

ANGUS COUNCIL**A92 MONTROSE BRIDGE - SITUATION SUMMARY REPORT NO 1****REPORT BY THE DIRECTOR OF ROADS****1. INTRODUCTION**

Carl Bro Group were appointed as Engineering Consultants late in 1993 after problems has been identified on the bridge.

They have carried out a number of principal inspections, insitu tests and instigated much remedial works to date on the bridge.

This report summaries the current position on the A92 Montrose Bridge.

2. DETAILS

(i) Carl Bro Group (Engineering Consultants) were appointed to carry out a Principal Inspection and Assessment Report on the A92 Montrose Bridge in December 1993.

(ii) In 1993, although the bridge was generally adequate for 40 tonne loading, a number of problems were identified including:

- severe progressive cracking due to alkali silica reaction
- high chloride levels in bridge deck concrete
- many structural elements of bridge were identified as high risk rating

Action taken included restricting traffic to one lane and thus restricting traffic from footway edges which had been identified as overloaded.

(iii) In April 1994, a further detailed investigation identified several areas where remedial actions were required, namely:

- external restraint required for tower tops
- external restraint for structural elements immediately joining the tower tops
- measures required to prevent vehicular access to bridge deck slab under footway

Action taken included clamping of the tower tops and strapping of the main structural elements joining the tower tops. A demountable barrier was also erected to prevent vehicular access to the footway section overlying the bridge deck. Drains were also installed in the bridge deck slabs to improve drainage of the bridge deck.

The bridge was opened to two-way traffic in December 1994.

- (iv) Since reopening to two-way traffic a number of measures have been implemented to monitor the structural behaviour of the bridge. These include:
- 6 monthly visual inspections by boat and bridge inspection vehicle
 - extensive cores to monitor any further deterioration in bridge deck infrastructure in terms of chloride attack or alkali silica reaction.
- (v) Tayside Regional Council are currently assessing the way forward for the continued inspection, maintenance and possible replacement within the next 10 years of the A92 Montrose Bridge. Representations from Angus Council have been involved in recent discussions relating to same. Tayside intend to report to their Roads and Transport Committee in the near future. It is intended to submit an update report to the Angus Council at that time.

3. RECOMMENDATIONS

- (i) To note the current position with respect to the A92 Montrose Bridge and the inspection and monitoring procedures which will require to be continued and carried forward to the new Angus Council.
- (ii) To note that Tayside Regional Council (in consultation with the Director of Roads, Angus Council) will report to their Roads and Transport Committee at an early date on the future recommendations for the inspection, preventative maintenance and planned future replacement of the A92 Montrose Bridge within the next 10 years.
- (iii) To note that the Director of Roads will report back to Committee on developments associated with the A92 Montrose Bridge.

Dr Bob McLellan
Director of Roads