

## **SECTION ONE - FOMP WORK SCOPE**

### **Scope of Work:**

ISES Corporation proposes a value-added service for the Sample University in the field of new building operational cost analysis. In summary, ISES will provide estimates of the ongoing annual cost of operating and maintaining new buildings and to provide the initial set-up of the new facility maintenance program. This will allow your institution to receive detailed operational cost estimates for advance budget planning and evaluation. The proposed service is divided into two basic tasks: estimated cost for operations and maintenance, and initial setup of the maintenance program. These tasks are described in detail in the following paragraphs.

### **Task 1 - Estimated Cost of Operations and Maintenance**

This component of the service will provide a detailed breakdown of costs developed for each of the following service areas for each new facility.

#### **Preventive Maintenance Costs**

This is the normal, cyclical costs for routine upkeep of equipment and systems. It includes items such as filter changes, bearing lubrication, adjustments, etc. The cost for performing such tasks is dependent upon the manufacturer's recommendations, owner standards, national standards, and the associated local labor costs. These items are ascertained by ISES, and the appropriate standards are applied to each system and component to estimate the cost (in terms of labor hours, material costs, and total annual costs).

#### **Corrective Repair Costs**

No matter how well a maintenance organization performs, there are always unplanned failures of systems or equipment. ISES will provide an estimate of the costs associated with these items based upon established national standards, modified as appropriate for the individual client (based upon their funding profile or level of operations and maintenance).

#### **Building Automation Services Cost**

Estimates will be provided for the cost of the staffing of Building Automation Services.

#### **Grounds Maintenance Costs**

National standards are used to determine landscaping, hardscape care, and snow removal staffing, equipment, tools, and material costs.

#### **Waste Management Costs**

National standards will be used to determine the Waste Management Staffing and material costs.

#### **Building Services / Custodial Costs**

Using established standards of custodial service, an estimate of the annual cost of providing custodial services based upon these standards, usage, and actual finishes present in the building (according to the finish schedule).

SAMPLE UNIVERSITY  
Facilities Operation & Maintenance Programming

**Other Contract Costs**

The building owner may have an outside organization perform specialized, infrequent, or cyclical maintenance. The outsourced maintenance considered in this report consists of elevator preventive maintenance, window cleaning, and pest control. The basis for estimated contract costs is previous bids for similar buildings and equipment in the campus and region.

**Other First-Year Costs**

There are several other costs associated with a new facility. These are real costs of operations and include cost items needed in the initial start-up of a new facility. These include loss of productivity of maintenance personnel during the learning period and one-time items, such as equipment tagging and maintenance tools and equipment.

**Capital Renewal and Repair Costs**

The final step in establishing the full funding estimate for complete facility operation and maintenance is the long-term, capital renewal, and repair components. Based upon the actual systems and components planned for installation in the facility, a component renewal plan will be established, which will be forecasted over a twenty-year period. The plan will forecast costs in each future year. This forecast of future costs can then be used to convert operating costs either to a sinking fund for facility renewal or to an annualized, level cost per year for capital renewal.

In estimating all of the aforementioned items, ISES will rely upon construction drawings to ascertain finish schedules and equipment schedules. State-of-the-art preventive maintenance standards will be applied to the systems in the facility to determine costs in that area. Long-term life cycle and major repair costs are based upon nationally accepted life cycle standards for major systems and components.

The cost estimates do not include the following:

- Utilities required to operate the facility.
- Initial cost or ongoing maintenance of furniture, laboratory apparatus, business equipment, libraries, or supplies, which are typically user paid.
- Expansion, remodeling, or modification to adapt the existing space to the evolving needs of user programs.

**Task 2 - Development of Maintenance Program**

A fully developed maintenance program includes the following elements.

**Equipment Inventory**

This is needed to identify what equipment is in a building so appropriate maintenance can be planned.

**Unique Equipment Numbering System**

A unique numbering system is necessary so the scheduling and tracking of activities can be performed at the equipment level. To do this, you have to distinguish between each item.

**Equipment Tag With Number and Bar Code**

Tagging is required to identify each piece of equipment so the maintenance person will know which piece to work on.

**Preventive Maintenance Tasks With Estimate of Recommended Frequencies, Labor Hours, and Material Costs**

Preventive maintenance is required tasks to ensure that building equipment will work at its designed level and will last for the full life cycle.

**Preparation of Equipment and Preventive Maintenance (PM) Data in a Format for Easy Upload to the Current Work Order Management System (CMMS)**

With the equipment inventory and PMs in the CMMS, it will provide a management tool for scheduling and tracking the work in the new building and its equipment.

ISES proposes to provide the new facility owner with a fully developed facility maintenance program for the proposed facility, including labor, tools, and material costs for preventive and corrective maintenance, Building Automation Services, grounds, waste management, custodial, and capital renewal and repair costs over twenty years.

All equipment and systems will be fully inventoried and catalogued (including application of tagging with bar codes to each item). The inventory will be developed in a manner consistent with the requirements of your Computerized Maintenance Management System (CMMS).

Based upon the detailed inventory, a list of suggested PM tasks will be developed. Each PM task will have an associated detailed description of required activity along with recommended frequency and estimated time to complete. The detailed inventory and PMs can be imported into your CMMS system at the completion of this process.