



Owner's Project Requirements (OPR)

Documentation of Owner's Project Requirements (OPR) is a step required for compliance with LEED-NC 2.2 EA Prerequisite 1 for Fundamental Commissioning of the Building Energy Systems as well as EA Credit 3 for Enhanced Commissioning. The Owner's Project Manager or Owner's Representative should lead the development of the Owner's Project Requirements document. This document should be completed as early as possible during the project so that the design team can use it to develop their Basis of Design (BOD) document. The Commissioning Authority will review the Owner's Project Requirements document prior to the final accepted version and refer to this document throughout the design and construction process. The Owner's Project Requirements should document:

- Owner and User Requirements
- Environmental and Sustainability Goals
- Energy Efficiency Goals
- Indoor Environmental Quality Requirements
- Equipment and Systems Expectations
- Building Occupant and O&M Personnel Expectations

TEMPLATE

Owner's Project Requirements (OPR)

Note: This template is only a guide to collecting the information for an Owner's Project Requirements (OPR) document.

1. Owner and User Requirements
 - Should include primary purpose, program, and use of project. May also describe future expansion needs, flexibility, quality of materials, construction and operation costs.
2. Environmental and Sustainability Goals
 - Project shall meet LEED-NC 2.2 requirements at the [Certified, Silver, Gold, or Platinum] performance level.
 - List other Owner requirements: [Owner priorities among possible LEED points]
3. Energy Efficiency Goals
 - Project overall energy efficiency goals relative to local energy code or ASHRAE Standard. [List local energy code, ASHRAE Standard, or other].
 - List energy efficiency measures that provide cost effective energy savings.
 - List other Owner requirements: [such as; orientation, siting, daylighting, cool roof, natural ventilation, landscaping that will impact energy use.]



4. Indoor Environmental Quality Requirements

- For each program/usage area, list;
 - Anticipated occupancy schedules
 - Thermal comfort requirements, temperature and/or humidity requirements
 - Desired user ability to adjust HVAC system controls
 - Ventilation and filtration requirements
 - Accommodations for after hours use
 - Acoustic environment requirements
 - Indoor lighting requirements
 - Occupant lighting control requirements
 - Other Owner requirements: [such as; natural ventilation, operable windows, daylight, views, etc.]

5. Equipment and Systems Expectations

- For each program/usage area, list;
 - Special HVAC equipment requirements: [such as; equipment type, quality, reliability, efficiency, control system type, preferred manufacturers, maintenance requirements]
 - Special lighting requirements [such as; preferred lamp and ballast types that comply with Owner standards if applicable]
 - Other system requirements [such as; specific efficiency target, desired technologies, etc.]

6. Building Occupant and O&M Personnel Expectations

- Describe how the HVAC and Lighting systems will be operated and by whom
 - Day-to-day HVAC operation by: [occupants, operating staff, other]
 - Periodic HVAC maintenance performed by: [operating staff, service company, Owner staff, other]
 - Lighting system maintenance will be performed by: [operating staff, service company, Owner staff, other]
- Level of training required for;
 - Building occupants to understand and use the building systems: [demonstration, instruction documents, etc.]
 - Maintenance staff: [demonstration, classroom training, instruction documents, etc.]

7. Other Owner requirements: [list other owner requirements for this category]



Basis of Design (BOD)

The design team shall develop the Basis of Design (BOD) to describe how the design of the building systems meets the Owner's Project Requirements document. The Basis of Design document should be developed during the project's design phase as early as possible, and updated as necessary throughout the design process. The Commissioning Authority will refer to this document throughout the project's design and construction commissioning process. The Basis of Design should document:

- Narrative Descriptions
 - Heating, Ventilation, Air Conditioning (HVAC) Systems (mechanical and passive) and Controls
 - Indoor Lighting Systems & Controls
 - Domestic Tempered and Hot Water Systems
 - Renewable Energy Systems, if applicable (Solar, Wind, etc.)
- Primary Design Assumptions
- Standards Utilized for Design

TEMPLATE

Basis of Design (BOD)

Note: This template is only a guide for use by the design team to generate a Basis of Design (BOD) document.

1. HVAC System(s)

1.1 Narrative Description of System(s)

- System type(s), location, control type, efficiency features, outdoor air ventilation strategy, indoor air quality features, noise reduction features, environmental benefits, other special features.
- Describe how system meets any special requirements listed in the Owner's Project Requirements document.

1.2 Reasons for System Selection

- Reasons that the selected system is a better choice than alternatives. Such as; comfort performance, efficiency, reliability, flexibility, simplicity, cost, owner preferences, site constraints, climate, availability of maintenance, acoustics, etc.
- Design assumptions



3. Domestic Water Heating System(s)

3.1 Narrative Description of System(s)

- System type(s), location, control type, efficiency features, environmental benefits, other special features.
- Describe how system meets any special requirements listed in the Owner's Project Requirements document.

3.2 Reasons for System Selection

- Reasons that the selected domestic water heating system is a better choice than alternatives. Such as; efficiency, reliability, simplicity, space constraints, cost, owner preferences, ease of maintenance, etc.
- Design assumptions

3.3 Domestic Water Heating Design Criteria

- Domestic Water distribution temperature(s)
- Domestic Water storage temperature(s)
- Applicable codes, guidelines, regulations, and other references that will be followed.
- Load calculation assumptions

END