HIGHWAYS AGENCY

Smart Motorways Junctions 23 to 27 M25

Issue No. 4

Modernising the operation of our motorways

Facts and figures:

- Length of this Section: 8 miles
- Emergency Refuge Areas: 4
- Directional Drill Shots: 36
- Superspan Gantries: 6
- Hockey Stick Gantries: 14
- CCTV Cameras: 22
- Slot Drain: 7.5 miles
- Central Reserve Barrier: 6.2 miles

Junctions 25 to 27 delivered 14 weeks early

Final testing and commissioning to bring junctions 25 to 27 to smart motorway 'all lanes running' standard is now complete. The scheme fully opened to four lanes running on 7 November 2014, 14 weeks ahead of programme, bringing much needed congestion relief to the surrounding areas in Hertfordshire and Essex.

The scheme commenced in January 2013 at junction 23 and, despite working through one of the wettest winters recorded in recent times, the team managed to deliver 16.2 miles (25.5 kilometres) in just under 22 months. The scheme converted the hard shoulder to a running lane and installed a new slip formed concrete barrier to the central reservation. New signs and signals were installed and will be used to inform the travelling public of changing conditions and when variable speed limits are in use. All signs and signals are linked by an underground duct network which contains enough cable to link London with Newcastle.

The scheme has seen the introduction of new technology such as 'Infrared CCTV', 'Wavetronix' and 'remote LED traffic management signs' which aid in monitoring traffic flow and keeping the traveling public safe, which will now be rolled out as standard in forthcoming schemes.

Improvements to the M25!

During 2014 the Highways Agency opened two sections of smart motorway on the M25, junctions 5 to 7 on the Kent/Surrey border and junctions 23 to 25 on the Hertfordshire/Essex border. In November 2014, a new improved section of the M25 opened, improving journeys for road users and benefiting the economy.

The new section of smart motorway opened between junctions 25 and 27 on the Hertfordshire/Essex border. On the new M25 sections the hard shoulder will be used as a permanent traffic lane. This is referred to as 'all lane running'.

How to use all lane running
There is no hard shoulder on these sections of motorway; there is a broken white line between each lane, indicating that all lanes have the same status. Refuge areas are available for emergency use. Variable speed limits will be used during busy periods to control the flow of vehicles and improve the flow. The current speed limit will be displayed on signs over or at the side of the carriageway. We use a red X symbol to show that a lane is closed because people are working in the road, or there is an incident or some other obstruction. Driving in a lane with a red X symbol is dangerous and against the law. You could be prosecuted.

What do I do if I need to stop?
Only stop on the motorway if there is no alternative. If you need to stop in an emergency, use an emergency refuge area, motorway service area or leave at the next junction. If that is not possible try and get your vehicle off the carriageway, if it is safe to do so.

If you have no choice but to stop in a live lane, put your hazard warning lights on to help other drivers see you and help Highways Agency control room staff spot you on CCTV. If you are in the left hand lane, and if it is safe to do so, exit the vehicle via the left hand door. Wait behind the barrier if possible. If you cannot exit the vehicle, do not feel it is safe to do so, or there is no other place of relative safety, remain in the vehicle. Keep your seat belt on and dial '999'.

Get smart, know your motorways
Smart motorways use technology to help relieve congestion and make journey times more reliable. This includes controlling speeds to improve traffic flow and providing better information to drivers on overhead signs. Emergency refuge areas are also available. This extra lane increases capacity to reduce congestion while maintaining safety.

The improvements are being delivered at a significantly lower cost than a conventional motorway widening scheme and with less impact on the environment during construction.

It is important to the Highways Agency that all road users understand the layout and signs used on our smart motorways sections, so we are urging all road users to find out more about the different types of technology and features used.

What are the benefits?
Smart motorways relieve congestion and smooth the flow of the traffic, improving safety and journey times, and supporting economic development.

We already have evidence of the benefits a smart motorway scheme can bring. The first smart motorway opened to traffic on the M42 in the Midlands in 2006. Analysis of the data gathered since opening found that journey times improved and emissions reduced due to traffic flowing more smoothly.

In addition, personal injury accidents have reduced by more than half since hard shoulder running was introduced, with an overall reduction in the severity of accidents.

The 'Get Smart' campaign has been created to help road users understand the different driving environments, types of signs and signals they will see and what to do in the event of a breakdown when travelling on a smart motorway. Each of these key themes is easily identifiable through a series of icons that appear on all of the campaign materials and on the Agency's website.

Members of the Project Team

HIGHWAYS AGENCY

An executive Agency of the Department for Transport.

SKANSKA Balfour Beatty

The contractor responsible for ensuring the project is designed and built in accordance with client's requirements.

ATKINS

Design Engineer, appointed by SBBJV as the designer for the project.

Connect Plus

The holding company (a partnership between Skanska/Balfour Beatty/ Egis/Atkins). Awarded the contract for the operation and maintenance of the M25.

Environmental Update

Facts and figures:

- Better design: the project concept uses the existing hard shoulders as running lanes, negating the need to widen large sections of the motorway. These areas required 50% less aggregates as the project incorporated as much of the existing asset as possible within the new scheme.
- All soft earthworks material from the scheme was re-used. This was achieved by designing two environmental bunds to re-use over 250,000m^3.
- The amount of cement substituted with the concrete mixes varied between 28 and 50%. In total we have poured over 50,000m^3 of concrete with an average cement replacement of 35% making use of waste material i.e. pulverised fly ash and ground-granulated blast-furnace slag.
- All construction waste was segregated on site at designated waste compounds. 100% of segregated waste was diverted from landfill.
- Alternative disposal routes were also explored, with all vegetation removal harvested as biomass for generation of heat and power.

Management of aggregates

- Over 130,000 tonnes of aggregates obtained from excavation and crushed hard material have been recycled back into the schemes.
- 93% of all unbound aggregates used have been from recycled sources representing a saving of 6kg CO_2/tonne.

How do I find out more information?

For M25 scheme specific information follow the links:

M25 Junctions 5-7: www.highways.gov.uk/roads/road-projects/m25-junctions-5-7/

M25 Junctions 23-27: www.highways.gov.uk/roads/road-projects/m25-junctions-23-27/

You can find out more about smart motorways by visiting the Highways Agency webpage via the following link:

www.highways.gov.uk/smartmotorways

Or follow us on our Facebook page:

www.facebook.com/pages/Smart-Motorways-M25/1398442173726130

If you have any further queries please contact the Highways Agency Information Line by emailing ha_info@highways.gsi.gov.uk or calling 0300 123 5000.

CONSIDERATE CONSTRUCTORS 2014 SILVER

Considerate Constructors

Following our national silver award last year, we are pleased to announce that Skanska Balfour Beatty scored an impressive 44 points in its first inspection this year which included "exceptional" scores in respecting the community, protecting the environment, securing everyone's safety and care about appearance.

This is a scheme designed to encourage best practice and create a more positive image of the construction industry. Construction projects are assessed on their performance on key criteria such as environmental performance, working safely and considerately and being a good neighbour. Being nominated for an award places us in the top 7.5% of projects in the UK.

Community Liaison

Community Relations Manager Andy Graham waves goodbye to the siblings as they leave for their activity weekend away

Our nominated project charity is Noah's Ark Children's Hospice:

"Noah's Ark Children's Hospice is a dynamic and innovative children's hospice service, providing practical and emotional support to life-limited and life-threatened children and their families, within the communities of North London."

We have made donations to them over the life of the project and in September 2014 donated a further £3,100 towards a siblings' weekend away.

Opportunities like the activity weekend away are really important for these children. When a family is caring for a sick child, a sibling's life can be severely restricted and, through no fault of the parents, siblings can be overlooked. Brothers and sisters can face significant challenges to their own psychological and physical wellbeing and this can result in loneliness and social isolation. The Noah's Ark Sibling Support Programme seeks to address some of these issues.

The siblings were able to take part in plenty of adventurous activities including: zip wire, giant swing, quad biking, challenge course and raft building. As well as having lots of fun together, the activities enabled the children to build confidence over the weekend – from being scared to climb the ladder to the zip wire to everyone having a go at the power fan on the last day.

Messages from parents:

"Thank you soooo much, Josh has been telling us how much fun he had!!!"

"I want to thank everybody who looked after Esther and Dwayne and also those who made this trip possible. They can't stop telling me how exciting it has been. Thank you again to Noah's Ark. x"

Contact Us

Community relations team on: 01727 744933

communityrelationsj23-27.m25@sbbjv.co.uk

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Hertfordshire AL2 1FF

http://www.highways.gov.uk/roads/road-projects/m25-junctions-23-27-managed-motorways/

Contacting the Highways Agency

The Highways Agency Information Line (HAIL) is 0300 123 5000

Ha_info@highways.gsi.gov.uk

www.highways.gov.uk/trafficinfo
24 hours a day, 365 days a year

@highways_agency or for the full index visit http://www.highways.gov.uk/twitter

Safety at roadworks

THINK

The Highways Agency is working with the industry and road users to reduce the risks of working on the roads.

For the safety of roadworkers and all road users, when you are approaching roadworks:

- Keep within the speed limit – it is there for your safety.
- Get into the correct lane in good time – don't keep switching.
- Concentrate on the road ahead, not the roadworks.
- Be alert for works' traffic leaving or entering roadworks.
- Keep a safe distance – there could be queues in front.
- Observe all signs – they are there to help you.