4. Life Cycle Costing

4.1 Purpose

Life Cycle Costing (LCC) is an important economic analysis used as a part of building and project design. This analysis seeks to indentify building and construction alternatives that help control operating and functional costs. It compares initial investment options to identify the lowest cost alternatives over time.

Under DSF guidelines, life cycle cost analysis shall be used for the design and location of any new building, structure, major remodeling, or building addition.

The Architect/Engineer (A/E) shall contact local utility companies to determine available demand-side management programs and no-cost assistance provided by these companies to designers and owners.

4.2 Applications

Basic applications of LCC are addressed within the individual chapters herein and may be further defined within an A/E's design programming scope requirements. In general, LCC is expected to support selection of all building systems that impact energy use: thermal envelope, passive solar features, fenestration, HVAC, domestic hot water, building automation and lighting. However, LCC can also be applied to building features or involve costs related to occupant productivity, system maintenance, environmental impact and any other issue that impacts costs over time.

4.3 Procedures and Approach

It is important to recognize the significance of integrated building systems design in the overall efficiency of the design. The most effective approach to LCC is to appropriately integrate it into the design process.

A building's design evolves from general concepts to detailed analysis. LCC needs to follow the same approach by focusing first on general concepts and then moving towards a focused detail study.

Further, in order to effectively develop a project, commitments should be made early on regarding building systems and such decisions should be retained throughout the project. This means that proposed building systems should be analyzed for appropriateness during the first stages of a project's Design Development Phase. Then a commitment on direction for systems should be made following this analysis with any further LCC studies focused on the detail within each system.

All LCC effort should be completed in the Design Development Phase of the project.

END OF SECTION