

FACILITIES STUDY AND CONDITIONS OF FACILITIES MASTER PLAN

Project Overview

As part of a strategic planning directive, the Town has decided to undertake a comprehensive condition audit of existing municipal facilities and an analysis of future facility needs. The purpose of this analysis is to ascertain the following:

- 1) The present condition of the facilities;
- 2) Whether the facilities and building systems meet the needs of the Town's demographic and programmatic needs
- 3) What future funding and management programs are required to maintain the functional operations of the facilities;
- 4) Based upon the facilities study, determine what facilities are needed for future use and / or whether or not repurposing can achieve the desired ends.

Our consultant has developed a project approach to address these specific requirements and will conduct the assessment in the following manner.

- Perform a comprehensive facility condition assessment of all buildings, building systems and infrastructure, building security and occupant safety.
- Determine the present condition and estimated life expectancy of various building systems and components.
- Result in strategic plan for capital repairs, lifecycle component replacement and building modernization. Recommend corrections for all deficiencies and provide cost estimates for corrections.
- Establish a standard operating procedure for the evaluation of facilities by establishing a standard facility assessment software platform.
- Establish anticipated renewal and replacement costs for various systems and components.
- Prioritize and categorize deficient conditions, associated corrective actions and information concerning building systems and deficiency categories.
- Calculate the Current Replacement Value (CRV) and Facility Condition Index (FCI) for each facility and site.
- Develop a list of projects that have potential to provide short return on investment through energy savings or grants.

The facility condition assessment will focus on the following prime building system components:

- Site and Infrastructure
- Structural Frame & Building Envelope
- Wall Evaluation
- Roofing
- Plumbing
- Heating
- Air Conditioning / Ventilation
- Electrical
- Elevators and Vertical Transportation
- Life Safety & Fire Protection
- Interior Elements

- Food Service Spaces and Equipment
- Special Systems and Equipment
- Accessibility Compliance
- Mold
- Lead-based Paint
- Asbestos

Based on observations, research and judgment, expected use of life tables, our consultant will render an opinion as to when a system or component will most probably necessitate replacement. The analysis will include all cost observations be ranked by five priority classes – Immediate, Year 1, Years 2-3, Years 4-5, and Does not meet codes/standards “grandfathered”.

The consultant will provide a report that will be organized by building system and will include a narrative description of all building systems and components, photos of major systems, anticipated capital needs for all buildings, and recommended repairs and component life cycle replacements. An asset management plan that can be maintained and kept up-to-date by Town staff will be delivered to the Town.

Energy Audit

An energy assessment will be performed by the consultant to enable the Town to identify and make energy efficient capital improvements to the buildings to reduce its net Energy Intensity.

The consultant’s team shall perform an on-site assessment followed by a detailed energy audit report in accordance with energy audit guidelines to determine current conditions and itemize energy consuming equipment (boilers, air conditioning equipment, air handlers, domestic hot water, and lighting), interior and exterior lighting systems, and appliances and review of efficiency of all such equipment. They will also review structural and envelope components, such as building construction, windows, type of glass, insulation levels of walls and roof, building air tightness, and air changes per hour to identify areas of energy loss. Utility billing history will be gathered to conduct an analysis of the energy usage of all equipment to identify which equipment is using the most energy and what equipment upgrades may be necessary. The consultant will also identify any potential grants and incentives from local utilities and State of Connecticut entities for energy upgrades as well as identify any opportunities for renewable energy systems including solar photovoltaic and solar hot water.

An energy audit report will be provided for each building. A summary of the data will include costs, energy cost savings, and payback. The summary will include the potential percentage reduction in both energy consumption and cost compared to the building baseline numbers. Each recommendation will have a projected installed cost with a breakdown of engineering and design costs, equipment and material costs, annual maintenance costs, and an estimate of energy savings. The analysis for any upgrade or replacement will include a life cycle cost analysis for economic justifications. The projected payback period will be estimated to determine the priority of each energy saving recommendation. This audit will be consistent with the Town’s mission and goals.