M90 and M9
Managed Motorway – Intelligent Transport System
Introduction 2012/13
M90 and M9 Managed Motorway – Intelligent Transport System

Location plan

Legend

Extent of managed motorway

- Phase 1
- Phase 2
- Phase 3

Opening dates for each phase will be provided in the local press and at: www.forthreplacementcrossing.info

- New/improved roads
- Existing roads
- Proposed public transport links
- Bus lane (southbound only)
- Park and ride
- Airport

Motorway Junction number

- Changes due by 2016

Phase 1 from winter 2012

Intelligent Transport System

Scope

The Forth Replacement Crossing (FRC) project will create a managed motorway by using an Intelligent Transport System to help regulate the flow of traffic approaching and crossing the Forth.

This leaflet provides an explanation of the Intelligent Transport System which will open in phases with phase 1 in winter 2012 and phase 2 in early 2013. While drivers may find the information in this leaflet of value, no specialist skills are required to use roads featuring Intelligent Transport Systems.

Phases 1 and 2 of the Intelligent Transport System will help to manage the flow of traffic on the M90 on the approach to roadworks associated with construction of the new bridge (until 2016) and through M9 Junction 1A (during and after its construction period).

The final phase (phase 3) will become operational on completion of the new crossing. The Intelligent Transport System will then extend along a 22km corridor from the M90 Halbeath Junction over the new bridge to the north of Newbridge Junction. Overhead gantries spaced regularly along the corridor will provide lane control, variable mandatory speed control and bus lane control. Variable message signs on the gantries will provide drivers with a wide range of traffic information.

The FRC Intelligent Transport System will be monitored and controlled through the Traffic Scotland Control Centre.

Benefits

- There is clear evidence from similar schemes in the UK and across the world that Intelligent Transport Systems increase road operational efficiency, capacity and safety.

- During incidents or periods of congestion when demand exceeds capacity the system will set signals and message signs to inform and advise drivers to effectively manage incidents and reduce queues.

- Variable mandatory speed control will help maintain a steady flow of traffic and limit congestion to make journey times more reliable.

- Evidence indicates that systems which reduce vehicle queues can reduce accidents resulting in injury by up to 13%.
What you will see

Entering the managed motorway

On entering the managed motorway you will see the following fixed plate sign:

Lane-specific motorway signals

The Intelligent Transport System allows variable mandatory speed limits to be applied so that vehicle speeds can be managed during congested periods and in response to incidents such as vehicle breakdowns. The system can automatically detect incidents and provide information regarding the road network.

The lane-specific motorway signals on the gantries will normally be blank. As traffic congestion builds up, or if there is an incident, the Intelligent Transport System will reduce the normal speed limit.

The speed limits displayed will be mandatory and will have a red ring surrounding the speed display. Cameras will be used to enforce the displayed speed limit.

Once the level of congestion eases, or the relevant incident ends, the system will restore the speed limit to its normal level.

For phases 1 and 2 the variable speed limits will only be operational on the southbound carriageways of the M90 and M9.

Leaving the managed motorway

On leaving the managed motorway you will see a fixed plate sign advising a return to the national speed limit or to a displayed speed limit.
How will the bus lane/hard shoulder operate?

General

To help promote and encourage use of public transport within the Forth Replacement Crossing (FRC) project, bus lanes are provided on the southbound M90 in Fife and on the southbound M9 in the vicinity of Junction 1A (the bus lanes are indicated on the location plan – see page 2). These will operate on a 24-hour, 7-days-a-week basis and will be the first such schemes to be implemented on the motorway network in Scotland.

Fixed plate signs will be used to advise road users of the presence of a bus lane. The use of bus lanes is legally restricted to buses and coaches constructed to carry 24 seated passengers or more. Any buses that do not meet this requirement, or any other vehicles, are prohibited from using these bus lanes.

Intermittent green road surfacing and ‘Bus Lane’ road markings, at the start and end of the bus lane and repeated along its length, will also be used to reinforce its presence.

In case of breakdown or emergency

The bus lane is always accessible as a hard shoulder to any vehicle involved in a breakdown or emergency. When this happens buses will be diverted to the normal traffic lanes.

In an emergency, one of the emergency refuge areas next to the bus lane/hard shoulder should be used. These emergency refuge areas have emergency roadside telephones with a direct connection to the Traffic Scotland Control Centre whose trained operators will advise and support you. The telephones are positioned behind roadside barriers and at a height suitable for road users with disabilities.

If you can’t reach an emergency refuge area in your vehicle, the hard shoulder is always available. Should you require a telephone, follow the directions on the roadside marker posts.

If you use your mobile, dial 112 or 999 to contact the emergency services.

Always follow the Highway Code directions for breakdowns and incidents, including additional rules for the motorway (sections 274 to 287). An online version of the Highway Code is available at www.direct.gov.uk.

Lane-specific motorway signals and variable message signs

In normal operation the bus lane is open and will be indicated by a blank signal.

In emergency situations, the motorway signal over the bus lane will be used to advise bus drivers that the bus lane is closed – a red ‘X’ signal will be displayed over the bus lane and the variable message sign will reinforce this.

Motorway users should take care at slip roads as buses may carry straight on and re-enter the bus lane through the green marked section. Motorway users must not follow buses through this restricted section.

Motorway drivers should be aware that buses are likely to use normal traffic lanes during non-congested periods as they can travel at higher speeds than the advisory 40mph maximum limit applicable to the bus lanes.
Summary

• An Intelligent Transport System will be introduced as part of the Forth Replacement Crossing (FRC) project in phases from winter 2012 – the third (final) phase will go live on completion of the crossing in 2016.

• Drivers require no specialist skills to use roads featuring Intelligent Transport Systems.

• The FRC system includes overhead gantries, spaced regularly along the route, which include motorway signals and variable message signs to control traffic and inform road users.

• Mandatory variable speed limits will be applied when necessary – e.g. during incidents or when significant congestion occurs. The speed limits will be enforced.

• The use of the hard shoulder by buses (24/7) is a feature of the FRC Intelligent Transport System.

• Road users can always use the hard shoulder in an emergency and buses will be diverted to the normal traffic lanes.

• Intelligent Transport Systems increase the efficiency and capacity of roads by improving traffic flow and reducing congestion, in turn helping journey time reliability and reducing emissions.

• Studies show similar schemes have improved road safety and this system will also improve safety for FRC construction workers.

Further information – traffic and roads

Up-to-date information for road users on Scotland’s motorway and trunk road network is available on Traffic Scotland www.trafficscotland.org or on the move via its mobile website m.trafficscotland.org. The website also provides details of other information services including Traffic Scotland Internet Radio, Twitter account and smartphone apps.

Further information – FRC project

Information on the FRC project is available at www.ForthReplacementCrossing.info. Alternatively, call the dedicated 24-hour project hotline 0800 078 6910 or e-mail enquiries@forthreplacementcrossing.info.