer survey may evaluate the following:

- i. Clarity of communication
- ii. Technical understanding of the project and requirements
- iii. Responsiveness to inquiries
- iv. Timeliness
- v. Conduct of the site visit
- vi. Professional conduct
- vii. Overall satisfaction with the Performance of the Green Rater

Green Raters must maintain an average of 4 stars or above for customer satisfaction metrics. Note that if GBCI quality expectations are not met, GBCI may remove the Green Rater from the approved list.

5.3 QUALITY AUDITS BY GBCI

A Green Rater and/or LEED Residential Provider may be selected for audit one of three ways:

- i. Random selection: GBCI will select a percentage of active Green Raters and LEED Residential Providers for audit annually
- ii. Quality scores caused concern
- iii. Green Rater or LEED Residential Provider has been placed on probation under the Professional Conduct and Disciplinary Policy and is therefore subject to audit during probationary period

There are two types of audits that may be conducted of either a specific Green Rater, or LEED Residential Provider organization:

Onsite Quality Audits (either in-person or remote) may be conducted at either the pre-drywall or final verification stages, or both. Onsite Quality Audits assess the accuracy of a Green Rater's onsite verification.

Additionally, GBCI may conduct Record Keeping Audits which assess the accuracy and completeness of quality records and supplemental documentation maintained by the Green Rater and Provider.

In the case an audit is conducted, an Audit Documentation Form will be prepared by GBCI and distributed to the Green Rater or LEED Residential Provider, as applicable.

During an audit, any inconsistencies in verification or errors in verification findings are documented and recorded on the Audit Documentation Form. In the case any inconsistencies and/or errors are identified and/or corrective action measures (e.g. additional education, follow-up auditing, etc.) shall be documented.

After the audit, GBCI will provide the Green Rater and/or LEED Residential Provider with an Audit Report informing them of the findings. If there are no issues, the report will state as-such and no further action on the part of the audited professional or organization will be required. If there are minor non-conformities discovered during the audit, GBCI may request additional information and/or hold a call with the Green Rater and/or LEED Residential Provider to seek further clarification and provide recommendations for future assessments.

If there are major non-conformities, GBCI will issue a Corrective Action Request which may place the Green Rater or LEED Residential Provider under Probation status.

6 Impartiality

All Green Raters shall be responsible for the impartiality of their assessment and verification activities and shall not allow commercial, financial, personal, or other pressures to compromise their impartiality. Impartiality refers to the presence of objectivity, which is understood to mean that conflicts of interest (COI) do not exist, or are resolved in consultation with GBCI in advance, so as to not to adversely influence verification activities.

A relationship presenting a risk to the impartiality of the Green Rater and/or LEED Residential Provider supporting staff can be based on personal relations (such as friend, relative, etc.), ownership, governance, management, personnel, shared resources, finances, contracts, marketing (including branding), and payment of a sales commission or other inducement for the referral of new clients, etc.

6.1 CONFLICT OF INTEREST

On a given LEED Residential project, no individual providing or contributing to verification services for the project is permitted to contribute to design and/or construction related services (i.e., becomes a de-facto member of the Project Team). Additionally, no individual providing verification services may have a financial, ownership, or direct employment relationship with the project owner/developer. This is considered a major conflict of interest and is prohibited.

The prohibited situations listed above are not meant to be an exhaustive list of circumstances that would jeopardize a verification team members ability to remain impartial. It is the responsibility of the LEED Green Rater and LEED Residential Provider organization to identify any potential conflicts of interest, and wherein it's allowance or prohibition is not specified in this section, request clarification from GBCI prior to any verification being performed by the involved individual(s).

An individual associated with the LEED Residential Provider organization that is not performing verification activities for a given project, may participate in design and/or construction related services. For example, a Provider team member that is not providing any type of verification services on a given project, may serve as the LEED AP Homes on that project, provided that they are in a separate reporting line than the verification team member(s) within the organization. For example, a team member serving as a LEED AP Homes, may not report to or oversee the LEED Green Rater on a given project.

While these type of services are permitted, they must be disclosed to GBCI as described in Section 6.2. In such cases, the Green Rater (or LEED Residential Provider) may not bundle any conflicted services in the same contract for verification services associated with LEED certification. A separate contract must be used that clearly states that these additional services are not required as part of the LEED verification services.

The following types of services are considered minor conflicts of interest when delivered by either the LEED Green Rater, Energy Rater, LEED Residential Provider team member, or other member of the Verification Team and must be disclosed to GBCI:

- i. Energy Modeling Services, such as ASHRAE 90.1 energy modeling. Note: HERS Rating is not considered a conflicted service.
- ii. Building permitting support services, with proper disclosure.

- iii. Pro-bono verification services wherein the individual providing the verification service is doing so without charge (voluntarily) to the Project Team

Educating the project team on the LEED Residential Rating systems and verification procedures is not considered a conflict of interest.

6.2 NOTIFICATION AND VIOLATION OF CONFLICT OF INTEREST

The Green Rater and LEED Residential Provider must ensure that major conflicts of interest do not occur on any LEED Residential project. If the Green Rater or LEED Residential Provider becomes aware of a major conflict of interest (COI), they shall notify GBCI immediately. GBCI will work with them to address the situation.

Violations of the COI Policy include:

- i. An individual providing verification services performs a prohibited service
- ii. Failure to complete and submit COI Disclosure Forms, when required

Green Raters and LEED Residential Providers that violate the COI Policy may be subject to disciplinary action, as described in the Professional Conduct and Disciplinary Policy. Severe or repeated violations may result in revocation of GBCI approved status.

7 Professional Conduct

GBCI is committed to integrity in the delivery and certification of all programs. To ensure consistency and quality of program delivery, GBCI strictly enforces guiding principles and rules of conduct for all individuals involved in verification services for the LEED Residential program. The professional behavior of all participants in the certification program is a critical element in market acceptance and overall success of the program. All Green Raters and LEED Residential Provider staff are contractually required to abide by the Professional Conduct Guidelines and Anti-Harassment Policy when delivering services in all markets and may be required to take Professional Conduct/Anti-Harassment Training (either in-person or online) to demonstrate compliance with GBCI's professional conduct policy.

7.1 PROFESSIONAL CONDUCT GUIDELINES

All Green Raters and all Provider staff/contractors shall commit to these Professional Conduct guidelines:

- i. May **not** offer, accept or solicit money (bribes), property, service or other items of value by way of gift, favor, inducement or loan with the intent that the offer would influence, or that the recipient would be influenced by, such conduct in the discharge of their verification duties. This is a serious offense which will result in revocation of GBCI approved status.
- ii. May not use their official position to secure special advantage in business, personal gain or other benefit derived from such relationship
- iii. Must maintain objectivity and neutrality when conducting an assessment or audit and when presenting results to GBCI
- iv. Have in place a quality management process (documented in their Quality Assurance Plan), as required by GBCI (defined in Section 4 of this manual)
- v. Not engage in conduct that is detrimental to the reputation or the best interests of GBCI, USGBC, or any other program certified by GBCI or competitor standards within the green building and health and wellness industries
- vi. Refrain from speaking negatively about other Green Raters, or other persons involved in the profession
- vii. Refrain from initiating contact with and/or marketing services to project owners for a specific project that is already under contract with another Green Rater or LEED Residential Provider.
- viii. Report violations of the professional conduct of other Green Raters or LEED Residential Provider staff to GBCI, for review and possible disciplinary action
- ix. Comply with the technical standards and procedural requirements and request the input of GBCI whenever there is doubt about any project's compliance with the LEED requirements
- x. Not disclose information concerning the status of a specific project to parties other than the project owner or the owner's agent without written permission of the owner or the owner's agent, except to report to GBCI for the purposes of certification
- xi. Commit to ongoing professional development and education to maintain approved status, to advance current knowledge, education, training, and experience, so that customers and the public can be assured of receiving competent and reliable services

- xii. Fully disclose all applicable charges, as well as the general scope and deliverables of services, prior to conducting any service
- xiii. Make no representations regarding services or qualification that are false or misleading
- xiv. Comply with the Conflict of Interest (COI) Policy outlined in section 6, including reporting any conflicts of interest that are listed
- xv. Maintain supportive and professional tone with project teams during all communications and interactions

7.2 ANTI-HARASSMENT POLICY

All Green Raters and Provider staff/contractors shall commit to this Anti/Harassment policy:

All individuals deserve to be treated with dignity and respect. GBCI is therefore committed to fostering a work environment free from harassment, intimidation and coercion based on or related to race, color, gender, religion, national origin (including ancestry), age, disability, veteran status, marital or familial status, sexual orientation, political affiliation, personal appearance, or any other classification protected by applicable law. Violation of this commitment is inconsistent with GBCI's philosophy of mutual respect for all individuals and will not be tolerated.

Illegal and improper harassment may include, but is not limited to:

- i. Unwanted physical contact of any kind
- ii. Use of offensive nicknames or terms of endearment
- iii. Unwelcome comments about a person's clothing, body, appearance, or personal life
- iv. Offensive jokes or unwelcome innuendoes
- v. Use of email or internet system to retrieve or transmit offensive or harassing messages
- vi. Any suggestion that one's membership in a protected class would affect one's job or working conditions
- vii. Other conduct referring to race, gender, religion, etc., even if not objectionable to some Green Raters or Provider staff/contractors, if it creates a working environment that others may reasonably find hostile or offensive

Sexual harassment may consist of unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature when one or more of the following occur:

- i. Submission or rejection of such conduct is made a term or condition of an individual's contract
- ii. Submission or rejection of such conduct is used for the basis for an employment decision, such as promotion, demotion, termination, or compensation
- iii. Such condition interferes with an individual's work performance or creates a hostile, intimidating, or offensive work environment

Violations of this policy are not permitted and will result in immediate disciplinary action, up to and including revocation of GBCI approved status.

7.3 DISCIPLINARY ACTION POLICY

It is GBCI's expectation that all Green Raters and Provider staff/contractors adhere to the policies and protocols in this manual and perform work of the highest quality with utmost integrity. GBCI may institute disciplinary action if a Green Rater or Provider staff/contractor is found to be in violation of any policies outlined in this manual; if they are not meeting quality expectations; or if non-conformities are found during audits by GBCI. Disciplinary action may also be triggered due to customer complaints.

There are three types of disciplinary action that may be taken against a Green Rater or LEED Residential Provider:

- i. Corrective Action Request
- ii. Probation
- iii. Revocation of approved status and agreement with GBCI

These are each described below; GBCI maintains a record of all disciplinary actions.

7.3.1 CORRECTIVE ACTION REQUEST

GBCI may issue a Corrective Action Request (CAR) to the Green Rater or LEED Residential Provider when an infraction or a non-conformity is identified. The Green Rater or LEED Residential Provider must provide a written root cause analysis and corrective action plan within **20 business days** to address the issues outlined in the CAR and put in place a process to ensure that infractions will not reoccur.

GBCI will hold a meeting with the Green Rater and LEED Residential Provider to discuss their corrective action plan and will communicate approval of the plan or if any additional information is needed. GBCI will then closely monitor the work of the individual and impose heightened quality oversight. Depending on the nature of the infraction, GBCI may allow the individual to continue performing verification or quality assurance services, or may place restrictions on operation (for example, probation).

If GBCI observes the same or new infractions occurring, and/or the provided corrective action plan is not working, GBCI may issue a second CAR or, depending on the severity of the infraction, may place the individual under Probation or revoke their approved status. The Green Rater or LEED Residential Provider has **10 business days** to provide a written root cause analysis and corrective action plan to address the issues raised in the second CAR and put in place a process to ensure that infraction(s) will not reoccur.

7.3.2 PROBATION

A Green Rater or LEED Residential Provider who receives a CAR may be placed under probation status and this will be communicated within the CAR.

Note that during the probation period, the Green Rater or LEED Residential Provider may be required to pay additional fees (including expenses associated with additional site visits) to GBCI for increased quality oversight of projects submitted during the probation period.

At GBCI's discretion, the Green Rater or LEED Residential Provider name may be temporarily removed from the approved list and they may be prohibited from taking on any new projects during this period.

The Green Rater or Provider will remain under probation status until GBCI deems that the infractions/non-conformities have been addressed satisfactorily. In general, probation periods range from 6-12 months. If the infractions/non-conformities are not sufficiently addressed, the next step in the disciplinary process will be triggered, which is revocation.

7.3.3 REVOCATION

If the Green Rater or LEED Residential Provider does not address the issues during probation to the satisfaction of GBCI and/or the nature of the infractions are sufficiently serious (e.g. acceptance of a bribe), GBCI reserves the right to revoke a Green Rater or LEED Residential Provider's approval to conduct LEED verification services and/or terminate any associated contracts without issuing CARs or placing them under probation.

The Green Rater or LEED Residential Provider will receive written (electronically or in paper form) notice from GBCI that the approval for providing LEED verification services has been revoked and that they have been removed from all public databases. The Green Rater and/or LEED Residential Provider is expected to cooperate with GBCI to determine how projects that are in progress will be supported to final certification.

7.4 APPEAL PROCESS

In the event that a Green Rater or LEED Residential Provider is notified that their approved status has been revoked, they shall have the right to an appeal.

In order to be considered, the appeal must be filed within **twenty (20) business days** of notice of suspension or revocation. The appeal shall be submitted to GBCI in the form of a signed letter, containing all pertinent and substantive information. This includes a description of the circumstances of the case and arguments and supporting documentation that are in contradiction to the proposed revocation.

The appellant Green Rater or LEED Residential Provider may request a telephonic hearing with GBCI. In such an event, GBCI shall, no later than twenty (20) business days after the filing of the notice of appeal, notify the appellant of the date of the hearing, which shall be held as expeditiously as possible, but not later than thirty (30) business days after the receipt of the notice of appeal. A ruling on the appeal will be made not later than twenty (20) business days after the hearing has concluded. If no hearing is requested, GBCI will provide a written response to the appeal within twenty (20) business day of receipt.

7.5 COMPLAINT INVESTIGATION PROCESS

GBCI has a formal complaint submittal process. If an individual or organization reaches out to GBCI with a complaint or grievance that they may have with a Green Rater or LEED Residential Provider, the following information will be requested:

- i. The name of the complainant and contact information
- ii. The Green Rater (or LEED Residential Provider) that is the subject of the complaint
- iii. A complete description of the alleged violation(s)
- iv. A recitation of all the facts documenting the complaint including contact information
- v. Copies of any relevant documents supporting the complaint

Upon receipt of a formal and complete complaint, GBCI will review and consider the documentation contained in the formal complaint in making a decision whether to proceed or dismiss the complaint. In cases where the documentation submitted does not meet the minimum standards for a complaint, the complaint may be dismissed. GBCI shall notify both parties of the findings.

In cases where GBCI finds that the complaint should proceed to the next step, GBCI shall send a copy of the complaint to the subject of the complaint. The subject of the complaint has **thirty (30) business days** to submit a full and complete response to the complaint. All relevant information and documentation shall be included in the response. The response shall be in writing and sent to GBCI. Once the investigation is complete the complaint will either be dismissed, or the Disciplinary Policy noted in Section 7 will be triggered.

GBCI will inform the complainant of the outcome once the full investigation and/or disciplinary process is complete.

APPENDIX B: Sampling Protocol

This section outlines the conditions and required methods for performing verification on multifamily and single-family projects that intend to utilize sampling – a process by which fewer than 100% of the units undergo verification steps. The Green Rater and Project Team members are expected to be familiar with the details of this sampling protocol when sampling is applied.

This sampling protocol refers only to the verification and performance testing requirements, *not* implementation of LEED prerequisite or credit requirements by the project team. Every unit must be built to meet all LEED for Homes prerequisites and pursued credit requirements whether sampling is used or not.

SCOPE AND ELIGIBILITY

The LEED Residential Sampling Protocol may not be appropriate for every project; the project and the Green Rater must meet qualifications described before applying sampling to projects pursuing LEED certification.

Project Eligibility Criteria:

- i. All units/buildings in the project must be of the same construction type, using the same envelope type and systems.
- ii. All units/buildings must earn the same set of LEED credits.
- iii. All units/buildings in the project must be within the same subdivision, metropolitan area and climate zone.
- iv. The project must have at least one unit/building available and eligible for sampling controls in any 90 calendar day period.
- v. The project must have at least one unit/building start in any 90 calendar day period. If a 90-day period elapses without a home start, the sampling process must start over with the initial verification requirements below.
- vi. For sampling within a multifamily project, all units must be in one building; for multi-building projects, sampling across multiple buildings is only allowable if each building has the same construction type, envelope type and systems.

Green Rater Eligibility Criteria:

- i. The Green Rater and LEED Residential Provider must be meeting GBCI's quality expectations and be in good standing. GBCI reserves the right to temporary suspend or revoke a Green Rater or LEED Residential Provider organization right to administer and/or oversee sampling.
- ii. For projects that will sample EnergyStar measures, the overseeing HERS Provider must be an approved Sampling Provider by RESNET.

WORST-CASE ANALYSIS

As early as possible, the project team must work with the Green Rater to identify the credits being earned by all units in the building/individual homes in the sample set, and determine the worst-case set of measures to include in the checklist.

If one or more units/homes– but not all units/homes contain additional LEED credits not reflected in the worst-case analysis, those additional credits must be disregarded for the purposes of the LEED certification (i.e., the credits may not be awarded).

For Single Family projects, if one or more homes contain additional LEED credits not reflected in the worst-case analysis, the project team may either:

- i. Rate the home as if it was the same as the others in the sample set (i.e., without credit for the additional LEED measure); or
- ii. Rate, verify, and certify the home separately (i.e. as a separate project).

In a case where residents are given different options for how to meet a credit (e.g. EPP flooring) but each unit is guaranteed to satisfy the credit requirements – albeit in different ways – credit may still be awarded.

SAMPLING PROCESS

The sampling process consists of five main steps, outlined below:

1. Initial Planning

The builder and project team must meet with the Green Rater to conduct a preliminary rating. During this meeting the Green Rater will review the scope and eligibility requirements for sampling, as well as the basic sampling process.

The minimum allowable sampling rate for LEED Residential is 10%. For single family projects, all LEED measures must be verified in at least 1 of every 10 homes; for multifamily, all LEED measures must be verified in at least 1 of every 10 units.

A Green Rater may implement a higher sampling rate, based on the experience level of the builder with LEED Residential and sampling, at their discretion.

2. Planning Sampling Sets

The project team is required to work with the Green Rater to develop a plan for organizing units into sample sets. The plan should take into consideration any differences between unit models, as well as construction schedule, and it should identify the sample sets.

A sample sets is a group of homes or units for which a minimum of 10% sampling rate will be applied.

When defining sample sets, all units/homes within a given sample set must meet the following requirements:

- i. All units/homes are at the same stage of construction (e.g. pre-drywall, final) and available for sampling controls. The Green Rater must be able to choose randomly from among the units within the sample set.
- ii. All units/homes within the same sample set are eligible and available for the applicable sampling controls within a 30 calendar day period. If the number of units eligible and available for the sampling controls is fewer than the planned sampling rate, the sample set

- must be cut off at the number of units that are available within that 30-day period – i.e., the actual sampling rate will need to be greater than the planned sample rate.
- iii. All units must have the same basic design and layout, as it pertains to the sampling controls being applied. For example, units with different ventilation system layouts may not be included in the same sample set when conducting air flow tests.

Additional Considerations:

Sample sets may vary in size based on factors such as construction timeline and variation in model types. For example, during an initial 30 day calendar period, 8 units/homes may be available for verification and may serve as a sample set. If only 6 units/homes are available for verification during the next 30 calendar day period, the sample set would be 6.

Units/Homes grouped into a sample set for one verification phase (e.g. pre-drywall) may be grouped differently for the next verification phase (e.g. final).

3. Demonstration Consistency: Initial Verification Requirements

Prior to implementation of sampling on the project, it is first important that the project team demonstrate consistency of as-built conditions. The following requirements must be met to demonstrate consistency of the builder and sub-contractor team(s):

For all projects:

- i. At least five (5) consecutive units/homes must be individually and sequentially verified without a failure. If a failure occurs, sampling may not proceed until five (5) further units/homes in the subdivision are sequentially verified without another failure.
- ii. Initial verification requirements apply to each verification phase and must be met before sampling begins at both pre-drywall and final verification phases.
- iii. The Green Rater has the discretion to increase the number of units sampled in the initial verification step for any reason, including: prior bad experiences with the builder or developer, concerns or questions that arise during the initial verification, changes to the construction crew, changes to the designs, etc.
- iv. Over time, if there is a significant change to the construction crew or site supervisor, or substantial change in architectural designs, the initial verification requirement – verifying five (5) units consecutively without a failure - must be repeated.

Once the initial five (5) consecutive units/homes have been verified without a failure, the initial verification requirements can be reduced for subsequent sampling projects within the same development (by the same builder): at least three (3) consecutive homes must be verified by individually and sequentially verifying without a failure. If a failure occurs, sampling may not proceed until three (3) homes in the subdivision are sequentially verified without another failure.

Note: The initial five (5) consecutive units/homes verified are separate and distinct from future units sampled, and do not contribute to the minimum sampling percentage required.

4. Applying Sampling Controls

Sampling Controls specify exactly what measures will be verified within a given sample set. The Green Rater selects the elements to include in the sampling controls based on the LEED Verification and Submittal requirements. The Green Rater may elect to verify certain measures in every unit/homes (i.e. verify 100% of certain credits or prerequisite, rather than sampling) in addition to sampling all measures in certain randomly selected units/homes.

The pre-determined sampling controls (i.e. all measures to be verified) must be completed at least once in full for each sample set. Sampling controls may all be completed on a single unit/home or distributed across several units/homes within a given sample set.

5. Sampling Failures

When one or more of the verification requirements for a prerequisite or pursued credit are not met, this is considered a failure and the relevant requirement is referred to as a “failed item”. This section describes how failures must be handled by the project team and Green Rater.

For all projects:

- i. If a failure occurs during the initial verification steps, the failed item(s) must be corrected, and sampling controls must continue to be completed on all units/homes.
- ii. First failure during sampling: The first time a failure occurs during sampling (i.e. after the initial verification step), the failed item(s) must be corrected, and testing and verification must continue on two (2) additional units/homes from the sample set. In a case where the sample set is 2 or 3 units/homes, this may require verification of the failed item(s) in every unit/home in the sample set. All failures must be documented in the Sampling Reporting Form.
- iii. Second failure during sampling: When a second failure of the same verification requirement occurs during sampling, the following actions are triggered:
 - a. The builder must conduct a “Root Cause Analysis” to identify the source of the problem causing the failure and undertake any remedial actions necessary to fix the underlying problem, including re-designs and re-training of trades and crew. This root cause analysis must be submitted to the Green Rater.
 - b. All failures must be documented in Sampling Reporting Form.
 - c. The problems that led to the failure must be corrected and the failed item must be tested and/or verified for every unit in the sample set; in addition:
 - d. The Green Rater may increase the sampling rate for the failed item for the remainder of the project, or remove it from the sampling controls altogether (i.e. require verification of the failed item in every unit).
 - e. If the root cause analysis reveals failures that may have affected earlier sample sets, the LEED Green Rater and Provider must determine if further verification on previous sample sets is necessary.
- iv. Multiple failures during sampling – if a project experiences three total failures within a ninety (90) calendar day period – even if the failures are for different verification requirements – in addition to the actions required after a second failure during sampling - the following actions are triggered:

- a. The sampling process must start over with the initial verification requirements. The maximum sample set size must be decreased (i.e. the overall sampling rate must be increased) for the remainder of the project.
- b. All failed items must be tested and/or verified in every unit in the sample set for applicable prerequisite or credit to be awarded.
- c. If the multiple failures (more than 2) all apply to the same failed item, the failed item must be removed from the sampling controls – i.e. the builder shall submit to 100% testing and verification for that failed item for the remainder of the project.

Additional Considerations:

If a failure is due to an intentional design change the project team made; yet they had not informed the Green Rater of the change; this is still considered a failure. The project team is responsible for notifying the Green Rater of any changes that may affect LEED requirements.

Additionally, if a failure occurs in the verification of a credit requirement, the project team may choose to simply drop the credit and have it removed from future sampling controls. However, it still is considered a failure and a root cause analysis will still be required for the purposes of identifying and correcting potential weakness in the builder's quality management process.

Testing and/or verification for any item(s) that may become inaccessible during the construction process (e.g. wall insulation) must be timed so additional testing and/or verifications can occur on other units/homes in the sample set before they become inaccessible for inspection or testing.

LABELING & CERTIFICATION

For Multifamily Projects:

Each multifamily building is provided with a LEED for Homes certificate, and no distinction shall be made between units that undergo verification and those that do not. Since certificates are awarded to the entire building and not individual units, certification may not proceed until the sampling protocol is successfully completed for the entire building. Within multi-building developments, individual buildings may be certified as separate projects prior to the entire development being completed.

For Single Family Projects-

Every home subjected as part of sampling protocol shall be provided with an individual LEED for Homes certificate, and no distinction shall be made between homes that undergo verification and those that do not. No home in a sample set may be certified until the sampling protocol is successfully completed for the entire sample set.

SAMPLING REPORTING REQUIREMENTS

A Sampling Reporting Form (see Attachment 2 to this manual) must be used for tracking sampling activities and outcomes; a copy of the Sampling Reporting Form is submitted to GBCI as part of the application for certification. This form includes the following:

- i. Number of buildings and units (as applicable) in the project
- ii. Number of buildings/units in the initial verification phase

- iii. Number and organization of sample sets
- iv. Actual buildings/units tested and verified
- v. Number and types of failures, as well as remedial actions taken

Note: If the project is applying to sample only Energy Star-related measures as verified solely by the qualified Energy Rater (HERS Rater), the sampling tracking form is still required as part of the final certification submittal.

APPENDIX C: Production Home Certification Pathway

GBCI offers a streamlined pathway to certification for qualifying production home projects using the LEED BD+C: Homes and Multifamily Lowrise, and the LEED Residential BD+C: Single Family rating systems. This streamlined pathway serves to simplify the submittal process for high volume projects and shorten the certification timelines. It does not affect the verification steps required for each certification, though it can be combined with the Sampling Protocol outlined in Appendix B.

ELIGIBILITY

Project Eligibility Criteria:

- i. All homes/projects in the development must be of the same construction type, using the same envelope systems.
- ii. All homes/projects must earn the same set of LEED credits, including same compliance pathway and point thresholds within the credits pursued. See the Home Size Adjustment and Energy Use section below for additional requirements on the use of worst-case values.
- iii. All homes/projects must be within the same development, climate zone, and radon zone.
- iv. All homes in the project must have the same Builder and Developer.
- v. All homes within development must meet the requirements of all prerequisites.

A development is a set of homes being built by the same Builder/Developer, within a pre-determined project boundary within the same metro area.

Note: If the development includes multiple different products or plan types that do not meet the requirements above, the pathway may still be used; however, each unique set of home types will follow the Production Homes Certification Pathway separately with separate approved workbooks.

Green Rater Eligibility Criteria:

- i. The Green Rater and Provider participating in the Production Builder Certification Pathway must be meeting GBCI's quality expectations and be in good standing. GBCI reserves the right to temporarily suspend or revoke a Green Rater and/or Provider organization right to participate in this certification pathway.

OVERVIEW OF CERTIFICATION PROCESS

Green Raters will use a single LEED Workbook to represent all projects in a qualifying production home development. A full LEED submittal application is submitted when the first project (or group of projects) have been verified and are ready to submit for LEED certification review. The certification application needs to include additional information about the development. If the project submission meets GBCI quality expectations, the remaining projects, when ready, can be submitted to GBCI with limited additional information and a faster certification timeline.

Note that a development may submit more than 1 LEED Workbook for a development, if needed. This means that if a subset of projects within a development need to pursue additional points to meet certification requirements, they may do so. In this case, a development would submit 2 or more LEED

Workbooks to accommodate for variances across the development, while remaining within the quality standards of the LEED program. An initial full review is required for each unique LEED Workbook for the given development.

INITIAL SUBMITTAL AND REVIEW

For the first project (or group of projects), the LEED Green Rater or LEED Residential Provider must indicate within the LEED application that the application is being submitted for Initial Review as part of the Production Builder Certification Pathway. A standard review will be performed by GBCI for the initial application, including a review call with the Green Rater or other qualified member of the Provider organization.

The following documentation is required for the Initial Review of the first project (or projects):

- i. Complete LEED submittal (certification application), including the LEED Workbook + all v4 submittal requirements
- ii. Site plan for the entire development
- iii. Confirmed HERS ratings (Home Energy Rating Certificate (HERC)) and LEED for Homes Report for each home included in the certification application
- iv. A tracking sheet including the following for each project (that will pursue LEED certification) within the development:
 - a. Address/Lot identification #(s)
 - b. Expected Model Name(s)
 - c. Building Square Footage
 - d. Number of Bedrooms
 - e. Projected HERS score (for Expected Model) – for Option 2, Annual Energy Use Credit
 - f. Confirmed HERS score (for Actual Model) – for Option 2, Annual Energy Use Credit
 - g. Expected and Confirmed LEED Energy Budget outcomes – for Option 1, Annual Energy Use Credit
 - h. EAc Annual Energy Use points earned (for Actual Model)
 - i. Final verification date for each project

SUBSEQUENT SUBMITTALS AND STREAMLINED REVIEWS

For subsequent projects, the LEED Green Rater must indicate within the LEED application that the application is being submitted for a streamlined review as part of the Production Builder Certification Pathway. An expedited review process (less than 5 business days) will be performed by GBCI, and typically will not require a review call. The expedited review timeline is generally within 5 business days, provided no quality issues are found during review.

The following documentation is required for the all projects submitted for streamlined review within the development.

- i. Submittal Template, clearly identifying that this is a subsequent submittal for projects in a development pursuing the Production Builder Certification Pathway
- ii. Approved LEED Workbook, with new projects clearly identified in the Tracking Sheet

- iii. Confirmed HERS ratings (Home Energy Rating Certificate (HERC)) and LEED for Homes Report for each home included in the application
- iv. Updated Tracking Sheet, including items a. to i. above

Once a project has progressed to the streamlined review phase, there are a number of scenarios that would prompt additional full standard reviews (which would require an updated full submittal):

- i. There is a significant change to the individual performing verification services (e.g. change of Green Rater, Provider or Qualified Energy Rater).
- ii. There is a significant change to the project team (e.g. change of major contractor), or
- iii. There is a significant quality concern identified.
- iv. There has been a significant change to the project build plan or LEED pathway, which impacts the LEED credits and/or points earned.
- v. The LEED Workbook that was approved for the development during the initial review no longer represents the project's LEED achievement, and an updated LEED Workbook is needed.
- vi. A substantial period of time has lapsed between submittals (more than 1 year).
- vii. If more than 5% of homes are found non-compliant within an application, or across the development, this may prompt a full review and require adjustments going forward.

Note: The LEED Green Rater must proactively disclose when any of the circumstances listed above have occurred, prior to subsequent submittals to GBCI.

QUALITY AUDITS

- i. GBCI may conduct quality audits on streamlined applications on a random basis. In most cases, the audit process will not interrupt the 5 business day certification timeline. However, if inconsistencies and/or quality issues are found during an audit, GBCI may determine a standard review is needed; and standard certification timelines would apply. Additionally, in the case a standard review is required, additional documentation may be requested.
- ii. Quality Check-in: GBCI may perform a quality check for the participating development on a quarterly, bi-annual or annual basis. This Quality Check-in, when performed, will include a call with Green Rater or other qualified staff at the Provide organization to review the required project tracking sheet for the development, and discuss the development's LEED certification progress at large.

ADDITIONAL CONSIDERATIONS AND REQUIREMENTS

- i. For v2008 projects pursuing the Production Builder Certification Pathway: The projected worst-case combination of the home size adjustment (HSA) and HERS score is to be applied in the LEED application for the development. This is to ensure developments successfully meet GBCI requirements (as listed below), with minimum failures and/or impediments to the streamlined delivery model during build-out.

The projected worst-case combination of HSA and HERS score is defined as the projected plan type where the sum of the HSA and points associated with the HERS score is lowest.

- ii. For v4 and v4.1 projects pursuing the Production Builder Certification Pathway: A projected worst-case HERS index (SAF adjusted) is to be applied in the LEED application for the development.
- iii. If a development would like to pursue an alternative compliance pathway to define the HERS Index and HSA used in the LEED Workbook, they may do so with permission from GBCI, provided that requirements in iii. above are met.
- iv. If any home in the development falls below the certification threshold indicated in the approved LEED Workbook by 3 or more points (at as-built conditions), the worst-case combination of HSA and HERS score must be reevaluated; if changes are needed to bring projects into compliance— this may require the completion of another full Initial Review.
- v. Note that a development may submit more than 1 LEED Workbook, if needed, for a development. This means that if a subset of projects within a development need to pursue additional points to meet certification requirements, they may do so. In this case, a development would submit 2 or more LEED Workbooks to accommodate for variances across the development, while remaining within the quality standards of the LEED program.

APPENDIX D: Remote Audit Procedures

INTRODUCTION

LEED Residential quality assurance protocols require active LEED Green Raters to receive onsite quality assurance audits. In some cases, an onsite QA audit of a given Green Rater may not be possible or may be cost prohibitive. The procedures described here have been provided as an alternative to the required onsite field audit. A remote QA audit allows the auditor to meet the intent of an onsite audit without having to physically visit the site.

TYPES OF REMOTE QA AUDITS

There are two types of Remote QA Audits that may be completed:

- i. Live Remote QA Audit: The Green Rater conducts a walk-through of the site with the auditor viewing a live stream of the walkthrough. The live stream includes both an audio and visual connection between the auditor and Green Rater for the duration of the site walk-through.
- ii. Offline Remote QA Audit: The Green Rater records a video and audio walkthrough of the site and submit to the auditor for review. An Offline Remote QA Audit can be utilized in the case there is insufficient internet and or cellular connectivity on the project site. Note: This is only permitted when conditions do not allow for a Live Remote Audit to be conducted.

PROCEDURES FOR CONDUCTING A REMOTE QA AUDIT

Preparation for a Remote QA Audit

- i. Schedule the Remote Audit:
Inform the Green Rater about the selection for a Remote Audit and establish a mutually convenient date and time to conduct the audit. Ensure sufficient time is allotted for the full QA audit and includes any delays due to equipment stalls and/or interruptions. Note that as with any onsite audit, the Green Rater must ensure the project is at the phase of construction suitable for the QA audit, secure permission to be onsite and inform the client/project team of the scheduled audit site visit.
- ii. Request and Review Documentation:
Request the Green Rater to submit the LEED checklist (indicating the prerequisites and credits that have been verified) a minimum of 3-5 business days prior to the remote audit. The auditor may request for additional information/documentation from the Green Rater prior to the remote audit, at their discretion. When sampling has been applied, the auditor must request for the sampling tracking sheet. The Green Rater must submit all requested documentation to the auditor, at least 3-5 business days prior the scheduled audit date. The auditor must review all documentation thoroughly prior to the Remote Audit.
- iii. Procure appropriate equipment and connections:
 - a. Computer hardware device (e.g. cell phone, tablet, laptop, etc.) capable of live video streaming (for live remote audits); Google Hangout, Webex, GoToMeeting are some software applications to consider for a live meeting connection.
 - b. Hands free video equipment that allows the Green Rater to perform verification tasks while either live streaming or recording

- c. Audio device (e.g. cell phone) that provides clear audio.
 - d. Minimum of 3G connection (4G is recommended) if conducting a live remote audit.
 - e. Digital still camera for recording photos, as requested by auditor.
 - f. Lighting Equipment (as needed) to ensure adequate visibility to project features.
 - g. Measuring device to demonstrate dimensions as requested by auditor.
 - h. Batteries, external power supply, and/or charging cords.
 - i. Make certain all hardware is fully charged with minimum of 3 hours of run time.
- iv. Test equipment, connectivity and onsite conditions:
- a. The Green Rater should complete a test of equipment, software and/or apps to make sure that all is working properly before the scheduled session in the field.
 - b. If possible, test the connectivity and signal strength at the project site, which will be required to support live streaming video, when conducting live remote audit.
 - c. Make sure call audio is clear and project site is free from any disruptive background noise.

Conducting a Remote QA Audit

- i. Establish video and audio connection to conduct audit:
The auditor and Green Rater must establish clear video and audio connection and begin live streaming, if conducting a live remote audit. For offline remote audits, the Green Rater must confirm visual and audio quality and begin recording.
- ii. Verify project location:
The Green Rater must start the walk-through at the street view of building(s). The Project Address, or other clear indicator that identifies the specific property, must be clearly visible. The Green Rater must also take digital still photos from all four orientations to building. If there is more than 1 building, the Green Rater must take photos from all four orientations to project site, and one photo of each building entrance.
- ii. Verify pre-requisite and credit compliance:
Utilizing the LEED checklist, the Green Rater shall walk through project site in such a way that prerequisite and credit compliance can be observed by the auditor. Throughout the project walk-through, the Green Rater narrates what is being shown. During a live remote audit, the auditor will verbally confirm to the Green Rater that they have sufficiently observed each item before Green Rater moves to the next credit.
- iii. For multifamily projects where sampling was not applied, if multiple units are available for viewing, the auditor will direct the Green Rater which units to enter for auditor viewing. If the auditor does not wish to see all units, the units selected for viewing are to be randomized, at auditor discretion, and are provided during the course of the audit when done live. For off-line remote audits, the QA specifies the units to walk-through prior to the recording. The specific unit(s) being featured must be identifiable upon entry, via a number on the door or other means. There must be a seamless video feed once the unit has been identified and entered.

- iv. For multifamily projects, where sampling was applied, the auditor will direct Green Rater to enter units that were selected for sampling.
- v. Track Audit Findings and take notes if necessary:
The auditor takes notes, noting audit findings while conducting/viewing the audit to ensure all information is appropriately recorded.
- vi. Request for additional QA audits (if necessary):
If at any point the auditor believes that the Remote QA audit is not allowing proper assessment of the Green Rater's work, they may request for another quality assurance visit be scheduled, which may include making that visit in-person rather than remote.
- vii. Follow-up after Remote QA Audit
Following an offline remote audit, the Green Rater must upload the video and photos for auditor review.
- viii. For all Remote Audits, the auditor must complete the Quality Assurance Audit Evaluation Form (Attachment 7), including date, time, participants, project address, outcomes of the audit (including any failures), and any follow-up (such as professional development needed). Completion of the required follow-up must be documented by the auditor. The auditor must maintain a record of the audit for a minimum of 3 years in their QA files. During an audit, or for any other reason, GBCI may request the Audit Evaluation Form to be submitted for review.

APPENDIX E: Remote Verification Guidelines and Procedures

INTRODUCTION

In some cases, health and safety concerns and considerations may impact the ability to complete the required onsite verification for LEED Residential projects. As such, USGBC and GBCI has authorized the use of remote verification, when onsite verification is not feasible. The following provides step-by-step guidance for LEED Green Raters to deliver the mandatory verification services from a remote location. Please note, onsite performance testing remains required for the applicable LEED prerequisites and credits. Remote verification is not intended, nor authorized, as a full replacement of onsite verification. It is intended to be supplemental, and used only when onsite verification is not feasible.

GENERAL GUIDANCE

- As per CDC guidelines, anyone who is feeling unwell, showing signs of respiratory illness or fever, or has been advised to quarantine for a specified amount of time should remain home and not visit a project site.
- Green Raters should maintain the recommended social distancing of 6' or more when visiting a project site wherein health concerns or warnings are present, and follow all applicable health and safety guidelines.
- In the case that a project is ready for a verification site visit, and the Green Rater is not comfortable or not advised to visit the project site, consider the following two options:
 - o Consult with the project team and consider postponing the site visit; this option is only possible if further construction is also being postponed.
 - o If construction is continuing, the verification visit may be conducted remotely following the procedures below.
- Note that performance tests requirements continued to be required for LEED certification.

TYPES OF REMOTE VERIFICATION VISITS

There are two types of Remote Verification:

- iii. Live Remote Verification Visit: An onsite representative conducts a walk-through of the site, at the direction of the LEED Green Rater via a live stream video-audio connection. The live stream includes both an audio and visual connection for the entire duration of the site walk-through.
- iv. Offline Remote Verification Visit: An onsite representative records a video and audio walk-through of the site and submits to the LEED Green Rater for review. An Offline Remote Verification Visit may only be used in the case there is insufficient internet and or cellular connectivity on the project site. This type of verification visit must be pre-approved by GBCI prior to conducting it. When approved, GBCI will provide specific guidance that must be followed.

PROCEDURES FOR CONDUCTING REMOTE VERIFICATION ON LEED RESIDENTIAL PROJECTS

Step 1: Preparation for a Remote Verification Site Visit

- v. Identify an Onsite Representative to facilitate the visit:
The LEED Green Rater will work with the project team to identify an onsite representative. This onsite representative must be familiar with the project and competent in the field of residential construction.

- vi. **Schedule the Remote Visit:**
Establish a mutually convenient date and time to conduct the remote verification visit. Ensure enough time is allotted for the full verification visit, accounting any delays due to equipment stalls and/or interruptions. Note that as with any verification visit, the LEED Green Rater must ensure the project is at the phase of construction suitable for the planned verification, and consult the client/project team of the scheduled verification visit.
- vii. **Prepare for the remote verification visit:**
The LEED Green Rater must prepare a verification checklist (indicating the prerequisites and credits that they intend to verify) prior to the scheduled remote verification visit. This will prepare the LEED Green Rater to give clear directions to the onsite representative during the live remote visit. When sampling is being applied, the LEED Green Rater must also prepare their sampling plan and have the Sampling Tracking Sheet ready to record sampling outcomes.
- viii. **Procure appropriate equipment and connections:**
 - j. **Onsite Representative:**
 - Hands free video equipment that allows navigation of the project site at the required level of detail, while live streaming or recording
 - Digital still camera for taking photos, as requested by the Green Rater.
 - Lighting Equipment (as needed) to ensure adequate visibility to project features.
 - Measuring device to demonstrate dimensions, as requested by Green Rater.
 - Batteries, external power supply, and/or charging cords.
 - k. **Both Onsite Representative and LEED Green Rater:**
 - Audio device (e.g. cell phone, laptop, iPad) that provides clear audio.
 - Minimum of 3G connection (4G is recommended) when conducting a live verification visit.
 - Make certain all hardware is fully charged with minimum of 3 hours of run time.
- ix. **Test equipment, connectivity and onsite conditions:**
 - d. Complete a test of equipment, software and/or apps to make sure that all is working properly before the scheduled session.
 - e. If possible, the onsite representative should test the connectivity and signal strength at the project site, which will be required to support live streaming video, when conducting live remote audit.
 - f. Make sure call audio is clear and project site is free from any disruptive background noise.

Step 2: Conducting a Remote Verification Visit

- i. Establish clear and reliable video and audio connection.

- ii. **Verify project location:**
The onsite representative must start the walk-through at the street view of building(s). The Project Address, or other clear indicator that identifies the specific property, must be clearly visible. The onsite representative must also take digital still photos from all four orientations to building. If there is more than 1 building, take photos from all four orientations to project site, and one photo of each building entrance.
- ix. **Verify LEED prerequisite and credit compliance:**
At the direction of the LEED Green Rater, the onsite representative walks through project site in such a way that prerequisite and credit compliance can clearly be observed by the LEED Green Rater. Throughout the project walk-through, the onsite representative narrates what is being shown. During a live remote verification visit, the LEED Green Rater will verbally confirm to the onsite representative that they have sufficiently observed each item before moving to view the new LEED measure.
- x. **For projects, where sampling is being applied, the LEED Green Rater will direct the onsite representative which units to enter during the live visit. For off-line remote verification visits, the LEED Green Rater must specify the units to walk-through no more than 24 hrs. prior to the recording. The specific unit(s) being featured must be identifiable upon entry, via a number on the door or other means. There must be a seamless video feed once the unit has been identified and entered.**
- xi. **Track and record verification findings:**
The LEED Green Rater takes notes, noting verification findings while conducting/viewing the visit to ensure all information is appropriately recorded.
- xii. **Request for additional verification (if necessary):**
If at any point the LEED Green Rater believes that the remote verification visit is not allowing proper assessment of the project's achievement of the LEED requirements, the LEED Green Rater may request for another verification visit be scheduled, which may include making that visit in-person rather than remote..
- xiii. **Verification failures during a remote verification visit:**
In the event that the LEED Green Rater determines a LEED measure has failed, yet can be corrected while still maintaining the prerequisite and/or credit intent; the onsite representative may create a short video* of the correct measures once the applicable construction updates have been made.
**Ensure Step 2. ii. is repeated for any additional recordings.*

ATTACHMENTS:

Attachment 1: [LEED v4 Homes and Multifamily Midrise and LEED v4.1 Residential Single Family Verification and Submittal Guidelines](#) – *click to access*

Attachment 2: Failure Root Cause Analysis Form (for when Sampling is used) – *see attachment files*

Attachment 3: Sampling Reporting Form (for when Sampling is used) - *see attachment files*

Attachment 4: Conflict of Interest Disclosure Form - *see attachment files*

Attachment 5: Green Rater Audit Evaluation Form - *see attachment files*