

TYPE OF BUILDING MAINTENANCE ACTIVITIES

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INTRODUCTION

When we talk about the phrase "maintenance", we will mostly relate it to products such as machines, electronic devices, tools, cars, and building too. Building maintenance is the effort to maintain, restore or even improve the functionality of the building at its optimum efficiency. Construct a maintenance-free building is difficult because the elements of the building will have deteriorated over time due to material properties, construction techniques, influences of the surrounding, and the building usage or purpose^[1]. There are various meanings to describe maintenance work, e.g. British Standard BS3811 defines maintenance as a special activity performed to remain or repair any amenity for each section of the property, building, and the element to a satisfactory benchmark^[2].

BUILDING MAINTENANCE OBJECTIVES

Building maintenance is essential with the objectives stated below^[3]:

1. To extend the building service life and avoid unnecessary expenses for replacement.
2. To follow the Lender/Insurer requirements, providing a safe, secure, convenient environment and preventing deterioration of physical assets.
3. Maximize the aesthetic and economic value of the building and enhance the safety and health of the occupants.

TYPE OF MAINTENANCE

In general, maintenance can be planned maintenance or unplanned maintenance^[2]. For planned maintenance, works have been planned or scheduled to check and observe the building condition. For example, regular housekeeping or annually cleaning and painting work on the building façade and roof area. Planned building maintenance could be done by the building owner, tenants, and building management team as it involved the daily cleaning work, painting work, and visual checking only.

While for the unplanned maintenance will refer to those unexpected maintenances such as building defects that required immediate action, e.g. lift not functioning, water leakage problem, cracks at building structures, foundation settlement, etc. This type of maintenance work will require technical efforts to resolve or repair the building defects. Expertise or specialist should be appointed to carry out the building defect assessment, to recommend the building owner or management team a solution with the consideration of cost, time, quality, and resources.

The building maintenance can be categorised according to the purpose and scope^[2], which are:

1. **Preventive Maintenance:** The effort to avoid building defects or failure from happening. Preventive maintenance is usually done in a scheduled way, where regular care and repair of the building will carry out to ensure the building is safe and secured. Planned maintenance like daily housekeeping, regular equipment checkup, and painting work are the examples for preventive maintenance.
2. **Corrective Maintenance:** The corrective action to resolve any building defects or failure. It is the rectification work done to restore the functionality of building components. The good examples of corrective maintenance are unplanned maintenance such as repairing roof leakage, lift, building cracks, etc.
3. **Condition-based Maintenance:** The action taken to resolve any monitored building elements when it reaching unacceptable limits. A common example is the use of pressure readings on piping systems to continuously tracked the water pressure, allowing the on-site maintenance staff to identify where potential leaks can occur.

TYPICAL MAINTENANCE WORKS

The 4 typical building maintenance works is as follows^[2]:

1. **Work service:** The services provided to ensure the facilities and equipment functioning well. Daily housekeeping and scheduled cleaning on the roof, roof gutter, walls, and windows. It may also involve regular checking for machines and building systems such as electrical supply system, water supply system, ventilation system, fire system, pumps, and lifts.
2. **Repair work:** Any repairing work for building and facilities defects. For example, patching up work for crack, repair floor tile, pump, repair lightings, repair fans, etc.
3. **Replacement work:** Replace defected and damaged building system or elements. This maintenance always involving serious damage to the building and sometimes required scheduled inspection to identify the root cause of the defects. The example of replacement works are replacing corroded reinforcement bar in concrete, reinstall waterproofing system, reinstall electricity system, etc.
4. **Protection work:** It is the work to protect and prevent the building from defecting. This protection work will include also the care of building structures. For instant, painting on the exterior of building surfaces as the protection layer to resist weather changes, moisture, and molds growth.

CONCLUSION

All buildings will deteriorate over time. Thus, proper building maintenance is the only key to retain a building in an accepted standard. The building owner, tenant, or management team should carry out appropriate building maintenance to ensure their building safeness and secure their assets.

References:

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