HOW INFORMATION WILL BE USED

This packet was compiled to provide a complete documentation requirements reference guide for teams pursuing project certification under Living Building Challenge versions 1.0 - 1.3. While Living Building Challenge 2.0 is similar in scope for some project types, the information contained herein does not represent the documentation requirements for version 2.0 of the program.

As the owner of the Living Building Challenge Program, the International Living Building Institute (ILBI) will request specific information from various members of a project team (Team) to determine compliance with the Living Building Challenge Prerequisites. This data will be shared in a limited capacity with the project’s assigned Auditor, a third-party who is responsible for performing the onsite verification once the twelve-month occupancy phase is complete. When onsite, the Auditor may look for additional complementary information to support the project’s claims in the documentation.

ILBI and the Auditor will treat with confidentiality any/all project drawings, project manuals, and construction documents submitted by members of a Team. Twelve months following a project’s certification, these project drawings, project manuals, and construction documents will no longer be stored and any existing printed copies will be destroyed.

ILBI may use and retain other project documentation as deemed necessary to further the mission of the organization, and may share information contained within the documentation with members of the Living Building Challenge Community or the general public. ILBI retains the right to use and/or publish essays written by the Team, and will attribute the content to the members of the Team as directed.

By submitting photographs and/or 3D renderings of the project, the Team grants ILBI royalty-free use of these image(s) in promotional material, such as web-based, printed, and other presentation formats, to support the Living Building Challenge or one of its auxiliary programs. ILBI/Cascadia will use the image(s) in a manner consistent with a Creative Commons “Attribution-No Derivative Works 3.0 United States” license.

The Team will be expected to share documentation of the project’s performance on the publically accessible ILBI website Case Study Database once the project is in its operational phase. This information will be updated after the project is certified, and additional feedback may be added to the project’s case study subsequently as desired by the project team.

ILBI has an ongoing goal to reduce the amount of documentation needed to demonstrate compliance with the Living Building Challenge Imperatives. Over time, items may be deleted or slightly modified to reflect this effort. Teams may elect to submit information using the most current guidelines at the time of project registration or any subsequent releases.
GENERAL

All documentation requirements should be digitally transmitted* from the Team to the ILBI for review via the Project Portal, unless noted otherwise, which will be accessed from the online Community and linked to the personal profile of the project’s designated primary point of contact.

The Team will have the option to review and update the project information that was provided at time of registration and also include final information for the following:

- Project area (in square feet or square meters)
- Building gross square feet or square meters
- Building footprint (in squarefeet or square meters)
- Project Floor Area Ratio (FAR)
- Start date of twelve-month occupancy phase

In addition, the following general information should be submitted:

1. Two printed copies of the project’s For Construction Drawing Set in half-size format (typically 18” x 24”)*
2. A site plan with the project area^ clearly noted
3. An electronic copy of the Project Manual (specifications)
4. At least ten digital color 3D renderings or photographs of project
5. Copies of Dialogue posts or other formal correspondence with ILBI that substantiates decisions made, if not expressly in alignment with the stated Prerequisite requirements, should accompany the documentation provided within each Prerequisite section.

* These should be remitted to the ILBI and do not need to be uploaded to the Project Portal in digital form. Either mail directly or coordinate with a Seattle-based reprographics company to deliver to:
International Living Building Institute, Attn: Certification Director
410 Occidental Ave. South
Seattle, WA 98104 USA

^ The Project Area must be applied consistently to all Prerequisites. Annotated site plan must be clearly labeled and identify, at a minimum: site boundaries; distances to adjacent sensitive habitats (if applicable); building footprint(s); and placement of any outbuildings and infrastructure.

LETTERS FROM TEAM MEMBERS

Letters from individual Team members are required to document the Team’s statement of compliance with the requirements of the Living Building ChallengeSM and to affirm the Team’s intent to meet individual Prerequisites. The statement of compliance with the listed Prerequisites may be combined into one letter from each of the following Team members and should be printed on official company stationery (sample letters are located in the Community for reference):

OWNER: (01) Responsible Site Selection, (02) Limits to Growth, (09) Leadership in Construction waste, (16) Inspiration + Education
ENGINEER OF RECORD (This may be the responsibility of one, or several, parties, depending on the structure of the Team): (14) Healthy Air: Ventilation
REQUIRED ESSAYS
Documentation requirements for some Prerequisites include essays or narratives. All page count descriptions noted are minimums. Teams are encouraged to include additional pages if necessary to clearly communicate the Team’s intent. The Auditor will use this information to assist with the assessment of the project. In some cases, no additional information will be required to review each Prerequisite. In others, specific additional data has been requested. These are organized by Petal area on the following pages.

CASE STUDY QUESTIONNAIRE
Throughout this document there are highlighted areas, such as the one below, that list the information requested for the corresponding section in the Case Study questionnaire. Completion of the questionnaire is a documentation requirement for Prerequisite 16: Inspiration + Education. The case study questions have been inserted into this document to help project teams understand where the documentation requirements and case study questions may overlap. In addition to the documentation requirements, answers to the questionnaire will be used to populate the publicly accessible database on the ILBI website.

Location: (City/Province, State, Country)
Bioregion: (refer to User’s Guide v1.2, page 23)
Living Transect: (refer to the Standard, page 9)
Typology: (refer to the Standard, page 8)
Occupant Type: (list all that apply)
Project summary: (approximately 150 words)
Project Area: (99,999 sf or m²)
Building Area (if applicable): (99,999 sf or m²)
Building Footprint (if applicable): (99,999 sf or m²)
Start of construction: (MM/YY)
Start of Occupancy Period: (MM/YY)
Owner occupied: (yes/no)
Number of occupants: (typical daily)
Number of visitors (if applicable): (estimate typ. daily)
Typical hours of operation: (days/week, daily hours. e.g. “M-F, 9:00 am – 6:00 pm”)
Other Relevant details about project use or occupancy:
Project costs (land excluded):
Soft costs:
Hard costs:
Creative financing opportunities, including information about associated institution(s):
Project team (Company name and location, website optional)
Geotechnical:
Civil:
Landscape:
Structural:
Architectural:
Interior Design:
Plumbing:
Mechanical:
Electrical:
Lighting Design:
Specialty Consultant(s):
Contractor:
Subcontractor(s):
Other:
PREREQUISITE 01: RESPONSIBLE SITE SELECTION
Verification Method: Documentation + Audit

P01-1. Image that shows conditions on the site prior to development. Acceptable images include: Aerial photo, satellite imagery or site plan with site information (at a minimum, information to include site boundaries and immediately adjacent properties, building footprint, outbuildings and infrastructure) clearly labeled and identifying that the project does not conflict with any of the site restrictions.

P01-2. FEMA Issued Flood Map documenting the location of the flood zone. For projects outside the United States or in instances where a FEMA Issued Flood map does not exist, a zoning diagram or letter from the Authority Having Jurisdiction may be submitted.

Potential Additional Documentation
P01-a. A letter from an acceptable third party or copies of ecological, environmental or civil reports as necessary to demonstrate that the site complies with the requirements may be required depending upon project site and/or adjacent land conditions. If the project is taking an exception relating to sensitive ecological habitat (wetlands, primary dunes, old growth forest, or virgin prairie), copies of conservation program literature must be included in the submission. If the exception relates to farmland, documentation showing it is a working farm* must be included. For sites that are part of an existing urban core, aerial images will suffice.

* Acceptable documentation must include at least two of the following: an official document (business license, registration, or official correspondence) showing both the project address and evidence that the project is registered as a working farm, or contracts/receipts showing the purchase of inputs to or sale of outputs from the farm.

PREREQUISITE 02: LIMITS TO GROWTH
Verification Method: Documentation + Audit

P02-1. Historic image taken no later than December 31, 2007, showing the site and its adjacent properties to a minimum distance of 1000 feet beyond the project property line. Image must show land use on all sides of property. Acceptable images include aerial photos or satellite imagery with a date stamp or similar classification.

If a Team is unable to produce photographic evidence of site conditions prior to the Limits to Growth cutoff date (i.e., December 31, 2007), acceptable alternative documentation must be cleared with ILBI prior to submittal. Potential acceptable alternatives include third party written documentation such as county records (written descriptions and images) or newspaper articles.

“Previously developed” is defined as any site with existing or historic structures, or a site that has experienced extensive disturbance related to building activity; it does NOT include roads built for natural resource extraction (e.g., logging roads or mining areas) or other industrial disturbance.

Potential Additional Documentation
P02-a. If the project is declaring that it was constructed on a Brownfield, documentation is required to show US EPA designation or the State/Province, County or jurisdictional equivalent.

P02-b. For Greenfield sites that are developed in accordance with the exception, the aerial photo showing that at least 75% of the project site was surrounded by previously developed properties prior to December 31, 2007. Calculations should accompany the image if necessary to clearly demonstrate compliance.

P02-c. Additional data documenting the research and exploration of onsite conditions completed prior to the start of work may be submitted at the Team’s discretion.
PREREQUISITE 03: HABITAT EXCHANGE
Verification Method: Documentation

For all projects:
P03-1. Receipt for the Habitat Exchange donation to one of the authorized Land Trusts and an official letter or
document from the organization stating the terms of the offset.

For single family residences – alternate compliance path:
P03-a. Records* documenting a minimum of 100 volunteer hours spent by the Owner during the project
design, construction and/or occupancy period as a board member (or other leadership position) of an
authorized Land Trust.

P03-b. Records indicating that the authorized Land Trust is actively responsible for the purchase and/or
permanent easement as well as ongoing stewardship of conservation tracts of land in excess of 100
acres.

* Acceptable documentation must include at least one of the following from the Land Trust: volunteer log books; or
board rosters, meeting minutes or other printed/digital matter that verifies time period of participation and signed
letter from Land Trust staff.

Site condition prior to project start: *(Greyfield, Brownfield, Other)*

Significant site information, such as conditions related to standing Exceptions for Prerequisite 01: Limits to
Growth and/or Prerequisite 02: Limits to Growth. If “Other” is indicated above, also provide explanation here:

Name of Habitat Exchange project:
Location of Habitat Exchange project:
Name of participating Land Trust:
Land Trust website:
If known, biomimicry-related information about species living in Habitat Exchange project area:

Related regulatory appeals, including whether successful, name of Authority Having Jurisdiction and location
*(attach any relevant documents to submission)*:

Additional Site Petal comments:
Additional Site Petal support documents:
ENERGY

PREREQUISITE 04: NET ZERO ENERGY
Verification Method: Documentation + Audit

P04-1. Two-page narrative written by the consulting engineers describing the renewable energy system(s) and major components, their function and location.

P04-2. Photographs of the systems, particularly portions that will be hidden from view at time of audit due to completion of construction.

P04-3. Energy bills for a continuous twelve-month period, beginning with the designated start date of the occupancy phase. If the project is not connected to a Utility and therefore has no energy bills, the project Owner must write and sign a letter substantiating that this is the case. This statement may be included in the Owner’s General Letter.

P04-4. Monthly readings throughout the 12-month occupancy period from meter(s), other onsite tracking systems or web-link to online mechanism that clearly records energy produced and consumed.

Potential additional documentation:
P04-a. Copy of commissioning reports or other design or construction documents identifying corrections and/or improvements made to the system(s) or envelope throughout the 12-month occupancy period.

| Type + size of renewable energy system(s) used: (e.g. 'Manufacturer’ Roof-mounted photovoltaic, 20 kWp) |
| Annual Energy Use (MMbtu/yr, kbtu/sf or m²/yr) |
| Actual: |
| Simulated/designed: |
| Energy Use Intensity: |
| Actual end use breakdown: |
| Heating: |
| Cooling: |
| Lighting: |
| Fans/pumps: |
| Plug loads + equipment: |
| Vertical transport: |
| Domestic hot water: |
| Other: |
| Sub-metering data: |
| Design tool(s) and calculation method(s): (e.g. data source, software, etc.) |
| Related regulatory appeals, including whether successful, name of Authority Having Jurisdiction and location (attach any relevant documents to submission): |
| Additional Energy Petal comments: |
| Additional Energy Petal support documents: |
MATERIALS

M-1: Completed Project Portal Materials Petal Tracking Table that includes a list of products used in the project and characteristics that influence Prerequisites 05: Materials Red List, 07: Responsible Industry and 08: Appropriate Materials/Services Radius. The Table is organized by product within its corresponding CSI MasterFormat Division and Section.

In addition, support information must be uploaded as outlined in each Prerequisite as follows.

PREREQUISITE 05: MATERIALS RED LIST
Verification Method: Documentation + Audit

P05-1. Copy of supporting data for each product researched such as Material Safety Data Sheets (MSDS), manufacturer’s published claim and/or ingredient list.

P05-2. Copy of letters written to the manufacturer for each product that contained a Red List item and was granted an exception for use.

Potential additional documentation:
For each exception granted to this Imperative based on code requirements, the following documentation is required:

P05-a. Letter/official document from the Authority Having Jurisdiction (AHU) citing the requirement to use the specific product or approach.

P05-b. Copy of the appeal or variance request to use a Living Building Challenge compliant product or approach submitted to the AHU.

P05-c. Evidence from the AHU of the response to the appeal or variance request (acceptance or denial, in the form of written or electronic communication).

PREREQUISITE 06: CONSTRUCTION CARBON FOOTPRINT
Verification Method: Documentation + Audit

P06-1. The input for and results from a carbon calculator showing TC02e for the project (Note: onsite mitigation such as landscape restoration, renewable energy production, etc. may not be credited in the calculation.)

P06-2. Receipt from a carbon offset program as proof-of-purchase.

PREREQUISITE 07: RESPONSIBLE INDUSTRY
Verification Method: Documentation + Audit

P07-1. Receipts referencing FSC certified wood acquisition and the Chain-of-custody numbers, and receipts from the seller/broker of all salvaged wood procurements.

Potential additional documentation

P07-a. For timber harvested, one-page illustrated narrative describing how tree removal was required for construction or part of a reforestation/restoration program and the milling process to create finish goods.

PREREQUISITE 08: APPROPRIATE MATERIALS/SERVICES RADIUS
Verification Method: Documentation

NOTE: The Team may opt to apply the Living Building Challenge 2.0 definition and requirements of Imperative 14: Appropriate Sourcing to demonstrate compliance with this Prerequisite.

P08-1. Zone 4: If not already included in the General Information submitted, a roster including the name of each organization or individual participant on the Team, role, office location, and proximity to the project site (in miles or kilometers traveled).

P08-2. Copy of supporting data for each product listed, such as letter from manufacturer, printed promotional material or website screen-capture, etc.
Potential additional documentation:
P08-a. For each exception granted as a result of a manufacturer making “proprietary claims” and not releasing product information, the Team must also submit a copy of each letter written to a manufacturer as a basis for jumping a Zone to procure a product.

**PREREQUISITE 09: LEADERSHIP IN CONSTRUCTION WASTE**
Verification Method: Documentation

P09-1. Copy of receipts, recycling percentage reports and addresses for all tipping fees, recyclers, and building materials salvage services.

P09-2. Calculation showing percentages of construction waste diverted (by weight) in each category (metals; paper + cardboard; soil + biomass; rigid foam, carpet + insulation; and all others). The calculation must be based on tangible data that correlates to receipts provided.

P09-3. Photographs of specific designated area onsite for separated or comingled construction waste.

Summary of Project Team’s approach to achieving the Materials Petal Prerequisites, including special considerations for each phase (design, construction, operation, end of life/adaptive reuse):

Notable successful Red List substitutions:

(\textit{CSI Masterformat, Original Product, Red List Item, Specified Manufacturer + Product Names})

Summary of the product classes and/or specific products that presented particular challenges:

Notable regional products specified:

(\textit{CSI Masterformat, Specified Manufacturer + Product Names, Manufacturing location})

Notable manufacturers who made ‘Proprietary Claims’ when asked about product contents:

(\textit{CSI Masterformat, Manufacturer + Product Names})

Sources for wood: (\textit{check all that apply})

- certified by Forest Stewardship Council (FSC)
- salvaged
- harvested onsite

Notable manufacturers of FSC certified wood products:

(\textit{CSI Masterformat, Manufacturer + Product Names})

Name of organizations and/or individuals that assisted with timber harvest and lumber seasoning process:

Brokers that assisted in sourcing salvaged materials: (\textit{Company Name, website and/or contact information})

Embodied carbon footprint: (\textit{TCo2e}):  
Name of Carbon Offset project:  
Location of Carbon Offset project:  
Name of Carbon Offset provider:  
Carbon Offset provider website:  

Related regulatory appeals, including whether successful, name of Authority Having Jurisdiction and location (attach any relevant documents to submission):

Additional Material Petal comments:  
Additional Material Petal support documents:
WATER

PREREQUISITE 10: NET ZERO WATER
Verification Method: Documentation + Audit

P10-1. Two-page narrative written by the consulting engineers describing the contributing system(s) and major components, their function and location, as well as the water treatment method(s).

P10-2. Photographs of the systems, particularly portions that will be hidden from view at time of audit due to completion of construction.

P10-3. Water bills for a continuous twelve-month period, beginning with the designated start date of the occupancy phase. If the project is not connected to a Utility and therefore has no water bills, the project Owner must write and sign a letter substantiating that this is the case. This statement may be included in the Owner’s General Letter.

P10-4. Monthly readings throughout the 12-month occupancy period from meter(s) or other onsite tracking systems that clearly record the amount of water received by the project from every source (including cisterns).

PREREQUISITE 11: SUSTAINABLE WATER DISCHARGE
Verification Method: Documentation + Audit

NOTE: The Team may opt to apply the Living Building Challenge 2.0 definition and requirements of Imperative 06: Ecological Water Flow to demonstrate compliance with this Prerequisite.

P11-1. Two-page narrative written by the consulting engineers describing the rain/storm-, grey- and black-water treatment and management system(s) and major components, their function and location.

P11-2. Photographs of the systems, particularly portions that will be hidden from view at time of audit due to completion of construction.

P11-3. Water balance calculations clearly indicating the inputs and outputs on the site, including climatic elements like rainfall or ground well quantities. Sources of data and design assumptions shall be recorded.

Actual Annual Water Use:
Utility-supplied for potable use due to regulatory requirement: (gal or liters/yr)
   Systems fed:
Harvested onsite: (gal or liters/yr)
   Collection strategies. If multiple, provide breakdown of contribution: (e.g. rain, ground well, etc.)
   Systems fed:
Grey water: (gal or liters/yr)
   Systems fed:
Black water: (gal or liters/yr)
   Systems fed:
Estimated total water use per capita: (gal or liters/yr)

Simulated/designed water use: (gal or liters/yr)
Sub-metering data:
Design tool(s) and calculation method(s): (e.g. data source, software, etc.)
Related regulatory appeals, including whether successful, name of Authority Having Jurisdiction and location (attach any relevant documents to submission):

Additional Water Petal comments:
Additional Water Petal support documents:
INDOOR QUALITY

PREREQUISITE 12: CIVILIZED ENVIRONMENT
Verification Method: Documentation + Audit
No discrete documentation requirements.

Potential additional documentation:
P12-a. In locations subject to interpretation or for what may appear to be unique conditions, the Team may opt to provide additional partial floor plans and building sections or diagrams as necessary to demonstrate compliance.

PREREQUISITE 13: HEALTHY AIR/SOURCE CONTROL
Verification Method: Documentation + Audit
NOTE: The Team may opt to apply the Living Building Challenge 2.0 definition and requirements of Imperative 09: Healthy Air to demonstrate compliance with this Prerequisite.
P13-1. One-page narrative of ventilation approach(es) for kitchens, bathrooms, copy rooms, janitorial closets and chemical spaces, as applicable that also outlines the approach to dirt track-in systems for the project with supporting floor plans as needed. (This can be combined with Item 1 below for Prerequisite 13: Healthy Air/Ventilation)

PREREQUISITE 14: HEALTHY AIR/VENTILATION
Verification Method: Documentation + Audit
NOTE: The Team may opt to apply the Living Building Challenge 2.0 definition and requirements of Imperative 09: Healthy Air to demonstrate compliance with this Prerequisite.
P14-1. One-page narrative about make-up ventilation or natural ventilation processes that clearly identifies the locations of Carbon Dioxide monitors. (This can be combined with Item 1 above for Prerequisite 14: Healthy Air/Source Control)
P14-2. Verification of performance for permanently installed equipment used to monitor levels of CO₂, temperature and humidity.
P14-3. Calculations showing compliance with California Title 24 prescribed air change rates for each occupancy type within the project; OR for single-family residences demonstrate that the project has bathroom and kitchen exhaust, whole house fan or heat recovery ventilation system.

Potential additional documentation:
P14-a. Photographs that document the installation of monitoring equipment if it will be hidden from view at time of audit due to completion of construction.

Summary of short- and long-term health considerations for design, construction and occupancy phases:
Related regulatory appeals, including whether successful, name of Authority Having Jurisdiction and location (attach any relevant documents to submission):
Additional Health Petal comments:
Additional Health Petal support documents:
BEAUTY + INSPIRATION

PREREQUISITE 15: BEAUTY + SPIRIT
Verification Method: Documentation + Audit

P15-1. Four-page (minimum) essay written by the project designer (most often the architect) that describes how the project meets the intent of the Imperative. The essay must be accompanied by photographs, diagrams and drawings that illustrate major ideas.

P15-2. Two-page (minimum) essay by owner describing how building meets Imperative in his/her eyes. (If the project was designed by Owner, a second essay is not required.)

P15-3. Informal survey results from project occupants/users. Survey must describe the intent of this Imperative and inquire of respondents whether they think the project has succeeded. Survey respondents must represent a randomized sampling of at least 10% of project occupants. Surveys may be administered online or in person. For single-family residences, testimonies from the home’s occupants, visitors or family members may be used.

PREREQUISITE 16: INSPIRATION + EDUCATION
Verification Method: Documentation + Audit

For all projects other than single family residences:

P16-1. At least one annual “open day” to educate the public about the project and its achievements. This “open day” shall be publicized to the community at large.

P16-2. Educational web site (URL to be provided at submission) that shares information about the design, construction, and operation of the project. Performance metrics are encouraged to be included.

P16-3. A simple brochure describing the design, environmental features, and how occupants can help maintain and operate the project.


P16-5. Interpretive signage that teaches visitors and occupants about the project.

P16-6. Completed ILBI case study questionnaire, to be posted for public viewing on the ILBI website.

P16-7. OPTIONAL - an educational video describing the project’s environmental features

For single family residences:

P16-a. At least one “open house” to educate the public about the project and its achievements. This “open house” shall be publicized to the community at large. Subsequent events are encouraged, but not required.

P16-b. Educational web site (URL to be provided at submission) that shares information about the design, construction, and operation of the house. Performance metrics are encouraged to be included.

P16-c. A simplified Owner’s Manual that explains the systems in the house and other unique features to assist future owners/occupants. No interpretive signage or detailed O&M manual is necessary.

P16-d. Completed ILBI case study questionnaire, to be posted for public viewing on the ILBI website.

Project website: [URL]

Tour information [address, schedule] or website with current details listed (optional for private residences):

Useful strategies, tools, and/or references not already discussed:

‘Lessons Learned’ not already discussed: [e.g. the rationale for shifted strategies - include the original idea, the barrier to achieving it, and the implemented solution]

Additional Beauty Petal comments:

Additional Beauty Petal support documents: