

# M5 Oldbury Viaduct Traffic Management Study

## Executive Summary

Oldbury and Park Street viaducts carry approximately 3km of the elevated sections of the M5 to the west of Birmingham between junctions 1 and 2. Constructed in 1970, it has deteriorated in recent years and has seen increased emergency interventions (55 in 2016). Therefore we need to repair and upgrade sections now in order to prevent bigger challenges and further disruption in the future. By maintaining this key corridor we're delivering a huge investment that will support economic growth locally and in the wider West Midlands. Once complete, customers will benefit from a safer, more resilient route and enhanced driver experience.

Other planned interventions on the strategic network in coming years include HS2, M6 J10 redesign, and on the local network, proposed Birchley island project and M5 junction 1 redesign. Therefore, we have a window of opportunity between April 2017 and autumn 2018 to complete this work at M5 Oldbury Viaduct.

This section of the M5 motorway is particularly busy, carrying both local and strategic south-west and south-east to north-west traffic, with seasonal peaks. It is a commuter hub with traffic joining with the M6, other roads into and out of the Birmingham hub, and other cities in the region. Our engineers advised that in order to carry out the work safely, the carriageway would have to be treated in sections under traffic management. Four options were progressed to the modelling stage to understand impact and we chose the one that was safest, offered most value for money and most appropriate timeline.

The chosen option allows traffic to run on 2 lanes in both directions on 1 carriageway at a time, in a contraflow system with a 30mph speed limit. We have kept slip roads open to maintain access to the mainline to limit congestion on local roads.

As part of the package of measures designed to balance traffic volumes around the works area, and reducing traffic on the approach to junction 2 and through the work, we put in place lane restrictions at junction 4A. This is the last point at which traffic heading towards the works can take the alternative strategic route via the M42. Without this restriction disruption would be worse, affecting the M5 corridor, as well as local roads, towns and villages.

Highways England has listened to concerns about these measures, and put in place more signage, increased safety measures and the use of rapid assistance motorcycles carrying emergency fuel throughout the works. We regularly review network performance, resilience and recovery. Following feedback received, we commissioned our contractor, Kier Strategic Highways, to undertake an operational review of the traffic management performance across the strategic and local authority road networks.

Our review demonstrates that measures to manage traffic, including the restriction at junction 4a, are working safely and successfully by encouraging drivers to avoid approaching Birmingham and beyond via the northbound M5. There has been an overall reduction in traffic on the M5 and the M42 but the balance has changed, with more traffic using the M42 than the M5 northbound. It has delivered the expected reduction in flow on the M5 around junction 1 and junction 2. The average journey

time on the M5 through junction 4A has been around 13 minutes, with an average delay of around 7 minutes during peak travel times.

There have been some queues on the M6 to M5 link, however these have been within expectations and the restriction here has reduced southbound traffic flows through the works by almost a third.

Flows around the strategic diversion route to the east of the 'Birmingham Box', have largely been within expectations. People are taking alternative routes, travelling north approaching Birmingham from the M40 via the M42 and M6, rather than using the M5, and by travelling south on the M5 from Birmingham via the M42 west.

The number of incidents within the roadworks is below that seen on other roadworks around the network.

(This report aims to summarise the modelling undertaken in advance of works starting, compared with the actual performance and measures instigated to balance the flow of traffic around the region. The holiday period up to the end of August sees flows generally fall by around 10% and therefore this report also includes information on flows from September to date when the traffic flows are known to increase. )