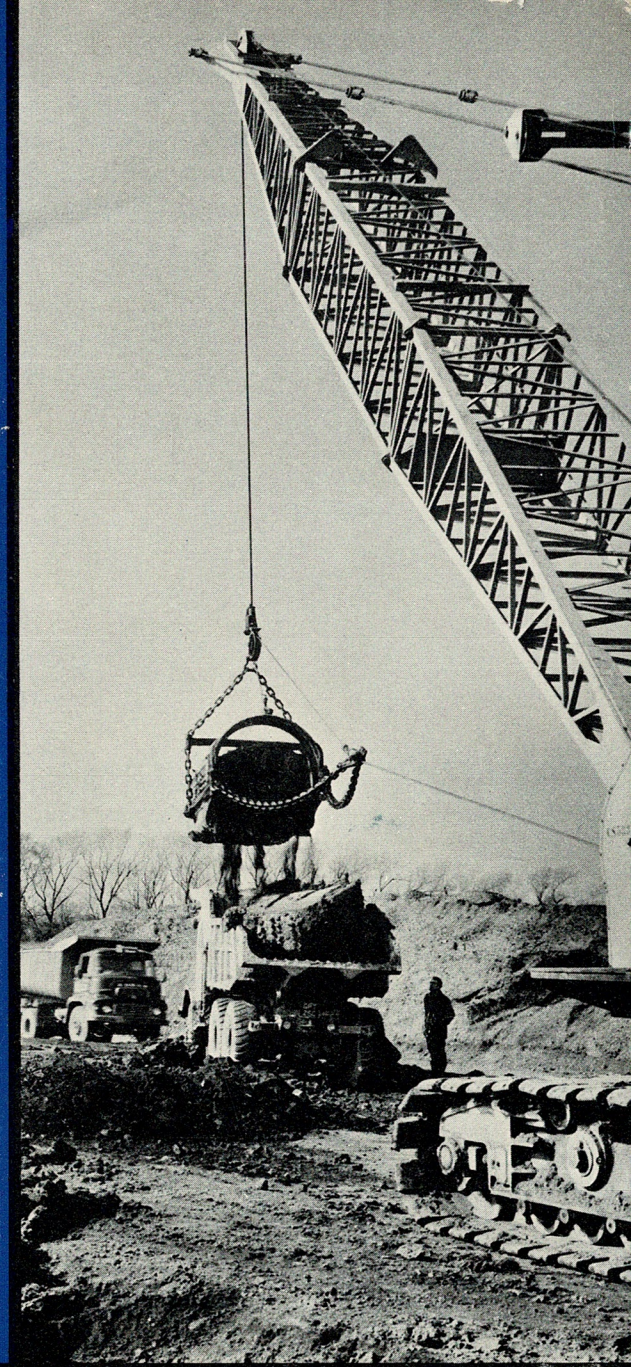


M O T O R W A Y



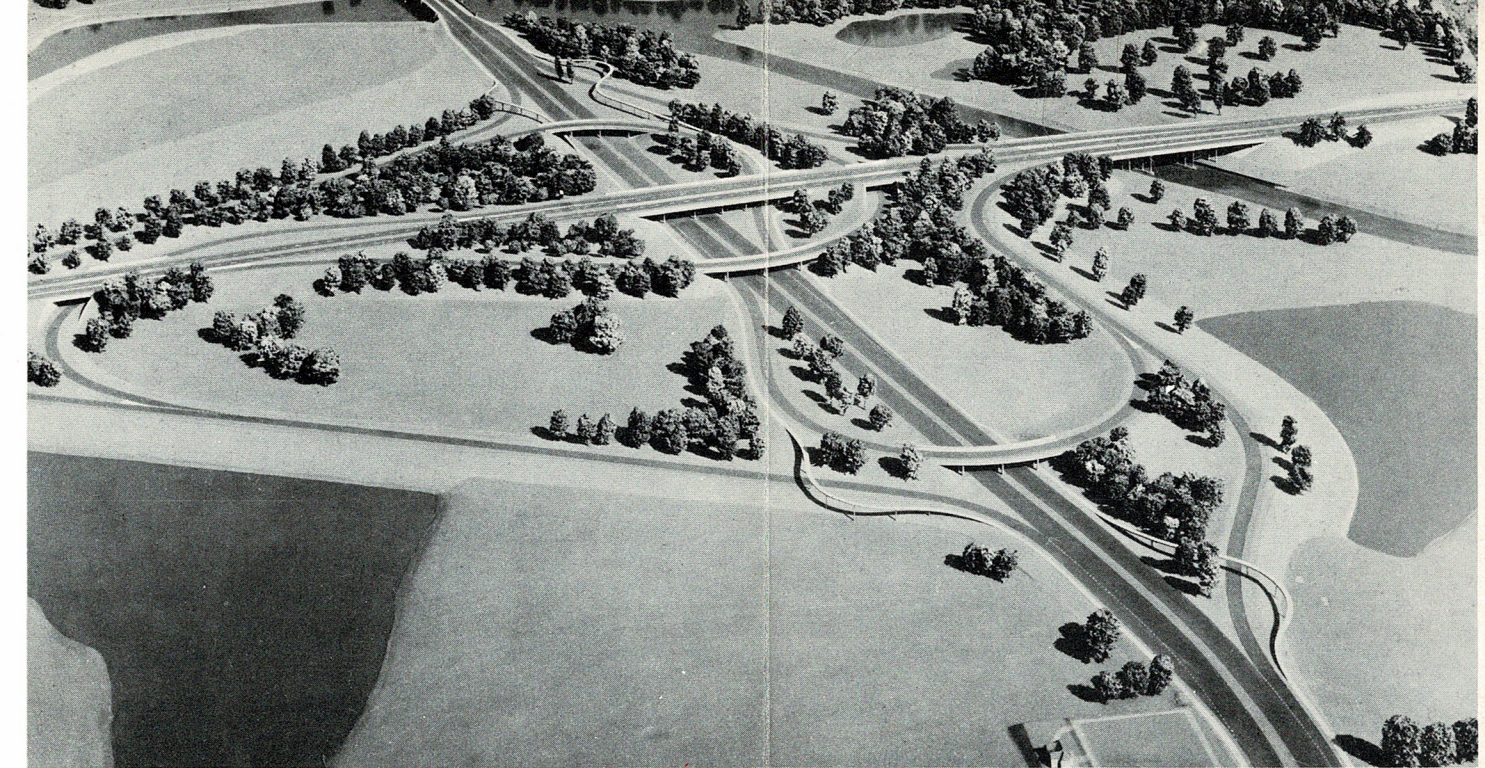
Technical Data Stage 1

Construction commenced	June, 1964
Length	9 miles
Carriageways	2 x 24 feet
Hardshoulders	10 feet wide
Central Reserve	15 feet wide
Minimum Radius	3965 feet
Maximum Gradient	3%
Normal Crossfall	1 in 36
Estimated Excavation:	
Suitable Material	3,400,000 cu. yd.
Unsuitable Material	2,500,000 cu. yd.
Estimated Imported Fill	2,000,000 cu. yd.
Construction Detail	4 in. Hot Rolled Asphalt- 2 course 10 in. Composite Base: [3 in dense bitmac] [7 in. lean concrete] Sub-base: Upper-6 in. frost resistant material Lower-as required; 6 ins. minimum
Area of surfacing	560,000 sq. yd.
Design traffic flows (1980)	M.74-27,275 p.c.u. (16 hour) A723-35,000 p.c.u. (" ")
Concrete in bridges	38,000 cu. yd.
Number of piles	Bored cast in situ-55 ton-52 No. -110 ton-44 No. Driven cased cast in situ-70 ton-514 No. -110 ton-674 No.
Main Contractor	Christiani-Shand, London.

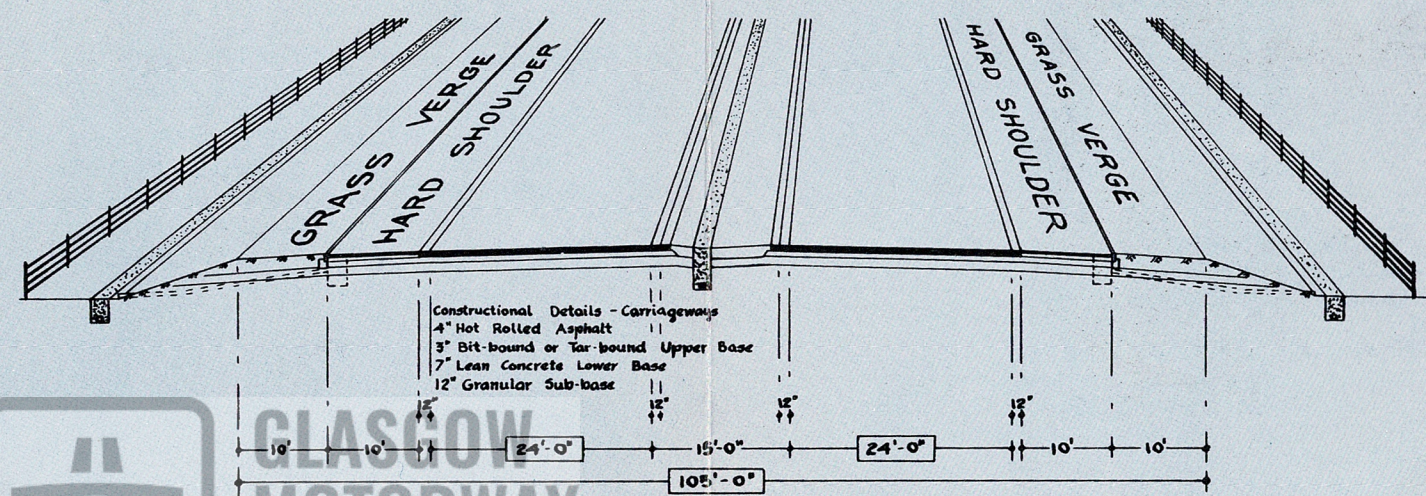
Consulting Engineers:
BABTIE, SHAW & MORTON. C.C.E.
GLASGOW & LONDON

design & photography: Richard Jones, Motherwell

M74 Hamilton
By-Pass



The A723 Interchange is of the fully-directional grade-separated type and provides turning facilities for all movements. It incorporates 6 road bridges, 1 river bridge and 4 footbridges, all of reinforced or pre-stressed concrete construction. The above view taken from Hamilton illustrates the final layout of the Interchange. The Motorway is seen crossing above the A723 and the diverted River Avon.



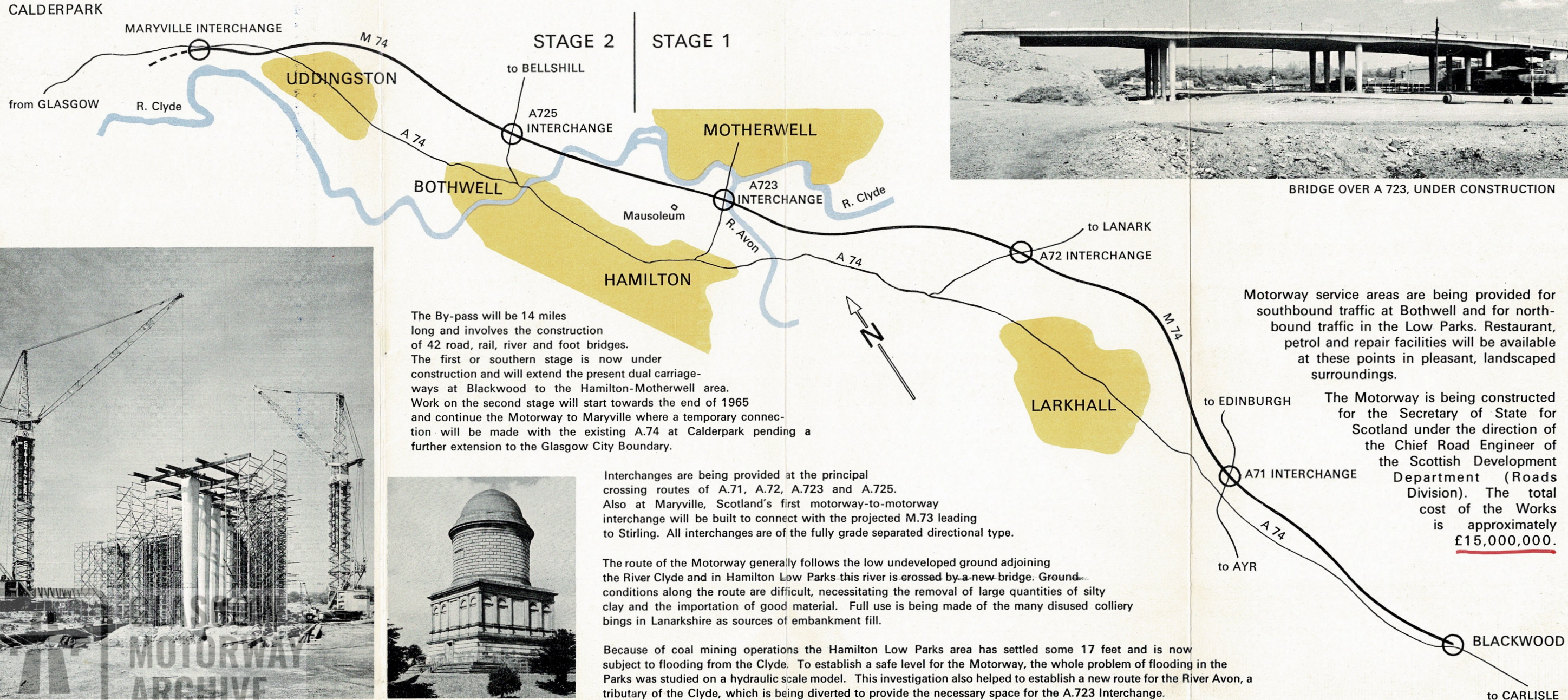
Constructional Details - Carriageways
4" Hot Rolled Asphalt
3" Bit-bound or Tar-bound Upper Base
7" Lean Concrete Lower Base
12" Granular Sub-base



GLASGOW
MOTORWAY
ARCHIVE

TYPICAL CROSS SECTION OF STAGE 1 CARRIAGEWAYS

The new Motorway will provide a much-needed by-pass of the townships of Larkhall, Hamilton, Bothwell and Uddingston. Traffic congestion on the existing trunk route A.74 through these areas has been growing steadily since the war and this trend is likely to continue since this is the principal highway between Scotland and England. Detailed traffic surveys carried out in 1960 confirmed the need for a by-pass of these areas to full motorway standards. Aerial surveys for a possible route were put in hand and in 1963 the Secretary of State for Scotland made the appropriate Order confirming the route of the By-pass.

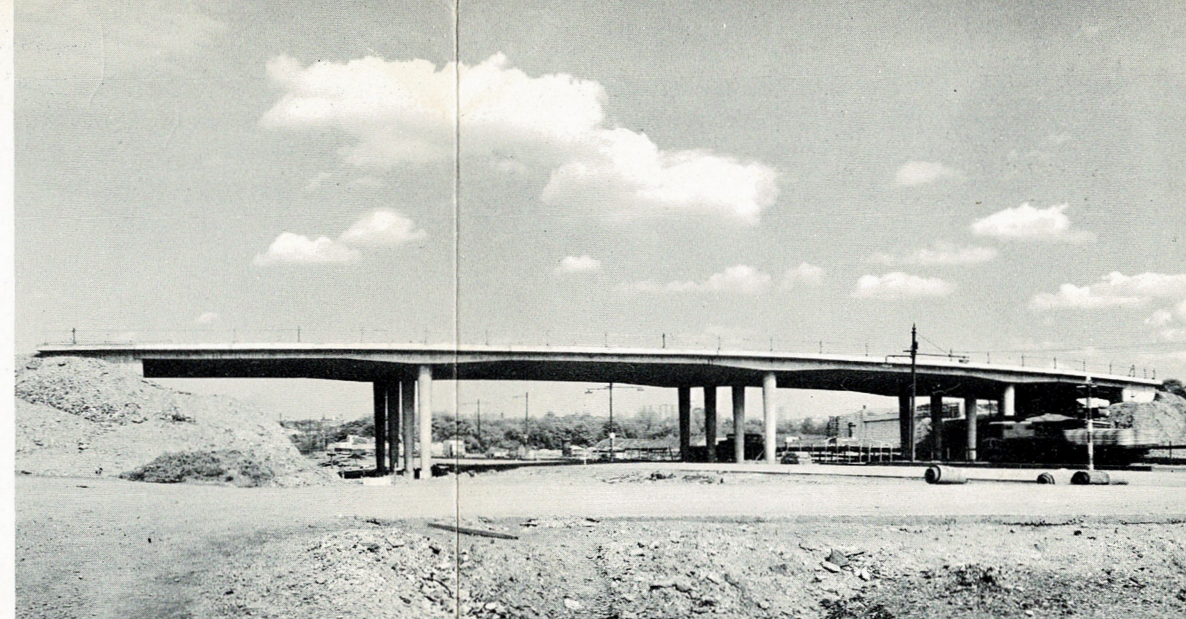


The By-pass will be 14 miles long and involves the construction of 42 road, rail, river and foot bridges. The first or southern stage is now under construction and will extend the present dual carriageways at Blackwood to the Hamilton-Motherwell area. Work on the second stage will start towards the end of 1965 and continue the Motorway to Maryville where a temporary connection will be made with the existing A.74 at Calderpark pending a further extension to the Glasgow City Boundary.

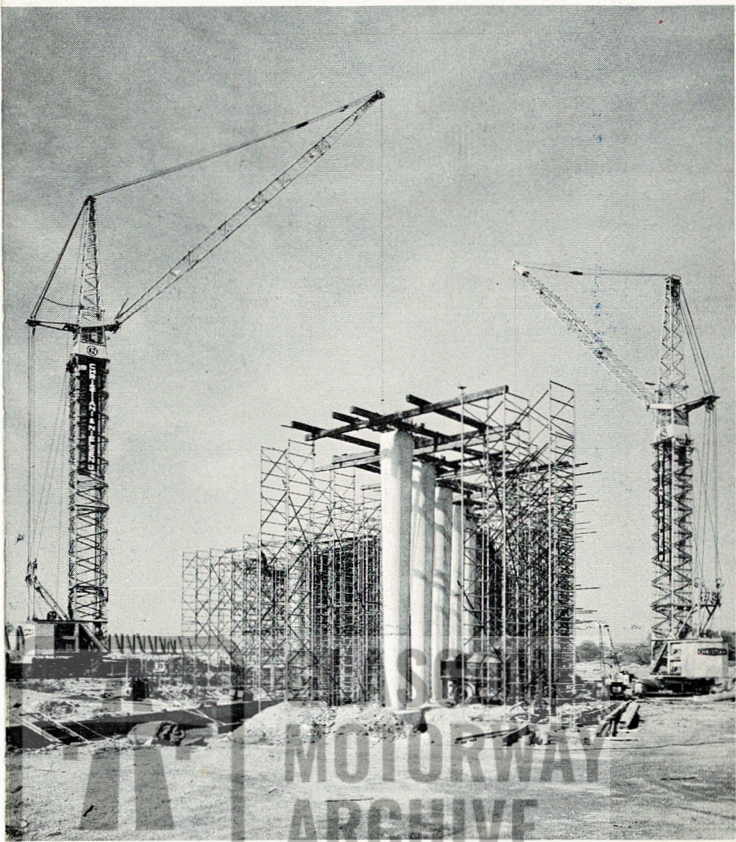
Interchanges are being provided at the principal crossing routes of A.71, A.72, A.723 and A.725. Also at Maryville, Scotland's first motorway-to-motorway interchange will be built to connect with the projected M.73 leading to Stirling. All interchanges are of the fully grade separated directional type.

The route of the Motorway generally follows the low undeveloped ground adjoining the River Clyde and in Hamilton Low Parks this river is crossed by a new bridge. Ground conditions along the route are difficult, necessitating the removal of large quantities of silty clay and the importation of good material. Full use is being made of the many disused colliery bins in Lanarkshire as sources of embankment fill.

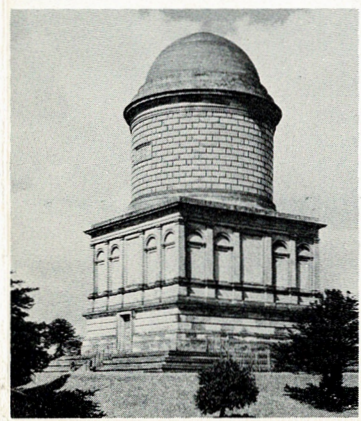
Because of coal mining operations the Hamilton Low Parks area has settled some 17 feet and is now subject to flooding from the Clyde. To establish a safe level for the Motorway, the whole problem of flooding in the Parks was studied on a hydraulic scale model. This investigation also helped to establish a new route for the River Avon, a tributary of the Clyde, which is being diverted to provide the necessary space for the A.723 Interchange.



BRIDGE OVER A 723, UNDER CONSTRUCTION



BRIDGE PIERS, RIVER AVON



MAUSOLEUM, HAMILTON

Motorway service areas are being provided for southbound traffic at Bothwell and for northbound traffic in the Low Parks. Restaurant, petrol and repair facilities will be available at these points in pleasant, landscaped surroundings.

The Motorway is being constructed for the Secretary of State for Scotland under the direction of the Chief Road Engineer of the Scottish Development Department (Roads Division). The total cost of the Works is approximately £15,000,000.

MOTORWAY ARCHIVE