CPAC SB&M Lifetime Solution

CPAC SB&M LIFETIME SOLUTION

FOR STRUCTURAL REPAIR, STRENGTHENING AND PROTECTION

CPAC collaborated with SHO-BOND & MIT Infrastructure Maintenance Corporation, the experts from Japan in the field of repairing structures, with more than 60 years of experience. This cooperation established **CPAC SB&M Lifetime Solution** company, which provides services for customers in repairing and extending the lifetime of structures by using the world-class technology.

OUR SERVICES

A fully integrated service covering every stage – from structural inspection to repairing, strengthening, and protection


Structural Assessment


Professional Repair and Maintenance


Structural Strengthening

Structural Protection (Corrosion Control)

ADVANCED STRUCTURAL ASSESSMENT

CPAC SB&M Lifetime solution has the process to do the deep investigation by using high technology equipment and advanced structural analysis to find route cause. Then, it can be used to define the repairing method and selecting materials.

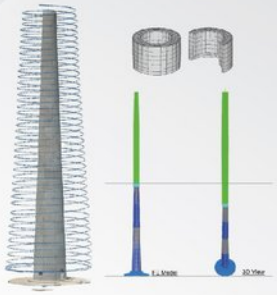
The working procedures are as follows

High Technology of Equipment
Drone and Laser scanning inspection for the complex structures and difficult to access by human.

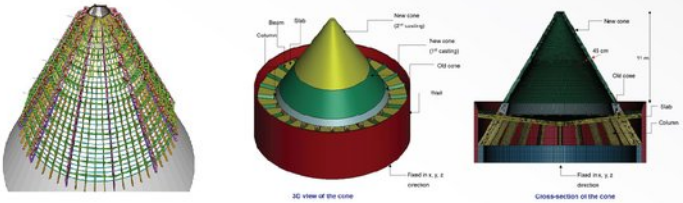
High Performance of Testing methods
Electron Probe Micro Analyzer (EPMA), weather Simulation Chamber, and advanced Laboratory Techniques.

Structural Analysis
Finite Element technique including with the professional consultant team.

Drone Inspection



Structural Analysis with Finite Element Method



TCA Concrete Practice Award 2024 (Silver Medal)

SOLUTIONS FOR STRUCTURAL REPAIR, STRENGTHENING AND PROTECTION

CRACK REPAIR
LOW PRESSURE INJECTION

For repairing small cracks on concrete surfaces, it can prevent moisture from penetrating to corrode steel reinforcement inside concrete section. This method can be used to repair cracks with width less than 0.1 mm with crack depth more than 20 cm.

ROOF REPAIR

The roof is one of the important components of the building. When leakage occurs, it can cause damage to other parts of the building. Repairing or preventing leakage can be done in both concrete deck floor and building roof. Various solutions include waterproofing, roof replacement, or adding a roof layer over the existing one (double roof). Additionally, solutions for strengthening the roof structure can be applio increase the ability to support higher load, such as solar cells on the roof.

SECTION REPAIR

For repairing the damage of reinforced concrete structure section, the process involves removing the damaged area until reaching good concrete, rust cleaning of reinforcement rebar, replacing reinforcement of the damaged rebar, applying an anti – rust treatment to the rebar, using a concrete bonding agent and filling the area with a special mortar to keep the structure's strength and extend its service life.

STRUCTURAL STRENGTHENING

Related to the process of increasing the load capacity, strength, or durability of a structure to meet or exceed the designed performance. It is generally applied to structures whose strength has deteriorated, have degraded due to aging, or require functional upgrades to support increased loads, among other reasons. This process requires structural analysis by professional designer and proper selection of appropriate strengthening method.

PAVEMENT REPAIR
SBQ MORTAR

For repairing pavement surface with resin material, it can be used in cases of limited time. This material can set fast within 1 hour.

STRUCTURAL PROTECTION (CORROSION CONTROL)

The protection of reinforced concrete structures from damage and the extension of their service life, such as the prevention of reinforced rebar corrosion, the reduction of environmental impacts, and the control of concrete cracking, to ensure that the structure remains strong,safe, and suitable for its intended use throughout design life.

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