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**Smart Motorways Programme**

M1 Junction 13 to 16 Smart Motorway

**Response to Statutory Instrument Consultation**

**The introduction of variable mandatory speed limits**

**April 2020**

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# Executive Summary

The M1 is a key strategic route through the Midlands carrying high volumes of vehicles between London and the North. It carries a significant number of Heavy Goods Vehicles (HGVs): above the national average for other major roads in the country.

The purpose of this document is to provide a summary of the responses received during the consultation on the proposal to introduce variable mandatory speed limits (VMSL) on the M1 junctions 13 to 16 smart motorway scheme.

The consultation took place between 26 March and 23 April 2018. Due to an administrative error, a number of consultees were not made aware of the consultation, and therefore did not have the opportunity to respond. In order to address this, the consultation was reopened specifically for those consultees. The second round of consultation ran for four weeks from 31 May 2018 to 28 June 2018.

Notification of the consultation was issued to 131 consultees and the consultation was open to public participation through the Highways England Citizen Space website. A list of consultees is provided at Appendix A.

We encouraged representative organisations, businesses and the general public to register their views about the proposal to introduce VMSL as part of the M1 junction 13 to 16 smart motorway scheme.

This consultation report provides a summary of the responses received to both rounds of consultation and how these have been considered. A total of 30 responses were received (29 to the first and 1 to the second round).

Following the consultation, and having considered the responses, it is recommended that the Secretary of State proceed with making the Regulations necessary to allow for the implementation of VMSL on the M1 junction 13 to 16 smart motorway scheme.

# Introduction

## Document structure

**Section 1** provides background information about the M1 junction 13 to 16 smart motorway scheme and the proposed changes to legislation.

**Section 2** details how the consultation on the proposed changes was carried out

**Section 3** provides a summary of the responses to the consultation that were received, as well as Highways England’s responses to the issues raised.

**Section 4** summarises the outcome of the consultation and makes recommendations for next steps.

## Purpose of this report

This document is intended to provide a summary of the responses received to the consultation on the introduction of variable mandatory speed limits (VMSL) on the M1 junction 13 to 16 smart motorway scheme. The consultation, which was undertaken between 26 March to 23 April 2018, and from 31 May to 28 June 2018, provided an opportunity for stakeholders, such as road user groups and other interested parties, to comment on the proposals.

Highways England has considered the comments raised by consultees and this document summarises its response to those comments.

## Background to the consultation

The M1 is a key strategic route through the Midlands carrying high volumes of vehicles between London and the North. It carries a significant number of Heavy Goods Vehicles (HGVs), above the national average for other major roads in the country.

Congestion and unreliable journey times are currently experienced at busy periods and traffic is predicted to grow, particularly with the growth expected at East Midlands Airport. The M1 junctions 13 to 16 smart motorway scheme is 37km long and will relieve congestion and smooth the flow of traffic, improving safety and journey times as well as improving the current unpredictability of journey times along this stretch of the M1.

## Legislative changes

Regulations have been proposed to be made under section 17(2) and (3) of the Road Traffic Regulation Act 1984 (“the 1984 Act”) for the implementation of VMSL for the M1 junction 13 to 16 smart motorway all-lane running scheme. The proposed Regulations will restrict drivers from driving within the area of the smart motorways scheme at a speed exceeding that displayed on the speed limit signs, or the national speed limit where no other speed limit sign is displayed.

The relevant legislative power in the 1984 Act permits the making of Regulations that regulate the manner in which, and the conditions subject to which, motorways may be used by traffic authorised to use such motorways.

Within the M1 junction 13 to 16 smart motorway all lane running scheme it will be an offence to use a motorway in contravention of Regulations applying to the scheme made under section 17(2) of the 1984 Act.

# Conducting the consultation

## What the consultation was about

The consultation provided the opportunity for interested parties to comment on the proposal to introduce a statutory instrument to implement variable mandatory speed limits on the M1 junction 13 to 16 smart motorway scheme.

## How the consultation was carried out

The Statutory Instrument Consultation Document for the scheme was sent to the 131 consultees listed in Appendix C of the consultation document.

The consultation was also open to public participation through the Highways England consultation hub at: <https://highwaysengland.citizenspace.com/he/m1-junctions-13-to-16-smart-motorway/>

We encouraged representative organisations, businesses and the general public to register their views. A four-week consultation period commenced on 26 March 2018 and closed on 23 April 2018. A second round of consultation was held between 31 May 2018 and 28 June 2018 in order to allow those consultees who were missed off the initial list to have an opportunity to comment.

In addition to the online survey, respondents were also able to send their responses via email or post to the Highways England project manager as follows:

Debraj De

Project Manager

Highways England

5 St. Phillips Place

Birmingham

B3 2PW

Email: [M1J13-16Smart@highwaysengland.co.uk](mailto:M1J13-16Smart@highwaysengland.co.uk)

## Government consultation principles

The consultation was carried out in accordance with the Government’s Consultation Principles, which are available at:

<https://www.gov.uk/government/publications/consultation-principles-guidance>

If you have reason to believe this consultation did not comply with these Consultation Principles, please write to our consultation co-ordinator at the address below, setting out the areas where you believe this consultation did not meet the principles:

Andy Johnson

Highways England

The Cube

199 Wharfside Street

Birmingham

B1 1RN

Email: [andy.johnson@highwaysengland.co.uk](mailto:andy.johnson@highwaysengland.co.uk)

# Responses to the consultation and Highways England’s response

## Summary of responses

During the consultation period, a total of 30 responses were received, 29 of which were completed questionnaires from the first round of consultation. One response was received from the second round of consultation and was sent directly to Highways England via email.

The questionnaire asked respondents to answer three questions with space provided for comments on each. The questions and an analysis of the responses are provided below.

## Question 1: Improvements to travelling conditions

### Q1. Do you consider that the proposal to introduce the smart motorway scheme on the M1 between junctions 13 and 16 will lead to an improvement in travelling conditions on this section of motorway (please tick yes or no in the boxes provided)?

Of the 30 responses, a total of 13 respondents selected ‘yes’, and 17 respondents selected ‘no’. The breakdown of these responses is shown in Table 1 below.

*Table 1: Responses to question 1*

|  |  |  |
| --- | --- | --- |
| **Consultee** | **Yes** | **No** |
| Large company | 4 | 7 |
| Members of the public | 5 | 6 |
| Police | 1 | 0 |
| Small to medium enterprise | 1 | 0 |
| Council | 0 | 1 |
| Other | 2 | 3 |
| **TOTAL** | **13** | **17** |

Of the responses received, 43% considered that the proposals to implement variable mandatory speed limits would lead to an improvement in travelling conditions on the M1 between junctions 13 to 16 smart motorway scheme. Of the seven respondents, five provided comments.

**Key themes identified:**

* Improvement to the M1 road considered unnecessary due to the cost versus short periods of congestion and the upheaval that this would cause motorists.
* Currently too many cars on the road – more affordable public transport would help alleviate congestion.
* The scheme would encourage road users to use the route, as it would offer more traffic capacity.

**Variable mandatory speed limits (VMSL)**

* Variable mandatory speed limits may cause increased stress to motorists due to the changing speeds on the road.
* Low speed limits operating which are unrelated to the current road condition.
* Controlling the speed of the travelling public on the M1 from junctions 13 to 16 would have a marked improvement on travel times due to the number of vehicles using that stretch of road. It would make the daily commute much easier.
* VMSL would improve travel by keeping the road flowing rather than the congestion that is currently experienced during peak times.

**Highways England Response to Question 1: Improvements to travelling conditions**

### Congestion concerns on the road

Prior to the development of this scheme, various options to improve the M1 were assessed, including a comparison of conventional widening with the new smart motorway techniques. The assessment concluded that a smart motorway on this stretch of the M1 would give the highest benefit-to-cost ratio and would have similar benefits to the road widening option, whilst being significantly more affordable.

It is forecast that traffic using Highways England’s roads in terms of total miles driven, will be between 27% and 57% higher in 2040 than it was in 2013. The level of growth on the M1 is expected to lie within this range.

There is significant AM peak congestion southbound and PM peak northbound along the whole of the proposed section.  Daily traffic volumes are approximately 116,000 vehicles per day, with the figure increasing to 140,000 vehicles per day on Fridays.  Heavy Goods vehicles account for between 16% and 21% of the total flow, which is high compared with the 10-15% observed on an average motorway.

Average speed data collected from the month of October 2014 showed the early evening peak period values differed from the morning peak period with northbound traffic showing link speeds below 50mph to suggest a mainline under stress. These circumstances extended from south of Junction 13 to beyond Junction 16. In all cases junction approach speeds fell below 30mph between 17:00 to 18:00hrs.

By way of contrast, during the AM peak period the southbound carriageway generally reported average link speeds within the 51mph to 70mph bracket, with the exception of the immediate to junctions, with speeds then falling below 30mph.

In all cases, slow moving traffic was a feature on all the slip roads with speeds below 30mph. In common with the AM peak periods, it is reasonable to conclude that manoeuvres associated with demand and congestion on the various slip roads impacts on mainline traffic speeds.

One reason for the introduction of smart motorways is because there are more vehicles on the road. By making use of the full width of the road, smart motorways add extra capacity for more vehicles and so ease congestion.

**About smart motorways**

They have evolved from **Controlled Motorways** (with variable speed limits) to **Dynamic Hard Shoulder Running** (opening the hard shoulder as a running lane to traffic at busy periods) to **All Lane Running** (permanently removing the hard shoulder and converting it into a running lane).

Compared to widening a motorway they offer:

* Increased vehicle capacity at significantly less cost than widening.
* New technology and variable speed limits to help improve and smooth the traffic flow.
* Less congestion and more reliable journeys for customers.
* Environmental benefits by not taking extra land to use as new road.
* A safety record that’s at least as safe, if not safer than conventional motorways.

The M1 between junctions 13 to 16 will be an all lane running (ALR) smart motorway scheme, which means that the hard shoulder will be converted into a permanent lane for drivers to use, to help reduce congestion. Variable speed limits will be used to smooth the traffic flow.

### Variable Mandatory Speed limits

Variable mandatory speed limits (VMSL) will be used when the motorway is most congested, i.e. during peak times. Previous smart motorway roads show that technology can help to tackle congestion; increase road capacity; and make journeys more reliable by controlling traffic flow and giving drivers information via variable message signs (VMS) .

Overhead gantry signs display the mandatory speed limits and are designed to allow drivers time to adjust their speed safely. When the speed limit changes, drivers who are close to the signal are not expected to brake suddenly, but instead to reduce their speed so that they are within the limit as soon as it is safe to do so.

Evidence from three of the four Post Opening Project Evaluation reports presented a reduction in personal injury collisions and/or collision rates. All schemes showed a reduction in the Fatal and Weighted Injuries, though these were not compared to background national trends.

The ‘Overarching’ ALR report assessed a range of metrics around the collisions and casualties of the majority of ALR schemes in operation, using the latest data available and comparing actual changes to the counterfactual. This is a strong method, although seven of the nine schemes assessed only had data available for one year after scheme opening. Nonetheless, the set of ALR schemes considered had a statistically significant reduction in casualty rates, with an increase in serious and fatal casualties in line with the counterfactual and a fall in the Fatal and Weighted Injuries.

## Question 2: Concerns about the introduction of a smart motorway.

**Q2. Are there any aspects of the proposal to introduce the smart motorway scheme on the M1 between junctions 13 and 16 which give you concerns?**

Of the 30 responses, a total of 23 respondents selected ‘yes’, and 7 respondents selected ‘no’. The breakdown of these responses is shown in Table 2 below.

*Table 2: Responses to question 2*

|  |  |  |
| --- | --- | --- |
| **Consultee** | Yes | No |
| Large company | 5 | 6 |
| Members of the public | 10 | 1 |
| Police | 1 | 0 |
| Small to medium enterprise | 1 | 0 |
| Council | 1 | 0 |
| Other | 5 | 0 |
| **TOTAL** | 23 | 7 |

Of the responses received, 77% had concerns about the proposal to introduce a smart motorway on the M1 between junctions 13 and 16.

**Key themes identified:**

* Safety of smart motorways.
* Suggestions made about the design of smart motorways.
* Concerns about emergency areas.
* Financial concerns.
* Concerns that variable mandatory speed limits (VMSL) do not improve journey times.

**Highways England’s response to Question 2: Concerns about the introduction of a smart motorway.**

Smart motorways have helped us cope with a 23 percent rise in traffic since 2000. They save motorists thousands of hours sitting in jams. They reduce the disruption and environmental destruction which would otherwise be needed to widen our busiest roads.

Our motorways are comparatively the safest roads to travel on, they are 2.7 times safer than A-roads, and 6.2 times safer than single carriageway A-roads (as sourced from report on road casualties on the [SRN 2017](https://www.gov.uk/government/publications/highways-england-reported-road-casualties-on-the-strategic-road-network-srn-2014-and-2015)).

Smart motorways have a range of protective measures in place which are not present on other types of high-speed roads. These include CCTV coverage, sensors to detect the flow and speed of traffic, electronic signs to close lanes, display warning messages and messages to slow down the approaching traffic.

The Department for Transport has completed the evidence stock take in March 2020. Overall, what the evidence shows is that in most ways, smart motorways are as safe as, or safer than, the conventional ones. An action plan has been put together to address issues and not only make smart motorways even safer, but provide greater public confidence in their use. This will allow us to retain the benefits of smart motorways while addressing the concerns that have been identified.

Further information can be found at:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/872078/smart-motorway-safety-evidence-stocktake-and-action-plan.pdf](https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachment_data%2Ffile%2F872078%2Fsmart-motorway-safety-evidence-stocktake-and-action-plan.pdf&data=02%7C01%7Cvanessa.adu%40costain.com%7C554cb3d98ffd48f5a54708d7dbadfbde%7C8cb09124b2c74dab89abb3781aa4e809%7C0%7C0%7C637219413008363690&sdata=E0NfW33lbzQcUplICaVDw7mS9OEPn%2FEA9p5eDXjVnCs%3D&reserved=0)

## Question 3: Any other comments

**Q3. Are there any additional comments you would like to make about the proposal to introduce the smart motorway scheme on the M1 between junctions 13 and 16?**

Of the 29 responses, a total of 9 respondents selected ‘yes’, and 20 respondents selected ‘no’. The breakdown of these responses is shown in Table 3 below.

*Table 3: Responses to question 3*

|  |  |  |
| --- | --- | --- |
| **Consultee** | **Yes** | **No** |
| Large company | 1 | 10 |
| Members of the public | 4 | 6 |
| Police | 0 | 1 |
| Small to medium enterprise | 1 | 0 |
| Council | 1 | 0 |
| Other | 2 | 3 |
| **TOTAL** | **9** | **20** |

Of the responses received, 31% provided additional comments on the proposal to introduce the smart motorway scheme on the M1 between junctions 13 and 16.

**Key themes identified:**

* Time it takes to complete the scheme, including disruption whilst construction is taking place and possible construction delays or overruns.
* Concern about narrower traffic lanes through the roadworks.
* Concerns about HGVs driving through the roadworks.
* What is the driving legislation for smart motorways (ie keeping below variable speed limits, not driving in a closed lane showing a ‘red x’ etc).

**Highways England Response to question 3: Any other comments.**

Customers are very important to us and we aim to reduce the impact on customers and the surrounding local community. Highways England is aware of the public concerns, and we have developed detailed plans for the roadworks and construction for this scheme.

We are doing everything we can to minimise disruption, including keeping three lanes open to traffic during the day, and only closing parts of the motorway overnight when there’s less traffic.

We also co-ordinate overnight road closures so that drivers aren't likely to be affected by other road closures on the same journey Signed diversion routes will be installed ahead of every road closure. Portable Variable Message signs are used to display journey times and other useful messages to keeping the travelling public informed of driving conditions through the roadworks, and 24-hour CCTV coverage will identify incidents and breakdowns, with free breakdown recovery in place within the roadworks.

Shorter lengths of roadworks were considered, but this would mean that the construction time would be longer and less efficient. We therefore plan to have phased roadworks to reduce the length and the timescales for completing the work. A 50mph reduced speed limit will be in place to keep all road users safe.

Reduced speed limits are put in place for the safety of all road users, not just to protect our road workers. Roadwork areas can be dangerous places, and the safety of road users is always our top consideration. The driving in roadworks can feel very different. There may be changes such as lane restrictions or contra-flows, as well as construction vehicles entering or leaving the site. Additionally, excavations and the construction vehicles and equipment can pose extra risks.

Construction is expected to be complete by March 2022.

## Summary and recommendations

## Summary

Analysis of the feedback shows that there has been very little limited response to the VMSL Statutory Instrument consultation from the consultees. This could be because:

* Smart motorway schemes are well understood by road users, and it was felt that no further comment was necessary.
* The published responses to other previous consultations on smart motorway schemes or information on Highways England’s website have adequately addressed concerns.

Whilst concerns have been raised, it is considered that the issues raised have been suitably considered and answered in the analysis report.

## Recommendations

After considering the comments received for this consultation, it is recommended that the legislation required to implement VMSL from junctions 13 to 16 of the M1 J13 to 16 smart motorway scheme is approved.