

Sydney Airport Elevated Road



Location

Sydney, Australia

Client

Federal Airports Corporation

Project Value

AUD\$30.0 Million

Start Date

January 1997

Completion Date

January 1998

Office Responsible

Cardno

Responsibilities

Principal consultant responsible for all civil and structural design and documentation.

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Project Scope

The elevated roadway at Sydney Airport's Domestic Terminals provides vehicular access to the upper level departures facilities and the car parks, thereby easing traffic congestion in the terminal precinct.

The roadway is in a U shape and has a total length of 985m. It includes two 195m long cable stayed sections which maximise the column-free space at ground level. The 16 approach spans linking the cable stayed sections range from 24m to 32m long. All spans use composite construction and the steel I-girders under the deck slab are enclosed by a composite aluminium cladding system.

Cardno was the principal consultant, undertaking all civil and structural design, both concept and final, and managing environmental, geotechnical, electrical, mechanical and lighting sub-consultants and the proof-checking of the structural design.

In the investigation phase, Cardno

developed a range of concepts and options, prepared costings and implemented a value management study in which the options were considered.

Construction constraints and risk management were important elements in this process. Value management workshops, involving all stakeholders, were conducted by Cardno.

The detailed design phase included preparation of all civil and structural drawings and technical specifications and was completed to meet a tight program. The complexities and tight constraints of the project were carefully considered in all aspects of Cardno's work. Cardno provided technical advice during the construction and were also engaged to design the signposting and modifications to the approach road.