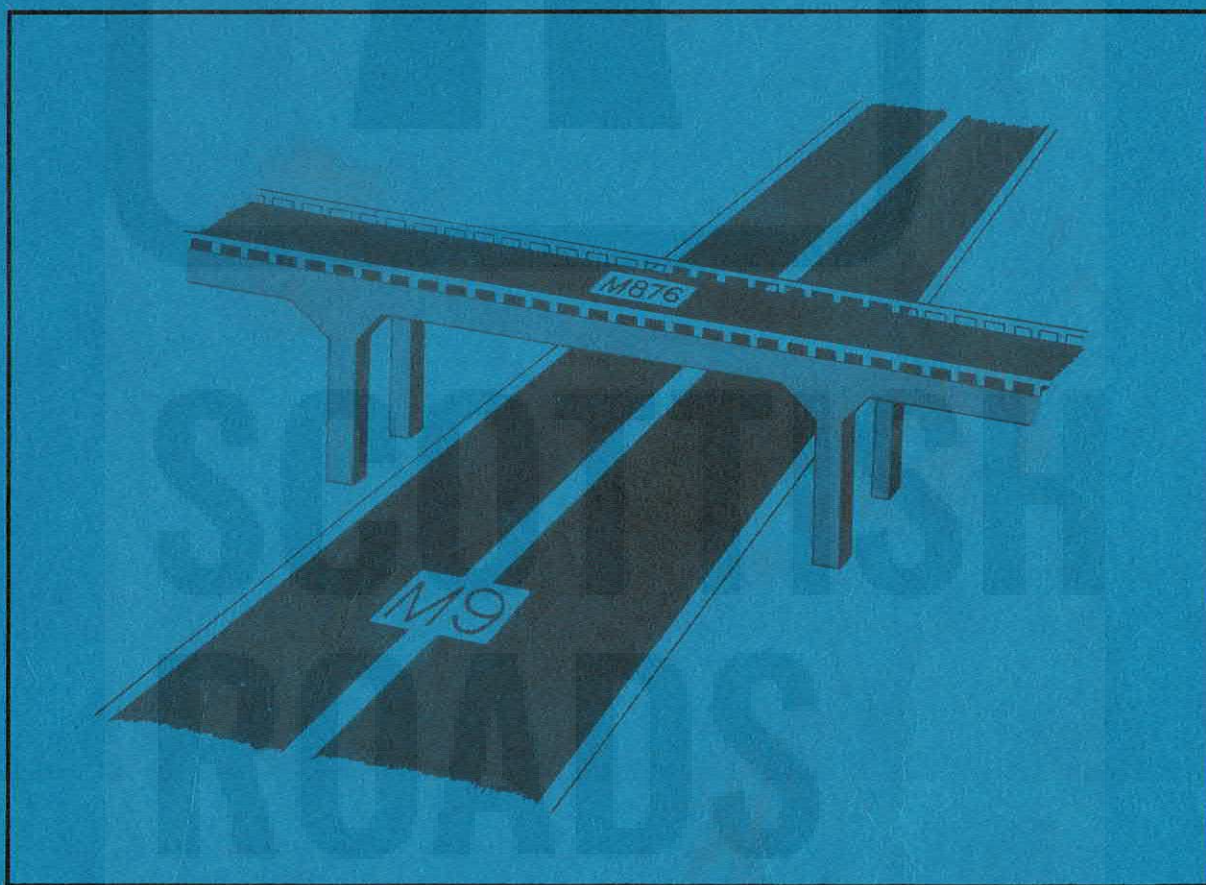


# **M876 AND M9**

## **Opening Ceremony**

**15 February 1980**



**Link Motorways – Stirlingshire**



<u>Motorway Authority</u>	The Secretary of State for Scotland Scottish Development Department
<u>Chief Road Engineer</u>	J A M MacKenzie CEng FICE FIMunE FIHE
<u>Agent Authority</u>	Central Regional Council
<u>Engineer</u>	J F Keith BSc CEng FICE FIMunE FIHE
<u>Extent of the Works</u>	The works include the following in two contracts:-

	<u>Kilometres</u>	<u>Miles</u>
Standard three lane motorway	1.40	0.87
Standard two lane motorway	14.10	8.81
Connecting roads	6.00	3.74
Side road diversions and improvements	3.26	2.04

Contracts The two contracts are made up as follows:-

	<u>Kilometres</u>	<u>Miles</u>
<u>No 1 - North Broomage to Bowtrees</u>		
Standard three lane motorway	1.40	0.87
Standard two lane motorway	6.80	4.25
Connecting roads	5.00	3.12
Side road diversions and improvements	2.76	1.73
<u>No 2 - Bannockburn Interchange to Hill of Kinnaird</u>		
Standard two lane motorway	7.30	4.56
Connecting roads	1.00	0.62
Side road diversions and improvements	0.50	0.31

The decision to replace the Edinburgh to Stirling part of the A9 trunk road by constructing an M9 motorway was taken in the 1960s. The A9 at that time was a single carriageway road and wound its way through Linlithgow, Polmont, Falkirk, Larbert, Bannockburn, Stirling and many small villages. Also in the 1960s it was decided to replace to motorway standard the A876 trunk road from its junction with the A80 Glasgow-Stirling road to the Bowtrees junction with the A905.

During the late 1960s and early 1970s the main sections of the M9 motorway were constructed from the roundabout at Newbridge near Edinburgh to a roundabout at Longdyke north of Grangemouth. A further section of the M9 from Bannockburn Interchange south of Stirling to Keir north of Bridge of Allan was constructed to form the Stirling Bypass. A section of the M876 motorway from its junction with M80 at Bankhead to a roundabout at North Broomage, Larbert, was opened to traffic in 1974.

The opening to traffic of the two new sections (M9 Bannockburn Interchange-Hill of Kinnaird and M876/M9 North Broomage-Bowtrees) marks the end of a chapter in the fulfilment of the trunk road/motorway programme in the Central Region. There is now motorway from west of Edinburgh to north of Stirling and motorway from the Bankhead Interchange on the Glasgow-Stirling road to the Bowtrees roundabout west of Kinnaird Bridge. This part of the Central Scotland motorway network will play a major role in road travel in Scotland.

There are ten bridges, of which seven carry roads over the motorway and three are underbridges. The existing A9 and A876 roads are both carried over the motorway, the A9 at Glenbervie and the A876 at Longdyke.

The tender sum was £8,342,404. Work started on 16 May 1977 and the contract period was 30 months.

## CONTRACT 1

M876 AND M9 NORTH BROOMAGE TO BOWTREES

Engineer J F Keith, BSc CEng FICE FIMunE FIHE

Contractor Tarmac Construction Ltd

Principal Subcontractors

Fencing - James Strang & Son,  
Polmont

Earthworks - Main Contractor

Surfacing - George Wimpey & Co Ltd

Piling - A Johnston Construction  
Co Ltd, Glasgow

Structural Steelwork - Fairfield Mabey Ltd,  
Chepstow

Testing Consultants

Materials - Sandbergs,  
London

Structural Steelwork - Sandbergs,  
London

Soils Consultants

Thorburn and Partners,  
Glasgow

General Description of Works

The construction of 8.20 Km of motorway of which 6.80 Km is dual two-lane carriageways with hard shoulders and 1.40 Km of dual three-lane carriageways with hard shoulders. Connecting roads and side road diversions add up to an additional 7.76 Km of single carriageway roads.

There are two interchanges, one at Kinnaird House where the M876 from the south joins the M9, and the other at Hill of Kinnaird where the northern part of M876 and M9 join.

Consolidation of old mine workings was necessary before work could start. The motorway passes over the carseland of the River Forth valley and special techniques were adopted in constructing the embankments to prevent failure of the carse and to reduce uneven settlement of the motorway. The embankments on the approaches to certain bridges are supported on piles which have been designed to limit settlement of the earthworks relative to the bridges and also reduce the horizontal pressures on the bridge abutment support piles.

The side slopes of the motorway are generally 2 horizontal to 1 vertical but landscaping of the slopes to 3 horizontal to 1 vertical has also been carried out where the motorway is in deep cutting.

The M876 section of the motorway crosses over the Glasgow-Stirling railway at the South Inches Bridge.



## EDINBURGH AND GLASGOW TO STIRLING

## PROVISION OF MOTORWAYS

## SCHEDULE OF SCHEMES ALREADY IN USE

M9 Edinburgh-Stirling

<u>Scheme</u>
Lathallan-Longdyke (Falkirk-Polmont Bypass)
Newbridge-Muriehall
Craigforth-Keir (Stirling Bypass Stage I)
Muriehall-Lathallan
Pirnhall-Craigforth (Stirling Bypass Stage II)

<u>Opening Date</u>
August 1968
November 1970
April 1971
December 1972
December 1973

M80 Glasgow-Stirling

<u>Scheme</u>
Hags-Ingliston (Conversion to Motorway)
Ingliston-Pirnhall

<u>Opening Date</u>
May 1974
May 1974

M876 Dennyloanhead-Kincardine Link

<u>Scheme</u>
Dennyloanhead-Larbert (Conversion to Motorway)

<u>Opening Date</u>
May 1974

## CONTRACT 2

## M9 BANNOCKBURN INTERCHANGE TO HILL OF KINNAIRD

Engineer J F Keith BSc CEng FICE FIMunE FIHE

Contractor Balfour Beatty Construction (Scotland) Ltd

Principal Subcontractors

Fencing	- James Strang & Son, Polmont
Earthworks	- Wyatt of Snetterton
Surfacing	- George Wimpey & Co Ltd
Piling	- A Johnstone Construction Co Ltd, Glasgow

Testing Consultants

Materials	- Sandbergs, London
Structural Steelwork	- Sandbergs, London

Soils Consultants

Thorburn and Partners,  
Glasgow

General Description of Works

The construction of 7.30 Km dual two-lane motorway with hard shoulders. Connecting roads and side roads add up to an additional 1.5 Km of single carriageway road. At its eastern end the motorway joins Contract 1 and at the other end it meets with the Stirling Bypass at Bannockburn Interchange.

The motorway is carried over the existing A9 at Plean Bridge and over the Glasgow-Stirling railway at Powis Wood. Eight bridges were required for the construction of the road.

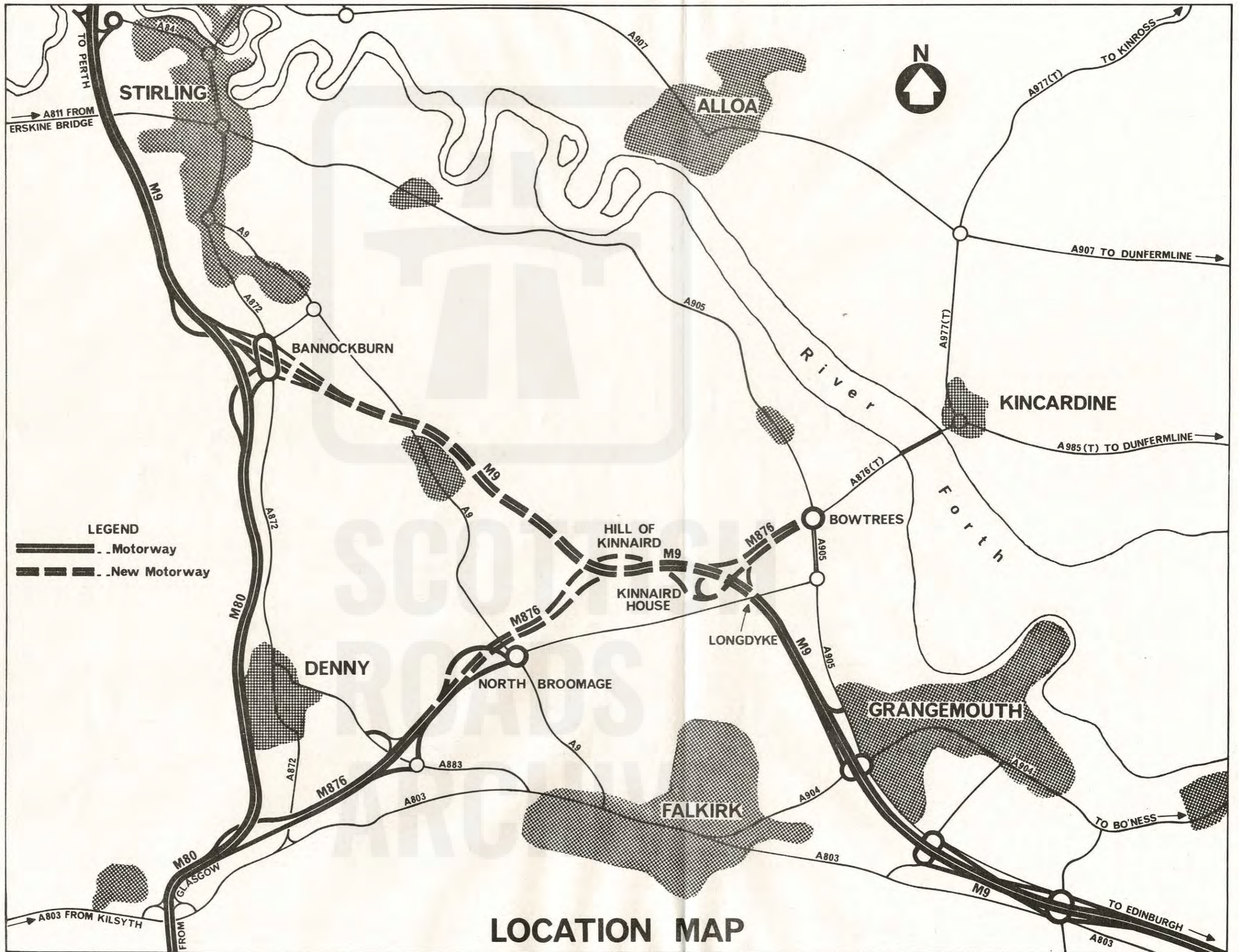
Consolidation of old mine workings was necessary before work could start. The motorway passes over the carseland of the River Forth valley and special techniques were adopted in constructing the embankments to prevent failure of the carse and to reduce uneven settlement of the motorway. The embankments on the approaches to certain bridges are supported on piles which have been designed to limit settlement of the earthworks relative to the bridges and also reduce the horizontal pressures on the bridge abutment support piles.

The imported material used in forming the embankments was waste or by-product material from the local mining workings or from the power stations in the area.

At Plean a large bund has been provided to protect the housing estate from visual and noise intrusions.

The tender sum was £6,151,101. Work started on 24 April 1978 and the contract period was 24 months.







SCOTTISH  
ROADS  
ARCHIVE

