

# CorrAssure™ CORROSION SURVEY OF A COMMERCIAL OFFICE BUILDING



## STRUCTURE

Commercial Office Building

## LOCATION

Coastal, Australia

## CLIENT

Building Owner (non-disclosed)

## JOB No.

471

## SIZE

7000m2 tenancy

## CORROSIVITY TYPES

C3 Environmental Corrosivity Zone with Dissimilar Metal Coupling

## SUBSTRATE

Steel portal, with architecturally inspired cladding

## CONDITION

This five-star rated building was hailed for providing improved working conditions and space, and meeting and exceeding sustainability milestones, contributing to emission reductions, water savings and business efficiencies including an innovative roof water harvesting project. The Owner maintained a keen focus on keeping the aesthetics and functionality of the building. Like most forms of construction, there were obvious defects remaining after completion that have weathered over almost ten (10) years.

## THIS PROJECT

RemedyAP were engaged to provide their CorrAssure™ retroactive process in identifying the corrosion issues on the exterior surfaces.





## CHALLENGES

### ☑ DISSIMILAR METALS

Connection of dissimilar metals are frequent in construction. This isn't always detrimental depending on the materials and fixing methods. RemedyAP performed a material audit of the external surfaces and found some galvanic coupling that was contributing to corrosion of galvanized surfaces.

### ☑ COATINGS

Coatings act as a barrier to the environment and are usually the first line of defence against corrosion of building materials. RemedyAP provided a Coating Survey and identified areas requiring improvement.

### ☑ SEALANTS AND WATER SHEDDING

The edges and gaps between building elements often enable moisture to creep along building interfaces causing corrosion under coatings. RemedyAP provided an audit of the sealants and identified areas requiring improvement

## OUR TASKS

### ☑ CONDITION ASSESSMENT

Our field information is developed into a condition survey that describes the degradation mechanisms, maintenance options, and recommendations on maintenance cycles to maximise efficiencies.

### ☑ SPECIFICATION FOR REPLACEMENT OF SCREENING

Our CorrAssure™ condition assessment identified an area of significant corrosion due to galvanic coupling. RemedyAP were able to provide a construction specification for replacement and improvement of the screening to meet long term corrosion resistance.

### ☑ MAINTENANCE SCHEDULE

The building protection systems included galvanizing, coatings, sealants and corrosion resistant alloys. At this 10 year interval, these items displayed varied degrees of weathering. Our CorrAssure™ Program provided a 15 year maintenance plan that included 3 times 5-yearly maintenance cycles. In providing the maintenance plan, RemedyAP provided the building Owner with a road map of how to manage the building in the most efficient manner.

## STANDARDS REFERENCED

ASNZS 2312, AS 4361, AS 4312, AS 2311

## OUTCOMES

CorrAssure™ provided the Owner with a written Condition Assessment. The CorrAssure™ survey provided recommendations on items requiring immediate repair.

The CorrAssure™ survey provided a 15 year maintenance plan for the Owner to manage future maintenance.

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