

Welcome

M27

Upgrade to smart motorway

Junctions 4 to 11

Smart motorway M27 junctions 4 to 11

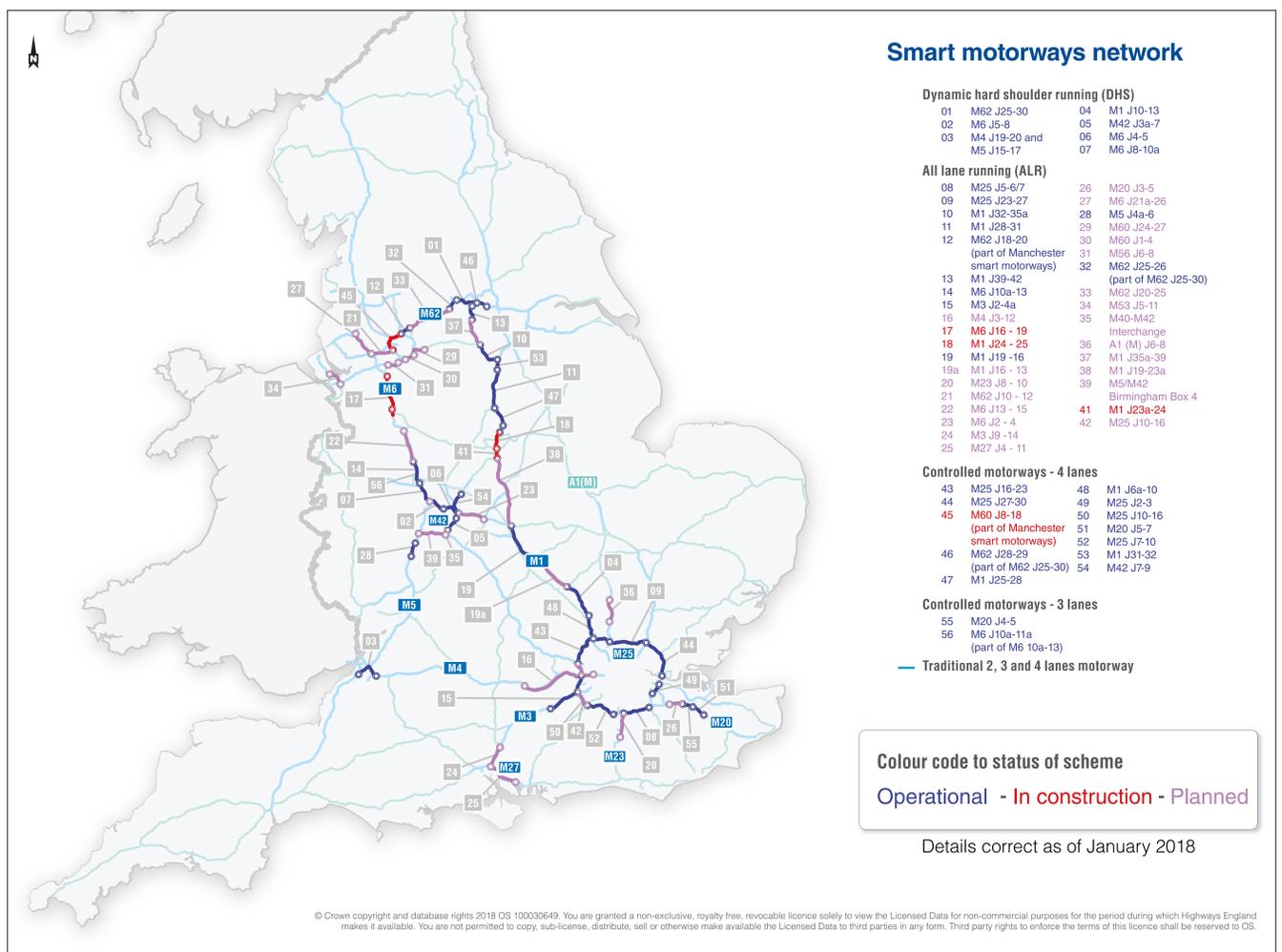
Smart motorways

Smart motorways are a technology driven approach to the use of our motorways, increasing capacity and relieving congestion while maintaining safety. Smart motorways help make journey times more reliable.

- Technology is installed to monitor and manage traffic flow and the hard shoulder is used for traffic, either permanently or at peak times.
- As well as the additional capacity from the extra lane, the technology manages traffic using variable speed limits to smooth traffic, reducing frustrating stop-start flow and improving journey reliability.
- It is also used to support the response to incidents, using the signs and signals to close any lane in advance of the incident scene.

Drivers are enjoying the benefits of smart motorways across the country without safety being adversely affected – our motorways continue to be some of the safest in the world.

If you would like to know more about the M27 junctions 11 to 14 smart motorway scheme you can contact us at: M27J4-11SmartMotorway@highwaysengland.co.uk



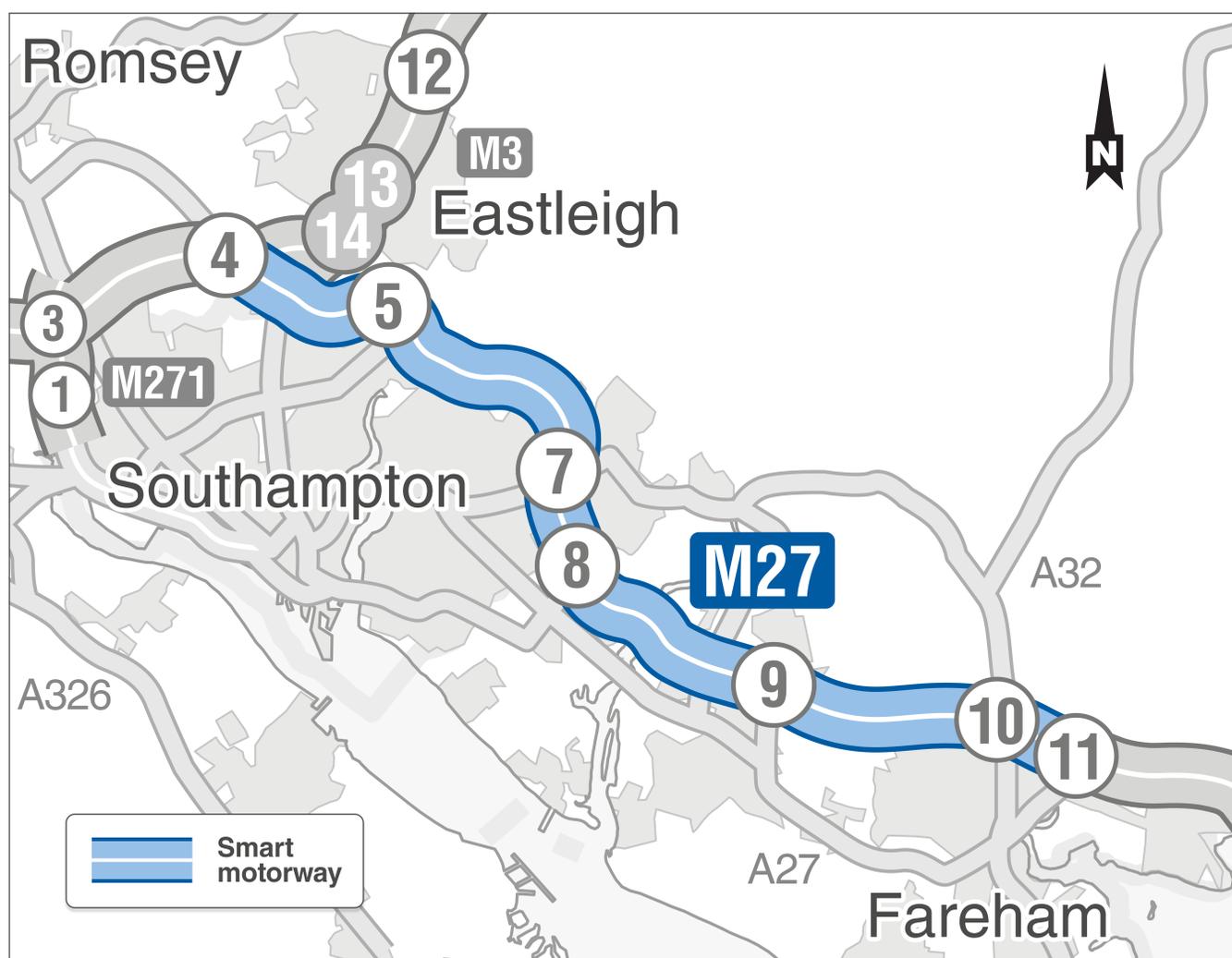
M27 junctions 4 to 11 smart motorways

We are improving the busy 24km (15 miles) stretch of the M27 between junction 4 near Southampton and junction 11 near Fareham by upgrading it to an all lane running (ALR) smart motorway.

Construction is planned to begin in winter 2018/2019 and the smart motorway is expected to be open to traffic in spring 2021.

The project involves:

- Permanent conversion of the hard shoulder to create a fourth lane and changing the junction slip roads to accommodate this.
- New CCTV cameras and electronic information signs and signals on gantries — these will show variable mandatory speed limits and manage traffic flow and incidents.
- Installation of a reinforced barrier to improve safety.
- There will be 13 new emergency areas within the M27 junctions 4 to 11 smart motorway scheme. Hard shoulders can also be used where available (junctions 7 to 8).

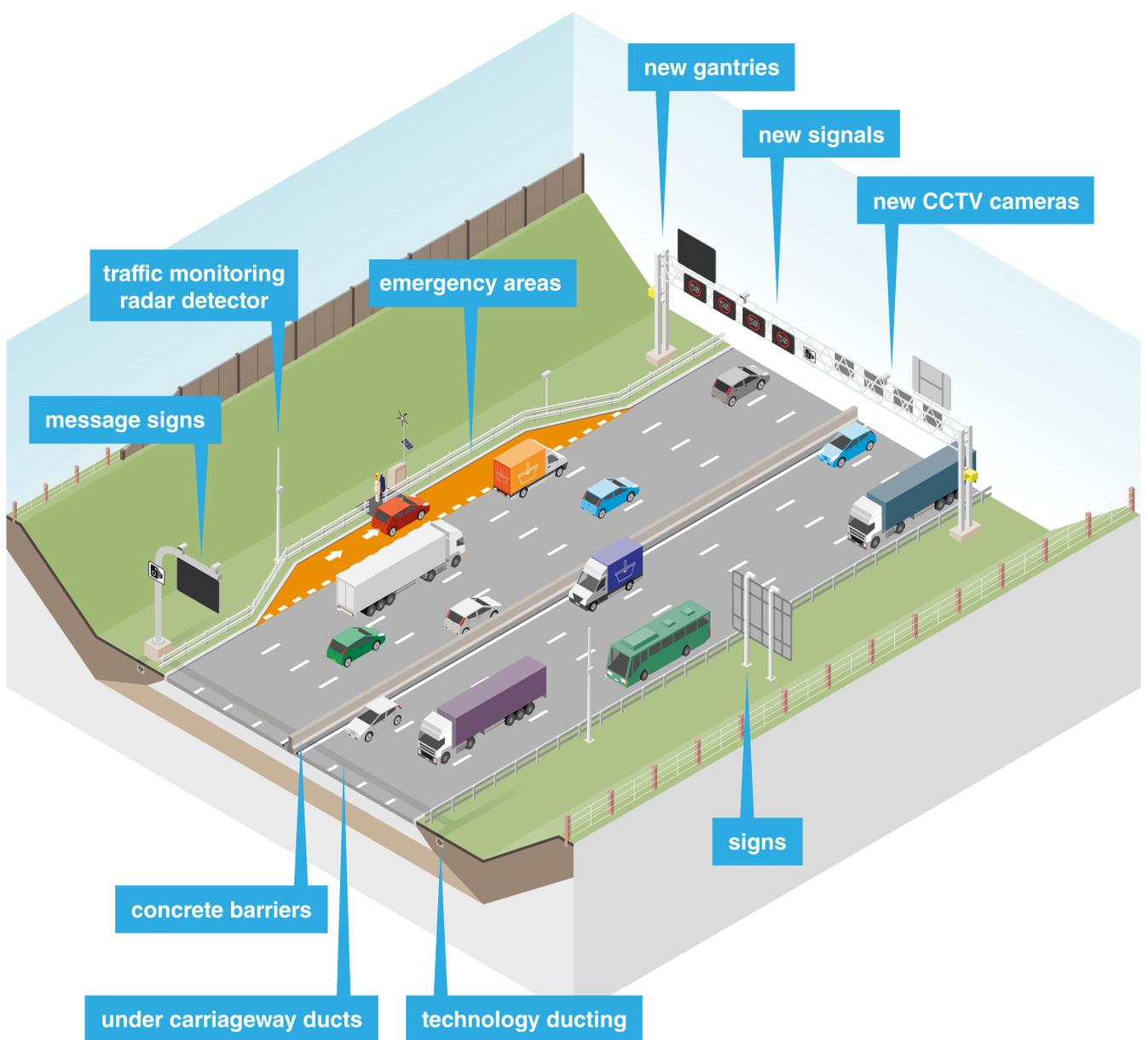


Diagrammatic plan not to scale. © Crown copyright and database rights 2018 OS 100030649

Smart technology

A smart motorway has technology installed to monitor and manage traffic flow. It is important that you understand the signs and comply.

- When lanes are closed, signs display a red **X** showing which lanes cannot be used.
- Signs in the verge or above the carriageway advise you of the speed limit, any lane closures and provide information on road conditions such as severe weather.
- CCTV and sensors detect and monitor congestion and incidents, so we can set appropriate speed limits and manage incidents effectively.
- Speed limits vary and are applied at times of congestion, to prevent stop — start conditions.
- If no speed limit is shown the national speed limit applies.



Smart motorway M27 junctions 4 to 11

Better journeys

Smart motorways are an effective way to provide more capacity on our busiest motorways while maintaining safety and at a third of the cost of widening schemes, meaning better value for the tax payer.

All lane running, which involves permanent conversion of the hard shoulder as a live lane for traffic to use, provides an opportunity to modernise and improve far more of our motorways than under previous approaches.

Our M25 two year after reports show that all lane running smart motorways are meeting our expectations; improved journey time reliability, reductions in collisions and casualty rates while being used by more vehicles.

The approach also supports economic growth. The M27 junctions 4 to 11 scheme is an important element of Highways England's continuing plan to improve England's motorway network.



A live smart motorway

Emergency areas (EAs)

- Emergency areas provide an area of relative safety following a breakdown.
- There will be 13 new emergency areas within the M27 junctions 4 to 11 smart motorway scheme.
- The hard shoulder will be retained between junctions 7 to 8, and can still be used.
- If you are driving at 60mph you will reach a place you can stop in an emergency every 75 seconds on average.
- There is an emergency telephone in each emergency area. This connects you to Highways England's regional control centres and pinpoints your location.



Representation of an emergency area

Incident management

- Incidents such as accidents and breakdowns are managed by our control centre staff.
- If the accident or breakdown means vehicles are unable to get off the carriageway or reach an emergency area, we can use technology to close any lane on the motorway.
- Control centre staff set signs to inform other road users about what is happening and manage traffic so that the people involved in the incidents are protected and an access route is cleared for emergency vehicles.
- They then continue to monitor traffic conditions throughout each incident and re-open lanes as soon as it is safe to do so.
- We are working closely with the emergency services to develop best practice as these major improvements are rolled out on our motorways.



Traffic Officer accident management

Red signs

- Red  signs are used for safety reasons to close lanes:
 - To protect road users who may have broken down or been involved in an incident.
 - To provide access and protection for the emergency services, our traffic officers and our road workers.
- If you see a Red  symbol on a gantry sign over or at the side of the motorway it means that the lane is closed for one or more of these reasons.
- Driving in a lane with a Red  symbol is illegal and dangerous and drivers must not use it.



Representation of a Red X message sign on the verge

Environment

Highways England is committed to delivering better environmental outcomes. By remaining within current motorway boundaries, smart motorways have the built-in advantage of minimising scheme environmental footprints.

In addition, we carry out thorough environmental assessments to identify and assess potential environmental impacts and recommend mitigation that can be included in the scheme to minimise them.

- The team has undertaken an environmental assessment that covers topics including noise and vibration, air quality, ecology and landscape and visual impacts.
- The results will be presented in the environmental assessment report. This will also describe the measures to mitigate adverse effects and enhance the environment for human and environmental receptors.
- A Construction environmental management plan will be prepared and used by the contractor to avoid, minimise or mitigate adverse construction effects on the environment and surrounding communities.

The key issues considered include:

- Understanding the presence of protected species. Surveys have been undertaken for bats, badgers, dormice, great crested newts, otters and water-voles.
- Understanding potential changes to air quality, particularly in relation to human receptors and within air quality management areas.
- Minimising the loss of existing visual screening provided by vegetation where possible, and designing replacement planting to reinforce visual screening for the future.
- Understanding where existing noise barriers need to be upgraded to ensure their functionality remains and where additional barriers will need to be provided.
- Undertaking environmental enhancement projects, improving existing habitats and creating new ones for protected species.



A newt (ignotus adedit Stellio)

Smart motorway M27 junctions 4 to 11

Construction

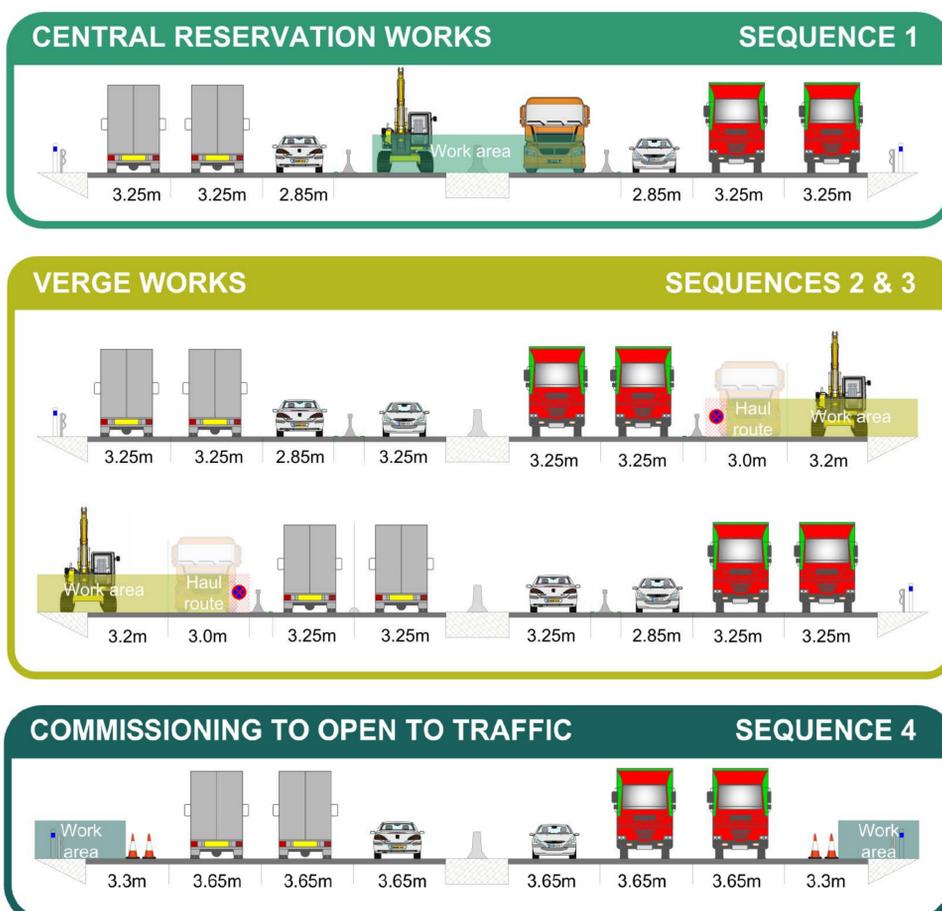
- The construction of the scheme will progress along the M27 from west to east, and will start with central reserve works, which will be followed by verge works, before each section's post construction commissioning period.
- If you live near the motorway, your view of the M27 between junctions 4 and 11 may change during construction as we will need to remove some vegetation to build new gantries. We will be replanting where we can to help to screen views of motorway equipment.
- The main scheme works will involve installation of gantries and monitoring equipment, as well as new drainage.
- There will be temporary closures of the carriageways at night on some occasions. In these instances, clearly signed diversions will be put in place.
- We are proposing to utilise a contra-flow system, which will have three lanes open in both directions during the day (subject to approval). This will result in fewer motorway closures, and diversion routes.
- The construction of the scheme will be governed by the Construction, Design and Management Regulations 2015.
- Construction is planned to start in winter 2018/2019 and we expect to open the smart motorway in spring 2021.
- Post-construction involves a period of testing and commissioning of new technologies where there may be no appearance of work physically taking place. During this period, speed restrictions will be in place for safety reasons before the scheme becomes fully operational.

Description	Traffic management time period
Hard shoulder plane and resurfacing	Aug 2018 – Sept 2018
Junction 4 – 5	Nov 2018 – Sept 2019
Junction 5 – 8	Feb 2019 – Nov 2020
Junctions 8 – 9	May 2019 – Sept 2020
Junctions 9 – 11	Aug 2019 – Dec 2020
Commissioning	Nov 2020 – Spring 2021

Smart motorway M27 junctions 4 to 11

Roadworks

- During construction, junction layouts may be temporarily altered to allow for resurfacing and improvement.
- We've created a traffic management plan that identifies the importance of keeping the temporary speed limit as high as possible, without compromising public or road user safety as a key priority
- We are proposing to use a contraflow system, which will mean working areas are focused on one carriageway at a time, increasing density of operations and providing three lanes open both eastbound and westbound during the day.
- We are investigating a number of collaborative activities with large employers to allow staff to re-mode, re-time, or re-work in order to remove the need for some roadusers to travel on the M27 during peak times.
- We are also looking into a number of ways to encourage commuters and road users to stay on the M27, rather than rat-running on the local network – such as signs that demonstrate journey time reliability upon the M27 during construction.
- Additional benefits of contraflow include:
 - Improved customer safety and experience, as wider carriageways mean the provision of a greater distance between cars and HGVs in neighbouring lanes.
 - Productivity is increased by 30% through the elimination of downtime to let site vehicles pass.
 - Reduced neighbour and road user disruption and disturbance thanks to minimal requirements for night time closures with off network diversions.



Engagement with the community

- We will continue to update the local and wider community throughout the construction period, ensuring everyone is fully informed.
- We will deliver targeted engagement ahead of all construction activity that may have an impact on local communities.
- Information will be distributed via letters, as well as newsletters, press releases, and the distribution of information via social media. We will also continually provide road users with information regarding scheme progression and traffic management so there are no surprises ahead.
- The best place to go to see all scheme information is our scheme website www.highwaysengland.co.uk/m27-j4-11-smart-motorway



North Fareham Bridge

- Due to restricted headroom over the hard shoulders and subsequent potential safety issues North Fareham Bridge requires replacement.
- The existing brideway will need to be closed during the construction works – diversion route to be agreed.
- The new bridge will be a prefabricated steelwork bridge installed over a weekend. This will necessitate a closure of the motorway after 10pm on a Friday, reopening by 6am on Monday morning.



North Fareham Bridge

J5 – J7 Concrete section

Since March 2018, we have been investigating the M27 between junctions 5 and 7 in order to understand the condition of this section of the motorway. Our investigations have revealed a number of engineering challenges that need to be overcome, and we are currently exploring how these challenges can be resolved.

Our investigation includes:

- Core sampling to determine construction depth and quality of the existing road materials (in both the tarmac and the concrete sections).
- Testing of the materials beneath the current road surface, to determine longevity under predicted traffic flows.

An environmental assessment of the M27 Junction 4 to 11 Smart Motorway scheme is also currently being created. This will provide a summary of the mitigation measures required when the new smart motorway is open, so there are no significant adverse noise effects on nearby residential areas.

Our programme suggests the investigation will be complete in late summer, and during this time we will continue to talk to all local and wider communities regarding our progress. Please visit our website and register for our email bulletins to make sure you are kept up-to-date.



Core sampling of the motorway

Thank you

Thank you for attending this M27 upgrade to smart motorway Junctions 4 to 11 exhibition.

Please spend a few moments completing our exhibition questionnaire. If you would like us to keep you informed by email as the scheme progresses please add your email address to the questionnaire.

If you have further questions after the exhibition, then please get in contact using one of the following methods:

Email: M27J4-11SmartMotorway@highwaysengland.co.uk

Phone: 0300 123 5000

Website: www.highwaysengland.co.uk/m27-j4-11-smart-motorway

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