
Building Design & Construction Checklist

Project Vision & Design Goals

- ✓ Complete a site analysis to determine the minimum environmental impact.
- ✓ Use computer simulations to direct design decisions.
- ✓ Complete a base-case building analysis to understand design strategies that will have the greatest impact on the building design for the particular building function.
- ✓ Evaluate adjacencies for building functions and how the building interacts with the site.
- ✓ Evaluate use of renewable energy technologies and how they can be incorporated, either now or in the future, into the building design.

Schematic Design

- ✓ Integrate the architectural design with the building's energy design. The building's form should improve the building's performance.
- ✓ Evaluate all building materials for environmental impact.
- ✓ Minimize building mechanical and electrical system sizes by incorporating passive solar technologies to help meet space conditions loads and lighting loads.
- ✓ Use computer simulations to guide design decision to achieve this strategy.

Design Development

- ✓ Re-evaluate all suggested design changes using computer simulations before implementing the changes to ensure that the changes will not detract from meeting the building design goals.

Construction Documents

- ✓ Write specifications clearly to eliminate confusion. On-site interpretation during construction can lead to construction errors.
- ✓ Clearly show high-performance design strategies in construction drawing details.
- ✓ Comprehensive details help to avoid on-site interpretation of the drawings.
- ✓ If design changes are proposed during construction, evaluate (using computer simulations) the impact those changes could have on the building performance to determine if those changes should be implemented.

Occupancy

- ✓ Commission all building systems prior to occupancy.



Saving Energy. It's a Way of Life.

Post-Occupancy

- ✓ Check that all systems are operating as intended after occupancy.

Source: U.S. Department of Energy Building Technologies Program