

Launching a new technique



Above: Concreting of pier top on the west bridge, May 1988.
Left: Launching of the bridge deck near completion, with the deck about to land on the fifth pier.
Below: Construction of piers for the Bendigo-bound carriageway.

An engineering first for Victoria has taken place on the Gisborne Bypass project.

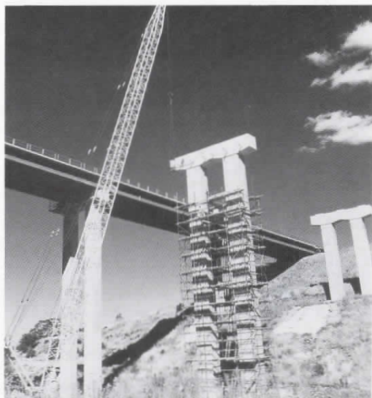
The twin, six-span bridges are the State's first to be built using the incremental launch or "push-out" technique.

The method involves assembling a bridge superstructure in segments of approximately one span and 'launching' it into its final position.

Incremental launch technique offers major savings in time and significant cost savings in scaffolding and falsework.

The overall length of the bridge is 217 m with the maximum pier height at 31 m., making it one of the largest bridge constructions in Victoria.

The bridge contractor was Rowe and Thomas Pty Ltd of Melbourne.



Additional information

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RCA

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Calder Freeway



Bypass of Gisborne

Information Brochure
March, 1989

RCA

Road Construction Authority

Calder Freeway

The Calder - an important link

The Calder Highway (Route 79) is the major road link between Melbourne and Bendigo and Victoria's north-west.

The Road Construction Authority has adopted a comprehensive strategy for the progressive upgrading of the Calder Highway to four lanes between Keilor and Bendigo.

As part of this strategy, work has been completed on the 7km bypass of Keilor, the 4km duplication of the highway between Ravenswood and Big Hill, south of Bendigo, and now the 6km bypass of Gisborne, 50km north of Melbourne.

Why the bypass is needed

The need for a bypass of Gisborne was recognised in the early 1970's. After completion of the planning studies, the route was included in the Shire of Gisborne's Planning Scheme in August, 1980.

Traffic counts show that 10,000 vehicles per day travel through Gisborne (population 5000). Through traffic bound for Bendigo and Victoria's north-west make up a high percentage of these vehicles.

The bypass will not only reduce travel time for motorists, but removing through traffic will provide a safer commercial centre for shoppers and pedestrians and will improve conditions for local traffic.

The Project

The bypass has been funded under the Federal Government's Australian Bicentennial Road Development Programme.

Construction of the project began in February 1983 and it is to be opened to traffic on 17 March, 1989.

The project extends from McGregors Road, south of Gisborne, to Mt Macedon Road, north of Gisborne, a distance of 6km, and will pass to the east of the town.

Interchanges are provided at Howey Street and Station Road with an overpass on the Gisborne-Kilmore Road.

Twin six span bridges over Jackson's Creek are 216 metres long, 11 metres wide and 30 metres high and were built using the incremental launch method (see page 4).



Considering the Environment

The bypass has been designed to blend in with the local environment.

In association with the engineering design of the bypass, the following features have been included:

- * planting of trees and shrubs to reinforce and complement existing local species adjacent to the bypass reservation;
- * preservation of native vegetation where possible to retain the existing character of the area;
- * use of materials not suitable for freeway construction for landscaping in earthmounds and batter flattening.

As well as visual appeal, the planting of trees and shrubs will serve functional purposes such as erosion control and the reduction of head-light glare.

Contractors

Rowe & Thomas, bridge contractor, Cooke's Construction Pty Ltd, Leech Earthmoving, McClure Construction, Kerr Quarries Pty Ltd, Moreverk Pty Ltd, F & F Fernandez, 39th Quadrant, Kuzman Brothers Constructions Pty Ltd, Fifteen Tepelux, Colony Constructions Pty Ltd, GFC Industries Pty Ltd, Sist Bros Pty Ltd, Fleming Constructions Pty Ltd.

Cover: aerial view of the Jackson's Creek Bridge during construction and Above: the Calder - a major road link between Melbourne and Bendigo.

The pavement base consists of 400 m of wet mix crushed rock obtained from the Rosslyne Dam Quarry, Gisborne, and placed using the RCA's Autograde paving machine.

Ferrier Road has been deviated from its original intersection with the Calder Highway to link with Mt Macedon Road.

Cost

The total cost of the project is \$25 million made up of:

Federal Government (Australian Bicentennial Road Programme): **\$24.15 million**
State Government **\$0.85 million**