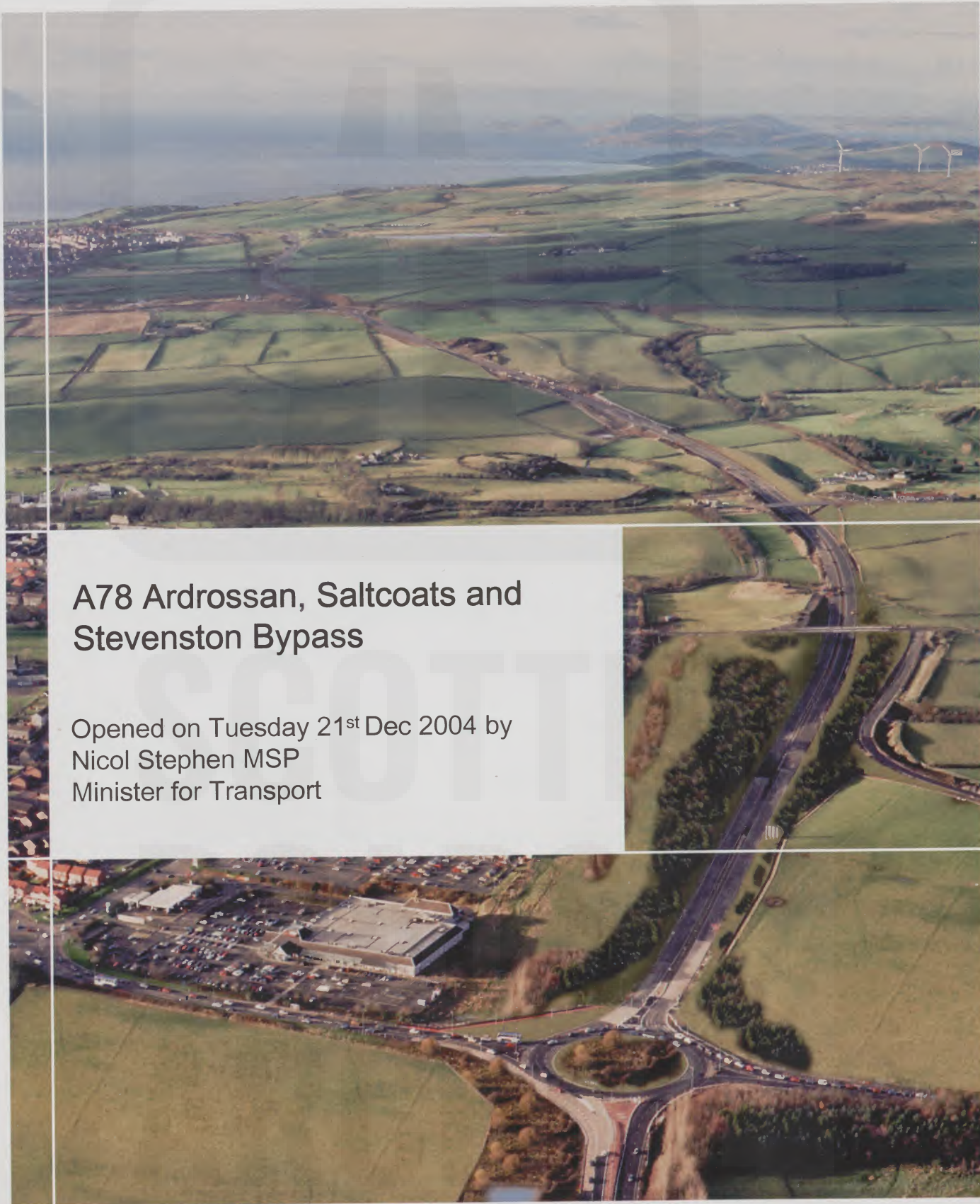




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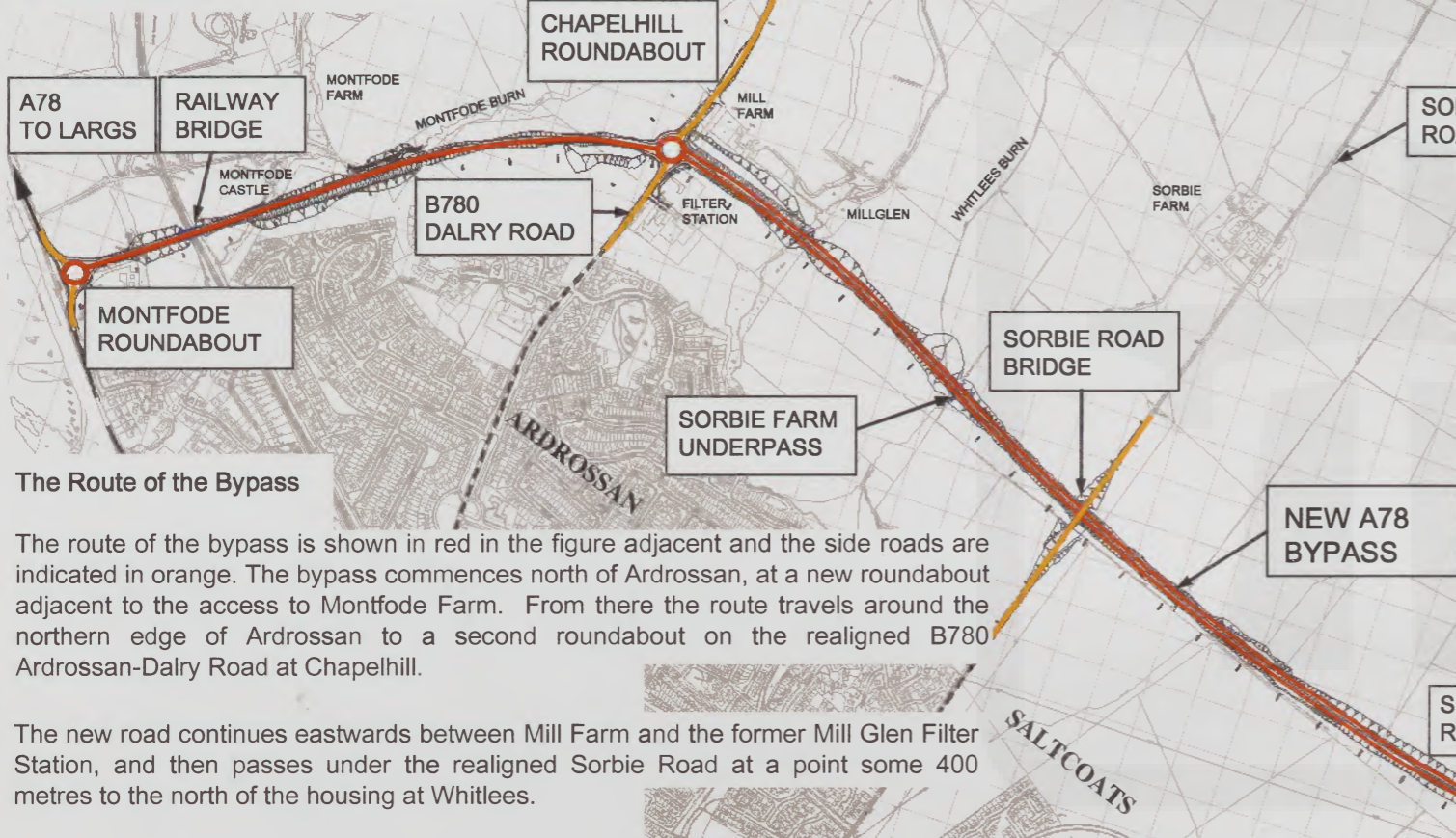


## A78 Ardrossan, Saltcoats and Stevenston Bypass

Opened on Tuesday 21<sup>st</sup> Dec 2004 by  
Nicol Stephen MSP  
Minister for Transport

## Background to the Project

The A78 Trunk Road is the major route connecting Ayrshire and the southwest with the Greenock and Port Glasgow area to the north. In 1999 the Scottish Executive carried out the Strategic Roads Review and the Ardrossan, Saltcoats and Stevenston Bypass, better known as the Three Towns Bypass was chosen as one of five schemes to be taken forward.



### The Route of the Bypass

The route of the bypass is shown in red in the figure adjacent and the side roads are indicated in orange. The bypass commences north of Ardrossan, at a new roundabout adjacent to the access to Montfode Farm. From there the route travels around the northern edge of Ardrossan to a second roundabout on the realigned B780 Ardrossan-Dalry Road at Chapelhill.

The new road continues eastwards between Mill Farm and the former Mill Glen Filter Station, and then passes under the realigned Sorbie Road at a point some 400 metres to the north of the housing at Whitlees.

A third roundabout is provided to connect the bypass to the realigned C4 Saltcoats-Dalry Road just north of Sharpill Cottage. The new road then continues eastward towards the Hayocks area of Stevenston, passing beneath Greenhead Road and Hayocks Road before connecting to the modified roundabout at Pennyburn at the junction of the A78 and A738.

Castlehill Road is realigned to meet Hayocks Road just north of the new bridge over the bypass.

No access to the bypass is available other than by means of the four roundabouts described and illustrated. Four bridges form part of the scheme; one railway bridge at Montfode where the road passes beneath the Largs/Glasgow railway line and three road bridges to carry side roads over the bypass at Sorbie, Greenhead and Hayocks Roads. Agricultural underpasses are provided at Sorbie, Corsankell and Knockrivoch farms.

### Environmental Impacts

Whilst the design fully recognises and addresses the many engineering and environmental constraints, it was important when seeking to solve existing and predicted traffic related problems within the Three Towns, that the proposals minimised any potential adverse environmental effects.

The bypass design includes extensive mitigation measures which not only reduce the effects caused by the road but, where possible, improves environmental quality along the route.



## Procurement

Design and Build Competitions were held for the Design, Construction and Maintenance of the A78 Ardrossan, Saltcoats and Stevenston Bypass and the Montfode Railway Bridge. Tenderers were asked to present their proposals to take forward the scheme developed by Scott Wilson Scotland Limited. Tenderers were also required to develop specific proposals for Design and Construction in line with the Statutory Orders and Environmental Statement for the scheme together with specific Employer's Requirements, whilst keeping within a specified land corridor.

Tenderers were allowed the freedom to develop proposals to suit their methods of working whilst ensuring that commitments to third parties were respected, as embodied in the contract documents. Tenderers were able to submit their own programme for the works, up to a maximum time set by the Scottish Executive.

The bypass contract was awarded to AWG Mowlem (A78) Joint Venture in June 2003 and the Montfode Railway Bridge contract was awarded to Mowlem plc in March 2004. AWG has recently reverted to its former name of Morrison Construction Services Ltd.

### Montfode Railway Bridge

The Montfode Railway Bridge is a key element of the Three Towns Bypass. Since the work involved close liaison with Network Rail on railway design and safety matters, the decision was taken to let the railway bridge as a separate contract. The successful Tenderer for the railway bridge was Mowlem plc, one of Network Rail's framework Contractors in Scotland. Mowlem plc executed the Works in partnership with the AWG -

Mowlem (A 78) Joint Venture. The chosen solution was a reinforced concrete box constructed adjacent to the railway and subsequently slid into position during a 101hour closure of the railway.



The main construction activities carried out during this closure included the excavation of 11,000 m<sup>3</sup> of embankment, pushing the 3200 tonne structure into its final position at 2.5m/hour, placing 6,000 m<sup>3</sup> of fill to the structure and the removal and reinstatement of overhead line equipment and railway track. The work was carried out to a tight programme which the Contractor successfully completed on time.



## Key Participants in the Project

**Scheme Promoter**  
Scottish Executive

**Engineering Consultants**  
Scott Wilson Scotland Ltd

**Environmental Consultants**  
ASH design + assessment

### Design and Build Contractors

#### A78 Bypass

Morrison-Mowlem JV - Contractor -

Carl Bro Group - Designer -

Bullen Consultants - Checker -

#### Montfode Railway Bridge

Mowlem plc

Bullen Consultants

Carl Bro Group



### Technical Data

#### Contract Data

Start Construction: 25<sup>th</sup> August 2003  
Maximum Contract Period: 90 Weeks  
Road Open to Traffic: 70 Weeks  
Combined Contract Value: £30m

#### Geometric Standards

Design Speeds: 120kph (for Dual Carriageway)  
Dual Carriageway: 7.3m Dual with 1m Hardstrips  
Single Carriageway with Climbing Lane: 10m with 1m Hardstrips  
Side/Slip Roads: 7.3m and 5.5m Carriageways

#### Pavement

**Dual Carriageway:**  
Surface Course: 30mm  
Binder Course: 50mm  
Upper Roadbase: 110mm  
Lower Roadbase: 120mm  
Subbase Type 1: 150mm

#### Quantities

Earthworks Excavation: 518,000m<sup>3</sup>  
Embankment Fill: 297,000m<sup>3</sup>  
Structural Concrete: 6,100m<sup>3</sup>  
Structures: 7 Major Structures  
Surfacing: 155,000m<sup>2</sup>  
Drainage: 26,000m  
Landscaping/Planting: 210,000 plants