

2007 CAPITAL BUDGET MULTI-YEAR FACILITY RENEWAL - LIFE CYCLE CAPITAL BUDGET BUSINESS CASE

1.0 PREAMBLE

London Public Library manages 16 facilities, one reading garden, the Wolf Performance Hall and 320,000 square feet of space across the city. Twelve of the branches are owned and four are leased. In the last six years, 10 of the branches have been built, restored or renovated, with an investment value of \$41,130,000, of which the Library funded almost 20 percent. The Library's total Facility Services Maintenance Budget for 2006 was \$627,000 (excluding staffing). **Eighty-two percent** of the budget is related to contractual services such as cleaning and life safety inspections. 10.5 FTE facility services staff is responsible for maintaining 16 locations, providing delivery to all branches, shipping, receiving, meeting room setup, and facilities clerical support.

The goals of London Public Library and the Facility Services Department are to:

- Maintain a safe and healthy library environment.
- Maximize facility use to optimize investment.
- Create and maintain a physical environment that supports the needs of the library, staff, patrons and other key stakeholders.
- Operate, maintain and promote quality facilities, grounds and services to efficiently and effectively support the delivery of library services to Londoners.
- Maintain buildings, grounds and equipment that are fundamental to a library and public space environment.
- Promote a safe, clean, accessible and aesthetically pleasing environment.
- Respond to the environmental, accessibility and design needs and requirements of the City of London.

A critical goal for us is ***"to not only preserve the value of these assets, but also to be as proactive as possible in identifying and managing conditions that could harm the asset."*** Furthermore, our goal, going forward, is ***to plan, prioritize and manage the renewal of capital assets based on life cycle and the current condition of those assets.***

2.0 PROBLEM DEFINITION

Annual Capital Renewal Expenditures are all expenditures over and above facility maintenance operating budget expenditures required to keep the physical plant in reliable operating condition for its present use. These expenditures are over and above normal maintenance for items with a life cycle in excess of one year and are not normally contained in our annual facility-operating budget.

Currently, our budget for capital renewal is \$50,000 and this is not a sufficient budget to allocate to the huge scope of our capital renewal needs, keeping in mind that we manage 320,000 square feet across the system. Furthermore, the vast majority of our facility services operating budget is allocated to emergency maintenance and routine and preventative maintenance, which includes such items as:

- Repair, maintenance and management of the interior envelope, electrical systems, plumbing systems, mechanical systems and security / safety systems.
- Custodial, cleaning, garbage disposal and grounds-keeping / landscaping / parking lots
- Painting and finishes
- Energy management
- Space design and moves
- Shipping and receiving
- Equipment and furnishings

The maintenance plan is developed each year from January to December. The plan is intended to provide a schedule for when maintenance is needed or can be anticipated for the library’s infrastructure within the existing buildings. Beyond the annual maintenance plan, only capital funding of \$50,000 is available to renew our branch infrastructure – equivalent to \$0.16 per square foot. Generally, these funds are allocated to the deficiency or urgent list of high need items and this list is quite vast.

In July 2006 we conducted a high-level facility audit to obtain a snapshot of how the various systems and components of our facilities are operating. In conjunction with John DeVito from Facility Engineering at the City of London, Terry Wilkes, our Manager of Facility Services assessed the status of our buildings, grounds and equipment, documenting the findings. The audit provided valuable insight into the critical backlog of needs for our facilities to ensure we maximize the viability and life of our branches. Total need is \$525,530, ten times our current budget of \$50,000.

Capital Asset Audit Summary

Branch Location	Estimated Cost (\$)
Beacock Library	75,000
Byron Library	35,700
Carson Library	39,600
Central Library	46,000
Cherryhill Library	18,000
Crouch Library	10,000
East London Library	9,500
Glanworth Library	10,650
Jalna Library	3,000
Lambeth Library	51,300
Landon Library	46,500
Masonville Library	111,000
Northridge Library	26,400
Pond Mills Library	20,900
Sherwood Library	9,800
Westmount Library	12,000
Total System	\$525,350

For example, the Masonville Branch is now ten years old and due to its age, requires considerable facility renewal. This issue is further exacerbated by the fact that some of the maintenance needs of the Masonville Branch were neglected during the last few years as the attention of our Facility Services team was dedicated to the construction and renovation projects at other locations, such as Central, East London, Landon, to name a few.

Masonville Branch Summary- Audit Results

Description	Cost (\$)
Building Envelope	4,000
Interior Finishes	73,000
Barrier Free Upgrades	34,000
Total Branch	\$111,000

Other branches, including some that have been recently renovated, also have high priority capital renewal issues. See Appendix One for a comprehensive summary.

3.0 RECOMMENDED SOLUTION

Develop and implement a capital life cycle planning methodology and multi-year capital renewal plan. The plan will identify both where the immediate problems lie and where problems are likely to occur in the next ten years. In this way, life cycle planning will facilitate the creation of a multi-year plan—a plan that can easily be linked to emerging needs. A multi-year plan also supports more effective management of resources and can save money by identifying when a subsystem will have to be replaced. For example, suppose a branch needs an immediate electrical renovation. If, within the next five years, the building also will need a replacement of the mechanical system, then it may be cost effective to renovate both subsystems at the same time.

We recommend that this multi-year capital renewal plan be a separately funded, uniquely identified program that renews, replaces, or renovates building systems on a schedule based on life cycle recommendations and on assessment of expected remaining useful life. Plant renewal focuses on maintaining the operability, suitability, and value of capital assets. It is accomplished through the replacement and rework of those components of a building that wear out even though those components are routinely maintained. Capital or plant renewal is a time-driven process with specific useful life cycles for heating and ventilation systems, etc.

We recommend increasing our annual \$50,000 Capital Life Cycle budget by \$100,000 to \$150,000 to fund our annual Capital Renewal Priorities, based on the recent facilities audit and emerging needs / priorities. This recommendation is in alignment with the City of London's direction to move to an Energy Management and Facility Renewal Program and we hope to collaborate with them to optimize synergies.

4.0 DECISION CRITERIA (SELECTION CRITERIA)

Each alternative was analyzed on the basis of the following criteria:

- Protect and optimize facility asset value.
- Exercise and sustain fiscal responsibility.
- Provide optimum flexibility and responsiveness.
- Protect and promote health and safety for Patrons and Employees.
- Promote service excellence.
- Ensure optimum efficiency and effectiveness of facility management.
- Ensure we have a barrier free environment.

5.0 IDENTIFYING ALTERNATIVES

- 1) Retain the Status Quo
- 2) Implement the Recommendation

6.0 ANALYSIS OF ALTERNATIVES

Alternative One – Retain the Status Quo

The disadvantages of this alternative are considerable, as follows:

- Forces us to continue to be reactive versus proactive.
- Focuses us on firefighting and trying to shrink the maintenance backlog, including structures, foundations, and substructures; roofing and exterior walls; plumbing and electrical systems; safety

systems; ceiling systems; floor coverings; interior walls; conveying systems; and heating, ventilation, and air-conditioning systems (HVAC). Capability to determine future facilities renewal needs is eroded.

- Not useful in distinguishing current renewal needs versus backlogged maintenance needs.
- Cost of the periodic assessment programs is prohibitive.
- Cost of emergency management is prohibitive.
- Increased danger of sudden large expenses that result in amplified costs and could increase overall risks to system, staff and patrons.
- Does not meet the FADs requirements.
- Facility management is critical to the service experience we provide to patrons and the public. If the facilities deteriorate, our relevance to the public will decline and this will hurt our attendance, circulation and customer satisfaction results.

Alternative Two – Develop and Implement a Life-Cycle Planning Methodology and Multi-Year Capital Renewal Plan with an annual budget of \$150,000 with \$100,000 being added to the existing \$50,000 capital budget.

Life cycle planning is a methodology that will allow London Public Library, a large and complex multi-site organization, to easily create multi-year plans for facilities renewal.

It is based on two key elements: (a) Building systems have known life expectancies; and (b) the remaining life of each building system can be estimated.

The life cycle planning approach estimates both current and future renewal requirements for each branch facility, by individual system (electrical, HVAC, plumbing, roofing, etc.). It indicates when each system is likely to fail and what the cost of replacement/renewal will be. To predict annual facilities renewal needs, the methodology uses facility type, gross square footage, construction and renovation dates, facility sub-systems, their life cycles, and replacement/ renewal costs. Expected renewal costs are aggregated by building and time period, to project total renewal needs into the future.

Benefits:

- The approach is highly flexible and responsive to needs.
- Allows us to manage and mitigate any backlog of deferred maintenance and ensure that facility deficiencies are not a constraint to service quality and innovation.
- Replacement costs and life cycles, while based on industry standards, can also be adjusted to reflect actual experience.
- The implementation can also be designed to ensure a consistent approach is used across multiple branches.
- Life cycle plans are inexpensive to implement and can save money because a well-implemented life cycle plan substantially reduces the need for conditions assessments. Implementing a life cycle plan costs between \$.01 and \$.02 per gsf (and the plan can be easily and inexpensively updated every year). Compare that to the cost of the conditions assessment—which also requires costly updates every three to seven years.
- Life cycle planning will ensure we are proactive and responsive to existing and emerging public and customer needs.
- This approach is aligned to the approach that the City of London is implementing and we are hopeful that we can gain some synergies from working closely with the city.

7.0 IMPLEMENTATION AND FOLLOW-UP

The first priorities for the Capital Plan are to:

- Build the multi-year plan, and supporting budget.

- Ensure timely renewal of existing infrastructure and facilities, as per the Audit
- Address outstanding safety and security issues
- Address mandated environmental improvements.

Making sure our infrastructure and facilities are keeping up with our growing city is the second priority for capital expenditures supporting projects that:

- Enhance infrastructure and facilities to meet existing service demands
- Address areas where service levels are deficient.

Everything wears out — you can slow it down but not prevent it. Capital renewal is the process of renewing that worn out component for another life cycle. “It’s like maintaining a car. If you don’t do the service, you will shorten the life span. Even if you do carry out all the maintenance and service, eventually the car will need to be replaced.”

Anonymous