

# **ADVANCED FACILITIES MANAGEMENT TRAINING FOR ARCHITECTS:**

## **The Architecture of Maintenance**

**Introduction:** The need to include facilities management at the early stage of construction has long been established. In addition to saving general cost in the long run, it also reduces the need for post construction alterations that potentially diminishes the integrity of the built environment.

Facilities management is the converging point for different professional disciplines in the built environment and if the inclusion of FM in the early stage of construction must be taken seriously, one of the most vital entry points, is the design stage which has architects as the most relevant stakeholders of the design stage.

This training module aims at strengthening the synergy between the architect's design, and the long-term maintenance of the built environment. It is a four (4) module certification training spanned for three (3) days. It is an advanced training in FM strategies for non-FM professionals in the built environment with emphases on predictive, preventive and reparative maintenance with specific considerations to cost management and maintenance risk assessments.

**Problem:** The relevance of an architect to a built environment speedily diminishes from the moment the final architectural design of a construction has been handed over, but the activities of Facilities Management endures long after construction.

**Solution:** Advanced knowledge in FM potentially extends the involvement of architects in the life cycle of the built environment.

**Training Description:** The training is a three (3) days advanced and intensive certification-based training in Facilities Management with emphasis on critical security facilities (infrastructure). The workshop aims to provide cutting-edge knowledge of facilities management with regards to its importance to national security, cost reduction, security communications, policies & procedures, as well as facilities management strategies, principles and theories.

## **Training Objectives**

The Architecture of Facilities Management Training is targeted at architects and it is aimed at having the double-edged effect of extending

the relevance of architects as well as including FM at the design stage of construction. This training is designed to achieve the following specific objectives:

1. To apply facilities management from the architectural (design) stage of the built environment.
2. To determine the performance cost of construction through all the stages of construction.
3. To apply assets and facilities management in architectural designs and plans.

## **Training Outcome**

At the end of this training, the delegates would have gained the ability to apply knowledge in:

1. **Making a Plan:** It's incredibly important to work with the client early on to set up a strong facility management plan. By anticipating needs upfront, architects are able to work that into their designs.
2. **Considering Durability:** FM has direct correlation with durability of the built environment especially considering architects' choices for finishing fabrics.
3. **Building Systems:** Mechanical systems come in a wide variety of quality, and new technologies and sustainable options are always coming out. By doing research, and understanding the needs of the building, architects can make the best decision possible, considering what is available at the time.
4. **Flexibility:** the knowledge opens the minds of architects to creating spaces that are flexible, and easy to modify to suit the next occupant's needs, or occupants several decades in the future, with consideration to maintenance needs.

## **Training Outline**

### **Course 1: Principles of Maintenance:**

- Futurity
- Environment
- Equity
- Human/Public/Community Participation

### **Course 2: Strategies of Maintenance:**

- Run-to-failure
- Preventive
- Predictive

### **Course 3: Facilities Management cost performance**

Efficient FM cost performance is achieved when the expenditure is in line with the estimated cost of a project; however, it is a universal challenge in all businesses to achieve cost-effective operation. Operation and maintenance costs have a high rate of recurrence in every stage of construction these stages include:

- Planning
- Design
- Construction
- Occupation/Use
- Repair
- Maintenance
- Repurpose

#### **Course 4: Architectural Considerations Asset Management & Facilities Management**

**FM & Control at Design Stage:** The facilities manager's concern at the design stage will be the delivery of an efficient facility that is cost effective, and will respond to their subsequent roles in the facility on a day-to-day basis. Cost effective design solutions are then generated to meet the needs of the building objectives. Areas to consider include:

- Architectural Considerations for Services & Expectations
- Architectural considerations for maintenance risk
- Architectural considerations for maintenance strategies (preventive, corrective & M&E)